FINAL
MAY 2012 (N=24) GROUNDWATER AND METHANE MONITORING REPORT

FOR

THE LAMONT ROAD LCID (CLOSED) AND C&D LANDFILLS
NCDENR LANDFILL PERMIT #26-08

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

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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

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1.0 INTRODUCTION

This is the Report for the May 2012 groundwater and methane monitoring at the Lamont Road Landfills (Figure 1) 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 was the twenty-fourth (N=24) event performed for the Site. This report summarizes the methods used for the groundwater and methane monitoring and presents the results of the sampling event.

1.1 Project Background

The USACE was contracted by the Directorate of Public Works (DPW), Fort Bragg, North Carolina to perform groundwater sampling and methane monitoring. The original groundwater monitoring well network for the land clearing and inert debris (LCID) and construction and demolition (C&D) landfills consisted of 11 wells. Four of the original eleven monitoring wells have been permanently abandoned and replaced with new wells at different locations. An additional two wells have also been installed. The current Sampling and Analysis Plan (SAP), approved by NCDENR, includes sampling these 13 monitoring wells. The monitoring wells are LMW-3, LMW-3s, LMW-4, LMW-6, LMW-7, LMW-8, LMW-9, LMW-9s, LMW-9d, LMW-10, LMW-14R, LMW-15R, and LMW-16. Groundwater monitoring locations are shown on Figure 2. All sampling was conducted according to North Carolina Solid Waste Management Guidelines.

1.2 Project Scope

The scope for this project included collecting groundwater samples from 13

monitoring wells at the Lamont Road LCID and C&D Landfill for analyses of Appendix I constituents, sampling for methane at 12 selected methane monitoring wells and at three additional buildings, 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 analysis 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 and History

The Lamont Road LCID and C&D Landfills are on the west side of Cooleyconch Mountain (Figure 2). The site was previously utilized as a maneuver training area (conducted continuously for 50 years), a borrow pit for sands and clays, and a repository for unclassified debris from land clearing and construction demolition. The LCID Landfill started as an uncontrolled dump site which was associated with reclaiming borrow excavation. Its initial operation pre-dated Federal and State regulations governing waste disposal. The LCID Landfill has been operated as a controlled repository for C&D debris as well as for land clearing and inert debris since its permitting under NCDENR Permit No. 26C on August 28, 1987. From February 1993 to date of closure, C&D debris was diverted to the Longstreet Road Sanitary Landfill, and only LCID has been accepted at the LCID Landfill site. It is presumed that asbestos materials are disposed of in this landfill.

Cooleyconch Mountain is the prominent terrain feature west of the main post. The LCID Landfill site is 1.5 miles west of the Longstreet Road municipal solid waste landfill (MSWLF) (closed January 1, 1998) and 200 yards northwest of the Lamont Road C&D Landfill. The area adjacent and east of the LCID Landfill has been excavated to be used as a borrow pit for sandy fill material. To the south of the LCID Landfill, in the C&D Landfill site, petroleum contaminated soils have been spread, dried, and stored for subsequent removal. To the east of the LCID Landfill, petroleum contaminated sludge has been stored in earthen impoundments for subsequent removal. The LCID Landfill drains north to Cypress Creek, which intersects the Little River a mile upstream of the Fort Bragg Water Plant intake.

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 landfills. 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 of 2011 for Lamont Landfill, was conducted by the USACE, Savannah District. There were low level concentrations of Appendix I volatile organic compounds (VOCs) and Appendix I metals. However, all of the detections were below the respective NC2L standard and none of the detections were determined to be statistically significant increases (SSIs) over background concentrations.

3.0 METHODS

3.1 Methane Monitoring

Methane monitoring was performed at 12 wells and at three additional buildings. The monitoring included measuring levels of methane, carbon dioxide, and oxygen at each location. 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 13 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 Lamont Landfill is towards the west-northwest.

3.3 Groundwater Sampling

The groundwater sampling was conducted in accordance with the SAP for the Lamont Road LCID and C&D Landfills (NCDENR Landfill Permits # 26G and #26-08 dated April 2005, which have been updated to reflect the most recent SAP). Groundwater samples were collected from 13 wells. 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. The measurements are summarized in Table 3.

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 collected in May 2012 were analyzed for Appendix I VOCs and metals. 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 second 2011sampling event indicated that some VOCs and inorganics were detected at low levels, and all detections were below NC2L standards (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. 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 4. 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. However, the Kruskal-Wallis test is prone to false positives. Therefore, additional statistical analyses were used to determine the validity of the positive results. Intra-well comparisons of data from a single well to previous data from the same well were performed to determine 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 statistical analysis indicate that there are no SSIs in the concentrations of the detected constituents.

4.3 Methane Monitoring Results

The methane levels were measured at 15 locations at Lamont Landfill. The results of the monitoring are summarized in Table 1 and are also presented on Figure 3. No methane monitoring wells contained a high level of methane (> 5% Methane by Volume). All other methane wells that were sampled were below 1% Methane by volume.

5.0 CONCLUSIONS AND RECOMMENATIONS

The annual monitoring program consists of two sampling events conducted six months apart. This was the May 2012 sampling event for groundwater and methane monitoring performed by the USACE, Savannah District. It was the N=24 sampling event for the Lamont Road Landfills. Low levels of Appendix I VOCs and metals were detected, but all of the detections were at estimated levels and/or were below NC2L standards.

According to the Statistical Analysis of groundwater Data (Appendix D), there is no evidence of an upward trend in constituent concentrations. The statistical findings at the Lamont Road Landfill demonstrated that any statistical abnormalities were due to natural variation in the results. Long-term monitoring should continue at the Lamont Road Landfill because it is still an active site and NC Solid Waste Regulations require it.

The methane levels were measured at 15 locations around Lamont landfill. All of the methane wells that were sampled were below 1% Methane by volume.

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 Ground Waters of North Carolina, Sections .0100, .0200, and .0300 (November 8, 1993): from the Environmental Management Commission, Raleigh, North Carolina.

FIGURES

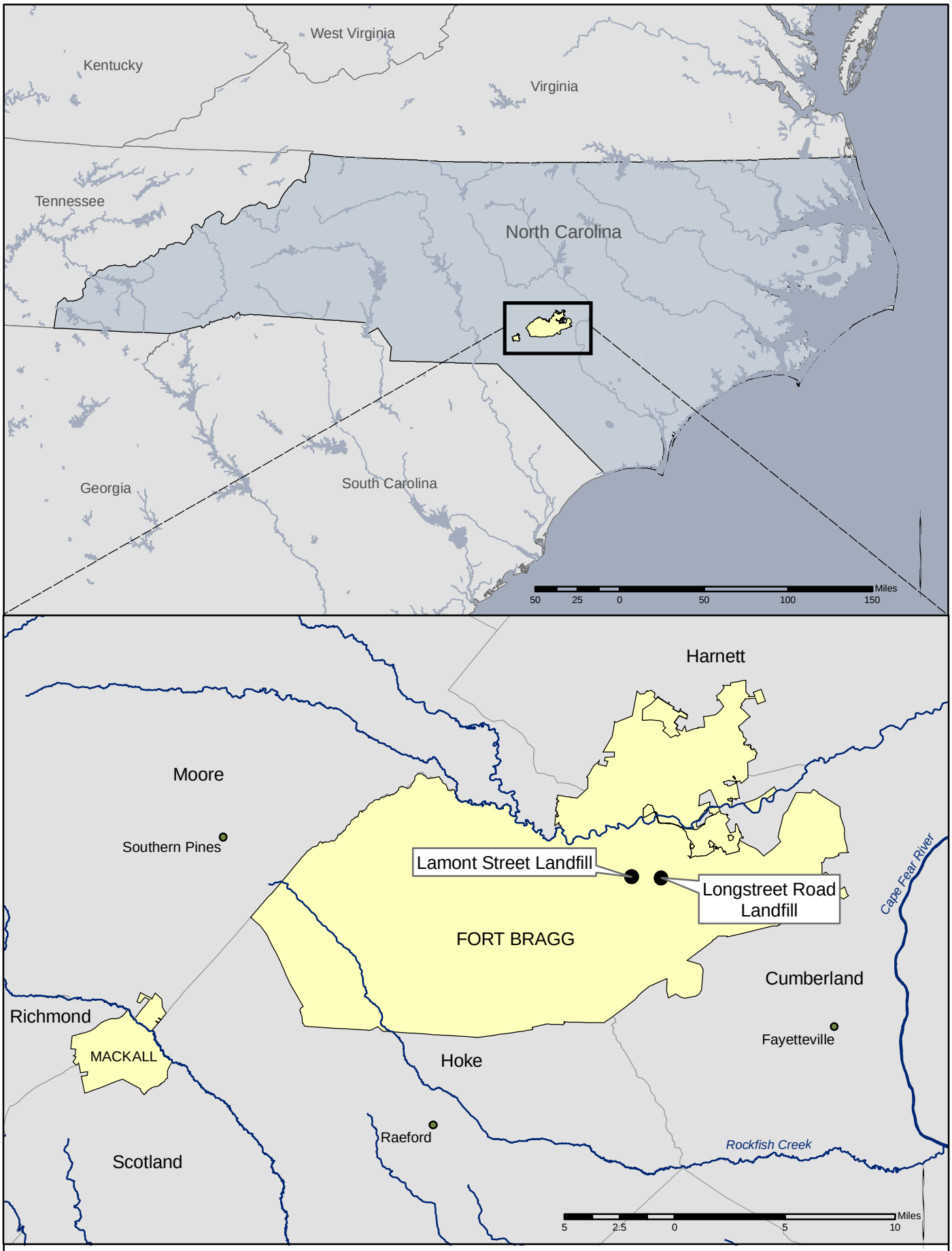

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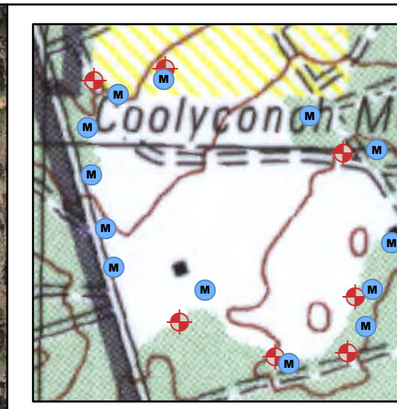
Figure 1

Site Map -- Ft. Bragg, NC



Legend

- METHANE SAMPLE
- MONITORING WELL
- BUILDING

1 inch = 250 feet

0 125 250 500'

N

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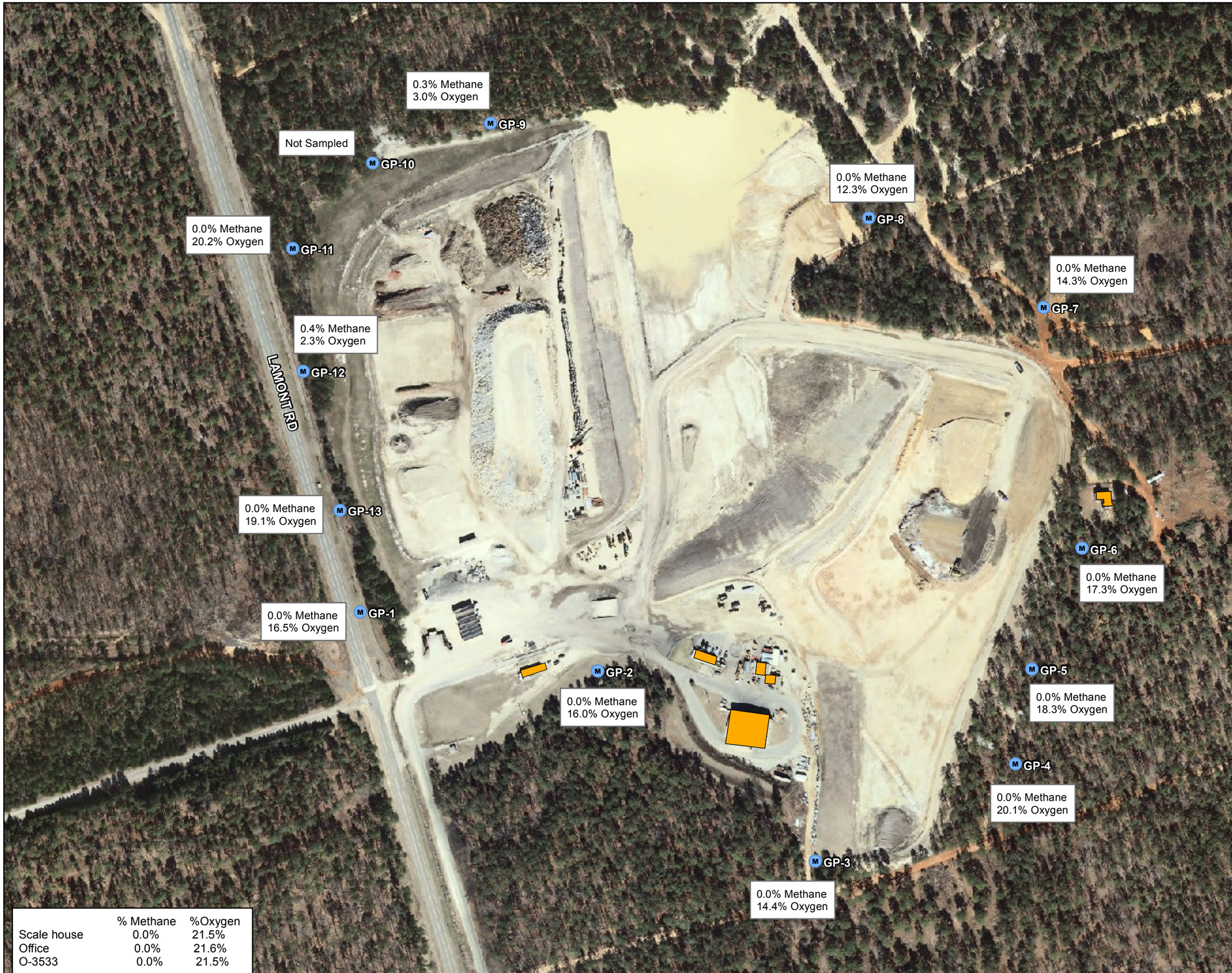
LAMONT STREET LANDFILL

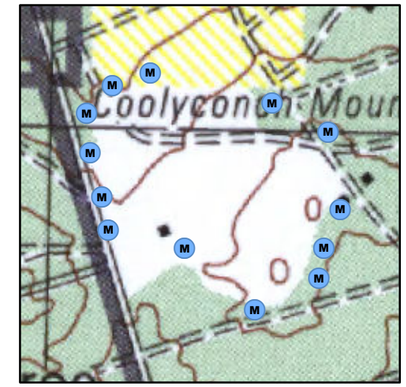
LOCATION MAP

FORT BRAGG, NC

DATE: OCTOBER 2012 | FIGURE: 2



	% Methane	%Oxygen
Scale house	0.0%	21.5%
Office	0.0%	21.6%
O-3533	0.0%	21.5%



Legend

- METHANE SAMPLE
- MONITORING WELL
- BUILDING

1 inch = 250 feet

0 125 250 500'

N

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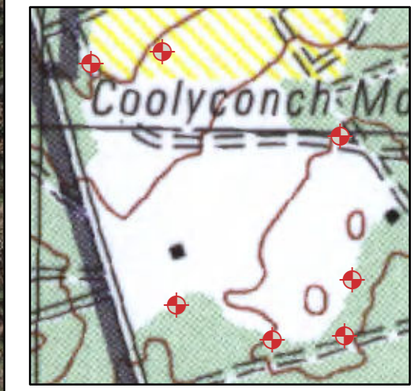
LAMONT STREET LANDFILL

METHANE MONITORING RESULTS
MAY 2012

FORT BRAGG, NC

DATE: OCTOBER 2012 | FIGURE: 3



Legend

- Monitoring Well
- Groundwater Contour Line

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 = 250 feet

0 125 250 500'

N

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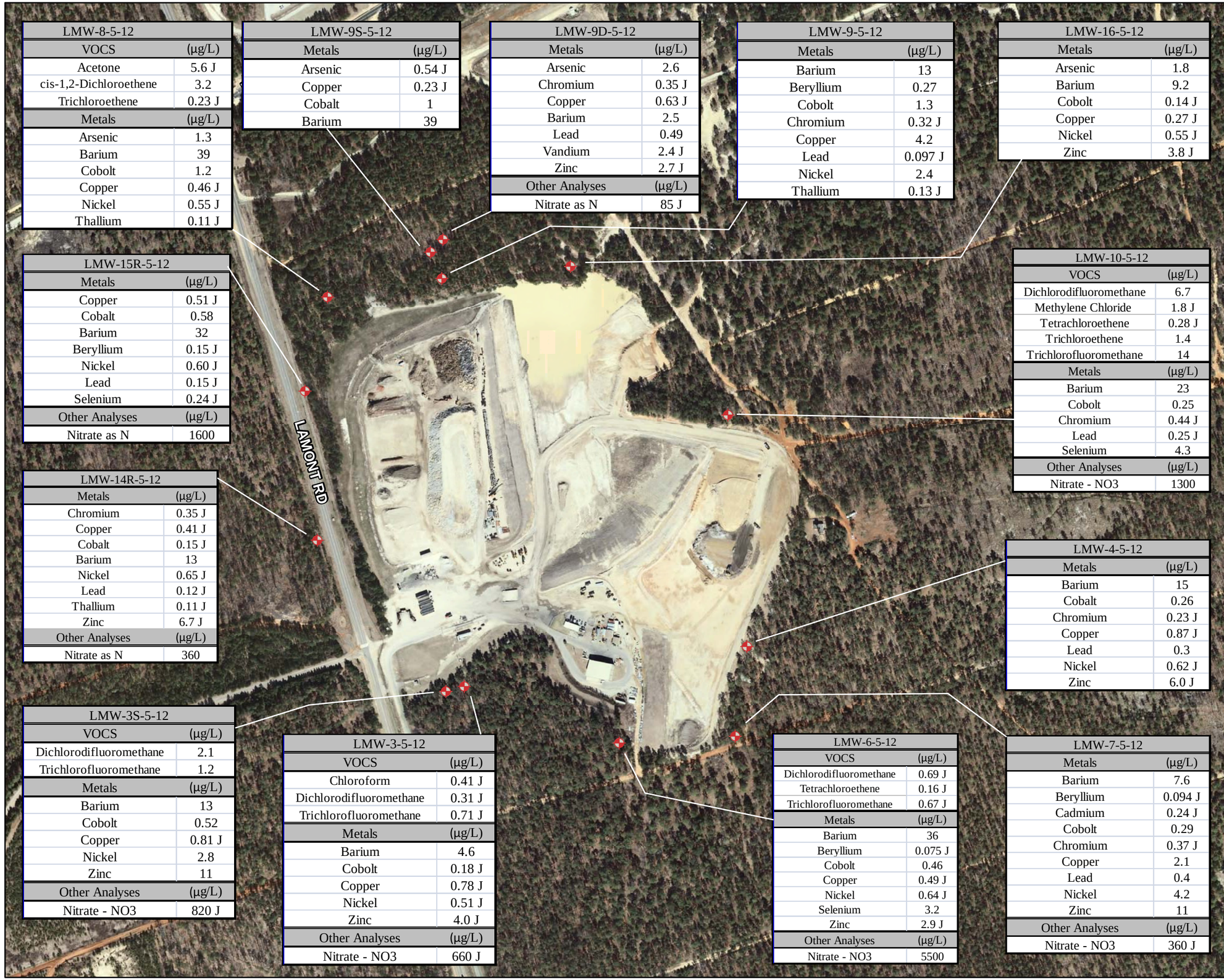
LAMONT STREET LANDFILL

POTENTIOMETRIC SURFACE MAP
MAY 2012

FORT BRAGG, NC

DATE: OCTOBER 2012 | FIGURE: 4



LMW-8-5-12	
VOCS	(µg/L)
Acetone	5.6 J
cis-1,2-Dichloroethene	3.2
Trichloroethene	0.23 J
Metals	(µg/L)
Arsenic	1.3
Barium	39
Cobolt	1.2
Copper	0.46 J
Nickel	0.55 J
Thallium	0.11 J

LMW-9S-5-12	
Metals	(µg/L)
Arsenic	0.54 J
Copper	0.23 J
Cobalt	1
Barium	39

LMW-9D-5-12	
Metals	(µg/L)
Arsenic	2.6
Chromium	0.35 J
Copper	0.63 J
Barium	2.5
Lead	0.49
Vandium	2.4 J
Zinc	2.7 J
Other Analyses	(µg/L)
Nitrate as N	85 J

LMW-9-5-12	
Metals	(µg/L)
Barium	13
Beryllium	0.27
Cobolt	1.3
Chromium	0.32 J
Copper	4.2
Lead	0.097 J
Nickel	2.4
Thallium	0.13 J

LMW-16-5-12	
Metals	(µg/L)
Arsenic	1.8
Barium	9.2
Cobolt	0.14 J
Copper	0.27 J
Nickel	0.55 J
Zinc	3.8 J

LMW-15R-5-12	
Metals	(µg/L)
Copper	0.51 J
Cobalt	0.58
Barium	32
Beryllium	0.15 J
Nickel	0.60 J
Lead	0.15 J
Selenium	0.24 J
Other Analyses	(µg/L)
Nitrate as N	1600

LMW-10-5-12	
VOCS	(µg/L)
Dichlorodifluoromethane	6.7
Methylene Chloride	1.8 J
Tetrachloroethene	0.28 J
Trichloroethene	1.4
Trichlorofluoromethane	14
Metals	(µg/L)
Barium	23
Cobolt	0.25
Chromium	0.44 J
Lead	0.25 J
Selenium	4.3
Other Analyses	(µg/L)
Nitrate - NO3	1300

LMW-14R-5-12	
Metals	(µg/L)
Chromium	0.35 J
Copper	0.41 J
Cobalt	0.15 J
Barium	13
Nickel	0.65 J
Lead	0.12 J
Thallium	0.11 J
Zinc	6.7 J
Other Analyses	(µg/L)
Nitrate as N	360

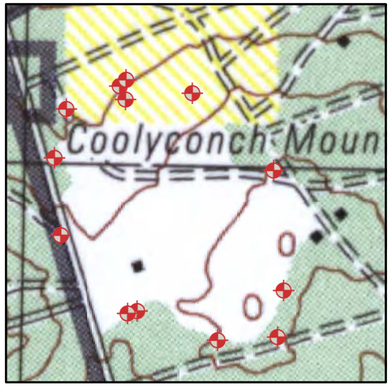
LMW-4-5-12	
Metals	(µg/L)
Barium	15
Cobalt	0.26
Chromium	0.23 J
Copper	0.87 J
Lead	0.3
Nickel	0.62 J
Zinc	6.0 J

LMW-3S-5-12	
VOCS	(µg/L)
Dichlorodifluoromethane	2.1
Trichlorofluoromethane	1.2
Metals	(µg/L)
Barium	13
Cobolt	0.52
Copper	0.81 J
Nickel	2.8
Zinc	11
Other Analyses	(µg/L)
Nitrate - NO3	820 J

LMW-3-5-12	
VOCS	(µg/L)
Chloroform	0.41 J
Dichlorodifluoromethane	0.31 J
Trichlorofluoromethane	0.71 J
Metals	(µg/L)
Barium	4.6
Cobolt	0.18 J
Copper	0.78 J
Nickel	0.51 J
Zinc	4.0 J
Other Analyses	(µg/L)
Nitrate - NO3	660 J

LMW-6-5-12	
VOCS	(µg/L)
Dichlorodifluoromethane	0.69 J
Tetrachloroethene	0.16 J
Trichlorofluoromethane	0.67 J
Metals	(µg/L)
Barium	36
Beryllium	0.075 J
Cobolt	0.46
Copper	0.49 J
Nickel	0.64 J
Selenium	3.2
Zinc	2.9 J
Other Analyses	(µg/L)
Nitrate - NO3	5500

LMW-7-5-12	
Metals	(µg/L)
Barium	7.6
Beryllium	0.094 J
Cadmium	0.24 J
Cobolt	0.29
Chromium	0.37 J
Copper	2.1
Lead	0.4
Nickel	4.2
Zinc	11
Other Analyses	(µg/L)
Nitrate - NO3	360 J



Legend

MONITORING WELL

NOTE: 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 = 400 feet

0 200 400 800'

N

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LAMONT STREET LANDFILL

GROUNDWATER
ANALYTICAL RESULTS
MAY 2012

FORT BRAGG, NC

DATE: OCTOBER 2012 | FIGURE: 5

TABLES

Table 1. Methane Monitoring Results
Lamont Landfills, Fort Bragg, NC

Well ID	Date Sampled	Time Sampled	%Methane by Volume	%Oxygen	%CO2
Gas-GP-1	19 MAY 2012	14:33	0.0%	16.5%	3.2%
Gas- GP -2	19 MAY 2012	14:31	0.0 %	16.0%	4.8%
Gas- GP -3	19 MAY 2012	14:06	0.0%	14.4%	4.6%
Gas- GP -4	19 MAY 2012	15:01	0.0%	20.1%	0.9%
Gas- GP -5	19 MAY 2012	15:03	0.0 %	18.3%	2.3%
Gas- GP -6	19 MAY 2012	15:07	0.0%	17.3%	3.2%
Gas- GP -7	19 MAY 2012	15:12	0.0%	14.3%	3.7%
Gas- GP -8	19 MAY 2012	15:15	0.0%	12.3%	4.5%
Gas- GP -9	19 MAY 2012	15:21	0.0%	3.0%	17.4%
Gas- GP -10**	N/A	N/A	N/A	N/A	N/A
Gas- GP -11	19 MAY 2012	14:46	0.0%	20.2%	1.0%
Gas- GP -12	19 MAY 2012	14:42	0.4%	2.3%	12.6%
Gas- GP -13	19 MAY 2012	14:36	0.0%	19.1%	3.4%
Office	19 MAY 2012	14:17	0.0%	21.6%	0.0%
Scale House	19 MAY 2012	14:22	0.0%	21.5%	0.0%
O-3533	19 MAY 2012	14:24	0.0%	21.5%	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)
* Erroneous reading not reported in table.
** GP10 was inaccessible due to dense vegetation

Table 2
Groundwater Elevation Data
Lamont Street 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
LMW-3	408.32	102.18	306.14	103.2	305.12	102.21	306.11	87.27	321.05	102.13	306.19	102.79	305.56	104	304.32	106.22	302.1
LMW-3s	*	59.19	NA	60.4	NA	59.12	NA	59.61	NA	58.91	NA	59.64	NA	61.26	NA	62.8	NA
LMW-4	441.79	75.42	366.37	74.65	367.14	74.74	367.05	75.39	366.4	74.83	366.96	75.33	366.46	75.81	365.98	75.71	366.08
LMW-6	431.45	80.3	351.15	81.65	349.8	80.15	351.3	80.75	350.7	80.04	351.41	80.93	350.52	82.7	348.75	84.38	347.07
LMW-7	436.62	125.87	310.75	125.63	310.99	124.78	311.84	128.8	307.82	124.54	312.08	124.78	311.84	125	311.62	125.2	311.42
LMW-8	354.07	48.68	305.39	76.66	277.41	46.85	307.22	304.86	49.21	46.86	307.21	48.95	305.12	51.02	303.05	50.84	303.23
LMW-9	364.79	82.16	282.63	80	284.79	80.71	284.08	87.27	277.52	80.73	284.06	82.43	282.36	85	279.79	86.64	278.15
LMW-9S	*	52.46	NA	49.01	NA	51.01	NA	53.35	NA	51	NA	52.89	NA	55.05	NA	54.83	NA
LMW-9D	*	76.95	NA	76.66	NA	75.41	NA	77.03	NA	75.48	NA	77.29	NA	79.73	NA	81.11	NA
LMW-10	428.68	76.81	351.87	76.48	352.2	76.38	352.3	72.11	356.57	NA	NA	76.89	NA	78.84	349.84	79.87	348.81
LMW-14R	*	50.07	NA	49	NA	48.97	NA	50.06	NA	48.99	NA	50.25	NA	51.53	NA	52.02	NA
LMW-15R	*	40.89	NA	37	NA	37.55	NA	40.31	NA	38.19	NA	40.28	NA	41.68	NA	40.81	NA
LMW-16	*	86.02	NA	36.48	NA	37.5	NA	37.28	NA	36.61	NA	36	NA	36.8	NA	37.36	NA

Note:

TOC – Top of casing, btoc – Below top of casing, NA – Not Available

bgs – Below ground surface, amsl – Above mean sea level NS – Not Surveyed

Δ --- Selected Well for Long Term *Well & ground-water elevations unavailable at this time.

TOC elevation is based on vertical datum NGVD29 (source: USGS RFI, Aug. 1999)

Table 3. Field Parameter Measurements
Lamont Landfills, Fort Bragg, NC

Well ID	Sample Identification	pH	Specific Conductivity (µs/cm)	Temperature (°C)	Turbidity (N.T.U.)	Dissolved Oxygen (mg/L)	ORP
LMW-3	GW-LMW-3-5-12	5.03	0.016	19.02	7.39	198.8	107.65
LMW-3S	GW-LMW-3S-5-12	4.66	0.025	17.49	2.86	4.75	205.4
LMW-4	GW-LMW-4-5-12	4.56	0.023	22.63	38.5	4.61	201.9
LMW-6	GW-LMW-6-5-12	5.03	0.199	20.21	2.37	2.01	147.6
LMW-7	GW-LMW-7-5-12	5.47	0.015	19.64	75.2	9.58	120.2
LMW-8	GW-LMW-8-5-12	6.01	0.418	20.22	1.80	-10.9	9.99
LMW-9	GW-LMW-9-5-12	4.42	0.059	19.80	25.1	4.12	273.2
LMW-9S	GW-LMW-9S-5-12	5.39	0.172	20.60	7.61	0.89	36.4
LMW-9D	GW-LMW-9D-5-12	5.74	0.032	19.60	116	7.65	104.5
LMW-10	GW-LMW-10-5-12	4.73	0.049	20.24	3.16	5.87	212.2
LMW-14R	GW-LMW-14R-5-12	4.64	0.014	19.61	3.42	7.23	228.5
LMW-15R	GW-LMW-15R-5-12	4.50	0.039	20.88	1.09	9.92	260.5
LMW-16	GW-LMW-16-5-12	6.31	0.257	20.9	26.5	*	*

Note:

N.T.U. --- Nephelometric Turbidity Unit
ORP --- Oxidation Reduction Potential
* - Not reported

Table 4. Summary of Ground-Water Detections
Lamont Landfills, Fort Bragg, NC

| COMPOUNDS (µg/L) | Groundwater NC 2L Standard (ug/l) | EPA Drinking water MCL (ug/l) | Lamont | | |

Table 4. Summary of Ground-Water Detections
Lamont Landfills, Fort Bragg, NC

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	Lamont																																												
			LMW-7 04/05	LMW-7 10/05	LMW-7 6/06	LMW-7 6/06 Dup	LMW-7 11/06	GW-LMW-7 06/07	GW-LMW-7 11/07	GW-LMW-7 05/08	GW-LMW-7 11/08	GW-LMW-7 06/09	GW-LMW-7 11/09	LMW-7 06/10	LMW-7 11/10	LMW-7 6/11	LMW-7 11/11	LMW-7 5/12	LMW-8 04/05	LMW-8 10/05	LMW-8b 6/06	LMW-8 11/06	GW-LMW-8 06/07	GW-LMW-8 11/07	GW-LMW-8 05/08	GW-LMW-8 11/08	GW-LMW-8 06/09	GW-LMW-8 11/09	LMW-8 06/10	LMW-8 11/10	LMW-8 6/11	LMW-8 11/11	LMW-8 5/12	LMW-9 04/05	MW-DUP2 04/05	LMW-9 10/05	LMW-9 6/06	LMW-9 11/06	GW-LMW-9 06/07	GW-LMW-9 11/07	GW-LMW-9 05/08	GW-LMW-9 11/08	LMW-9 06/09	LMW-9 11/09	LMW-9 06/10	LMW -9 11/10	LMW -9 6/11	LMW -9 11/11	LMW -9 5/12
VOCs (EPA 8260B)																																															
1,1,2,2-tetrachloroethane	0.17	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.21 J	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	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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-dichloroethane	0.38	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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-dichloropropane	0.56	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,4-dichlorobenzene	75	75	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
acetone	700	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	282	4.22 J	BRL	NS	NS	7.5 J	BRL	11 J	BRL	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	5.6 J	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
acrolein	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
carbon disulfide	700	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chloroethane	2800	4.6*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chloroform	70	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chloromethane (methyl chloride)	2.6	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.5 J	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
cis-1,2-dichloroethene	70	70	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	0.27J	0.43J	0.300J	BRL	0.35 J	0.35 J	BRL	2.4	BRL	1.1	BRL	1.5	1.7	3.2	BRL	0.44 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
dibromochloromethane	0.41	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	v	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
dichlorodifluoromethane	1400	390*	BRL	BRL	BRL	BRL	BRL	BRL	0.71 J	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
diisopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
isopropylbenzene	70	660*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	0.230J	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.41 J	BRL	BRL	BRL	BRL	BRL	BRL
methylene chloride (dichloromethane)	4.6	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	3.0 J B	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
MTBE	200	13*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	NS	NS	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL
sec-butylbenzene	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	0.6J	BRL	0.370J	BRL	0.22 J	0.22 J	0.22 J	0.31 J	0.26 J	0.25 J	0.19 J	BRL	BRL	BRL	BRL	1.87 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
toluene	1000	1000	1.07 J	BRL	BRL	BRL	0.850J	BRL	BRL	BRL	BRL	0.5 J	NS	NS	BRL	1.3	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.39 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.52 J	BRL	0.41 J	BRL	BRL	0.39 J	BRL	BRL
trans-1,2-dichloroethene	70	100	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
trichloroethene	2.8	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	0.24J	0.23J	BRL	BRL	BRL	BRL	BRL	0.41 J	0.19 J	0.29 J	0.14 J	BRL	0.23 J	0.23 J	BRL	0.83 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.16 J	0.14 J	BRL
trichlorofluoromethane	2100	1300*	BRL	BRL	BRL	BRL	BRL	2.5	4.79	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Total Xylenes	530	0.01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	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
vinyl chloride	0.015	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL		BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Metals (EPA 6010B/6020A)																																															
Arsenic	10	10	BRL	BRL	BRL	BRL	BRL	1.05 J	BRL	BRL	**10.8**	BRL	NS	NS	BRL	1.8	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.49 J	0.53 J	0.43 J	0.48 J	0.81 J	1.2	1.3	1.04 J	BRL	BRL	1.52J	BRL	1.12 J	BRL	BRL	8.7	1.1 J	BRL	0.58 J	1.6	BRL	BRL	BRL
Barium	2000	2000	31.7	30	20	10	11.6	27.4	6.28	5.48 J	7	12	NS	NS	5.2	13	8.5	7.6	48.5	38.1	40	32.0	34.0	41.0	34.9	29	40	40	30	44	32	45	39	BRL	BRL	BRL	10	3.84	6.29	3 J	2.71	4	3.1	2.9	2.8	4	3.3	3.4	13
Beryllium	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15 J	NS	NS	NA	0.34	BRL	0.094 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	BRL	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.089 J	NA	NS	0.12 J	BRL	BRL	0.27
Cadmium	5	5	BRL	0.701J	0.57J	BRL	BRL	BRL	BRL	BRL	BRL	1.2	NS	NS	0.6	4.9	0.68	0.24 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
Cobalt	NA	NA	BRL	BRL	BRL	BRL	1.03	BRL	BRL	BRL	BRL	0.63	NS	NS	0.19 J	2.7	0.44	0.29	BRL	BRL	BRL	BRL	BRL	BRL	0.83 J	BRL	0.47	0.71	0.78	0.71	1.5	1.4	1.2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.15 J	0.13 J	0.13 J	0.16 J	0.13 J	0.11 J	1.3
Chromium	50	100	19.0 J	23.2	BRL	BRL	5.28	24.7	BRL	7.18	BRL	5.8	NS	NS	0.25 J	12	0.27 J	0.37 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.28 J	0.69 J	0.35 J	0.16 J	0.18 J	BRL	BRL	BRL	BRL	BRL	10J	BRL	7.14	BRL	BRL	BRL	1.2	0.62 J	0.44 J	2.1	0.56 J	BRL	0.32 J
Copper	1000	1000	10.8 J	11.1	10J	BRL	6.64	6.05 J	7.53 J	BRL	BRL	4	NS	NS	3.8	13	3.5	2.1	BRL	BRL	BRL	BRL	BRL	6 J	BRL	BRL	0.75 J	0.65 J	1.3	0.75 J	0.48 J	2.1	0.46 J	BRL	BRL	BRL	10J	BRL	5.28 J	7 J	BRL	BRL	0.88 J	0.59 J	2.4	1.7	0.65 J	0.78 J	4.2
Iron	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**9400**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	200	BRL	BRL	BRL
Lead	15	15	3.11	3.07	3.37	2.31	1.81	3.51	BRL	BRL	0.533 J	0.88	NS	NS	0.86	2.5	0.36	0.4	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.525 J	BRL	BRL	0.87J	0.989J	1.40	BRL	1.41	BRL	0.17 J	BRL	0.16 J	0.57	BRL	BRL	0.097 J
Manganese	50	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**150**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.4 J	BRL	BRL	BRL
Nickel	100	730*	18.9 J	BRL	BRL	BRL	4.23	7.73	4.71 J	2.42	3 J	5.5	NS	NS	1.7	7.5	1.5	4.2	BRL	BRL	BRL	1.72J	BRL	BRL	1.76 J	BRL	0.61	0.64	0.69 J	0.65 J	0.95 J	1.3	0.55 J	BRL	BRL	BRL	BRL	BRL	3.26 J	BRL	1.49 J	9	0.33 J	0.46 J	BRL	0.63 J	0.96 J	0.55 J	2.4
Selenium	50	50	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	0.30 J	0.86	BRL	3.28	1.67J	1.87J	1.67J	1.04 J	3.73 J	BRL	BRL	0.64	0.59	0.33 J	0.66	BRL	0.22 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.28 J	BRL	BRL	BRL	BRL	BRL	BRL
Silver	17.5	180	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Thallium	NA	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.11 J	BRL	0.11 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.13 J
Tin	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Vanadium	NA	260*	12.6 J	18.5J	8.0J	BRL	3.56J	14.8	BRL	BRL	BRL	2.9 J	NS	NS	BRL	7	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	8.4 J	8.4 J	BRL	30	BRL	7.06	BRL	2.78 J	BRL	2.6 J	BRL	BRL	5	BRL	BRL	BRL
Zinc	2100	5000	27.5 J	31.4J	40J	20J	21.6	51.0	BRL	10.9	BRL	BRL	NS	NS	9.5 J	59	15	11	BRL	BRL	BRL	BRL	BRL	BRL	5.20 J	BRL	8.2 J	19	4.5 J	3.2	11J	24	BRL	BRL	BRL	BRL	20J	BRL	17.1 J	BRL	7.93 J	BRL	BRL	7 J	4.4 J	4.5 J	3.7 J	6.6 J	BRL
Other Analyses																																															
Mercury	1.05	**NA**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA
Nitrate-NO3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	360 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL
Nitrate/Nitrite as N (SM 4500)	1,000	1,000	NA	BRL	NA	NA	0.119	295	528	130	113	NA	NS	NS	560 J	86 J	120 J	NA	NA	BRL	NA	0.216	398	527	570	466	NA	740 J	0.45 J	610	260	BRL	NA	NA	NA	BRL	NA	0.10	**17,200**	222	460	236	NA	450 J	450 J	94 J	110 J	98 J	NA

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. <> -- Data not recieved from laboratory

Table 4. Summary of Ground-Water Detections
Lamont Landfills, Fort Bragg, NC

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	LMW-10 04/05	LMW-10 10/05	LMW-10 6/06	LMW-10 11/06	GW-LMW-10 06/07	GW-BLK 11/06	GW-LMW-10 11/07	GW-LMW-10 05/08	GW-LMW-10 11/08	LMW-10 06/09	LMW-10 11/09	LMW-10 06/10	LMW-10 11/10	LMW-10 6/11	LMW-10 11/11	LMW-10 5/12	LMW-1 11/06	LMW-3S 11/06	GW-LMW-3S 06/07	GW-LMW-3S 11/07	GW-LMW-3S 05/08	GW-LMW-3S 11/08	LMW-3S 06/09	LMW-3S 11/09	LMW-3S 06/10	LMW-3S 11/10	LMW-3S 6/11	LMW-3S 11/11	LMW-3S 5/12	LMW-9D 11/06	GW-LMW-9D 06/07	GW-LMW-9D 11/07	GW-LMW-9D 05/08	GW-LMW-9D 11/08	LMW-9D 06/09	LMW-9D 11/09	LMW-9D 06/10	LMW-9D 11/10	LMW-9D 6/11	LMW-9D 11/11	LMW-9D 5/12	LMW-9S 11/06	GW-LMW-9S 06/07	GW-LMW-9S 11/07	GW-LMW-9S 05/08	GW-LMW-9S 11/08	LMW-9S 06/09	LMW-9S 11/09	LMW-9S 06/10	LMW-9S 11/10	LMW-9S 6/11	LMW-9S 11/11	LMW-9S 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	**0.66 J**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,1-dichloroethane	700	810*	BRL	BRL	BRL	BRL	BRL	0.43J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	**0.76 J**	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	BRL	BRL	BRL	BRL	BRL	BRL	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-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	**0.82 J**	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	**0.43 J**	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**0.24 J**	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
acetone	700	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	5.8 J	BRL	1.60J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
benzene	1	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	**1.3**	<3	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chloroethane	2800	4.6*	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chloroform	70	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.20 J	0.14 J	0.23 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
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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
cis-1,2-dichloroethene	70	70	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
dibromochloromethane	0.41	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	**2.08**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.20 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
dichlorodifluoromethane	1400	390*	BRL	BRL	2.02	9.35	2.5	BRL	3.4	4.66	2.42	BRL	4.9	BRL	BRL	10	6.7	BRL	12.6	BRL	BRL	0.62 J	2.76	BRL	BRL	4	2.3	0.76 J	BRL	2.1	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
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	BRL	BRL	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	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
methylene chloride (dichloromethane)	4.6	5	BRL	BRL	BRL	BRL	BRL	BRL	0.69 J	0.63 J	0.49 J	BRL	BRL	BRL	BRL	2.4 J	2.2 J	1.8 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	3.2 J B	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	3.4 J B	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	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	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
tetrachloroethene	0.7	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	4.94	BRL	0.24 J	BRL	0.27 J	BRL	0.35 J	0.28 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
toluene	1000	1000	0.26 J	BRL	BRL	BRL	BRL	0.57J	BRL	BRL	0.24 J	BRL	BRL	BRL	BRL	0.38 J	BRL	BRL	BRL	BRL	1.4	1.4	BRL	0.22 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.30 J	BRL	BRL	BRL	BRL	0.43 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.20 J	BRL	BRL	BRL	BRL	BRL	BRL
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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
trichloroethene	2.8	5	0.39 J	0.56J	0.91J	0.440J	BRL	BRL	0.48 J	BRL	0.58 J	0.88 J	1.7	1.1	0.97 J	1.4	1.9	1.4	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
trichlorofluoromethane	2100	1300*	BRL	0.26J	2.07	7.01	3.3	BRL	7.73	10.6	BRL	6.6	13	5.8	7.3	3.7	14	14	BRL	0.330J	BRL	1.03 J	0.52 J	1.05 J	1.1	0.97 J	1.4	1.1	0.36 J	0.80 J	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
Total Xylenes	530	0.01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
vinyl chloride	0.015	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Metals (EPA 6010B/6020A)																																																								
Arsenic	10	10	BRL	BRL	BRL	BRL	1.15 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1	0.84 J	BRL	BRL	7.67	7.66	BRL	3.84	3.39	2.1	2	1.8	2	3.2	2.5	2.6	BRL	1.68 J	4.54	BRL	BRL	2.1	0.47 J	0.57 J	1.2	0.46 J	0.47 J	0.54 J
Barium	2000	2000	13.5	BRL	20	11.9	21.3	BRL	16.7	12	12.7	13	12	12	14	21	23	23	BRL	5.95	18.7	13	8.86	13.8	12	10	12	16	14	5.4	13	13.9	5.57	120	10.1	3	3.1	2.9	2.1	2.8	3.8	2.8	2.5	77.3	80.9	2	75.3	61	3.1	48	38	53	59	66	39
Beryllium	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	BRL	BRL	NA	NA	NA	NA	NA	NA	0.076 J	NA	NA	0.12 J	0.10 J	BRL	BRL	NA	NA	NA	NA	NA	NA	NA	NA	BRL	BRL	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.071 J	BRL	BRL	BRL
Cadmium	5	5	BRL	BRL	0.94J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Cobalt	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.13 J	0.15 J	0.2	0.16 J	0.23	0.19 J	0.25	BRL	BRL	BRL	BRL	0.53 J	BRL	0.42	0.42	0.57	0.53	0.45	0.2	0.52	BRL	BRL	3	BRL	BRL	BRL	BRL	BRL	0.081 J	0.13 J	BRL	BRL	1.27	1.04 J	BRL	1.13	BRL	BRL	0.25	0.16 J	0.26	0.87	1.1	1
Chromium	50	100	BRL	BRL	BRL	BRL	2.72 J	BRL	BRL	BRL	BRL	0.36 J	0.26 J	0.36 J	0.30 J	0.61 J	0.33 J	0.44 J	BRL	BRL	11.6	BRL	BRL	BRL	1.7 J	0.54 J	0.37 J	4.1	3.3	BRL	BRL	6.51	BRL	BRL	3.32 J	BRL	1	1.1	0.5 J	0.58 J	3.1	BRL	0.35 J	BRL	5.73	BRL	BRL	BRL	BRL	0.44 J	0.58 J	4.4	BRL	0.27 J	BRL
Copper	1000	1000	BRL	BRL	BRL	BRL	BRL	BRL	5.41 J	2.79 J	BRL	0.51 J	BRL	1.9	0.39 J	0.35 J	0.57 J	BRL	8.51	2.54J	BRL	6	BRL	BRL	BRL	0.82 J	BRL	1.7	1.3	1.1	0.81 J	6.37	BRL	9	2.63 J	BRL	0.69 J	0.75 J	0.9 J	0.53 J	BRL	0.94 J	0.63 J	BRL	BRL	7	BRL	BRL	0.69 J	1.7	1.7	1.6	0.49 J	0.88 J	0.23 J
Iron	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	41 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	41 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	150	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	360	BRL	BRL	BRL	BRL
Lead	15	15	BRL	BRL	0.78J	BRL	4.15	BRL	BRL	BRL	0.524 J	BRL	BRL	0.11 J	BRL	BRL	BRL	0.25 J	BRL	BRL	3.71	1.47	BRL	BRL	0.58	BRL	0.093 J	1.7	1.7	BRL	BRL	3.60	3.97	0.68	3.94	BRL	0.71	0.31	0.23 J	0.44	0.46	0.12 J	0.49	BRL	2.16	1.19	BRL	0.761	0.71	0.21 J	0.11 J	0.55	BRL	BRL	BRL
Manganese	50	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.1 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	23	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.5 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	13	BRL	BRL	BRL	BRL
Nickel	100	730*	BRL	BRL	BRL	BRL	BRL	BRL	3.24 J	1.53 J	BRL	0.38 J	0.5 J	BRL	BRL	0.70 J	0.89 J	BRL	BRL	2.41	4.92 J	5	3.72	3.7 J	2.6	2.8	4.1	3.1	3.1	0.95 J	2.8	2.16	BRL	BRL	1.45 J	BRL	0.55 J	0.69	0.53 J	0.60 J	2.5	0.75 J	BRL	1.15J	BRL	BRL	1.51 J	BRL	0.55 J	0.97 J	BRL	0.44 J	0.67 J	0.85 J	BRL
Selenium	50	50	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	2.8	3.1	4.3	1.15J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	4.95 J	BRL	BRL	BRL	BRL	BRL	0.49 J	BRL	BRL	4.56	4.53	BRL	BRL	BRL	BRL	BRL	BRL	0.26 J	0.38 J	0.22 J	BRL
Silver	17.5	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	**33**	**BRL**	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	BRL	BRL	BRL	BRL	BRL	BRL2	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	BRL
Tin	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.63 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.67 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
Vanadium	NA	260*	BRL	BRL	8.0J	BRL	3.12 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	9.91	BRL	BRL	BRL	2.1 J	BRL	BRL	4.6 J	3.2 J	BRL	BRL	10.0	5.73	BRL	5.5	5	2.5 J	2.3 J	1.8 J	2.3 J	2.6 J	2.0 J	2.4 J	BRL	5.99	BRL	BRL	BRL	2.5 J	BRL	BRL	6.2	BRL	BRL	BRL
Zinc	2100	5000	BRL	BRL	BRL	BRL	BRL	BRL	BRL	40.8	BRL	BRL	21	3.6 J	5.3 J	4.2 J	5.5 J	BRL	BRL	10.1	16.6 J	48	15.2	BRL	BRL	13	BRL	11	7.6 J	5.5 J	11	7.91	BRL	BRL	18	BRL	3.5 J	25	5.6	5.1 J	13	14	2.7 J	BRL	BRL	BRL	32.2	BRL	3.5 J	15 B	3.5 J	3.6 J	BRL	8.2 J	BRL
Other Analyses																																																								
Mercury	1.05	**NA**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.42	NA
Nitrate-NO3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	820 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate/Nitrite as N (SM 4500)	1,000	1,000	NA	BRL	NA	0.551	1,020	BRL	964	410	513	NA	2,400	3,700	520	580	510	NA	BRL	0.321	196	228	550	343	NA	710 J	BRL	88 J	150 J	240 J	NA	0.107	461	39	BRL	130	NA	430 J	580 J	97 J	130 J	330	85 J	0.19	1,000	147	BRL	132	NA	770 J	600 J	210 J	BRL50	BRL50	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.
<> -- Data not recieved from laboratory

Table 4. Summary of Ground-Water Detections
Lamont Landfills, Fort Bragg, NC

COMPOUNDS (µg/L)	Groundwater NC 2L Standard (ug/l)	EPA Drinking water MCL (ug/l)	Lamont																																					
			LMW-15 11/06	LMW-16 11/06	GW-LMW-16 06/07	GW-LMW-16 11/07	GM-LMW-16 05/08	GW-LMW-16 11/08	LMW-16 06/09	LMW-16 11/09	LMW-16 06/10	LMW-16 11/10	LMW-16 6/11	LMW-16 11/11	LMW-16 5/12	GW-LMW-16-DUP	GW-LMW-16-DUP	GW-LMW-14R 06/07	GW-LMW-14R 11/07	GW-LMW-14R 05/08	GW-LMW-14R 11/08	LMW-14R 06/09	LMW-14R 11/09	LMW-14R 06/10	LMW-14R 11/10	LMW-14R 6/11	LMW-14R-11/11	LMW-14R 5/12	GW-LMW-14R DUP	GW-LMW-15R 06/07	GW-LMW-15R 11/07	GW-LMW-15R 05/08	GW-LMW-15R 11/08	LMW-15R 06/09	LMW-15R 11/09	LMW-15R 06/10	LMW-15R 11/10	LMW-15R 6/11	LMW-15R 11/11	LMW-15R 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	NS	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*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	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	NS	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	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.3 J	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	NS	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	NS	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-dichloroethane	0.38	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	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-dichloropropane	0.56	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
1,4-dichlorobenzene	75	75	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	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	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
acetone	700	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	8.8 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
acrolein	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
carbon disulfide	700	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chloroethane	2800	4.6*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
chloromethane (methyl chloride)	2.6	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.8	BRL	BRL	BRL	BRL	BRL	BRL	BRL
cis-1,2-dichloroethene	70	70	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
dibromochloromethane	0.41	80	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	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	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
diisopropyl ether	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	NS	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	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.47 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL
methylene chloride (dichloromethane)	4.6	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	3.1 J B	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	3.1 J B	BRL	BRL
MTBE	200	13*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	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	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.24 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL
sec-butylbenzene	70	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	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	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
toluene	1000	1000	BRL	0.240J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.61 J	BRL	BRL	BRL	BRL	BRL	BRL	0.29 J	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	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
trichloroethene	2.8	5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
trichlorofluoromethane	2100	1300*	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Total Xylenes	530	0.01	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
vinyl chloride	0.015	2	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Metals (EPA 6010B/6020A)																																								
Arsenic	10	10	BRL	BRL	2.13	BRL	BRL	9.27	0.56 J	0.59 J	0.5 J	0.54 J	1	0.54 J	1.8	BRL	11	1.11 J	BRL	BRL	9.08	0.41 J	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	**12.7**	2.5	BRL	BRL	BRL	BRL	BRL	BRL
Barium	2000	2000	37.4	23.1	41.3	35	22.9	23	14	13	8.8	10	11	8.8	9.2	29	4 J	14.6	12	9.72	133	13	12	13	12	11	14	13	NS	38.5	27	24.3	37.6	42	14	36	30	25	32	32
Beryllium	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	BRL	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8	BRL	BRL	NA	NA	NA	NA	NA	0.29	NA	0.17 J	0.13 J	0.13 J	BRL	0.15 J
Cadmium	5	5	BRL	BRL	BRL	BRL	BRL	0.002 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	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Cobalt	NA	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.08 J	0.098 J	0.078 J	0.13 J	BRL	0.14 J	BRL	BRL	BRL	BRL	0.51 J	BRL	0.24	0.3	0.17 J	0.21	0.2	0.18 J	0.15 J	NS	BRL	BRL	0.65 J	BRL	0.83	0.26	0.7	0.58	0.75	0.6	0.58
Chromium	50	100	BRL	BRL	20.7	BRL	BRL	BRL	0.83 J	0.53 J	0.56 J		0.70 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.6	0.53 J	0.49 J	0.60 J	1.2	0.18 J	0.35 J	NS	BRL	BRL	BRL	BRL	5.5	0.16 J	0.51 J	0.24 J	0.20 J	BRL	BRL
Copper	1000	1000	3.66J	BRL	7.37 J	6	BRL	5 J	0.36 J	0.59 J	BRL	0.46 J	0.67 J	0.95 J	0.27 J	6	BRL	BRL	BRL	BRL	BRL	0.81 J	0.92 J	BRL	0.96 J	2	0.72 J	0.41 J	NS	5.33 J	5 J	BRL	5.2 J	3.7	0.57 J	BRL	2.3	0.59 J	0.74 J	0.51 J
Iron	300	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	150	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	43 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	110	BRL	BRL	BRL	BRL
Lead	15	15	0.559J	0.643J	5.28	2.62	BRL	BRL	BRL	0.099 J	0.26 J	BRL	<0.16 J	BRL	BRL	4.21	BRL	4.42	BRL	BRL	BRL	0.22 J	0.14 J	0.10 J	0.11 J	0.3	BRL	0.12 J	NS	BRL	BRL	BRL	1.08	0.89	BRL	0.08 J	0.16 J	0.48	BRL	0.15 J
Manganese	50	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.1 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.3J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.6 J	BRL	BRL	BRL	BRL
Nickel	100	730*	1.80J	1.03J	BRL	BRL	BRL	BRL	0.72	0.66	0.97 J	BRL	0.65 J	0.90 J	0.55 J	BRL	BRL	BRL	BRL	2.39	3.2 J	2.2	1.6 J	0.84 J	1.9	1.8	1.6	0.65 J	NS	BRL	BRL	1.12 J	BRL	3	0.8 J	1	0.98 J	0.93 J	0.90 J	0.60 J
Selenium	50	50	BRL	BRL	BRL	2.20 J	BRL	BRL	BRL	BRL	BRL	0.31 J	BRL	0.25 J	BRL	2.50 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	0.24 J	BRL	BRL	BRL	0.32 J	BRL	0.24 J
Silver	17.5	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	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	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	0.17 J	BRL	BRL	BRL	BRL	0.11 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Tin	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	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Vanadium	NA	260*	BRL	BRL	41.9	69	BRL	BRL	BRL	BRL	BRL	BRL	2.7 J	BRL	BRL	26	BRL	2.30 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NS	BRL	BRL	BRL	BRL	7.5	BRL	BRL	BRL	BRL	BRL	BRL
Zinc	2100	5000	14.0	BRL	16.5 J	BRL	15.8	BRL	BRL	9.3 J	7.9 J	5.4 J	5.1 J	12	3.8 J	BRL	BRL	15.4 J	BRL	18.2	BRL	6.3 J	26 B	4.9 J	4.5 J	10	10	6.7 J	NS	BRL	BRL	39.3	BRL	6.5 J	9.1 J	6.6 J	8.3 J	8.6 J	8.5 J	BRL
Other Analyses																																								
Mercury	1.05	**NA**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA
Nitrate-NO3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BRL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate/Nitrite as N (SM 4500)	1,000	1,000	4.78	0.0520	166	1020	380	33 J	NA	BRL	< 40	72	180 J	240 J	NA	1010	< 40	326	143	370	960	NA	BRL	BRL	72	350	120 J	360	2260	1,400	1620	BRL	1460	NA	7,300 H	**21000**	1600	68,000 J	1,800	1,600.0

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

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 Lamont St Landfill **DATE:** 5/16/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **0945**
WEATHER CONDITIONS: Partly cloudy and Humid 71 °

Location: Lamont street Landfill	**Sample ID: LMW-14R-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	57.4	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	52.02	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.88	(gallons)
Flow Rate:	134	(ml/min)	Purge Vol:	1.6	(gallons)
Length of Time Purged:	45	(minutes)	Purge Time:	900	
Amount Purged:	1.6	(gallons)	Pump Depth:	55	

4. FIELD PARAMETERS

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

Time	0916	0923	0929	0934	0940	
pH	3.99	4.53	4.63	4.66	4.64	
Sp. Cond	0.015	0.014	0.014	0.014	0.014	
Temp. °C	18.77	19.77	19.70	19.60	19.61	
Turbidity	35.1	12.7	6.62	3.67	3.42	
DO	7.59	7.07	7.25	7.19	7.23	
ORP	240.7	221.0	219.5	223.1	228.5	
Water Level	52.82	52.50	52.43	52.50	52.48	

5. NOTES:

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/16/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1059**
WEATHER CONDITIONS: Sunny and Humid

Location: Lamont street Landfill	**Sample ID: LMW-15R-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	46.33	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	40.81	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.91	(gallons)
Flow Rate:	153	(ml/min)	Purge Vol:	1.9	(gallons)
Length of Time Purged:	47	(minutes)	Purge Time:	1012	
Amount Purged:	1.9	(gallons)	Pump Depth:	44.3	

4. FIELD PARAMETERS

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

Time	1021	1026	1036	1044	1050	1054
pH	4.50	4.44	4.35	4.46	4.49	4.50
Sp. Cond	0.038	0.038	0.039	0.039	0.039	0.039
Temp. °C	21.10	20.74	20.45	20.68	20.90	20.88
Turbidity	1.69	3.05	2.84	2.05	1.33	1.09
DO	7.33	7.14	6.84	6.93	6.94	6.92
ORP	242.4	249.8	262.5	259.7	260.2	260.5
Water Level	41.25	41.25	41.25	41.25	41.25	41.25

5. NOTES:

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/16/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1411**
WEATHER CONDITIONS: Partly Cloudy78°

Location: Lamont street Landfill	**Sample ID: LMW-9S-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	61.35	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	54.83	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.07	(gallons)
Flow Rate:	315	(ml/min)	Purge Vol:	2.5	(gallons)
Length of Time Purged:	30	(minutes)	Purge Time:	1341	
Amount Purged:	2.5	(gallons)	Pump Depth:	59	

4. FIELD PARAMETERS

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

Time	1355	1400	1406			
pH	5.40	5.36	5.39			
Sp. Cond	0.174	0.173	0.172			
Temp. °C	21.29	20.64	20.60			
Turbidity	11.4	9.26	7.61			
DO	0.85	0.91	0.89			
ORP	36.3	38.1	36.4			
Water Level	54.9	54.91	54.90			

5. NOTES: MS/MSD taken

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/16/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1619**
WEATHER CONDITIONS: Sunny and Humid 81°

Location: Lamont street Landfill	**Sample ID: LMW-9D-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	88.07	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	81.11	(ft)	Diameter (d):	0.167	(ft)
	Well Volume = (5.904 x d^2(wd-dw)) =			1.14	(gallons)
Flow Rate:	200	(ml/min)	Purge Vol:	5.5	(gallons)
Length of Time Purged:	104	(minutes)	Purge Time:	1435	
Amount Purged:	5.5	(gallons)	Pump Depth:	86	

4. FIELD PARAMETERS

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

Time	1520	1530	1540	1550	1600	1610
pH	6.14	6.09	5.80	5.93	5.89	5.74
Sp. Cond	0.044	0.039	0.028	0.031	0.031	0.032
Temp. °C	20.73	20.11	20.49	20.18	19.89	19.60
Turbidity	281	263	------	312	172	116
DO	6.05	7.58	7.46	7.44	7.57	7.65
ORP	68.7	72.6	90.5	87.5	94.5	104.5
Water Level	83.11	83.35	83.93	84.01	83.88	83.85

5. NOTES: @1512 pump rate was adjusted to decrease purgerate. Purged 5X volume

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/17/12
SAMPLED BY: R. Hill & C. Poston **TIME :** 0926
WEATHER CONDITIONS: Sunny 68°

Location: Lamont street Landfill	**Sample ID: LMW-10-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: 3
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):	83.24	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	79.87	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.55	(gallons)
Flow Rate:	42	(ml/min)	Purge Vol:	0.8	(gallons)
Length of Time Purged:	68	(minutes)	Purge Time:	818	
Amount Purged:	0.8	(gallons)	Pump Depth:	81.5	

4. FIELD PARAMETERS

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

Time	0845	0857	0908	0921		
pH	4.50	4.67	4.72	4.73		
Sp. Cond	0.051	0.051	0.050	0.049		
Temp. °C	19.79	20.19	20.27	20.24		
Turbidity	5.09	5.12	5.25	3.16		
DO	6.00	6.01	5.64	5.87		
ORP	218.7	212.0	211.9	212.2		
Water Level	79.73	79.72	79.72	79.72		

5. NOTES:

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/17/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1351, 5/18/12**
WEATHER CONDITIONS: rainy 68°

Location: Lamont street Landfill	**Sample ID: LMW-7-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	131.4	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	125.2	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.02	(gallons)
Flow Rate:	86	(ml/min)	Purge Vol:	1.3	(gallons)
Length of Time Purged:	55	(minutes)	Purge Time:	1515	
Amount Purged:	1.3	(gallons)	Pump Depth:	129	

4. FIELD PARAMETERS

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

Time	1530	1537	1543	1551		
pH	5.06	5.16	5.36	5.47		
Sp. Cond	0.014	0.014	0.014	0.015		
Temp. °C	19.73	19.58	19.47	19.64		
Turbidity	12.3	36.3	64.2	75.2		
DO	8.97	9.37	9.39	9.58		
ORP	119.7	128.1	123.4	120.2		
Water Level	126.8	127.7	---	---		

5. NOTES: WL dropped below intake; allowed to recharge overnight; samples collected at 1351 on 5/18/2012.

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/17/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1105**
WEATHER CONDITIONS: Sunny 74° windy

Location: Lamont street Landfill	**Sample ID: LMW-4-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	82	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	75.71	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.03	(gallons)
Flow Rate:	135	(ml/min)	Purge Vol:	1.6	(gallons)
Length of Time Purged:	45	(minutes)	Purge Time:	818	
Amount Purged:	1.6	(gallons)	Pump Depth:	81	

4. FIELD PARAMETERS

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

Time	1030	1036	1046	1054	1100	
pH	4.52	4.16	4.53	4.57	4.56	
Sp. Cond	0.023	0.022	0.023	0.023	0.023	
Temp. °C	20.83	20.95	21.64	22.13	22.63	
Turbidity	12.2	14.0	31.1	34.7	38.5	
DO	5.43	5.16	4.67	4.71	4.61	
ORP	193.0	221.0	209.2	201.3	201.9	
Water Level	77.81	79.21	79.06	79.33	79.35	

5. NOTES: @1036 wl dropping; adjusted flowrate attempting to stabilize wl-
Turbidity trending up

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/18/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1005**
WEATHER CONDITIONS: Cloudy 60° windy

Location: Lamont street Landfill	**Sample ID: LMW-3S-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	69.69	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	62.8	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.13	(gallons)
Flow Rate:	149	(ml/min)	Purge Vol:	2.8	(gallons)
Length of Time Purged:	70	(minutes)	Purge Time:	855	
Amount Purged:	2.8	(gallons)	Pump Depth:	68	

4. FIELD PARAMETERS

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

Time	0911	0924	0936	0949	0954	1005
pH	4.29	4.51	4.58	4.63	4.65	4.66
Sp. Cond	0.026	0.026	0.025	0.025	0.025	0.025
Temp. °C	16.79	17.06	17.30	17.44	17.46	17.49
Turbidity	5.88	14.3	6.33	4.79	3.27	2.86
DO	3.20	3.36	5.00	4.71	4.75	4.75
ORP	210.8	210.9	208.1	206.1	205.6	205.4
Water Level	64.95	64.34	64.20	64.16	64.25	64.20

5. NOTES:

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/18/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1155**
WEATHER CONDITIONS: Cloudy 60° windy

Location: Lamont street Landfill	**Sample ID: LMW-3-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	123	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	106.22	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				2.75	(gallons)
Flow Rate:	193	(ml/min)	Purge Vol:	2.8	(gallons)
Length of Time Purged:	54	(minutes)	Purge Time:	1101	
Amount Purged:	2.75	(gallons)	Pump Depth:	121	(ft)

4. FIELD PARAMETERS

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

Time	1118	1128	1138	1150		
pH	4.72	4.95	5.02	5.03		
Sp. Cond	0.016	0.016	0.016	0.016		
Temp. °C	19.04	19.27	19.52	19.02		
Turbidity	0.82	0.43	0.33	0.53		
DO	6.04	6.52	7.16	7.39		
ORP	195.4	193.4	194.8	198.8		
Water Level	108.18	107.80	107.55	107.65		

5. NOTES:

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/18/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1514**
WEATHER CONDITIONS: Cloudy 71° breezy

Location: Lamont street Landfill	**Sample ID: LMW-6-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	95	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	84.38	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.74	(gallons)
Flow Rate:	267	(ml/min)	Purge Vol:	2.8	(gallons)
Length of Time Purged:	39	(minutes)	Purge Time:	1435	
Amount Purged:	2.8	(gallons)	Pump Depth:	93	

4. FIELD PARAMETERS

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

Time	1451	1459	1504	1509		
pH	4.85	4.97	5.01	5.03		
Sp. Cond	0.204	0.204	0.199	0.199		
Temp. °C	20.26	20.29	20.26	20.21		
Turbidity	4.61	3.61	2.45	2.37		
DO	1.46	1.92	2.00	2.01		
ORP	152.4	149.1	148.8	147.6		
Water Level	84.72	84.73	84.71	84.74		

5. NOTES:

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/18/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1640**
WEATHER CONDITIONS: Partly Cloudy 76°

Location: Lamont street Landfill	**Sample ID: LMW-16-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	42	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	37.36	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				0.76	(gallons)
Flow Rate:	223	(ml/min)	Purge Vol:	3.2	(gallons)
Length of Time Purged:	55	(minutes)	Purge Time:	1545	
Amount Purged:	3.2	(gallons)	Pump Depth:	41	

4. FIELD PARAMETERS

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

Time	1600	1607	1614	1621	1628	1635
pH	6.21	6.24	6.26	6.30	6.31	6.31
Sp. Cond	0.254	0.257	0.260	0.258	0.258	0.257
Temp. °C	20.76	20.54	20.97	20.94	20.89	20.90
Turbidity	152	84.8	57.6	34.5	22.5	26.5
DO	2.96	1.37	0.91	0.68	0.53	0.46
ORP	75.0	57.4	50.0	40.7	36.3	34.7
Water Level	38.55	38.88	38.92	38.95	38.92	38.91

5. NOTES: Increasing turbidity

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/21/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1015**
WEATHER CONDITIONS: Partly Cloudy 69°

Location: Lamont street Landfill	**Sample ID: LMW-9-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	137	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	86.64	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				8.26	(gallons)
Flow Rate:	269	(ml/min)	Purge Vol:	7.1	(gallons)
Length of Time Purged:	100	(minutes)	Purge Time:	835	
Amount Purged:	7.1	(gallons)	Pump Depth:	132	

4. FIELD PARAMETERS

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

Time	0920	0925	0935	0945	0955	1010
pH	4.26	4.30	4.35	4.39	4.42	4.42
Sp. Cond	0.076	0.073	0.069	0.065	0.059	0.059
Temp. °C	19.33	19.41	19.72	19.78	19.75	19.80
Turbidity	26.6	25.3	22.4	21.8	22.7	25.1
DO	3.71	3.67	3.70	3.91	4.10	4.12
ORP	277.8	275.1	274.6	273.6	271.9	273.2
Water Level	86.72	86.73	86.72	86.73	86.73	86.73

5. NOTES: Turbidity trending up; rest of parameters stablized

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

1. CLIENT: Fort Bragg Lamont St Landfill **DATE:** 5/21/12
SAMPLED BY: R. Hill & C. Poston **TIME :** **1138**
WEATHER CONDITIONS: Partly Cloudy 75°

Location: Lamont street Landfill	**Sample ID: LMW-8-5-12**

PRESERVATIVE: Ice,
ANALYSES REQUESTED: EPA 8260B .
 # OF CONTAINERS: **3**
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):	62.47	(ft)	Diameter (d):	2.00	(in)
Depth to Water (dw):	50.84	(ft)	Diameter (d):	0.167	(ft)
Well Volume = (5.904 x d^2(wd-dw)) =				1.91	(gallons)
Flow Rate:	220	(ml/min)	Purge Vol:	2.5	(gallons)
Length of Time Purged:	43	(minutes)	Purge Time:	1055	
Amount Purged:	2.5	(gallons)	Pump Depth:	60	

4. FIELD PARAMETERS

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

Time	1113	1123	1128	1133		
pH	5.98	5.99	5.99	6.01		
Sp. Cond	0.443	0.427	0.421	0.418		
Temp. °C	20.33	20.08	20.19	20.22		
Turbidity	26.7	18.9	16.6	9.99		
DO	1.01	1.42	1.70	1.80		
ORP	-17.4	-12.1	-11.9	-10.9		
Water Level	51.15	51.05	51.10	51.10		

5. NOTES: LMW-DUP-1-5-12 taken @ 1200; LMW-BLK-1-5-12 taken at 1215. 1 drum of purge water generated.

APPENDIX B

DATA VALIDATION REPORTS

QA LEVEL II - DATA EVALUATION CHECKLIST

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

Project Manager: Faizal Kalsai
Project Number: N/A
Validation Date: 10/12/12

Laboratory: Test America
SDG #: 680-79575-1
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?	☑	☐	☐	
c) Were the correct preservatives used?	☑	☐	☐	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☑	☐	☐	
f) Were any sample dilutions noted?	☑	☐	☐	
g) Were all [illegible] noted	☐	☑	☐	

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)?	☐	☑	☐	
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?	☐	☐	☑	

Comments/Notes:

No qualifications necessary

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason

10/12/12

QA LEVEL II - DATA EVALUATION CHECKLIST

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

Project Manager: Daniel Kolini
Project Number: NA
Validation Date: 10/12/12

Laboratory: Test America
SDG #: 680-79621-1

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?	☑	☐	☐	
c) Were the correct preservatives used?	☑	☐	☐	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☑	☐	☐	
f) Were any sample dilutions noted?	☑	☐	☐	
g) Were any matrix problems noted?	☐	☑	☐	

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☑	☐	☐	1,2,4-Trichlorobenzene, associated samples non-detect
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)?	☐	☑	☐	
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?	☐	☑	☐	Bromomethane biased high
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?	☐	☑	☐	

Comments/Notes: No qualifications necessary

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason

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

QA LEVEL II - DATA EVALUATION CHECKLIST

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

Project Manager: Brian Kolai
Project Number: NA
Validation Date: 10/12/12

Laboratory: Test America
SDG #: 680-79656-1
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?	☒	☐	☐	
c) Were the correct preservatives used?	☒	☐	☐	
d) Was the correct method used?	☒	☐	☐	
e) Were appropriate reporting limits achieved?	☒	☐	☐	
f) Were any [illegible] noted?	☒	☐	☐	
g) [illegible]	☐	☒	☐	

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)?	☐	☑	☐	
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?	☐	☑	☐	selenium biased high
b) Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Was MSD accuracy criteria met?	☐	☑	☐	Selenium + Beryllium biased high
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?	☐	☐	☑	

Comments/Notes: No qualification necessary

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason

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

QA LEVEL II - DATA EVALUATION CHECKLIST

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

Project Manager: Daniel Kolian
Project Number: NA
Validation Date: 10/12/12

Laboratory: Test America
SDG #: 680-79687
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?	✓	✓		nitrate missed by 3hours
b) Were hold times met for sample analysis?	✓	✓		
c) Were the correct preservatives used?	✓			
d) Was the correct method used?	✓			
e) Were appropriate reporting limits achieved?	✓			
f) Were all samples analyzed?	✓			
g) Were all [illegible]		✓		

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)?	☑	☐	☐	Ba 0.73J, Cr 0.43J, Zn 3.0J
d) Were analytes detected in the trip blank(s)?	☐	☐	☐	~~associated samples~~

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)?	☑	☐	☐	LMW-8 + LMW-Dup
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?	☐	☑	☐	

Comments/Notes:

Ba, Cr, + Zn were detected in equipment blank. associated samples were >10x or ND except for Zn in LMW-9.

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
LMW-9	Zn	7.4J	7.4U	detection in blank

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: 680-79687-1
Client Project/Site: Fort Bragg Lamont

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

Attn: Mr. Kevin Haborak

Authorized for release by:
6/7/2012 5:07:11 PM

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

LINKS

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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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Job ID: 680-79687-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: U.S. Army Corps of Engineers

Project: Fort Bragg Lamont

Report Number: 680-79687-1

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 05/22/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6, 2.8, 2.4, 2.4, 2.6, 2.8, 3.0, 3.1 and 2.2 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples LMW-9-5-12 (680-79687-1), LMW-Dup-1-5-12 (680-79687-2), LMW-8-5-12 (680-79687-3), LMW-BLK-1-5-12 (680-79687-4), LMW-3S-5-12 (680-79687-5), Trip Blank (680-79687-6), LMW-3-5-12 (680-79687-7), LMW-7-5-12 (680-79687-8), LMW-6-5-12 (680-79687-9) and LMW-16-5-12 (680-79687-10) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/30/2012.

No difficulties were encountered during the volatiles analyses.

All quality control parameters were within the acceptance limits.

METALS (ICPMS)

Samples LMW-9-5-12 (680-79687-1), LMW-Dup-1-5-12 (680-79687-2), LMW-8-5-12 (680-79687-3) and LMW-BLK-1-5-12 (680-79687-4) 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)

Samples LMW-9-5-12 (680-79687-1), LMW-Dup-1-5-12 (680-79687-2), LMW-8-5-12 (680-79687-3) and LMW-BLK-1-5-12 (680-79687-4) were analyzed for Anions (Nitrate) in accordance with EPA Method 300.0. The samples were analyzed on 05/23/2012.

Reanalysis of the following sample was performed approximately 3 hours outside of the analytical holding time: LMW-9-5-12 (680-79687-1). The sample was originally analyzed within holding time but the laboratory was not able to retrieve the data from the instrument.

Samples LMW-9-5-12 (680-79687-1)[5X], LMW-Dup-1-5-12 (680-79687-2)[5X], LMW-8-5-12 (680-79687-3)[5X] and LMW-BLK-1-5-12 (680-79687-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Job ID: 680-79687-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

No difficulties were encountered during the Anions analyses.

All quality control parameters were within the acceptance limits.

Sample Summary

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

TestAmerica Job ID: 680-79687-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-79687-1	LMW-9-5-12	Water	05/21/12 10:15	05/22/12 09:36
680-79687-2	LMW-Dup-1-5-12	Water	05/21/12 12:00	05/22/12 09:36
680-79687-3	LMW-8-5-12	Water	05/21/12 11:38	05/22/12 09:36
680-79687-4	LMW-BLK-1-5-12	Water	05/21/12 12:15	05/22/12 09:36
680-79687-5	LMW-3S-5-12	Water	05/18/12 10:05	05/22/12 09:36
680-79687-6	Trip Blank	Water	05/18/12 10:00	05/22/12 09:36
680-79687-7	LMW-3-5-12	Water	05/18/12 11:55	05/22/12 09:36
680-79687-8	LMW-7-5-12	Water	05/18/12 13:51	05/22/12 09:36
680-79687-9	LMW-6-5-12	Water	05/18/12 15:14	05/22/12 09:36
680-79687-10	LMW-16-5-12	Water	05/18/12 16:40	05/22/12 09:36

Method Summary

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

TestAmerica Job ID: 680-79687-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
6020A	Metals (ICP/MS)	SW846	TAL SAV
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV

Protocol References:

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

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

Laboratory References:

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

Qualifiers

GC/MS VOA

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

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
H	Sample was prepped or analyzed beyond the specified holding time
U	Undetected at the Limit of Detection.
J	Estimated: The analyte was positively identified; the quantitation is an estimation

Glossary

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

Detection Summary

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-9-5-12 — Lab Sample ID: 680-79687-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	13		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.27		0.20	0.070	ug/L	1		6020A	Total/NA
Cobalt	1.3		0.20	0.078	ug/L	1		6020A	Total/NA
Chromium	0.32	J	1.0	0.16	ug/L	1		6020A	Total/NA
Copper	4.2		1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.097	J	0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	2.4		1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	7.4	J	10	2.6	ug/L	1		6020A	Total/NA
Thallium	0.13	J	0.20	0.10	ug/L	1		6020A	Total/NA

Client Sample ID: LMW-Dup-1-5-12 — Lab Sample ID: 680-79687-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.1	J	25	5.0	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	2.9		1.0	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	0.30	J	1.0	0.13	ug/L	1		8260B	Total/NA
Arsenic	1.4		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	38		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	1.2		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.53	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.57	J	1.0	0.40	ug/L	1		6020A	Total/NA
Thallium	0.11	J	0.20	0.10	ug/L	1		6020A	Total/NA
Nitrate-NO3	0.94	J	1.1	0.36	mg/L	5		300.0	Total/NA

Client Sample ID: LMW-8-5-12 — Lab Sample ID: 680-79687-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.6	J	25	5.0	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	3.2		1.0	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	0.23	J	1.0	0.13	ug/L	1		8260B	Total/NA
Arsenic	1.3		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	39		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	1.2		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.46	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.55	J	1.0	0.40	ug/L	1		6020A	Total/NA
Thallium	0.11	J	0.20	0.10	ug/L	1		6020A	Total/NA

Client Sample ID: LMW-BLK-1-5-12 — Lab Sample ID: 680-79687-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.73	J	1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	0.43	J	1.0	0.16	ug/L	1		6020A	Total/NA
Zinc	3.0	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: LMW-3S-5-12 — Lab Sample ID: 680-79687-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.1		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	1.2		1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 680-79687-6

No Detections

Detection Summary

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-3-5-12 — Lab Sample ID: 680-79687-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.41	J	1.0	0.14	ug/L	1		8260B	Total/NA
Dichlorodifluoromethane	0.31	J	1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	0.71	J	1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: LMW-7-5-12 — Lab Sample ID: 680-79687-8

No Detections

Client Sample ID: LMW-6-5-12 — Lab Sample ID: 680-79687-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.69	J	1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.16	J	1.0	0.15	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	0.67	J	1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: LMW-16-5-12 — Lab Sample ID: 680-79687-10

No Detections

Client Sample Results

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-9-5-12

Lab Sample ID: 680-79687-1

Date Collected: 05/21/12 10:15

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 13:47	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 13:47	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 13:47	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 13:47	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 13:47	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 13:47	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 13:47	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 13:47	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 13:47	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 13:47	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 13:47	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 13:47	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 13:47	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 13:47	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 13:47	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 13:47	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 13:47	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 13:47	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 13:47	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 13:47	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 13:47	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 13:47	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 13:47	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 13:47	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 13:47	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 13:47	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 13:47	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 13:47	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 13:47	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 13:47	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 13:47	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 13:47	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 13:47	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 13:47	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 13:47	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 13:47	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 13:47	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 13:47	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 13:47	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 13:47	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 13:47	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 13:47	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 13:47	1

Client Sample ID: LMW-9-5-12

Lab Sample ID: 680-79687-1

Date Collected: 05/21/12 10:15

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 13:47	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 13:47	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 13:47	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 13:47	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 13:47	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 13:47	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 13:47	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 13:47	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 13:47	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*		*05/30/12 13:47*	*1*
Dibromofluoromethane	*104*		*70 - 130*		*05/30/12 13:47*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*05/30/12 13:47*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 03:46	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:46	1
Barium	**13**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 03:46	1
Beryllium	**0.27**		0.20	0.070	ug/L		05/24/12 08:00	05/25/12 03:46	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 03:46	1
Cobalt	**1.3**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 03:46	1
Chromium	**0.32**	**J**	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 03:46	1
Copper	**4.2**		1.0	0.21	ug/L		05/24/12 08:00	05/25/12 03:46	1
Lead	**0.097**	**J**	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 03:46	1
Nickel	**2.4**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:46	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 03:46	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 03:46	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 03:46	1
Zinc	**7.4**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 03:46	1
Thallium	**0.13**	**J**	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 03:46	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 13:25	5

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

Lab Sample ID: 680-79687-2

Date Collected: 05/21/12 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	**5.1**	**J**	25	5.0	ug/L			05/30/12 14:16	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 14:16	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 14:16	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 14:16	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 14:16	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 14:16	1

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-Dup-1-5-12
Date Collected: 05/21/12 12:00
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 14:16	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 14:16	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 14:16	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 14:16	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 14:16	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 14:16	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 14:16	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 14:16	1
cis-1,2-Dichloroethene	**2.9**		1.0	0.15	ug/L			05/30/12 14:16	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 14:16	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 14:16	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 14:16	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 14:16	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 14:16	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 14:16	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 14:16	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 14:16	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 14:16	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 14:16	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 14:16	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 14:16	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 14:16	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 14:16	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 14:16	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 14:16	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 14:16	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 14:16	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 14:16	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 14:16	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 14:16	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 14:16	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 14:16	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 14:16	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 14:16	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 14:16	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 14:16	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 14:16	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 14:16	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 14:16	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 14:16	1
Trichloroethene	**0.30**	**J**	1.0	0.13	ug/L			05/30/12 14:16	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:16	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 14:16	1

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

Lab Sample ID: 680-79687-2

Date Collected: 05/21/12 12:00

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
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 14:16	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 14:16	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 14:16	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 130*		*05/30/12 14:16*	*1*
Dibromofluoromethane	*104*		*70 - 130*		*05/30/12 14:16*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*05/30/12 14:16*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 03:53	1
Arsenic	**1.4**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:53	1
Barium	**38**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 03:53	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 03:53	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 03:53	1
Cobalt	**1.2**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 03:53	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 03:53	1
Copper	**0.53**	**J**	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 03:53	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 03:53	1
Nickel	**0.57**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 03:53	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 03:53	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 03:53	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 03:53	1
Zinc	2.6	U	10	2.6	ug/L		05/24/12 08:00	05/25/12 03:53	1
Thallium	**0.11**	**J**	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 03:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	**0.94**	**J**	1.1	0.36	mg/L			05/23/12 11:53	5

Client Sample ID: LMW-8-5-12

Lab Sample ID: 680-79687-3

Date Collected: 05/21/12 11:38

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	**5.6**	**J**	25	5.0	ug/L			05/30/12 14:44	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 14:44	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 14:44	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 14:44	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 14:44	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 14:44	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 14:44	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 14:44	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 14:44	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 14:44	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 14:44	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 14:44	1

Client Sample Results

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-8-5-12

Date Collected: 05/21/12 11:38
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 14:44	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 14:44	1
cis-1,2-Dichloroethene	**3.2**		1.0	0.15	ug/L			05/30/12 14:44	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 14:44	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 14:44	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 14:44	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 14:44	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 14:44	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 14:44	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 14:44	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 14:44	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 14:44	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 14:44	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 14:44	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 14:44	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 14:44	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 14:44	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 14:44	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 14:44	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 14:44	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 14:44	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 14:44	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 14:44	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 14:44	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 14:44	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 14:44	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 14:44	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 14:44	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 14:44	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 14:44	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 14:44	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 14:44	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 14:44	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 14:44	1
Trichloroethene	**0.23**	**J**	1.0	0.13	ug/L			05/30/12 14:44	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:44	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 14:44	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 14:44	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 14:44	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 14:44	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*		*05/30/12 14:44*	*1*

Client Sample ID: LMW-8-5-12

Lab Sample ID: 680-79687-3

Date Collected: 05/21/12 11:38

Matrix: Water

Date Received: 05/22/12 09:36

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*103*		*70 - 130*		*05/30/12 14:44*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*05/30/12 14:44*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 04:01	1
Arsenic	**1.3**		1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:01	1
Barium	**39**		1.0	0.15	ug/L		05/24/12 08:00	05/25/12 04:01	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 04:01	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 04:01	1
Cobalt	**1.2**		0.20	0.078	ug/L		05/24/12 08:00	05/25/12 04:01	1
Chromium	0.16	U	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 04:01	1
Copper	**0.46**	**J**	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 04:01	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 04:01	1
Nickel	**0.55**	**J**	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:01	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 04:01	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:01	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 04:01	1
Zinc	2.6	U	10	2.6	ug/L		05/24/12 08:00	05/25/12 04:01	1
Thallium	**0.11**	**J**	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:01	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 11:22	5

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

Lab Sample ID: 680-79687-4

Date Collected: 05/21/12 12:15

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 15:13	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:13	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:13	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 15:13	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 15:13	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 15:13	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 15:13	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:13	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 15:13	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 15:13	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 15:13	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 15:13	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 15:13	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:13	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 15:13	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 15:13	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 15:13	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 15:13	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 15:13	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 15:13	1

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-BLK-1-5-12
Date Collected: 05/21/12 12:15
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-4
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			05/30/12 15:13	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 15:13	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:13	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:13	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:13	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 15:13	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 15:13	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 15:13	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 15:13	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 15:13	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 15:13	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 15:13	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 15:13	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 15:13	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 15:13	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 15:13	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 15:13	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 15:13	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 15:13	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 15:13	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 15:13	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 15:13	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:13	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 15:13	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 15:13	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:13	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 15:13	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 15:13	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 15:13	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 15:13	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 15:13	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 15:13	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:13	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 15:13	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 15:13	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 15:13	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:13	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 15:13	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:13	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:13	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 15:13	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*		*05/30/12 15:13*	*1*
Dibromofluoromethane	*103*		*70 - 130*		*05/30/12 15:13*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*05/30/12 15:13*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 04:08	1

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

Lab Sample ID: 680-79687-4

Date Collected: 05/21/12 12:15

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
Arsenic	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:08	1
Barium	**0.73**	**J**	1.0	0.15	ug/L		05/24/12 08:00	05/25/12 04:08	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/24/12 08:00	05/25/12 04:08	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/24/12 08:00	05/25/12 04:08	1
Cobalt	0.078	U	0.20	0.078	ug/L		05/24/12 08:00	05/25/12 04:08	1
Chromium	**0.43**	**J**	1.0	0.16	ug/L		05/24/12 08:00	05/25/12 04:08	1
Copper	0.21	U	1.0	0.21	ug/L		05/24/12 08:00	05/25/12 04:08	1
Lead	0.080	U	0.30	0.080	ug/L		05/24/12 08:00	05/25/12 04:08	1
Nickel	0.40	U	1.0	0.40	ug/L		05/24/12 08:00	05/25/12 04:08	1
Selenium	0.21	U	0.50	0.21	ug/L		05/24/12 08:00	05/25/12 04:08	1
Silver	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:08	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/24/12 08:00	05/25/12 04:08	1
Zinc	**3.0**	**J**	10	2.6	ug/L		05/24/12 08:00	05/25/12 04:08	1
Thallium	0.10	U	0.20	0.10	ug/L		05/24/12 08:00	05/25/12 04:08	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 12:08	5

Client Sample ID: LMW-3S-5-12

Lab Sample ID: 680-79687-5

Date Collected: 05/18/12 10:05

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 15:42	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:42	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:42	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 15:42	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 15:42	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 15:42	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 15:42	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:42	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 15:42	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 15:42	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 15:42	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 15:42	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 15:42	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:42	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 15:42	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 15:42	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 15:42	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 15:42	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 15:42	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 15:42	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:42	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 15:42	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:42	1
Dichlorodifluoromethane	**2.1**		1.0	0.25	ug/L			05/30/12 15:42	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:42	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 15:42	1

Client Sample ID: LMW-3S-5-12

Lab Sample ID: 680-79687-5

Date Collected: 05/18/12 10:05

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
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 15:42	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 15:42	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 15:42	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 15:42	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 15:42	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 15:42	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 15:42	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 15:42	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 15:42	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 15:42	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 15:42	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 15:42	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 15:42	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 15:42	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 15:42	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 15:42	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:42	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 15:42	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 15:42	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:42	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 15:42	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 15:42	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 15:42	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 15:42	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 15:42	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 15:42	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:42	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 15:42	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 15:42	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 15:42	1
Trichlorofluoromethane	**1.2**		1.0	0.25	ug/L			05/30/12 15:42	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 15:42	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:42	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:42	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 15:42	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 130*		*05/30/12 15:42*	*1*
Dibromofluoromethane	*103*		*70 - 130*		*05/30/12 15:42*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*05/30/12 15:42*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 680-79687-6

Date Collected: 05/18/12 10:00

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			05/30/12 14:30	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 14:30	1

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: Trip Blank
Date Collected: 05/18/12 10:00
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 14:30	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 14:30	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 14:30	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 14:30	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 14:30	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 14:30	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 14:30	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 14:30	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 14:30	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 14:30	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 14:30	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 14:30	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 14:30	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 14:30	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 14:30	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 14:30	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 14:30	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 14:30	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 14:30	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 14:30	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 14:30	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 14:30	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 14:30	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 14:30	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 14:30	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 14:30	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 14:30	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 14:30	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 14:30	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 14:30	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 14:30	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 14:30	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 14:30	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 14:30	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 14:30	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 14:30	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 14:30	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 14:30	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 14:30	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 14:30	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 14:30	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 14:30	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 14:30	1

Client Sample ID: Trip Blank

Lab Sample ID: 680-79687-6

Date Collected: 05/18/12 10:00

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
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 14:30	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 14:30	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:30	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 14:30	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 14:30	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 14:30	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 14:30	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*		*05/30/12 14:30*	*1*
Dibromofluoromethane	*90*		*70 - 130*		*05/30/12 14:30*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*05/30/12 14:30*	*1*

Client Sample ID: LMW-3-5-12

Lab Sample ID: 680-79687-7

Date Collected: 05/18/12 11:55

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 17:08	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:08	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 17:08	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 17:08	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 17:08	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 17:08	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 17:08	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:08	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 17:08	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 17:08	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 17:08	1
Chloroform	**0.41**	**J**	1.0	0.14	ug/L			05/30/12 17:08	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 17:08	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 17:08	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 17:08	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 17:08	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 17:08	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 17:08	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 17:08	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 17:08	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:08	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 17:08	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:08	1
Dichlorodifluoromethane	**0.31**	**J**	1.0	0.25	ug/L			05/30/12 17:08	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 17:08	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 17:08	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 17:08	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 17:08	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 17:08	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 17:08	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 17:08	1

Client Sample ID: LMW-3-5-12

Lab Sample ID: 680-79687-7

Date Collected: 05/18/12 11:55

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
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 17:08	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 17:08	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 17:08	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 17:08	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 17:08	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 17:08	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 17:08	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 17:08	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 17:08	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 17:08	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 17:08	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 17:08	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 17:08	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 17:08	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 17:08	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 17:08	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 17:08	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 17:08	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 17:08	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 17:08	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 17:08	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 17:08	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 17:08	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 17:08	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 17:08	1
Trichlorofluoromethane	**0.71**	**J**	1.0	0.25	ug/L			05/30/12 17:08	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 17:08	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 17:08	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 17:08	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 17:08	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*		*05/30/12 17:08*	*1*
Dibromofluoromethane	*102*		*70 - 130*		*05/30/12 17:08*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*05/30/12 17:08*	*1*

Client Sample ID: LMW-7-5-12

Lab Sample ID: 680-79687-8

Date Collected: 05/18/12 13:51

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 16:39	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 16:39	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 16:39	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 16:39	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 16:39	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 16:39	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-7-5-12
Date Collected: 05/18/12 13:51
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 16:39	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 16:39	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 16:39	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 16:39	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 16:39	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 16:39	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 16:39	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 16:39	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 16:39	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 16:39	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 16:39	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 16:39	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 16:39	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 16:39	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 16:39	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 16:39	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 16:39	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 16:39	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 16:39	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 16:39	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 16:39	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 16:39	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 16:39	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 16:39	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 16:39	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 16:39	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 16:39	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 16:39	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 16:39	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 16:39	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 16:39	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 16:39	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 16:39	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 16:39	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 16:39	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 16:39	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 16:39	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 16:39	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 16:39	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 16:39	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 16:39	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 16:39	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 16:39	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 16:39	1

Client Sample ID: LMW-7-5-12

Lab Sample ID: 680-79687-8

Date Collected: 05/18/12 13:51

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
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 16:39	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 16:39	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*		*05/30/12 16:39*	*1*
Dibromofluoromethane	*104*		*70 - 130*		*05/30/12 16:39*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*05/30/12 16:39*	*1*

Client Sample ID: LMW-6-5-12

Lab Sample ID: 680-79687-9

Date Collected: 05/18/12 15:14

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 14:59	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:59	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 14:59	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 14:59	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 14:59	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 14:59	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 14:59	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:59	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 14:59	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 14:59	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 14:59	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 14:59	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 14:59	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 14:59	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 14:59	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 14:59	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 14:59	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 14:59	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 14:59	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 14:59	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:59	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 14:59	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:59	1
Dichlorodifluoromethane	**0.69**	**J**	1.0	0.25	ug/L			05/30/12 14:59	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 14:59	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 14:59	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 14:59	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 14:59	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 14:59	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 14:59	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 14:59	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 14:59	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 14:59	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 14:59	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 14:59	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 14:59	1

Client Sample ID: LMW-6-5-12

Lab Sample ID: 680-79687-9

Date Collected: 05/18/12 15:14

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
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 14:59	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 14:59	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 14:59	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 14:59	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 14:59	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 14:59	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 14:59	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 14:59	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 14:59	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 14:59	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 14:59	1
Tetrachloroethene	**0.16**	**J**	1.0	0.15	ug/L			05/30/12 14:59	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 14:59	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 14:59	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 14:59	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 14:59	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 14:59	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 14:59	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 14:59	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 14:59	1
Trichlorofluoromethane	**0.67**	**J**	1.0	0.25	ug/L			05/30/12 14:59	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 14:59	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 14:59	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 14:59	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 14:59	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*70 - 130*		*05/30/12 14:59*	*1*
Dibromofluoromethane	*88*		*70 - 130*		*05/30/12 14:59*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*05/30/12 14:59*	*1*

Client Sample ID: LMW-16-5-12

Lab Sample ID: 680-79687-10

Date Collected: 05/18/12 16:40

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 15:27	1
Benzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:27	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/30/12 15:27	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/30/12 15:27	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/30/12 15:27	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/30/12 15:27	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/30/12 15:27	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/30/12 15:27	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/30/12 15:27	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/30/12 15:27	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/30/12 15:27	1

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-16-5-12
Date Collected: 05/18/12 16:40
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:27	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/30/12 15:27	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/30/12 15:27	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 15:27	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/30/12 15:27	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/30/12 15:27	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/30/12 15:27	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/30/12 15:27	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/30/12 15:27	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/30/12 15:27	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 15:27	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/30/12 15:27	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/30/12 15:27	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/30/12 15:27	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/30/12 15:27	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 15:27	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/30/12 15:27	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/30/12 15:27	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/30/12 15:27	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/30/12 15:27	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/30/12 15:27	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/30/12 15:27	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/30/12 15:27	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/30/12 15:27	1
Styrene	0.11	U	1.0	0.11	ug/L			05/30/12 15:27	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/30/12 15:27	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/30/12 15:27	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/30/12 15:27	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/30/12 15:27	1
Toluene	0.33	U	1.0	0.33	ug/L			05/30/12 15:27	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/30/12 15:27	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/30/12 15:27	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/30/12 15:27	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/30/12 15:27	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/30/12 15:27	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/30/12 15:27	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/30/12 15:27	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/30/12 15:27	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:27	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/30/12 15:27	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/30/12 15:27	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/30/12 15:27	1

Client Sample Results

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-16-5-12
Date Collected: 05/18/12 16:40
Date Received: 05/22/12 09:36

Lab Sample ID: 680-79687-10
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		70 - 130		05/30/12 15:27	1
Dibromofluoromethane	94		70 - 130		05/30/12 15:27	1
Toluene-d8 (Surr)	102		70 - 130		05/30/12 15:27	1

Surrogate Summary

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

TestAmerica Job ID: 680-79687-1

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)
680-79687-1	LMW-9-5-12	96	104	106
680-79687-2	LMW-Dup-1-5-12	98	104	107
680-79687-3	LMW-8-5-12	97	103	104
680-79687-4	LMW-BLK-1-5-12	96	103	109
680-79687-5	LMW-3S-5-12	98	103	107
680-79687-6	Trip Blank	97	90	104
680-79687-7	LMW-3-5-12	96	102	107
680-79687-8	LMW-7-5-12	96	104	106
680-79687-9	LMW-6-5-12	95	88	102
680-79687-10	LMW-16-5-12	98	94	102
LCS 680-238833/4	Lab Control Sample	106	97	107
LCS 680-238853/4	Lab Control Sample	102	105	109
LCSD 680-238833/5	Lab Control Sample Dup	104	93	102
LCSD 680-238853/5	Lab Control Sample Dup	103	104	108
MB 680-238833/7	Method Blank	102	91	106
MB 680-238853/7	Method Blank	98	103	107

Surrogate Legend

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

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*

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
Antimony	0.99	U	2.0	0.99	ug/L		05/24/12 08:00	05/25/12 03:31	1
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
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

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
Copper	0.21	U	1.0	0.21	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
Silver	0.10	U	0.20	0.10	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
Thallium	0.10	U	0.20	0.10	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
Antimony	10.0	12.2		ug/L		122	75 - 125
Arsenic	20.0	22.1		ug/L		110	75 - 125
Barium	20.0	21.3		ug/L		106	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
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
Silver	10.0	11.2		ug/L		112	75 - 125
Vanadium	20.0	19.0		ug/L		95	75 - 125
Zinc	20.0	23.7		ug/L		119	75 - 125
Thallium	8.00	8.29		ug/L		104	75 - 125

Lab Sample ID: 680-79687-L-20-B MS — **Client Sample ID: Matrix Spike**
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
Antimony	0.99	U	10.0	11.8		ug/L		118	75 - 125
Arsenic	0.40	U	20.0	20.5		ug/L		102	75 - 125
Barium	41		20.0	60.9		ug/L		98	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
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
Silver	0.10	U	10.0	10.3		ug/L		103	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
Thallium	0.10	U	8.00	7.95		ug/L		99	75 - 125

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

Lab Sample ID: 680-79687-L-20-C MSD — **Client Sample ID: Matrix Spike Duplicate**
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
Antimony	0.99	U	10.0	12.1		ug/L		121	75 - 125	3	20
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
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
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
Silver	0.10	U	10.0	10.6		ug/L		106	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
Thallium	0.10	U	8.00	8.05		ug/L		101	75 - 125	1	20

Method: 300.0 - Anions, Ion Chromatography

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-M-20 MS — **Client Sample ID: Matrix Spike**
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

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-79687-M-20 MSD
Matrix: Water
Analysis Batch: 238396

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

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

QC Association Summary

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

TestAmerica Job ID: 680-79687-1

GC/MS VOA

Analysis Batch: 238833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-6	Trip Blank	Total/NA	Water	8260B	
680-79687-9	LMW-6-5-12	Total/NA	Water	8260B	
680-79687-10	LMW-16-5-12	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
680-79687-1	LMW-9-5-12	Total/NA	Water	8260B	
680-79687-2	LMW-Dup-1-5-12	Total/NA	Water	8260B	
680-79687-3	LMW-8-5-12	Total/NA	Water	8260B	
680-79687-4	LMW-BLK-1-5-12	Total/NA	Water	8260B	
680-79687-5	LMW-3S-5-12	Total/NA	Water	8260B	
680-79687-7	LMW-3-5-12	Total/NA	Water	8260B	
680-79687-8	LMW-7-5-12	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	

Metals

Prep Batch: 238259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-1	LMW-9-5-12	Total/NA	Water	3030C	
680-79687-2	LMW-Dup-1-5-12	Total/NA	Water	3030C	
680-79687-3	LMW-8-5-12	Total/NA	Water	3030C	
680-79687-4	LMW-BLK-1-5-12	Total/NA	Water	3030C	
680-79687-L-20-B MS	Matrix Spike	Total/NA	Water	3030C	
680-79687-L-20-C MSD	Matrix Spike Duplicate	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
680-79687-1	LMW-9-5-12	Total/NA	Water	6020A	238259
680-79687-2	LMW-Dup-1-5-12	Total/NA	Water	6020A	238259
680-79687-3	LMW-8-5-12	Total/NA	Water	6020A	238259
680-79687-4	LMW-BLK-1-5-12	Total/NA	Water	6020A	238259
680-79687-L-20-B MS	Matrix Spike	Total/NA	Water	6020A	238259
680-79687-L-20-C MSD	Matrix Spike Duplicate	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: 238396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-1	LMW-9-5-12	Total/NA	Water	300.0	
680-79687-2	LMW-Dup-1-5-12	Total/NA	Water	300.0	
680-79687-3	LMW-8-5-12	Total/NA	Water	300.0	
680-79687-4	LMW-BLK-1-5-12	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 238396 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79687-M-20 MS	Matrix Spike	Total/NA	Water	300.0	
680-79687-M-20 MSD	Matrix Spike Duplicate	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	

Lab Chronicle

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: LMW-9-5-12 — Lab Sample ID: 680-79687-1

Date Collected: 05/21/12 10:15 — **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 13:47	RB	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 03:46	BR	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 13:25	PAT	TAL SAV

Client Sample ID: LMW-Dup-1-5-12 — Lab Sample ID: 680-79687-2

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	Analysis	8260B		1	238853	05/30/12 14:16	RB	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 03:53	BR	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 11:53	PAT	TAL SAV

Client Sample ID: LMW-8-5-12 — Lab Sample ID: 680-79687-3

Date Collected: 05/21/12 11:38 — **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 14:44	RB	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 04:01	BR	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 11:22	PAT	TAL SAV

Client Sample ID: LMW-BLK-1-5-12 — Lab Sample ID: 680-79687-4

Date Collected: 05/21/12 12:15 — **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 15:13	RB	TAL SAV
Total/NA	Prep	3030C			238259	05/24/12 08:00	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 04:08	BR	TAL SAV
Total/NA	Analysis	300.0		5	238396	05/23/12 12:08	PAT	TAL SAV

Client Sample ID: LMW-3S-5-12 — Lab Sample ID: 680-79687-5

Date Collected: 05/18/12 10:05 — **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 15:42	RB	TAL SAV

Lab Chronicle

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

TestAmerica Job ID: 680-79687-1

Client Sample ID: Trip Blank — Lab Sample ID: 680-79687-6

Date Collected: 05/18/12 10:00 — **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	238833	05/30/12 14:30	RB	TAL SAV

Client Sample ID: LMW-3-5-12 — Lab Sample ID: 680-79687-7

Date Collected: 05/18/12 11:55 — **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	Analysis	8260B		1	238853	05/30/12 17:08	RB	TAL SAV

Client Sample ID: LMW-7-5-12 — Lab Sample ID: 680-79687-8

Date Collected: 05/18/12 13:51 — **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 16:39	RB	TAL SAV

Client Sample ID: LMW-6-5-12 — Lab Sample ID: 680-79687-9

Date Collected: 05/18/12 15:14 — **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 14:59	RB	TAL SAV

Client Sample ID: LMW-16-5-12 — Lab Sample ID: 680-79687-10

Date Collected: 05/18/12 16:40 — **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 15:27	RB	TAL SAV

Laboratory References:

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

Serial Number 51623

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	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER Linda Wolf	P.O. NUMBER BPA #0048	CONTRACT NO.	STANDARD REPORT DELIVERY (✓)
CLIENT (SITE) PM Kevin Haborak	CLIENT PHONE 912-652-6083	CLIENT FAX	DATE DUE
CLIENT NAME USACE	CLIENT E-MAIL		EXPEDITED REPORT DELIVERY (SURCHARGE) ( )
CLIENT ADDRESS 100 West Oglethorpe Ave Savannah GA			DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable)			NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

REQUIRED ANALYSIS: 6020 A Appl (HNO3); 300-48 HR (Tc°)

PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	6020 A Appl	300-48 HR	REMARKS
5-21-12	1015	LMW-9-5-12	G	X				1	1	
5-21-12	1200	LMW-Dup-5-12	G	X				1	1	
5-21-12	1138	LMW-8-5-12	G	X				1	1	
5-21-12	1215	LMW-BLK-1-5-12	G	X				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 ( )		680-79657	2.6/2.8/2.4/2.4/2.6/2.3/3.0/3.1/2.2°C

TAL 8240-680 (1008)

Serial Number 51634

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 Haborak	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 _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS: 82608

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
5-18-12	1005	LMW-3s-5-12	G	X				3	
5-18-12	1000	Trip Blank	G	X				2	
5-18-12	1155	LMW-3-5-12	G	X				3	
5-18-12	1351	LMW-7-5-12	G	X				3	
5-18-12	1514	LMW-6-5-12	G	X				3	
5-18-12	1640	LMW-16-5-12	G	X				3	
5-21-12	1015	LMW-9-5-12	G	X				3	
5-21-12	1200	LMW-Dup-1-5-12	G	X				3	
5-21-12	1138	LMW-8-5-12	G	X				3	
5-21-12	1215	LMW-BLK-1-5-12	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	0906	YES ( ) NO ( )		180-74187	

TAL 8240-680 (1008)

Certification Summary

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

TestAmerica Job ID: 680-79687-1

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

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: 680-79656-1
Client Project/Site: Fort Bragg Lamont

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

Attn: Mr. Kevin Haborak

Authorized for release by:
5/29/2012 5:39:35 PM

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

LINKS

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Have a Question? Ask The Expert

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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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Job ID: 680-79656-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: U.S. Army Corps of Engineers

Project: Fort Bragg Lamont

Report Number: 680-79656-1

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 05/19/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.6 C.

METALS (ICPMS)
Samples LMW-3s-5-12 (680-79656-1), LMW-3-5-12 (680-79656-2), LMW-7-5-12 (680-79656-3), LMW-6-5-12 (680-79656-4) and LMW-16-5-12 (680-79656-5) were analyzed for Metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 05/21/2012 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)
Samples LMW-3s-5-12 (680-79656-1), LMW-3-5-12 (680-79656-2), LMW-7-5-12 (680-79656-3), LMW-6-5-12 (680-79656-4) and LMW-16-5-12 (680-79656-5) were analyzed for Anions (Nitrate) in accordance with EPA Method 300.0. The samples were analyzed on 05/19/2012.

Samples LMW-3s-5-12 (680-79656-1)[5X], LMW-3-5-12 (680-79656-2)[5X], LMW-7-5-12 (680-79656-3)[5X], LMW-6-5-12 (680-79656-4)[5X] and LMW-16-5-12 (680-79656-5)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the Anions analyses.

All quality control parameters were within the acceptance limits.

Sample Summary

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

TestAmerica Job ID: 680-79656-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-79656-1	LMW-3s-5-12	Water	05/18/12 10:05	05/19/12 10:44
680-79656-2	LMW-3-5-12	Water	05/18/12 11:55	05/19/12 10:44
680-79656-3	LMW-7-5-12	Water	05/18/12 13:51	05/19/12 10:44
680-79656-4	LMW-6-5-12	Water	05/18/12 15:14	05/19/12 10:44
680-79656-5	LMW-16-5-12	Water	05/18/12 16:40	05/19/12 10:44

Method Summary

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

TestAmerica Job ID: 680-79656-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	TAL SAV
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV

Protocol References:

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

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

Laboratory References:

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

Definitions/Glossary

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

TestAmerica Job ID: 680-79656-1

Qualifiers

Metals

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

General Chemistry

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

Glossary

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

TestAmerica Job ID: 680-79656-1

Client Sample ID: LMW-3s-5-12 — Lab Sample ID: 680-79656-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	13		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.52		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.81	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	2.8		1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	11		10	2.6	ug/L	1		6020A	Total/NA
Nitrate-NO3	0.82	J	1.1	0.36	mg/L	5		300.0	Total/NA

Client Sample ID: LMW-3-5-12 — Lab Sample ID: 680-79656-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	4.6		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.18	J	0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.78	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.51	J	1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	4.0	J	10	2.6	ug/L	1		6020A	Total/NA
Nitrate-NO3	0.66	J	1.1	0.36	mg/L	5		300.0	Total/NA

Client Sample ID: LMW-7-5-12 — Lab Sample ID: 680-79656-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	7.6		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.094	J	0.20	0.070	ug/L	1		6020A	Total/NA
Cadmium	0.24	J	0.50	0.20	ug/L	1		6020A	Total/NA
Cobalt	0.29		0.20	0.078	ug/L	1		6020A	Total/NA
Chromium	0.37	J	1.0	0.16	ug/L	1		6020A	Total/NA
Copper	2.1		1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.40		0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	4.2		1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	11		10	2.6	ug/L	1		6020A	Total/NA
Nitrate-NO3	0.36	J	1.1	0.36	mg/L	5		300.0	Total/NA

Client Sample ID: LMW-6-5-12 — Lab Sample ID: 680-79656-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	36		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.075	J	0.20	0.070	ug/L	1		6020A	Total/NA
Cobalt	0.46		0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.49	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.64	J	1.0	0.40	ug/L	1		6020A	Total/NA
Selenium	3.2		0.50	0.21	ug/L	1		6020A	Total/NA
Zinc	2.9	J	10	2.6	ug/L	1		6020A	Total/NA
Nitrate-NO3	5.5		1.1	0.36	mg/L	5		300.0	Total/NA

Client Sample ID: LMW-16-5-12 — Lab Sample ID: 680-79656-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.8		1.0	0.40	ug/L	1		6020A	Total/NA
Barium	9.2		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.14	J	0.20	0.078	ug/L	1		6020A	Total/NA
Copper	0.27	J	1.0	0.21	ug/L	1		6020A	Total/NA
Nickel	0.55	J	1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	3.8	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample Results

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

TestAmerica Job ID: 680-79656-1

Client Sample ID: LMW-3s-5-12

Lab Sample ID: 680-79656-1

Date Collected: 05/18/12 10:05
Date Received: 05/19/12 10:44

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/21/12 09:43	05/25/12 01:57	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/21/12 09:43	05/25/12 01:57	1
Barium	**13**		1.0	0.15	ug/L		05/21/12 09:43	05/25/12 01:57	1
Beryllium	0.070	U J	0.20	0.070	ug/L		05/21/12 09:43	05/25/12 01:57	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/21/12 09:43	05/25/12 01:57	1
Cobalt	**0.52**		0.20	0.078	ug/L		05/21/12 09:43	05/25/12 01:57	1
Chromium	0.16	U	1.0	0.16	ug/L		05/21/12 09:43	05/25/12 01:57	1
Copper	**0.81**	**J**	1.0	0.21	ug/L		05/21/12 09:43	05/25/12 01:57	1
Lead	0.080	U	0.30	0.080	ug/L		05/21/12 09:43	05/25/12 01:57	1
Nickel	**2.8**		1.0	0.40	ug/L		05/21/12 09:43	05/25/12 01:57	1
Selenium	0.21	U J	0.50	0.21	ug/L		05/21/12 09:43	05/25/12 01:57	1
Silver	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 01:57	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/21/12 09:43	05/25/12 01:57	1
Zinc	**11**		10	2.6	ug/L		05/21/12 09:43	05/25/12 01:57	1
Thallium	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 01:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	**0.82**	**J**	1.1	0.36	mg/L			05/19/12 13:22	5

Client Sample ID: LMW-3-5-12

Lab Sample ID: 680-79656-2

Date Collected: 05/18/12 11:55
Date Received: 05/19/12 10:44

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/21/12 09:43	05/25/12 02:33	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/21/12 09:43	05/25/12 02:33	1
Barium	**4.6**		1.0	0.15	ug/L		05/21/12 09:43	05/25/12 02:33	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/21/12 09:43	05/25/12 02:33	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/21/12 09:43	05/25/12 02:33	1
Cobalt	**0.18**	**J**	0.20	0.078	ug/L		05/21/12 09:43	05/25/12 02:33	1
Chromium	0.16	U	1.0	0.16	ug/L		05/21/12 09:43	05/25/12 02:33	1
Copper	**0.78**	**J**	1.0	0.21	ug/L		05/21/12 09:43	05/25/12 02:33	1
Lead	0.080	U	0.30	0.080	ug/L		05/21/12 09:43	05/25/12 02:33	1
Nickel	**0.51**	**J**	1.0	0.40	ug/L		05/21/12 09:43	05/25/12 02:33	1
Selenium	0.21	U	0.50	0.21	ug/L		05/21/12 09:43	05/25/12 02:33	1
Silver	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 02:33	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/21/12 09:43	05/25/12 02:33	1
Zinc	**4.0**	**J**	10	2.6	ug/L		05/21/12 09:43	05/25/12 02:33	1
Thallium	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 02:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	**0.66**	**J**	1.1	0.36	mg/L			05/19/12 14:08	5

Client Sample Results

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

TestAmerica Job ID: 680-79656-1

Client Sample ID: LMW-7-5-12

Lab Sample ID: 680-79656-3

Date Collected: 05/18/12 13:51
Matrix: Water
Date Received: 05/19/12 10:44

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/21/12 09:43	05/25/12 02:40	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/21/12 09:43	05/25/12 02:40	1
Barium	**7.6**		1.0	0.15	ug/L		05/21/12 09:43	05/25/12 02:40	1
Beryllium	**0.094**	**J**	0.20	0.070	ug/L		05/21/12 09:43	05/25/12 02:40	1
Cadmium	**0.24**	**J**	0.50	0.20	ug/L		05/21/12 09:43	05/25/12 02:40	1
Cobalt	**0.29**		0.20	0.078	ug/L		05/21/12 09:43	05/25/12 02:40	1
Chromium	**0.37**	**J**	1.0	0.16	ug/L		05/21/12 09:43	05/25/12 02:40	1
Copper	**2.1**		1.0	0.21	ug/L		05/21/12 09:43	05/25/12 02:40	1
Lead	**0.40**		0.30	0.080	ug/L		05/21/12 09:43	05/25/12 02:40	1
Nickel	**4.2**		1.0	0.40	ug/L		05/21/12 09:43	05/25/12 02:40	1
Selenium	0.21	U	0.50	0.21	ug/L		05/21/12 09:43	05/25/12 02:40	1
Silver	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 02:40	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/21/12 09:43	05/25/12 02:40	1
Zinc	**11**		10	2.6	ug/L		05/21/12 09:43	05/25/12 02:40	1
Thallium	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 02:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	**0.36**	**J**	1.1	0.36	mg/L			05/19/12 14:24	5

Client Sample ID: LMW-6-5-12

Lab Sample ID: 680-79656-4

Date Collected: 05/18/12 15:14
Matrix: Water
Date Received: 05/19/12 10:44

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/21/12 09:43	05/25/12 02:48	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/21/12 09:43	05/25/12 02:48	1
Barium	**36**		1.0	0.15	ug/L		05/21/12 09:43	05/25/12 02:48	1
Beryllium	**0.075**	**J**	0.20	0.070	ug/L		05/21/12 09:43	05/25/12 02:48	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/21/12 09:43	05/25/12 02:48	1
Cobalt	**0.46**		0.20	0.078	ug/L		05/21/12 09:43	05/25/12 02:48	1
Chromium	0.16	U	1.0	0.16	ug/L		05/21/12 09:43	05/25/12 02:48	1
Copper	**0.49**	**J**	1.0	0.21	ug/L		05/21/12 09:43	05/25/12 02:48	1
Lead	0.080	U	0.30	0.080	ug/L		05/21/12 09:43	05/25/12 02:48	1
Nickel	**0.64**	**J**	1.0	0.40	ug/L		05/21/12 09:43	05/25/12 02:48	1
Selenium	**3.2**		0.50	0.21	ug/L		05/21/12 09:43	05/25/12 02:48	1
Silver	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 02:48	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/21/12 09:43	05/25/12 02:48	1
Zinc	**2.9**	**J**	10	2.6	ug/L		05/21/12 09:43	05/25/12 02:48	1
Thallium	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 02:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	**5.5**		1.1	0.36	mg/L			05/19/12 14:39	5

Client Sample Results

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

TestAmerica Job ID: 680-79656-1

Client Sample ID: LMW-16-5-12

Lab Sample ID: 680-79656-5

Date Collected: 05/18/12 16:40

Matrix: Water

Date Received: 05/19/12 10:44

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/21/12 09:43	05/25/12 03:10	1
Arsenic	**1.8**		1.0	0.40	ug/L		05/21/12 09:43	05/25/12 03:10	1
Barium	**9.2**		1.0	0.15	ug/L		05/21/12 09:43	05/25/12 03:10	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/21/12 09:43	05/25/12 03:10	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/21/12 09:43	05/25/12 03:10	1
Cobalt	**0.14**	**J**	0.20	0.078	ug/L		05/21/12 09:43	05/25/12 03:10	1
Chromium	0.16	U	1.0	0.16	ug/L		05/21/12 09:43	05/25/12 03:10	1
Copper	**0.27**	**J**	1.0	0.21	ug/L		05/21/12 09:43	05/25/12 03:10	1
Lead	0.080	U	0.30	0.080	ug/L		05/21/12 09:43	05/25/12 03:10	1
Nickel	**0.55**	**J**	1.0	0.40	ug/L		05/21/12 09:43	05/25/12 03:10	1
Selenium	0.21	U	0.50	0.21	ug/L		05/21/12 09:43	05/25/12 03:10	1
Silver	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 03:10	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/21/12 09:43	05/25/12 03:10	1
Zinc	**3.8**	**J**	10	2.6	ug/L		05/21/12 09:43	05/25/12 03:10	1
Thallium	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 03:10	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			05/19/12 14:54	5

QC Sample Results

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

TestAmerica Job ID: 680-79656-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-237944/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 237944**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/21/12 09:43	05/25/12 01:42	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/21/12 09:43	05/25/12 01:42	1
Barium	0.15	U	1.0	0.15	ug/L		05/21/12 09:43	05/25/12 01:42	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/21/12 09:43	05/25/12 01:42	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/21/12 09:43	05/25/12 01:42	1
Cobalt	0.078	U	0.20	0.078	ug/L		05/21/12 09:43	05/25/12 01:42	1
Chromium	0.16	U	1.0	0.16	ug/L		05/21/12 09:43	05/25/12 01:42	1
Copper	0.21	U	1.0	0.21	ug/L		05/21/12 09:43	05/25/12 01:42	1
Lead	0.080	U	0.30	0.080	ug/L		05/21/12 09:43	05/25/12 01:42	1
Nickel	0.40	U	1.0	0.40	ug/L		05/21/12 09:43	05/25/12 01:42	1
Selenium	0.21	U	0.50	0.21	ug/L		05/21/12 09:43	05/25/12 01:42	1
Silver	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 01:42	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/21/12 09:43	05/25/12 01:42	1
Zinc	2.6	U	10	2.6	ug/L		05/21/12 09:43	05/25/12 01:42	1
Thallium	0.10	U	0.20	0.10	ug/L		05/21/12 09:43	05/25/12 01:42	1

Lab Sample ID: LCS 680-237944/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 237944**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	10.0	12.4		ug/L		124	75 - 125
Arsenic	20.0	22.2		ug/L		111	75 - 125
Barium	20.0	21.8		ug/L		109	75 - 125
Beryllium	10.0	11.5		ug/L		115	75 - 125
Cadmium	10.0	11.7		ug/L		117	75 - 125
Cobalt	10.0	10.5		ug/L		105	75 - 125
Chromium	20.0	19.3		ug/L		97	75 - 125
Copper	20.0	20.7		ug/L		103	75 - 125
Lead	10.0	11.5		ug/L		115	75 - 125
Nickel	20.0	20.4		ug/L		102	75 - 125
Selenium	20.0	22.9		ug/L		115	75 - 125
Silver	10.0	11.8		ug/L		118	75 - 125
Vanadium	20.0	19.2		ug/L		96	75 - 125
Zinc	20.0	23.2		ug/L		116	75 - 125
Thallium	8.00	8.64		ug/L		108	75 - 125

Lab Sample ID: 680-79656-1 MS — **Client Sample ID: LMW-3s-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 237944**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.99	U	10.0	12.5		ug/L		125	75 - 125
Arsenic	0.40	U	20.0	22.9		ug/L		115	75 - 125
Barium	13		20.0	34.7		ug/L		107	75 - 125
Beryllium	0.070	U J	10.0	12.4		ug/L		124	75 - 125
Cadmium	0.20	U	10.0	12.3		ug/L		123	75 - 125
Cobalt	0.52		10.0	10.7		ug/L		101	75 - 125
Chromium	0.16	U	20.0	19.1		ug/L		95	75 - 125
Copper	0.81	J	20.0	23.3		ug/L		113	75 - 125

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

Lab Sample ID: 680-79656-1 MS — **Client Sample ID: LMW-3s-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 237944**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.080	U	10.0	11.3		ug/L		113	75 - 125
Nickel	2.8		20.0	22.4		ug/L		98	75 - 125
Selenium	0.21	U J	20.0	27.5	J	ug/L		137	75 - 125
Silver	0.10	U	10.0	11.4		ug/L		114	75 - 125
Vanadium	1.4	U	20.0	18.9		ug/L		94	75 - 125
Zinc	11		20.0	35.6		ug/L		123	75 - 125
Thallium	0.10	U	8.00	8.37		ug/L		105	75 - 125

Lab Sample ID: 680-79656-1 MSD — **Client Sample ID: LMW-3s-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238534 — **Prep Batch: 237944**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.99	U	10.0	12.3		ug/L		123	75 - 125	2	20
Arsenic	0.40	U	20.0	22.4		ug/L		112	75 - 125	2	20
Barium	13		20.0	34.1		ug/L		104	75 - 125	2	20
Beryllium	0.070	U J	10.0	12.6	J	ug/L		126	75 - 125	2	20
Cadmium	0.20	U	10.0	12.0		ug/L		120	75 - 125	2	20
Cobalt	0.52		10.0	10.6		ug/L		100	75 - 125	1	20
Chromium	0.16	U	20.0	18.8		ug/L		94	75 - 125	1	20
Copper	0.81	J	20.0	20.7		ug/L		99	75 - 125	12	20
Lead	0.080	U	10.0	11.1		ug/L		111	75 - 125	2	20
Nickel	2.8		20.0	21.9		ug/L		96	75 - 125	2	20
Selenium	0.21	U J	20.0	27.0	J	ug/L		135	75 - 125	2	20
Silver	0.10	U	10.0	11.1		ug/L		111	75 - 125	2	20
Vanadium	1.4	U	20.0	18.6		ug/L		93	75 - 125	2	20
Zinc	11		20.0	36.0		ug/L		125	75 - 125	1	20
Thallium	0.10	U	8.00	8.23		ug/L		103	75 - 125	2	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-237991/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237991

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/19/12 12:36	5

Lab Sample ID: LCS 680-237991/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237991

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-NO3	22.1	21.0		mg/L		95	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 680-237991/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237991

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3			22.1	20.8		mg/L		94	90 - 110	1	30

Lab Sample ID: 680-79656-1 MS — **Client Sample ID: LMW-3s-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237991

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate-NO3	0.82	J	22.1	22.4		mg/L		98	90 - 110		

Lab Sample ID: 680-79656-1 MSD — **Client Sample ID: LMW-3s-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237991

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3	0.82	J	22.1	22.4		mg/L		98	90 - 110	0	30

QC Association Summary

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

TestAmerica Job ID: 680-79656-1

Metals

Prep Batch: 237944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79656-1	LMW-3s-5-12	Total/NA	Water	3030C	
680-79656-1 MS	LMW-3s-5-12	Total/NA	Water	3030C	
680-79656-1 MSD	LMW-3s-5-12	Total/NA	Water	3030C	
680-79656-2	LMW-3-5-12	Total/NA	Water	3030C	
680-79656-3	LMW-7-5-12	Total/NA	Water	3030C	
680-79656-4	LMW-6-5-12	Total/NA	Water	3030C	
680-79656-5	LMW-16-5-12	Total/NA	Water	3030C	
LCS 680-237944/2-A	Lab Control Sample	Total/NA	Water	3030C	
MB 680-237944/1-A	Method Blank	Total/NA	Water	3030C	

Analysis Batch: 238534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79656-1	LMW-3s-5-12	Total/NA	Water	6020A	237944
680-79656-1 MS	LMW-3s-5-12	Total/NA	Water	6020A	237944
680-79656-1 MSD	LMW-3s-5-12	Total/NA	Water	6020A	237944
680-79656-2	LMW-3-5-12	Total/NA	Water	6020A	237944
680-79656-3	LMW-7-5-12	Total/NA	Water	6020A	237944
680-79656-4	LMW-6-5-12	Total/NA	Water	6020A	237944
680-79656-5	LMW-16-5-12	Total/NA	Water	6020A	237944
LCS 680-237944/2-A	Lab Control Sample	Total/NA	Water	6020A	237944
MB 680-237944/1-A	Method Blank	Total/NA	Water	6020A	237944

General Chemistry

Analysis Batch: 237991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79656-1	LMW-3s-5-12	Total/NA	Water	300.0	
680-79656-1 MS	LMW-3s-5-12	Total/NA	Water	300.0	
680-79656-1 MSD	LMW-3s-5-12	Total/NA	Water	300.0	
680-79656-2	LMW-3-5-12	Total/NA	Water	300.0	
680-79656-3	LMW-7-5-12	Total/NA	Water	300.0	
680-79656-4	LMW-6-5-12	Total/NA	Water	300.0	
680-79656-5	LMW-16-5-12	Total/NA	Water	300.0	
LCS 680-237991/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-237991/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-237991/2	Method Blank	Total/NA	Water	300.0	

Lab Chronicle

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

TestAmerica Job ID: 680-79656-1

Client Sample ID: LMW-3s-5-12 — Lab Sample ID: 680-79656-1

Date Collected: 05/18/12 10:05 — **Matrix: Water**
Date Received: 05/19/12 10:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237944	05/21/12 09:43	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 01:57	BR	TAL SAV
Total/NA	Analysis	300.0		5	237991	05/19/12 13:22	PAT	TAL SAV

Client Sample ID: LMW-3-5-12 — Lab Sample ID: 680-79656-2

Date Collected: 05/18/12 11:55 — **Matrix: Water**
Date Received: 05/19/12 10:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237944	05/21/12 09:43	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 02:33	BR	TAL SAV
Total/NA	Analysis	300.0		5	237991	05/19/12 14:08	PAT	TAL SAV

Client Sample ID: LMW-7-5-12 — Lab Sample ID: 680-79656-3

Date Collected: 05/18/12 13:51 — **Matrix: Water**
Date Received: 05/19/12 10:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237944	05/21/12 09:43	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 02:40	BR	TAL SAV
Total/NA	Analysis	300.0		5	237991	05/19/12 14:24	PAT	TAL SAV

Client Sample ID: LMW-6-5-12 — Lab Sample ID: 680-79656-4

Date Collected: 05/18/12 15:14 — **Matrix: Water**
Date Received: 05/19/12 10:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237944	05/21/12 09:43	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 02:48	BR	TAL SAV
Total/NA	Analysis	300.0		5	237991	05/19/12 14:39	PAT	TAL SAV

Client Sample ID: LMW-16-5-12 — Lab Sample ID: 680-79656-5

Date Collected: 05/18/12 16:40 — **Matrix: Water**
Date Received: 05/19/12 10:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237944	05/21/12 09:43	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238534	05/25/12 03:10	BR	TAL SAV
Total/NA	Analysis	300.0		5	237991	05/19/12 14:54	PAT	TAL SAV

Laboratory References:

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

Serial Number 51629

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	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER Linda Wolfe	P.O. NUMBER BPA # 0048	CONTRACT NO.	STANDARD REPORT DELIVERY (✓)
CLIENT (SITE) PM Kevin Huberak	CLIENT PHONE 912-652-6083	CLIENT FAX	DATE DUE
CLIENT NAME USACE	CLIENT E-MAIL		EXPEDITED REPORT DELIVERY (SURCHARGE) ( )
CLIENT ADDRESS 100 West Oglethorpe Ave Savannah GA			DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable)			NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

REQUIRED ANALYSIS: 6020A-A2L; 300-48HR; HNO3; Ice; PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	6020A-A2L	300-48HR	REMARKS
5-18-12	1005	LMW-35-5-12	G	X				1	1	
5-18-12	1155	LMW-3-5-12	G	X				1	1	
5-18-12	1351	LMW-7-5-12	G	X				1	1	
5-18-12	1514	LMW-6-5-12	G	X				1	1	
5-18-12	1640	LMW-16-5-12	G	X				1	1	

5-18-12

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	5-18-12	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
Bertha Daughtry	5/19/12	1044	YES ( ) NO ( )		680-79656	Temp 1.6°C

TAL 8240-680 (1008)

Certification Summary

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

TestAmerica Job ID: 680-79656-1

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	State Program	6	N/A
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

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: 680-79621-1
Client Project/Site: Fort Bragg - Lamont

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

Attn: Mr. Kevin Haborak

Authorized for release by:
5/29/2012 5:25:49 PM

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

LINKS

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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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Job ID: 680-79621-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: U.S. Army Corps of Engineers

Project: Fort Bragg - Lamont

Report Number: 680-79621-1

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 05/18/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.8 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples Trip Blank (680-79621-3), LMW-14R-5-12 (680-79621-4), LMW-15R-5-12 (680-79621-5), LMW-9S-5-12 (680-79621-6), LMW-9D-5-12 (680-79621-7), LMW-10-5-12 (680-79621-8) and LMW-4-5-12 (680-79621-9) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/28/2012.

1,2,4-Trichlorobenzene was detected in method blank MB 680-238612/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. This compound was not detected in the associated samples. 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.

METALS (ICPMS)
Samples LMW-10-5-12 (680-79621-1) and LMW-4-5-12 (680-79621-2) were analyzed for Metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared and analyzed on 05/19/2012.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

ANIONS (NITRATE)
Samples LMW-10-5-12 (680-79621-1) and LMW-4-5-12 (680-79621-2) were analyzed for Anions (Nitrate) in accordance with EPA Method 300.0. The samples were analyzed on 05/18/2012.

Samples LMW-10-5-12 (680-79621-1)[5X] and LMW-4-5-12 (680-79621-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the Anions analyses.

Job ID: 680-79621-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

All quality control parameters were within the acceptance limits.

Sample Summary

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

TestAmerica Job ID: 680-79621-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-79621-1	LMW-10-5-12	Water	05/17/12 09:26	05/18/12 09:37
680-79621-2	LMW-4-5-12	Water	05/17/12 11:05	05/18/12 09:37
680-79621-3	Trip Blank	Water	05/16/12 08:00	05/18/12 09:37
680-79621-4	LMW-14R-5-12	Water	05/16/12 09:45	05/18/12 09:37
680-79621-5	LMW-15R-5-12	Water	05/16/12 10:59	05/18/12 09:37
680-79621-6	LMW-9S-5-12	Water	05/16/12 14:11	05/18/12 09:37
680-79621-7	LMW-9D-5-12	Water	05/16/12 16:19	05/18/12 09:37
680-79621-8	LMW-10-5-12	Water	05/17/12 09:26	05/18/12 09:37
680-79621-9	LMW-4-5-12	Water	05/17/12 11:05	05/18/12 09:37

Method Summary

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

TestAmerica Job ID: 680-79621-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
6020A	Metals (ICP/MS)	SW846	TAL SAV
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV

Protocol References:

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

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

Laboratory References:

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

Definitions/Glossary

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

TestAmerica Job ID: 680-79621-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
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.

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 - Lamont

TestAmerica Job ID: 680-79621-1

Client Sample ID: LMW-10-5-12 — Lab Sample ID: 680-79621-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	23		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.25		0.20	0.078	ug/L	1		6020A	Total/NA
Chromium	0.44	J	1.0	0.16	ug/L	1		6020A	Total/NA
Lead	0.25	J	0.30	0.080	ug/L	1		6020A	Total/NA
Selenium	4.3		0.50	0.21	ug/L	1		6020A	Total/NA
Nitrate-NO3	1.3		1.1	0.36	mg/L	5		300.0	Total/NA

Client Sample ID: LMW-4-5-12 — Lab Sample ID: 680-79621-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	15		1.0	0.15	ug/L	1		6020A	Total/NA
Cobalt	0.26		0.20	0.078	ug/L	1		6020A	Total/NA
Chromium	0.23	J	1.0	0.16	ug/L	1		6020A	Total/NA
Copper	0.87	J	1.0	0.21	ug/L	1		6020A	Total/NA
Lead	0.30		0.30	0.080	ug/L	1		6020A	Total/NA
Nickel	0.62	J	1.0	0.40	ug/L	1		6020A	Total/NA
Zinc	6.0	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 680-79621-3

No Detections

Client Sample ID: LMW-14R-5-12 — Lab Sample ID: 680-79621-4

No Detections

Client Sample ID: LMW-15R-5-12 — Lab Sample ID: 680-79621-5

No Detections

Client Sample ID: LMW-9S-5-12 — Lab Sample ID: 680-79621-6

No Detections

Client Sample ID: LMW-9D-5-12 — Lab Sample ID: 680-79621-7

No Detections

Client Sample ID: LMW-10-5-12 — Lab Sample ID: 680-79621-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	6.7		1.0	0.25	ug/L	1		8260B	Total/NA
Methylene Chloride	1.8	J	5.0	1.0	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.28	J	1.0	0.15	ug/L	1		8260B	Total/NA
Trichloroethene	1.4		1.0	0.13	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	14		1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: LMW-4-5-12 — Lab Sample ID: 680-79621-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.66	J	1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	1.3		1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample Results

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

TestAmerica Job ID: 680-79621-1

Client Sample ID: LMW-10-5-12

Lab Sample ID: 680-79621-1

Date Collected: 05/17/12 09:26
Matrix: Water
Date Received: 05/18/12 09:37

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/19/12 09:54	05/19/12 19:24	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/19/12 09:54	05/19/12 19:24	1
Barium	**23**		1.0	0.15	ug/L		05/19/12 09:54	05/19/12 19:24	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/19/12 09:54	05/19/12 19:24	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/19/12 09:54	05/19/12 19:24	1
Cobalt	**0.25**		0.20	0.078	ug/L		05/19/12 09:54	05/19/12 19:24	1
Chromium	**0.44**	**J**	1.0	0.16	ug/L		05/19/12 09:54	05/19/12 19:24	1
Copper	0.21	U	1.0	0.21	ug/L		05/19/12 09:54	05/19/12 19:24	1
Lead	**0.25**	**J**	0.30	0.080	ug/L		05/19/12 09:54	05/19/12 19:24	1
Nickel	0.40	U	1.0	0.40	ug/L		05/19/12 09:54	05/19/12 19:24	1
Selenium	**4.3**		0.50	0.21	ug/L		05/19/12 09:54	05/19/12 19:24	1
Silver	0.10	U	0.20	0.10	ug/L		05/19/12 09:54	05/19/12 19:24	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/19/12 09:54	05/19/12 19:24	1
Zinc	2.6	U	10	2.6	ug/L		05/19/12 09:54	05/19/12 19:24	1
Thallium	0.10	U	0.20	0.10	ug/L		05/19/12 09:54	05/19/12 19:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	**1.3**		1.1	0.36	mg/L			05/18/12 12:51	5

Client Sample ID: LMW-4-5-12

Lab Sample ID: 680-79621-2

Date Collected: 05/17/12 11:05
Matrix: Water
Date Received: 05/18/12 09:37

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/19/12 09:54	05/19/12 19:58	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/19/12 09:54	05/19/12 19:58	1
Barium	**15**		1.0	0.15	ug/L		05/19/12 09:54	05/19/12 19:58	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/19/12 09:54	05/19/12 19:58	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/19/12 09:54	05/19/12 19:58	1
Cobalt	**0.26**		0.20	0.078	ug/L		05/19/12 09:54	05/19/12 19:58	1
Chromium	**0.23**	**J**	1.0	0.16	ug/L		05/19/12 09:54	05/19/12 19:58	1
Copper	**0.87**	**J**	1.0	0.21	ug/L		05/19/12 09:54	05/19/12 19:58	1
Lead	**0.30**		0.30	0.080	ug/L		05/19/12 09:54	05/19/12 19:58	1
Nickel	**0.62**	**J**	1.0	0.40	ug/L		05/19/12 09:54	05/19/12 19:58	1
Selenium	0.21	U	0.50	0.21	ug/L		05/19/12 09:54	05/19/12 19:58	1
Silver	0.10	U	0.20	0.10	ug/L		05/19/12 09:54	05/19/12 19:58	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/19/12 09:54	05/19/12 19:58	1
Zinc	**6.0**	**J**	10	2.6	ug/L		05/19/12 09:54	05/19/12 19:58	1
Thallium	0.10	U	0.20	0.10	ug/L		05/19/12 09:54	05/19/12 19:58	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			05/18/12 13:37	5

Client Sample Results

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

TestAmerica Job ID: 680-79621-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-79621-3

Date Collected: 05/16/12 08:00
Matrix: Water
Date Received: 05/18/12 09:37

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			05/28/12 01:20	1
Benzene	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/28/12 01:20	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/28/12 01:20	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/28/12 01:20	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/28/12 01:20	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/28/12 01:20	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/28/12 01:20	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/28/12 01:20	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/28/12 01:20	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/28/12 01:20	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/28/12 01:20	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/28/12 01:20	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/28/12 01:20	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/28/12 01:20	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 01:20	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/28/12 01:20	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/28/12 01:20	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/28/12 01:20	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/28/12 01:20	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/28/12 01:20	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/28/12 01:20	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 01:20	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 01:20	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/28/12 01:20	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/28/12 01:20	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/28/12 01:20	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 01:20	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/28/12 01:20	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/28/12 01:20	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/28/12 01:20	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/28/12 01:20	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/28/12 01:20	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 01:20	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/28/12 01:20	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/28/12 01:20	1
Styrene	0.11	U	1.0	0.11	ug/L			05/28/12 01:20	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/28/12 01:20	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/28/12 01:20	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/28/12 01:20	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 01:20	1
Toluene	0.33	U	1.0	0.33	ug/L			05/28/12 01:20	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/28/12 01:20	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/28/12 01:20	1

Client Sample ID: Trip Blank

Lab Sample ID: 680-79621-3

Date Collected: 05/16/12 08:00

Matrix: Water

Date Received: 05/18/12 09:37

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			05/28/12 01:20	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/28/12 01:20	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/28/12 01:20	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/28/12 01:20	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 01:20	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/28/12 01:20	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 01:20	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 01:20	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/28/12 01:20	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/28/12 01:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*		*05/28/12 01:20*	*1*
Dibromofluoromethane	*104*		*70 - 130*		*05/28/12 01:20*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*05/28/12 01:20*	*1*

Client Sample ID: LMW-14R-5-12

Lab Sample ID: 680-79621-4

Date Collected: 05/16/12 09:45

Matrix: Water

Date Received: 05/18/12 09:37

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			05/28/12 03:35	1
Benzene	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/28/12 03:35	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/28/12 03:35	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/28/12 03:35	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/28/12 03:35	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/28/12 03:35	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/28/12 03:35	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/28/12 03:35	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/28/12 03:35	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/28/12 03:35	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/28/12 03:35	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/28/12 03:35	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/28/12 03:35	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/28/12 03:35	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 03:35	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/28/12 03:35	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/28/12 03:35	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/28/12 03:35	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/28/12 03:35	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/28/12 03:35	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/28/12 03:35	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 03:35	1

Client Sample ID: LMW-14R-5-12

Lab Sample ID: 680-79621-4

Date Collected: 05/16/12 09:45

Matrix: Water

Date Received: 05/18/12 09:37

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 03:35	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/28/12 03:35	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/28/12 03:35	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/28/12 03:35	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 03:35	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/28/12 03:35	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/28/12 03:35	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/28/12 03:35	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/28/12 03:35	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/28/12 03:35	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 03:35	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/28/12 03:35	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/28/12 03:35	1
Styrene	0.11	U	1.0	0.11	ug/L			05/28/12 03:35	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/28/12 03:35	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/28/12 03:35	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/28/12 03:35	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 03:35	1
Toluene	0.33	U	1.0	0.33	ug/L			05/28/12 03:35	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/28/12 03:35	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/28/12 03:35	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/28/12 03:35	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/28/12 03:35	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/28/12 03:35	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/28/12 03:35	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 03:35	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/28/12 03:35	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 03:35	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 03:35	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/28/12 03:35	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/28/12 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*		*05/28/12 03:35*	*1*
Dibromofluoromethane	*103*		*70 - 130*		*05/28/12 03:35*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*05/28/12 03:35*	*1*

Client Sample ID: LMW-15R-5-12

Lab Sample ID: 680-79621-5

Date Collected: 05/16/12 10:59

Matrix: Water

Date Received: 05/18/12 09:37

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			05/28/12 03:58	1
Benzene	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/28/12 03:58	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/28/12 03:58	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/28/12 03:58	1

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

TestAmerica Job ID: 680-79621-1

Client Sample ID: LMW-15R-5-12
Date Collected: 05/16/12 10:59
Date Received: 05/18/12 09:37

Lab Sample ID: 680-79621-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/28/12 03:58	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/28/12 03:58	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/28/12 03:58	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/28/12 03:58	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/28/12 03:58	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/28/12 03:58	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/28/12 03:58	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/28/12 03:58	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/28/12 03:58	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/28/12 03:58	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 03:58	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/28/12 03:58	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/28/12 03:58	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/28/12 03:58	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/28/12 03:58	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/28/12 03:58	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/28/12 03:58	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 03:58	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 03:58	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/28/12 03:58	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/28/12 03:58	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/28/12 03:58	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 03:58	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/28/12 03:58	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/28/12 03:58	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/28/12 03:58	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/28/12 03:58	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/28/12 03:58	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 03:58	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/28/12 03:58	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/28/12 03:58	1
Styrene	0.11	U	1.0	0.11	ug/L			05/28/12 03:58	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/28/12 03:58	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/28/12 03:58	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/28/12 03:58	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 03:58	1
Toluene	0.33	U	1.0	0.33	ug/L			05/28/12 03:58	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/28/12 03:58	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/28/12 03:58	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/28/12 03:58	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/28/12 03:58	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/28/12 03:58	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/28/12 03:58	1

Client Sample ID: LMW-15R-5-12

Lab Sample ID: 680-79621-5

Date Collected: 05/16/12 10:59

Matrix: Water

Date Received: 05/18/12 09:37

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 03:58	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/28/12 03:58	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 03:58	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 03:58	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/28/12 03:58	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/28/12 03:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*		*05/28/12 03:58*	*1*
Dibromofluoromethane	*103*		*70 - 130*		*05/28/12 03:58*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*05/28/12 03:58*	*1*

Client Sample ID: LMW-9S-5-12

Lab Sample ID: 680-79621-6

Date Collected: 05/16/12 14:11

Matrix: Water

Date Received: 05/18/12 09:37

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			05/28/12 04:20	1
Benzene	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/28/12 04:20	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/28/12 04:20	1
Bromomethane	0.80	U J	1.0	0.80	ug/L			05/28/12 04:20	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/28/12 04:20	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/28/12 04:20	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/28/12 04:20	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/28/12 04:20	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/28/12 04:20	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/28/12 04:20	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/28/12 04:20	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/28/12 04:20	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/28/12 04:20	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/28/12 04:20	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 04:20	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/28/12 04:20	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/28/12 04:20	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/28/12 04:20	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/28/12 04:20	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/28/12 04:20	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/28/12 04:20	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 04:20	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 04:20	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/28/12 04:20	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/28/12 04:20	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1

Client Sample ID: LMW-9S-5-12

Lab Sample ID: 680-79621-6

Date Collected: 05/16/12 14:11

Matrix: Water

Date Received: 05/18/12 09:37

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/28/12 04:20	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 04:20	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/28/12 04:20	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/28/12 04:20	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/28/12 04:20	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/28/12 04:20	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/28/12 04:20	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 04:20	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/28/12 04:20	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/28/12 04:20	1
Styrene	0.11	U	1.0	0.11	ug/L			05/28/12 04:20	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/28/12 04:20	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/28/12 04:20	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/28/12 04:20	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 04:20	1
Toluene	0.33	U	1.0	0.33	ug/L			05/28/12 04:20	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/28/12 04:20	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/28/12 04:20	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/28/12 04:20	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/28/12 04:20	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/28/12 04:20	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/28/12 04:20	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 04:20	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/28/12 04:20	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 04:20	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 04:20	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/28/12 04:20	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/28/12 04:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*		*05/28/12 04:20*	*1*
Dibromofluoromethane	*105*		*70 - 130*		*05/28/12 04:20*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*05/28/12 04:20*	*1*

Client Sample ID: LMW-9D-5-12

Lab Sample ID: 680-79621-7

Date Collected: 05/16/12 16:19

Matrix: Water

Date Received: 05/18/12 09:37

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			05/28/12 04:43	1
Benzene	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/28/12 04:43	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/28/12 04:43	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/28/12 04:43	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/28/12 04:43	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/28/12 04:43	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/28/12 04:43	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/28/12 04:43	1

Client Sample ID: LMW-9D-5-12

Lab Sample ID: 680-79621-7

Date Collected: 05/16/12 16:19

Matrix: Water

Date Received: 05/18/12 09:37

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	1.0	U	1.0	1.0	ug/L			05/28/12 04:43	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/28/12 04:43	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/28/12 04:43	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/28/12 04:43	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/28/12 04:43	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/28/12 04:43	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 04:43	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/28/12 04:43	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/28/12 04:43	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/28/12 04:43	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/28/12 04:43	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/28/12 04:43	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/28/12 04:43	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 04:43	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 04:43	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/28/12 04:43	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/28/12 04:43	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/28/12 04:43	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 04:43	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/28/12 04:43	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/28/12 04:43	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/28/12 04:43	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/28/12 04:43	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/28/12 04:43	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 04:43	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/28/12 04:43	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/28/12 04:43	1
Styrene	0.11	U	1.0	0.11	ug/L			05/28/12 04:43	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/28/12 04:43	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/28/12 04:43	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/28/12 04:43	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 04:43	1
Toluene	0.33	U	1.0	0.33	ug/L			05/28/12 04:43	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/28/12 04:43	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/28/12 04:43	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/28/12 04:43	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/28/12 04:43	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/28/12 04:43	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/28/12 04:43	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 04:43	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/28/12 04:43	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 04:43	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 04:43	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/28/12 04:43	1

Client Sample ID: LMW-9D-5-12

Lab Sample ID: 680-79621-7

Date Collected: 05/16/12 16:19

Matrix: Water

Date Received: 05/18/12 09:37

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	0.24	U	10	0.24	ug/L			05/28/12 04:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 130*		*05/28/12 04:43*	*1*
Dibromofluoromethane	*102*		*70 - 130*		*05/28/12 04:43*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*05/28/12 04:43*	*1*

Client Sample ID: LMW-10-5-12

Lab Sample ID: 680-79621-8

Date Collected: 05/17/12 09:26

Matrix: Water

Date Received: 05/18/12 09:37

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			05/28/12 05:05	1
Benzene	0.25	U	1.0	0.25	ug/L			05/28/12 05:05	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/28/12 05:05	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/28/12 05:05	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/28/12 05:05	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/28/12 05:05	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/28/12 05:05	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 05:05	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/28/12 05:05	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/28/12 05:05	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/28/12 05:05	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/28/12 05:05	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/28/12 05:05	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/28/12 05:05	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/28/12 05:05	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/28/12 05:05	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 05:05	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/28/12 05:05	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/28/12 05:05	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/28/12 05:05	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 05:05	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/28/12 05:05	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/28/12 05:05	1
Dichlorodifluoromethane	**6.7**		1.0	0.25	ug/L			05/28/12 05:05	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/28/12 05:05	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/28/12 05:05	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/28/12 05:05	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 05:05	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 05:05	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/28/12 05:05	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/28/12 05:05	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/28/12 05:05	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/28/12 05:05	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/28/12 05:05	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 05:05	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/28/12 05:05	1
Methylene Chloride	**1.8**	**J**	5.0	1.0	ug/L			05/28/12 05:05	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/28/12 05:05	1

Client Sample ID: LMW-10-5-12

Lab Sample ID: 680-79621-8

Date Collected: 05/17/12 09:26

Matrix: Water

Date Received: 05/18/12 09:37

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/28/12 05:05	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/28/12 05:05	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 05:05	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/28/12 05:05	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/28/12 05:05	1
Styrene	0.11	U	1.0	0.11	ug/L			05/28/12 05:05	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/28/12 05:05	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/28/12 05:05	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/28/12 05:05	1
Tetrachloroethene	**0.28**	**J**	1.0	0.15	ug/L			05/28/12 05:05	1
Toluene	0.33	U	1.0	0.33	ug/L			05/28/12 05:05	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/28/12 05:05	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/28/12 05:05	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/28/12 05:05	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 05:05	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/28/12 05:05	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/28/12 05:05	1
Trichloroethene	**1.4**		1.0	0.13	ug/L			05/28/12 05:05	1
Trichlorofluoromethane	**14**		1.0	0.25	ug/L			05/28/12 05:05	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/28/12 05:05	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 05:05	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 05:05	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/28/12 05:05	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/28/12 05:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*		*05/28/12 05:05*	*1*
Dibromofluoromethane	*102*		*70 - 130*		*05/28/12 05:05*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*05/28/12 05:05*	*1*

Client Sample ID: LMW-4-5-12

Lab Sample ID: 680-79621-9

Date Collected: 05/17/12 11:05

Matrix: Water

Date Received: 05/18/12 09:37

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			05/28/12 05:28	1
Benzene	0.25	U	1.0	0.25	ug/L			05/28/12 05:28	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/28/12 05:28	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/28/12 05:28	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/28/12 05:28	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/28/12 05:28	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/28/12 05:28	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 05:28	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/28/12 05:28	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/28/12 05:28	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/28/12 05:28	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/28/12 05:28	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/28/12 05:28	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/28/12 05:28	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/28/12 05:28	1

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

TestAmerica Job ID: 680-79621-1

Client Sample ID: LMW-4-5-12

Lab Sample ID: 680-79621-9

Date Collected: 05/17/12 11:05

Matrix: Water

Date Received: 05/18/12 09:37

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/28/12 05:28	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 05:28	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/28/12 05:28	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/28/12 05:28	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/28/12 05:28	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 05:28	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/28/12 05:28	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/28/12 05:28	1
Dichlorodifluoromethane	**0.66**	**J**	1.0	0.25	ug/L			05/28/12 05:28	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/28/12 05:28	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/28/12 05:28	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/28/12 05:28	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 05:28	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 05:28	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/28/12 05:28	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/28/12 05:28	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/28/12 05:28	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/28/12 05:28	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/28/12 05:28	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 05:28	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/28/12 05:28	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/28/12 05:28	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/28/12 05:28	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/28/12 05:28	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/28/12 05:28	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 05:28	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/28/12 05:28	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/28/12 05:28	1
Styrene	0.11	U	1.0	0.11	ug/L			05/28/12 05:28	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/28/12 05:28	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/28/12 05:28	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/28/12 05:28	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 05:28	1
Toluene	0.33	U	1.0	0.33	ug/L			05/28/12 05:28	1
trans-1,2-Dichloroethene	0.20	U	1.0	0.20	ug/L			05/28/12 05:28	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/28/12 05:28	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/28/12 05:28	1
1,2,4-Trichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 05:28	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/28/12 05:28	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/28/12 05:28	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/28/12 05:28	1
Trichlorofluoromethane	**1.3**		1.0	0.25	ug/L			05/28/12 05:28	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/28/12 05:28	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 05:28	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 05:28	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/28/12 05:28	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/28/12 05:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 130*		*05/28/12 05:28*	*1*
Dibromofluoromethane	*102*		*70 - 130*		*05/28/12 05:28*	*1*

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

TestAmerica Job ID: 680-79621-1

Client Sample ID: LMW-4-5-12
Date Collected: 05/17/12 11:05
Date Received: 05/18/12 09:37

Lab Sample ID: 680-79621-9
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		70 - 130		05/28/12 05:28	1

Surrogate Summary

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

TestAmerica Job ID: 680-79621-1

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)
680-79621-3	Trip Blank	100	104	105
680-79621-4	LMW-14R-5-12	96	103	103
680-79621-5	LMW-15R-5-12	97	103	107
680-79621-6	LMW-9S-5-12	96	105	104
680-79621-6 MS	LMW-9S-5-12	103	108	109
680-79621-6 MSD	LMW-9S-5-12	101	104	104
680-79621-7	LMW-9D-5-12	98	102	104
680-79621-8	LMW-10-5-12	97	102	103
680-79621-9	LMW-4-5-12	98	102	103
LCS 680-238612/4	Lab Control Sample	103	101	104
LCSD 680-238612/5	Lab Control Sample Dup	104	101	106
MB 680-238612/7	Method Blank	99	103	104

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

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

Lab Sample ID: MB 680-238612/7
Matrix: Water
Analysis Batch: 238612

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			05/28/12 00:58	1
Benzene	0.25	U	1.0	0.25	ug/L			05/28/12 00:58	1
Bromobenzene	0.16	U	1.0	0.16	ug/L			05/28/12 00:58	1
Bromoform	0.50	U	1.0	0.50	ug/L			05/28/12 00:58	1
Bromomethane	0.80	U	1.0	0.80	ug/L			05/28/12 00:58	1
2-Butanone (MEK)	1.0	U	10	1.0	ug/L			05/28/12 00:58	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			05/28/12 00:58	1
Chlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 00:58	1
Chlorobromomethane	0.14	U	1.0	0.14	ug/L			05/28/12 00:58	1
Chlorodibromomethane	0.10	U	1.0	0.10	ug/L			05/28/12 00:58	1
Chloroethane	1.0	U	1.0	1.0	ug/L			05/28/12 00:58	1
Chloroform	0.14	U	1.0	0.14	ug/L			05/28/12 00:58	1
1-Chlorohexane	0.27	U	1.0	0.27	ug/L			05/28/12 00:58	1
Chloromethane	0.33	U	1.0	0.33	ug/L			05/28/12 00:58	1
2-Chlorotoluene	0.17	U	1.0	0.17	ug/L			05/28/12 00:58	1
4-Chlorotoluene	0.27	U	1.0	0.27	ug/L			05/28/12 00:58	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 00:58	1
cis-1,3-Dichloropropene	0.11	U	1.0	0.11	ug/L			05/28/12 00:58	1
1,2-Dibromo-3-Chloropropane	0.44	U	1.0	0.44	ug/L			05/28/12 00:58	1
1,2-Dichlorobenzene	0.21	U	1.0	0.21	ug/L			05/28/12 00:58	1
1,3-Dichlorobenzene	0.25	U	1.0	0.25	ug/L			05/28/12 00:58	1
1,4-Dichlorobenzene	0.28	U	1.0	0.28	ug/L			05/28/12 00:58	1
Dichlorobromomethane	0.25	U	1.0	0.25	ug/L			05/28/12 00:58	1
Dichlorodifluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 00:58	1
1,1-Dichloroethane	0.25	U	1.0	0.25	ug/L			05/28/12 00:58	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			05/28/12 00:58	1
1,1-Dichloroethene	0.11	U	1.0	0.11	ug/L			05/28/12 00:58	1
1,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 00:58	1
1,3-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/28/12 00:58	1
2,2-Dichloropropane	0.12	U	1.0	0.12	ug/L			05/28/12 00:58	1
1,1-Dichloropropene	0.25	U	1.0	0.25	ug/L			05/28/12 00:58	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/28/12 00:58	1
Ethylene Dibromide	0.25	U	1.0	0.25	ug/L			05/28/12 00:58	1
Hexachlorobutadiene	0.40	U	1.0	0.40	ug/L			05/28/12 00:58	1
Isopropylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 00:58	1
4-Isopropyltoluene	0.13	U	1.0	0.13	ug/L			05/28/12 00:58	1
Methylene Chloride	1.0	U	5.0	1.0	ug/L			05/28/12 00:58	1
4-Methyl-2-pentanone (MIBK)	1.0	U	10	1.0	ug/L			05/28/12 00:58	1
Methyl tert-butyl ether	0.20	U	10	0.20	ug/L			05/28/12 00:58	1
Naphthalene	1.0	U	5.0	1.0	ug/L			05/28/12 00:58	1
n-Butylbenzene	0.10	U	1.0	0.10	ug/L			05/28/12 00:58	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/28/12 00:58	1
sec-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/28/12 00:58	1
Styrene	0.11	U	1.0	0.11	ug/L			05/28/12 00:58	1
tert-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/28/12 00:58	1
1,1,1,2-Tetrachloroethane	0.33	U	1.0	0.33	ug/L			05/28/12 00:58	1
1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/28/12 00:58	1
Tetrachloroethene	0.15	U	1.0	0.15	ug/L			05/28/12 00:58	1
Toluene	0.33	U	1.0	0.33	ug/L			05/28/12 00:58	1

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

Lab Sample ID: MB 680-238612/7
Matrix: Water
Analysis Batch: 238612

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			05/28/12 00:58	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/28/12 00:58	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			05/28/12 00:58	1
1,2,4-Trichlorobenzene	0.263	J	1.0	0.25	ug/L			05/28/12 00:58	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			05/28/12 00:58	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/28/12 00:58	1
Trichloroethene	0.13	U	1.0	0.13	ug/L			05/28/12 00:58	1
Trichlorofluoromethane	0.25	U	1.0	0.25	ug/L			05/28/12 00:58	1
1,2,3-Trichloropropane	0.41	U	1.0	0.41	ug/L			05/28/12 00:58	1
1,2,4-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 00:58	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			05/28/12 00:58	1
Vinyl chloride	0.18	U	1.0	0.18	ug/L			05/28/12 00:58	1
Isopropyl ether	0.24	U	10	0.24	ug/L			05/28/12 00:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 130*		*05/28/12 00:58*	*1*
Dibromofluoromethane	*103*		*70 - 130*		*05/28/12 00:58*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*05/28/12 00:58*	*1*

Lab Sample ID: LCS 680-238612/4
Matrix: Water
Analysis Batch: 238612

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	126		ug/L		126	26 - 180
Benzene	50.0	50.3		ug/L		101	70 - 130
Bromobenzene	50.0	51.5		ug/L		103	70 - 130
Bromoform	50.0	46.6		ug/L		93	70 - 130
Bromomethane	50.0	42.1		ug/L		84	23 - 165
2-Butanone (MEK)	100	121		ug/L		121	49 - 172
Carbon tetrachloride	50.0	56.6		ug/L		113	70 - 130
Chlorobenzene	50.0	50.1		ug/L		100	70 - 130
Chlorobromomethane	50.0	50.1		ug/L		100	70 - 130
Chlorodibromomethane	50.0	58.1		ug/L		116	70 - 130
Chloroethane	50.0	43.1		ug/L		86	56 - 152
Chloroform	50.0	50.4		ug/L		101	70 - 130
Chloromethane	50.0	57.9		ug/L		116	70 - 130
2-Chlorotoluene	50.0	51.4		ug/L		103	70 - 130
4-Chlorotoluene	50.0	53.2		ug/L		106	70 - 130
cis-1,2-Dichloroethene	50.0	48.1		ug/L		96	70 - 130
cis-1,3-Dichloropropene	50.0	54.3		ug/L		109	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	54.4		ug/L		109	70 - 130
1,2-Dichlorobenzene	50.0	53.3		ug/L		107	70 - 130
1,3-Dichlorobenzene	50.0	53.5		ug/L		107	70 - 130
1,4-Dichlorobenzene	50.0	52.7		ug/L		105	70 - 130
Dichlorobromomethane	50.0	55.4		ug/L		111	70 - 130
Dichlorodifluoromethane	50.0	53.6		ug/L		107	44 - 146
1,1-Dichloroethane	50.0	49.8		ug/L		100	70 - 130
1,2-Dichloroethane	50.0	53.8		ug/L		108	70 - 130

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

Lab Sample ID: LCS 680-238612/4
Matrix: Water
Analysis Batch: 238612

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	46.4		ug/L		93	66 - 131
1,2-Dichloropropane	50.0	50.6		ug/L		101	70 - 130
1,3-Dichloropropane	50.0	50.9		ug/L		102	70 - 130
2,2-Dichloropropane	50.0	51.6		ug/L		103	70 - 135
1,1-Dichloropropene	50.0	51.5		ug/L		103	70 - 130
Ethylbenzene	50.0	50.9		ug/L		102	70 - 130
Ethylene Dibromide	50.0	50.6		ug/L		101	70 - 130
Hexachlorobutadiene	50.0	55.7		ug/L		111	70 - 130
Isopropylbenzene	50.0	51.8		ug/L		104	70 - 130
4-Isopropyltoluene	50.0	55.3		ug/L		111	70 - 130
Methylene Chloride	50.0	48.8		ug/L		98	67 - 130
4-Methyl-2-pentanone (MIBK)	100	111		ug/L		111	70 - 130
Methyl tert-butyl ether	100	96.2		ug/L		96	64 - 131
Naphthalene	50.0	54.2		ug/L		108	70 - 130
n-Butylbenzene	50.0	55.5		ug/L		111	70 - 130
N-Propylbenzene	50.0	53.1		ug/L		106	70 - 130
sec-Butylbenzene	50.0	54.4		ug/L		109	70 - 130
Styrene	50.0	53.0		ug/L		106	70 - 130
tert-Butylbenzene	50.0	53.1		ug/L		106	70 - 130
1,1,1,2-Tetrachloroethane	50.0	55.2		ug/L		110	70 - 130
1,1,2,2-Tetrachloroethane	50.0	52.1		ug/L		104	70 - 130
Tetrachloroethene	50.0	50.9		ug/L		102	70 - 130
Toluene	50.0	50.9		ug/L		102	70 - 130
trans-1,2-Dichloroethene	50.0	50.2		ug/L		100	70 - 130
trans-1,3-Dichloropropene	50.0	54.7		ug/L		109	70 - 130
1,2,3-Trichlorobenzene	50.0	52.7		ug/L		105	70 - 130
1,2,4-Trichlorobenzene	50.0	52.4		ug/L		105	65 - 130
1,1,1-Trichloroethane	50.0	53.8		ug/L		108	70 - 130
1,1,2-Trichloroethane	50.0	50.6		ug/L		101	70 - 130
Trichloroethene	50.0	50.3		ug/L		101	70 - 130
Trichlorofluoromethane	50.0	52.4		ug/L		105	55 - 156
1,2,3-Trichloropropane	50.0	51.0		ug/L		102	70 - 130
1,2,4-Trimethylbenzene	50.0	54.5		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	50.0	54.0		ug/L		108	70 - 130
Vinyl chloride	50.0	49.6		ug/L		99	67 - 134
Isopropyl ether	50.0	71.0		ug/L		142	10 - 200

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*70 - 130*
Dibromofluoromethane	*101*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 680-238612/5
Matrix: Water
Analysis Batch: 238612

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	5	50
Benzene	50.0	51.7		ug/L		103	70 - 130	3	30

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

Lab Sample ID: LCSD 680-238612/5
Matrix: Water
Analysis Batch: 238612

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	51.5		ug/L		103	70 - 130	0	30
Bromoform	50.0	46.2		ug/L		92	70 - 130	1	30
Bromomethane	50.0	43.7		ug/L		87	23 - 165	4	50
2-Butanone (MEK)	100	121		ug/L		121	49 - 172	0	30
Carbon tetrachloride	50.0	56.6		ug/L		113	70 - 130	0	30
Chlorobenzene	50.0	50.1		ug/L		100	70 - 130	0	30
Chlorobromomethane	50.0	51.0		ug/L		102	70 - 130	2	30
Chlorodibromomethane	50.0	56.9		ug/L		114	70 - 130	2	50
Chloroethane	50.0	39.7		ug/L		79	56 - 152	8	40
Chloroform	50.0	49.5		ug/L		99	70 - 130	2	30
Chloromethane	50.0	58.0		ug/L		116	70 - 130	0	30
2-Chlorotoluene	50.0	51.8		ug/L		104	70 - 130	1	30
4-Chlorotoluene	50.0	54.3		ug/L		109	70 - 130	2	30
cis-1,2-Dichloroethene	50.0	49.5		ug/L		99	70 - 130	3	30
cis-1,3-Dichloropropene	50.0	54.5		ug/L		109	70 - 130	0	30
1,2-Dibromo-3-Chloropropane	50.0	56.0		ug/L		112	70 - 130	3	50
1,2-Dichlorobenzene	50.0	53.6		ug/L		107	70 - 130	1	30
1,3-Dichlorobenzene	50.0	54.1		ug/L		108	70 - 130	1	30
1,4-Dichlorobenzene	50.0	53.9		ug/L		108	70 - 130	2	30
Dichlorobromomethane	50.0	54.8		ug/L		110	70 - 130	1	30
Dichlorodifluoromethane	50.0	54.0		ug/L		108	44 - 146	1	50
1,1-Dichloroethane	50.0	49.5		ug/L		99	70 - 130	1	30
1,2-Dichloroethane	50.0	55.4		ug/L		111	70 - 130	3	30
1,1-Dichloroethene	50.0	45.2		ug/L		90	66 - 131	3	30
1,2-Dichloropropane	50.0	51.0		ug/L		102	70 - 130	1	30
1,3-Dichloropropane	50.0	52.2		ug/L		104	70 - 130	3	30
2,2-Dichloropropane	50.0	52.2		ug/L		104	70 - 135	1	30
1,1-Dichloropropene	50.0	52.4		ug/L		105	70 - 130	2	30
Ethylbenzene	50.0	52.2		ug/L		104	70 - 130	3	30
Ethylene Dibromide	50.0	51.0		ug/L		102	70 - 130	1	30
Hexachlorobutadiene	50.0	56.8		ug/L		114	70 - 130	2	30
Isopropylbenzene	50.0	51.5		ug/L		103	70 - 130	1	30
4-Isopropyltoluene	50.0	56.5		ug/L		113	70 - 130	2	50
Methylene Chloride	50.0	48.7		ug/L		97	67 - 130	0	30
4-Methyl-2-pentanone (MIBK)	100	112		ug/L		112	70 - 130	1	30
Methyl tert-butyl ether	100	97.6		ug/L		98	64 - 131	1	30
Naphthalene	50.0	55.4		ug/L		111	70 - 130	2	30
n-Butylbenzene	50.0	56.1		ug/L		112	70 - 130	1	30
N-Propylbenzene	50.0	54.0		ug/L		108	70 - 130	2	30
sec-Butylbenzene	50.0	54.8		ug/L		110	70 - 130	1	30
Styrene	50.0	53.4		ug/L		107	70 - 130	1	30
tert-Butylbenzene	50.0	54.3		ug/L		109	70 - 130	2	30
1,1,1,2-Tetrachloroethane	50.0	56.0		ug/L		112	70 - 130	2	30
1,1,2,2-Tetrachloroethane	50.0	52.8		ug/L		106	70 - 130	1	30
Tetrachloroethene	50.0	51.2		ug/L		102	70 - 130	1	30
Toluene	50.0	51.7		ug/L		103	70 - 130	2	30
trans-1,2-Dichloroethene	50.0	48.7		ug/L		97	70 - 130	3	30
trans-1,3-Dichloropropene	50.0	55.7		ug/L		111	70 - 130	2	50
1,2,3-Trichlorobenzene	50.0	53.3		ug/L		107	70 - 130	1	30
1,2,4-Trichlorobenzene	50.0	53.5		ug/L		107	65 - 130	2	30

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

Lab Sample ID: LCSD 680-238612/5
Matrix: Water
Analysis Batch: 238612

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	55.4		ug/L		111	70 - 130	3	30
1,1,2-Trichloroethane	50.0	52.1		ug/L		104	70 - 130	3	30
Trichloroethene	50.0	50.0		ug/L		100	70 - 130	1	30
Trichlorofluoromethane	50.0	49.3		ug/L		99	55 - 156	6	30
1,2,3-Trichloropropane	50.0	51.3		ug/L		103	70 - 130	1	30
1,2,4-Trimethylbenzene	50.0	55.1		ug/L		110	70 - 130	1	50
1,3,5-Trimethylbenzene	50.0	54.8		ug/L		110	70 - 130	2	50
Vinyl chloride	50.0	47.7		ug/L		95	67 - 134	4	30
Isopropyl ether	50.0	70.5		ug/L		141	10 - 200	1	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*70 - 130*
Dibromofluoromethane	*101*		*70 - 130*
Toluene-d8 (Surr)	*106*		*70 - 130*

Lab Sample ID: 680-79621-6 MS
Matrix: Water
Analysis Batch: 238612

Client Sample ID: LMW-9S-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	97.9		ug/L		98	26 - 180
Benzene	0.25	U	50.0	52.1		ug/L		104	70 - 130
Bromobenzene	0.16	U	50.0	51.7		ug/L		103	70 - 130
Bromoform	0.50	U	50.0	47.8		ug/L		96	70 - 130
Bromomethane	0.80	U J	50.0	87.0	J	ug/L		174	23 - 165
2-Butanone (MEK)	1.0	U	100	99.5		ug/L		100	49 - 172
Carbon tetrachloride	0.50	U	50.0	61.3		ug/L		123	70 - 130
Chlorobenzene	0.25	U	50.0	52.3		ug/L		105	70 - 130
Chlorobromomethane	0.14	U	50.0	54.8		ug/L		110	70 - 130
Chlorodibromomethane	0.10	U	50.0	59.6		ug/L		119	70 - 130
Chloroethane	1.0	U	50.0	68.3		ug/L		137	56 - 152
Chloroform	0.14	U	50.0	53.9		ug/L		108	70 - 130
Chloromethane	0.33	U	50.0	63.3		ug/L		127	70 - 130
2-Chlorotoluene	0.17	U	50.0	53.8		ug/L		108	70 - 130
4-Chlorotoluene	0.27	U	50.0	54.0		ug/L		108	70 - 130
cis-1,2-Dichloroethene	0.15	U	50.0	51.7		ug/L		103	70 - 130
cis-1,3-Dichloropropene	0.11	U	50.0	51.8		ug/L		104	70 - 130
1,2-Dibromo-3-Chloropropane	0.44	U	50.0	55.5		ug/L		111	70 - 130
1,2-Dichlorobenzene	0.21	U	50.0	53.5		ug/L		107	70 - 130
1,3-Dichlorobenzene	0.25	U	50.0	53.3		ug/L		107	70 - 130
1,4-Dichlorobenzene	0.28	U	50.0	53.6		ug/L		107	70 - 130
Dichlorobromomethane	0.25	U	50.0	54.9		ug/L		110	70 - 130
Dichlorodifluoromethane	0.25	U	50.0	58.7		ug/L		117	44 - 146
1,1-Dichloroethane	0.25	U	50.0	53.0		ug/L		106	70 - 130
1,2-Dichloroethane	0.10	U	50.0	51.6		ug/L		103	70 - 130
1,1-Dichloroethene	0.11	U	50.0	52.7		ug/L		105	66 - 131
1,2-Dichloropropane	0.13	U	50.0	50.2		ug/L		100	70 - 130
1,3-Dichloropropane	0.13	U	50.0	50.1		ug/L		100	70 - 130
2,2-Dichloropropane	0.12	U	50.0	42.4		ug/L		85	70 - 135

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

Lab Sample ID: 680-79621-6 MS
Matrix: Water
Analysis Batch: 238612

Client Sample ID: LMW-9S-5-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloropropene	0.25	U	50.0	54.2		ug/L		108	70 - 130
Ethylbenzene	0.11	U	50.0	54.2		ug/L		108	70 - 130
Ethylene Dibromide	0.25	U	50.0	49.0		ug/L		98	70 - 130
Hexachlorobutadiene	0.40	U	50.0	55.6		ug/L		111	70 - 130
Isopropylbenzene	0.10	U	50.0	54.4		ug/L		109	70 - 130
4-Isopropyltoluene	0.13	U	50.0	57.7		ug/L		115	70 - 130
Methylene Chloride	1.0	U	50.0	51.5		ug/L		103	67 - 130
4-Methyl-2-pentanone (MIBK)	1.0	U	100	101		ug/L		101	70 - 130
Methyl tert-butyl ether	0.20	U	100	97.0		ug/L		97	64 - 131
Naphthalene	1.0	U	50.0	51.4		ug/L		103	70 - 130
n-Butylbenzene	0.10	U	50.0	56.5		ug/L		113	70 - 130
N-Propylbenzene	0.15	U	50.0	55.9		ug/L		112	70 - 130
sec-Butylbenzene	0.16	U	50.0	56.7		ug/L		113	70 - 130
Styrene	0.11	U	50.0	54.4		ug/L		109	70 - 130
tert-Butylbenzene	0.12	U	50.0	56.7		ug/L		113	70 - 130
1,1,1,2-Tetrachloroethane	0.33	U	50.0	59.0		ug/L		118	70 - 130
1,1,2,2-Tetrachloroethane	0.18	U	50.0	52.5		ug/L		105	70 - 130
Tetrachloroethene	0.15	U	50.0	54.3		ug/L		109	70 - 130
Toluene	0.33	U	50.0	52.5		ug/L		105	70 - 130
trans-1,2-Dichloroethene	0.20	U	50.0	53.3		ug/L		107	70 - 130
trans-1,3-Dichloropropene	0.21	U	50.0	51.5		ug/L		103	70 - 130
1,2,3-Trichlorobenzene	0.35	U	50.0	51.3		ug/L		103	70 - 130
1,2,4-Trichlorobenzene	0.25	U	50.0	51.9		ug/L		104	65 - 130
1,1,1-Trichloroethane	0.50	U	50.0	57.6		ug/L		115	70 - 130
1,1,2-Trichloroethane	0.13	U	50.0	49.4		ug/L		99	70 - 130
Trichloroethene	0.13	U	50.0	51.5		ug/L		103	70 - 130
Trichlorofluoromethane	0.25	U	50.0	64.0		ug/L		128	55 - 156
1,2,3-Trichloropropane	0.41	U	50.0	50.4		ug/L		101	70 - 130
1,2,4-Trimethylbenzene	0.33	U	50.0	55.9		ug/L		112	70 - 130
1,3,5-Trimethylbenzene	0.33	U	50.0	55.8		ug/L		112	70 - 130
Vinyl chloride	0.18	U	50.0	56.0		ug/L		112	67 - 134

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*70 - 130*
Dibromofluoromethane	*108*		*70 - 130*
Toluene-d8 (Surr)	*109*		*70 - 130*

Lab Sample ID: 680-79621-6 MSD
Matrix: Water
Analysis Batch: 238612

Client Sample ID: LMW-9S-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	93.7		ug/L		94	26 - 180	4	50
Benzene	0.25	U	50.0	51.0		ug/L		102	70 - 130	2	30
Bromobenzene	0.16	U	50.0	51.1		ug/L		102	70 - 130	1	30
Bromoform	0.50	U	50.0	47.3		ug/L		95	70 - 130	1	30
Bromomethane	0.80	U J	50.0	95.3	J	ug/L		191	23 - 165	9	50
2-Butanone (MEK)	1.0	U	100	96.3		ug/L		96	49 - 172	3	30
Carbon tetrachloride	0.50	U	50.0	60.4		ug/L		121	70 - 130	1	30

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

Lab Sample ID: 680-79621-6 MSD
Matrix: Water
Analysis Batch: 238612

Client Sample ID: LMW-9S-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
Chlorobenzene	0.25	U	50.0	50.4		ug/L		101	70 - 130	4	30
Chlorobromomethane	0.14	U	50.0	50.8		ug/L		102	70 - 130	8	30
Chlorodibromomethane	0.10	U	50.0	58.7		ug/L		117	70 - 130	1	50
Chloroethane	1.0	U	50.0	61.4		ug/L		123	56 - 152	11	40
Chloroform	0.14	U	50.0	50.8		ug/L		102	70 - 130	6	30
Chloromethane	0.33	U	50.0	63.5		ug/L		127	70 - 130	0	30
2-Chlorotoluene	0.17	U	50.0	52.7		ug/L		105	70 - 130	2	30
4-Chlorotoluene	0.27	U	50.0	52.9		ug/L		106	70 - 130	2	30
cis-1,2-Dichloroethene	0.15	U	50.0	50.2		ug/L		100	70 - 130	3	30
cis-1,3-Dichloropropene	0.11	U	50.0	51.9		ug/L		104	70 - 130	0	30
1,2-Dibromo-3-Chloropropane	0.44	U	50.0	52.2		ug/L		104	70 - 130	6	50
1,2-Dichlorobenzene	0.21	U	50.0	52.2		ug/L		104	70 - 130	2	30
1,3-Dichlorobenzene	0.25	U	50.0	52.4		ug/L		105	70 - 130	2	30
1,4-Dichlorobenzene	0.28	U	50.0	52.1		ug/L		104	70 - 130	3	30
Dichlorobromomethane	0.25	U	50.0	54.3		ug/L		109	70 - 130	1	30
Dichlorodifluoromethane	0.25	U	50.0	57.4		ug/L		115	44 - 146	2	50
1,1-Dichloroethane	0.25	U	50.0	51.2		ug/L		102	70 - 130	3	30
1,2-Dichloroethane	0.10	U	50.0	51.0		ug/L		102	70 - 130	1	30
1,1-Dichloroethene	0.11	U	50.0	52.4		ug/L		105	66 - 131	1	30
1,2-Dichloropropane	0.13	U	50.0	49.4		ug/L		99	70 - 130	2	30
1,3-Dichloropropane	0.13	U	50.0	49.0		ug/L		98	70 - 130	2	30
2,2-Dichloropropane	0.12	U	50.0	41.3		ug/L		83	70 - 135	3	30
1,1-Dichloropropene	0.25	U	50.0	53.4		ug/L		107	70 - 130	2	30
Ethylbenzene	0.11	U	50.0	52.7		ug/L		105	70 - 130	3	30
Ethylene Dibromide	0.25	U	50.0	47.2		ug/L		94	70 - 130	4	30
Hexachlorobutadiene	0.40	U	50.0	55.0		ug/L		110	70 - 130	1	30
Isopropylbenzene	0.10	U	50.0	53.7		ug/L		107	70 - 130	1	30
4-Isopropyltoluene	0.13	U	50.0	56.0		ug/L		112	70 - 130	3	50
Methylene Chloride	1.0	U	50.0	48.4		ug/L		97	67 - 130	6	30
4-Methyl-2-pentanone (MIBK)	1.0	U	100	99.8		ug/L		100	70 - 130	2	30
Methyl tert-butyl ether	0.20	U	100	95.1		ug/L		95	64 - 131	2	30
Naphthalene	1.0	U	50.0	51.8		ug/L		104	70 - 130	1	30
n-Butylbenzene	0.10	U	50.0	55.0		ug/L		110	70 - 130	3	30
N-Propylbenzene	0.15	U	50.0	53.8		ug/L		108	70 - 130	4	30
sec-Butylbenzene	0.16	U	50.0	54.8		ug/L		110	70 - 130	3	30
Styrene	0.11	U	50.0	53.7		ug/L		107	70 - 130	1	30
tert-Butylbenzene	0.12	U	50.0	55.2		ug/L		110	70 - 130	3	30
1,1,1,2-Tetrachloroethane	0.33	U	50.0	56.8		ug/L		114	70 - 130	4	30
1,1,2,2-Tetrachloroethane	0.18	U	50.0	50.6		ug/L		101	70 - 130	4	30
Tetrachloroethene	0.15	U	50.0	52.3		ug/L		105	70 - 130	4	30
Toluene	0.33	U	50.0	51.1		ug/L		102	70 - 130	3	30
trans-1,2-Dichloroethene	0.20	U	50.0	52.0		ug/L		104	70 - 130	2	30
trans-1,3-Dichloropropene	0.21	U	50.0	51.1		ug/L		102	70 - 130	1	50
1,2,3-Trichlorobenzene	0.35	U	50.0	50.7		ug/L		101	70 - 130	1	30
1,2,4-Trichlorobenzene	0.25	U	50.0	50.6		ug/L		101	65 - 130	3	30
1,1,1-Trichloroethane	0.50	U	50.0	56.5		ug/L		113	70 - 130	2	30
1,1,2-Trichloroethane	0.13	U	50.0	48.8		ug/L		98	70 - 130	1	30
Trichloroethene	0.13	U	50.0	50.4		ug/L		101	70 - 130	2	30
Trichlorofluoromethane	0.25	U	50.0	60.0		ug/L		120	55 - 156	7	30
1,2,3-Trichloropropane	0.41	U	50.0	47.5		ug/L		95	70 - 130	6	30

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

Lab Sample ID: 680-79621-6 MSD — **Client Sample ID: LMW-9S-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238612

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	0.33	U	50.0	54.0		ug/L		108	70 - 130	3	50
1,3,5-Trimethylbenzene	0.33	U	50.0	54.4		ug/L		109	70 - 130	3	50
Vinyl chloride	0.18	U	50.0	53.4		ug/L		107	67 - 134	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-237879/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238006 — **Prep Batch: 237879**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.99	U	2.0	0.99	ug/L		05/19/12 09:54	05/19/12 19:11	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/19/12 09:54	05/19/12 19:11	1
Barium	0.15	U	1.0	0.15	ug/L		05/19/12 09:54	05/19/12 19:11	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/19/12 09:54	05/19/12 19:11	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/19/12 09:54	05/19/12 19:11	1
Cobalt	0.078	U	0.20	0.078	ug/L		05/19/12 09:54	05/19/12 19:11	1
Chromium	0.16	U	1.0	0.16	ug/L		05/19/12 09:54	05/19/12 19:11	1
Copper	0.21	U	1.0	0.21	ug/L		05/19/12 09:54	05/19/12 19:11	1
Lead	0.080	U	0.30	0.080	ug/L		05/19/12 09:54	05/19/12 19:11	1
Nickel	0.40	U	1.0	0.40	ug/L		05/19/12 09:54	05/19/12 19:11	1
Selenium	0.21	U	0.50	0.21	ug/L		05/19/12 09:54	05/19/12 19:11	1
Silver	0.10	U	0.20	0.10	ug/L		05/19/12 09:54	05/19/12 19:11	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/19/12 09:54	05/19/12 19:11	1
Zinc	2.6	U	10	2.6	ug/L		05/19/12 09:54	05/19/12 19:11	1
Thallium	0.10	U	0.20	0.10	ug/L		05/19/12 09:54	05/19/12 19:11	1

Lab Sample ID: LCS 680-237879/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238006 — **Prep Batch: 237879**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	10.0	10.5		ug/L		105	75 - 125
Arsenic	20.0	20.8		ug/L		104	75 - 125
Barium	20.0	20.1		ug/L		100	75 - 125
Beryllium	10.0	10.2		ug/L		102	75 - 125
Cadmium	10.0	10.7		ug/L		107	75 - 125
Cobalt	10.0	9.60		ug/L		96	75 - 125
Chromium	20.0	19.9		ug/L		100	75 - 125
Copper	20.0	20.2		ug/L		101	75 - 125
Lead	10.0	10.7		ug/L		107	75 - 125
Nickel	20.0	20.3		ug/L		102	75 - 125
Selenium	20.0	22.4		ug/L		112	75 - 125
Silver	10.0	10.4		ug/L		104	75 - 125

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

Lab Sample ID: LCS 680-237879/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238006 — **Prep Batch: 237879**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	20.0	19.9		ug/L		100	75 - 125
Zinc	20.0	22.1		ug/L		110	75 - 125
Thallium	8.00	8.41		ug/L		105	75 - 125

Lab Sample ID: 680-79621-1 MS — **Client Sample ID: LMW-10-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238006 — **Prep Batch: 237879**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.99	U	10.0	10.2		ug/L		102	75 - 125
Arsenic	0.40	U	20.0	20.1		ug/L		100	75 - 125
Barium	23		20.0	43.9		ug/L		103	75 - 125
Beryllium	0.070	U	10.0	10.0		ug/L		100	75 - 125
Cadmium	0.20	U	10.0	10.4		ug/L		104	75 - 125
Cobalt	0.25		10.0	9.57		ug/L		93	75 - 125
Chromium	0.44	J	20.0	20.0		ug/L		98	75 - 125
Copper	0.21	U	20.0	20.1		ug/L		100	75 - 125
Lead	0.25	J	10.0	10.6		ug/L		103	75 - 125
Nickel	0.40	U	20.0	20.1		ug/L		101	75 - 125
Selenium	4.3		20.0	25.8		ug/L		108	75 - 125
Silver	0.10	U	10.0	8.20		ug/L		82	75 - 125
Vanadium	1.4	U	20.0	19.7		ug/L		98	75 - 125
Zinc	2.6	U	20.0	22.0		ug/L		110	75 - 125
Thallium	0.10	U	8.00	8.15		ug/L		102	75 - 125

Lab Sample ID: 680-79621-1 MSD — **Client Sample ID: LMW-10-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238006 — **Prep Batch: 237879**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.99	U	10.0	10.6		ug/L		106	75 - 125	5	20
Arsenic	0.40	U	20.0	20.3		ug/L		101	75 - 125	1	20
Barium	23		20.0	45.9		ug/L		113	75 - 125	4	20
Beryllium	0.070	U	10.0	10.6		ug/L		106	75 - 125	6	20
Cadmium	0.20	U	10.0	10.9		ug/L		109	75 - 125	5	20
Cobalt	0.25		10.0	9.96		ug/L		97	75 - 125	4	20
Chromium	0.44	J	20.0	19.6		ug/L		96	75 - 125	2	20
Copper	0.21	U	20.0	19.7		ug/L		98	75 - 125	2	20
Lead	0.25	J	10.0	10.8		ug/L		105	75 - 125	2	20
Nickel	0.40	U	20.0	19.6		ug/L		98	75 - 125	3	20
Selenium	4.3		20.0	25.5		ug/L		106	75 - 125	1	20
Silver	0.10	U	10.0	8.25		ug/L		82	75 - 125	1	20
Vanadium	1.4	U	20.0	19.1		ug/L		96	75 - 125	3	20
Zinc	2.6	U	20.0	23.3		ug/L		116	75 - 125	6	20
Thallium	0.10	U	8.00	8.36		ug/L		105	75 - 125	3	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-237874/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-NO3	0.36	U	1.1	0.36	mg/L			05/18/12 10:28	5

Lab Sample ID: LCS 680-237874/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237874

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate-NO3			22.1	21.0		mg/L		95	90 - 110		

Lab Sample ID: LCSD 680-237874/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237874

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3			22.1	20.8		mg/L		94	90 - 110	1	30

Lab Sample ID: 680-79621-1 MS — **Client Sample ID: LMW-10-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237874

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate-NO3	1.3		22.1	23.0		mg/L		98	90 - 110		

Lab Sample ID: 680-79621-1 MSD — **Client Sample ID: LMW-10-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237874

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-NO3	1.3		22.1	23.1		mg/L		98	90 - 110	0	30

QC Association Summary

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

TestAmerica Job ID: 680-79621-1

GC/MS VOA

Analysis Batch: 238612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79621-3	Trip Blank	Total/NA	Water	8260B	
680-79621-4	LMW-14R-5-12	Total/NA	Water	8260B	
680-79621-5	LMW-15R-5-12	Total/NA	Water	8260B	
680-79621-6	LMW-9S-5-12	Total/NA	Water	8260B	
680-79621-6 MS	LMW-9S-5-12	Total/NA	Water	8260B	
680-79621-6 MSD	LMW-9S-5-12	Total/NA	Water	8260B	
680-79621-7	LMW-9D-5-12	Total/NA	Water	8260B	
680-79621-8	LMW-10-5-12	Total/NA	Water	8260B	
680-79621-9	LMW-4-5-12	Total/NA	Water	8260B	
LCS 680-238612/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-238612/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-238612/7	Method Blank	Total/NA	Water	8260B	

Metals

Prep Batch: 237879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79621-1	LMW-10-5-12	Total/NA	Water	3030C	
680-79621-1 MS	LMW-10-5-12	Total/NA	Water	3030C	
680-79621-1 MSD	LMW-10-5-12	Total/NA	Water	3030C	
680-79621-2	LMW-4-5-12	Total/NA	Water	3030C	
LCS 680-237879/2-A	Lab Control Sample	Total/NA	Water	3030C	
MB 680-237879/1-A	Method Blank	Total/NA	Water	3030C	

Analysis Batch: 238006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79621-1	LMW-10-5-12	Total/NA	Water	6020A	237879
680-79621-1 MS	LMW-10-5-12	Total/NA	Water	6020A	237879
680-79621-1 MSD	LMW-10-5-12	Total/NA	Water	6020A	237879
680-79621-2	LMW-4-5-12	Total/NA	Water	6020A	237879
LCS 680-237879/2-A	Lab Control Sample	Total/NA	Water	6020A	237879
MB 680-237879/1-A	Method Blank	Total/NA	Water	6020A	237879

General Chemistry

Analysis Batch: 237874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79621-1	LMW-10-5-12	Total/NA	Water	300.0	
680-79621-1 MS	LMW-10-5-12	Total/NA	Water	300.0	
680-79621-1 MSD	LMW-10-5-12	Total/NA	Water	300.0	
680-79621-2	LMW-4-5-12	Total/NA	Water	300.0	
LCS 680-237874/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-237874/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-237874/2	Method Blank	Total/NA	Water	300.0	

Lab Chronicle

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

TestAmerica Job ID: 680-79621-1

Client Sample ID: LMW-10-5-12 — Lab Sample ID: 680-79621-1

Date Collected: 05/17/12 09:26 — **Matrix: Water**
Date Received: 05/18/12 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237879	05/19/12 09:54	RAM	TAL SAV
Total/NA	Analysis	6020A		1	238006	05/19/12 19:24	RAM	TAL SAV
Total/NA	Analysis	300.0		5	237874	05/18/12 12:51	SMP	TAL SAV

Client Sample ID: LMW-4-5-12 — Lab Sample ID: 680-79621-2

Date Collected: 05/17/12 11:05 — **Matrix: Water**
Date Received: 05/18/12 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237879	05/19/12 09:54	RAM	TAL SAV
Total/NA	Analysis	6020A		1	238006	05/19/12 19:58	RAM	TAL SAV
Total/NA	Analysis	300.0		5	237874	05/18/12 13:37	SMP	TAL SAV

Client Sample ID: Trip Blank — Lab Sample ID: 680-79621-3

Date Collected: 05/16/12 08:00 — **Matrix: Water**
Date Received: 05/18/12 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238612	05/28/12 01:20	RB	TAL SAV

Client Sample ID: LMW-14R-5-12 — Lab Sample ID: 680-79621-4

Date Collected: 05/16/12 09:45 — **Matrix: Water**
Date Received: 05/18/12 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238612	05/28/12 03:35	RB	TAL SAV

Client Sample ID: LMW-15R-5-12 — Lab Sample ID: 680-79621-5

Date Collected: 05/16/12 10:59 — **Matrix: Water**
Date Received: 05/18/12 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238612	05/28/12 03:58	RB	TAL SAV

Client Sample ID: LMW-9S-5-12 — Lab Sample ID: 680-79621-6

Date Collected: 05/16/12 14:11 — **Matrix: Water**
Date Received: 05/18/12 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238612	05/28/12 04:20	RB	TAL SAV

Lab Chronicle

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

TestAmerica Job ID: 680-79621-1

Client Sample ID: LMW-9D-5-12

Lab Sample ID: 680-79621-7

Date Collected: 05/16/12 16:19
Matrix: Water
Date Received: 05/18/12 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238612	05/28/12 04:43	RB	TAL SAV

Client Sample ID: LMW-10-5-12

Lab Sample ID: 680-79621-8

Date Collected: 05/17/12 09:26
Matrix: Water
Date Received: 05/18/12 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238612	05/28/12 05:05	RB	TAL SAV

Client Sample ID: LMW-4-5-12

Lab Sample ID: 680-79621-9

Date Collected: 05/17/12 11:05
Matrix: Water
Date Received: 05/18/12 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	238612	05/28/12 05:28	RB	TAL SAV

Laboratory References:

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

Serial Number 51622

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	MATRIX TYPE	REQUIRED ANALYSIS	PAGE 1 OF
TAL (LAB) PROJECT MANAGER: Linda Wolfe	P.O. NUMBER: BPA#0048	CONTRACT NO.			STANDARD REPORT DELIVERY (✓)
CLIENT (SITE) PM: Kevin Huborak	CLIENT PHONE: 912-652-6083	CLIENT FAX			DATE DUE
CLIENT NAME: USACE	CLIENT E-MAIL				EXPEDITED REPORT DELIVERY (SURCHARGE) ( )
CLIENT ADDRESS: 100 West Oglethorpe Ave Savannah GA					DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable)					NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

Matrix type: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

Required analysis: 6020 API; 300-48HR

PRESERVATIVE: HNO_3; Ice

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	6020 API	300-48HR	REMARKS
5-17-12	0926	LMW-10-5-12	G	X				1	1	
5-17-12	1105	LMW-4-5-12	G	X				1	1	
5-17-12		LMW-7-5-12	G	X						Sample not collected

5-17-12

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	5-17-12	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
	5/18/12	0937	YES ( ) NO ( )		680-79621	0.8°C

TAL 8240-680 (1008)

Serial Number 51621

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 Haborak	CLIENT PHONE: 912-652-6083	CLIENT FAX
CLIENT NAME: USACE	CLIENT E-MAIL	
CLIENT ADDRESS: 100 West Oglethorpe Av, Savannah GA		
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: 1

REQUIRED ANALYSIS: 8260B

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
5-16-12	0800	Trip Blank	G	X				2	
5-16-12	0945	LMW-14R-5-12	G	X				3	
5-16-12	1059	LMW-15R-5-12	G	X				3	
5-16-12	1411	LMW-9S-5-12	G	X				3	MS/MSD taken
5-16-12	1411	LMW-MS/MSD-5-12	G	X				3	
5-16-12	1419	LMW-9D-5-12	G	X				3	
5-17-12	0926	LMW-10-5-12	G	X				3	
5-17-12	1105	LMW-4-5-12	G	X				3	
~~5-17-12~~		~~LMW-7-5-12~~	G	X				3	Sample not collected
		[illegible]						5-17-12	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	5-17-12	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]	5/18/12	0937	YES ( ) NO ( )		680-79621	0.8°C

TAL 8240-680 (1008)

Certification Summary

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

TestAmerica Job ID: 680-79621-1

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	State Program	6	N/A
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

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: 680-79575-1
Client Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

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

Attn: Mr. Kevin Haborak

Authorized for release by:
5/24/2012 11:36:58 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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Job ID: 680-79575-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: U.S. Army Corps of Engineers

Project: Ft. Bragg Lamont Landfill, Spring FY-12

Report Number: 680-79575-1

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 05/17/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.8 C.

METALS (ICPMS)
Samples LMW-14R-5-12 (680-79575-1), LMW-15R-5-12 (680-79575-2), LMW-9S-5-12 (680-79575-3) and LMW-9D-5-12 (680-79575-4) were analyzed for Metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 05/18/2012 and analyzed on 05/19/2012.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

ANIONS (NITRATE/NITRITE)
Samples LMW-14R-5-12 (680-79575-1), LMW-15R-5-12 (680-79575-2), LMW-9S-5-12 (680-79575-3) and LMW-9D-5-12 (680-79575-4) were analyzed for Anions (Nitrate/Nitrite) in accordance with EPA Method 300.0. The samples were analyzed on 05/17/2012.

Samples LMW-14R-5-12 (680-79575-1)[5X], LMW-15R-5-12 (680-79575-2)[5X], LMW-9S-5-12 (680-79575-3)[5X] and LMW-9D-5-12 (680-79575-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the Anions analyses.

All quality control parameters were within the acceptance limits.

Sample Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-79575-1	LMW-14R-5-12	Water	05/16/12 09:45	05/17/12 10:30
680-79575-2	LMW-15R-5-12	Water	05/16/12 10:59	05/17/12 10:30
680-79575-3	LMW-9S-5-12	Water	05/16/12 14:11	05/17/12 10:30
680-79575-4	LMW-9D-5-12	Water	05/16/12 16:19	05/17/12 10:30

Method Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	TAL SAV
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV

Protocol References:

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

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

Laboratory References:

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

Definitions/Glossary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

Qualifiers

Metals

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

General Chemistry

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

Glossary

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

Detection Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

Client Sample ID: LMW-14R-5-12 — Lab Sample ID: 680-79575-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.35	J	1.0	0.16	ug/L	1		6020A	Total/NA
Copper	0.41	J	1.0	0.21	ug/L	1		6020A	Total/NA
Cobalt	0.15	J	0.20	0.078	ug/L	1		6020A	Total/NA
Barium	13		1.0	0.15	ug/L	1		6020A	Total/NA
Nickel	0.65	J	1.0	0.40	ug/L	1		6020A	Total/NA
Lead	0.12	J	0.30	0.080	ug/L	1		6020A	Total/NA
Thallium	0.11	J	0.20	0.10	ug/L	1		6020A	Total/NA
Zinc	6.7	J	10	2.6	ug/L	1		6020A	Total/NA
Nitrate as N	0.36		0.25	0.075	mg/L	5		300.0	Total/NA

Client Sample ID: LMW-15R-5-12 — Lab Sample ID: 680-79575-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.51	J	1.0	0.21	ug/L	1		6020A	Total/NA
Cobalt	0.58		0.20	0.078	ug/L	1		6020A	Total/NA
Barium	32		1.0	0.15	ug/L	1		6020A	Total/NA
Beryllium	0.15	J	0.20	0.070	ug/L	1		6020A	Total/NA
Nickel	0.60	J	1.0	0.40	ug/L	1		6020A	Total/NA
Lead	0.15	J	0.30	0.080	ug/L	1		6020A	Total/NA
Selenium	0.24	J	0.50	0.21	ug/L	1		6020A	Total/NA
Nitrate as N	1.6		0.25	0.075	mg/L	5		300.0	Total/NA

Client Sample ID: LMW-9S-5-12 — Lab Sample ID: 680-79575-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.54	J	1.0	0.40	ug/L	1		6020A	Total/NA
Copper	0.23	J	1.0	0.21	ug/L	1		6020A	Total/NA
Cobalt	1.0		0.20	0.078	ug/L	1		6020A	Total/NA
Barium	39		1.0	0.15	ug/L	1		6020A	Total/NA

Client Sample ID: LMW-9D-5-12 — Lab Sample ID: 680-79575-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.6		1.0	0.40	ug/L	1		6020A	Total/NA
Chromium	0.35	J	1.0	0.16	ug/L	1		6020A	Total/NA
Copper	0.63	J	1.0	0.21	ug/L	1		6020A	Total/NA
Barium	2.5		1.0	0.15	ug/L	1		6020A	Total/NA
Lead	0.49		0.30	0.080	ug/L	1		6020A	Total/NA
Vanadium	2.4	J	5.0	1.4	ug/L	1		6020A	Total/NA
Zinc	2.7	J	10	2.6	ug/L	1		6020A	Total/NA
Nitrate as N	0.085	J	0.25	0.075	mg/L	5		300.0	Total/NA

Client Sample Results

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

Client Sample ID: LMW-14R-5-12

Lab Sample ID: 680-79575-1

Date Collected: 05/16/12 09:45
Matrix: Water
Date Received: 05/17/12 10:30

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 17:50	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/18/12 09:11	05/19/12 17:50	1
Chromium	**0.35**	**J**	1.0	0.16	ug/L		05/18/12 09:11	05/19/12 17:50	1
Copper	**0.41**	**J**	1.0	0.21	ug/L		05/18/12 09:11	05/19/12 17:50	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/18/12 09:11	05/19/12 17:50	1
Cobalt	**0.15**	**J**	0.20	0.078	ug/L		05/18/12 09:11	05/19/12 17:50	1
Barium	**13**		1.0	0.15	ug/L		05/18/12 09:11	05/19/12 17:50	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/18/12 09:11	05/19/12 17:50	1
Nickel	**0.65**	**J**	1.0	0.40	ug/L		05/18/12 09:11	05/19/12 17:50	1
Lead	**0.12**	**J**	0.30	0.080	ug/L		05/18/12 09:11	05/19/12 17:50	1
Antimony	0.99	U	2.0	0.99	ug/L		05/18/12 09:11	05/19/12 17:50	1
Selenium	0.21	U	0.50	0.21	ug/L		05/18/12 09:11	05/19/12 17:50	1
Thallium	**0.11**	**J**	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 17:50	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/18/12 09:11	05/19/12 17:50	1
Zinc	**6.7**	**J**	10	2.6	ug/L		05/18/12 09:11	05/19/12 17:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.36**		0.25	0.075	mg/L			05/17/12 16:54	5

Client Sample ID: LMW-15R-5-12

Lab Sample ID: 680-79575-2

Date Collected: 05/16/12 10:59
Matrix: Water
Date Received: 05/17/12 10:30

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 17:57	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/18/12 09:11	05/19/12 17:57	1
Chromium	0.16	U	1.0	0.16	ug/L		05/18/12 09:11	05/19/12 17:57	1
Copper	**0.51**	**J**	1.0	0.21	ug/L		05/18/12 09:11	05/19/12 17:57	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/18/12 09:11	05/19/12 17:57	1
Cobalt	**0.58**		0.20	0.078	ug/L		05/18/12 09:11	05/19/12 17:57	1
Barium	**32**		1.0	0.15	ug/L		05/18/12 09:11	05/19/12 17:57	1
Beryllium	**0.15**	**J**	0.20	0.070	ug/L		05/18/12 09:11	05/19/12 17:57	1
Nickel	**0.60**	**J**	1.0	0.40	ug/L		05/18/12 09:11	05/19/12 17:57	1
Lead	**0.15**	**J**	0.30	0.080	ug/L		05/18/12 09:11	05/19/12 17:57	1
Antimony	0.99	U	2.0	0.99	ug/L		05/18/12 09:11	05/19/12 17:57	1
Selenium	**0.24**	**J**	0.50	0.21	ug/L		05/18/12 09:11	05/19/12 17:57	1
Thallium	0.10	U	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 17:57	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/18/12 09:11	05/19/12 17:57	1
Zinc	2.6	U	10	2.6	ug/L		05/18/12 09:11	05/19/12 17:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**1.6**		0.25	0.075	mg/L			05/17/12 17:10	5

Client Sample Results

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

Client Sample ID: LMW-9S-5-12

Lab Sample ID: 680-79575-3

Date Collected: 05/16/12 14:11
Matrix: Water
Date Received: 05/17/12 10:30

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 18:04	1
Arsenic	**0.54**	**J**	1.0	0.40	ug/L		05/18/12 09:11	05/19/12 18:04	1
Chromium	0.16	U	1.0	0.16	ug/L		05/18/12 09:11	05/19/12 18:04	1
Copper	**0.23**	**J**	1.0	0.21	ug/L		05/18/12 09:11	05/19/12 18:04	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/18/12 09:11	05/19/12 18:04	1
Cobalt	**1.0**		0.20	0.078	ug/L		05/18/12 09:11	05/19/12 18:04	1
Barium	**39**		1.0	0.15	ug/L		05/18/12 09:11	05/19/12 18:04	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/18/12 09:11	05/19/12 18:04	1
Nickel	0.40	U	1.0	0.40	ug/L		05/18/12 09:11	05/19/12 18:04	1
Lead	0.080	U	0.30	0.080	ug/L		05/18/12 09:11	05/19/12 18:04	1
Antimony	0.99	U	2.0	0.99	ug/L		05/18/12 09:11	05/19/12 18:04	1
Selenium	0.21	U	0.50	0.21	ug/L		05/18/12 09:11	05/19/12 18:04	1
Thallium	0.10	U	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 18:04	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/18/12 09:11	05/19/12 18:04	1
Zinc	2.6	U J	10	2.6	ug/L		05/18/12 09:11	05/19/12 18:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			05/17/12 17:25	5

Client Sample ID: LMW-9D-5-12

Lab Sample ID: 680-79575-4

Date Collected: 05/16/12 16:19
Matrix: Water
Date Received: 05/17/12 10:30

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 18:37	1
Arsenic	**2.6**		1.0	0.40	ug/L		05/18/12 09:11	05/19/12 18:37	1
Chromium	**0.35**	**J**	1.0	0.16	ug/L		05/18/12 09:11	05/19/12 18:37	1
Copper	**0.63**	**J**	1.0	0.21	ug/L		05/18/12 09:11	05/19/12 18:37	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/18/12 09:11	05/19/12 18:37	1
Cobalt	0.078	U	0.20	0.078	ug/L		05/18/12 09:11	05/19/12 18:37	1
Barium	**2.5**		1.0	0.15	ug/L		05/18/12 09:11	05/19/12 18:37	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/18/12 09:11	05/19/12 18:37	1
Nickel	0.40	U	1.0	0.40	ug/L		05/18/12 09:11	05/19/12 18:37	1
Lead	**0.49**		0.30	0.080	ug/L		05/18/12 09:11	05/19/12 18:37	1
Antimony	0.99	U	2.0	0.99	ug/L		05/18/12 09:11	05/19/12 18:37	1
Selenium	0.21	U	0.50	0.21	ug/L		05/18/12 09:11	05/19/12 18:37	1
Thallium	0.10	U	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 18:37	1
Vanadium	**2.4**	**J**	5.0	1.4	ug/L		05/18/12 09:11	05/19/12 18:37	1
Zinc	**2.7**	**J**	10	2.6	ug/L		05/18/12 09:11	05/19/12 18:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.085**	**J**	0.25	0.075	mg/L			05/17/12 18:11	5

QC Sample Results

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-237761/1-A
Matrix: Water
Analysis Batch: 238006

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 237761

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 17:37	1
Arsenic	0.40	U	1.0	0.40	ug/L		05/18/12 09:11	05/19/12 17:37	1
Chromium	0.16	U	1.0	0.16	ug/L		05/18/12 09:11	05/19/12 17:37	1
Copper	0.21	U	1.0	0.21	ug/L		05/18/12 09:11	05/19/12 17:37	1
Cadmium	0.20	U	0.50	0.20	ug/L		05/18/12 09:11	05/19/12 17:37	1
Cobalt	0.078	U	0.20	0.078	ug/L		05/18/12 09:11	05/19/12 17:37	1
Barium	0.15	U	1.0	0.15	ug/L		05/18/12 09:11	05/19/12 17:37	1
Beryllium	0.070	U	0.20	0.070	ug/L		05/18/12 09:11	05/19/12 17:37	1
Nickel	0.40	U	1.0	0.40	ug/L		05/18/12 09:11	05/19/12 17:37	1
Lead	0.080	U	0.30	0.080	ug/L		05/18/12 09:11	05/19/12 17:37	1
Antimony	0.99	U	2.0	0.99	ug/L		05/18/12 09:11	05/19/12 17:37	1
Selenium	0.21	U	0.50	0.21	ug/L		05/18/12 09:11	05/19/12 17:37	1
Thallium	0.10	U	0.20	0.10	ug/L		05/18/12 09:11	05/19/12 17:37	1
Vanadium	1.4	U	5.0	1.4	ug/L		05/18/12 09:11	05/19/12 17:37	1
Zinc	2.6	U	10	2.6	ug/L		05/18/12 09:11	05/19/12 17:37	1

Lab Sample ID: LCS 680-237761/2-A
Matrix: Water
Analysis Batch: 238006

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 237761

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	10.0	10.4		ug/L		104	75 - 125
Arsenic	20.0	19.3		ug/L		96	75 - 125
Chromium	20.0	17.9		ug/L		89	75 - 125
Copper	20.0	18.5		ug/L		92	75 - 125
Cadmium	10.0	10.5		ug/L		105	75 - 125
Cobalt	10.0	8.39		ug/L		84	75 - 125
Barium	20.0	19.8		ug/L		99	75 - 125
Beryllium	10.0	10.3		ug/L		103	75 - 125
Nickel	20.0	18.0		ug/L		90	75 - 125
Lead	10.0	10.1		ug/L		101	75 - 125
Antimony	10.0	10.8		ug/L		108	75 - 125
Selenium	20.0	21.4		ug/L		107	75 - 125
Thallium	8.00	7.69		ug/L		96	75 - 125
Vanadium	20.0	17.6		ug/L		88	75 - 125
Zinc	20.0	20.2		ug/L		101	75 - 125

Lab Sample ID: 680-79575-3 MS
Matrix: Water
Analysis Batch: 238006

Client Sample ID: LMW-9S-5-12
Prep Type: Total/NA
Prep Batch: 237761

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.10	U	10.0	10.4		ug/L		104	75 - 125
Arsenic	0.54	J	20.0	20.2		ug/L		98	75 - 125
Chromium	0.16	U	20.0	17.8		ug/L		89	75 - 125
Copper	0.23	J	20.0	18.2		ug/L		90	75 - 125
Cadmium	0.20	U	10.0	10.8		ug/L		108	75 - 125
Cobalt	1.0		10.0	9.18		ug/L		82	75 - 125
Barium	39		20.0	59.9		ug/L		104	75 - 125
Beryllium	0.070	U	10.0	10.4		ug/L		104	75 - 125

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

Lab Sample ID: 680-79575-3 MS — **Client Sample ID: LMW-9S-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238006 — **Prep Batch: 237761**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nickel	0.40	U	20.0	18.0		ug/L		90	75 - 125		
Lead	0.080	U	10.0	10.4		ug/L		104	75 - 125		
Antimony	0.99	U	10.0	11.1		ug/L		111	75 - 125		
Selenium	0.21	U	20.0	22.9		ug/L		115	75 - 125		
Thallium	0.10	U	8.00	8.21		ug/L		103	75 - 125		
Vanadium	1.4	U	20.0	17.9		ug/L		90	75 - 125		
Zinc	2.6	U J	20.0	27.4	J	ug/L		137	75 - 125		

Lab Sample ID: 680-79575-3 MSD — **Client Sample ID: LMW-9S-5-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 238006 — **Prep Batch: 237761**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	0.10	U	10.0	10.0		ug/L		100	75 - 125	3	20
Arsenic	0.54	J	20.0	19.1		ug/L		93	75 - 125	5	20
Chromium	0.16	U	20.0	17.2		ug/L		86	75 - 125	3	20
Copper	0.23	J	20.0	17.7		ug/L		87	75 - 125	3	20
Cadmium	0.20	U	10.0	10.2		ug/L		102	75 - 125	5	20
Cobalt	1.0		10.0	8.89		ug/L		79	75 - 125	3	20
Barium	39		20.0	58.9		ug/L		99	75 - 125	2	20
Beryllium	0.070	U	10.0	10.2		ug/L		102	75 - 125	2	20
Nickel	0.40	U	20.0	17.4		ug/L		87	75 - 125	3	20
Lead	0.080	U	10.0	10.1		ug/L		101	75 - 125	3	20
Antimony	0.99	U	10.0	10.7		ug/L		107	75 - 125	3	20
Selenium	0.21	U	20.0	22.7		ug/L		114	75 - 125	1	20
Thallium	0.10	U	8.00	7.94		ug/L		99	75 - 125	3	20
Vanadium	1.4	U	20.0	17.3		ug/L		87	75 - 125	3	20
Zinc	2.6	U J	20.0	21.8	J	ug/L		109	75 - 125	23	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-237787/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237787

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.075	U	0.25	0.075	mg/L			05/17/12 10:28	5

Lab Sample ID: LCS 680-237787/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 237787

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.99	4.68		mg/L		94	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 680-237787/4
Matrix: Water
Analysis Batch: 237787

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
Nitrate as N			4.99	4.70		mg/L		94	90 - 110	0	30

Lab Sample ID: 680-79575-3 MS
Matrix: Water
Analysis Batch: 237787

Client Sample ID: LMW-9S-5-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	0.075	U	4.99	4.75		mg/L		95	90 - 110		

Lab Sample ID: 680-79575-3 MSD
Matrix: Water
Analysis Batch: 237787

Client Sample ID: LMW-9S-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
Nitrate as N	0.075	U	4.99	4.75		mg/L		95	90 - 110	0	30

QC Association Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

Metals

Prep Batch: 237761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79575-1	LMW-14R-5-12	Total/NA	Water	3030C	
680-79575-2	LMW-15R-5-12	Total/NA	Water	3030C	
680-79575-3	LMW-9S-5-12	Total/NA	Water	3030C	
680-79575-3 MS	LMW-9S-5-12	Total/NA	Water	3030C	
680-79575-3 MSD	LMW-9S-5-12	Total/NA	Water	3030C	
680-79575-4	LMW-9D-5-12	Total/NA	Water	3030C	
LCS 680-237761/2-A	Lab Control Sample	Total/NA	Water	3030C	
MB 680-237761/1-A	Method Blank	Total/NA	Water	3030C	

Analysis Batch: 238006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79575-1	LMW-14R-5-12	Total/NA	Water	6020A	237761
680-79575-2	LMW-15R-5-12	Total/NA	Water	6020A	237761
680-79575-3	LMW-9S-5-12	Total/NA	Water	6020A	237761
680-79575-3 MS	LMW-9S-5-12	Total/NA	Water	6020A	237761
680-79575-3 MSD	LMW-9S-5-12	Total/NA	Water	6020A	237761
680-79575-4	LMW-9D-5-12	Total/NA	Water	6020A	237761
LCS 680-237761/2-A	Lab Control Sample	Total/NA	Water	6020A	237761
MB 680-237761/1-A	Method Blank	Total/NA	Water	6020A	237761

General Chemistry

Analysis Batch: 237787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-79575-1	LMW-14R-5-12	Total/NA	Water	300.0	
680-79575-2	LMW-15R-5-12	Total/NA	Water	300.0	
680-79575-3	LMW-9S-5-12	Total/NA	Water	300.0	
680-79575-3 MS	LMW-9S-5-12	Total/NA	Water	300.0	
680-79575-3 MSD	LMW-9S-5-12	Total/NA	Water	300.0	
680-79575-4	LMW-9D-5-12	Total/NA	Water	300.0	
LCS 680-237787/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-237787/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-237787/2	Method Blank	Total/NA	Water	300.0	

Lab Chronicle

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

Client Sample ID: LMW-14R-5-12 — Lab Sample ID: 680-79575-1

Date Collected: 05/16/12 09:45 — **Matrix: Water**
Date Received: 05/17/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237761	05/18/12 09:11	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238006	05/19/12 17:50	RAM	TAL SAV
Total/NA	Analysis	300.0		5	237787	05/17/12 16:54	PAT	TAL SAV

Client Sample ID: LMW-15R-5-12 — Lab Sample ID: 680-79575-2

Date Collected: 05/16/12 10:59 — **Matrix: Water**
Date Received: 05/17/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237761	05/18/12 09:11	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238006	05/19/12 17:57	RAM	TAL SAV
Total/NA	Analysis	300.0		5	237787	05/17/12 17:10	PAT	TAL SAV

Client Sample ID: LMW-9S-5-12 — Lab Sample ID: 680-79575-3

Date Collected: 05/16/12 14:11 — **Matrix: Water**
Date Received: 05/17/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237761	05/18/12 09:11	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238006	05/19/12 18:04	RAM	TAL SAV
Total/NA	Analysis	300.0		5	237787	05/17/12 17:25	PAT	TAL SAV

Client Sample ID: LMW-9D-5-12 — Lab Sample ID: 680-79575-4

Date Collected: 05/16/12 16:19 — **Matrix: Water**
Date Received: 05/17/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3030C			237761	05/18/12 09:11	CDJ	TAL SAV
Total/NA	Analysis	6020A		1	238006	05/19/12 18:37	RAM	TAL SAV
Total/NA	Analysis	300.0		5	237787	05/17/12 18:11	PAT	TAL SAV

Laboratory References:

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

Serial Number 043540

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	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER Linda Wolfe	P.O. NUMBER BPA # 0048	CONTRACT NO.	STANDARD REPORT DELIVERY ✓ DATE DUE
CLIENT (SITE) PM Kevin Haborak	CLIENT PHONE 912-652-6083	CLIENT FAX	EXPEDITED REPORT DELIVERY (SURCHARGE) DATE DUE
CLIENT NAME USACE	CLIENT E-MAIL		
CLIENT ADDRESS 100 West Oglethorpe Ave Savannah GA			NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1
COMPANY CONTRACTING THIS WORK (if applicable)			

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: 6020A; Tic 300

PRESERVATIVE: HNO3; Ice

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	6020A	Tic 300	REMARKS
5-16-12	0945	LMW-14R-5-12	G	X				1	1	
5-16-12	1059	LMW-15R-5-12	G	X				1	1	
5-16-12	1411	LMW-9S-5-12	G	X				1	1	MS/MSD taken
5-16-12	1411	LMW-MS/MSD-5-12	G	X				1	1	
5-16-12	1619	LMW-9D-5-12	G	X				1	1	

LP 5-16-2012

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Clark Pr	5-16-2012	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
	5/17/12	1030	YES ○ NO ○		680-79575	1.8°C

TAL 8240-680 (1008)

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5/24/2012

Certification Summary

Client: U.S. Army Corps of Engineers
Project/Site: Ft. Bragg Lamont Landfill, Spring FY-12

TestAmerica Job ID: 680-79575-1

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	State Program	6	N/A
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

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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
Lamont Road Land Clearing and Inert Debris Landfill
Fort Bragg, North Carolina
Rounds N1 through N24

Permit No. 26G and 26-08

October 2012

Prepared by
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Statistical Analysis of Ground-Water Data
Lamont Road Land Clearing and Inert Debris Landfill
Fort Bragg, North Carolina
Rounds N1 through N24

EXECUTIVE SUMMARY

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 May and June 2012. The background and compliance wells sampled are listed on Table 1. The monitoring well network was originally comprised of 11 wells, 4 of the original wells have been abandoned and 6 additional wells have been installed. Therefore, the current monitoring well network consists of 13 wells. 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. All ground-water samples were analyzed for Appendix I Organics by EPA method 8260B and Appendix I Inorganics by EPA methods 6010B and 6020A. Any analyte with a detection during this event was tested to determine if the detection was a statistically significant increase over background levels.

Analysis of the 1,2-cis-dichloroethene data using the Non-Parametric Prediction Limit test indicated a possible SSI in monitoring well LMW-8. The SSI was not confirmed by the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the LMW-8 data are not an SSI.

Analysis of the arsenic data using the Kruskal-Wallis test indicated a possible SSI in monitoring well LMW-9D, LMW-9S and LMW-16. The SSIs were not confirmed by the Mann-Kendall Trend Analysis (for any well) or the Shewhart-CUSUM Control Chart (for LMW-9S and LMW-16). The SSI for LMW-9D was confirmed by the Shewhart-CUSUM Control Chart. The fluctuations in the LMW-9S and LMW-16 data are not SSIs. Since the statistical tests are inconclusive for LMW-9D, further data is needed to confirm the SSI.

Analysis of the barium data using the Kruskal-Wallis test indicated a possible SSI in monitoring well LMW-9S. The possible SSI was not confirmed by the Mann-Kendall Trend Analysis but was confirmed by the Shewhart-CUSUM Control Chart. Since the statistical tests are inconclusive, further data is needed to confirm the SSI.

Analysis of the chromium 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 SSIs for any of the wells.

Analysis of the cobalt data using the Kruskal-Wallis test indicated a possible SSI for LMW-9S. The SSI was not confirmed by the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the LMW-9S data are not SSIs.

Analysis of the copper 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 SSIs for any of the wells.

Analysis of the dichlorodifluoromethane data using the Kruskal-Wallis test indicated a possible SSI in monitoring well LMW-3S. The possible SSI was not confirmed by the Mann-Kendall Trend Analysis but was confirmed by the Shewhart-CUSUM Control Chart. Since the statistical tests are inconclusive, further data is needed to confirm the SSI.

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 SSIs for any of the wells.

Analysis of the nickel data using the Kruskal-Wallis test indicated a possible SSI in monitoring well LMW-3S. The SSI was not confirmed by either the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the nickel data in monitoring well LMW-3S are not SSIs.

Analysis of the nitrate data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells LMW-6 and LMW-10. The SSIs were not confirmed by either the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the nitrate data in monitoring wells LMW-6 and LMW-10 are not SSIs.

Analysis of the selenium data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells LMW-6 and LMW-8. The SSIs were not confirmed by the Mann-Kendall Trend Analysis (for either well) or the Shewhart-CUSUM Control Chart (for LMW-8). The SSI for LMW-6 was confirmed by the Shewhart-CUSUM Control Chart. The fluctuations in the LMW-8 data are not SSIs. Since the statistical tests are inconclusive for LMW-6, further data is needed to confirm the SSI.

Analysis of the trichloroethene data using the Non-Parametric Prediction Limit test indicated a possible SSI in monitoring well LMW-10. The SSI was not confirmed by the Mann-Kendall Trend Analysis but was confirmed by the Shewhart-CUSUM Control Chart. Since the statistical tests are inconclusive, further data is needed to confirm the SSI.

Analysis of the trichlorofluoromethane 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 SSIs for any of the wells.

Analysis of the vanadium data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells LMW-7 and LMW-9D. The SSIs were not confirmed by either the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the vanadium data in monitoring wells LMW-7 and LMW-9D are not SSIs.

Analysis of the zinc 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 SSIs for any of the wells.

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.

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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Figure 1: Flowchart of the Statistical Tests Performed for Each Analyte Detected in Compliance Wells

LIST OF SUPPLEMENTAL MATERIAL

Lamont Road Land Clearing and Inert Debris Landfill N=18 Statistical Data on CD Format

1.0 BACKGROUND

Fort Bragg authorized the U.S. Army Corps of Engineers, Savannah District to perform the required sampling of the Lamont LCID Landfill. Sampling activities for the twenty-fourth round of sampling (N=24) were conducted during May 2012. This facility is a Land Clearing and Inert Debris Landfill (LCID) located east of Lamont 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. 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, non-parametric Wilcoxin Rank-Sum Test; parametric ANOVA Tests, non-parametric Kruskal-Wallis Test, Tolerance and Prediction Intervals, and Control Charts.

2.0 DETERMINATION OF APPROPRIATE DISTRIBUTIONAL 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 conform 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 I organics and inorganics. Monitoring well MW-4 serves as the background well. The compliance monitoring well results were compared to the background results by means of an applicable statistical procedure. These monitoring wells are listed on Table 1.

Table 1 Ground-Water Monitoring Network

WELL NAME	STATUS
MW-4	**Active - Compliance Monitoring Well (Background)**
MW-1	**Active - Compliance Monitoring Well**
MW-3	**Active - Compliance Monitoring Well**
MW-3S	**Active - Compliance Monitoring Well**
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-9D	**Active - Compliance Monitoring Well**
MW-9S	**Active - Compliance Monitoring Well**
MW-10	**Active - Compliance Monitoring Well**
MW-14R	**Active - Compliance Monitoring Well**
MW-15R	**Active - Compliance Monitoring Well**
MW-16	**Active - Compliance Monitoring Well**
MW-5	**Abandoned - Compliance Monitoring Well**
MW-11	**Abandoned - Compliance Monitoring Well**
MW-12	**Abandoned - Compliance Monitoring Well**
MW-13	**Abandoned - Compliance Monitoring Well**

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 occurred, but this variation does not necessarily represent contamination. The statistical test used for this report predicted 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 tested the hypothesis that all background and compliance wells have the same median concentration of a constituent. If the hypothesis of equal medians was rejected, then additional calculations were required to determine which compliance wells showed evidence of contamination.

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 amount of non-detects was less than 15%. 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.

If the data were either normally or lognormally distributed the ANOVA Test was applied. The ANOVA Test assumed that there were at least three groups of data (including background), with a minimum of four samples per group. It also assumed that the results were normally or lognormally distributed. This test calculated the F-statistic and its corresponding significance probability. If the computed F-statistic was not significant (less than the tabulated F-statistic), it was concluded that there was no significant difference between the average background concentration and the average concentrations of compliance wells. If the F-statistic was significant, it was concluded that at least one pair of well groups is probably different. In this case, ANOVA proceeded to make individual comparisons between background and compliance well data to isolate which well(s) showed evidence of contamination.

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. 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 4. 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.

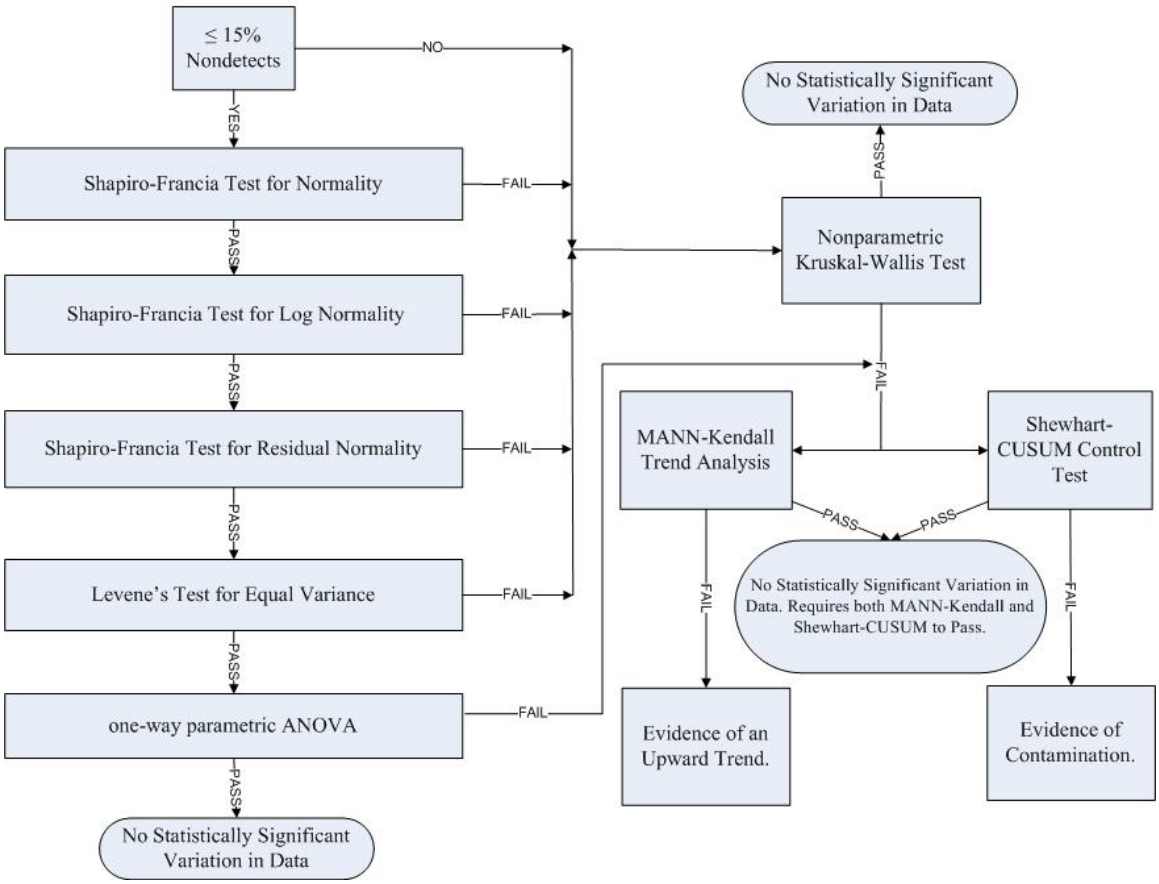
In this case, the Kruskal-Wallis Test performs post-hoc comparisons between background and compliance well data to determine which wells, if any, show evidence of contamination. If the difference between the average ranks and the mean background rank of any individual well exceeds the critical difference 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 analyses can help to determine the validity of the positive results. Intra-well comparisons of 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 Mann-Kendall Trend Analysis and the Shewhart-CUSUM Control Chart statistical tests were selected for these additional analyses.

The purpose for the Mann-Kendall Trend Analysis is to determine trends in sets of data. The assumption of the Mann-Kendall Trend 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 Mann-Kendall Trend Analysis is either a downward trend, an upward 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

The U.S. Army Corps of Engineers, Savannah District performed the required sampling of the Lamont Road LCID Landfill in accordance with the Fort Bragg request. The evaluation of ground-water data is according to 15A NC3AC 13B.1634 for detection monitoring systems.

Sampling activities were completed during May and 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 sample analyte deviates significantly from the mean concentration from the background well. All ground-water samples were analyzed for Appendix I Organics by EPA method 8260B and Appendix I Inorganics by EPA methods 6010B and 6020A.

Analysis of the 1,2-cis-dichloroethene data using the Non-Parametric Prediction Limit test indicated a possible SSI in monitoring well LMW-8. The SSI was not confirmed by the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the LMW-8 data are not an SSI.

Analysis of the arsenic data using the Kruskal-Wallis test indicated a possible SSI in monitoring well LMW-9D, LMW-9S and LMW-16. The SSIs were not confirmed by the Mann-Kendall Trend Analysis (for any well) or the Shewhart-CUSUM Control Chart (for LMW-9S and LMW-16). The SSI for LMW-9D was confirmed by the Shewhart-CUSUM

Control Chart. The fluctuations in the LMW-9S and LMW-16 data are not SSIs. Since the statistical tests are inconclusive for LMW-9D, further data is needed to confirm the SSI.

Analysis of the barium data using the Kruskal-Wallis test indicated a possible SSI in monitoring well LMW-9S. The possible SSI was not confirmed by the Mann-Kendall Trend Analysis but was confirmed by the Shewhart-CUSUM Control Chart. Since the statistical tests are inconclusive, further data is needed to confirm the SSI.

Analysis of the chromium 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 SSIs for any of the wells.

Analysis of the cobalt data using the Kruskal-Wallis test indicated a possible SSI for LMW-9S. The SSI was not confirmed by the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the LMW-9S data are not SSIs.

Analysis of the copper 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 SSIs for any of the wells.

Analysis of the dichlorodifluoromethane data using the Kruskal-Wallis test indicated a possible SSI in monitoring well LMW-3S. The possible SSI was not confirmed by the Mann-Kendall Trend Analysis but was confirmed by the Shewhart-CUSUM Control Chart. Since the statistical tests are inconclusive, further data is needed to confirm the SSI.

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 SSIs for any of the wells.

Analysis of the nickel data using the Kruskal-Wallis test indicated a possible SSI in monitoring well LMW-3S. The SSI was not confirmed by either the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the nickel data in monitoring well LMW-3S are not SSIs.

Analysis of the nitrate data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells LMW-6 and LMW-10. The SSIs were not confirmed by either the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the nitrate data in monitoring wells LMW-6 and LMW-10 are not SSIs.

Analysis of the selenium data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells LMW-6 and LMW-8. The SSIs were not confirmed by the Mann-Kendall Trend Analysis (for either well) or the Shewhart-CUSUM Control Chart (for LMW-8). The SSI for LMW-6 was confirmed by the Shewhart-CUSUM Control Chart. The fluctuations in

the LMW-8 data are not SSIs. Since the statistical tests are inconclusive for LMW-6, further data is needed to confirm the SSI.

Analysis of the trichloroethene data using the Non-Parametric Prediction Limit test indicated a possible SSI in monitoring well LMW-10. The SSI was not confirmed by the Mann-Kendall Trend Analysis but was confirmed by the Shewhart-CUSUM Control Chart. Since the statistical tests are inconclusive, further data is needed to confirm the SSI.

Analysis of the trichlorofluoromethane 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 SSIs for any of the wells.

Analysis of the vanadium data using the Kruskal-Wallis test indicated a possible SSI in monitoring wells LMW-7 and LMW-9D. The SSIs were not confirmed by either the Mann-Kendall Trend Analysis or the Shewhart-CUSUM Control Chart. The fluctuations in the vanadium data in monitoring wells LMW-7 and LMW-9D are not SSIs.

Analysis of the zinc 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 SSIs for any of the wells.

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 arsenic, barium, dichlorodifluoromethane, selenium, and trichloroethene results from Lamont Road Land Clearing and Inert Debris Landfill require additional sampling events to determine if evidence of a SSI or an upward trend exists. 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 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.

Concentrations (ppb)

Parameter: 1,2-cis-Dichloroethylene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 259
Total Non-Detect: 253
Percent Non-Detects: 97.6834%
Total Background Measurements: 21
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	21	21 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U

There are 16 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-3	23	23 (100%)	11/19/1996	ND<1	ND<1
			3/24/1997	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U

		11/22/2011	ND<0.15 U	ND<0.15 U	
		5/16/2012	ND<0.15 U	ND<0.15 U	
LMW-14R	10	10 (100%)	6/2/2007	ND<1	ND<1
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.15 U	ND<0.15 U	
		6/30/2010	ND<0.15 U	ND<0.15 U	
		11/17/2010	ND<0.15 U	ND<0.15 U	
		7/6/2011	ND<0.15 U	ND<0.15 U	
		11/22/2011	ND<0.15 U	ND<0.15 U	
		5/16/2012	ND<0.15 U	ND<0.15 U	
LMW-10	18	18 (100%)	3/14/2000	ND<1	ND<1
		9/23/2003	ND<1	ND<1	
		3/10/2004	ND<1	ND<1	
		10/12/2004	ND<1	ND<1	
		4/1/2005	ND<1	ND<1	
		10/26/2005	ND<1	ND<1	
		6/19/2006	ND<1	ND<1	
		11/18/2006	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.15 U	ND<0.15 U	
		6/30/2010	ND<0.15 U	ND<0.15 U	
		11/17/2010	ND<0.15 U	ND<0.15 U	
		7/6/2011	ND<0.15 U	ND<0.15 U	
		11/22/2011	ND<0.15 U	ND<0.15 U	
		5/16/2012	ND<0.15 U	ND<0.15 U	
LMW-9D	11	11 (100%)	11/18/2006	ND<1	ND<1
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.15 U	ND<0.15 U	
		6/30/2010	ND<0.15 U	ND<0.15 U	
		11/17/2010	ND<0.15 U	ND<0.15 U	
		7/6/2011	ND<0.15 U	ND<0.15 U	
		11/22/2011	ND<0.15 U	ND<0.15 U	
		5/16/2012	ND<0.15 U	ND<0.15 U	
LMW-15R	14	14 (100%)	11/18/2006	ND<1	ND<1
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.15 U	ND<0.15 U	
		6/30/2010	ND<0.15 U	ND<0.15 U	
		11/17/2010	ND<0.15 U	ND<0.15 U	
		7/6/2011	ND<0.15 U	ND<0.15 U	
		11/22/2011	ND<0.15 U	ND<0.15 U	
		5/16/2012	ND<0.15 U	ND<0.15 U	
LMW-16	11	11 (100%)	11/18/2006	ND<1	ND<1
		6/2/2007	ND<1	ND<1	

			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U
LMW-9S	11	11 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U
LMW-3S	11	11 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U
LMW-6	21	21 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U
LMW-7	20	20 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1

			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.15 U		ND<0.15 U
			11/17/2010	ND<0.15 U		ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U		ND<0.15 U
			5/16/2012	ND<0.15 U		ND<0.15 U
LMW-8	21	15 (71.4286%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<0 J	ND<0 J	
			6/19/2006	ND<0 J	ND<0 J	
			11/18/2006	ND<0 J	ND<0 J	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<0 J	ND<0 J	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	2.4	2.4	
			6/30/2010	1.1	1.1	
			11/17/2010	0.67 J	0.67 J	
			7/6/2011	1.5	1.5	
			11/22/2011	1.7	1.7	
			5/16/2012	3.2	3.2	
LMW-9	21	21 (100%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.15 U		ND<0.15 U
			6/30/2010	ND<0.15 U		ND<0.15 U
			11/17/2010	ND<0.15 U		ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U		ND<0.15 U
			5/16/2012	ND<0.15 U		ND<0.15 U
LMW-11	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	

			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-12	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
MW-5	13	13 (100%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-13	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: 1,2-cis-Dichloroethylene

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 259

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.74777	7.55021	0
2	0	-2.45727	13.5884	0
3	0	-2.29036	18.8342	0
4	0	-2.17009	23.5435	0
5	0.075	-2.07485	27.8485	-0.155614
6	0.075	-1.99539	31.8301	-0.305268
7	0.075	-1.94314	35.6058	-0.451003
8	0.075	-1.88079	39.1432	-0.592063
9	0.075	-1.82501	42.4738	-0.728938
10	0.075	-1.77438	45.6223	-0.862016
11	0.075	-1.72793	48.608	-0.991611
12	0.075	-1.68494	51.447	-1.11798
13	0.075	-1.64485	54.1526	-1.24135
14	0.075	-1.61644	56.7654	-1.36258
15	0.075	-1.58047	59.2633	-1.48111
16	0.075	-1.54643	61.6548	-1.5971
17	0.075	-1.5141	63.9473	-1.71065
18	0.075	-1.48328	66.1474	-1.8219
19	0.075	-1.4538	68.2609	-1.93093
20	0.075	-1.4325	70.313	-2.03837
21	0.075	-1.40507	72.2872	-2.14375
22	0.075	-1.37866	74.1879	-2.24715
23	0.075	-1.35317	76.019	-2.34864
24	0.075	-1.32854	77.784	-2.44828
25	0.075	-1.30469	79.4862	-2.54613
26	0.075	-1.28155	81.1286	-2.64225
27	0.075	-1.26464	82.7279	-2.7371
28	0.075	-1.24264	84.2721	-2.8303
29	0.075	-1.22123	85.7635	-2.92189
30	0.075	-1.20036	87.2044	-3.01191
31	0.075	-1.18	88.5968	-3.10041
32	0.075	-1.16012	89.9426	-3.18742
33	0.075	-1.1455	91.2548	-3.27334
34	0.075	-1.12639	92.5236	-3.35782
35	0.075	-1.10768	93.7505	-3.44089
36	0.075	-1.08935	94.9372	-3.52259
37	0.075	-1.07138	96.0851	-3.60295
38	0.075	-1.05375	97.1954	-3.68198
39	0.075	-1.03643	98.2696	-3.75971
40	0.075	-1.02365	99.3175	-3.83648
41	0.075	-1.00687	100.331	-3.912
42	0.075	-0.990356	101.312	-3.98627
43	0.075	-0.974114	102.261	-4.05933
44	0.075	-0.958125	103.179	-4.13119
45	0.075	-0.942375	104.067	-4.20187
46	0.075	-0.930718	104.933	-4.27167
47	0.075	-0.915365	105.771	-4.34033
48	0.075	-0.900227	106.582	-4.40784
49	0.075	-0.885291	107.365	-4.47424
50	0.075	-0.87055	108.123	-4.53953
51	0.075	-0.855996	108.856	-4.60373

52	0.075	-0.841621	109.564	-4.66685
53	0.075	-0.830953	110.255	-4.72918
54	0.075	-0.816874	110.922	-4.79044
55	0.075	-0.802956	111.567	-4.85066
56	0.075	-0.789191	112.19	-4.90985
57	0.075	-0.775574	112.791	-4.96802
58	0.075	-0.7621	113.372	-5.02518
59	0.075	-0.752084	113.938	-5.08158
60	0.075	-0.738846	114.483	-5.137
61	0.075	-0.725736	115.01	-5.19143
62	0.075	-0.712751	115.518	-5.24488
63	0.075	-0.699883	116.008	-5.29737
64	0.075	-0.687131	116.48	-5.34891
65	0.075	-0.67449	116.935	-5.3995
66	0.075	-0.665079	117.377	-5.44938
67	0.075	-0.652622	117.803	-5.49832
68	0.075	-0.640266	118.213	-5.54634
69	0.075	-0.628006	118.608	-5.59344
70	0.075	-0.615839	118.987	-5.63963
71	0.075	-0.603765	119.351	-5.68491
72	0.075	-0.594766	119.705	-5.72952
73	0.075	-0.582841	120.045	-5.77324
74	0.075	-0.570999	120.371	-5.81606
75	0.075	-0.559237	120.684	-5.858
76	0.5	-0.547551	120.983	-6.13178
77	0.5	-0.53594	121.271	-6.39975
78	0.5	-0.524401	121.546	-6.66195
79	0.5	-0.515791	121.812	-6.91984
80	0.5	-0.504372	122.066	-7.17203
81	0.5	-0.493018	122.309	-7.41854
82	0.5	-0.481728	122.541	-7.6594
83	0.5	-0.470498	122.763	-7.89465
84	0.5	-0.459327	122.974	-8.12432
85	0.5	-0.450985	123.177	-8.34981
86	0.5	-0.439913	123.37	-8.56976
87	0.5	-0.428895	123.554	-8.78421
88	0.5	-0.417928	123.729	-8.99318
89	0.5	-0.40701	123.895	-9.19668
90	0.5	-0.396142	124.052	-9.39475
91	0.5	-0.385321	124.2	-9.58741
92	0.5	-0.377233	124.342	-9.77603
93	0.5	-0.36649	124.477	-9.95927
94	0.5	-0.355788	124.603	-10.1372
95	0.5	-0.345126	124.722	-10.3097
96	0.5	-0.334503	124.834	-10.477
97	0.5	-0.323919	124.939	-10.6389
98	0.5	-0.316004	125.039	-10.7969
99	0.5	-0.305481	125.132	-10.9497
100	0.5	-0.294992	125.22	-11.0972
101	0.5	-0.284535	125.3	-11.2394
102	0.5	-0.27411	125.376	-11.3765
103	0.5	-0.263715	125.445	-11.5084
104	0.5	-0.253347	125.509	-11.635
105	0.5	-0.24559	125.57	-11.7578
106	0.5	-0.235269	125.625	-11.8755
107	0.5	-0.224974	125.676	-11.988
108	0.5	-0.214702	125.722	-12.0953
109	0.5	-0.204452	125.764	-12.1975
110	0.5	-0.194225	125.801	-12.2946
111	0.5	-0.186567	125.836	-12.3879
112	0.5	-0.176374	125.867	-12.4761
113	0.5	-0.166199	125.895	-12.5592

114	0.5	-0.156042	125.919	-12.6372
115	0.5	-0.1459	125.94	-12.7102
116	0.5	-0.135774	125.959	-12.7781
117	0.5	-0.125661	125.975	-12.8409
118	0.5	-0.118085	125.989	-12.8999
119	0.5	-0.107995	126	-12.9539
120	0.5	-0.0979139	126.01	-13.0029
121	0.5	-0.0878447	126.018	-13.0468
122	0.5	-0.0777834	126.024	-13.0857
123	0.5	-0.0677301	126.028	-13.1196
124	0.5	-0.0601949	126.032	-13.1497
125	0.5	-0.0501541	126.034	-13.1747
126	0.5	-0.0401167	126.036	-13.1948
127	0.5	-0.0300838	126.037	-13.2098
128	0.5	-0.0200544	126.037	-13.2199
129	0.5	-0.0100272	126.037	-13.2249
130	0.5	0	126.037	-13.2249
131	0.5	0.0100272	126.037	-13.2199
132	0.5	0.0200544	126.038	-13.2098
133	0.5	0.0300838	126.039	-13.1948
134	0.5	0.0401167	126.04	-13.1747
135	0.5	0.0501541	126.043	-13.1497
136	0.5	0.0601949	126.046	-13.1196
137	0.5	0.0677301	126.051	-13.0857
138	0.5	0.0777834	126.057	-13.0468
139	0.5	0.0878447	126.065	-13.0029
140	0.5	0.0979139	126.074	-12.9539
141	0.5	0.107995	126.086	-12.8999
142	0.5	0.118085	126.1	-12.8409
143	0.5	0.125661	126.116	-12.7781
144	0.5	0.135774	126.134	-12.7102
145	0.5	0.1459	126.156	-12.6372
146	0.5	0.156042	126.18	-12.5592
147	0.5	0.166199	126.208	-12.4761
148	0.5	0.176374	126.239	-12.3879
149	0.5	0.186567	126.273	-12.2946
150	0.5	0.194225	126.311	-12.1975
151	0.5	0.204452	126.353	-12.0953
152	0.5	0.214702	126.399	-11.988
153	0.5	0.224974	126.45	-11.8755
154	0.5	0.235269	126.505	-11.7578
155	0.5	0.24559	126.565	-11.635
156	0.5	0.253347	126.63	-11.5084
157	0.5	0.263715	126.699	-11.3765
158	0.5	0.27411	126.774	-11.2394
159	0.5	0.284535	126.855	-11.0972
160	0.5	0.294992	126.942	-10.9497
161	0.5	0.305481	127.035	-10.7969
162	0.5	0.316004	127.135	-10.6389
163	0.5	0.323919	127.24	-10.477
164	0.5	0.334503	127.352	-10.3097
165	0.5	0.345126	127.471	-10.1372
166	0.5	0.355788	127.598	-9.95927
167	0.5	0.36649	127.732	-9.77603
168	0.5	0.377233	127.874	-9.58741
169	0.5	0.385321	128.023	-9.39475
170	0.5	0.396142	128.18	-9.19668
171	0.5	0.40701	128.346	-8.99318
172	0.5	0.417928	128.52	-8.78421
173	0.5	0.428895	128.704	-8.56976
174	0.5	0.439913	128.898	-8.34981
175	0.5	0.450985	129.101	-8.12432

176	0.5	0.459327	129.312	-7.89465
177	0.5	0.470498	129.533	-7.6594
178	0.5	0.481728	129.765	-7.41854
179	0.5	0.493018	130.009	-7.17203
180	0.5	0.504372	130.263	-6.91984
181	0.5	0.515791	130.529	-6.66195
182	0.5	0.524401	130.804	-6.39975
183	0.5	0.53594	131.091	-6.13178
184	0.5	0.547551	131.391	-5.858
185	0.5	0.559237	131.704	-5.57838
186	0.5	0.570999	132.03	-5.29288
187	0.5	0.582841	132.37	-5.00146
188	0.5	0.594766	132.723	-4.70408
189	0.5	0.603765	133.088	-4.4022
190	0.5	0.615839	133.467	-4.09428
191	0.5	0.628006	133.861	-3.78028
192	0.5	0.640266	134.271	-3.46014
193	0.5	0.652622	134.697	-3.13383
194	0.5	0.665079	135.14	-2.80129
195	0.5	0.67449	135.595	-2.46405
196	0.5	0.687131	136.067	-2.12048
197	0.5	0.699883	136.557	-1.77054
198	0.5	0.712751	137.065	-1.41417
199	0.5	0.725736	137.591	-1.0513
200	0.5	0.738846	138.137	-0.681874
201	0.5	0.752084	138.703	-0.305832
202	0.5	0.7621	139.284	0.0752177
203	0.5	0.775574	139.885	0.463005
204	0.5	0.789191	140.508	0.8576
205	0.5	0.802956	141.153	1.25908
206	0.5	0.816874	141.82	1.66752
207	0.5	0.830953	142.51	2.08299
208	0.5	0.841621	143.219	2.5038
209	0.5	0.855996	143.951	2.9318
210	0.5	0.87055	144.709	3.36708
211	0.5	0.885291	145.493	3.80972
212	0.5	0.900227	146.303	4.25983
213	0.5	0.915365	147.141	4.71752
214	0.5	0.930718	148.008	5.18288
215	0.5	0.942375	148.896	5.65406
216	0.5	0.958125	149.814	6.13313
217	0.5	0.974114	150.763	6.62018
218	0.5	0.990356	151.743	7.11536
219	0.5	1.00687	152.757	7.61879
220	0.5	1.02365	153.805	8.13062
221	0.5	1.03643	154.879	8.64884
222	0.5	1.05375	155.99	9.17571
223	0.5	1.07138	157.137	9.7114
224	0.5	1.08935	158.324	10.2561
225	0.5	1.10768	159.551	10.8099
226	0.5	1.12639	160.82	11.3731
227	0.5	1.1455	162.132	11.9459
228	0.5	1.16012	163.478	12.5259
229	0.5	1.18	164.87	13.1159
230	0.5	1.20036	166.311	13.7161
231	0.5	1.22123	167.803	14.3267
232	0.5	1.24264	169.347	14.948
233	0.5	1.26464	170.946	15.5804
234	0.5	1.28155	172.588	16.2211
235	0.5	1.30469	174.291	16.8735
236	0.5	1.32854	176.056	17.5377
237	0.5	1.35317	177.887	18.2143

238	0.5	1.37866	179.787	18.9037
239	0.5	1.40507	181.762	19.6062
240	0.5	1.4325	183.814	20.3225
241	0.5	1.4538	185.927	21.0494
242	0.5	1.48328	188.127	21.791
243	0.5	1.5141	190.42	22.548
244	0.5	1.54643	192.811	23.3213
245	0.5	1.58047	195.309	24.1115
246	0.5	1.61644	197.922	24.9197
247	0.5	1.64485	200.628	25.7421
248	0.5	1.68494	203.467	26.5846
249	0.5	1.72793	206.452	27.4486
250	0.5	1.77438	209.601	28.3358
251	0.5	1.82501	212.931	29.2483
252	0.5	1.88079	216.469	30.1887
253	0.5	1.94314	220.245	31.1602
254	0.67	1.99539	224.226	32.4971
255	1.1	2.07485	228.531	34.7795
256	1.5	2.17009	233.24	38.0346
257	1.7	2.29036	238.486	41.9282
258	2.4	2.45727	244.524	47.8257
259	3.2	2.74777	252.075	56.6185

Data Set Standard Deviation = 0.312627
Numerator = 3205.66
Denominator = 6356.26
W Statistic = 0.504331 = 3205.66 / 6356.26

5% Critical value of 0.976 exceeds 0.504331
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.504331
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,2-cis-Dichloroethylene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.713734
0.713734 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00384615	-2.747773	9	348.683	
2	0	0.00769231	-2.457273	9	334.497	
3	0	0.0115385	-2.290363	9	326.346	
4	0	0.0153846	-2.170093	9	320.473	
5	0.075	0.0192308	-2.074854	9.0313	315.822	
6	0.075	0.0230769	-1.995394	9.0313	311.942	
7	0.075	0.0269231	-1.943144	9.0313	309.39	
8	0.075	0.0307692	-1.880794	9.0313	306.345	
9	0.075	0.0346154	-1.825014	9.0313	303.621	
10	0.075	0.0384615	-1.774384	9.0313	301.149	
11	0.075	0.0423077	-1.727934	9.0313	298.881	
12	0.075	0.0461538	-1.684944	9.0313	296.781	
13	0.075	0.05	-1.644854	9.0313	294.824	
14	0.075	0.0538462	-1.616444	9.0313	293.436	
15	0.075	0.0576923	-1.580474	9.0313	291.679	
16	0.075	0.0615385	-1.546434	9.0313	290.017	
17	0.075	0.0653846	-1.5141	49.0313	288.439	
18	0.075	0.0692308	-1.483284	9.0313	286.934	
19	0.075	0.0730769	-1.4538	49.0313	285.494	
20	0.075	0.0769231	-1.4325	49.0313	284.454	
21	0.075	0.0807692	-1.405074	9.0313	283.114	
22	0.075	0.0846154	-1.378664	9.0313	281.824	
23	0.075	0.0884615	-1.353174	9.0313	280.58	
24	0.075	0.0923077	-1.328544	9.0313	279.377	
25	0.075	0.0961538	-1.304694	9.0313	278.212	
26	0.075	0.1	-1.281554	9.0313	277.082	
27	0.075	0.103846	-1.264644	9.0313	276.257	
28	0.075	0.107692	-1.242644	9.0313	275.182	
29	0.075	0.111538	-1.221234	9.0313	274.137	
30	0.075	0.115385	-1.200364	9.0313	273.118	
31	0.075	0.119231	-1.18	49.0313	272.123	
32	0.075	0.123077	-1.160124	9.0313	271.153	
33	0.075	0.126923	-1.1455	49.0313	270.439	
34	0.075	0.130769	-1.126394	9.0313	269.505	
35	0.075	0.134615	-1.107684	9.0313	268.592	
36	0.075	0.138462	-1.089354	9.0313	267.697	
37	0.075	0.142308	-1.071384	9.0313	266.819	
38	0.075	0.146154	-1.053754	9.0313	265.958	
39	0.075	0.15	-1.036434	9.0313	265.112	
40	0.075	0.153846	-1.023654	9.0313	264.488	
41	0.075	0.157692	-1.006874	9.0313	263.669	
42	0.075	0.161538	-0.990356	49.0313	262.862	
43	0.075	0.165385	-0.974114	49.0313	262.069	
44	0.075	0.169231	-0.958125	49.0313	261.288	
45	0.075	0.173077	-0.942375	49.0313	260.519	
46	0.075	0.176923	-0.930718	49.0313	259.95	
47	0.075	0.180769	-0.915365	49.0313	259.2	
48	0.075	0.184615	-0.900227	49.0313	258.461	

49	0.075	0.188462	-0.885291	49.0313	257.732
50	0.075	0.192308	-0.87055	49.0313	257.012
51	0.075	0.196154	-0.855996	49.0313	256.301
52	0.075	0.2	-0.841621	49.0313	255.599
53	0.075	0.203846	-0.830953	49.0313	255.078
54	0.075	0.207692	-0.816874	49.0313	254.391
55	0.075	0.211538	-0.802956	49.0313	253.711
56	0.075	0.215385	-0.789191	49.0313	253.039
57	0.075	0.219231	-0.775574	49.0313	252.374
58	0.075	0.223077	-0.7621	49.0313	251.716
59	0.075	0.226923	-0.752084	49.0313	251.227
60	0.075	0.230769	-0.738846	49.0313	250.58
61	0.075	0.234615	-0.725736	49.0313	249.94
62	0.075	0.238462	-0.712751	49.0313	249.306
63	0.075	0.242308	-0.699883	49.0313	248.678
64	0.075	0.246154	-0.687131	49.0313	248.055
65	0.075	0.25	-0.67449	49.0313	247.438
66	0.075	0.253846	-0.665079	49.0313	246.978
67	0.075	0.257692	-0.652622	49.0313	246.37
68	0.075	0.261538	-0.640266	49.0313	245.766
69	0.075	0.265385	-0.628006	49.0313	245.168
70	0.075	0.269231	-0.615839	49.0313	244.573
71	0.075	0.273077	-0.603765	49.0313	243.984
72	0.075	0.276923	-0.594766	49.0313	243.544
73	0.075	0.280769	-0.582841	49.0313	242.962
74	0.075	0.284615	-0.570999	49.0313	242.384
75	0.075	0.288462	-0.559237	49.0313	241.809
76	0.5	0.292308	-0.547551	105.875	241.239
77	0.5	0.296154	-0.53594	105.875	240.672
78	0.5	0.3	-0.524401	105.875	240.108
79	0.5	0.303846	-0.515791	105.875	239.688
80	0.5	0.307692	-0.504372	105.875	239.13
81	0.5	0.311538	-0.493018	105.875	238.576
82	0.5	0.315385	-0.481728	105.875	238.024
83	0.5	0.319231	-0.470498	105.875	237.476
84	0.5	0.323077	-0.459327	105.875	236.93
85	0.5	0.326923	-0.450985	105.875	236.523
86	0.5	0.330769	-0.439913	105.875	235.982
87	0.5	0.334615	-0.428895	105.875	235.444
88	0.5	0.338462	-0.417928	105.875	234.909
89	0.5	0.342308	-0.40701	105.875	234.376
90	0.5	0.346154	-0.396142	105.875	233.845
91	0.5	0.35	-0.385321	105.875	233.317
92	0.5	0.353846	-0.377233	105.875	232.922
93	0.5	0.357692	-0.36649	105.875	232.397
94	0.5	0.361538	-0.355788	105.875	231.874
95	0.5	0.365385	-0.345126	105.875	231.354
96	0.5	0.369231	-0.334503	105.875	230.835
97	0.5	0.373077	-0.323919	105.875	230.318
98	0.5	0.376923	-0.316004	105.875	229.932
99	0.5	0.380769	-0.305481	105.875	229.418
100	0.5	0.384615	-0.294992	105.875	228.905
101	0.5	0.388462	-0.284535	105.875	228.395
102	0.5	0.392308	-0.27411	105.875	227.886
103	0.5	0.396154	-0.263715	105.875	227.378
104	0.5	0.4	-0.253347	105.875	226.872
105	0.5	0.403846	-0.24559	105.875	226.493
106	0.5	0.407692	-0.235269	105.875	225.989
107	0.5	0.411538	-0.224974	105.875	225.486
108	0.5	0.415385	-0.214702	105.875	224.985
109	0.5	0.419231	-0.204452	105.875	224.484
110	0.5	0.423077	-0.194225	105.875	223.985

111	0.5	0.426923	-0.186567	105.875	223.611
112	0.5	0.430769	-0.176374	105.875	223.113
113	0.5	0.434615	-0.166199	105.875	222.616
114	0.5	0.438462	-0.156042	105.875	222.12
115	0.5	0.442308	-0.1459	105.875	221.625
116	0.5	0.446154	-0.135774	105.875	221.13
117	0.5	0.45	-0.125661	105.875	220.636
118	0.5	0.453846	-0.118085	105.875	220.267
119	0.5	0.457692	-0.107995	105.875	219.774
120	0.5	0.461538	-0.0979139	105.875	219.281
121	0.5	0.465385	-0.0878447	105.875	218.79
122	0.5	0.469231	-0.0777834	105.875	218.298
123	0.5	0.473077	-0.0677301	105.875	217.807
124	0.5	0.476923	-0.0601949	105.875	217.44
125	0.5	0.480769	-0.0501541	105.875	216.949
126	0.5	0.484615	-0.0401167	105.875	216.459
127	0.5	0.488462	-0.0300838	105.875	215.969
128	0.5	0.492308	-0.0200544	105.875	215.479
129	0.5	0.496154	-0.0100272	105.875	214.99
130	0.5	0.5	0	105.875	214.5
131	0.5	0.503846	0.0100272	105.875	214.01
132	0.5	0.507692	0.0200544	105.875	213.521
133	0.5	0.511538	0.0300838	105.875	213.031
134	0.5	0.515385	0.0401167	105.875	212.541
135	0.5	0.519231	0.0501541	105.875	212.051
136	0.5	0.523077	0.0601949	105.875	211.56
137	0.5	0.526923	0.0677301	105.875	211.193
138	0.5	0.530769	0.0777834	105.875	210.702
139	0.5	0.534615	0.0878447	105.875	210.21
140	0.5	0.538462	0.0979139	105.875	209.719
141	0.5	0.542308	0.107995	105.875	209.226
142	0.5	0.546154	0.118085	105.875	208.733
143	0.5	0.55	0.125661	105.875	208.364
144	0.5	0.553846	0.135774	105.875	207.87
145	0.5	0.557692	0.1459	105.875	207.375
146	0.5	0.561538	0.156042	105.875	206.88
147	0.5	0.565385	0.166199	105.875	206.384
148	0.5	0.569231	0.176374	105.875	205.887
149	0.5	0.573077	0.186567	105.875	205.389
150	0.5	0.576923	0.194225	105.875	205.015
151	0.5	0.580769	0.204452	105.875	204.516
152	0.5	0.584615	0.214702	105.875	204.015
153	0.5	0.588462	0.224974	105.875	203.514
154	0.5	0.592308	0.235269	105.875	203.011
155	0.5	0.596154	0.24559	105.875	202.507
156	0.5	0.6	0.253347	105.875	202.128
157	0.5	0.603846	0.263715	105.875	201.622
158	0.5	0.607692	0.27411	105.875	201.114
159	0.5	0.611538	0.284535	105.875	200.605
160	0.5	0.615385	0.294992	105.875	200.095
161	0.5	0.619231	0.305481	105.875	199.582
162	0.5	0.623077	0.316004	105.875	199.068
163	0.5	0.626923	0.323919	105.875	198.682
164	0.5	0.630769	0.334503	105.875	198.165
165	0.5	0.634615	0.345126	105.875	197.646
166	0.5	0.638462	0.355788	105.875	197.126
167	0.5	0.642308	0.36649	105.875	196.603
168	0.5	0.646154	0.377233	105.875	196.078
169	0.5	0.65	0.385321	105.875	195.683
170	0.5	0.653846	0.396142	105.875	195.155
171	0.5	0.657692	0.40701	105.875	194.624
172	0.5	0.661538	0.417928	105.875	194.091

173	0.5	0.665385	0.428895	105.875	193.556
174	0.5	0.669231	0.439913	105.875	193.018
175	0.5	0.673077	0.450985	105.875	192.477
176	0.5	0.676923	0.459327	105.875	192.07
177	0.5	0.680769	0.470498	105.875	191.524
178	0.5	0.684615	0.481728	105.875	190.976
179	0.5	0.688462	0.493018	105.875	190.424
180	0.5	0.692308	0.504372	105.875	189.87
181	0.5	0.696154	0.515791	105.875	189.312
182	0.5	0.7	0.524401	105.875	188.892
183	0.5	0.703846	0.53594	105.875	188.328
184	0.5	0.707692	0.547551	105.875	187.761
185	0.5	0.711538	0.559237	105.875	187.191
186	0.5	0.715385	0.570999	105.875	186.616
187	0.5	0.719231	0.582841	105.875	186.038
188	0.5	0.723077	0.594766	105.875	185.456
189	0.5	0.726923	0.603765	105.875	185.016
190	0.5	0.730769	0.615839	105.875	184.427
191	0.5	0.734615	0.628006	105.875	183.832
192	0.5	0.738462	0.640266	105.875	183.234
193	0.5	0.742308	0.652622	105.875	182.63
194	0.5	0.746154	0.665079	105.875	182.022
195	0.5	0.75	0.67449	105.875	181.562
196	0.5	0.753846	0.687131	105.875	180.945
197	0.5	0.757692	0.699883	105.875	180.322
198	0.5	0.761538	0.712751	105.875	179.694
199	0.5	0.765385	0.725736	105.875	179.06
200	0.5	0.769231	0.738846	105.875	178.42
201	0.5	0.773077	0.752084	105.875	177.773
202	0.5	0.776923	0.7621	105.875	177.284
203	0.5	0.780769	0.775574	105.875	176.626
204	0.5	0.784615	0.789191	105.875	175.961
205	0.5	0.788462	0.802956	105.875	175.289
206	0.5	0.792308	0.816874	105.875	174.609
207	0.5	0.796154	0.830953	105.875	173.922
208	0.5	0.8	0.841621	105.875	173.401
209	0.5	0.803846	0.855996	105.875	172.699
210	0.5	0.807692	0.87055	105.875	171.988
211	0.5	0.811538	0.885291	105.875	171.268
212	0.5	0.815385	0.900227	105.875	170.539
213	0.5	0.819231	0.915365	105.875	169.8
214	0.5	0.823077	0.930718	105.875	169.05
215	0.5	0.826923	0.942375	105.875	168.481
216	0.5	0.830769	0.958125	105.875	167.712
217	0.5	0.834615	0.974114	105.875	166.931
218	0.5	0.838462	0.990356	105.875	166.138
219	0.5	0.842308	1.00687	105.875	165.331
220	0.5	0.846154	1.02365	105.875	164.512
221	0.5	0.85	1.03643	105.875	163.888
222	0.5	0.853846	1.05375	105.875	163.042
223	0.5	0.857692	1.07138	105.875	162.181
224	0.5	0.861538	1.08935	105.875	161.303
225	0.5	0.865385	1.10768	105.875	160.408
226	0.5	0.869231	1.12639	105.875	159.495
227	0.5	0.873077	1.1455	105.875	158.561
228	0.5	0.876923	1.16012	105.875	157.847
229	0.5	0.880769	1.18	105.875	156.877
230	0.5	0.884615	1.20036	105.875	155.882
231	0.5	0.888462	1.22123	105.875	154.863
232	0.5	0.892308	1.24264	105.875	153.818
233	0.5	0.896154	1.26464	105.875	152.743
234	0.5	0.9	1.28155	105.875	151.918

235	0.5	0.903846	1.30469	105.875	150.788
236	0.5	0.907692	1.32854	105.875	149.623
237	0.5	0.911538	1.35317	105.875	148.42
238	0.5	0.915385	1.37866	105.875	147.176
239	0.5	0.919231	1.40507	105.875	145.886
240	0.5	0.923077	1.4325	105.875	144.546
241	0.5	0.926923	1.4538	105.875	143.506
242	0.5	0.930769	1.48328	105.875	142.066
243	0.5	0.934615	1.5141	105.875	140.561
244	0.5	0.938462	1.54643	105.875	138.983
245	0.5	0.942308	1.58047	105.875	137.321
246	0.5	0.946154	1.61644	105.875	135.564
247	0.5	0.95	1.64485	105.875	134.176
248	0.5	0.953846	1.68494	105.875	132.219
249	0.5	0.957692	1.72793	105.875	130.119
250	0.5	0.961538	1.77438	105.875	127.851
251	0.5	0.965385	1.82501	105.875	125.379
252	0.5	0.969231	1.88079	105.875	122.655
253	0.5	0.973077	1.94314	105.875	119.61
254	0.67	0.976923	1.99539	128.613	117.058
255	1.1	0.980769	2.07485	186.125	113.178
256	1.5	0.984615	2.17009	239.625	108.527
257	1.7	0.988462	2.29036	266.375	102.654
258	2.4	0.992308	2.45727	360	94.5032
259	3.2	0.996154	2.74777	467	80.3175

Shapiro-Francia Test of Normality

Parameter: 1,2-cis-Dichloroethylene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 259

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	-1.94314	35.6058	40.6125
8	-2.59027	-1.88079	39.1432	45.4842
9	-2.59027	-1.82501	42.4738	50.2115
10	-2.59027	-1.77438	45.6223	54.8076
11	-2.59027	-1.72793	48.608	59.2834
12	-2.59027	-1.68494	51.447	63.6478
13	-2.59027	-1.64485	54.1526	67.9084
14	-2.59027	-1.61644	56.7654	72.0954
15	-2.59027	-1.58047	59.2633	76.1893
16	-2.59027	-1.54643	61.6548	80.1949
17	-2.59027	-1.5141	63.9473	84.1169
18	-2.59027	-1.48328	66.1474	87.959
19	-2.59027	-1.4538	68.2609	91.7247
20	-2.59027	-1.4325	70.313	95.4353
21	-2.59027	-1.40507	72.2872	99.0748
22	-2.59027	-1.37866	74.1879	102.646
23	-2.59027	-1.35317	76.019	106.151
24	-2.59027	-1.32854	77.784	109.592
25	-2.59027	-1.30469	79.4862	112.972
26	-2.59027	-1.28155	81.1286	116.291
27	-2.59027	-1.26464	82.7279	119.567
28	-2.59027	-1.24264	84.2721	122.786
29	-2.59027	-1.22123	85.7635	125.949
30	-2.59027	-1.20036	87.2044	129.058
31	-2.59027	-1.18	88.5968	132.115
32	-2.59027	-1.16012	89.9426	135.12
33	-2.59027	-1.1455	91.2548	138.087
34	-2.59027	-1.12639	92.5236	141.005
35	-2.59027	-1.10768	93.7505	143.874
36	-2.59027	-1.08935	94.9372	146.696
37	-2.59027	-1.07138	96.0851	149.471
38	-2.59027	-1.05375	97.1954	152.2
39	-2.59027	-1.03643	98.2696	154.885
40	-2.59027	-1.02365	99.3175	157.536
41	-2.59027	-1.00687	100.331	160.144
42	-2.59027	-0.990356	101.312	162.71
43	-2.59027	-0.974114	102.261	165.233
44	-2.59027	-0.958125	103.179	167.715
45	-2.59027	-0.942375	104.067	170.156
46	-2.59027	-0.930718	104.933	172.567
47	-2.59027	-0.915365	105.771	174.938
48	-2.59027	-0.900227	106.582	177.269
49	-2.59027	-0.885291	107.365	179.563
50	-2.59027	-0.87055	108.123	181.818
51	-2.59027	-0.855996	108.856	184.035

52	-2.59027	-0.841621	109.564	186.215
53	-2.59027	-0.830953	110.255	188.367
54	-2.59027	-0.816874	110.922	190.483
55	-2.59027	-0.802956	111.567	192.563
56	-2.59027	-0.789191	112.19	194.607
57	-2.59027	-0.775574	112.791	196.616
58	-2.59027	-0.7621	113.372	198.59
59	-2.59027	-0.752084	113.938	200.538
60	-2.59027	-0.738846	114.483	202.452
61	-2.59027	-0.725736	115.01	204.332
62	-2.59027	-0.712751	115.518	206.178
63	-2.59027	-0.699883	116.008	207.991
64	-2.59027	-0.687131	116.48	209.771
65	-2.59027	-0.67449	116.935	211.518
66	-2.59027	-0.665079	117.377	213.241
67	-2.59027	-0.652622	117.803	214.931
68	-2.59027	-0.640266	118.213	216.59
69	-2.59027	-0.628006	118.608	218.216
70	-2.59027	-0.615839	118.987	219.812
71	-2.59027	-0.603765	119.351	221.376
72	-0.693147	-0.594766	119.705	221.788
73	-0.693147	-0.582841	120.045	222.192
74	-0.693147	-0.570999	120.371	222.588
75	-0.693147	-0.559237	120.684	222.975
76	-0.693147	-0.547551	120.983	223.355
77	-0.693147	-0.53594	121.271	223.726
78	-0.693147	-0.524401	121.546	224.09
79	-0.693147	-0.515791	121.812	224.447
80	-0.693147	-0.504372	122.066	224.797
81	-0.693147	-0.493018	122.309	225.139
82	-0.693147	-0.481728	122.541	225.472
83	-0.693147	-0.470498	122.763	225.799
84	-0.693147	-0.459327	122.974	226.117
85	-0.693147	-0.450985	123.177	226.43
86	-0.693147	-0.439913	123.37	226.734
87	-0.693147	-0.428895	123.554	227.032
88	-0.693147	-0.417928	123.729	227.321
89	-0.693147	-0.40701	123.895	227.604
90	-0.693147	-0.396142	124.052	227.878
91	-0.693147	-0.385321	124.2	228.145
92	-0.693147	-0.377233	124.342	228.407
93	-0.693147	-0.36649	124.477	228.661
94	-0.693147	-0.355788	124.603	228.907
95	-0.693147	-0.345126	124.722	229.147
96	-0.693147	-0.334503	124.834	229.378
97	-0.693147	-0.323919	124.939	229.603
98	-0.693147	-0.316004	125.039	229.822
99	-0.693147	-0.305481	125.132	230.034
100	-0.693147	-0.294992	125.22	230.238
101	-0.693147	-0.284535	125.3	230.435
102	-0.693147	-0.27411	125.376	230.625
103	-0.693147	-0.263715	125.445	230.808
104	-0.693147	-0.253347	125.509	230.984
105	-0.693147	-0.24559	125.57	231.154
106	-0.693147	-0.235269	125.625	231.317
107	-0.693147	-0.224974	125.676	231.473
108	-0.693147	-0.214702	125.722	231.622
109	-0.693147	-0.204452	125.764	231.764
110	-0.693147	-0.194225	125.801	231.898
111	-0.693147	-0.186567	125.836	232.028
112	-0.693147	-0.176374	125.867	232.15
113	-0.693147	-0.166199	125.895	232.265

114	-0.693147	-0.156042	125.919	232.373
115	-0.693147	-0.1459	125.94	232.474
116	-0.693147	-0.135774	125.959	232.568
117	-0.693147	-0.125661	125.975	232.656
118	-0.693147	-0.118085	125.989	232.737
119	-0.693147	-0.107995	126	232.812
120	-0.693147	-0.0979139	126.01	232.88
121	-0.693147	-0.0878447	126.018	232.941
122	-0.693147	-0.0777834	126.024	232.995
123	-0.693147	-0.0677301	126.028	233.042
124	-0.693147	-0.0601949	126.032	233.084
125	-0.693147	-0.0501541	126.034	233.118
126	-0.693147	-0.0401167	126.036	233.146
127	-0.693147	-0.0300838	126.037	233.167
128	-0.693147	-0.0200544	126.037	233.181
129	-0.693147	-0.0100272	126.037	233.188
130	-0.693147	0	126.037	233.188
131	-0.693147	0.0100272	126.037	233.181
132	-0.693147	0.0200544	126.038	233.167
133	-0.693147	0.0300838	126.039	233.146
134	-0.693147	0.0401167	126.04	233.118
135	-0.693147	0.0501541	126.043	233.084
136	-0.693147	0.0601949	126.046	233.042
137	-0.693147	0.0677301	126.051	232.995
138	-0.693147	0.0777834	126.057	232.941
139	-0.693147	0.0878447	126.065	232.88
140	-0.693147	0.0979139	126.074	232.812
141	-0.693147	0.107995	126.086	232.737
142	-0.693147	0.118085	126.1	232.656
143	-0.693147	0.125661	126.116	232.568
144	-0.693147	0.135774	126.134	232.474
145	-0.693147	0.1459	126.156	232.373
146	-0.693147	0.156042	126.18	232.265
147	-0.693147	0.166199	126.208	232.15
148	-0.693147	0.176374	126.239	232.028
149	-0.693147	0.186567	126.273	231.898
150	-0.693147	0.194225	126.311	231.764
151	-0.693147	0.204452	126.353	231.622
152	-0.693147	0.214702	126.399	231.473
153	-0.693147	0.224974	126.45	231.317
154	-0.693147	0.235269	126.505	231.154
155	-0.693147	0.24559	126.565	230.984
156	-0.693147	0.253347	126.63	230.808
157	-0.693147	0.263715	126.699	230.625
158	-0.693147	0.27411	126.774	230.435
159	-0.693147	0.284535	126.855	230.238
160	-0.693147	0.294992	126.942	230.034
161	-0.693147	0.305481	127.035	229.822
162	-0.693147	0.316004	127.135	229.603
163	-0.693147	0.323919	127.24	229.378
164	-0.693147	0.334503	127.352	229.147
165	-0.693147	0.345126	127.471	228.907
166	-0.693147	0.355788	127.598	228.661
167	-0.693147	0.36649	127.732	228.407
168	-0.693147	0.377233	127.874	228.145
169	-0.693147	0.385321	128.023	227.878
170	-0.693147	0.396142	128.18	227.604
171	-0.693147	0.40701	128.346	227.321
172	-0.693147	0.417928	128.52	227.032
173	-0.693147	0.428895	128.704	226.734
174	-0.693147	0.439913	128.898	226.43
175	-0.693147	0.450985	129.101	226.117

176	-0.693147	0.459327		129.312	225.799
177	-0.693147	0.470498		129.533	225.472
178	-0.693147	0.481728		129.765	225.139
179	-0.693147	0.493018		130.009	224.797
180	-0.693147	0.504372		130.263	224.447
181	-0.693147	0.515791		130.529	224.09
182	-0.693147	0.524401		130.804	223.726
183	-0.693147	0.53594	131.091	223.355	
184	-0.693147	0.547551		131.391	222.975
185	-0.693147	0.559237		131.704	222.588
186	-0.693147	0.570999		132.03	222.192
187	-0.693147	0.582841		132.37	221.788
188	-0.693147	0.594766		132.723	221.376
189	-0.693147	0.603765		133.088	220.957
190	-0.693147	0.615839		133.467	220.53
191	-0.693147	0.628006		133.861	220.095
192	-0.693147	0.640266		134.271	219.651
193	-0.693147	0.652622		134.697	219.199
194	-0.693147	0.665079		135.14	218.738
195	-0.693147	0.67449	135.595	218.27	
196	-0.693147	0.687131		136.067	217.794
197	-0.693147	0.699883		136.557	217.309
198	-0.693147	0.712751		137.065	216.815
199	-0.693147	0.725736		137.591	216.312
200	-0.693147	0.738846		138.137	215.8
201	-0.693147	0.752084		138.703	215.278
202	-0.693147	0.7621	139.284	214.75	
203	-0.693147	0.775574		139.885	214.212
204	-0.693147	0.789191		140.508	213.665
205	-0.693147	0.802956		141.153	213.109
206	-0.693147	0.816874		141.82	212.543
207	-0.693147	0.830953		142.51	211.967
208	-0.693147	0.841621		143.219	211.383
209	-0.693147	0.855996		143.951	210.79
210	-0.693147	0.87055	144.709	210.187	
211	-0.693147	0.885291		145.493	209.573
212	-0.693147	0.900227		146.303	208.949
213	-0.693147	0.915365		147.141	208.314
214	-0.693147	0.930718		148.008	207.669
215	-0.693147	0.942375		148.896	207.016
216	-0.693147	0.958125		149.814	206.352
217	-0.693147	0.974114		150.763	205.677
218	-0.693147	0.990356		151.743	204.99
219	-0.693147	1.00687	152.757	204.292	
220	-0.693147	1.02365	153.805	203.583	
221	-0.693147	1.03643	154.879	202.864	
222	-0.693147	1.05375	155.99	202.134	
223	-0.693147	1.07138	157.137	201.391	
224	-0.693147	1.08935	158.324	200.636	
225	-0.693147	1.10768	159.551	199.869	
226	-0.693147	1.12639	160.82	199.088	
227	-0.693147	1.1455	162.132	198.294	
228	-0.693147	1.16012	163.478	197.49	
229	-0.693147	1.18	164.87	196.672	
230	-0.693147	1.20036	166.311	195.84	
231	-0.693147	1.22123	167.803	194.993	
232	-0.693147	1.24264	169.347	194.132	
233	-0.693147	1.26464	170.946	193.255	
234	-0.693147	1.28155	172.588	192.367	
235	-0.693147	1.30469	174.291	191.463	
236	-0.693147	1.32854	176.056	190.542	
237	-0.693147	1.35317	177.887	189.604	

238	-0.693147		1.37866	179.787	188.648
239	-0.693147		1.40507	181.762	187.674
240	-0.693147		1.4325	183.814	186.681
241	-0.693147		1.4538	185.927	185.674
242	-0.693147		1.48328	188.127	184.646
243	-0.693147		1.5141	190.42	183.596
244	-0.693147		1.54643	192.811	182.524
245	-0.693147		1.58047	195.309	181.429
246	-0.693147		1.61644	197.922	180.308
247	-0.693147		1.64485	200.628	179.168
248	-0.693147		1.68494	203.467	178
249	-0.693147		1.72793	206.452	176.802
250	-0.400478		1.77438	209.601	176.092
251	0	1.82501	212.931	176.092	
252	0	1.88079	216.469	176.092	
253	0	1.94314	220.245	176.092	
254	0	1.99539	224.226	176.092	
255	0.0953102		2.07485	228.531	176.29
256	0.405465		2.17009	233.24	177.17
257	0.530628		2.29036	238.486	178.385
258	0.875469		2.45727	244.524	180.536
259	1.16315	2.74777	252.075	183.732	

Data Set Standard Deviation = 0.894328
Numerator = 33757.5
Denominator = 52016.7
W Statistic = 0.648975 = 33757.5 / 52016.7

5% Critical value of 0.976 exceeds 0.648975
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.648975
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: 1,2-cis-Dichloroethylene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.805215
0.805215 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.59027	0.00384615	-2.74777	82.8414	348.683
2	-2.59027	0.00769231	-2.45727	82.8414	334.497
3	-2.59027	0.0115385	-2.29036	82.8414	326.346
4	-2.59027	0.0153846	-2.17009	82.8414	320.473
5	-2.59027	0.0192308	-2.07485	82.8414	315.822
6	-2.59027	0.0230769	-1.99539	82.8414	311.942
7	-2.59027	0.0269231	-1.94314	82.8414	309.39
8	-2.59027	0.0307692	-1.88079	82.8414	306.345
9	-2.59027	0.0346154	-1.82501	82.8414	303.621
10	-2.59027	0.0384615	-1.77438	82.8414	301.149
11	-2.59027	0.0423077	-1.72793	82.8414	298.881
12	-2.59027	0.0461538	-1.68494	82.8414	296.781
13	-2.59027	0.05	-1.64485	82.8414	294.824
14	-2.59027	0.0538462	-1.61644	82.8414	293.436
15	-2.59027	0.0576923	-1.58047	82.8414	291.679
16	-2.59027	0.0615385	-1.54643	82.8414	290.017
17	-2.59027	0.0653846	-1.5141	82.8414	288.439
18	-2.59027	0.0692308	-1.48328	82.8414	286.934
19	-2.59027	0.0730769	-1.4538	82.8414	285.494
20	-2.59027	0.0769231	-1.4325	82.8414	284.454
21	-2.59027	0.0807692	-1.40507	82.8414	283.114
22	-2.59027	0.0846154	-1.37866	82.8414	281.824
23	-2.59027	0.0884615	-1.35317	82.8414	280.58
24	-2.59027	0.0923077	-1.32854	82.8414	279.377
25	-2.59027	0.0961538	-1.30469	82.8414	278.212
26	-2.59027	0.1	-1.28155	82.8414	277.082
27	-2.59027	0.103846	-1.26464	82.8414	276.257
28	-2.59027	0.107692	-1.24264	82.8414	275.182
29	-2.59027	0.111538	-1.22123	82.8414	274.137
30	-2.59027	0.115385	-1.20036	82.8414	273.118
31	-2.59027	0.119231	-1.18	82.8414	272.123
32	-2.59027	0.123077	-1.16012	82.8414	271.153
33	-2.59027	0.126923	-1.1455	82.8414	270.439
34	-2.59027	0.130769	-1.12639	82.8414	269.505
35	-2.59027	0.134615	-1.10768	82.8414	268.592
36	-2.59027	0.138462	-1.08935	82.8414	267.697
37	-2.59027	0.142308	-1.07138	82.8414	266.819
38	-2.59027	0.146154	-1.05375	82.8414	265.958
39	-2.59027	0.15	-1.03643	82.8414	265.112
40	-2.59027	0.153846	-1.02365	82.8414	264.488
41	-2.59027	0.157692	-1.00687	82.8414	263.669
42	-2.59027	0.161538	-0.990356	82.8414	262.862
43	-2.59027	0.165385	-0.974114	82.8414	262.069
44	-2.59027	0.169231	-0.958125	82.8414	261.288
45	-2.59027	0.173077	-0.942375	82.8414	260.519
46	-2.59027	0.176923	-0.930718	82.8414	259.95
47	-2.59027	0.180769	-0.915365	82.8414	259.2
48	-2.59027	0.184615	-0.900227	82.8414	258.461

49	-2.590270.188462	-0.885291	82.8414	257.732	
50	-2.590270.192308	-0.8705	82.8414	257.012	
51	-2.590270.196154	-0.855996	82.8414	256.301	
52	-2.590270.2	-0.841621	82.8414	255.599	
53	-2.590270.203846	-0.830953	82.8414	255.078	
54	-2.590270.207692	-0.816874	82.8414	254.391	
55	-2.590270.211538	-0.802956	82.8414	253.711	
56	-2.590270.215385	-0.789191	82.8414	253.039	
57	-2.590270.219231	-0.775574	82.8414	252.374	
58	-2.590270.223077	-0.7621	82.8414	251.716	
59	-2.590270.226923	-0.752084	82.8414	251.227	
60	-2.590270.230769	-0.738846	82.8414	250.58	
61	-2.590270.234615	-0.725736	82.8414	249.94	
62	-2.590270.238462	-0.712751	82.8414	249.306	
63	-2.590270.242308	-0.699883	82.8414	248.678	
64	-2.590270.246154	-0.687131	82.8414	248.055	
65	-2.590270.25	-0.6744	82.8414	247.438	
66	-2.590270.253846	-0.665079	82.8414	246.978	
67	-2.590270.257692	-0.652622	82.8414	246.37	
68	-2.590270.261538	-0.640266	82.8414	245.766	
69	-2.590270.265385	-0.628006	82.8414	245.168	
70	-2.590270.269231	-0.615839	82.8414	244.573	
71	-2.590270.273077	-0.603765	82.8414	243.984	
72	-0.693147	0.276923	-0.594766	285.833	243.544
73	-0.693147	0.280769	-0.582841	285.833	242.962
74	-0.693147	0.284615	-0.570999	285.833	242.384
75	-0.693147	0.288462	-0.559237	285.833	241.809
76	-0.693147	0.292308	-0.547551	285.833	241.239
77	-0.693147	0.296154	-0.53594	285.833	240.672
78	-0.693147	0.3	-0.524401	285.833	240.108
79	-0.693147	0.303846	-0.515791	285.833	239.688
80	-0.693147	0.307692	-0.504372	285.833	239.13
81	-0.693147	0.311538	-0.493018	285.833	238.576
82	-0.693147	0.315385	-0.481728	285.833	238.024
83	-0.693147	0.319231	-0.470498	285.833	237.476
84	-0.693147	0.323077	-0.459327	285.833	236.93
85	-0.693147	0.326923	-0.450985	285.833	236.523
86	-0.693147	0.330769	-0.439913	285.833	235.982
87	-0.693147	0.334615	-0.428895	285.833	235.444
88	-0.693147	0.338462	-0.417928	285.833	234.909
89	-0.693147	0.342308	-0.40701	285.833	234.376
90	-0.693147	0.346154	-0.396142	285.833	233.845
91	-0.693147	0.35	-0.385321	285.833	233.317
92	-0.693147	0.353846	-0.377233	285.833	232.922
93	-0.693147	0.357692	-0.36649	285.833	232.397
94	-0.693147	0.361538	-0.355788	285.833	231.874
95	-0.693147	0.365385	-0.345126	285.833	231.354
96	-0.693147	0.369231	-0.334503	285.833	230.835
97	-0.693147	0.373077	-0.323919	285.833	230.318
98	-0.693147	0.376923	-0.316004	285.833	229.932
99	-0.693147	0.380769	-0.305481	285.833	229.418
100	-0.693147	0.384615	-0.294992	285.833	228.905
101	-0.693147	0.388462	-0.284535	285.833	228.395
102	-0.693147	0.392308	-0.27411	285.833	227.886
103	-0.693147	0.396154	-0.263715	285.833	227.378
104	-0.693147	0.4	-0.253347	285.833	226.872
105	-0.693147	0.403846	-0.24559	285.833	226.493
106	-0.693147	0.407692	-0.235269	285.833	225.989
107	-0.693147	0.411538	-0.224974	285.833	225.486
108	-0.693147	0.415385	-0.214702	285.833	224.985
109	-0.693147	0.419231	-0.204452	285.833	224.484
110	-0.693147	0.423077	-0.194225	285.833	223.985

111	-0.693147	0.426923	-0.186567	285.833	223.611
112	-0.693147	0.430769	-0.176374	285.833	223.113
113	-0.693147	0.434615	-0.166199	285.833	222.616
114	-0.693147	0.438462	-0.156042	285.833	222.12
115	-0.693147	0.442308	-0.1459	285.833	221.625
116	-0.693147	0.446154	-0.135774	285.833	221.13
117	-0.693147	0.45	-0.125661	285.833	220.636
118	-0.693147	0.453846	-0.118085	285.833	220.267
119	-0.693147	0.457692	-0.107995	285.833	219.774
120	-0.693147	0.461538	-0.0979139	285.833	219.281
121	-0.693147	0.465385	-0.0878447	285.833	218.79
122	-0.693147	0.469231	-0.0777834	285.833	218.298
123	-0.693147	0.473077	-0.0677301	285.833	217.807
124	-0.693147	0.476923	-0.0601949	285.833	217.44
125	-0.693147	0.480769	-0.0501541	285.833	216.949
126	-0.693147	0.484615	-0.0401167	285.833	216.459
127	-0.693147	0.488462	-0.0300838	285.833	215.969
128	-0.693147	0.492308	-0.0200544	285.833	215.479
129	-0.693147	0.496154	-0.0100272	285.833	214.99
130	-0.693147	0.5	0	285.833	214.5
131	-0.693147	0.503846	0.0100272	285.833	214.01
132	-0.693147	0.507692	0.0200544	285.833	213.521
133	-0.693147	0.511538	0.0300838	285.833	213.031
134	-0.693147	0.515385	0.0401167	285.833	212.541
135	-0.693147	0.519231	0.0501541	285.833	212.051
136	-0.693147	0.523077	0.0601949	285.833	211.56
137	-0.693147	0.526923	0.0677301	285.833	211.193
138	-0.693147	0.530769	0.0777834	285.833	210.702
139	-0.693147	0.534615	0.0878447	285.833	210.21
140	-0.693147	0.538462	0.0979139	285.833	209.719
141	-0.693147	0.542308	0.107995	285.833	209.226
142	-0.693147	0.546154	0.118085	285.833	208.733
143	-0.693147	0.55	0.125661	285.833	208.364
144	-0.693147	0.553846	0.135774	285.833	207.87
145	-0.693147	0.557692	0.1459	285.833	207.375
146	-0.693147	0.561538	0.156042	285.833	206.88
147	-0.693147	0.565385	0.166199	285.833	206.384
148	-0.693147	0.569231	0.176374	285.833	205.887
149	-0.693147	0.573077	0.186567	285.833	205.389
150	-0.693147	0.576923	0.194225	285.833	205.015
151	-0.693147	0.580769	0.204452	285.833	204.516
152	-0.693147	0.584615	0.214702	285.833	204.015
153	-0.693147	0.588462	0.224974	285.833	203.514
154	-0.693147	0.592308	0.235269	285.833	203.011
155	-0.693147	0.596154	0.24559	285.833	202.507
156	-0.693147	0.6	0.253347	285.833	202.128
157	-0.693147	0.603846	0.263715	285.833	201.622
158	-0.693147	0.607692	0.27411	285.833	201.114
159	-0.693147	0.611538	0.284535	285.833	200.605
160	-0.693147	0.615385	0.294992	285.833	200.095
161	-0.693147	0.619231	0.305481	285.833	199.582
162	-0.693147	0.623077	0.316004	285.833	199.068
163	-0.693147	0.626923	0.323919	285.833	198.682
164	-0.693147	0.630769	0.334503	285.833	198.165
165	-0.693147	0.634615	0.345126	285.833	197.646
166	-0.693147	0.638462	0.355788	285.833	197.126
167	-0.693147	0.642308	0.36649	285.833	196.603
168	-0.693147	0.646154	0.377233	285.833	196.078
169	-0.693147	0.65	0.385321	285.833	195.683
170	-0.693147	0.653846	0.396142	285.833	195.155
171	-0.693147	0.657692	0.40701	285.833	194.624
172	-0.693147	0.661538	0.417928	285.833	194.091

173	-0.693147	0.665385	0.428895	285.833	193.556
174	-0.693147	0.669231	0.439913	285.833	193.018
175	-0.693147	0.673077	0.450985	285.833	192.477
176	-0.693147	0.676923	0.459327	285.833	192.07
177	-0.693147	0.680769	0.470498	285.833	191.524
178	-0.693147	0.684615	0.481728	285.833	190.976
179	-0.693147	0.688462	0.493018	285.833	190.424
180	-0.693147	0.692308	0.504372	285.833	189.87
181	-0.693147	0.696154	0.515791	285.833	189.312
182	-0.693147	0.7	0.524401	285.833	188.892
183	-0.693147	0.703846	0.53594	285.833	188.328
184	-0.693147	0.707692	0.547551	285.833	187.761
185	-0.693147	0.711538	0.559237	285.833	187.191
186	-0.693147	0.715385	0.570999	285.833	186.616
187	-0.693147	0.719231	0.582841	285.833	186.038
188	-0.693147	0.723077	0.594766	285.833	185.456
189	-0.693147	0.726923	0.603765	285.833	185.016
190	-0.693147	0.730769	0.615839	285.833	184.427
191	-0.693147	0.734615	0.628006	285.833	183.832
192	-0.693147	0.738462	0.640266	285.833	183.234
193	-0.693147	0.742308	0.652622	285.833	182.63
194	-0.693147	0.746154	0.665079	285.833	182.022
195	-0.693147	0.75	0.67449	285.833	181.562
196	-0.693147	0.753846	0.687131	285.833	180.945
197	-0.693147	0.757692	0.699883	285.833	180.322
198	-0.693147	0.761538	0.712751	285.833	179.694
199	-0.693147	0.765385	0.725736	285.833	179.06
200	-0.693147	0.769231	0.738846	285.833	178.42
201	-0.693147	0.773077	0.752084	285.833	177.773
202	-0.693147	0.776923	0.7621	285.833	177.284
203	-0.693147	0.780769	0.775574	285.833	176.626
204	-0.693147	0.784615	0.789191	285.833	175.961
205	-0.693147	0.788462	0.802956	285.833	175.289
206	-0.693147	0.792308	0.816874	285.833	174.609
207	-0.693147	0.796154	0.830953	285.833	173.922
208	-0.693147	0.8	0.841621	285.833	173.401
209	-0.693147	0.803846	0.855996	285.833	172.699
210	-0.693147	0.807692	0.87055	285.833	171.988
211	-0.693147	0.811538	0.885291	285.833	171.268
212	-0.693147	0.815385	0.900227	285.833	170.539
213	-0.693147	0.819231	0.915365	285.833	169.8
214	-0.693147	0.823077	0.930718	285.833	169.05
215	-0.693147	0.826923	0.942375	285.833	168.481
216	-0.693147	0.830769	0.958125	285.833	167.712
217	-0.693147	0.834615	0.974114	285.833	166.931
218	-0.693147	0.838462	0.990356	285.833	166.138
219	-0.693147	0.842308	1.00687	285.833	165.331
220	-0.693147	0.846154	1.02365	285.833	164.512
221	-0.693147	0.85	1.03643	285.833	163.888
222	-0.693147	0.853846	1.05375	285.833	163.042
223	-0.693147	0.857692	1.07138	285.833	162.181
224	-0.693147	0.861538	1.08935	285.833	161.303
225	-0.693147	0.865385	1.10768	285.833	160.408
226	-0.693147	0.869231	1.12639	285.833	159.495
227	-0.693147	0.873077	1.1455	285.833	158.561
228	-0.693147	0.876923	1.16012	285.833	157.847
229	-0.693147	0.880769	1.18	285.833	156.877
230	-0.693147	0.884615	1.20036	285.833	155.882
231	-0.693147	0.888462	1.22123	285.833	154.863
232	-0.693147	0.892308	1.24264	285.833	153.818
233	-0.693147	0.896154	1.26464	285.833	152.743
234	-0.693147	0.9	1.28155	285.833	151.918

235	-0.693147	0.903846	1.30469	285.833	150.788
236	-0.693147	0.907692	1.32854	285.833	149.623
237	-0.693147	0.911538	1.35317	285.833	148.42
238	-0.693147	0.915385	1.37866	285.833	147.176
239	-0.693147	0.919231	1.40507	285.833	145.886
240	-0.693147	0.923077	1.4325	285.833	144.546
241	-0.693147	0.926923	1.4538	285.833	143.506
242	-0.693147	0.930769	1.48328	285.833	142.066
243	-0.693147	0.934615	1.5141	285.833	140.561
244	-0.693147	0.938462	1.54643	285.833	138.983
245	-0.693147	0.942308	1.58047	285.833	137.321
246	-0.693147	0.946154	1.61644	285.833	135.564
247	-0.693147	0.95	1.64485	285.833	134.176
248	-0.693147	0.953846	1.68494	285.833	132.219
249	-0.693147	0.957692	1.72793	285.833	130.119
250	-0.400478	0.961538	1.77438	317.149	127.851
251	0	0.965385	1.82501	360	125.379
252	0	0.969231	1.88079	360	122.655
253	0	0.973077	1.94314	360	119.61
254	0	0.976923	1.99539	360	117.058
255	0.0953102	0.980769	2.07485	370.198	113.178
256	0.405465	0.984615	2.17009	403.385	108.527
257	0.530628	0.988462	2.29036	416.777	102.654
258	0.875469	0.992308	2.45727	453.675	94.5032
259	1.16315	0.996154	2.74777	484.457	80.3175

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: 1,2-cis-Dichloroethylene
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 97.6834%
Number of comparisons = 16
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 21
Maximum Background Value = 0
Confidence Level = 72.4%
False Positive Rate = 27.6%

Location	Date	Count	Mean	Significant
LMW-3	5/16/2012	1	-2.59027	FALSE
LMW-14R	5/16/2012	1	-2.59027	FALSE
LMW-10	5/16/2012	1	-2.59027	FALSE
LMW-9D	5/16/2012	1	-2.59027	FALSE
LMW-15R	5/16/2012	1	-2.59027	FALSE
LMW-16	5/16/2012	1	-2.59027	FALSE
LMW-9S	5/16/2012	1	-2.59027	FALSE
LMW-3S	5/16/2012	1	-2.59027	FALSE
LMW-6	5/16/2012	1	-2.59027	FALSE
LMW-7	5/16/2012	1	-2.59027	FALSE
LMW-8	5/16/2012	1	1.16315	TRUE
LMW-9	5/16/2012	1	-2.59027	FALSE
LMW-11	11/20/2008	1	-0.693147	FALSE
LMW-12	11/20/2008	1	-0.693147	FALSE
MW-5	11/20/2008	1	-0.693147	FALSE
LMW-13	11/20/2008	1	-0.693147	FALSE

Mann-Kendall Trend Analysis
Parameter: 1,2-cis-Dichloroethylene
Location: LMW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives		Negatives	
ND<-0.693147	ND<-0.693147	0	0	0		
ND<-0.693147	ND<-0.693147	0	0	0		
ND<-0.693147	ND<-0.693147	0	0	0		
ND<-0.693147	ND<-0.693147	0	0	0		
ND<-0.693147	ND<-0.693147	0	0	0		
ND<-0.693147	ND<-0.693147	0	0	0		
ND<-0.693147	ND<-0.693147	0	0	0		
ND<0 J	ND<-0.693147	0.693147	1	0		
ND<0 J	ND<-0.693147	0.693147	2	0		
ND<0 J	ND<-0.693147	0.693147	3	0		
ND<-0.693147	ND<-0.693147	0	3	0		
ND<0 J	ND<-0.693147	0.693147	4	0		
ND<-0.693147	ND<-0.693147	0	4	0		
ND<-0.693147	ND<-0.693147	0	4	0		
0.875469	ND<-0.693147	1.56862	5	0		
0.0953102	ND<-0.693147	0.788457	6	0		0
-0.400478 J	ND<-0.693147	0.29267	7	0		
0.405465	ND<-0.693147	1.09861	8	0		
0.530628	ND<-0.693147	1.22378	9	0		
1.16315	ND<-0.693147	1.8563	10	0		
ND<-0.693147	ND<-0.693147	0	10	0		
ND<-0.693147	ND<-0.693147	0	10	0		
ND<-0.693147	ND<-0.693147	0	10	0		
ND<-0.693147	ND<-0.693147	0	10	0		
ND<-0.693147	ND<-0.693147	0	10	0		
ND<-0.693147	ND<-0.693147	0	10	0		
ND<0 J	ND<-0.693147	0.693147	11	0		
ND<0 J	ND<-0.693147	0.693147	12	0		
ND<0 J	ND<-0.693147	0.693147	13	0		
ND<-0.693147	ND<-0.693147	0	13	0		
ND<0 J	ND<-0.693147	0.693147	14	0		
ND<-0.693147	ND<-0.693147	0	14	0		
ND<-0.693147	ND<-0.693147	0	14	0		
0.875469	ND<-0.693147	1.56862	15	0		
0.0953102	ND<-0.693147	0.788457	16	0		0
-0.400478 J	ND<-0.693147	0.29267	17	0		
0.405465	ND<-0.693147	1.09861	18	0		
0.530628	ND<-0.693147	1.22378	19	0		
1.16315	ND<-0.693147	1.8563	20	0		
ND<-0.693147	ND<-0.693147	0	20	0		
ND<-0.693147	ND<-0.693147	0	20	0		
ND<-0.693147	ND<-0.693147	0	20	0		
ND<-0.693147	ND<-0.693147	0	20	0		
ND<-0.693147	ND<-0.693147	0	20	0		
ND<0 J	ND<-0.693147	0.693147	21	0		
ND<0 J	ND<-0.693147	0.693147	22	0		
ND<0 J	ND<-0.693147	0.693147	23	0		
ND<-0.693147	ND<-0.693147	0	23	0		

ND<0 J	ND<-0.693147	0.693147	24	0	
ND<-0.693147	ND<-0.693147	0	24	0	
ND<-0.693147	ND<-0.693147	0	24	0	
0.875469	ND<-0.693147	1.56862	25	0	
0.0953102	ND<-0.693147	0.788457	26	0	
-0.400478 J	ND<-0.693147	0.29267	27	0	
0.405465	ND<-0.693147	1.09861	28	0	
0.530628	ND<-0.693147	1.22378	29	0	
1.16315	ND<-0.693147	1.8563	30	0	
ND<-0.693147	ND<-0.693147	0	30	0	
ND<-0.693147	ND<-0.693147	0	30	0	
ND<-0.693147	ND<-0.693147	0	30	0	
ND<-0.693147	ND<-0.693147	0	30	0	
ND<0 J	ND<-0.693147	0.693147	31	0	
ND<0 J	ND<-0.693147	0.693147	32	0	
ND<0 J	ND<-0.693147	0.693147	33	0	
ND<-0.693147	ND<-0.693147	0	33	0	
ND<0 J	ND<-0.693147	0.693147	34	0	
ND<-0.693147	ND<-0.693147	0	34	0	
ND<-0.693147	ND<-0.693147	0	34	0	
0.875469	ND<-0.693147	1.56862	35	0	
0.0953102	ND<-0.693147	0.788457	36	0	
-0.400478 J	ND<-0.693147	0.29267	37	0	
0.405465	ND<-0.693147	1.09861	38	0	
0.530628	ND<-0.693147	1.22378	39	0	
1.16315	ND<-0.693147	1.8563	40	0	
ND<-0.693147	ND<-0.693147	0	40	0	
ND<-0.693147	ND<-0.693147	0	40	0	
ND<-0.693147	ND<-0.693147	0	40	0	
ND<0 J	ND<-0.693147	0.693147	41	0	
ND<0 J	ND<-0.693147	0.693147	42	0	
ND<0 J	ND<-0.693147	0.693147	43	0	
ND<-0.693147	ND<-0.693147	0	43	0	
ND<0 J	ND<-0.693147	0.693147	44	0	
ND<-0.693147	ND<-0.693147	0	44	0	
ND<-0.693147	ND<-0.693147	0	44	0	
0.875469	ND<-0.693147	1.56862	45	0	
0.0953102	ND<-0.693147	0.788457	46	0	
-0.400478 J	ND<-0.693147	0.29267	47	0	
0.405465	ND<-0.693147	1.09861	48	0	
0.530628	ND<-0.693147	1.22378	49	0	
1.16315	ND<-0.693147	1.8563	50	0	
ND<-0.693147	ND<-0.693147	0	50	0	
ND<-0.693147	ND<-0.693147	0	50	0	
ND<0 J	ND<-0.693147	0.693147	51	0	
ND<0 J	ND<-0.693147	0.693147	52	0	
ND<0 J	ND<-0.693147	0.693147	53	0	
ND<-0.693147	ND<-0.693147	0	53	0	
ND<0 J	ND<-0.693147	0.693147	54	0	
ND<-0.693147	ND<-0.693147	0	54	0	
ND<-0.693147	ND<-0.693147	0	54	0	
0.875469	ND<-0.693147	1.56862	55	0	
0.0953102	ND<-0.693147	0.788457	56	0	
-0.400478 J	ND<-0.693147	0.29267	57	0	
0.405465	ND<-0.693147	1.09861	58	0	
0.530628	ND<-0.693147	1.22378	59	0	
1.16315	ND<-0.693147	1.8563	60	0	
ND<-0.693147	ND<-0.693147	0	60	0	

ND<0 J	ND<-0.693147	0.693147	61	0	
ND<0 J	ND<-0.693147	0.693147	62	0	
ND<0 J	ND<-0.693147	0.693147	63	0	
ND<-0.693147	ND<-0.693147	0	63	0	
ND<0 J	ND<-0.693147	0.693147	64	0	
ND<-0.693147	ND<-0.693147	0	64	0	
ND<-0.693147	ND<-0.693147	0	64	0	
0.875469	ND<-0.693147	1.56862	65	0	
0.0953102	ND<-0.693147	0.788457	66	0	
-0.400478 J	ND<-0.693147	0.29267	67	0	
0.405465	ND<-0.693147	1.09861	68	0	
0.530628	ND<-0.693147	1.22378	69	0	
1.16315	ND<-0.693147	1.8563	70	0	
ND<0 J	ND<-0.693147	0.693147	71	0	
ND<0 J	ND<-0.693147	0.693147	72	0	
ND<0 J	ND<-0.693147	0.693147	73	0	
ND<-0.693147	ND<-0.693147	0	73	0	
ND<0 J	ND<-0.693147	0.693147	74	0	
ND<-0.693147	ND<-0.693147	0	74	0	
ND<-0.693147	ND<-0.693147	0	74	0	
0.875469	ND<-0.693147	1.56862	75	0	
0.0953102	ND<-0.693147	0.788457	76	0	
-0.400478 J	ND<-0.693147	0.29267	77	0	
0.405465	ND<-0.693147	1.09861	78	0	
0.530628	ND<-0.693147	1.22378	79	0	
1.16315	ND<-0.693147	1.8563	80	0	
ND<0 J	ND<0 J	0	80	0	
ND<0 J	ND<0 J	0	80	0	
ND<-0.693147	ND<0 J	-0.693147	80	1	
ND<0 J	ND<0 J	0	80	1	
ND<-0.693147	ND<0 J	-0.693147	80	2	
ND<-0.693147	ND<0 J	-0.693147	80	3	
0.875469	ND<0 J	0.875469	81	3	
0.0953102	ND<0 J	0.0953102	82	3	
-0.400478 J	ND<0 J	-0.400478	82	4	
0.405465	ND<0 J	0.405465	83	4	
0.530628	ND<0 J	0.530628	84	4	
1.16315	ND<0 J	1.16315	85	4	
ND<0 J	ND<0 J	0	85	4	
ND<-0.693147	ND<0 J	-0.693147	85	5	
ND<0 J	ND<0 J	0	85	5	
ND<-0.693147	ND<0 J	-0.693147	85	6	
ND<-0.693147	ND<0 J	-0.693147	85	7	
0.875469	ND<0 J	0.875469	86	7	
0.0953102	ND<0 J	0.0953102	87	7	
-0.400478 J	ND<0 J	-0.400478	87	8	
0.405465	ND<0 J	0.405465	88	8	
0.530628	ND<0 J	0.530628	89	8	
1.16315	ND<0 J	1.16315	90	8	
ND<-0.693147	ND<0 J	-0.693147	90	9	
ND<0 J	ND<0 J	0	90	9	
ND<-0.693147	ND<0 J	-0.693147	90	10	
ND<-0.693147	ND<0 J	-0.693147	90	11	
0.875469	ND<0 J	0.875469	91	11	
0.0953102	ND<0 J	0.0953102	92	11	
-0.400478 J	ND<0 J	-0.400478	92	12	
0.405465	ND<0 J	0.405465	93	12	
0.530628	ND<0 J	0.530628	94	12	

1.16315	ND<0 J	1.16315	95	12	
ND<0 J	ND<-0.693147	0.693147	96	12	
ND<-0.693147	ND<-0.693147	0	96	12	
ND<-0.693147	ND<-0.693147	0	96	12	
0.875469	ND<-0.693147	1.56862	97	12	
0.0953102	ND<-0.693147	0.788457	98	12	
-0.400478 J	ND<-0.693147	0.29267	99	12	
0.405465	ND<-0.693147	1.09861	100	12	
0.530628	ND<-0.693147	1.22378	101	12	
1.16315	ND<-0.693147	1.8563	102	12	
ND<-0.693147	ND<0 J	-0.693147	102	13	
ND<-0.693147	ND<0 J	-0.693147	102	14	
0.875469	ND<0 J	0.875469	103	14	
0.0953102	ND<0 J	0.0953102	104	14	
-0.400478 J	ND<0 J	-0.400478	104	15	
0.405465	ND<0 J	0.405465	105	15	
0.530628	ND<0 J	0.530628	106	15	
1.16315	ND<0 J	1.16315	107	15	
ND<-0.693147	ND<-0.693147	0	107	15	
0.875469	ND<-0.693147	1.56862	108	15	
0.0953102	ND<-0.693147	0.788457	109	15	
-0.400478 J	ND<-0.693147	0.29267	110	15	
0.405465	ND<-0.693147	1.09861	111	15	
0.530628	ND<-0.693147	1.22378	112	15	
1.16315	ND<-0.693147	1.8563	113	15	
0.875469	ND<-0.693147	1.56862	114	15	
0.0953102	ND<-0.693147	0.788457	115	15	
-0.400478 J	ND<-0.693147	0.29267	116	15	
0.405465	ND<-0.693147	1.09861	117	15	
0.530628	ND<-0.693147	1.22378	118	15	
1.16315	ND<-0.693147	1.8563	119	15	
0.0953102	0.875469	-0.780159	119	16	
-0.400478 J	0.875469	-1.27595	119	17	
0.405465	0.875469	-0.470004	119	18	
0.530628	0.875469	-0.34484	119	19	
1.16315	0.875469	0.287682	120	19	
-0.400478 J	0.0953102	-0.495788	120	20	
0.405465	0.0953102	0.310155	121	20	
0.530628	0.0953102	0.435318	122	20	
1.16315	0.0953102	1.06784	123	20	
0.405465	-0.400478 J	0.805943	124	20	
0.530628	-0.400478 J	0.931106	125	20	
1.16315	-0.400478 J	1.56363	126	20	
0.530628	0.405465	0.125163	127	20	
1.16315	0.405465	0.757686	128	20	
1.16315	0.530628	0.632523	129	20	

S Statistic = 129 - 20 = 109

Tied Group Value Members

1	-0.693147		11
2	0	4	

Time Period		Observations
1/16/1998		1
3/16/1999		1
9/23/1999		1
3/14/2000		1
9/23/2003		1
3/10/2004		1
10/12/2004		1
4/1/2005	1	
10/26/2005		1
6/19/2006		1
11/18/2006		1
6/2/2007	1	
11/15/2007		1
5/20/2008		1
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/17/2010		1
7/6/2011	1	
11/22/2011		1
5/16/2012		1

There are 0 time periods with multiple data

A = 3126
B = 0
C = 1014
D = 0
E = 122
F = 0
a = 19740
b = 71820
c = 840
Group Variance = 923
Z-Score = 3.55486
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|3.55486| > 1.97737 indicating a trend

Shewhart-CUSUM Control Chart

Parameter: 1,2-cis-Dichloroethylene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = -1.23518
Baseline Std Dev = 0.878196
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
1/16/1998	-0.693147	0	0.617213	
1/16/1998	-0.693147	0	0.617213	
3/16/1999	-0.693147	0	0.617213	
3/16/1999	-0.693147	0	0.617213	
9/23/1999	-0.693147	0	0.617213	
9/23/1999	-0.693147	0	0.617213	
3/14/2000	-0.693147	0	0.617213	
3/14/2000	-0.693147	0	0.617213	
9/23/2003	-0.693147	0	0.617213	
9/23/2003	-0.693147	0	0.617213	
3/10/2004	-0.693147	0	0.617213	
3/10/2004	-0.693147	0	0.617213	
10/12/2004	-0.693147	0	0.617213	
10/12/2004	-0.693147	0	0.617213	
4/1/2005	-0.693147	0	0.617213	
4/1/2005	-0.693147	0	0.617213	
10/26/2005	0	0.406499	1.4065	
10/26/2005	0	0.406499	1.4065	
6/19/2006	0	0.812998	1.4065	
6/19/2006	0	0.812998	1.4065	
11/18/2006	0	1.2195	1.4065	
11/18/2006	0	1.2195	1.4065	
6/2/2007	-0.693147	0.83671	0.617213	
6/2/2007	-0.693147	0.83671	0.617213	
11/15/2007	0	1.24321	1.4065	
11/15/2007	0	1.24321	1.4065	
5/20/2008	-0.693147	0.860422	0.617213	
5/20/2008	-0.693147	0.860422	0.617213	
11/20/2008	-0.693147	0.477635	0.617213	
11/20/2008	-0.693147	0.477635	0.617213	
6/11/2009	0.875469	1.88103	2.40339	
6/11/2009	0.875469	1.88103	2.40339	
6/30/2010	0.0953102	2.39606	1.51503	
6/30/2010	0.0953102	2.39606	1.51503	
11/17/2010	-0.400478	2.34653	0.950476	
11/17/2010	-0.400478	2.34653	0.950476	
7/6/2011	0.405465	3.21473	1.8682	
7/6/2011	0.405465	3.21473	1.8682	
11/22/2011	0.530628	4.22546	2.01072	
11/22/2011	0.530628	4.22546	2.01072	
5/16/2012	1.16315	5.95643	2.73098	
5/16/2012	1.16315	5.95643	2.73098	

Concentrations (ppb)

Parameter: Acetone

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 261
Percent Non-Detects: 96.31%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	20 (90.9091%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<5 U	ND<5 U
			11/16/2009	ND<5 U	ND<5 U
			6/30/2010	ND<5 U	ND<5 U
			11/17/2010	ND<5 U	ND<5 U
			7/6/2011	5.7 J	5.7 J
			11/22/2011	6.9 J	6.9 J
			5/16/2012	ND<5 U	ND<5 U

There are 16 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-14R	13	12 (92.3077%)	6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<5 U	ND<5 U
			11/16/2009	ND<5 U	ND<5 U
			11/16/2009	ND<5 U	ND<5 U
			11/16/2009	ND<5 U	ND<5 U
			6/30/2010	ND<5 U	ND<5 U
			11/17/2010	ND<5 U	ND<5 U
			7/6/2011	ND<5 U	ND<5 U
			11/22/2011	8.8 J	8.8 J
			5/16/2012	ND<5 U	ND<5 U
LMW-15R	14	14 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1

			11/20/2008	ND<1	ND<1
			6/11/2009	ND<5 U	ND<5 U
			6/30/2010	ND<5 U	ND<5 U
			11/17/2010	ND<5 U	ND<5 U
			7/6/2011	ND<5 U	ND<5 U
			11/22/2011	ND<5 U	ND<5 U
			5/16/2012	ND<5 U	ND<5 U
LMW-16	12	12 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<5 U	ND<5 U
			11/16/2009	ND<5 U	ND<5 U
			6/30/2010	ND<5 U	ND<5 U
			11/17/2010	ND<5 U	ND<5 U
			7/6/2011	ND<5 U	ND<5 U
			11/22/2011	ND<5 U	ND<5 U
			5/16/2012	ND<5 U	ND<5 U
LMW-3	24	24 (100%)	11/19/1996	ND<1	ND<1
			3/24/1997	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<5 U	ND<5 U
			11/16/2009	ND<5 U	ND<5 U
			6/30/2010	ND<5 U	ND<5 U
			11/17/2010	ND<5 U	ND<5 U
			7/6/2011	ND<5 U	ND<5 U
			11/22/2011	ND<5 U	ND<5 U
			5/16/2012	ND<5 U	ND<5 U
LMW-3S	12	12 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<5 U	ND<5 U
			11/16/2009	ND<5 U	ND<5 U
			6/30/2010	ND<5 U	ND<5 U
			11/17/2010	ND<5 U	ND<5 U
			7/6/2011	ND<5 U	ND<5 U
			11/22/2011	ND<5 U	ND<5 U
			5/16/2012	ND<5 U	ND<5 U
LMW-9	22	22 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1

			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<5 U	ND<5 U	
			11/16/2009	ND<5 U	ND<5 U	
			6/30/2010	ND<5 U	ND<5 U	
			11/17/2010	ND<5 U	ND<5 U	
			7/6/2011	ND<5 U	ND<5 U	
			11/22/2011	ND<5 U	ND<5 U	
			5/16/2012	ND<5 U	ND<5 U	
LMW-6	22	21 (95.4545%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	4	4	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<5 U	ND<5 U	
			11/16/2009	ND<5 U	ND<5 U	
			6/30/2010	ND<5 U	ND<5 U	
			11/17/2010	ND<5 U	ND<5 U	
			7/6/2011	ND<5 U	ND<5 U	
			11/22/2011	ND<5 U	ND<5 U	
			5/16/2012	ND<5 U	ND<5 U	
LMW-8	22	21 (95.4545%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<5 U	ND<5 U	
			11/16/2009	ND<5 U	ND<5 U	
			6/30/2010	ND<5 U	ND<5 U	
			11/17/2010	ND<5 U	ND<5 U	

			7/6/2011	ND<5 U	ND<5 U	
			11/22/2011		ND<5 U	ND<5 U
			5/16/2012		5.6 J	5.6 J
LMW-9D	12	12 (100%)	11/18/2006		ND<1	ND<1
			6/2/2007	ND<1	ND<1	
			11/15/2007		ND<1	ND<1
			5/20/2008		ND<1	ND<1
			11/20/2008		ND<1	ND<1
			6/11/2009		ND<5 U	ND<5 U
			11/16/2009		ND<5 U	ND<5 U
			6/30/2010		ND<5 U	ND<5 U
			11/17/2010		ND<5 U	ND<5 U
			7/6/2011	ND<5 U	ND<5 U	
			11/22/2011		ND<5 U	ND<5 U
			5/16/2012		ND<5 U	ND<5 U
LMW-9S	11	11 (100%)	11/18/2006		ND<1	ND<1
			6/2/2007	ND<1	ND<1	
			11/15/2007		ND<1	ND<1
			5/20/2008		ND<1	ND<1
			11/20/2008		ND<1	ND<1
			6/11/2009		ND<5 U	ND<5 U
			6/30/2010		ND<5 U	ND<5 U
			11/17/2010		ND<5 U	ND<5 U
			7/6/2011	ND<5 U	ND<5 U	
			11/22/2011		ND<5 U	ND<5 U
			5/16/2012		ND<5 U	ND<5 U
LMW-10	19	18 (94.7368%)	3/14/2000		ND<1	ND<1
			9/23/2003		ND<1	ND<1
			3/10/2004		ND<1	ND<1
			10/12/2004		ND<1	ND<1
			4/1/2005	ND<1	ND<1	
			10/26/2005		ND<1	ND<1
			6/19/2006		ND<1	ND<1
			11/18/2006		ND<1	ND<1
			6/2/2007	ND<1	ND<1	
			11/15/2007		ND<1	ND<1
			5/20/2008		ND<1	ND<1
			11/20/2008		ND<1	ND<1
			6/11/2009		ND<5 U	ND<5 U
			11/16/2009		ND<5 U	ND<5 U
			6/30/2010		ND<5 U	ND<5 U
			11/17/2010		ND<5 U	ND<5 U
			7/6/2011	ND<5 U	ND<5 U	
			11/22/2011		5.8 J	5.8 J
			5/16/2012		ND<5 U	ND<5 U
LMW-7	20	16 (80%)	1/16/1998		ND<1	ND<1
			3/16/1999		ND<1	ND<1
			9/23/1999		ND<1	ND<1
			3/14/2000		ND<1	ND<1
			9/23/2003		ND<1	ND<1
			3/10/2004		ND<1	ND<1
			10/12/2004		ND<1	ND<1
			4/1/2005	ND<1	ND<1	
			10/26/2005		ND<1	ND<1
			6/19/2006		ND<1	ND<1
			11/18/2006		ND<1	ND<1
			6/2/2007	ND<1	ND<1	
			11/15/2007		ND<1	ND<1

			5/20/2008	282	282	
			11/20/2008	4	4	
			6/11/2009	ND<5 U	ND<5 U	
			11/17/2010	7.5 J	7.5 J	
			7/6/2011	ND<5 U	ND<5 U	
			11/22/2011	11 J	11 J	
			5/16/2012	ND<5 U	ND<5 U	
LMW-12	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-13	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
MW-5	13	13 (100%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-11	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality
Parameter: Acetone
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.5	-2.74777	7.55021	-1.37388
2	0.5	-2.45727	13.5884	-2.60252
3	0.5	-2.29036	18.8342	-3.7477
4	0.5	-2.19728	23.6622	-4.84634
5	0.5	-2.09693	28.0593	-5.89481
6	0.5	-2.01409	32.1159	-6.90186
7	0.5	-1.95996	35.9574	-7.88184
8	0.5	-1.8957	39.551	-8.82968
9	0.5	-1.83843	42.9308	-9.7489
10	0.5	-1.79912	46.1677	-10.6485
11	0.5	-1.75069	49.2326	-11.5238
12	0.5	-1.70604	52.1431	-12.3768
13	0.5	-1.67466	54.9476	-13.2142
14	0.5	-1.63524	57.6216	-14.0318
15	0.5	-1.59819	60.1758	-14.8309
16	0.5	-1.57179	62.6464	-15.6168
17	0.5	-1.5382	65.0124	-16.3859
18	0.5	-1.50626	67.2812	-17.139
19	0.5	-1.48328	69.4814	-17.8806
20	0.5	-1.4538	71.5949	-18.6075
21	0.5	-1.42554	73.6271	-19.3203
22	0.5	-1.40507	75.6013	-20.0228
23	0.5	-1.37866	77.502	-20.7122
24	0.5	-1.35317	79.3331	-21.3888
25	0.5	-1.33462	81.1143	-22.0561
26	0.5	-1.31058	82.8319	-22.7114
27	0.5	-1.28727	84.489	-23.355
28	0.5	-1.27024	86.1025	-23.9901
29	0.5	-1.24809	87.6602	-24.6142
30	0.5	-1.22653	89.1646	-25.2274
31	0.5	-1.21073	90.6305	-25.8328
32	0.5	-1.19012	92.0469	-26.4278
33	0.5	-1.17	93.4158	-27.0128
34	0.5	-1.15035	94.7391	-27.588
35	0.5	-1.1359	96.0293	-28.156
36	0.5	-1.11699	97.277	-28.7145
37	0.5	-1.09847	98.4836	-29.2637
38	0.5	-1.08482	99.6605	-29.8061
39	0.5	-1.06694	100.799	-30.3396
40	0.5	-1.04939	101.9	-30.8643
41	0.5	-1.03643	102.974	-31.3825
42	0.5	-1.01943	104.013	-31.8922
43	0.5	-1.00271	105.019	-32.3936
44	0.5	-0.990356	106	-32.8887
45	0.5	-0.974114	106.949	-33.3758
46	0.5	-0.958125	107.867	-33.8549
47	0.5	-0.946291	108.762	-34.328
48	0.5	-0.930718	109.628	-34.7934
49	0.5	-0.915365	110.466	-35.251
50	0.5	-0.903992	111.283	-35.703
51	0.5	-0.889006	112.074	-36.1475

52	0.5	-0.874218	112.838	-36.5846
53	0.5	-0.863249	113.583	-37.0163
54	0.5	-0.848786	114.304	-37.4407
55	0.5	-0.834498	115	-37.8579
56	0.5	-0.823893	115.679	-38.2699
57	0.5	-0.809896	116.335	-38.6748
58	0.5	-0.796056	116.968	-39.0728
59	0.5	-0.785774	117.586	-39.4657
60	0.5	-0.772193	118.182	-39.8518
61	0.5	-0.758753	118.758	-40.2312
62	0.5	-0.748762	119.318	-40.6056
63	0.5	-0.735557	119.86	-40.9734
64	0.5	-0.722479	120.382	-41.3346
65	0.5	-0.712751	120.89	-41.691
66	0.5	-0.699883	121.379	-42.0409
67	0.5	-0.687131	121.852	-42.3845
68	0.5	-0.67449	122.306	-42.7217
69	0.5	-0.665079	122.749	-43.0543
70	0.5	-0.652622	123.175	-43.3806
71	0.5	-0.640266	123.585	-43.7007
72	0.5	-0.631062	123.983	-44.0162
73	0.5	-0.618872	124.366	-44.3257
74	0.5	-0.606775	124.734	-44.6291
75	0.5	-0.597761	125.091	-44.9279
76	0.5	-0.585815	125.435	-45.2208
77	0.5	-0.573953	125.764	-45.5078
78	0.5	-0.565108	126.083	-45.7904
79	0.5	-0.553384	126.39	-46.0671
80	0.5	-0.541736	126.683	-46.3379
81	0.5	-0.533048	126.967	-46.6045
82	0.5	-0.521527	127.239	-46.8652
83	0.5	-0.510074	127.499	-47.1203
84	0.5	-0.501527	127.751	-47.371
85	0.5	-0.490189	127.991	-47.6161
86	0.5	-0.478914	128.221	-47.8556
87	0.5	-0.470498	128.442	-48.0908
88	0.5	-0.459327	128.653	-48.3205
89	0.5	-0.448213	128.854	-48.5446
90	0.5	-0.439913	129.047	-48.7646
91	0.5	-0.428895	129.231	-48.979
92	0.5	-0.417928	129.406	-49.188
93	0.5	-0.409735	129.574	-49.3928
94	0.5	-0.398855	129.733	-49.5923
95	0.5	-0.388022	129.883	-49.7863
96	0.5	-0.379927	130.028	-49.9762
97	0.5	-0.369171	130.164	-50.1608
98	0.5	-0.358459	130.293	-50.34
99	0.5	-0.350451	130.415	-50.5153
100	0.5	-0.33981	130.531	-50.6852
101	0.5	-0.329206	130.639	-50.8498
102	0.5	-0.318639	130.741	-51.0091
103	0.5	-0.310738	130.837	-51.1645
104	0.5	-0.300232	130.927	-51.3146
105	0.5	-0.28976	131.011	-51.4595
106	0.5	-0.281926	131.091	-51.6004
107	0.5	-0.271509	131.165	-51.7362
108	0.5	-0.26112	131.233	-51.8667
109	0.5	-0.253347	131.297	-51.9934
110	0.5	-0.243007	131.356	-52.1149
111	0.5	-0.232693	131.41	-52.2313
112	0.5	-0.224974	131.461	-52.3438
113	0.5	-0.214702	131.507	-52.4511

114	0.5	-0.204452	131.549	-52.5533
115	0.5	-0.196779	131.587	-52.6517
116	0.5	-0.186567	131.622	-52.745
117	0.5	-0.176374	131.653	-52.8332
118	0.5	-0.168741	131.682	-52.9176
119	0.5	-0.158579	131.707	-52.9969
120	0.5	-0.148434	131.729	-53.0711
121	0.5	-0.140835	131.749	-53.1415
122	0.5	-0.130716	131.766	-53.2068
123	0.5	-0.12061	131.78	-53.2672
124	0.5	-0.113039	131.793	-53.3237
125	0.5	-0.102953	131.804	-53.3751
126	0.5	-0.0928787	131.812	-53.4216
127	0.5	-0.0853288	131.82	-53.4642
128	0.5	-0.0752698	131.825	-53.5019
129	0.5	-0.0652187	131.83	-53.5345
130	0.5	-0.0576847	131.833	-53.5633
131	0.5	-0.0476439	131.835	-53.5872
132	0.5	-0.0376076	131.837	-53.606
133	0.5	-0.0300838	131.838	-53.621
134	0.5	-0.0200544	131.838	-53.631
135	0.5	-0.0100272	131.838	-53.636
136	0.5	0	131.838	-53.636
137	0.5	0.0100272	131.838	-53.631
138	0.5	0.0200544	131.839	-53.621
139	0.5	0.0300838	131.839	-53.606
140	0.5	0.0376076	131.841	-53.5872
141	0.5	0.0476439	131.843	-53.5633
142	0.5	0.0576847	131.846	-53.5345
143	0.5	0.0652187	131.851	-53.5019
144	0.5	0.0752698	131.856	-53.4642
145	0.5	0.0853288	131.864	-53.4216
146	0.5	0.0928787	131.872	-53.3751
147	0.5	0.102953	131.883	-53.3237
148	0.5	0.113039	131.896	-53.2672
149	0.5	0.12061	131.91	-53.2068
150	0.5	0.130716	131.927	-53.1415
151	0.5	0.140835	131.947	-53.0711
152	0.5	0.148434	131.969	-52.9969
153	0.5	0.158579	131.994	-52.9176
154	0.5	0.168741	132.023	-52.8332
155	0.5	0.176374	132.054	-52.745
156	0.5	0.186567	132.089	-52.6517
157	0.5	0.196779	132.127	-52.5533
158	0.5	0.204452	132.169	-52.4511
159	0.5	0.214702	132.215	-52.3438
160	0.5	0.224974	132.266	-52.2313
161	0.5	0.232693	132.32	-52.1149
162	0.5	0.243007	132.379	-51.9934
163	0.5	0.253347	132.443	-51.8667
164	0.5	0.26112	132.512	-51.7362
165	0.5	0.271509	132.585	-51.6004
166	0.5	0.281926	132.665	-51.4595
167	0.5	0.28976	132.749	-51.3146
168	0.5	0.300232	132.839	-51.1645
169	0.5	0.310738	132.935	-51.0091
170	0.5	0.318639	133.037	-50.8498
171	0.5	0.329206	133.145	-50.6852
172	0.5	0.33981	133.261	-50.5153
173	0.5	0.350451	133.384	-50.34
174	0.5	0.358459	133.512	-50.1608
175	0.5	0.369171	133.648	-49.9762

176	0.5	0.379927		133.793	-49.7863
177	0.5	0.388022		133.943	-49.5923
178	0.5	0.398855		134.102	-49.3928
179	0.5	0.409735		134.27	-49.188
180	2.5	0.417928		134.445	-48.1431
181	2.5	0.428895		134.629	-47.0709
182	2.5	0.439913		134.822	-45.9711
183	2.5	0.448213		135.023	-44.8506
184	2.5	0.459327		135.234	-43.7023
185	2.5	0.470498		135.456	-42.526
186	2.5	0.478914		135.685	-41.3287
187	2.5	0.490189		135.925	-40.1033
188	2.5	0.501527		136.177	-38.8495
189	2.5	0.510074		136.437	-37.5743
190	2.5	0.521527		136.709	-36.2705
191	2.5	0.533048		136.993	-34.9378
192	2.5	0.541736		137.287	-33.5835
193	2.5	0.553384		137.593	-32.2
194	2.5	0.565108		137.912	-30.7873
195	2.5	0.573953		138.242	-29.3524
196	2.5	0.585815		138.585	-27.8878
197	2.5	0.597761		138.942	-26.3934
198	2.5	0.606775		139.31	-24.8765
199	2.5	0.618872		139.693	-23.3293
200	2.5	0.631062		140.091	-21.7517
201	2.5	0.640266		140.501	-20.151
202	2.5	0.652622		140.927	-18.5195
203	2.5	0.665079		141.37	-16.8568
204	2.5	0.67449	141.825	-15.1705	
205	2.5	0.687131		142.297	-13.4527
206	2.5	0.699883		142.787	-11.703
207	2.5	0.712751		143.295	-9.92111
208	2.5	0.722479		143.817	-8.11492
209	2.5	0.735557		144.358	-6.27602
210	2.5	0.748762		144.918	-4.40412
211	2.5	0.758753		145.494	-2.50724
212	2.5	0.772193		146.09	-0.576754
213	2.5	0.785774		146.708	1.38768
214	2.5	0.796056		147.341	3.37782
215	2.5	0.809896		147.997	5.40256
216	2.5	0.823893		148.676	7.46229
217	2.5	0.834498		149.373	9.54854
218	2.5	0.848786		150.093	11.6705
219	2.5	0.863249		150.838	13.8286
220	2.5	0.874218		151.602	16.0142
221	2.5	0.889006		152.393	18.2367
222	2.5	0.903992		153.21	20.4967
223	2.5	0.915365		154.048	22.7851
224	2.5	0.930718		154.914	25.1119
225	2.5	0.946291		155.81	27.4776
226	2.5	0.958125		156.728	29.8729
227	2.5	0.974114		157.676	32.3082
228	2.5	0.990356		158.657	34.7841
229	2.5	1.00271	159.663	37.2909	
230	2.5	1.01943	160.702	39.8394	
231	2.5	1.03643	161.776	42.4305	
232	2.5	1.04939	162.877	45.054	
233	2.5	1.06694	164.016	47.7213	
234	2.5	1.08482	165.193	50.4334	
235	2.5	1.09847	166.399	53.1796	
236	2.5	1.11699	167.647	55.972	
237	2.5	1.1359	168.937	58.8118	

238	2.5	1.15035	170.26	61.6876
239	2.5	1.17	171.629	64.6126
240	2.5	1.19012	173.046	67.5879
241	2.5	1.21073	174.512	70.6148
242	2.5	1.22653	176.016	73.6811
243	2.5	1.24809	177.574	76.8013
244	2.5	1.27024	179.187	79.9769
245	2.5	1.28727	180.844	83.1951
246	2.5	1.31058	182.562	86.4715
247	2.5	1.33462	184.343	89.8081
248	2.5	1.35317	186.174	93.191
249	2.5	1.37866	188.075	96.6377
250	2.5	1.40507	190.049	100.15
251	2.5	1.42554	192.081	103.714
252	2.5	1.4538	194.195	107.349
253	2.5	1.48328	196.395	111.057
254	2.5	1.50626	198.664	114.823
255	2.5	1.5382	201.03	118.668
256	2.5	1.57179	203.5	122.598
257	2.5	1.59819	206.054	126.593
258	2.5	1.63524	208.728	130.681
259	2.5	1.67466	211.533	134.868
260	2.5	1.70604	214.444	139.133
261	2.5	1.75069	217.508	143.51
262	4	1.79912	220.745	150.706
263	4	1.83843	224.125	158.06
264	5.6	1.8957	227.719	168.676
265	5.7	1.95996	231.56	179.847
266	5.8	2.01409	235.617	191.529
267	6.9	2.09693	240.014	205.998
268	7.5	2.19728	244.842	222.478
269	8.8	2.29036	250.088	242.633
270	11	2.45727	256.126	269.663
271	282	2.74777	263.676	1044.53

Data Set Standard Deviation = 17.1077
Numerator = 1.09105e+006
Denominator = 2.0836e+007
W Statistic = 0.0523635 = 1.09105e+006 / 2.0836e+007

5% Critical value of 0.976 exceeds 0.0523635
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.0523635
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Acetone

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.23503
0.23503 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.5	0.00367647		-2.747773	9.8917	348.683
2	0.5	0.00735294		-2.457273	9.8917	334.497
3	0.5	0.0110294		-2.290363	9.8917	326.346
4	0.5	0.0147059		-2.197283	9.8917	321.801
5	0.5	0.0183824		-2.096933	9.8917	316.9
6	0.5	0.0220588		-2.014093	9.8917	312.855
7	0.5	0.0257353		-1.959963	9.8917	310.211
8	0.5	0.0294118		-1.8957	39.8917	307.073
9	0.5	0.0330882		-1.838433	9.8917	304.276
10	0.5	0.0367647		-1.799123	9.8917	302.357
11	0.5	0.0404412		-1.750693	9.8917	299.992
12	0.5	0.0441176		-1.706043	9.8917	297.812
13	0.5	0.0477941		-1.674663	9.8917	296.279
14	0.5	0.0514706		-1.635243	9.8917	294.354
15	0.5	0.0551471		-1.598193	9.8917	292.545
16	0.5	0.0588235		-1.571793	9.8917	291.256
17	0.5	0.0625	-1.5382	39.8917	289.615	
18	0.5	0.0661765		-1.506263	9.8917	288.056
19	0.5	0.0698529		-1.483283	9.8917	286.934
20	0.5	0.0735294		-1.4538	39.8917	285.494
21	0.5	0.0772059		-1.425543	9.8917	284.114
22	0.5	0.0808824		-1.405073	9.8917	283.114
23	0.5	0.0845588		-1.378663	9.8917	281.824
24	0.5	0.0882353		-1.353173	9.8917	280.58
25	0.5	0.0919118		-1.334623	9.8917	279.674
26	0.5	0.0955882		-1.310583	9.8917	278.5
27	0.5	0.0992647		-1.287273	9.8917	277.362
28	0.5	0.102941		-1.270243	9.8917	276.53
29	0.5	0.106618		-1.248093	9.8917	275.448
30	0.5	0.110294		-1.226533	9.8917	274.395
31	0.5	0.113971		-1.210733	9.8917	273.624
32	0.5	0.117647		-1.190123	9.8917	272.617
33	0.5	0.121324		-1.17	39.8917	271.635
34	0.5	0.125	-1.15035	39.8917	270.675	
35	0.5	0.128676		-1.1359	39.8917	269.97
36	0.5	0.132353		-1.116993	9.8917	269.046
37	0.5	0.136029		-1.098473	9.8917	268.142
38	0.5	0.139706		-1.084823	9.8917	267.476
39	0.5	0.143382		-1.066943	9.8917	266.602
40	0.5	0.147059		-1.049393	9.8917	265.745
41	0.5	0.150735		-1.036433	9.8917	265.112
42	0.5	0.154412		-1.019433	9.8917	264.282
43	0.5	0.158088		-1.002713	9.8917	263.466
44	0.5	0.161765		-0.990356	39.8917	262.862
45	0.5	0.165441		-0.974114	39.8917	262.069
46	0.5	0.169118		-0.958125	39.8917	261.288
47	0.5	0.172794		-0.946291	39.8917	260.711
48	0.5	0.176471		-0.930718	39.8917	259.95

49	0.5	0.180147	-0.915365	39.8917	259.2
50	0.5	0.183824	-0.903992	39.8917	258.645
51	0.5	0.1875	-0.889006	39.8917	257.913
52	0.5	0.191176	-0.874218	39.8917	257.191
53	0.5	0.194853	-0.863249	39.8917	256.655
54	0.5	0.198529	-0.848786	39.8917	255.949
55	0.5	0.202206	-0.834498	39.8917	255.251
56	0.5	0.205882	-0.823893	39.8917	254.733
57	0.5	0.209559	-0.809896	39.8917	254.05
58	0.5	0.213235	-0.796056	39.8917	253.374
59	0.5	0.216912	-0.785774	39.8917	252.872
60	0.5	0.220588	-0.772193	39.8917	252.209
61	0.5	0.224265	-0.758753	39.8917	251.552
62	0.5	0.227941	-0.748762	39.8917	251.065
63	0.5	0.231618	-0.735557	39.8917	250.42
64	0.5	0.235294	-0.722479	39.8917	249.781
65	0.5	0.238971	-0.712751	39.8917	249.306
66	0.5	0.242647	-0.699883	39.8917	248.678
67	0.5	0.246324	-0.687131	39.8917	248.055
68	0.5	0.25	-0.674493	39.8917	247.438
69	0.5	0.253676	-0.665079	39.8917	246.978
70	0.5	0.257353	-0.652622	39.8917	246.37
71	0.5	0.261029	-0.640266	39.8917	245.766
72	0.5	0.264706	-0.631062	39.8917	245.317
73	0.5	0.268382	-0.618872	39.8917	244.722
74	0.5	0.272059	-0.606775	39.8917	244.131
75	0.5	0.275735	-0.597761	39.8917	243.691
76	0.5	0.279412	-0.585815	39.8917	243.107
77	0.5	0.283088	-0.573953	39.8917	242.528
78	0.5	0.286765	-0.565108	39.8917	242.096
79	0.5	0.290441	-0.553384	39.8917	241.524
80	0.5	0.294118	-0.541736	39.8917	240.955
81	0.5	0.297794	-0.533048	39.8917	240.531
82	0.5	0.301471	-0.521527	39.8917	239.968
83	0.5	0.305147	-0.510074	39.8917	239.409
84	0.5	0.308824	-0.501527	39.8917	238.991
85	0.5	0.3125	-0.490189	39.8917	238.438
86	0.5	0.316176	-0.478914	39.8917	237.887
87	0.5	0.319853	-0.470498	39.8917	237.476
88	0.5	0.323529	-0.459327	39.8917	236.93
89	0.5	0.327206	-0.448213	39.8917	236.388
90	0.5	0.330882	-0.439913	39.8917	235.982
91	0.5	0.334559	-0.428895	39.8917	235.444
92	0.5	0.338235	-0.417928	39.8917	234.909
93	0.5	0.341912	-0.409735	39.8917	234.509
94	0.5	0.345588	-0.398855	39.8917	233.977
95	0.5	0.349265	-0.388022	39.8917	233.448
96	0.5	0.352941	-0.379927	39.8917	233.053
97	0.5	0.356618	-0.369171	39.8917	232.528
98	0.5	0.360294	-0.358459	39.8917	232.005
99	0.5	0.363971	-0.350451	39.8917	231.614
100	0.5	0.367647	-0.339813	39.8917	231.094
101	0.5	0.371324	-0.329206	39.8917	230.576
102	0.5	0.375	-0.318639	39.8917	230.06
103	0.5	0.378676	-0.310738	39.8917	229.674
104	0.5	0.382353	-0.300232	39.8917	229.161
105	0.5	0.386029	-0.289763	39.8917	228.65
106	0.5	0.389706	-0.281926	39.8917	228.267
107	0.5	0.393382	-0.271509	39.8917	227.759
108	0.5	0.397059	-0.261123	39.8917	227.251
109	0.5	0.400735	-0.253347	39.8917	226.872
110	0.5	0.404412	-0.243007	39.8917	226.367

111	0.5	0.408088	-0.232693	39.8917	225.863
112	0.5	0.411765	-0.224974	39.8917	225.486
113	0.5	0.415441	-0.214702	39.8917	224.985
114	0.5	0.419118	-0.204452	39.8917	224.484
115	0.5	0.422794	-0.196779	39.8917	224.109
116	0.5	0.426471	-0.186567	39.8917	223.611
117	0.5	0.430147	-0.176374	39.8917	223.113
118	0.5	0.433824	-0.168741	39.8917	222.74
119	0.5	0.4375	-0.158579	39.8917	222.244
120	0.5	0.441176	-0.148434	39.8917	221.749
121	0.5	0.444853	-0.140835	39.8917	221.377
122	0.5	0.448529	-0.130716	39.8917	220.883
123	0.5	0.452206	-0.12061	39.8917	220.39
124	0.5	0.455882	-0.113039	39.8917	220.02
125	0.5	0.459559	-0.102953	39.8917	219.528
126	0.5	0.463235	-0.0928787	39.8917	219.036
127	0.5	0.466912	-0.0853288	39.8917	218.667
128	0.5	0.470588	-0.0752698	39.8917	218.176
129	0.5	0.474265	-0.0652187	39.8917	217.685
130	0.5	0.477941	-0.0576847	39.8917	217.317
131	0.5	0.481618	-0.0476439	39.8917	216.827
132	0.5	0.485294	-0.0376076	39.8917	216.337
133	0.5	0.488971	-0.0300838	39.8917	215.969
134	0.5	0.492647	-0.0200544	39.8917	215.479
135	0.5	0.496324	-0.0100272	39.8917	214.99
136	0.5	0.5	0	39.8917	214.5
137	0.5	0.503676	0.0100272	39.8917	214.01
138	0.5	0.507353	0.0200544	39.8917	213.521
139	0.5	0.511029	0.0300838	39.8917	213.031
140	0.5	0.514706	0.0376076	39.8917	212.663
141	0.5	0.518382	0.0476439	39.8917	212.173
142	0.5	0.522059	0.0576847	39.8917	211.683
143	0.5	0.525735	0.0652187	39.8917	211.315
144	0.5	0.529412	0.0752698	39.8917	210.824
145	0.5	0.533088	0.0853288	39.8917	210.333
146	0.5	0.536765	0.0928787	39.8917	209.964
147	0.5	0.540441	0.102953	39.8917	209.472
148	0.5	0.544118	0.113039	39.8917	208.98
149	0.5	0.547794	0.12061	39.8917	208.61
150	0.5	0.551471	0.130716	39.8917	208.117
151	0.5	0.555147	0.140835	39.8917	207.623
152	0.5	0.558824	0.148434	39.8917	207.251
153	0.5	0.5625	0.158579	39.8917	206.756
154	0.5	0.566176	0.168741	39.8917	206.26
155	0.5	0.569853	0.176374	39.8917	205.887
156	0.5	0.573529	0.186567	39.8917	205.389
157	0.5	0.577206	0.196779	39.8917	204.891
158	0.5	0.580882	0.204452	39.8917	204.516
159	0.5	0.584559	0.214702	39.8917	204.015
160	0.5	0.588235	0.224974	39.8917	203.514
161	0.5	0.591912	0.232693	39.8917	203.137
162	0.5	0.595588	0.243007	39.8917	202.633
163	0.5	0.599265	0.253347	39.8917	202.128
164	0.5	0.602941	0.26112	39.8917	201.749
165	0.5	0.606618	0.271509	39.8917	201.241
166	0.5	0.610294	0.281926	39.8917	200.733
167	0.5	0.613971	0.28976	39.8917	200.35
168	0.5	0.617647	0.300232	39.8917	199.839
169	0.5	0.621324	0.310738	39.8917	199.326
170	0.5	0.625	0.318639	39.8917	198.94
171	0.5	0.628676	0.329206	39.8917	198.424
172	0.5	0.632353	0.33981	39.8917	197.906

173	0.5	0.636029	0.350451	39.8917	197.386
174	0.5	0.639706	0.358459	39.8917	196.995
175	0.5	0.643382	0.369171	39.8917	196.472
176	0.5	0.647059	0.379927	39.8917	195.947
177	0.5	0.650735	0.388022	39.8917	195.552
178	0.5	0.654412	0.398855	39.8917	195.023
179	0.5	0.658088	0.409735	39.8917	194.491
180	2.5	0.661765	0.417928	43.4583	194.091
181	2.5	0.665441	0.428895	43.4583	193.556
182	2.5	0.669118	0.439913	43.4583	193.018
183	2.5	0.672794	0.448213	43.4583	192.612
184	2.5	0.676471	0.459327	43.4583	192.07
185	2.5	0.680147	0.470498	43.4583	191.524
186	2.5	0.683824	0.478914	43.4583	191.113
187	2.5	0.6875	0.490189	43.4583	190.562
188	2.5	0.691176	0.501527	43.4583	190.009
189	2.5	0.694853	0.510074	43.4583	189.591
190	2.5	0.698529	0.521527	43.4583	189.032
191	2.5	0.702206	0.533048	43.4583	188.469
192	2.5	0.705882	0.541736	43.4583	188.045
193	2.5	0.709559	0.553384	43.4583	187.476
194	2.5	0.713235	0.565108	43.4583	186.904
195	2.5	0.716912	0.573953	43.4583	186.472
196	2.5	0.720588	0.585815	43.4583	185.893
197	2.5	0.724265	0.597761	43.4583	185.309
198	2.5	0.727941	0.606775	43.4583	184.869
199	2.5	0.731618	0.618872	43.4583	184.278
200	2.5	0.735294	0.631062	43.4583	183.683
201	2.5	0.738971	0.640266	43.4583	183.234
202	2.5	0.742647	0.652622	43.4583	182.63
203	2.5	0.746324	0.665079	43.4583	182.022
204	2.5	0.75	0.67449	43.4583	181.562
205	2.5	0.753676	0.687131	43.4583	180.945
206	2.5	0.757353	0.699883	43.4583	180.322
207	2.5	0.761029	0.712751	43.4583	179.694
208	2.5	0.764706	0.722479	43.4583	179.219
209	2.5	0.768382	0.735557	43.4583	178.58
210	2.5	0.772059	0.748762	43.4583	177.935
211	2.5	0.775735	0.758753	43.4583	177.448
212	2.5	0.779412	0.772193	43.4583	176.791
213	2.5	0.783088	0.785774	43.4583	176.128
214	2.5	0.786765	0.796056	43.4583	175.626
215	2.5	0.790441	0.809896	43.4583	174.95
216	2.5	0.794118	0.823893	43.4583	174.267
217	2.5	0.797794	0.834498	43.4583	173.749
218	2.5	0.801471	0.848786	43.4583	173.051
219	2.5	0.805147	0.863249	43.4583	172.345
220	2.5	0.808824	0.874218	43.4583	171.809
221	2.5	0.8125	0.889006	43.4583	171.087
222	2.5	0.816176	0.903992	43.4583	170.355
223	2.5	0.819853	0.915365	43.4583	169.8
224	2.5	0.823529	0.930718	43.4583	169.05
225	2.5	0.827206	0.946291	43.4583	168.289
226	2.5	0.830882	0.958125	43.4583	167.712
227	2.5	0.834559	0.974114	43.4583	166.931
228	2.5	0.838235	0.990356	43.4583	166.138
229	2.5	0.841912	1.00271	43.4583	165.534
230	2.5	0.845588	1.01943	43.4583	164.718
231	2.5	0.849265	1.03643	43.4583	163.888
232	2.5	0.852941	1.04939	43.4583	163.255
233	2.5	0.856618	1.06694	43.4583	162.398
234	2.5	0.860294	1.08482	43.4583	161.524

235	2.5	0.863971	1.09847	43.4583	160.858
236	2.5	0.867647	1.11699	43.4583	159.954
237	2.5	0.871324	1.1359	43.4583	159.03
238	2.5	0.875	1.15035	43.4583	158.325
239	2.5	0.878676	1.17	43.4583	157.365
240	2.5	0.882353	1.19012	43.4583	156.383
241	2.5	0.886029	1.21073	43.4583	155.376
242	2.5	0.889706	1.22653	43.4583	154.605
243	2.5	0.893382	1.24809	43.4583	153.552
244	2.5	0.897059	1.27024	43.4583	152.47
245	2.5	0.900735	1.28727	43.4583	151.638
246	2.5	0.904412	1.31058	43.4583	150.5
247	2.5	0.908088	1.33462	43.4583	149.326
248	2.5	0.911765	1.35317	43.4583	148.42
249	2.5	0.915441	1.37866	43.4583	147.176
250	2.5	0.919118	1.40507	43.4583	145.886
251	2.5	0.922794	1.42554	43.4583	144.886
252	2.5	0.926471	1.4538	43.4583	143.506
253	2.5	0.930147	1.48328	43.4583	142.066
254	2.5	0.933824	1.50626	43.4583	140.944
255	2.5	0.9375	1.5382	43.4583	139.385
256	2.5	0.941176	1.57179	43.4583	137.744
257	2.5	0.944853	1.59819	43.4583	136.455
258	2.5	0.948529	1.63524	43.4583	134.646
259	2.5	0.952206	1.67466	43.4583	132.721
260	2.5	0.955882	1.70604	43.4583	131.188
261	2.5	0.959559	1.75069	43.4583	129.008
262	4	0.963235	1.79912	46.1333	126.643
263	4	0.966912	1.83843	46.1333	124.724
264	5.6	0.970588	1.8957	48.9867	121.927
265	5.7	0.974265	1.95996	49.165	118.789
266	5.8	0.977941	2.01409	49.3433	116.145
267	6.9	0.981618	2.09693	51.305	112.1
268	7.5	0.985294	2.19728	52.375	107.199
269	8.8	0.988971	2.29036	54.6933	102.654
270	11	0.992647	2.45727	58.6167	94.5032
271	282	0.996324	2.74777	541.9	80.3175

Shapiro-Francia Test of Normality

Parameter: Acetone

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)	
1	-0.693147		-2.747777.55021	1.90461	
2	-0.693147		-2.4572713.5884	3.60786	
3	-0.693147		-2.2903618.8342	5.19542	
4	-0.693147		-2.1972823.6622	6.71846	
5	-0.693147		-2.0969328.0593	8.17194	
6	-0.693147		-2.0140932.1159	9.568	
7	-0.693147		-1.9599635.9574	10.9265	
8	-0.693147		-1.8957 39.551	12.2405	
9	-0.693147		-1.8384342.9308	13.5148	
10	-0.693147		-1.7991246.1677	14.7619	
11	-0.693147		-1.7506949.2326	15.9754	
12	-0.693147		-1.7060452.1431	17.1579	
13	-0.693147		-1.6746654.9476	18.3187	
14	-0.693147		-1.6352457.6216	19.4522	
15	-0.693147		-1.5981960.1758	20.5599	
16	-0.693147		-1.5717962.6464	21.6494	
17	-0.693147		-1.5382 65.0124	22.7156	
18	-0.693147		-1.5062667.2812	23.7597	
19	-0.693147		-1.4832869.4814	24.7878	
20	-0.693147		-1.4538 71.5949	25.7955	
21	-0.693147		-1.4255473.6271	26.7836	
22	-0.693147		-1.4050775.6013	27.7576	
23	-0.693147		-1.3786677.502	28.7132	
24	-0.693147		-1.3531779.3331	29.6511	
25	-0.693147		-1.3346281.1143	30.5762	
26	-0.693147		-1.3105882.8319	31.4846	
27	-0.693147		-1.2872784.489	32.3769	
28	-0.693147		-1.2702486.1025	33.2574	
29	-0.693147		-1.2480987.6602	34.1225	
30	-0.693147		-1.2265389.1646	34.9726	
31	-0.693147		-1.2107390.6305	35.8118	
32	-0.693147		-1.1901292.0469	36.6368	
33	-0.693147		-1.17 93.4158	37.4478	
34	-0.693147		-1.1503594.7391	38.2451	
35	-0.693147		-1.1359 96.0293	39.0325	
36	-0.693147		-1.1169997.277	39.8067	
37	-0.693147		-1.0984798.4836	40.5681	
38	-0.693147		-1.0848299.6605	41.32	
39	-0.693147		-1.06694100.799	42.0596	
40	-0.693147		-1.04939101.9	42.787	
41	-0.693147		-1.03643102.974	43.5054	
42	-0.693147		-1.01943104.013	44.212	
43	-0.693147		-1.00271105.019	44.907	
44	-0.693147		-0.990356	106	45.5935
45	-0.693147		-0.974114	106.949	46.2687
46	-0.693147		-0.958125	107.867	46.9328
47	-0.693147		-0.946291	108.762	47.5887
48	-0.693147		-0.930718	109.628	48.2338
49	-0.693147		-0.915365	110.466	48.8683
50	-0.693147		-0.903992	111.283	49.4949
51	-0.693147		-0.889006	112.074	50.1111

52	-0.693147	-0.874218	112.838	50.7171
53	-0.693147	-0.863249	113.583	51.3154
54	-0.693147	-0.848786	114.304	51.9038
55	-0.693147	-0.834498	115	52.4822
56	-0.693147	-0.823893	115.679	53.0533
57	-0.693147	-0.809896	116.335	53.6147
58	-0.693147	-0.796056	116.968	54.1665
59	-0.693147	-0.785774	117.586	54.7111
60	-0.693147	-0.772193	118.182	55.2464
61	-0.693147	-0.758753	118.758	55.7723
62	-0.693147	-0.748762	119.318	56.2913
63	-0.693147	-0.735557	119.86	56.8011
64	-0.693147	-0.722479	120.382	57.3019
65	-0.693147	-0.712751	120.89	57.796
66	-0.693147	-0.699883	121.379	58.2811
67	-0.693147	-0.687131	121.852	58.7574
68	-0.693147	-0.67449	122.306	59.2249
69	-0.693147	-0.665079	122.749	59.6859
70	-0.693147	-0.652622	123.175	60.1382
71	-0.693147	-0.640266	123.585	60.582
72	-0.693147	-0.631062	123.983	61.0195
73	-0.693147	-0.618872	124.366	61.4484
74	-0.693147	-0.606775	124.734	61.869
75	-0.693147	-0.597761	125.091	62.2833
76	-0.693147	-0.585815	125.435	62.6894
77	-0.693147	-0.573953	125.764	63.0872
78	-0.693147	-0.565108	126.083	63.4789
79	-0.693147	-0.553384	126.39	63.8625
80	-0.693147	-0.541736	126.683	64.238
81	-0.693147	-0.533048	126.967	64.6075
82	-0.693147	-0.521527	127.239	64.969
83	-0.693147	-0.510074	127.499	65.3226
84	-0.693147	-0.501527	127.751	65.6702
85	-0.693147	-0.490189	127.991	66.01
86	-0.693147	-0.478914	128.221	66.3419
87	-0.693147	-0.470498	128.442	66.668
88	-0.693147	-0.459327	128.653	66.9864
89	-0.693147	-0.448213	128.854	67.2971
90	-0.693147	-0.439913	129.047	67.602
91	-0.693147	-0.428895	129.231	67.8993
92	-0.693147	-0.417928	129.406	68.189
93	-0.693147	-0.409735	129.574	68.473
94	-0.693147	-0.398855	129.733	68.7495
95	-0.693147	-0.388022	129.883	69.0184
96	-0.693147	-0.379927	130.028	69.2818
97	-0.693147	-0.369171	130.164	69.5377
98	-0.693147	-0.358459	130.293	69.7861
99	-0.693147	-0.350451	130.415	70.029
100	-0.693147	-0.33981	130.531	70.2646
101	-0.693147	-0.329206	130.639	70.4928
102	-0.693147	-0.318639	130.741	70.7136
103	-0.693147	-0.310738	130.837	70.929
104	-0.693147	-0.300232	130.927	71.1371
105	-0.693147	-0.28976	131.011	71.338
106	-0.693147	-0.281926	131.091	71.5334
107	-0.693147	-0.271509	131.165	71.7216
108	-0.693147	-0.26112	131.233	71.9026
109	-0.693147	-0.253347	131.297	72.0782
110	-0.693147	-0.243007	131.356	72.2466
111	-0.693147	-0.232693	131.41	72.4079
112	-0.693147	-0.224974	131.461	72.5639
113	-0.693147	-0.214702	131.507	72.7127

114	-0.693147	-0.204452	131.549	72.8544
115	-0.693147	-0.196779	131.587	72.9908
116	-0.693147	-0.186567	131.622	73.1201
117	-0.693147	-0.176374	131.653	73.2424
118	-0.693147	-0.168741	131.682	73.3593
119	-0.693147	-0.158579	131.707	73.4692
120	-0.693147	-0.148434	131.729	73.5721
121	-0.693147	-0.140835	131.749	73.6697
122	-0.693147	-0.130716	131.766	73.7603
123	-0.693147	-0.12061	131.78	73.844
124	-0.693147	-0.113039	131.793	73.9223
125	-0.693147	-0.102953	131.804	73.9937
126	-0.693147	-0.0928787	131.812	74.058
127	-0.693147	-0.0853288	131.82	74.1172
128	-0.693147	-0.0752698	131.825	74.1694
129	-0.693147	-0.0652187	131.83	74.2146
130	-0.693147	-0.0576847	131.833	74.2546
131	-0.693147	-0.0476439	131.835	74.2876
132	-0.693147	-0.0376076	131.837	74.3136
133	-0.693147	-0.0300838	131.838	74.3345
134	-0.693147	-0.0200544	131.838	74.3484
135	-0.693147	-0.0100272	131.838	74.3553
136	-0.693147	0	131.838	74.3553
137	-0.693147	0.0100272	131.838	74.3484
138	-0.693147	0.0200544	131.839	74.3345
139	-0.693147	0.0300838	131.839	74.3136
140	-0.693147	0.0376076	131.841	74.2876
141	-0.693147	0.0476439	131.843	74.2546
142	-0.693147	0.0576847	131.846	74.2146
143	-0.693147	0.0652187	131.851	74.1694
144	-0.693147	0.0752698	131.856	74.1172
145	-0.693147	0.0853288	131.864	74.058
146	-0.693147	0.0928787	131.872	73.9937
147	-0.693147	0.102953	131.883	73.9223
148	-0.693147	0.113039	131.896	73.844
149	-0.693147	0.12061	131.91	73.7603
150	-0.693147	0.130716	131.927	73.6697
151	-0.693147	0.140835	131.947	73.5721
152	-0.693147	0.148434	131.969	73.4692
153	-0.693147	0.158579	131.994	73.3593
154	-0.693147	0.168741	132.023	73.2424
155	-0.693147	0.176374	132.054	73.1201
156	-0.693147	0.186567	132.089	72.9908
157	-0.693147	0.196779	132.127	72.8544
158	-0.693147	0.204452	132.169	72.7127
159	-0.693147	0.214702	132.215	72.5639
160	-0.693147	0.224974	132.266	72.4079
161	-0.693147	0.232693	132.32	72.2466
162	-0.693147	0.243007	132.379	72.0782
163	-0.693147	0.253347	132.443	71.9026
164	-0.693147	0.26112	132.512	71.7216
165	-0.693147	0.271509	132.585	71.5334
166	-0.693147	0.281926	132.665	71.338
167	-0.693147	0.28976	132.749	71.1371
168	-0.693147	0.300232	132.839	70.929
169	-0.693147	0.310738	132.935	70.7136
170	-0.693147	0.318639	133.037	70.4928
171	-0.693147	0.329206	133.145	70.2646
172	-0.693147	0.33981	133.261	70.029
173	-0.693147	0.350451	133.384	69.7861
174	-0.693147	0.358459	133.512	69.5377
175	-0.693147	0.369171	133.648	69.2818

176	-0.693147	0.379927	133.793	69.0184
177	-0.693147	0.388022	133.943	68.7495
178	-0.693147	0.398855	134.102	68.473
179	-0.693147	0.409735	134.27	68.189
180	0.916291	0.417928	134.445	68.5719
181	0.916291	0.428895	134.629	68.9649
182	0.916291	0.439913	134.822	69.368
183	0.916291	0.448213	135.023	69.7787
184	0.916291	0.459327	135.234	70.1996
185	0.916291	0.470498	135.456	70.6307
186	0.916291	0.478914	135.685	71.0695
187	0.916291	0.490189	135.925	71.5187
188	0.916291	0.501527	136.177	71.9782
189	0.916291	0.510074	136.437	72.4456
190	0.916291	0.521527	136.709	72.9235
191	0.916291	0.533048	136.993	73.4119
192	0.916291	0.541736	137.287	73.9083
193	0.916291	0.553384	137.593	74.4154
194	0.916291	0.565108	137.912	74.9332
195	0.916291	0.573953	138.242	75.4591
196	0.916291	0.585815	138.585	75.9958
197	0.916291	0.597761	138.942	76.5436
198	0.916291	0.606775	139.31	77.0995
199	0.916291	0.618872	139.693	77.6666
200	0.916291	0.631062	140.091	78.2448
201	0.916291	0.640266	140.501	78.8315
202	0.916291	0.652622	140.927	79.4295
203	0.916291	0.665079	141.37	80.0389
204	0.916291	0.67449	141.825	80.6569
205	0.916291	0.687131	142.297	81.2866
206	0.916291	0.699883	142.787	81.9279
207	0.916291	0.712751	143.295	82.5809
208	0.916291	0.722479	143.817	83.2429
209	0.916291	0.735557	144.358	83.9169
210	0.916291	0.748762	144.918	84.603
211	0.916291	0.758753	145.494	85.2982
212	0.916291	0.772193	146.09	86.0058
213	0.916291	0.785774	146.708	86.7258
214	0.916291	0.796056	147.341	87.4552
215	0.916291	0.809896	147.997	88.1973
216	0.916291	0.823893	148.676	88.9522
217	0.916291	0.834498	149.373	89.7169
218	0.916291	0.848786	150.093	90.4946
219	0.916291	0.863249	150.838	91.2856
220	0.916291	0.874218	151.602	92.0866
221	0.916291	0.889006	152.393	92.9012
222	0.916291	0.903992	153.21	93.7295
223	0.916291	0.915365	154.048	94.5683
224	0.916291	0.930718	154.914	95.4211
225	0.916291	0.946291	155.81	96.2882
226	0.916291	0.958125	156.728	97.1661
227	0.916291	0.974114	157.676	98.0587
228	0.916291	0.990356	158.657	98.9661
229	0.916291	1.00271	159.663	99.8849
230	0.916291	1.01943	160.702	100.819
231	0.916291	1.03643	161.776	101.769
232	0.916291	1.04939	162.877	102.73
233	0.916291	1.06694	164.016	103.708
234	0.916291	1.08482	165.193	104.702
235	0.916291	1.09847	166.399	105.708
236	0.916291	1.11699	167.647	106.732
237	0.916291	1.1359	168.937	107.773

238	0.916291		1.15035	170.26	108.827
239	0.916291		1.17	171.629	109.899
240	0.916291		1.19012	173.046	110.989
241	0.916291		1.21073	174.512	112.099
242	0.916291		1.22653	176.016	113.223
243	0.916291		1.24809	177.574	114.366
244	0.916291		1.27024	179.187	115.53
245	0.916291		1.28727	180.844	116.71
246	0.916291		1.31058	182.562	117.91
247	0.916291		1.33462	184.343	119.133
248	0.916291		1.35317	186.174	120.373
249	0.916291		1.37866	188.075	121.636
250	0.916291		1.40507	190.049	122.924
251	0.916291		1.42554	192.081	124.23
252	0.916291		1.4538	194.195	125.562
253	0.916291		1.48328	196.395	126.921
254	0.916291		1.50626	198.664	128.302
255	0.916291		1.5382	201.03	129.711
256	0.916291		1.57179	203.5	131.151
257	0.916291		1.59819	206.054	132.616
258	0.916291		1.63524	208.728	134.114
259	0.916291		1.67466	211.533	135.648
260	0.916291		1.70604	214.444	137.212
261	0.916291		1.75069	217.508	138.816
262	1.38629	1.79912	220.745	141.31	
263	1.38629	1.83843	224.125	143.858	
264	1.72277	1.8957	227.719	147.124	
265	1.74047	1.95996	231.56	150.536	
266	1.75786	2.01409	235.617	154.076	
267	1.93152	2.09693	240.014	158.126	
268	2.0149	2.19728	244.842	162.554	
269	2.17475	2.29036	250.088	167.535	
270	2.3979	2.45727	256.126	173.427	
271	5.64191	2.74777	263.676	188.93	

Data Set Standard Deviation = 0.892837
Numerator = 35694.4
Denominator = 56751.7
W Statistic = 0.628957 = 35694.4 / 56751.7

5% Critical value of 0.976 exceeds 0.628957
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.628957
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Acetone

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.793651
0.793651 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-0.693147	0.00367647	-2.747776	2.4523	348.683
2	-0.693147	0.00735294	-2.457276	2.4523	334.497
3	-0.693147	0.0110294	-2.290366	2.4523	326.346
4	-0.693147	0.0147059	-2.197286	2.4523	321.801
5	-0.693147	0.0183824	-2.096936	2.4523	316.9
6	-0.693147	0.0220588	-2.014096	2.4523	312.855
7	-0.693147	0.0257353	-1.959966	2.4523	310.211
8	-0.693147	0.0294118	-1.8957	62.4523	307.073
9	-0.693147	0.0330882	-1.838436	2.4523	304.276
10	-0.693147	0.0367647	-1.799126	2.4523	302.357
11	-0.693147	0.0404412	-1.750696	2.4523	299.992
12	-0.693147	0.0441176	-1.706046	2.4523	297.812
13	-0.693147	0.0477941	-1.674666	2.4523	296.279
14	-0.693147	0.0514706	-1.635246	2.4523	294.354
15	-0.693147	0.0551471	-1.598196	2.4523	292.545
16	-0.693147	0.0588235	-1.571796	2.4523	291.256
17	-0.693147	0.0625	-1.5382	62.4523	289.615
18	-0.693147	0.0661765	-1.506266	2.4523	288.056
19	-0.693147	0.0698529	-1.483286	2.4523	286.934
20	-0.693147	0.0735294	-1.4538	62.4523	285.494
21	-0.693147	0.0772059	-1.425546	2.4523	284.114
22	-0.693147	0.0808824	-1.405076	2.4523	283.114
23	-0.693147	0.0845588	-1.378666	2.4523	281.824
24	-0.693147	0.0882353	-1.353176	2.4523	280.58
25	-0.693147	0.0919118	-1.334626	2.4523	279.674
26	-0.693147	0.0955882	-1.310586	2.4523	278.5
27	-0.693147	0.0992647	-1.287276	2.4523	277.362
28	-0.693147	0.102941	-1.270246	2.4523	276.53
29	-0.693147	0.106618	-1.248096	2.4523	275.448
30	-0.693147	0.110294	-1.226536	2.4523	274.395
31	-0.693147	0.113971	-1.210736	2.4523	273.624
32	-0.693147	0.117647	-1.190126	2.4523	272.617
33	-0.693147	0.121324	-1.17	62.4523	271.635
34	-0.693147	0.125	-1.150356	2.4523	270.675
35	-0.693147	0.128676	-1.1359	62.4523	269.97
36	-0.693147	0.132353	-1.116996	2.4523	269.046
37	-0.693147	0.136029	-1.098476	2.4523	268.142
38	-0.693147	0.139706	-1.084826	2.4523	267.476
39	-0.693147	0.143382	-1.066946	2.4523	266.602
40	-0.693147	0.147059	-1.049396	2.4523	265.745
41	-0.693147	0.150735	-1.036436	2.4523	265.112
42	-0.693147	0.154412	-1.019436	2.4523	264.282
43	-0.693147	0.158088	-1.002716	2.4523	263.466
44	-0.693147	0.161765	-0.990356	62.4523	262.862
45	-0.693147	0.165441	-0.974114	62.4523	262.069
46	-0.693147	0.169118	-0.958125	62.4523	261.288
47	-0.693147	0.172794	-0.946291	62.4523	260.711
48	-0.693147	0.176471	-0.930718	62.4523	259.95

49	-0.693147	0.180147	-0.915365	62.4523	259.2
50	-0.693147	0.183824	-0.903992	62.4523	258.645
51	-0.693147	0.1875	-0.889006	62.4523	257.913
52	-0.693147	0.191176	-0.874218	62.4523	257.191
53	-0.693147	0.194853	-0.863249	62.4523	256.655
54	-0.693147	0.198529	-0.848786	62.4523	255.949
55	-0.693147	0.202206	-0.834498	62.4523	255.251
56	-0.693147	0.205882	-0.823893	62.4523	254.733
57	-0.693147	0.209559	-0.809896	62.4523	254.05
58	-0.693147	0.213235	-0.796056	62.4523	253.374
59	-0.693147	0.216912	-0.785774	62.4523	252.872
60	-0.693147	0.220588	-0.772193	62.4523	252.209
61	-0.693147	0.224265	-0.758753	62.4523	251.552
62	-0.693147	0.227941	-0.748762	62.4523	251.065
63	-0.693147	0.231618	-0.735557	62.4523	250.42
64	-0.693147	0.235294	-0.722479	62.4523	249.781
65	-0.693147	0.238971	-0.712751	62.4523	249.306
66	-0.693147	0.242647	-0.699883	62.4523	248.678
67	-0.693147	0.246324	-0.687131	62.4523	248.055
68	-0.693147	0.25	-0.674496	62.4523	247.438
69	-0.693147	0.253676	-0.665079	62.4523	246.978
70	-0.693147	0.257353	-0.652622	62.4523	246.37
71	-0.693147	0.261029	-0.640266	62.4523	245.766
72	-0.693147	0.264706	-0.631062	62.4523	245.317
73	-0.693147	0.268382	-0.618872	62.4523	244.722
74	-0.693147	0.272059	-0.606775	62.4523	244.131
75	-0.693147	0.275735	-0.597761	62.4523	243.691
76	-0.693147	0.279412	-0.585815	62.4523	243.107
77	-0.693147	0.283088	-0.573953	62.4523	242.528
78	-0.693147	0.286765	-0.565108	62.4523	242.096
79	-0.693147	0.290441	-0.553384	62.4523	241.524
80	-0.693147	0.294118	-0.541736	62.4523	240.955
81	-0.693147	0.297794	-0.533048	62.4523	240.531
82	-0.693147	0.301471	-0.521527	62.4523	239.968
83	-0.693147	0.305147	-0.510074	62.4523	239.409
84	-0.693147	0.308824	-0.501527	62.4523	238.991
85	-0.693147	0.3125	-0.490189	62.4523	238.438
86	-0.693147	0.316176	-0.478914	62.4523	237.887
87	-0.693147	0.319853	-0.470498	62.4523	237.476
88	-0.693147	0.323529	-0.459327	62.4523	236.93
89	-0.693147	0.327206	-0.448213	62.4523	236.388
90	-0.693147	0.330882	-0.439913	62.4523	235.982
91	-0.693147	0.334559	-0.428895	62.4523	235.444
92	-0.693147	0.338235	-0.417928	62.4523	234.909
93	-0.693147	0.341912	-0.409735	62.4523	234.509
94	-0.693147	0.345588	-0.398855	62.4523	233.977
95	-0.693147	0.349265	-0.388022	62.4523	233.448
96	-0.693147	0.352941	-0.379927	62.4523	233.053
97	-0.693147	0.356618	-0.369171	62.4523	232.528
98	-0.693147	0.360294	-0.358459	62.4523	232.005
99	-0.693147	0.363971	-0.350451	62.4523	231.614
100	-0.693147	0.367647	-0.339816	62.4523	231.094
101	-0.693147	0.371324	-0.329206	62.4523	230.576
102	-0.693147	0.375	-0.318639	62.4523	230.06
103	-0.693147	0.378676	-0.310738	62.4523	229.674
104	-0.693147	0.382353	-0.300232	62.4523	229.161
105	-0.693147	0.386029	-0.289766	62.4523	228.65
106	-0.693147	0.389706	-0.281926	62.4523	228.267
107	-0.693147	0.393382	-0.271509	62.4523	227.759
108	-0.693147	0.397059	-0.261126	62.4523	227.251
109	-0.693147	0.400735	-0.253347	62.4523	226.872
110	-0.693147	0.404412	-0.243007	62.4523	226.367

111	-0.693147	0.408088	-0.232693	62.4523	225.863
112	-0.693147	0.411765	-0.224974	62.4523	225.486
113	-0.693147	0.415441	-0.214702	62.4523	224.985
114	-0.693147	0.419118	-0.204452	62.4523	224.484
115	-0.693147	0.422794	-0.196779	62.4523	224.109
116	-0.693147	0.426471	-0.186567	62.4523	223.611
117	-0.693147	0.430147	-0.176374	62.4523	223.113
118	-0.693147	0.433824	-0.168741	62.4523	222.74
119	-0.693147	0.4375	-0.158579	62.4523	222.244
120	-0.693147	0.441176	-0.148434	62.4523	221.749
121	-0.693147	0.444853	-0.140835	62.4523	221.377
122	-0.693147	0.448529	-0.130716	62.4523	220.883
123	-0.693147	0.452206	-0.12061	62.4523	220.39
124	-0.693147	0.455882	-0.113039	62.4523	220.02
125	-0.693147	0.459559	-0.102953	62.4523	219.528
126	-0.693147	0.463235	-0.0928787	62.4523	219.036
127	-0.693147	0.466912	-0.0853288	62.4523	218.667
128	-0.693147	0.470588	-0.0752698	62.4523	218.176
129	-0.693147	0.474265	-0.0652187	62.4523	217.685
130	-0.693147	0.477941	-0.0576847	62.4523	217.317
131	-0.693147	0.481618	-0.0476439	62.4523	216.827
132	-0.693147	0.485294	-0.0376076	62.4523	216.337
133	-0.693147	0.488971	-0.0300838	62.4523	215.969
134	-0.693147	0.492647	-0.0200544	62.4523	215.479
135	-0.693147	0.496324	-0.0100272	62.4523	214.99
136	-0.693147	0.5	0	62.4523	214.5
137	-0.693147	0.503676	0.0100272	62.4523	214.01
138	-0.693147	0.507353	0.0200544	62.4523	213.521
139	-0.693147	0.511029	0.0300838	62.4523	213.031
140	-0.693147	0.514706	0.0376076	62.4523	212.663
141	-0.693147	0.518382	0.0476439	62.4523	212.173
142	-0.693147	0.522059	0.0576847	62.4523	211.683
143	-0.693147	0.525735	0.0652187	62.4523	211.315
144	-0.693147	0.529412	0.0752698	62.4523	210.824
145	-0.693147	0.533088	0.0853288	62.4523	210.333
146	-0.693147	0.536765	0.0928787	62.4523	209.964
147	-0.693147	0.540441	0.102953	62.4523	209.472
148	-0.693147	0.544118	0.113039	62.4523	208.98
149	-0.693147	0.547794	0.12061	62.4523	208.61
150	-0.693147	0.551471	0.130716	62.4523	208.117
151	-0.693147	0.555147	0.140835	62.4523	207.623
152	-0.693147	0.558824	0.148434	62.4523	207.251
153	-0.693147	0.5625	0.158579	62.4523	206.756
154	-0.693147	0.566176	0.168741	62.4523	206.26
155	-0.693147	0.569853	0.176374	62.4523	205.887
156	-0.693147	0.573529	0.186567	62.4523	205.389
157	-0.693147	0.577206	0.196779	62.4523	204.891
158	-0.693147	0.580882	0.204452	62.4523	204.516
159	-0.693147	0.584559	0.214702	62.4523	204.015
160	-0.693147	0.588235	0.224974	62.4523	203.514
161	-0.693147	0.591912	0.232693	62.4523	203.137
162	-0.693147	0.595588	0.243007	62.4523	202.633
163	-0.693147	0.599265	0.253347	62.4523	202.128
164	-0.693147	0.602941	0.26112	62.4523	201.749
165	-0.693147	0.606618	0.271509	62.4523	201.241
166	-0.693147	0.610294	0.281926	62.4523	200.733
167	-0.693147	0.613971	0.28976	62.4523	200.35
168	-0.693147	0.617647	0.300232	62.4523	199.839
169	-0.693147	0.621324	0.310738	62.4523	199.326
170	-0.693147	0.625	0.318639	62.4523	198.94
171	-0.693147	0.628676	0.329206	62.4523	198.424
172	-0.693147	0.632353	0.33981	62.4523	197.906

173	-0.693147	0.636029	0.350451	62.4523	197.386
174	-0.693147	0.639706	0.358459	62.4523	196.995
175	-0.693147	0.643382	0.369171	62.4523	196.472
176	-0.693147	0.647059	0.379927	62.4523	195.947
177	-0.693147	0.650735	0.388022	62.4523	195.552
178	-0.693147	0.654412	0.398855	62.4523	195.023
179	-0.693147	0.658088	0.409735	62.4523	194.491
180	0.916291	0.661765	0.417928	185.459	194.091
181	0.916291	0.665441	0.428895	185.459	193.556
182	0.916291	0.669118	0.439913	185.459	193.018
183	0.916291	0.672794	0.448213	185.459	192.612
184	0.916291	0.676471	0.459327	185.459	192.07
185	0.916291	0.680147	0.470498	185.459	191.524
186	0.916291	0.683824	0.478914	185.459	191.113
187	0.916291	0.6875	0.490189	185.459	190.562
188	0.916291	0.691176	0.501527	185.459	190.009
189	0.916291	0.694853	0.510074	185.459	189.591
190	0.916291	0.698529	0.521527	185.459	189.032
191	0.916291	0.702206	0.533048	185.459	188.469
192	0.916291	0.705882	0.541736	185.459	188.045
193	0.916291	0.709559	0.553384	185.459	187.476
194	0.916291	0.713235	0.565108	185.459	186.904
195	0.916291	0.716912	0.573953	185.459	186.472
196	0.916291	0.720588	0.585815	185.459	185.893
197	0.916291	0.724265	0.597761	185.459	185.309
198	0.916291	0.727941	0.606775	185.459	184.869
199	0.916291	0.731618	0.618872	185.459	184.278
200	0.916291	0.735294	0.631062	185.459	183.683
201	0.916291	0.738971	0.640266	185.459	183.234
202	0.916291	0.742647	0.652622	185.459	182.63
203	0.916291	0.746324	0.665079	185.459	182.022
204	0.916291	0.75	0.67449	185.459	181.562
205	0.916291	0.753676	0.687131	185.459	180.945
206	0.916291	0.757353	0.699883	185.459	180.322
207	0.916291	0.761029	0.712751	185.459	179.694
208	0.916291	0.764706	0.722479	185.459	179.219
209	0.916291	0.768382	0.735557	185.459	178.58
210	0.916291	0.772059	0.748762	185.459	177.935
211	0.916291	0.775735	0.758753	185.459	177.448
212	0.916291	0.779412	0.772193	185.459	176.791
213	0.916291	0.783088	0.785774	185.459	176.128
214	0.916291	0.786765	0.796056	185.459	175.626
215	0.916291	0.790441	0.809896	185.459	174.95
216	0.916291	0.794118	0.823893	185.459	174.267
217	0.916291	0.797794	0.834498	185.459	173.749
218	0.916291	0.801471	0.848786	185.459	173.051
219	0.916291	0.805147	0.863249	185.459	172.345
220	0.916291	0.808824	0.874218	185.459	171.809
221	0.916291	0.8125	0.889006	185.459	171.087
222	0.916291	0.816176	0.903992	185.459	170.355
223	0.916291	0.819853	0.915365	185.459	169.8
224	0.916291	0.823529	0.930718	185.459	169.05
225	0.916291	0.827206	0.946291	185.459	168.289
226	0.916291	0.830882	0.958125	185.459	167.712
227	0.916291	0.834559	0.974114	185.459	166.931
228	0.916291	0.838235	0.990356	185.459	166.138
229	0.916291	0.841912	1.00271	185.459	165.534
230	0.916291	0.845588	1.01943	185.459	164.718
231	0.916291	0.849265	1.03643	185.459	163.888
232	0.916291	0.852941	1.04939	185.459	163.255
233	0.916291	0.856618	1.06694	185.459	162.398
234	0.916291	0.860294	1.08482	185.459	161.524

235	0.916291	0.863971	1.09847	185.459	160.858
236	0.916291	0.867647	1.11699	185.459	159.954
237	0.916291	0.871324	1.1359	185.459	159.03
238	0.916291	0.875	1.15035	185.459	158.325
239	0.916291	0.878676	1.17	185.459	157.365
240	0.916291	0.882353	1.19012	185.459	156.383
241	0.916291	0.886029	1.21073	185.459	155.376
242	0.916291	0.889706	1.22653	185.459	154.605
243	0.916291	0.893382	1.24809	185.459	153.552
244	0.916291	0.897059	1.27024	185.459	152.47
245	0.916291	0.900735	1.28727	185.459	151.638
246	0.916291	0.904412	1.31058	185.459	150.5
247	0.916291	0.908088	1.33462	185.459	149.326
248	0.916291	0.911765	1.35317	185.459	148.42
249	0.916291	0.915441	1.37866	185.459	147.176
250	0.916291	0.919118	1.40507	185.459	145.886
251	0.916291	0.922794	1.42554	185.459	144.886
252	0.916291	0.926471	1.4538	185.459	143.506
253	0.916291	0.930147	1.48328	185.459	142.066
254	0.916291	0.933824	1.50626	185.459	140.944
255	0.916291	0.9375	1.5382	185.459	139.385
256	0.916291	0.941176	1.57179	185.459	137.744
257	0.916291	0.944853	1.59819	185.459	136.455
258	0.916291	0.948529	1.63524	185.459	134.646
259	0.916291	0.952206	1.67466	185.459	132.721
260	0.916291	0.955882	1.70604	185.459	131.188
261	0.916291	0.959559	1.75069	185.459	129.008
262	1.38629	0.963235	1.79912	221.381	126.643
263	1.38629	0.966912	1.83843	221.381	124.724
264	1.72277	0.970588	1.8957	247.097	121.927
265	1.74047	0.974265	1.95996	248.45	118.789
266	1.75786	0.977941	2.01409	249.779	116.145
267	1.93152	0.981618	2.09693	263.052	112.1
268	2.0149	0.985294	2.19728	269.425	107.199
269	2.17475	0.988971	2.29036	281.642	102.654
270	2.3979	0.992647	2.45727	298.696	94.5032
271	5.64191	0.996324	2.74777	546.631	80.3175

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Acetone
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 96.31%
Number of comparisons = 16
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 1.93152
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-14R	5/16/2012	1	0.916291	FALSE
LMW-15R	5/16/2012	1	0.916291	FALSE
LMW-16	5/16/2012	1	0.916291	FALSE
LMW-3	5/16/2012	1	0.916291	FALSE
LMW-3S	5/16/2012	1	0.916291	FALSE
LMW-9	5/16/2012	1	0.916291	FALSE
LMW-6	5/16/2012	1	0.916291	FALSE
LMW-8	5/16/2012	1	1.72277	FALSE
LMW-9D	5/16/2012	1	0.916291	FALSE
LMW-9S	5/16/2012	1	0.916291	FALSE
LMW-10	5/16/2012	1	0.916291	FALSE
LMW-7	5/16/2012	1	0.916291	FALSE
LMW-12	11/20/2008	1	-0.693147	FALSE
LMW-13	11/20/2008	1	-0.693147	FALSE
MW-5	11/20/2008	1	-0.693147	FALSE
LMW-11	11/20/2008	1	-0.693147	FALSE

Concentrations (ppb)

Parameter: Arsenic

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 198
Percent Non-Detects: 73.0627%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	20 (90.9091%)	1/16/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/14/2000	ND<2	ND<2
			9/23/2003	ND<2	ND<2
			3/10/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/26/2005	ND<2	ND<2
			6/19/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			6/2/2007	1 J	1 J
			11/15/2007	1 J	1 J
			5/20/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.4 U	ND<0.4 U
			11/16/2009	ND<0.4 U	ND<0.4 U
			6/30/2010	ND<0.4 U	ND<0.4 U
			11/17/2010	ND<0.4 U	ND<0.4 U
			7/6/2011	ND<0.4 U	ND<0.4 U
			11/22/2011	ND<0.4 U	ND<0.4 U
			5/16/2012	ND<0.4 U	ND<0.4 U

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-9S	11	3 (27.2727%)	11/18/2006	ND<2	ND<2
			6/2/2007	1 J	1 J
			11/15/2007	4	4
			5/20/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	0.46 J	0.46 J
			6/30/2010	0.57 J	0.57 J
			11/17/2010	1.2	1.2
			7/6/2011	0.46 J	0.46 J
			11/22/2011	0.47 J	0.47 J
			5/16/2012	0.54 J	0.54 J
LMW-15R	14	13 (92.8571%)	11/18/2006	ND<2	ND<2
			6/2/2007	ND<2	ND<2
			11/15/2007	ND<2	ND<2
			11/15/2007	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	2.5	2.5

			6/30/2010	ND<0.4 U	ND<0.4 U
			11/17/2010	ND<0.4 U	ND<0.4 U
			7/6/2011	ND<0.4 U	ND<0.4 U
			11/22/2011	ND<0.4 U	ND<0.4 U
			5/16/2012	ND<0.4 U	ND<0.4 U
LMW-16	12	3 (25%)	11/18/2006	ND<2	ND<2
			6/2/2007	2	2
			11/15/2007	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			11/20/2008	9	9
			6/11/2009	0.56 J	0.56 J
			11/16/2009	0.59 J	0.59 J
			6/30/2010	0.5 J	0.5 J
			11/17/2010	0.54 J	0.54 J
			7/6/2011	1	1
			11/22/2011	0.54 J	0.54 J
			5/16/2012	1.8	1.8
LMW-3	24	22 (91.6667%)	11/19/1996	ND<2	ND<2
			3/24/1997	ND<2	ND<2
			1/16/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/14/2000	ND<2	ND<2
			9/23/2003	ND<2	ND<2
			3/10/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/26/2005	ND<2	ND<2
			6/19/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			6/2/2007	ND<2	ND<2
			11/15/2007	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	0.42 J B	0.42 J B
			11/16/2009	ND<0.4 U	ND<0.4 U
			6/30/2010	ND<0.4 U	ND<0.4 U
			11/17/2010	0.44 J	0.44 J
			7/6/2011	ND<0.4 U	ND<0.4 U
			11/22/2011	ND<0.4 U	ND<0.4 U
			5/16/2012	ND<0.4 U	ND<0.4 U
LMW-3s	1	1 (100%)	5/16/2012	ND<0.4 U	ND<0.4 U
LMW-6	22	18 (81.8182%)	1/16/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/14/2000	ND<2	ND<2
			9/23/2003	ND<2	ND<2
			3/10/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/26/2005	ND<2	ND<2
			6/19/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			6/2/2007	1 J	1 J
			11/15/2007	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	0.65 J B	0.65 J B

			11/16/2009	ND<0.4 U	ND<0.4 U
			6/30/2010	0.46 J	0.46 J
			11/17/2010	0.52 J	0.52 J
			7/6/2011	ND<0.4 U	ND<0.4 U
			11/22/2011	ND<0.4 U	ND<0.4 U
			5/16/2012	ND<0.4 U	ND<0.4 U
LMW-14R	13	9 (69.2308%)	6/2/2007	1 J	1 J
			11/15/2007	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			11/20/2008	9	9
			6/11/2009	0.41 J	0.41 J
			11/16/2009	ND<0.4 U	ND<0.4 U
			11/16/2009	ND<0.4 U	ND<0.4 U
			11/16/2009	0.47 J	0.47 J
			6/30/2010	ND<0.4 U	ND<0.4 U
			11/17/2010	ND<0.4 U	ND<0.4 U
			7/6/2011	ND<0.4 U	ND<0.4 U
			11/22/2011	ND<0.4 U	ND<0.4 U
			5/16/2012	ND<0.4 U	ND<0.4 U
LMW-7	20	15 (75%)	1/16/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/14/2000	10	10
			9/23/2003	ND<2	ND<2
			3/10/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/26/2005	ND<2	ND<2
			6/19/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			6/2/2007	1 J	1 J
			11/15/2007	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			11/20/2008	10	10
			6/11/2009	1.1 J B	1.1 J B
			11/17/2010	ND<0.4 U	ND<0.4 U
			7/6/2011	1.8	1.8
			11/22/2011	ND<0.4 U	ND<0.4 U
			5/16/2012	ND<0.4 U	ND<0.4 U
LMW-8	22	15 (68.1818%)	1/16/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/14/2000	ND<2	ND<2
			9/23/2003	ND<2	ND<2
			3/10/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/26/2005	ND<2	ND<2
			6/19/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			6/2/2007	ND<2	ND<2
			11/15/2007	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	0.49 J	0.49 J
			11/16/2009	0.53 J	0.53 J
			6/30/2010	0.43 J	0.43 J
			11/17/2010	0.48 J	0.48 J
			7/6/2011	0.81 J	0.81 J

			11/22/2011	1.2	1.2	
			5/16/2012	1.3	1.3	
LMW-9	22	14 (63.6364%)	1/16/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	3	3	
			3/14/2000	ND<2	ND<2	
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	1 J	1 J	
			10/26/2005	ND<2	ND<2	
			6/19/2006	1 J	1 J	
			11/18/2006	ND<2	ND<2	
			6/2/2007	1 J	1 J	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	8	8	
			6/11/2009	1.1 J	1.1 J	
			11/16/2009	ND<0.4 U	ND<0.4 U	
			6/30/2010	0.58 J	0.58 J	
			11/17/2010	1.6	1.6	
			7/6/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U	ND<0.4 U	
			5/16/2012	ND<0.4 U	ND<0.4 U	
LMW-9D	12	1 (8.33333%)	11/18/2006	7	7	
			6/2/2007	7	7	
			11/15/2007	ND<2	ND<2	
			5/20/2008	3	3	
			11/20/2008	3	3	
			6/11/2009	2.1	2.1	
			11/16/2009	2	2	
			6/30/2010	1.8	1.8	
			11/17/2010	2	2	
			7/6/2011	3.2	3.2	
			11/22/2011	2.5	2.5	
			5/16/2012	2.6	2.6	
LMW-10	19	16 (84.2105%)	3/14/2000	23	23	
			9/23/2003	ND<2	ND<2	
			3/10/2004	25	25	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			6/2/2007	1 J	1 J	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.4 U	ND<0.4 U	
			11/16/2009	ND<0.4 U	ND<0.4 U	
			6/30/2010	ND<0.4 U	ND<0.4 U	
			11/17/2010	ND<0.4 U	ND<0.4 U	
			7/6/2011	ND<0.4 U	ND<0.4 U	
			11/22/2011	ND<0.4 U	ND<0.4 U	
			5/16/2012	ND<0.4 U	ND<0.4 U	
LMW-3S	11	8 (72.7273%)	11/18/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	

			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	0.73 J B	0.73 J B	
			11/16/2009	ND<0.4 U		ND<0.4 U
			6/30/2010	ND<0.4 U		ND<0.4 U
			11/17/2010	1	1	
			7/6/2011	0.84 J	0.84 J	
			11/22/2011	ND<0.4 U		ND<0.4 U
LMW-11	11	9 (81.8182%)	3/14/2000		12	12
			9/23/2003	ND<2	ND<2	
			3/10/2004	18	18	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
LMW-12	11	10 (90.9091%)	3/14/2000		57	57
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
LMW-13	11	10 (90.9091%)	3/14/2000		16	16
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
MW-5	13	11 (84.6154%)	1/16/1998		ND<2	ND<2
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/14/2000	34	34	
			9/23/2003	ND<2	ND<2	
			3/10/2004	60	60	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.2	-2.74777	7.55021	-0.549553
2	0.2	-2.45727	13.5884	-1.04101
3	0.2	-2.29036	18.8342	-1.49908
4	0.2	-2.19728	23.6622	-1.93854
5	0.2	-2.09693	28.0593	-2.35792
6	0.2	-2.01409	32.1159	-2.76074
7	0.2	-1.95996	35.9574	-3.15273
8	0.2	-1.8957	39.551	-3.53187
9	0.2	-1.83843	42.9308	-3.89956
10	0.2	-1.79912	46.1677	-4.25938
11	0.2	-1.75069	49.2326	-4.60952
12	0.2	-1.70604	52.1431	-4.95073
13	0.2	-1.67466	54.9476	-5.28566
14	0.2	-1.63524	57.6216	-5.61271
15	0.2	-1.59819	60.1758	-5.93235
16	0.2	-1.57179	62.6464	-6.2467
17	0.2	-1.5382	65.0124	-6.55434
18	0.2	-1.50626	67.2812	-6.8556
19	0.2	-1.48328	69.4814	-7.15225
20	0.2	-1.4538	71.5949	-7.44301
21	0.2	-1.42554	73.6271	-7.72812
22	0.2	-1.40507	75.6013	-8.00914
23	0.2	-1.37866	77.502	-8.28487
24	0.2	-1.35317	79.3331	-8.5555
25	0.2	-1.33462	81.1143	-8.82243
26	0.2	-1.31058	82.8319	-9.08454
27	0.2	-1.28727	84.489	-9.342
28	0.2	-1.27024	86.1025	-9.59604
29	0.2	-1.24809	87.6602	-9.84566
30	0.2	-1.22653	89.1646	-10.091
31	0.2	-1.21073	90.6305	-10.3331
32	0.2	-1.19012	92.0469	-10.5711
33	0.2	-1.17	93.4158	-10.8051
34	0.2	-1.15035	94.7391	-11.0352
35	0.2	-1.1359	96.0293	-11.2624
36	0.2	-1.11699	97.277	-11.4858
37	0.2	-1.09847	98.4836	-11.7055
38	0.2	-1.08482	99.6605	-11.9224
39	0.2	-1.06694	100.799	-12.1358
40	0.2	-1.04939	101.9	-12.3457
41	0.2	-1.03643	102.974	-12.553
42	0.2	-1.01943	104.013	-12.7569
43	0.2	-1.00271	105.019	-12.9574
44	0.2	-0.990356	106	-13.1555
45	0.2	-0.974114	106.949	-13.3503
46	0.2	-0.958125	107.867	-13.5419
47	0.41	-0.946291	108.762	-13.9299
48	0.42	-0.930718	109.628	-14.3208
49	0.43	-0.915365	110.466	-14.7144
50	0.44	-0.903992	111.283	-15.1122
51	0.46	-0.889006	112.074	-15.5211

52	0.46	-0.874218	112.838	-15.9233
53	0.46	-0.863249	113.583	-16.3204
54	0.47	-0.848786	114.304	-16.7193
55	0.47	-0.834498	115	-17.1115
56	0.48	-0.823893	115.679	-17.507
57	0.49	-0.809896	116.335	-17.9038
58	0.5	-0.796056	116.968	-18.3019
59	0.52	-0.785774	117.586	-18.7105
60	0.53	-0.772193	118.182	-19.1197
61	0.54	-0.758753	118.758	-19.5294
62	0.54	-0.748762	119.318	-19.9338
63	0.54	-0.735557	119.86	-20.331
64	0.56	-0.722479	120.382	-20.7356
65	0.57	-0.712751	120.89	-21.1418
66	0.58	-0.699883	121.379	-21.5478
67	0.59	-0.687131	121.852	-21.9532
68	0.65	-0.67449	122.306	-22.3916
69	0.73	-0.665079	122.749	-22.8771
70	0.81	-0.652622	123.175	-23.4057
71	0.84	-0.640266	123.585	-23.9435
72	1	-0.631062	123.983	-24.5746
73	1	-0.618872	124.366	-25.1935
74	1	-0.606775	124.734	-25.8003
75	1	-0.597761	125.091	-26.398
76	1	-0.585815	125.435	-26.9838
77	1	-0.573953	125.764	-27.5578
78	1	-0.565108	126.083	-28.1229
79	1	-0.553384	126.39	-28.6763
80	1	-0.541736	126.683	-29.218
81	1	-0.533048	126.967	-29.7511
82	1	-0.521527	127.239	-30.2726
83	1	-0.510074	127.499	-30.7827
84	1	-0.501527	127.751	-31.2842
85	1	-0.490189	127.991	-31.7744
86	1	-0.478914	128.221	-32.2533
87	1	-0.470498	128.442	-32.7238
88	1	-0.459327	128.653	-33.1831
89	1	-0.448213	128.854	-33.6313
90	1	-0.439913	129.047	-34.0712
91	1	-0.428895	129.231	-34.5001
92	1	-0.417928	129.406	-34.9181
93	1	-0.409735	129.574	-35.3278
94	1	-0.398855	129.733	-35.7267
95	1	-0.388022	129.883	-36.1147
96	1	-0.379927	130.028	-36.4946
97	1	-0.369171	130.164	-36.8638
98	1	-0.358459	130.293	-37.2222
99	1	-0.350451	130.415	-37.5727
100	1	-0.33981	130.531	-37.9125
101	1	-0.329206	130.639	-38.2417
102	1	-0.318639	130.741	-38.5603
103	1	-0.310738	130.837	-38.8711
104	1	-0.300232	130.927	-39.1713
105	1	-0.28976	131.011	-39.4611
106	1	-0.281926	131.091	-39.743
107	1	-0.271509	131.165	-40.0145
108	1	-0.26112	131.233	-40.2756
109	1	-0.253347	131.297	-40.529
110	1	-0.243007	131.356	-40.772
111	1	-0.232693	131.41	-41.0047
112	1	-0.224974	131.461	-41.2296
113	1	-0.214702	131.507	-41.4443

114	1	-0.204452	131.549	-41.6488
115	1	-0.196779	131.587	-41.8456
116	1	-0.186567	131.622	-42.0321
117	1	-0.176374	131.653	-42.2085
118	1	-0.168741	131.682	-42.3773
119	1	-0.158579	131.707	-42.5358
120	1	-0.148434	131.729	-42.6843
121	1	-0.140835	131.749	-42.8251
122	1	-0.130716	131.766	-42.9558
123	1	-0.12061	131.78	-43.0764
124	1	-0.113039	131.793	-43.1895
125	1	-0.102953	131.804	-43.2924
126	1	-0.0928787	131.812	-43.3853
127	1	-0.0853288	131.82	-43.4706
128	1	-0.0752698	131.825	-43.5459
129	1	-0.0652187	131.83	-43.6111
130	1	-0.0576847	131.833	-43.6688
131	1	-0.0476439	131.835	-43.7165
132	1	-0.0376076	131.837	-43.7541
133	1	-0.0300838	131.838	-43.7841
134	1	-0.0200544	131.838	-43.8042
135	1	-0.0100272	131.838	-43.8142
136	1	0	131.838	-43.8142
137	1	0.0100272	131.838	-43.8042
138	1	0.0200544	131.839	-43.7841
139	1	0.0300838	131.839	-43.7541
140	1	0.0376076	131.841	-43.7165
141	1	0.0476439	131.843	-43.6688
142	1	0.0576847	131.846	-43.6111
143	1	0.0652187	131.851	-43.5459
144	1	0.0752698	131.856	-43.4706
145	1	0.0853288	131.864	-43.3853
146	1	0.0928787	131.872	-43.2924
147	1	0.102953	131.883	-43.1895
148	1	0.113039	131.896	-43.0764
149	1	0.12061	131.91	-42.9558
150	1	0.130716	131.927	-42.8251
151	1	0.140835	131.947	-42.6843
152	1	0.148434	131.969	-42.5358
153	1	0.158579	131.994	-42.3773
154	1	0.168741	132.023	-42.2085
155	1	0.176374	132.054	-42.0321
156	1	0.186567	132.089	-41.8456
157	1	0.196779	132.127	-41.6488
158	1	0.204452	132.169	-41.4443
159	1	0.214702	132.215	-41.2296
160	1	0.224974	132.266	-41.0047
161	1	0.232693	132.32	-40.772
162	1	0.243007	132.379	-40.529
163	1	0.253347	132.443	-40.2756
164	1	0.26112	132.512	-40.0145
165	1	0.271509	132.585	-39.743
166	1	0.281926	132.665	-39.4611
167	1	0.28976	132.749	-39.1713
168	1	0.300232	132.839	-38.8711
169	1	0.310738	132.935	-38.5603
170	1	0.318639	133.037	-38.2417
171	1	0.329206	133.145	-37.9125
172	1	0.33981	133.261	-37.5727
173	1	0.350451	133.384	-37.2222
174	1	0.358459	133.512	-36.8638
175	1	0.369171	133.648	-36.4946

176	1	0.379927	133.793	-36.1147
177	1	0.388022	133.943	-35.7267
178	1	0.398855	134.102	-35.3278
179	1	0.409735	134.27	-34.9181
180	1	0.417928	134.445	-34.5001
181	1	0.428895	134.629	-34.0712
182	1	0.439913	134.822	-33.6313
183	1	0.448213	135.023	-33.1831
184	1	0.459327	135.234	-32.7238
185	1	0.470498	135.456	-32.2533
186	1	0.478914	135.685	-31.7744
187	1	0.490189	135.925	-31.2842
188	1	0.501527	136.177	-30.7827
189	1	0.510074	136.437	-30.2726
190	1	0.521527	136.709	-29.7511
191	1	0.533048	136.993	-29.218
192	1	0.541736	137.287	-28.6763
193	1	0.553384	137.593	-28.1229
194	1	0.565108	137.912	-27.5578
195	1	0.573953	138.242	-26.9838
196	1	0.585815	138.585	-26.398
197	1	0.597761	138.942	-25.8003
198	1	0.606775	139.31	-25.1935
199	1	0.618872	139.693	-24.5746
200	1	0.631062	140.091	-23.9435
201	1	0.640266	140.501	-23.3033
202	1	0.652622	140.927	-22.6507
203	1	0.665079	141.37	-21.9856
204	1	0.67449	141.825	-21.3111
205	1	0.687131	142.297	-20.624
206	1	0.699883	142.787	-19.9241
207	1	0.712751	143.295	-19.2113
208	1	0.722479	143.817	-18.4888
209	1	0.735557	144.358	-17.7533
210	1	0.748762	144.918	-17.0045
211	1	0.758753	145.494	-16.2458
212	1	0.772193	146.09	-15.4736
213	1	0.785774	146.708	-14.6878
214	1	0.796056	147.341	-13.8917
215	1	0.809896	147.997	-13.0819
216	1	0.823893	148.676	-12.258
217	1	0.834498	149.373	-11.4235
218	1	0.848786	150.093	-10.5747
219	1	0.863249	150.838	-9.71143
220	1	0.874218	151.602	-8.83721
221	1	0.889006	152.393	-7.9482
222	1	0.903992	153.21	-7.04421
223	1	0.915365	154.048	-6.12885
224	1	0.930718	154.914	-5.19813
225	1	0.946291	155.81	-4.25184
226	1	0.958125	156.728	-3.29371
227	1	0.974114	157.676	-2.3196
228	1	0.990356	158.657	-1.32924
229	1	1.00271	159.663	-0.32653
230	1	1.01943	160.702	0.692897
231	1	1.03643	161.776	1.72933
232	1	1.04939	162.877	2.77872
233	1	1.06694	164.016	3.84565
234	1	1.08482	165.193	4.93048
235	1	1.09847	166.399	6.02895
236	1.1	1.11699	167.647	7.25763
237	1.1	1.1359	168.937	8.50712

238	1.2	1.15035	170.26	9.88754
239	1.2	1.17	171.629	11.2915
240	1.3	1.19012	173.046	12.8387
241	1.6	1.21073	174.512	14.7759
242	1.8	1.22653	176.016	16.9836
243	1.8	1.24809	177.574	19.2302
244	1.8	1.27024	179.187	21.5166
245	2	1.28727	180.844	24.0911
246	2	1.31058	182.562	26.7123
247	2	1.33462	184.343	29.3815
248	2.1	1.35317	186.174	32.2232
249	2.5	1.37866	188.075	35.6698
250	2.5	1.40507	190.049	39.1825
251	2.6	1.42554	192.081	42.8889
252	3	1.4538	194.195	47.2504
253	3	1.48328	196.395	51.7002
254	3	1.50626	198.664	56.219
255	3.2	1.5382	201.03	61.1412
256	4	1.57179	203.5	67.4284
257	7	1.59819	206.054	78.6157
258	7	1.63524	208.728	90.0624
259	8	1.67466	211.533	103.46
260	9	1.70604	214.444	118.814
261	9	1.75069	217.508	134.57
262	10	1.79912	220.745	152.561
263	10	1.83843	224.125	170.946
264	12	1.8957	227.719	193.694
265	16	1.95996	231.56	225.053
266	18	2.01409	235.617	261.307
267	23	2.09693	240.014	309.536
268	25	2.19728	244.842	364.469
269	34	2.29036	250.088	442.341
270	57	2.45727	256.126	582.405
271	60	2.74777	263.676	747.271

Data Set Standard Deviation = 5.97108
Numerator = 558415
Denominator = 2.53829e+006
W Statistic = 0.219997 = 558415 / 2.53829e+006

5% Critical value of 0.976 exceeds 0.219997
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.219997
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 = 0.474796
0.474796 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.2	0.00367647	-2.74777	40.7833	348.683	
2	0.2	0.00735294	-2.45727	40.7833	334.497	
3	0.2	0.0110294	-2.29036	40.7833	326.346	
4	0.2	0.0147059	-2.19728	40.7833	321.801	
5	0.2	0.0183824	-2.09693	40.7833	316.9	
6	0.2	0.0220588	-2.01409	40.7833	312.855	
7	0.2	0.0257353	-1.95996	40.7833	310.211	
8	0.2	0.0294118	-1.8957	40.7833	307.073	
9	0.2	0.0330882	-1.83843	40.7833	304.276	
10	0.2	0.0367647	-1.79912	40.7833	302.357	
11	0.2	0.0404412	-1.75069	40.7833	299.992	
12	0.2	0.0441176	-1.70604	40.7833	297.812	
13	0.2	0.0477941	-1.67466	40.7833	296.279	
14	0.2	0.0514706	-1.63524	40.7833	294.354	
15	0.2	0.0551471	-1.59819	40.7833	292.545	
16	0.2	0.0588235	-1.57179	40.7833	291.256	
17	0.2	0.0625	-1.5382	40.7833	289.615	
18	0.2	0.0661765	-1.50626	40.7833	288.056	
19	0.2	0.0698529	-1.48328	40.7833	286.934	
20	0.2	0.0735294	-1.4538	40.7833	285.494	
21	0.2	0.0772059	-1.42554	40.7833	284.114	
22	0.2	0.0808824	-1.40507	40.7833	283.114	
23	0.2	0.0845588	-1.37866	40.7833	281.824	
24	0.2	0.0882353	-1.35317	40.7833	280.58	
25	0.2	0.0919118	-1.33462	40.7833	279.674	
26	0.2	0.0955882	-1.31058	40.7833	278.5	
27	0.2	0.0992647	-1.28727	40.7833	277.362	
28	0.2	0.102941	-1.27024	40.7833	276.53	
29	0.2	0.106618	-1.24809	40.7833	275.448	
30	0.2	0.110294	-1.22653	40.7833	274.395	
31	0.2	0.113971	-1.21073	40.7833	273.624	
32	0.2	0.117647	-1.19012	40.7833	272.617	
33	0.2	0.121324	-1.17	40.7833	271.635	
34	0.2	0.125	-1.15035	40.7833	270.675	
35	0.2	0.128676	-1.1359	40.7833	269.97	
36	0.2	0.132353	-1.11699	40.7833	269.046	
37	0.2	0.136029	-1.09847	40.7833	268.142	
38	0.2	0.139706	-1.08482	40.7833	267.476	
39	0.2	0.143382	-1.06694	40.7833	266.602	
40	0.2	0.147059	-1.04939	40.7833	265.745	
41	0.2	0.150735	-1.03643	40.7833	265.112	
42	0.2	0.154412	-1.01943	40.7833	264.282	
43	0.2	0.158088	-1.00271	40.7833	263.466	
44	0.2	0.161765	-0.990356	40.7833	262.862	
45	0.2	0.165441	-0.974114	40.7833	262.069	
46	0.2	0.169118	-0.958125	40.7833	261.288	
47	0.41	0.172794	-0.946291	42.6558	260.711	
48	0.42	0.176471	-0.930718	42.745	259.95	

49	0.43	0.180147	-0.915365	42.8342	259.2
50	0.44	0.183824	-0.903992	42.9233	258.645
51	0.46	0.1875	-0.889006	43.1017	257.913
52	0.46	0.191176	-0.874218	43.1017	257.191
53	0.46	0.194853	-0.863249	43.1017	256.655
54	0.47	0.198529	-0.848786	43.1908	255.949
55	0.47	0.202206	-0.834498	43.1908	255.251
56	0.48	0.205882	-0.823893	43.28	254.733
57	0.49	0.209559	-0.809896	43.3692	254.05
58	0.5	0.213235	-0.796056	43.4583	253.374
59	0.52	0.216912	-0.785774	43.6367	252.872
60	0.53	0.220588	-0.772193	43.7258	252.209
61	0.54	0.224265	-0.758753	43.815	251.552
62	0.54	0.227941	-0.748762	43.815	251.065
63	0.54	0.231618	-0.735557	43.815	250.42
64	0.56	0.235294	-0.722479	43.9933	249.781
65	0.57	0.238971	-0.712751	44.0825	249.306
66	0.58	0.242647	-0.699883	44.1717	248.678
67	0.59	0.246324	-0.687131	44.2608	248.055
68	0.65	0.25	-0.674494	4.7958	247.438
69	0.73	0.253676	-0.665079	45.5092	246.978
70	0.81	0.257353	-0.652622	46.2225	246.37
71	0.84	0.261029	-0.640266	46.49	245.766
72	1	0.264706	-0.631062	47.9167	245.317
73	1	0.268382	-0.618872	47.9167	244.722
74	1	0.272059	-0.606775	47.9167	244.131
75	1	0.275735	-0.597761	47.9167	243.691
76	1	0.279412	-0.585815	47.9167	243.107
77	1	0.283088	-0.573953	47.9167	242.528
78	1	0.286765	-0.565108	47.9167	242.096
79	1	0.290441	-0.553384	47.9167	241.524
80	1	0.294118	-0.541736	47.9167	240.955
81	1	0.297794	-0.533048	47.9167	240.531
82	1	0.301471	-0.521527	47.9167	239.968
83	1	0.305147	-0.510074	47.9167	239.409
84	1	0.308824	-0.501527	47.9167	238.991
85	1	0.3125	-0.490189	47.9167	238.438
86	1	0.316176	-0.478914	47.9167	237.887
87	1	0.319853	-0.470498	47.9167	237.476
88	1	0.323529	-0.459327	47.9167	236.93
89	1	0.327206	-0.448213	47.9167	236.388
90	1	0.330882	-0.439913	47.9167	235.982
91	1	0.334559	-0.428895	47.9167	235.444
92	1	0.338235	-0.417928	47.9167	234.909
93	1	0.341912	-0.409735	47.9167	234.509
94	1	0.345588	-0.398855	47.9167	233.977
95	1	0.349265	-0.388022	47.9167	233.448
96	1	0.352941	-0.379927	47.9167	233.053
97	1	0.356618	-0.369171	47.9167	232.528
98	1	0.360294	-0.358459	47.9167	232.005
99	1	0.363971	-0.350451	47.9167	231.614
100	1	0.367647	-0.339814	7.9167	231.094
101	1	0.371324	-0.329206	47.9167	230.576
102	1	0.375	-0.318639	47.9167	230.06
103	1	0.378676	-0.310738	47.9167	229.674
104	1	0.382353	-0.300232	47.9167	229.161
105	1	0.386029	-0.289764	7.9167	228.65
106	1	0.389706	-0.281926	47.9167	228.267
107	1	0.393382	-0.271509	47.9167	227.759
108	1	0.397059	-0.261124	7.9167	227.251
109	1	0.400735	-0.253347	47.9167	226.872
110	1	0.404412	-0.243007	47.9167	226.367

111	1	0.408088	-0.232693	47.9167	225.863
112	1	0.411765	-0.224974	47.9167	225.486
113	1	0.415441	-0.214702	47.9167	224.985
114	1	0.419118	-0.204452	47.9167	224.484
115	1	0.422794	-0.196779	47.9167	224.109
116	1	0.426471	-0.186567	47.9167	223.611
117	1	0.430147	-0.176374	47.9167	223.113
118	1	0.433824	-0.168741	47.9167	222.74
119	1	0.4375	-0.158579	47.9167	222.244
120	1	0.441176	-0.148434	47.9167	221.749
121	1	0.444853	-0.140835	47.9167	221.377
122	1	0.448529	-0.130716	47.9167	220.883
123	1	0.452206	-0.12061	47.9167	220.39
124	1	0.455882	-0.113039	47.9167	220.02
125	1	0.459559	-0.102953	47.9167	219.528
126	1	0.463235	-0.0928787	47.9167	219.036
127	1	0.466912	-0.0853288	47.9167	218.667
128	1	0.470588	-0.0752698	47.9167	218.176
129	1	0.474265	-0.0652187	47.9167	217.685
130	1	0.477941	-0.0576847	47.9167	217.317
131	1	0.481618	-0.0476439	47.9167	216.827
132	1	0.485294	-0.0376076	47.9167	216.337
133	1	0.488971	-0.0300838	47.9167	215.969
134	1	0.492647	-0.0200544	47.9167	215.479
135	1	0.496324	-0.0100272	47.9167	214.99
136	1	0.5	0	47.9167	214.5
137	1	0.503676	0.0100272	47.9167	214.01
138	1	0.507353	0.0200544	47.9167	213.521
139	1	0.511029	0.0300838	47.9167	213.031
140	1	0.514706	0.0376076	47.9167	212.663
141	1	0.518382	0.0476439	47.9167	212.173
142	1	0.522059	0.0576847	47.9167	211.683
143	1	0.525735	0.0652187	47.9167	211.315
144	1	0.529412	0.0752698	47.9167	210.824
145	1	0.533088	0.0853288	47.9167	210.333
146	1	0.536765	0.0928787	47.9167	209.964
147	1	0.540441	0.102953	47.9167	209.472
148	1	0.544118	0.113039	47.9167	208.98
149	1	0.547794	0.12061	47.9167	208.61
150	1	0.551471	0.130716	47.9167	208.117
151	1	0.555147	0.140835	47.9167	207.623
152	1	0.558824	0.148434	47.9167	207.251
153	1	0.5625	0.158579	47.9167	206.756
154	1	0.566176	0.168741	47.9167	206.26
155	1	0.569853	0.176374	47.9167	205.887
156	1	0.573529	0.186567	47.9167	205.389
157	1	0.577206	0.196779	47.9167	204.891
158	1	0.580882	0.204452	47.9167	204.516
159	1	0.584559	0.214702	47.9167	204.015
160	1	0.588235	0.224974	47.9167	203.514
161	1	0.591912	0.232693	47.9167	203.137
162	1	0.595588	0.243007	47.9167	202.633
163	1	0.599265	0.253347	47.9167	202.128
164	1	0.602941	0.26112	47.9167	201.749
165	1	0.606618	0.271509	47.9167	201.241
166	1	0.610294	0.281926	47.9167	200.733
167	1	0.613971	0.28976	47.9167	200.35
168	1	0.617647	0.300232	47.9167	199.839
169	1	0.621324	0.310738	47.9167	199.326
170	1	0.625	0.318639	47.9167	198.94
171	1	0.628676	0.329206	47.9167	198.424
172	1	0.632353	0.33981	47.9167	197.906

173	1	0.636029	0.350451	47.9167	197.386
174	1	0.639706	0.358459	47.9167	196.995
175	1	0.643382	0.369171	47.9167	196.472
176	1	0.647059	0.379927	47.9167	195.947
177	1	0.650735	0.388022	47.9167	195.552
178	1	0.654412	0.398855	47.9167	195.023
179	1	0.658088	0.409735	47.9167	194.491
180	1	0.661765	0.417928	47.9167	194.091
181	1	0.665441	0.428895	47.9167	193.556
182	1	0.669118	0.439913	47.9167	193.018
183	1	0.672794	0.448213	47.9167	192.612
184	1	0.676471	0.459327	47.9167	192.07
185	1	0.680147	0.470498	47.9167	191.524
186	1	0.683824	0.478914	47.9167	191.113
187	1	0.6875	0.490189	47.9167	190.562
188	1	0.691176	0.501527	47.9167	190.009
189	1	0.694853	0.510074	47.9167	189.591
190	1	0.698529	0.521527	47.9167	189.032
191	1	0.702206	0.533048	47.9167	188.469
192	1	0.705882	0.541736	47.9167	188.045
193	1	0.709559	0.553384	47.9167	187.476
194	1	0.713235	0.565108	47.9167	186.904
195	1	0.716912	0.573953	47.9167	186.472
196	1	0.720588	0.585815	47.9167	185.893
197	1	0.724265	0.597761	47.9167	185.309
198	1	0.727941	0.606775	47.9167	184.869
199	1	0.731618	0.618872	47.9167	184.278
200	1	0.735294	0.631062	47.9167	183.683
201	1	0.738971	0.640266	47.9167	183.234
202	1	0.742647	0.652622	47.9167	182.63
203	1	0.746324	0.665079	47.9167	182.022
204	1	0.75	0.67449	47.9167	181.562
205	1	0.753676	0.687131	47.9167	180.945
206	1	0.757353	0.699883	47.9167	180.322
207	1	0.761029	0.712751	47.9167	179.694
208	1	0.764706	0.722479	47.9167	179.219
209	1	0.768382	0.735557	47.9167	178.58
210	1	0.772059	0.748762	47.9167	177.935
211	1	0.775735	0.758753	47.9167	177.448
212	1	0.779412	0.772193	47.9167	176.791
213	1	0.783088	0.785774	47.9167	176.128
214	1	0.786765	0.796056	47.9167	175.626
215	1	0.790441	0.809896	47.9167	174.95
216	1	0.794118	0.823893	47.9167	174.267
217	1	0.797794	0.834498	47.9167	173.749
218	1	0.801471	0.848786	47.9167	173.051
219	1	0.805147	0.863249	47.9167	172.345
220	1	0.808824	0.874218	47.9167	171.809
221	1	0.8125	0.889006	47.9167	171.087
222	1	0.816176	0.903992	47.9167	170.355
223	1	0.819853	0.915365	47.9167	169.8
224	1	0.823529	0.930718	47.9167	169.05
225	1	0.827206	0.946291	47.9167	168.289
226	1	0.830882	0.958125	47.9167	167.712
227	1	0.834559	0.974114	47.9167	166.931
228	1	0.838235	0.990356	47.9167	166.138
229	1	0.841912	1.00271	47.9167	165.534
230	1	0.845588	1.01943	47.9167	164.718
231	1	0.849265	1.03643	47.9167	163.888
232	1	0.852941	1.04939	47.9167	163.255
233	1	0.856618	1.06694	47.9167	162.398
234	1	0.860294	1.08482	47.9167	161.524

235	1	0.863971		1.09847	47.9167	160.858
236	1.1	0.867647		1.11699	48.8083	159.954
237	1.1	0.871324		1.1359	48.8083	159.03
238	1.2	0.875	1.15035	49.7	158.325	
239	1.2	0.878676		1.17	49.7	157.365
240	1.3	0.882353		1.19012	50.5917	156.383
241	1.6	0.886029		1.21073	53.2667	155.376
242	1.8	0.889706		1.22653	55.05	154.605
243	1.8	0.893382		1.24809	55.05	153.552
244	1.8	0.897059		1.27024	55.05	152.47
245	2	0.900735		1.28727	56.8333	151.638
246	2	0.904412		1.31058	56.8333	150.5
247	2	0.908088		1.33462	56.8333	149.326
248	2.1	0.911765		1.35317	57.725	148.42
249	2.5	0.915441		1.37866	61.2917	147.176
250	2.5	0.919118		1.40507	61.2917	145.886
251	2.6	0.922794		1.42554	62.1833	144.886
252	3	0.926471		1.4538	65.75	143.506
253	3	0.930147		1.48328	65.75	142.066
254	3	0.933824		1.50626	65.75	140.944
255	3.2	0.9375	1.5382	67.5333	139.385	
256	4	0.941176		1.57179	74.6667	137.744
257	7	0.944853		1.59819	101.417	136.455
258	7	0.948529		1.63524	101.417	134.646
259	8	0.952206		1.67466	110.333	132.721
260	9	0.955882		1.70604	119.25	131.188
261	9	0.959559		1.75069	119.25	129.008
262	10	0.963235		1.79912	128.167	126.643
263	10	0.966912		1.83843	128.167	124.724
264	12	0.970588		1.8957	146	121.927
265	16	0.974265		1.95996	181.667	118.789
266	18	0.977941		2.01409	199.5	116.145
267	23	0.981618		2.09693	244.083	112.1
268	25	0.985294		2.19728	261.917	107.199
269	34	0.988971		2.29036	342.167	102.654
270	57	0.992647		2.45727	547.25	94.5032
271	60	0.996324		2.74777	574	80.3175

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-1.60944	-2.74777	7.55021	4.42236
2	-1.60944	-2.45727	13.5884	8.37719
3	-1.60944	-2.29036	18.8342	12.0634
4	-1.60944	-2.19728	23.6622	15.5998
5	-1.60944	-2.09693	28.0593	18.9747
6	-1.60944	-2.01409	32.1159	22.2162
7	-1.60944	-1.95996	35.9574	25.3707
8	-1.60944	-1.8957	39.551	28.4217
9	-1.60944	-1.83843	42.9308	31.3805
10	-1.60944	-1.79912	46.1677	34.2761
11	-1.60944	-1.75069	49.2326	37.0937
12	-1.60944	-1.70604	52.1431	39.8394
13	-1.60944	-1.67466	54.9476	42.5347
14	-1.60944	-1.63524	57.6216	45.1665
15	-1.60944	-1.59819	60.1758	47.7387
16	-1.60944	-1.57179	62.6464	50.2684
17	-1.60944	-1.5382	65.0124	52.744
18	-1.60944	-1.50626	67.2812	55.1683
19	-1.60944	-1.48328	69.4814	57.5555
20	-1.60944	-1.4538	71.5949	59.8953
21	-1.60944	-1.42554	73.6271	62.1897
22	-1.60944	-1.40507	75.6013	64.451
23	-1.60944	-1.37866	77.502	66.6699
24	-1.60944	-1.35317	79.3331	68.8478
25	-1.60944	-1.33462	81.1143	70.9957
26	-1.60944	-1.31058	82.8319	73.105
27	-1.60944	-1.28727	84.489	75.1768
28	-1.60944	-1.27024	86.1025	77.2212
29	-1.60944	-1.24809	87.6602	79.2299
30	-1.60944	-1.22653	89.1646	81.2039
31	-1.60944	-1.21073	90.6305	83.1525
32	-1.60944	-1.19012	92.0469	85.0679
33	-1.60944	-1.17	93.4158	86.951
34	-1.60944	-1.15035	94.7391	88.8024
35	-1.60944	-1.1359	96.0293	90.6306
36	-1.60944	-1.11699	97.277	92.4283
37	-1.60944	-1.09847	98.4836	94.1962
38	-1.60944	-1.08482	99.6605	95.9422
39	-1.60944	-1.06694	100.799	97.6593
40	-1.60944	-1.04939	101.9	99.3482
41	-1.60944	-1.03643	102.974	101.016
42	-1.60944	-1.01943	104.013	102.657
43	-1.60944	-1.00271	105.019	104.271
44	-1.60944	-0.990356	106	105.865
45	-1.60944	-0.974114	106.949	107.433
46	-1.60944	-0.958125	107.867	108.975
47	-0.891598	-0.946291	108.762	109.818
48	-0.867501	-0.930718	109.628	110.626
49	-0.84397	-0.915365	110.466	111.398
50	-0.820981	-0.903992	111.283	112.14
51	-0.776529	-0.889006	112.074	112.831

52	-0.776529	-0.874218	112.838	113.51
53	-0.776529	-0.863249	113.583	114.18
54	-0.755023	-0.848786	114.304	114.821
55	-0.755023	-0.834498	115	115.451
56	-0.733969	-0.823893	115.679	116.056
57	-0.71335	-0.809896	116.335	116.633
58	-0.693147	-0.796056	116.968	117.185
59	-0.653926	-0.785774	117.586	117.699
60	-0.634878	-0.772193	118.182	118.189
61	-0.616186	-0.758753	118.758	118.657
62	-0.616186	-0.748762	119.318	119.118
63	-0.616186	-0.735557	119.86	119.571
64	-0.579818	-0.722479	120.382	119.99
65	-0.562119	-0.712751	120.89	120.391
66	-0.544727	-0.699883	121.379	120.772
67	-0.527633	-0.687131	121.852	121.135
68	-0.430783	-0.67449	122.306	121.425
69	-0.314711	-0.665079	122.749	121.635
70	-0.210721	-0.652622	123.175	121.772
71	-0.174353	-0.640266	123.585	121.884
72	0	-0.631062	123.983	121.884
73	0	-0.618872	124.366	121.884
74	0	-0.606775	124.734	121.884
75	0	-0.597761	125.091	121.884
76	0	-0.585815	125.435	121.884
77	0	-0.573953	125.764	121.884
78	0	-0.565108	126.083	121.884
79	0	-0.553384	126.39	121.884
80	0	-0.541736	126.683	121.884
81	0	-0.533048	126.967	121.884
82	0	-0.521527	127.239	121.884
83	0	-0.510074	127.499	121.884
84	0	-0.501527	127.751	121.884
85	0	-0.490189	127.991	121.884
86	0	-0.478914	128.221	121.884
87	0	-0.470498	128.442	121.884
88	0	-0.459327	128.653	121.884
89	0	-0.448213	128.854	121.884
90	0	-0.439913	129.047	121.884
91	0	-0.428895	129.231	121.884
92	0	-0.417928	129.406	121.884
93	0	-0.409735	129.574	121.884
94	0	-0.398855	129.733	121.884
95	0	-0.388022	129.883	121.884
96	0	-0.379927	130.028	121.884
97	0	-0.369171	130.164	121.884
98	0	-0.358459	130.293	121.884
99	0	-0.350451	130.415	121.884
100	0	-0.33981	130.531	121.884
101	0	-0.329206	130.639	121.884
102	0	-0.318639	130.741	121.884
103	0	-0.310738	130.837	121.884
104	0	-0.300232	130.927	121.884
105	0	-0.28976	131.011	121.884
106	0	-0.281926	131.091	121.884
107	0	-0.271509	131.165	121.884
108	0	-0.26112	131.233	121.884
109	0	-0.253347	131.297	121.884
110	0	-0.243007	131.356	121.884
111	0	-0.232693	131.41	121.884
112	0	-0.224974	131.461	121.884
113	0	-0.214702	131.507	121.884

114	0	-0.204452	131.549	121.884
115	0	-0.196779	131.587	121.884
116	0	-0.186567	131.622	121.884
117	0	-0.176374	131.653	121.884
118	0	-0.168741	131.682	121.884
119	0	-0.158579	131.707	121.884
120	0	-0.148434	131.729	121.884
121	0	-0.140835	131.749	121.884
122	0	-0.130716	131.766	121.884
123	0	-0.12061	131.78	121.884
124	0	-0.113039	131.793	121.884
125	0	-0.102953	131.804	121.884
126	0	-0.0928787	131.812	121.884
127	0	-0.0853288	131.82	121.884
128	0	-0.0752698	131.825	121.884
129	0	-0.0652187	131.83	121.884
130	0	-0.0576847	131.833	121.884
131	0	-0.0476439	131.835	121.884
132	0	-0.0376076	131.837	121.884
133	0	-0.0300838	131.838	121.884
134	0	-0.0200544	131.838	121.884
135	0	-0.0100272	131.838	121.884
136	0	0	131.838	121.884
137	0	0.0100272	131.838	121.884
138	0	0.0200544	131.839	121.884
139	0	0.0300838	131.839	121.884
140	0	0.0376076	131.841	121.884
141	0	0.0476439	131.843	121.884
142	0	0.0576847	131.846	121.884
143	0	0.0652187	131.851	121.884
144	0	0.0752698	131.856	121.884
145	0	0.0853288	131.864	121.884
146	0	0.0928787	131.872	121.884
147	0	0.102953	131.883	121.884
148	0	0.113039	131.896	121.884
149	0	0.12061	131.91	121.884
150	0	0.130716	131.927	121.884
151	0	0.140835	131.947	121.884
152	0	0.148434	131.969	121.884
153	0	0.158579	131.994	121.884
154	0	0.168741	132.023	121.884
155	0	0.176374	132.054	121.884
156	0	0.186567	132.089	121.884
157	0	0.196779	132.127	121.884
158	0	0.204452	132.169	121.884
159	0	0.214702	132.215	121.884
160	0	0.224974	132.266	121.884
161	0	0.232693	132.32	121.884
162	0	0.243007	132.379	121.884
163	0	0.253347	132.443	121.884
164	0	0.26112	132.512	121.884
165	0	0.271509	132.585	121.884
166	0	0.281926	132.665	121.884
167	0	0.28976	132.749	121.884
168	0	0.300232	132.839	121.884
169	0	0.310738	132.935	121.884
170	0	0.318639	133.037	121.884
171	0	0.329206	133.145	121.884
172	0	0.33981	133.261	121.884
173	0	0.350451	133.384	121.884
174	0	0.358459	133.512	121.884
175	0	0.369171	133.648	121.884

176	0	0.379927		133.793	121.884
177	0	0.388022		133.943	121.884
178	0	0.398855		134.102	121.884
179	0	0.409735		134.27	121.884
180	0	0.417928		134.445	121.884
181	0	0.428895		134.629	121.884
182	0	0.439913		134.822	121.884
183	0	0.448213		135.023	121.884
184	0	0.459327		135.234	121.884
185	0	0.470498		135.456	121.884
186	0	0.478914		135.685	121.884
187	0	0.490189		135.925	121.884
188	0	0.501527		136.177	121.884
189	0	0.510074		136.437	121.884
190	0	0.521527		136.709	121.884
191	0	0.533048		136.993	121.884
192	0	0.541736		137.287	121.884
193	0	0.553384		137.593	121.884
194	0	0.565108		137.912	121.884
195	0	0.573953		138.242	121.884
196	0	0.585815		138.585	121.884
197	0	0.597761		138.942	121.884
198	0	0.606775		139.31	121.884
199	0	0.618872		139.693	121.884
200	0	0.631062		140.091	121.884
201	0	0.640266		140.501	121.884
202	0	0.652622		140.927	121.884
203	0	0.665079		141.37	121.884
204	0	0.67449	141.825	121.884	
205	0	0.687131		142.297	121.884
206	0	0.699883		142.787	121.884
207	0	0.712751		143.295	121.884
208	0	0.722479		143.817	121.884
209	0	0.735557		144.358	121.884
210	0	0.748762		144.918	121.884
211	0	0.758753		145.494	121.884
212	0	0.772193		146.09	121.884
213	0	0.785774		146.708	121.884
214	0	0.796056		147.341	121.884
215	0	0.809896		147.997	121.884
216	0	0.823893		148.676	121.884
217	0	0.834498		149.373	121.884
218	0	0.848786		150.093	121.884
219	0	0.863249		150.838	121.884
220	0	0.874218		151.602	121.884
221	0	0.889006		152.393	121.884
222	0	0.903992		153.21	121.884
223	0	0.915365		154.048	121.884
224	0	0.930718		154.914	121.884
225	0	0.946291		155.81	121.884
226	0	0.958125		156.728	121.884
227	0	0.974114		157.676	121.884
228	0	0.990356		158.657	121.884
229	0	1.00271	159.663	121.884	
230	0	1.01943	160.702	121.884	
231	0	1.03643	161.776	121.884	
232	0	1.04939	162.877	121.884	
233	0	1.06694	164.016	121.884	
234	0	1.08482	165.193	121.884	
235	0	1.09847	166.399	121.884	
236	0.0953102		1.11699	167.647	121.99
237	0.0953102		1.1359	168.937	122.098

238	0.182322		1.15035	170.26	122.308
239	0.182322		1.17	171.629	122.521
240	0.262364		1.19012	173.046	122.834
241	0.470004		1.21073	174.512	123.403
242	0.587787		1.22653	176.016	124.124
243	0.587787		1.24809	177.574	124.857
244	0.587787		1.27024	179.187	125.604
245	0.693147		1.28727	180.844	126.496
246	0.693147		1.31058	182.562	127.405
247	0.693147		1.33462	184.343	128.33
248	0.741937		1.35317	186.174	129.334
249	0.916291		1.37866	188.075	130.597
250	0.916291		1.40507	190.049	131.884
251	0.955511		1.42554	192.081	133.246
252	1.09861	1.4538	194.195	134.844	
253	1.09861	1.48328	196.395	136.473	
254	1.09861	1.50626	198.664	138.128	
255	1.16315	1.5382	201.03	139.917	
256	1.38629	1.57179	203.5	142.096	
257	1.94591	1.59819	206.054	145.206	
258	1.94591	1.63524	208.728	148.388	
259	2.07944	1.67466	211.533	151.87	
260	2.19722	1.70604	214.444	155.619	
261	2.19722	1.75069	217.508	159.466	
262	2.30259	1.79912	220.745	163.608	
263	2.30259	1.83843	224.125	167.841	
264	2.48491	1.8957	227.719	172.552	
265	2.77259	1.95996	231.56	177.986	
266	2.89037	2.01409	235.617	183.808	
267	3.13549	2.09693	240.014	190.383	
268	3.21888	2.19728	244.842	197.455	
269	3.52636	2.29036	250.088	205.532	
270	4.04305	2.45727	256.126	215.467	
271	4.09434	2.74777	263.676	226.717	

Data Set Standard Deviation = 0.979013
Numerator = 51400.7
Denominator = 68235.7
W Statistic = 0.753282 = 51400.7 / 68235.7

5% Critical value of 0.976 exceeds 0.753282
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.753282
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 = 0.869451
0.869451 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.60944	0.00367647	-2.74777	68.8501	348.683
2	-1.60944	0.00735294	-2.45727	68.8501	334.497
3	-1.60944	0.0110294	-2.29036	68.8501	326.346
4	-1.60944	0.0147059	-2.19728	68.8501	321.801
5	-1.60944	0.0183824	-2.09693	68.8501	316.9
6	-1.60944	0.0220588	-2.01409	68.8501	312.855
7	-1.60944	0.0257353	-1.95996	68.8501	310.211
8	-1.60944	0.0294118	-1.8957	68.8501	307.073
9	-1.60944	0.0330882	-1.83843	68.8501	304.276
10	-1.60944	0.0367647	-1.79912	68.8501	302.357
11	-1.60944	0.0404412	-1.75069	68.8501	299.992
12	-1.60944	0.0441176	-1.70604	68.8501	297.812
13	-1.60944	0.0477941	-1.67466	68.8501	296.279
14	-1.60944	0.0514706	-1.63524	68.8501	294.354
15	-1.60944	0.0551471	-1.59819	68.8501	292.545
16	-1.60944	0.0588235	-1.57179	68.8501	291.256
17	-1.60944	0.0625	-1.5382	68.8501	289.615
18	-1.60944	0.0661765	-1.50626	68.8501	288.056
19	-1.60944	0.0698529	-1.48328	68.8501	286.934
20	-1.60944	0.0735294	-1.4538	68.8501	285.494
21	-1.60944	0.0772059	-1.42554	68.8501	284.114
22	-1.60944	0.0808824	-1.40507	68.8501	283.114
23	-1.60944	0.0845588	-1.37866	68.8501	281.824
24	-1.60944	0.0882353	-1.35317	68.8501	280.58
25	-1.60944	0.0919118	-1.33462	68.8501	279.674
26	-1.60944	0.0955882	-1.31058	68.8501	278.5
27	-1.60944	0.0992647	-1.28727	68.8501	277.362
28	-1.60944	0.102941	-1.27024	68.8501	276.53
29	-1.60944	0.106618	-1.24809	68.8501	275.448
30	-1.60944	0.110294	-1.22653	68.8501	274.395
31	-1.60944	0.113971	-1.21073	68.8501	273.624
32	-1.60944	0.117647	-1.19012	68.8501	272.617
33	-1.60944	0.121324	-1.17	68.8501	271.635
34	-1.60944	0.125	-1.15035	68.8501	270.675
35	-1.60944	0.128676	-1.1359	68.8501	269.97
36	-1.60944	0.132353	-1.11699	68.8501	269.046
37	-1.60944	0.136029	-1.09847	68.8501	268.142
38	-1.60944	0.139706	-1.08482	68.8501	267.476
39	-1.60944	0.143382	-1.06694	68.8501	266.602
40	-1.60944	0.147059	-1.04939	68.8501	265.745
41	-1.60944	0.150735	-1.03643	68.8501	265.112
42	-1.60944	0.154412	-1.01943	68.8501	264.282
43	-1.60944	0.158088	-1.00271	68.8501	263.466
44	-1.60944	0.161765	-0.990356	68.8501	262.862
45	-1.60944	0.165441	-0.974114	68.8501	262.069
46	-1.60944	0.169118	-0.958125	68.8501	261.288
47	-0.891598	0.172794	-0.946291	123.714	260.711
48	-0.867501	0.176471	-0.930718	125.555	259.95

49	-0.843970	0.180147	-0.915365	127.354	259.2
50	-0.820981	0.183824	-0.903992	129.111	258.645
51	-0.776529	0.1875	-0.889006	132.508	257.913
52	-0.776529	0.191176	-0.874218	132.508	257.191
53	-0.776529	0.194853	-0.863249	132.508	256.655
54	-0.755023	0.198529	-0.848786	134.152	255.949
55	-0.755023	0.202206	-0.834498	134.152	255.251
56	-0.733969	0.205882	-0.823893	135.761	254.733
57	-0.713350	0.209559	-0.809896	137.337	254.05
58	-0.693147	0.213235	-0.796056	138.881	253.374
59	-0.653926	0.216912	-0.785774	141.878	252.872
60	-0.634878	0.220588	-0.772193	143.334	252.209
61	-0.616186	0.224265	-0.758753	144.763	251.552
62	-0.616186	0.227941	-0.748762	144.763	251.065
63	-0.616186	0.231618	-0.735557	144.763	250.42
64	-0.579818	0.235294	-0.722479	147.542	249.781
65	-0.562119	0.238971	-0.712751	148.895	249.306
66	-0.544727	0.242647	-0.699883	150.224	248.678
67	-0.527633	0.246324	-0.687131	151.531	248.055
68	-0.430783	0.25	-0.67449	158.933	247.438
69	-0.314711	0.253676	-0.665079	167.804	246.978
70	-0.210721	0.257353	-0.652622	175.752	246.37
71	-0.174353	0.261029	-0.640266	178.532	245.766
72	0	0.264706	-0.631062	191.857	245.317
73	0	0.268382	-0.618872	191.857	244.722
74	0	0.272059	-0.606775	191.857	244.131
75	0	0.275735	-0.597761	191.857	243.691
76	0	0.279412	-0.585815	191.857	243.107
77	0	0.283088	-0.573953	191.857	242.528
78	0	0.286765	-0.565108	191.857	242.096
79	0	0.290441	-0.553384	191.857	241.524
80	0	0.294118	-0.541736	191.857	240.955
81	0	0.297794	-0.533048	191.857	240.531
82	0	0.301471	-0.521527	191.857	239.968
83	0	0.305147	-0.510074	191.857	239.409
84	0	0.308824	-0.501527	191.857	238.991
85	0	0.3125	-0.490189	191.857	238.438
86	0	0.316176	-0.478914	191.857	237.887
87	0	0.319853	-0.470498	191.857	237.476
88	0	0.323529	-0.459327	191.857	236.93
89	0	0.327206	-0.448213	191.857	236.388
90	0	0.330882	-0.439913	191.857	235.982
91	0	0.334559	-0.428895	191.857	235.444
92	0	0.338235	-0.417928	191.857	234.909
93	0	0.341912	-0.409735	191.857	234.509
94	0	0.345588	-0.398855	191.857	233.977
95	0	0.349265	-0.388022	191.857	233.448
96	0	0.352941	-0.379927	191.857	233.053
97	0	0.356618	-0.369171	191.857	232.528
98	0	0.360294	-0.358459	191.857	232.005
99	0	0.363971	-0.350451	191.857	231.614
100	0	0.367647	-0.33981	191.857	231.094
101	0	0.371324	-0.329206	191.857	230.576
102	0	0.375	-0.318639	191.857	230.06
103	0	0.378676	-0.310738	191.857	229.674
104	0	0.382353	-0.300232	191.857	229.161
105	0	0.386029	-0.28976	191.857	228.65
106	0	0.389706	-0.281926	191.857	228.267
107	0	0.393382	-0.271509	191.857	227.759
108	0	0.397059	-0.26112	191.857	227.251
109	0	0.400735	-0.253347	191.857	226.872
110	0	0.404412	-0.243007	191.857	226.367

111	0	0.408088	-0.232693	191.857	225.863
112	0	0.411765	-0.224974	191.857	225.486
113	0	0.415441	-0.214702	191.857	224.985
114	0	0.419118	-0.204452	191.857	224.484
115	0	0.422794	-0.196779	191.857	224.109
116	0	0.426471	-0.186567	191.857	223.611
117	0	0.430147	-0.176374	191.857	223.113
118	0	0.433824	-0.168741	191.857	222.74
119	0	0.4375	-0.158579	191.857	222.244
120	0	0.441176	-0.148434	191.857	221.749
121	0	0.444853	-0.140835	191.857	221.377
122	0	0.448529	-0.130716	191.857	220.883
123	0	0.452206	-0.12061	191.857	220.39
124	0	0.455882	-0.113039	191.857	220.02
125	0	0.459559	-0.102953	191.857	219.528
126	0	0.463235	-0.0928787	191.857	219.036
127	0	0.466912	-0.0853288	191.857	218.667
128	0	0.470588	-0.0752698	191.857	218.176
129	0	0.474265	-0.0652187	191.857	217.685
130	0	0.477941	-0.0576847	191.857	217.317
131	0	0.481618	-0.0476439	191.857	216.827
132	0	0.485294	-0.0376076	191.857	216.337
133	0	0.488971	-0.0300838	191.857	215.969
134	0	0.492647	-0.0200544	191.857	215.479
135	0	0.496324	-0.0100272	191.857	214.99
136	0	0.5	0	191.857	214.5
137	0	0.503676	0.0100272	191.857	214.01
138	0	0.507353	0.0200544	191.857	213.521
139	0	0.511029	0.0300838	191.857	213.031
140	0	0.514706	0.0376076	191.857	212.663
141	0	0.518382	0.0476439	191.857	212.173
142	0	0.522059	0.0576847	191.857	211.683
143	0	0.525735	0.0652187	191.857	211.315
144	0	0.529412	0.0752698	191.857	210.824
145	0	0.533088	0.0853288	191.857	210.333
146	0	0.536765	0.0928787	191.857	209.964
147	0	0.540441	0.102953	191.857	209.472
148	0	0.544118	0.113039	191.857	208.98
149	0	0.547794	0.12061	191.857	208.61
150	0	0.551471	0.130716	191.857	208.117
151	0	0.555147	0.140835	191.857	207.623
152	0	0.558824	0.148434	191.857	207.251
153	0	0.5625	0.158579	191.857	206.756
154	0	0.566176	0.168741	191.857	206.26
155	0	0.569853	0.176374	191.857	205.887
156	0	0.573529	0.186567	191.857	205.389
157	0	0.577206	0.196779	191.857	204.891
158	0	0.580882	0.204452	191.857	204.516
159	0	0.584559	0.214702	191.857	204.015
160	0	0.588235	0.224974	191.857	203.514
161	0	0.591912	0.232693	191.857	203.137
162	0	0.595588	0.243007	191.857	202.633
163	0	0.599265	0.253347	191.857	202.128
164	0	0.602941	0.26112	191.857	201.749
165	0	0.606618	0.271509	191.857	201.241
166	0	0.610294	0.281926	191.857	200.733
167	0	0.613971	0.28976	191.857	200.35
168	0	0.617647	0.300232	191.857	199.839
169	0	0.621324	0.310738	191.857	199.326
170	0	0.625	0.318639	191.857	198.94
171	0	0.628676	0.329206	191.857	198.424
172	0	0.632353	0.33981	191.857	197.906

173	0	0.636029	0.350451	191.857	197.386
174	0	0.639706	0.358459	191.857	196.995
175	0	0.643382	0.369171	191.857	196.472
176	0	0.647059	0.379927	191.857	195.947
177	0	0.650735	0.388022	191.857	195.552
178	0	0.654412	0.398855	191.857	195.023
179	0	0.658088	0.409735	191.857	194.491
180	0	0.661765	0.417928	191.857	194.091
181	0	0.665441	0.428895	191.857	193.556
182	0	0.669118	0.439913	191.857	193.018
183	0	0.672794	0.448213	191.857	192.612
184	0	0.676471	0.459327	191.857	192.07
185	0	0.680147	0.470498	191.857	191.524
186	0	0.683824	0.478914	191.857	191.113
187	0	0.6875	0.490189	191.857	190.562
188	0	0.691176	0.501527	191.857	190.009
189	0	0.694853	0.510074	191.857	189.591
190	0	0.698529	0.521527	191.857	189.032
191	0	0.702206	0.533048	191.857	188.469
192	0	0.705882	0.541736	191.857	188.045
193	0	0.709559	0.553384	191.857	187.476
194	0	0.713235	0.565108	191.857	186.904
195	0	0.716912	0.573953	191.857	186.472
196	0	0.720588	0.585815	191.857	185.893
197	0	0.724265	0.597761	191.857	185.309
198	0	0.727941	0.606775	191.857	184.869
199	0	0.731618	0.618872	191.857	184.278
200	0	0.735294	0.631062	191.857	183.683
201	0	0.738971	0.640266	191.857	183.234
202	0	0.742647	0.652622	191.857	182.63
203	0	0.746324	0.665079	191.857	182.022
204	0	0.75	0.67449	191.857	181.562
205	0	0.753676	0.687131	191.857	180.945
206	0	0.757353	0.699883	191.857	180.322
207	0	0.761029	0.712751	191.857	179.694
208	0	0.764706	0.722479	191.857	179.219
209	0	0.768382	0.735557	191.857	178.58
210	0	0.772059	0.748762	191.857	177.935
211	0	0.775735	0.758753	191.857	177.448
212	0	0.779412	0.772193	191.857	176.791
213	0	0.783088	0.785774	191.857	176.128
214	0	0.786765	0.796056	191.857	175.626
215	0	0.790441	0.809896	191.857	174.95
216	0	0.794118	0.823893	191.857	174.267
217	0	0.797794	0.834498	191.857	173.749
218	0	0.801471	0.848786	191.857	173.051
219	0	0.805147	0.863249	191.857	172.345
220	0	0.808824	0.874218	191.857	171.809
221	0	0.8125	0.889006	191.857	171.087
222	0	0.816176	0.903992	191.857	170.355
223	0	0.819853	0.915365	191.857	169.8
224	0	0.823529	0.930718	191.857	169.05
225	0	0.827206	0.946291	191.857	168.289
226	0	0.830882	0.958125	191.857	167.712
227	0	0.834559	0.974114	191.857	166.931
228	0	0.838235	0.990356	191.857	166.138
229	0	0.841912	1.00271	191.857	165.534
230	0	0.845588	1.01943	191.857	164.718
231	0	0.849265	1.03643	191.857	163.888
232	0	0.852941	1.04939	191.857	163.255
233	0	0.856618	1.06694	191.857	162.398
234	0	0.860294	1.08482	191.857	161.524

235	0	0.863971	1.09847	191.857	160.858	
236	0.0953102	0.867647	1.11699	199.142	159.954	
237	0.0953102	0.871324	1.1359	199.142	159.03	
238	0.182322	0.875	1.15035	205.792	158.325	
239	0.182322	0.878676	1.17	205.792	157.365	
240	0.262364	0.882353	1.19012	211.909	156.383	
241	0.470004	0.886029	1.21073	227.779	155.376	
242	0.587787	0.889706	1.22653	236.781	154.605	
243	0.587787	0.893382	1.24809	236.781	153.552	
244	0.587787	0.897059	1.27024	236.781	152.47	
245	0.693147	0.900735	1.28727	244.833	151.638	
246	0.693147	0.904412	1.31058	244.833	150.5	
247	0.693147	0.908088	1.33462	244.833	149.326	
248	0.741937	0.911765	1.35317	248.562	148.42	
249	0.916291	0.915441	1.37866	261.888	147.176	
250	0.916291	0.919118	1.40507	261.888	145.886	
251	0.955511	0.922794	1.42554	264.886	144.886	
252	1.09861	0.926471	1.4538	275.823	143.506	
253	1.09861	0.930147	1.48328	275.823	142.066	
254	1.09861	0.933824	1.50626	275.823	140.944	
255	1.16315	0.9375	1.5382	280.755	139.385	
256	1.38629	0.941176	1.57179	297.81	137.744	
257	1.94591	0.944853	1.59819	340.58	136.455	
258	1.94591	0.948529	1.63524	340.58	134.646	
259	2.07944	0.952206	1.67466	350.786	132.721	
260	2.19722	0.955882	1.70604	359.788	131.188	
261	2.19722	0.959559	1.75069	359.788	129.008	
262	2.30259	0.963235	1.79912	367.84	126.643	
263	2.30259	0.966912	1.83843	367.84	124.724	
264	2.48491	0.970588	1.8957	381.775	121.927	
265	2.77259	0.974265	1.95996	403.762	118.789	
266	2.89037	0.977941	2.01409	412.764	116.145	
267	3.13549	0.981618	2.09693	431.498	112.1	
268	3.21888	0.985294	2.19728	437.871	107.199	
269	3.52636	0.988971	2.29036	461.372	102.654	
270	4.04305	0.992647	2.45727	500.862	94.5032	
271	4.09434	0.996324	2.74777	504.782	80.3175	

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
LMW-4	1/16/1998	ND<0	99.5
	3/16/1999	ND<0	99.5
	9/23/1999	ND<0	99.5
	3/14/2000	ND<0	99.5
	9/23/2003	ND<0	99.5
	3/10/2004	ND<0	99.5
	10/12/2004	ND<0	99.5
	4/1/2005	ND<0	99.5
	10/26/2005	ND<0	99.5
	6/19/2006	ND<0	99.5
	11/18/2006	ND<0	99.5
	6/2/2007	0 J	224
	11/15/2007	0 J	225
	5/20/2008	ND<0	99.5
	11/20/2008	ND<0	99.5
	6/11/2009	ND<-1.60944 U	99.5
	11/16/2009	ND<-1.60944 U	99.5
	6/30/2010	ND<-1.60944 U	99.5
	11/17/2010	ND<-1.60944 U	99.5
	7/6/2011	ND<-1.60944 U	99.5
	11/22/2011	ND<-1.60944 U	99.5
	5/16/2012	ND<-1.60944 U	99.5

Rank Sum = 2439
Rank Mean = 110.864

Background Rank Sum = 2439
Background Rank Mean = 110.864

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-9S	11/18/2006	ND<0	99.5
	6/2/2007	0 J	226
	11/15/2007	1.38629	256
	5/20/2008	ND<0	99.5
	11/20/2008	ND<0	99.5
	6/11/2009	-0.776529 J	203
	6/30/2010	-0.562119 J	217
	11/17/2010	0.182322	238
	7/6/2011	-0.776529 J	204
	11/22/2011	-0.755023 J	206
	5/16/2012	-0.616186 J	213

Rank Sum = 2061.5
Rank Mean = 187.409

LMW-15R	11/18/2006	ND<0	99.5
	6/2/2007	ND<0	99.5
	11/15/2007	ND<0	99.5
	11/15/2007	ND<0	99.5

	5/20/2008	ND<0		99.5
	5/20/2008	ND<0		99.5
	11/20/2008	ND<0		99.5
	11/20/2008	ND<0		99.5
	6/11/2009	0.916291		249
	6/30/2010	ND<-1.60944	U	99.5
	11/17/2010	ND<-1.60944	U	99.5
	7/6/2011	ND<-1.60944	U	99.5
	11/22/2011	ND<-1.60944	U	99.5
	5/16/2012	ND<-1.60944	U	99.5

Rank Sum = 1542.5
Rank Mean = 110.179

LMW-16	11/18/2006	ND<0		99.5
	6/2/2007	0.693147		245
	11/15/2007	ND<0		99.5
	5/20/2008	ND<0		99.5
	11/20/2008	2.19722		260
	6/11/2009	-0.579818	J	216
	11/16/2009	-0.527633	J	219
	6/30/2010	-0.693147	J	210
	11/17/2010	-0.616186	J	214
	7/6/2011	0		227
	11/22/2011	-0.616186	J	215
	5/16/2012	0.587787		242

Rank Sum = 2346.5
Rank Mean = 195.542

LMW-3	11/19/1996	ND<0		99.5
	3/24/1997	ND<0		99.5
	1/16/1998	ND<0		99.5
	3/16/1999	ND<0		99.5
	9/23/1999	ND<0		99.5
	3/14/2000	ND<0		99.5
	9/23/2003	ND<0		99.5
	3/10/2004	ND<0		99.5
	10/12/2004	ND<0		99.5
	4/1/2005	ND<0		99.5
	10/26/2005	ND<0		99.5
	6/19/2006	ND<0		99.5
	11/18/2006	ND<0		99.5
	6/2/2007	ND<0		99.5
	11/15/2007	ND<0		99.5
	5/20/2008	ND<0		99.5
	11/20/2008	ND<0		99.5
	6/11/2009	-0.867501	J B	200
	11/16/2009	ND<-1.60944	U	99.5
	6/30/2010	ND<-1.60944	U	99.5
	11/17/2010	-0.820981	J	202
	7/6/2011	ND<-1.60944	U	99.5
	11/22/2011	ND<-1.60944	U	99.5
	5/16/2012	ND<-1.60944	U	99.5

Rank Sum = 2591
Rank Mean = 107.958

LMW-3s	5/16/2012	ND<-1.60944	U	99.5

Rank Sum = 99.5
Rank Mean = 99.5

LMW-6	1/16/1998	ND<0		99.5
	3/16/1999	ND<0		99.5
	9/23/1999	ND<0		99.5

	3/14/2000	ND<0	99.5	
	9/23/2003	ND<0	99.5	
	3/10/2004	ND<0	99.5	
	10/12/2004	ND<0	99.5	
	4/1/2005	ND<0	99.5	
	10/26/2005	ND<0	99.5	
	6/19/2006	ND<0	99.5	
	11/18/2006	ND<0	99.5	
	6/2/2007	0 J	228	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	ND<0	99.5	
	6/11/2009	-0.430783 J B		220
	11/16/2009	ND<-1.60944 U		99.5
	6/30/2010	-0.776529 J		205
	11/17/2010	-0.653926 J		211
	7/6/2011	ND<-1.60944 U	99.5	
	11/22/2011	ND<-1.60944 U		99.5
	5/16/2012	ND<-1.60944 U		99.5

Rank Sum = 2655
Rank Mean = 120.682

LMW-14R	6/2/2007	0 J	229	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	2.19722		261
	6/11/2009	-0.891598 J		199
	11/16/2009	ND<-1.60944 U		99.5
	11/16/2009	ND<-1.60944 U		99.5
	11/16/2009	-0.755023 J		207
	6/30/2010	ND<-1.60944 U		99.5
	11/17/2010	ND<-1.60944 U		99.5
	7/6/2011	ND<-1.60944 U	99.5	
	11/22/2011	ND<-1.60944 U		99.5
	5/16/2012	ND<-1.60944 U		99.5

Rank Sum = 1791.5
Rank Mean = 137.808

LMW-7	1/16/1998	ND<0	99.5	
	3/16/1999	ND<0	99.5	
	9/23/1999	ND<0	99.5	
	3/14/2000	2.30259		262
	9/23/2003	ND<0	99.5	
	3/10/2004	ND<0	99.5	
	10/12/2004	ND<0	99.5	
	4/1/2005	ND<0	99.5	
	10/26/2005	ND<0	99.5	
	6/19/2006	ND<0	99.5	
	11/18/2006	ND<0	99.5	
	6/2/2007	0 J	230	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	2.30259		263
	6/11/2009	0.0953102 J B		236
	11/17/2010	ND<-1.60944 U		99.5
	7/6/2011	0.587787	243	
	11/22/2011	ND<-1.60944 U		99.5
	5/16/2012	ND<-1.60944 U		99.5

Rank Sum = 2726.5
Rank Mean = 136.325

LMW-8	1/16/1998	ND<0	99.5

	3/16/1999	ND<0	99.5	
	9/23/1999	ND<0	99.5	
	3/14/2000	ND<0	99.5	
	9/23/2003	ND<0	99.5	
	3/10/2004	ND<0	99.5	
	10/12/2004	ND<0	99.5	
	4/1/2005	ND<0	99.5	
	10/26/2005	ND<0	99.5	
	6/19/2006	ND<0	99.5	
	11/18/2006	ND<0	99.5	
	6/2/2007	ND<0	99.5	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	ND<0	99.5	
	6/11/2009	-0.71335	J	209
	11/16/2009	-0.634878	J	212
	6/30/2010	-0.84397	J	201
	11/17/2010	-0.733969	J	208
	7/6/2011	-0.210721	J	222
	11/22/2011	0.182322		239
	5/16/2012	0.262364		240

Rank Sum = 3023.5
Rank Mean = 137.432

LMW-9	1/16/1998	ND<0	99.5	
	3/16/1999	ND<0	99.5	
	9/23/1999	1.09861		252
	3/14/2000	ND<0	99.5	
	9/23/2003	ND<0	99.5	
	3/10/2004	ND<0	99.5	
	10/12/2004	ND<0	99.5	
	4/1/2005	0	J	231
	10/26/2005	ND<0	99.5	
	6/19/2006	0	J	232
	11/18/2006	ND<0	99.5	
	6/2/2007	0	J	233
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	2.07944		259
	6/11/2009	0.0953102	J	237
	11/16/2009	ND<-1.60944	U	99.5
	6/30/2010	-0.544727	J	218
	11/17/2010	0.470004		241
	7/6/2011	ND<-1.60944	U	99.5
	11/22/2011	ND<-1.60944	U	99.5
	5/16/2012	ND<-1.60944	U	99.5

Rank Sum = 3296
Rank Mean = 149.818

LMW-9D	11/18/2006	1.94591		257
	6/2/2007	1.94591		258
	11/15/2007	ND<0	99.5	
	5/20/2008	1.09861		253
	11/20/2008	1.09861		254
	6/11/2009	0.741937		248
	11/16/2009	0.693147		246
	6/30/2010	0.587787		244
	11/17/2010	0.693147		247
	7/6/2011	1.16315		255
	11/22/2011	0.916291		250
	5/16/2012	0.955511		251

Rank Sum = 2862.5

Rank Mean = 238.542

LMW-10	3/14/2000	3.13549		267
	9/23/2003	ND<0	99.5	
	3/10/2004	3.21888		268
	10/12/2004	ND<0	99.5	
	4/1/2005	ND<0	99.5	
	10/26/2005	ND<0	99.5	
	6/19/2006	ND<0	99.5	
	11/18/2006	ND<0	99.5	
	6/2/2007	0 J	234	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	ND<0	99.5	
	6/11/2009	ND<-1.60944 U		99.5
	11/16/2009	ND<-1.60944 U		99.5
	6/30/2010	ND<-1.60944 U		99.5
	11/17/2010	ND<-1.60944 U		99.5
	7/6/2011	ND<-1.60944 U	99.5	
	11/22/2011	ND<-1.60944 U		99.5
	5/16/2012	ND<-1.60944 U		99.5

Rank Sum = 2361
Rank Mean = 124.263

LMW-3S	11/18/2006	ND<0	99.5	
	6/2/2007	ND<0	99.5	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	ND<0	99.5	
	6/11/2009	-0.314711 J B		221
	11/16/2009	ND<-1.60944 U		99.5
	6/30/2010	ND<-1.60944 U		99.5
	11/17/2010	0	235	
	7/6/2011	-0.174353 J	223	
	11/22/2011	ND<-1.60944 U		99.5

Rank Sum = 1475
Rank Mean = 134.091

LMW-11	3/14/2000	2.48491		264
	9/23/2003	ND<0	99.5	
	3/10/2004	2.89037		266
	10/12/2004	ND<0	99.5	
	4/1/2005	ND<0	99.5	
	10/26/2005	ND<0	99.5	
	6/19/2006	ND<0	99.5	
	6/2/2007	ND<0	99.5	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	ND<0	99.5	

Rank Sum = 1425.5
Rank Mean = 129.591

LMW-12	3/14/2000	4.04305		270
	9/23/2003	ND<0	99.5	
	3/10/2004	ND<0	99.5	
	10/12/2004	ND<0	99.5	
	4/1/2005	ND<0	99.5	
	10/26/2005	ND<0	99.5	
	6/19/2006	ND<0	99.5	
	6/2/2007	ND<0	99.5	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	

	11/20/2008	ND<0	99.5	

Rank Sum = 1265
Rank Mean = 115

LMW-13	3/14/2000	2.77259		265
	9/23/2003	ND<0	99.5	
	3/10/2004	ND<0	99.5	
	10/12/2004	ND<0	99.5	
	4/1/2005	ND<0	99.5	
	10/26/2005	ND<0	99.5	
	6/19/2006	ND<0	99.5	
	6/2/2007	ND<0	99.5	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	ND<0	99.5	

Rank Sum = 1260
Rank Mean = 114.545

MW-5	1/16/1998	ND<0	99.5	
	3/16/1999	ND<0	99.5	
	9/23/1999	ND<0	99.5	
	3/14/2000	3.52636		269
	9/23/2003	ND<0	99.5	
	3/10/2004	4.09434		271
	10/12/2004	ND<0	99.5	
	4/1/2005	ND<0	99.5	
	10/26/2005	ND<0	99.5	
	6/19/2006	ND<0	99.5	
	11/15/2007	ND<0	99.5	
	5/20/2008	ND<0	99.5	
	11/20/2008	ND<0	99.5	

Rank Sum = 1634.5
Rank Mean = 125.731

Calculation Results:

Kruskal-Wallis H Statistic = 43.1536
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 70.7455
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
43.1536 > 27.5871 indicating a significant group difference at 5% significance level
70.7455 > 27.5871 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 110.864

Well	Mean Rank	Dif from Bkg		Critical Value
LMW-9S	**187.409**	**76.5455**	**67.3289**	
LMW-15R	**110.179**	**-0.685065**		**62.3344**
LMW-16	**195.542**	**84.678**	**65.4319**	
LMW-3	**107.958**	**-2.9053**	**53.8163**	
LMW-3s	**99.5**	**-11.3636**	**186.425**	
LMW-6	**120.682**	**9.81818**	**54.9738**	
LMW-14R	**137.808**	**26.9441**	**63.7827**	
LMW-7	**136.325**	**25.4614**	**56.3314**	
LMW-8	**137.432**	**26.5682**	**54.9738**	
LMW-9	**149.818**	**38.9545**	**54.9738**	
LMW-9D	**238.542**	**127.678**	**65.4319**	
LMW-10	**124.263**	**13.3995**	**57.1026**	
LMW-3S	**134.091**	**23.2273**	**67.3289**	
LMW-11	**129.591**	**18.7273**	**67.3289**	

LMW-12	115	4.13636	67.3289
LMW-13	114.545	3.68182	67.3289
MW-5	125.731	14.8671	63.7827

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 110.864

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-9S	187.409	76.5455	83.2993
LMW-15R	110.179	-0.685065	77.1202
LMW-16	195.542	84.678	80.9524
LMW-3	107.958	-2.9053	66.5816
LMW-3s	99.5	-11.3636	230.645
LMW-6	120.682	9.81818	68.0136
LMW-14R	137.808	26.9441	78.912
LMW-7	136.325	25.4614	69.6932
LMW-8	137.432	26.5682	68.0136
LMW-9	149.818	38.9545	68.0136
LMW-9D	238.542	127.678	80.9524
LMW-10	124.263	13.3995	70.6473
LMW-3S	134.091	23.2273	83.2993
LMW-11	129.591	18.7273	83.2993
LMW-12	115	4.13636	83.2993
LMW-13	114.545	3.68182	83.2993
MW-5	125.731	14.8671	78.912

Mann-Kendall Trend Analysis
Parameter: Arsenic
Location: LMW-9S
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives	
0 J	ND<0	0	0	0	
1.38629	ND<0	1.38629	1	0	
ND<0	ND<0	0	1	0	
ND<0	ND<0	0	1	0	
-0.776529 J	ND<0	-0.776529	1	1	
-0.562119 J	ND<0	-0.562119	1	2	
0.182322	ND<0	0.182322	2	2	
-0.776529 J	ND<0	-0.776529	2	3	
-0.755023 J	ND<0	-0.755023	2	4	
-0.616186 J	ND<0	-0.616186	2	5	
1.38629	0 J	1.38629	3	5	
ND<0	0 J	0	3	5	
ND<0	0 J	0	3	5	
-0.776529 J	0 J	-0.776529	3	6	
-0.562119 J	0 J	-0.562119	3	7	
0.182322	0 J	0.182322	4	7	
-0.776529 J	0 J	-0.776529	4	8	
-0.755023 J	0 J	-0.755023	4	9	
-0.616186 J	0 J	-0.616186	4	10	
ND<0	1.38629	-1.386294	11		
ND<0	1.38629	-1.386294	12		
-0.776529 J	1.38629	-2.162824	13		
-0.562119 J	1.38629	-1.948414	14		
0.182322	1.38629	-1.203974	15		
-0.776529 J	1.38629	-2.162824	16		
-0.755023 J	1.38629	-2.141324	17		
-0.616186 J	1.38629	-2.002484	18		
ND<0	ND<0	0	4	18	
-0.776529 J	ND<0	-0.776529	4	19	
-0.562119 J	ND<0	-0.562119	4	20	
0.182322	ND<0	0.182322	5	20	
-0.776529 J	ND<0	-0.776529	5	21	
-0.755023 J	ND<0	-0.755023	5	22	
-0.616186 J	ND<0	-0.616186	5	23	
-0.776529 J	ND<0	-0.776529	5	24	
-0.562119 J	ND<0	-0.562119	5	25	
0.182322	ND<0	0.182322	6	25	
-0.776529 J	ND<0	-0.776529	6	26	
-0.755023 J	ND<0	-0.755023	6	27	
-0.616186 J	ND<0	-0.616186	6	28	
-0.562119 J	-0.776529 J	0.21441	7	28	
0.182322	-0.776529 J	0.95885	8	28	
-0.776529 J	-0.776529 J	0	8	28	
-0.755023 J	-0.776529 J	0.0215062	9	28	
-0.616186 J	-0.776529 J	0.160343	10	28	

0.182322	-0.562119 J	0.74444 11	28	
-0.776529 J	-0.562119 J	-0.2144111	29	
-0.755023 J	-0.562119 J	-0.192904	11	30
-0.616186 J	-0.562119 J	-0.0540672	11	31
-0.776529 J	0.182322	-0.9588511	32	
-0.755023 J	0.182322	-0.937344	11	33
-0.616186 J	0.182322	-0.798508	11	34
-0.755023 J	-0.776529 J	0.0215062	12	34
-0.616186 J	-0.776529 J	0.160343	13	34
-0.616186 J	-0.755023 J	0.138836	14	34

S Statistic = 14 - 34 = -20

Tied Group	Value	Members
1	0	4
2	-0.776529	2

Time Period	Observations
11/18/2006	1
6/2/2007	1
11/15/2007	1
5/20/2008	1
11/20/2008	1
6/11/2009	1
6/30/2010	1
11/17/2010	1
7/6/2011	1
11/22/2011	1
5/16/2012	1

There are 0 time periods with multiple data

A = 174
B = 0
C = 24
D = 0
E = 14
F = 0
a = 2970
b = 8910
c = 220
Group Variance = 155.333
Z-Score = -1.52448
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-1.52448| <= 1.97737 indicating no evidence of a trend

Mann-Kendall Trend Analysis
Parameter: Arsenic
Location: LMW-9D
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives	
1.94591	1.94591	0	0	0	
ND<0	1.94591	-1.94591	0	1	
1.09861	1.94591	-0.847298	0	2	
1.09861	1.94591	-0.847298	0	3	
0.741937	1.94591	-1.203970	4		
0.693147	1.94591	-1.252760	5		
0.587787	1.94591	-1.358120	6		
0.693147	1.94591	-1.252760	7		
1.16315	1.94591	-0.782759	0	8	
0.916291	1.94591	-1.029620	9		
0.955511	1.94591	-0.990399	0	10	
ND<0	1.94591	-1.94591	0	11	
1.09861	1.94591	-0.847298	0	12	
1.09861	1.94591	-0.847298	0	13	
0.741937	1.94591	-1.203970	14		
0.693147	1.94591	-1.252760	15		
0.587787	1.94591	-1.358120	16		
0.693147	1.94591	-1.252760	17		
1.16315	1.94591	-0.782759	0	18	
0.916291	1.94591	-1.029620	19		
0.955511	1.94591	-0.990399	0	20	
1.09861	ND<0	1.09861	1	20	
1.09861	ND<0	1.09861	2	20	
0.741937	ND<0	0.741937	3	20	
0.693147	ND<0	0.693147	4	20	
0.587787	ND<0	0.587787	5	20	
0.693147	ND<0	0.693147	6	20	
1.16315	ND<0	1.16315	7	20	
0.916291	ND<0	0.916291	8	20	
0.955511	ND<0	0.955511	9	20	
1.09861	1.09861	0	9	20	
0.741937	1.09861	-0.356675	9	21	
0.693147	1.09861	-0.405465	9	22	
0.587787	1.09861	-0.510826	9	23	
0.693147	1.09861	-0.405465	9	24	
1.16315	1.09861	0.0645385	10	24	
0.916291	1.09861	-0.182322	10	25	
0.955511	1.09861	-0.143101	10	26	
0.741937	1.09861	-0.356675	10	27	
0.693147	1.09861	-0.405465	10	28	
0.587787	1.09861	-0.510826	10	29	
0.693147	1.09861	-0.405465	10	30	
1.16315	1.09861	0.0645385	11	30	
0.916291	1.09861	-0.182322	11	31	
0.955511	1.09861	-0.143101	11	32	

0.693147	0.741937	-0.0487902	11	33
0.587787	0.741937	-0.154151	11	34
0.693147	0.741937	-0.0487902	11	35
1.16315	0.741937	0.421213	12	35
0.916291	0.741937	0.174353	13	35
0.955511	0.741937	0.213574	14	35
0.587787	0.693147	-0.105361	14	36
0.693147	0.693147	0	14	36
1.16315	0.693147	0.470004	15	36
0.916291	0.693147	0.223144	16	36
0.955511	0.693147	0.262364	17	36
0.693147	0.587787	0.105361	18	36
1.16315	0.587787	0.575364	19	36
0.916291	0.587787	0.328504	20	36
0.955511	0.587787	0.367725	21	36
1.16315	0.693147	0.470004	22	36
0.916291	0.693147	0.223144	23	36
0.955511	0.693147	0.262364	24	36
0.916291	1.16315	-0.2468624	37	
0.955511	1.16315	-0.207639	24	38
0.955511	0.916291	0.0392207	25	38

S Statistic = 25 - 38 = -13

Tied Group	Value	Members
1	1.94591	2
2	1.09861	2
3	0.693147	2

Time Period	Observations
11/18/2006	1
6/2/2007	1
11/15/2007	1
5/20/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/17/2010	1
7/6/2011	1
11/22/2011	1
5/16/2012	1

There are 0 time periods with multiple data

A = 54
B = 0
C = 0
D = 0
E = 6
F = 0
a = 3828
b = 11880
c = 264
Group Variance = 209.667

Z-Score = -0.828737
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-0.828737| <= 1.97737 indicating no evidence of a trend

Mann-Kendall Trend Analysis
Parameter: Arsenic
Location: LMW-16
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.693147	ND<0	0.693147	1	0
ND<0	ND<0	0	1	0
ND<0	ND<0	0	1	0
2.19722	ND<0	2.19722	2	0
-0.579818 J	ND<0	-0.579818	2	1
-0.527633 J	ND<0	-0.527633	2	2
-0.693147 J	ND<0	-0.693147	2	3
-0.616186 J	ND<0	-0.616186	2	4
0	ND<0	0	2	4
-0.616186 J	ND<0	-0.616186	2	5
0.587787	ND<0	0.587787	3	5
ND<0	0.693147	-0.693147	3	6
ND<0	0.693147	-0.693147	3	7
2.19722	0.693147	1.50408	4	7
-0.579818 J	0.693147	-1.272974	8	
-0.527633 J	0.693147	-1.220784	9	
-0.693147 J	0.693147	-1.386294	10	
-0.616186 J	0.693147	-1.309334	11	
0	0.693147	-0.693147	4	12
-0.616186 J	0.693147	-1.309334	13	
0.587787	0.693147	-0.105361	4	14
ND<0	ND<0	0	4	14
2.19722	ND<0	2.19722	5	14
-0.579818 J	ND<0	-0.579818	5	15
-0.527633 J	ND<0	-0.527633	5	16
-0.693147 J	ND<0	-0.693147	5	17
-0.616186 J	ND<0	-0.616186	5	18
0	ND<0	0	5	18
-0.616186 J	ND<0	-0.616186	5	19
0.587787	ND<0	0.587787	6	19
2.19722	ND<0	2.19722	7	19
-0.579818 J	ND<0	-0.579818	7	20
-0.527633 J	ND<0	-0.527633	7	21
-0.693147 J	ND<0	-0.693147	7	22
-0.616186 J	ND<0	-0.616186	7	23
0	ND<0	0	7	23
-0.616186 J	ND<0	-0.616186	7	24
0.587787	ND<0	0.587787	8	24
-0.579818 J	2.19722	-2.777048	25	
-0.527633 J	2.19722	-2.724868	26	
-0.693147 J	2.19722	-2.890378	27	
-0.616186 J	2.19722	-2.813418	28	
0	2.19722	-2.197228	29	
-0.616186 J	2.19722	-2.813418	30	
0.587787	2.19722	-1.609448	31	

-0.527633 J	-0.579818 J	0.0521858	9	31
-0.693147 J	-0.579818 J	-0.113329	9	32
-0.616186 J	-0.579818 J	-0.0363676	9	33
0	-0.579818 J	0.579818	10	33
-0.616186 J	-0.579818 J	-0.0363676	10	34
0.587787	-0.579818 J	1.16761	11	34
-0.693147 J	-0.527633 J	-0.165514	11	35
-0.616186 J	-0.527633 J	-0.0885534	11	36
0	-0.527633 J	0.527633	12	36
-0.616186 J	-0.527633 J	-0.0885534	12	37
0.587787	-0.527633 J	1.11542	13	37
-0.616186 J	-0.693147 J	0.076961	14	37
0	-0.693147 J	0.693147	15	37
-0.616186 J	-0.693147 J	0.076961	16	37
0.587787	-0.693147 J	1.28093	17	37
0	-0.616186 J	0.616186	18	37
-0.616186 J	-0.616186 J	0	18	37
0.587787	-0.616186 J	1.20397	19	37
-0.616186 J	0	-0.616186	19	38
0.587787	0	0.587787	20	38
0.587787	-0.616186 J	1.20397	21	38

S Statistic = 21 - 38 = -17

Tied Group	Value	Members
1	0	4
2	-0.616186	2

Time Period		Observations
11/18/2006		1
6/2/2007	1	
11/15/2007		1
5/20/2008		1
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/17/2010		1
7/6/2011	1	
11/22/2011		1
5/16/2012		1

There are 0 time periods with multiple data

A = 174
B = 0
C = 24
D = 0
E = 14
F = 0
a = 3828
b = 11880
c = 264
Group Variance = 203
Z-Score = -1.12298

Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-1.12298| <= 1.97737 indicating no evidence of a trend

Shewhart-CUSUM Control Chart

Parameter: Arsenic

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = -0.512094
Baseline Std Dev = 0.767269
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
11/18/2006	0	0	0.667424
11/18/2006	0	0	0.667424
6/2/2007	0	0	0.667424
6/2/2007	0	0	0.667424
11/15/2007	1.38629	1.47421	2.47421
11/15/2007	1.38629	1.47421	2.47421
5/20/2008	0	1.14164	0.667424
5/20/2008	0	1.14164	0.667424
11/20/2008	0	0.809061	0.667424
11/20/2008	0	0.809061	0.667424
6/11/2009	-0.776529	0	-0.344644
6/11/2009	-0.776529	0	-0.344644
6/30/2010	-0.562119	0	-0.0651988
6/30/2010	-0.562119	0	-0.0651988
11/17/2010	0.182322	0	0.905048
11/17/2010	0.182322	0	0.905048
7/6/2011	-0.776529	0	-0.344644
7/6/2011	-0.776529	0	-0.344644
11/22/2011	-0.755023	0	-0.316615
11/22/2011	-0.755023	0	-0.316615
5/16/2012	-0.616186	0	-0.135666
5/16/2012	-0.616186	0	-0.135666

Shewhart-CUSUM Control Chart

Parameter: Arsenic

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = -0.512094
Baseline Std Dev = 0.767269
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
11/18/2006	1.94591	2.20357	3.20357	
11/18/2006	1.94591	2.20357	3.20357	
6/2/2007	1.94591	4.40715	3.20357	
6/2/2007	1.94591	4.40715	3.20357	
11/15/2007	0	4.07457	0.667424	
11/15/2007	0	4.07457	0.667424	
5/20/2008	1.09861	5.17384	2.09927	
5/20/2008	1.09861	5.17384	2.09927	
11/20/2008	1.09861	6.27311	2.09927	
11/20/2008	1.09861	6.27311	2.09927	
6/11/2009	0.741937	6.90752	1.63441	
6/11/2009	0.741937	6.90752	1.63441	
11/16/2009	0.693147	7.47834	1.57082	
11/16/2009	0.693147	7.47834	1.57082	
6/30/2010	0.587787	7.91184	1.4335	
6/30/2010	0.587787	7.91184	1.4335	
11/17/2010	0.693147	8.48266	1.57082	
11/17/2010	0.693147	8.48266	1.57082	
7/6/2011	1.16315	9.66604	2.18339	
7/6/2011	1.16315	9.66604	2.18339	
11/22/2011	0.916291	10.5277	1.86165	
11/22/2011	0.916291	10.5277	1.86165	
5/16/2012	0.955511	11.4405	1.91276	
5/16/2012	0.955511	11.4405	1.91276	

Shewhart-CUSUM Control Chart

Parameter: Arsenic

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = -0.512094
Baseline Std Dev = 0.767269
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
11/18/2006	0	0	0.667424
11/18/2006	0	0	0.667424
6/2/2007	0.693147	0.570819	1.57082
6/2/2007	0.693147	0.570819	1.57082
11/15/2007	0	0.238242	0.667424
11/15/2007	0	0.238242	0.667424
5/20/2008	0	0	0.667424
5/20/2008	0	0	0.667424
11/20/2008	2.19722	2.53112	3.53112
11/20/2008	2.19722	2.53112	3.53112
6/11/2009	-0.579818	1.44285	-0.0882671
6/11/2009	-0.579818	1.44285	-0.0882671
11/16/2009	-0.527633	0.422598	-0.0202522
11/16/2009	-0.527633	0.422598	-0.0202522
6/30/2010	-0.693147	0	-0.235971
6/30/2010	-0.693147	0	-0.235971
11/17/2010	-0.616186	0	-0.135666
11/17/2010	-0.616186	0	-0.135666
7/6/2011	0	0	0.667424
7/6/2011	0	0	0.667424
11/22/2011	-0.616186	0	-0.135666
11/22/2011	-0.616186	0	-0.135666
5/16/2012	0.587787	0.4335	1.4335
5/16/2012	0.587787	0.4335	1.4335

Concentrations (ppb)

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 88
Percent Non-Detects: 32.4723%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	5 (22.7273%)	1/16/1998	ND<10	ND<10
			3/16/1999	20	20
			9/23/1999	8 J	8 J
			3/14/2000	ND<10	ND<10
			9/23/2003	ND<10	ND<10
			3/10/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	14	14
			10/26/2005	12	12
			6/19/2006	10	10
			11/18/2006	13	13
			6/2/2007	24	24
			11/15/2007	13	13
			5/20/2008	11	11
			11/20/2008	14	14
			6/11/2009	13	13
			11/16/2009	13	13
			6/30/2010	15	15
			11/17/2010	14	14
			7/6/2011	14	14
			11/22/2011	16	16
			5/16/2012	15	15

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-7	20	5 (25%)	1/16/1998	ND<10	ND<10
			3/16/1999	20	20
			9/23/1999	22	22
			3/14/2000	ND<10	ND<10
			9/23/2003	ND<10	ND<10
			3/10/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	31	31
			10/26/2005	30	30
			6/19/2006	20	20
			11/18/2006	11	11
			6/2/2007	27	27
			11/15/2007	6 J	6 J
			5/20/2008	5 J	5 J
			11/20/2008	7 J	7 J
			6/11/2009	12	12
			11/17/2010	5.2	5.2
			7/6/2011	13	13
			11/22/2011	8.5	8.5
			5/16/2012	7.6	7.6

LMW-10	19	6 (31.5789%)	3/14/2000	ND<10	ND<10	
		9/23/2003	ND<10	ND<10		
		3/10/2004	ND<10	ND<10		
		10/12/2004	ND<10	ND<10		
		4/1/2005	13	13		
		10/26/2005	ND<10	ND<10		
		6/19/2006	20	20		
		11/18/2006	11	11		
		6/2/2007	21	21		
		11/15/2007	ND<10	ND<10		
		5/20/2008	12	12		
		11/20/2008	12	12		
		6/11/2009	13	13		
		11/16/2009	12	12		
		6/30/2010	12	12		
		11/17/2010	14	14		
		7/6/2011	21	21		
		11/22/2011	23	23		
		5/16/2012	23	23		
LMW-14R	13	0 (0%)	6/2/2007	14	14	
		11/15/2007	12	12		
		5/20/2008	9 J	9 J		
		11/20/2008	13	13		
		6/11/2009	13	13		
		11/16/2009	12	12		
		11/16/2009	48	48		
		11/16/2009	14	14		
		6/30/2010	13	13		
		11/17/2010	12	12		
		7/6/2011	11	11		
		11/22/2011	14	14		
		5/16/2012	13	13		
LMW-15R	14	3 (21.4286%)	11/18/2006	37	37	
		6/2/2007	38	38		
		11/15/2007	ND<10	ND<10		
		11/15/2007	27	27		
		5/20/2008	24	24		
		5/20/2008	ND<10	ND<10		
		11/20/2008	ND<10	ND<10		
		11/20/2008	38	38		
		6/11/2009	42	42		
		6/30/2010	36	36		
		11/17/2010	30	30		
		7/6/2011	25	25		
		11/22/2011	32	32		
		5/16/2012	32	32		
LMW-16	12	0 (0%)	11/18/2006	23	23	
		6/2/2007	41	41		
		11/15/2007	35	35		
		5/20/2008	22	22		
		11/20/2008	23	23		
		6/11/2009	14	14		
		11/16/2009	13	13		
		6/30/2010	8.8	8.8		
		11/17/2010	10	10		
		7/6/2011	11	11		
		11/22/2011	8.8	8.8		
		5/16/2012	9.2	9.2		

LMW-3	24	9 (37.5%)	11/19/1996		ND<10	ND<10
			3/24/1997	ND<10	ND<10	
			1/16/1998	ND<10	ND<10	
			3/16/1999	8 J	8 J	
			9/23/1999	7 J	7 J	
			3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	7 J	7 J	
			6/19/2006	5 J	5 J	
			11/18/2006	7 J	7 J	
			6/2/2007	5	5	
			11/15/2007	ND<10	ND<10	
			5/20/2008	5 J	5 J	
			11/20/2008	5 J	5 J	
			6/11/2009	7.2	7.2	
			11/16/2009	6.4	6.4	
			6/30/2010	5	5	
			11/17/2010	13	13	
			7/6/2011	3.5	3.5	
			11/22/2011	12	12	
			5/16/2012	4.6	4.6	
LMW-3s	1	0 (0%)	5/16/2012	13	13	
LMW-6	22	5 (22.7273%)	1/16/1998		ND<10	ND<10
			3/16/1999	8 J	8 J	
			9/23/1999	18	18	
			3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	9 J	9 J	
			10/26/2005	12	12	
			6/19/2006	20	20	
			11/18/2006	33	33	
			6/2/2007	52	52	
			11/15/2007	42	42	
			5/20/2008	49	49	
			11/20/2008	73	73	
			6/11/2009	92	92	
			11/16/2009	74	74	
			6/30/2010	77	77	
			11/17/2010	79	79	
			7/6/2011	55	55	
			11/22/2011	44 J	44 J	
			5/16/2012	36	36	
LMW-8	22	5 (22.7273%)	1/16/1998		ND<10	ND<10
			3/16/1999	10	10	
			9/23/1999	109	109	
			3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	48	48	
			10/26/2005	38	38	
			6/19/2006	40	40	
			11/18/2006	32	32	
			6/2/2007	34	34	

			11/15/2007	41	41	
			5/20/2008	34	34	
			11/20/2008	29	29	
			6/11/2009	40	40	
			11/16/2009	40	40	
			6/30/2010	30	30	
			11/17/2010	44	44	
			7/6/2011	32	32	
			11/22/2011	45	45	
			5/16/2012	39	39	
LMW-9	22	7 (31.8182%)	1/16/1998	ND<10	ND<10	
			3/16/1999	10	10	
			9/23/1999	22	22	
			3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	10	10	
			11/18/2006	3 J	3 J	
			6/2/2007	6	6	
			11/15/2007	3 J	3 J	
			5/20/2008	2 J	2 J	
			11/20/2008	4 J	4 J	
			6/11/2009	3.1	3.1	
			11/16/2009	2.9	2.9	
			6/30/2010	2.8	2.8	
			11/17/2010	4	4	
			7/6/2011	3.3	3.3	
			11/22/2011	3.4	3.4	
			5/16/2012	13	13	
LMW-9D	12	0 (0%)	11/18/2006	13	13	
			6/2/2007	5	5	
			11/15/2007	120	120	
			5/20/2008	10	10	
			11/20/2008	3 J	3 J	
			6/11/2009	3.1	3.1	
			11/16/2009	2.9	2.9	
			6/30/2010	2.1	2.1	
			11/17/2010	2.8	2.8	
			7/6/2011	3.8	3.8	
			11/22/2011	2.8	2.8	
			5/16/2012	2.5	2.5	
LMW-9S	11	0 (0%)	11/18/2006	77	77	
			6/2/2007	80	80	
			11/15/2007	2 J	2 J	
			5/20/2008	75	75	
			11/20/2008	61	61	
			6/11/2009	28	28	
			6/30/2010	38	38	
			11/17/2010	53	53	
			7/6/2011	59	59	
			11/22/2011	66	66	
			5/16/2012	39	39	
LMW-3S	11	0 (0%)	11/18/2006	5 J	5 J	
			6/2/2007	18	18	
			11/15/2007	13	13	

			5/20/2008	8 J	8 J	
			11/20/2008	13	13	
			6/11/2009	12	12	
			11/16/2009	10	10	
			6/30/2010	12	12	
			11/17/2010	16	16	
			7/6/2011	14	14	
			11/22/2011	5.4	5.4	
LMW-11	11	11 (100%)	3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
LMW-12	11	11 (100%)	3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
LMW-13	11	11 (100%)	3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
MW-5	13	10 (76.9231%)	1/16/1998	ND<10	ND<10	
			3/16/1999	20	20	
			9/23/1999	9 J	9 J	
			3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			11/15/2007	17	17	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	2	-2.74777	7.55021	-5.49553
2	2	-2.45727	13.5884	-10.4101
3	2.1	-2.29036	18.8342	-15.2198
4	2.5	-2.19728	23.6622	-20.713
5	2.8	-2.09693	28.0593	-26.5845
6	2.8	-2.01409	32.1159	-32.2239
7	2.8	-1.95996	35.9574	-37.7118
8	2.9	-1.8957	39.551	-43.2093
9	2.9	-1.83843	42.9308	-48.5408
10	3	-1.79912	46.1677	-53.9381
11	3	-1.75069	49.2326	-59.1902
12	3	-1.70604	52.1431	-64.3083
13	3.1	-1.67466	54.9476	-69.4998
14	3.1	-1.63524	57.6216	-74.569
15	3.3	-1.59819	60.1758	-79.843
16	3.4	-1.57179	62.6464	-85.1871
17	3.5	-1.5382	65.0124	-90.5708
18	3.8	-1.50626	67.2812	-96.2946
19	4	-1.48328	69.4814	-102.228
20	4	-1.4538	71.5949	-108.043
21	4.6	-1.42554	73.6271	-114.6
22	5	-1.40507	75.6013	-121.626
23	5	-1.37866	77.502	-128.519
24	5	-1.35317	79.3331	-135.285
25	5	-1.33462	81.1143	-141.958
26	5	-1.31058	82.8319	-148.511
27	5	-1.28727	84.489	-154.947
28	5	-1.27024	86.1025	-161.299
29	5	-1.24809	87.6602	-167.539
30	5	-1.22653	89.1646	-173.672
31	5	-1.21073	90.6305	-179.725
32	5	-1.19012	92.0469	-185.676
33	5	-1.17	93.4158	-191.526
34	5	-1.15035	94.7391	-197.278
35	5	-1.1359	96.0293	-202.957
36	5	-1.11699	97.277	-208.542
37	5	-1.09847	98.4836	-214.034
38	5	-1.08482	99.6605	-219.458
39	5	-1.06694	100.799	-224.793
40	5	-1.04939	101.9	-230.04
41	5	-1.03643	102.974	-235.222
42	5	-1.01943	104.013	-240.319
43	5	-1.00271	105.019	-245.333
44	5	-0.990356	106	-250.285
45	5	-0.974114	106.949	-255.155
46	5	-0.958125	107.867	-259.946
47	5	-0.946291	108.762	-264.677
48	5	-0.930718	109.628	-269.331
49	5	-0.915365	110.466	-273.908
50	5	-0.903992	111.283	-278.428
51	5	-0.889006	112.074	-282.873

52	5	-0.874218	112.838	-287.244
53	5	-0.863249	113.583	-291.56
54	5	-0.848786	114.304	-295.804
55	5	-0.834498	115	-299.977
56	5	-0.823893	115.679	-304.096
57	5	-0.809896	116.335	-308.145
58	5	-0.796056	116.968	-312.126
59	5	-0.785774	117.586	-316.055
60	5	-0.772193	118.182	-319.916
61	5	-0.758753	118.758	-323.709
62	5	-0.748762	119.318	-327.453
63	5	-0.735557	119.86	-331.131
64	5	-0.722479	120.382	-334.743
65	5	-0.712751	120.89	-338.307
66	5	-0.699883	121.379	-341.807
67	5	-0.687131	121.852	-345.242
68	5	-0.67449	122.306	-348.615
69	5	-0.665079	122.749	-351.94
70	5	-0.652622	123.175	-355.203
71	5	-0.640266	123.585	-358.404
72	5	-0.631062	123.983	-361.56
73	5	-0.618872	124.366	-364.654
74	5	-0.606775	124.734	-367.688
75	5	-0.597761	125.091	-370.677
76	5	-0.585815	125.435	-373.606
77	5	-0.573953	125.764	-376.476
78	5	-0.565108	126.083	-379.301
79	5	-0.553384	126.39	-382.068
80	5	-0.541736	126.683	-384.777
81	5	-0.533048	126.967	-387.442
82	5	-0.521527	127.239	-390.05
83	5	-0.510074	127.499	-392.6
84	5	-0.501527	127.751	-395.108
85	5	-0.490189	127.991	-397.559
86	5	-0.478914	128.221	-399.953
87	5	-0.470498	128.442	-402.306
88	5	-0.459327	128.653	-404.602
89	5	-0.448213	128.854	-406.843
90	5	-0.439913	129.047	-409.043
91	5	-0.428895	129.231	-411.187
92	5	-0.417928	129.406	-413.277
93	5	-0.409735	129.574	-415.326
94	5	-0.398855	129.733	-417.32
95	5	-0.388022	129.883	-419.26
96	5	-0.379927	130.028	-421.16
97	5	-0.369171	130.164	-423.006
98	5	-0.358459	130.293	-424.798
99	5	-0.350451	130.415	-426.55
100	5	-0.33981	130.531	-428.249
101	5	-0.329206	130.639	-429.895
102	5	-0.318639	130.741	-431.488
103	5	-0.310738	130.837	-433.042
104	5	-0.300232	130.927	-434.543
105	5	-0.28976	131.011	-435.992
106	5	-0.281926	131.091	-437.402
107	5	-0.271509	131.165	-438.759
108	5	-0.26112	131.233	-440.065
109	5	-0.253347	131.297	-441.332
110	5	-0.243007	131.356	-442.547
111	5	-0.232693	131.41	-443.71
112	5	-0.224974	131.461	-444.835
113	5	-0.214702	131.507	-445.908

114	5	-0.204452	131.549	-446.931
115	5	-0.196779	131.587	-447.915
116	5	-0.186567	131.622	-448.847
117	5	-0.176374	131.653	-449.729
118	5.2	-0.168741	131.682	-450.607
119	5.4	-0.158579	131.707	-451.463
120	6	-0.148434	131.729	-452.354
121	6	-0.140835	131.749	-453.199
122	6.4	-0.130716	131.766	-454.035
123	7	-0.12061	131.78	-454.88
124	7	-0.113039	131.793	-455.671
125	7	-0.102953	131.804	-456.392
126	7	-0.0928787	131.812	-457.042
127	7.2	-0.0853288	131.82	-457.656
128	7.6	-0.0752698	131.825	-458.228
129	8	-0.0652187	131.83	-458.75
130	8	-0.0576847	131.833	-459.211
131	8	-0.0476439	131.835	-459.592
132	8	-0.0376076	131.837	-459.893
133	8.5	-0.0300838	131.838	-460.149
134	8.8	-0.0200544	131.838	-460.326
135	8.8	-0.0100272	131.838	-460.414
136	9	0	131.838	-460.414
137	9	0.0100272	131.838	-460.324
138	9	0.0200544	131.839	-460.143
139	9.2	0.0300838	131.839	-459.866
140	10	0.0376076	131.841	-459.49
141	10	0.0476439	131.843	-459.014
142	10	0.0576847	131.846	-458.437
143	10	0.0652187	131.851	-457.785
144	10	0.0752698	131.856	-457.032
145	10	0.0853288	131.864	-456.179
146	10	0.0928787	131.872	-455.25
147	11	0.102953	131.883	-454.117
148	11	0.113039	131.896	-452.874
149	11	0.12061	131.91	-451.547
150	11	0.130716	131.927	-450.109
151	11	0.140835	131.947	-448.56
152	12	0.148434	131.969	-446.779
153	12	0.158579	131.994	-444.876
154	12	0.168741	132.023	-442.851
155	12	0.176374	132.054	-440.735
156	12	0.186567	132.089	-438.496
157	12	0.196779	132.127	-436.135
158	12	0.204452	132.169	-433.681
159	12	0.214702	132.215	-431.105
160	12	0.224974	132.266	-428.405
161	12	0.232693	132.32	-425.613
162	12	0.243007	132.379	-422.697
163	12	0.253347	132.443	-419.656
164	12	0.26112	132.512	-416.523
165	13	0.271509	132.585	-412.993
166	13	0.281926	132.665	-409.328
167	13	0.28976	132.749	-405.561
168	13	0.300232	132.839	-401.658
169	13	0.310738	132.935	-397.619
170	13	0.318639	133.037	-393.477
171	13	0.329206	133.145	-389.197
172	13	0.33981	133.261	-384.779
173	13	0.350451	133.384	-380.223
174	13	0.358459	133.512	-375.563
175	13	0.369171	133.648	-370.764

176	13	0.379927		133.793	-365.825
177	13	0.388022		133.943	-360.781
178	13	0.398855		134.102	-355.596
179	13	0.409735		134.27	-350.269
180	13	0.417928		134.445	-344.836
181	13	0.428895		134.629	-339.261
182	13	0.439913		134.822	-333.542
183	14	0.448213		135.023	-327.267
184	14	0.459327		135.234	-320.836
185	14	0.470498		135.456	-314.249
186	14	0.478914		135.685	-307.544
187	14	0.490189		135.925	-300.682
188	14	0.501527		136.177	-293.66
189	14	0.510074		136.437	-286.519
190	14	0.521527		136.709	-279.218
191	14	0.533048		136.993	-271.755
192	14	0.541736		137.287	-264.171
193	15	0.553384		137.593	-255.87
194	15	0.565108		137.912	-247.394
195	16	0.573953		138.242	-238.21
196	16	0.585815		138.585	-228.837
197	17	0.597761		138.942	-218.675
198	18	0.606775		139.31	-207.753
199	18	0.618872		139.693	-196.614
200	20	0.631062		140.091	-183.992
201	20	0.640266		140.501	-171.187
202	20	0.652622		140.927	-158.135
203	20	0.665079		141.37	-144.833
204	20	0.67449	141.825	-131.343	
205	20	0.687131		142.297	-117.601
206	21	0.699883		142.787	-102.903
207	21	0.712751		143.295	-87.9354
208	22	0.722479		143.817	-72.0409
209	22	0.735557		144.358	-55.8586
210	22	0.748762		144.918	-39.3858
211	23	0.758753		145.494	-21.9345
212	23	0.772193		146.09	-4.17408
213	23	0.785774		146.708	13.8987
214	23	0.796056		147.341	32.208
215	24	0.809896		147.997	51.6455
216	24	0.823893		148.676	71.4189
217	25	0.834498		149.373	92.2814
218	27	0.848786		150.093	115.199
219	27	0.863249		150.838	138.506
220	28	0.874218		151.602	162.984
221	29	0.889006		152.393	188.766
222	30	0.903992		153.21	215.885
223	30	0.915365		154.048	243.346
224	30	0.930718		154.914	271.268
225	31	0.946291		155.81	300.603
226	32	0.958125		156.728	331.263
227	32	0.974114		157.676	362.435
228	32	0.990356		158.657	394.126
229	32	1.00271	159.663	426.213	
230	33	1.01943	160.702	459.854	
231	34	1.03643	161.776	495.093	
232	34	1.04939	162.877	530.772	
233	35	1.06694	164.016	568.114	
234	36	1.08482	165.193	607.168	
235	36	1.09847	166.399	646.713	
236	37	1.11699	167.647	688.041	
237	38	1.1359	168.937	731.205	

238	38	1.15035	170.26	774.919
239	38	1.17	171.629	819.379
240	38	1.19012	173.046	864.603
241	39	1.21073	174.512	911.822
242	39	1.22653	176.016	959.656
243	40	1.24809	177.574	1009.58
244	40	1.27024	179.187	1060.39
245	40	1.28727	180.844	1111.88
246	41	1.31058	182.562	1165.61
247	41	1.33462	184.343	1220.33
248	42	1.35317	186.174	1277.17
249	42	1.37866	188.075	1335.07
250	44	1.40507	190.049	1396.89
251	44	1.42554	192.081	1459.62
252	45	1.4538	194.195	1525.04
253	48	1.48328	196.395	1596.24
254	48	1.50626	198.664	1668.54
255	49	1.5382	201.03	1743.91
256	52	1.57179	203.5	1825.64
257	53	1.59819	206.054	1910.35
258	55	1.63524	208.728	2000.28
259	59	1.67466	211.533	2099.09
260	61	1.70604	214.444	2203.16
261	66	1.75069	217.508	2318.7
262	73	1.79912	220.745	2450.04
263	74	1.83843	224.125	2586.08
264	75	1.8957	227.719	2728.26
265	77	1.95996	231.56	2879.18
266	77	2.01409	235.617	3034.26
267	79	2.09693	240.014	3199.92
268	80	2.19728	244.842	3375.7
269	92	2.29036	250.088	3586.41
270	109	2.45727	256.126	3854.26
271	120	2.74777	263.676	4183.99

Data Set Standard Deviation = 18.9857
Numerator = 1.75058e+007
Denominator = 2.56619e+007
W Statistic = 0.682169 = 1.75058e+007 / 2.56619e+007

5% Critical value of 0.976 exceeds 0.682169
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.682169
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 = 0.827359
0.827359 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	2	0.00367647	-2.747	7	44.35	348.683
2	2	0.00735294	-2.457	2	44.35	334.497
3	2.1	0.0110294	-2.290	3	44.6175	326.346
4	2.5	0.0147059	-2.197	2	45.6875	321.801
5	2.8	0.0183824	-2.096	9	46.49	316.9
6	2.8	0.0220588	-2.014	0	46.49	312.855
7	2.8	0.0257353	-1.959	9	46.49	310.211
8	2.9	0.0294118	-1.895	7	46.7575	307.073
9	2.9	0.0330882	-1.838	4	46.7575	304.276
10	3	0.0367647	-1.799	1	47.025	302.357
11	3	0.0404412	-1.750	6	47.025	299.992
12	3	0.0441176	-1.706	0	47.025	297.812
13	3.1	0.0477941	-1.674	6	47.2925	296.279
14	3.1	0.0514706	-1.635	2	47.2925	294.354
15	3.3	0.0551471	-1.598	1	47.8275	292.545
16	3.4	0.0588235	-1.571	7	48.095	291.256
17	3.5	0.0625	-1.5382	48.3625	289.615	
18	3.8	0.0661765	-1.506	2	49.165	288.056
19	4	0.0698529	-1.483	2	49.7	286.934
20	4	0.0735294	-1.4538	49.7	285.494	
21	4.6	0.0772059	-1.425	5	51.305	284.114
22	5	0.0808824	-1.405	0	52.375	283.114
23	5	0.0845588	-1.378	6	52.375	281.824
24	5	0.0882353	-1.353	1	52.375	280.58
25	5	0.0919118	-1.334	6	52.375	279.674
26	5	0.0955882	-1.310	5	52.375	278.5
27	5	0.0992647	-1.287	2	52.375	277.362
28	5	0.102941	-1.270	2	52.375	276.53
29	5	0.106618	-1.248	0	52.375	275.448
30	5	0.110294	-1.226	5	52.375	274.395
31	5	0.113971	-1.210	7	52.375	273.624
32	5	0.117647	-1.190	1	52.375	272.617
33	5	0.121324	-1.17	52.375	271.635	
34	5	0.125	-1.150	3	52.375	270.675
35	5	0.128676	-1.1359	52.375	269.97	
36	5	0.132353	-1.116	9	52.375	269.046
37	5	0.136029	-1.098	4	52.375	268.142
38	5	0.139706	-1.084	8	52.375	267.476
39	5	0.143382	-1.066	9	52.375	266.602
40	5	0.147059	-1.049	3	52.375	265.745
41	5	0.150735	-1.036	4	52.375	265.112
42	5	0.154412	-1.019	4	52.375	264.282
43	5	0.158088	-1.002	7	52.375	263.466
44	5	0.161765	-0.990356	52.375	262.862	
45	5	0.165441	-0.974114	52.375	262.069	
46	5	0.169118	-0.958125	52.375	261.288	
47	5	0.172794	-0.946291	52.375	260.711	
48	5	0.176471	-0.930718	52.375	259.95	

49	5	0.180147	-0.915365	52.375	259.2
50	5	0.183824	-0.903992	52.375	258.645
51	5	0.1875	-0.889006	52.375	257.913
52	5	0.191176	-0.874218	52.375	257.191
53	5	0.194853	-0.863249	52.375	256.655
54	5	0.198529	-0.848786	52.375	255.949
55	5	0.202206	-0.834498	52.375	255.251
56	5	0.205882	-0.823893	52.375	254.733
57	5	0.209559	-0.809896	52.375	254.05
58	5	0.213235	-0.796056	52.375	253.374
59	5	0.216912	-0.785774	52.375	252.872
60	5	0.220588	-0.772193	52.375	252.209
61	5	0.224265	-0.758753	52.375	251.552
62	5	0.227941	-0.748762	52.375	251.065
63	5	0.231618	-0.735557	52.375	250.42
64	5	0.235294	-0.722479	52.375	249.781
65	5	0.238971	-0.712751	52.375	249.306
66	5	0.242647	-0.699883	52.375	248.678
67	5	0.246324	-0.687131	52.375	248.055
68	5	0.25	-0.674495	52.375	247.438
69	5	0.253676	-0.665079	52.375	246.978
70	5	0.257353	-0.652622	52.375	246.37
71	5	0.261029	-0.640266	52.375	245.766
72	5	0.264706	-0.631062	52.375	245.317
73	5	0.268382	-0.618872	52.375	244.722
74	5	0.272059	-0.606775	52.375	244.131
75	5	0.275735	-0.597761	52.375	243.691
76	5	0.279412	-0.585815	52.375	243.107
77	5	0.283088	-0.573953	52.375	242.528
78	5	0.286765	-0.565108	52.375	242.096
79	5	0.290441	-0.553384	52.375	241.524
80	5	0.294118	-0.541736	52.375	240.955
81	5	0.297794	-0.533048	52.375	240.531
82	5	0.301471	-0.521527	52.375	239.968
83	5	0.305147	-0.510074	52.375	239.409
84	5	0.308824	-0.501527	52.375	238.991
85	5	0.3125	-0.490189	52.375	238.438
86	5	0.316176	-0.478914	52.375	237.887
87	5	0.319853	-0.470498	52.375	237.476
88	5	0.323529	-0.459327	52.375	236.93
89	5	0.327206	-0.448213	52.375	236.388
90	5	0.330882	-0.439913	52.375	235.982
91	5	0.334559	-0.428895	52.375	235.444
92	5	0.338235	-0.417928	52.375	234.909
93	5	0.341912	-0.409735	52.375	234.509
94	5	0.345588	-0.398855	52.375	233.977
95	5	0.349265	-0.388022	52.375	233.448
96	5	0.352941	-0.379927	52.375	233.053
97	5	0.356618	-0.369171	52.375	232.528
98	5	0.360294	-0.358459	52.375	232.005
99	5	0.363971	-0.350451	52.375	231.614
100	5	0.367647	-0.339815	52.375	231.094
101	5	0.371324	-0.329206	52.375	230.576
102	5	0.375	-0.318639	52.375	230.06
103	5	0.378676	-0.310738	52.375	229.674
104	5	0.382353	-0.300232	52.375	229.161
105	5	0.386029	-0.289765	52.375	228.65
106	5	0.389706	-0.281926	52.375	228.267
107	5	0.393382	-0.271509	52.375	227.759
108	5	0.397059	-0.261125	52.375	227.251
109	5	0.400735	-0.253347	52.375	226.872
110	5	0.404412	-0.243007	52.375	226.367

111	5	0.408088	-0.232693	52.375	225.863
112	5	0.411765	-0.224974	52.375	225.486
113	5	0.415441	-0.214702	52.375	224.985
114	5	0.419118	-0.204452	52.375	224.484
115	5	0.422794	-0.196779	52.375	224.109
116	5	0.426471	-0.186567	52.375	223.611
117	5	0.430147	-0.176374	52.375	223.113
118	5.2	0.433824	-0.168741	52.91	222.74
119	5.4	0.4375	-0.158579	53.445	222.244
120	6	0.441176	-0.148434	55.05	221.749
121	6	0.444853	-0.140835	55.05	221.377
122	6.4	0.448529	-0.130716	56.12	220.883
123	7	0.452206	-0.12061	57.725	220.39
124	7	0.455882	-0.113039	57.725	220.02
125	7	0.459559	-0.102953	57.725	219.528
126	7	0.463235	-0.0928787	57.725	219.036
127	7.2	0.466912	-0.0853288	58.26	218.667
128	7.6	0.470588	-0.0752698	59.33	218.176
129	8	0.474265	-0.0652187	60.4	217.685
130	8	0.477941	-0.0576847	60.4	217.317
131	8	0.481618	-0.0476439	60.4	216.827
132	8	0.485294	-0.0376076	60.4	216.337
133	8.5	0.488971	-0.0300838	61.7375	215.969
134	8.8	0.492647	-0.0200544	62.54	215.479
135	8.8	0.496324	-0.0100272	62.54	214.99
136	9	0.5	0	63.075	214.5
137	9	0.503676	0.0100272	63.075	214.01
138	9	0.507353	0.0200544	63.075	213.521
139	9.2	0.511029	0.0300838	63.61	213.031
140	10	0.514706	0.0376076	65.75	212.663
141	10	0.518382	0.0476439	65.75	212.173
142	10	0.522059	0.0576847	65.75	211.683
143	10	0.525735	0.0652187	65.75	211.315
144	10	0.529412	0.0752698	65.75	210.824
145	10	0.533088	0.0853288	65.75	210.333
146	10	0.536765	0.0928787	65.75	209.964
147	11	0.540441	0.102953	68.425	209.472
148	11	0.544118	0.113039	68.425	208.98
149	11	0.547794	0.12061	68.425	208.61
150	11	0.551471	0.130716	68.425	208.117
151	11	0.555147	0.140835	68.425	207.623
152	12	0.558824	0.148434	71.1	207.251
153	12	0.5625	0.158579	71.1	206.756
154	12	0.566176	0.168741	71.1	206.26
155	12	0.569853	0.176374	71.1	205.887
156	12	0.573529	0.186567	71.1	205.389
157	12	0.577206	0.196779	71.1	204.891
158	12	0.580882	0.204452	71.1	204.516
159	12	0.584559	0.214702	71.1	204.015
160	12	0.588235	0.224974	71.1	203.514
161	12	0.591912	0.232693	71.1	203.137
162	12	0.595588	0.243007	71.1	202.633
163	12	0.599265	0.253347	71.1	202.128
164	12	0.602941	0.26112	71.1	201.749
165	13	0.606618	0.271509	73.775	201.241
166	13	0.610294	0.281926	73.775	200.733
167	13	0.613971	0.28976	73.775	200.35
168	13	0.617647	0.300232	73.775	199.839
169	13	0.621324	0.310738	73.775	199.326
170	13	0.625	0.318639	73.775	198.94
171	13	0.628676	0.329206	73.775	198.424
172	13	0.632353	0.33981	73.775	197.906

173	13	0.636029	0.350451	73.775	197.386
174	13	0.639706	0.358459	73.775	196.995
175	13	0.643382	0.369171	73.775	196.472
176	13	0.647059	0.379927	73.775	195.947
177	13	0.650735	0.388022	73.775	195.552
178	13	0.654412	0.398855	73.775	195.023
179	13	0.658088	0.409735	73.775	194.491
180	13	0.661765	0.417928	73.775	194.091
181	13	0.665441	0.428895	73.775	193.556
182	13	0.669118	0.439913	73.775	193.018
183	14	0.672794	0.448213	76.45	192.612
184	14	0.676471	0.459327	76.45	192.07
185	14	0.680147	0.470498	76.45	191.524
186	14	0.683824	0.478914	76.45	191.113
187	14	0.6875	0.490189	76.45	190.562
188	14	0.691176	0.501527	76.45	190.009
189	14	0.694853	0.510074	76.45	189.591
190	14	0.698529	0.521527	76.45	189.032
191	14	0.702206	0.533048	76.45	188.469
192	14	0.705882	0.541736	76.45	188.045
193	15	0.709559	0.553384	79.125	187.476
194	15	0.713235	0.565108	79.125	186.904
195	16	0.716912	0.573953	81.8	186.472
196	16	0.720588	0.585815	81.8	185.893
197	17	0.724265	0.597761	84.475	185.309
198	18	0.727941	0.606775	87.15	184.869
199	18	0.731618	0.618872	87.15	184.278
200	20	0.735294	0.631062	92.5	183.683
201	20	0.738971	0.640266	92.5	183.234
202	20	0.742647	0.652622	92.5	182.63
203	20	0.746324	0.665079	92.5	182.022
204	20	0.75	0.67449	92.5	181.562
205	20	0.753676	0.687131	92.5	180.945
206	21	0.757353	0.699883	95.175	180.322
207	21	0.761029	0.712751	95.175	179.694
208	22	0.764706	0.722479	97.85	179.219
209	22	0.768382	0.735557	97.85	178.58
210	22	0.772059	0.748762	97.85	177.935
211	23	0.775735	0.758753	100.525	177.448
212	23	0.779412	0.772193	100.525	176.791
213	23	0.783088	0.785774	100.525	176.128
214	23	0.786765	0.796056	100.525	175.626
215	24	0.790441	0.809896	103.2	174.95
216	24	0.794118	0.823893	103.2	174.267
217	25	0.797794	0.834498	105.875	173.749
218	27	0.801471	0.848786	111.225	173.051
219	27	0.805147	0.863249	111.225	172.345
220	28	0.808824	0.874218	113.9	171.809
221	29	0.8125	0.889006	116.575	171.087
222	30	0.816176	0.903992	119.25	170.355
223	30	0.819853	0.915365	119.25	169.8
224	30	0.823529	0.930718	119.25	169.05
225	31	0.827206	0.946291	121.925	168.289
226	32	0.830882	0.958125	124.6	167.712
227	32	0.834559	0.974114	124.6	166.931
228	32	0.838235	0.990356	124.6	166.138
229	32	0.841912	1.00271	124.6	165.534
230	33	0.845588	1.01943	127.275	164.718
231	34	0.849265	1.03643	129.95	163.888
232	34	0.852941	1.04939	129.95	163.255
233	35	0.856618	1.06694	132.625	162.398
234	36	0.860294	1.08482	135.3	161.524

235	36	0.863971	1.09847	135.3	160.858
236	37	0.867647	1.11699	137.975	159.954
237	38	0.871324	1.1359	140.65	159.03
238	38	0.875	1.15035	140.65	158.325
239	38	0.878676	1.17	140.65	157.365
240	38	0.882353	1.19012	140.65	156.383
241	39	0.886029	1.21073	143.325	155.376
242	39	0.889706	1.22653	143.325	154.605
243	40	0.893382	1.24809	146	153.552
244	40	0.897059	1.27024	146	152.47
245	40	0.900735	1.28727	146	151.638
246	41	0.904412	1.31058	148.675	150.5
247	41	0.908088	1.33462	148.675	149.326
248	42	0.911765	1.35317	151.35	148.42
249	42	0.915441	1.37866	151.35	147.176
250	44	0.919118	1.40507	156.7	145.886
251	44	0.922794	1.42554	156.7	144.886
252	45	0.926471	1.4538	159.375	143.506
253	48	0.930147	1.48328	167.4	142.066
254	48	0.933824	1.50626	167.4	140.944
255	49	0.9375	1.5382	170.075	139.385
256	52	0.941176	1.57179	178.1	137.744
257	53	0.944853	1.59819	180.775	136.455
258	55	0.948529	1.63524	186.125	134.646
259	59	0.952206	1.67466	196.825	132.721
260	61	0.955882	1.70604	202.175	131.188
261	66	0.959559	1.75069	215.55	129.008
262	73	0.963235	1.79912	234.275	126.643
263	74	0.966912	1.83843	236.95	124.724
264	75	0.970588	1.8957	239.625	121.927
265	77	0.974265	1.95996	244.975	118.789
266	77	0.977941	2.01409	244.975	116.145
267	79	0.981618	2.09693	250.325	112.1
268	80	0.985294	2.19728	253	107.199
269	92	0.988971	2.29036	285.1	102.654
270	109	0.992647	2.45727	330.575	94.5032
271	120	0.996324	2.74777	360	80.3175

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.693147	-2.74777	7.55021	-1.90461
2	0.693147	-2.45727	13.5884	-3.60786
3	0.741937	-2.29036	18.8342	-5.30716
4	0.916291	-2.19728	23.6622	-7.32051
5	1.02962	-2.09693	28.0593	-9.47956
6	1.02962	-2.01409	32.1159	-11.5533
7	1.02962	-1.95996	35.9574	-13.5713
8	1.06471	-1.8957	39.551	-15.5897
9	1.06471	-1.83843	42.9308	-17.5471
10	1.09861	-1.79912	46.1677	-19.5236
11	1.09861	-1.75069	49.2326	-21.4469
12	1.09861	-1.70604	52.1431	-23.3212
13	1.1314	-1.67466	54.9476	-25.2159
14	1.1314	-1.63524	57.6216	-27.066
15	1.19392	-1.59819	60.1758	-28.9742
16	1.22378	-1.57179	62.6464	-30.8977
17	1.25276	-1.5382	65.0124	-32.8247
18	1.335	-1.50626	67.2812	-34.8355
19	1.38629	-1.48328	69.4814	-36.8918
20	1.38629	-1.4538	71.5949	-38.9072
21	1.52606	-1.42554	73.6271	-41.0827
22	1.60944	-1.40507	75.6013	-43.344
23	1.60944	-1.37866	77.502	-45.5629
24	1.60944	-1.35317	79.3331	-47.7408
25	1.60944	-1.33462	81.1143	-49.8887
26	1.60944	-1.31058	82.8319	-51.998
27	1.60944	-1.28727	84.489	-54.0698
28	1.60944	-1.27024	86.1025	-56.1142
29	1.60944	-1.24809	87.6602	-58.1229
30	1.60944	-1.22653	89.1646	-60.0969
31	1.60944	-1.21073	90.6305	-62.0455
32	1.60944	-1.19012	92.0469	-63.9609
33	1.60944	-1.17	93.4158	-65.844
34	1.60944	-1.15035	94.7391	-67.6954
35	1.60944	-1.1359	96.0293	-69.5236
36	1.60944	-1.11699	97.277	-71.3213
37	1.60944	-1.09847	98.4836	-73.0892
38	1.60944	-1.08482	99.6605	-74.8352
39	1.60944	-1.06694	100.799	-76.5523
40	1.60944	-1.04939	101.9	-78.2412
41	1.60944	-1.03643	102.974	-79.9093
42	1.60944	-1.01943	104.013	-81.55
43	1.60944	-1.00271	105.019	-83.1638
44	1.60944	-0.990356	106	-84.7577
45	1.60944	-0.974114	106.949	-86.3255
46	1.60944	-0.958125	107.867	-87.8676
47	1.60944	-0.946291	108.762	-89.3906
48	1.60944	-0.930718	109.628	-90.8885
49	1.60944	-0.915365	110.466	-92.3617
50	1.60944	-0.903992	111.283	-93.8166
51	1.60944	-0.889006	112.074	-95.2474

52	1.60944	-0.874218	112.838	-96.6544
53	1.60944	-0.863249	113.583	-98.0438
54	1.60944	-0.848786	114.304	-99.4098
55	1.60944	-0.834498	115	-100.753
56	1.60944	-0.823893	115.679	-102.079
57	1.60944	-0.809896	116.335	-103.382
58	1.60944	-0.796056	116.968	-104.664
59	1.60944	-0.785774	117.586	-105.928
60	1.60944	-0.772193	118.182	-107.171
61	1.60944	-0.758753	118.758	-108.392
62	1.60944	-0.748762	119.318	-109.597
63	1.60944	-0.735557	119.86	-110.781
64	1.60944	-0.722479	120.382	-111.944
65	1.60944	-0.712751	120.89	-113.091
66	1.60944	-0.699883	121.379	-114.217
67	1.60944	-0.687131	121.852	-115.323
68	1.60944	-0.67449	122.306	-116.409
69	1.60944	-0.665079	122.749	-117.479
70	1.60944	-0.652622	123.175	-118.53
71	1.60944	-0.640266	123.585	-119.56
72	1.60944	-0.631062	123.983	-120.576
73	1.60944	-0.618872	124.366	-121.572
74	1.60944	-0.606775	124.734	-122.548
75	1.60944	-0.597761	125.091	-123.51
76	1.60944	-0.585815	125.435	-124.453
77	1.60944	-0.573953	125.764	-125.377
78	1.60944	-0.565108	126.083	-126.287
79	1.60944	-0.553384	126.39	-127.177
80	1.60944	-0.541736	126.683	-128.049
81	1.60944	-0.533048	126.967	-128.907
82	1.60944	-0.521527	127.239	-129.746
83	1.60944	-0.510074	127.499	-130.567
84	1.60944	-0.501527	127.751	-131.374
85	1.60944	-0.490189	127.991	-132.163
86	1.60944	-0.478914	128.221	-132.934
87	1.60944	-0.470498	128.442	-133.691
88	1.60944	-0.459327	128.653	-134.431
89	1.60944	-0.448213	128.854	-135.152
90	1.60944	-0.439913	129.047	-135.86
91	1.60944	-0.428895	129.231	-136.55
92	1.60944	-0.417928	129.406	-137.223
93	1.60944	-0.409735	129.574	-137.882
94	1.60944	-0.398855	129.733	-138.524
95	1.60944	-0.388022	129.883	-139.149
96	1.60944	-0.379927	130.028	-139.76
97	1.60944	-0.369171	130.164	-140.354
98	1.60944	-0.358459	130.293	-140.931
99	1.60944	-0.350451	130.415	-141.495
100	1.60944	-0.33981	130.531	-142.042
101	1.60944	-0.329206	130.639	-142.572
102	1.60944	-0.318639	130.741	-143.085
103	1.60944	-0.310738	130.837	-143.585
104	1.60944	-0.300232	130.927	-144.068
105	1.60944	-0.28976	131.011	-144.535
106	1.60944	-0.281926	131.091	-144.988
107	1.60944	-0.271509	131.165	-145.425
108	1.60944	-0.26112	131.233	-145.846
109	1.60944	-0.253347	131.297	-146.253
110	1.60944	-0.243007	131.356	-146.644
111	1.60944	-0.232693	131.41	-147.019
112	1.60944	-0.224974	131.461	-147.381
113	1.60944	-0.214702	131.507	-147.727

114	1.60944	-0.204452	131.549	-148.056
115	1.60944	-0.196779	131.587	-148.372
116	1.60944	-0.186567	131.622	-148.673
117	1.60944	-0.176374	131.653	-148.956
118	1.64866	-0.168741	131.682	-149.235
119	1.6864	-0.158579	131.707	-149.502
120	1.79176	-0.148434	131.729	-149.768
121	1.79176	-0.140835	131.749	-150.02
122	1.8563	-0.130716	131.766	-150.263
123	1.94591	-0.12061	131.78	-150.498
124	1.94591	-0.113039	131.793	-150.718
125	1.94591	-0.102953	131.804	-150.918
126	1.94591	-0.0928787	131.812	-151.099
127	1.97408	-0.0853288	131.82	-151.267
128	2.02815	-0.0752698	131.825	-151.42
129	2.07944	-0.0652187	131.83	-151.556
130	2.07944	-0.0576847	131.833	-151.675
131	2.07944	-0.0476439	131.835	-151.775
132	2.07944	-0.0376076	131.837	-151.853
133	2.14007	-0.0300838	131.838	-151.917
134	2.17475	-0.0200544	131.838	-151.961
135	2.17475	-0.0100272	131.838	-151.983
136	2.19722	0	131.838	-151.983
137	2.19722	0.0100272	131.838	-151.961
138	2.19722	0.0200544	131.839	-151.916
139	2.2192	0.0300838	131.839	-151.85
140	2.30259	0.0376076	131.841	-151.763
141	2.30259	0.0476439	131.843	-151.653
142	2.30259	0.0576847	131.846	-151.521
143	2.30259	0.0652187	131.851	-151.37
144	2.30259	0.0752698	131.856	-151.197
145	2.30259	0.0853288	131.864	-151.001
146	2.30259	0.0928787	131.872	-150.787
147	2.3979	0.102953	131.883	-150.54
148	2.3979	0.113039	131.896	-150.269
149	2.3979	0.12061	131.91	-149.98
150	2.3979	0.130716	131.927	-149.666
151	2.3979	0.140835	131.947	-149.328
152	2.48491	0.148434	131.969	-148.96
153	2.48491	0.158579	131.994	-148.566
154	2.48491	0.168741	132.023	-148.146
155	2.48491	0.176374	132.054	-147.708
156	2.48491	0.186567	132.089	-147.244
157	2.48491	0.196779	132.127	-146.755
158	2.48491	0.204452	132.169	-146.247
159	2.48491	0.214702	132.215	-145.714
160	2.48491	0.224974	132.266	-145.155
161	2.48491	0.232693	132.32	-144.577
162	2.48491	0.243007	132.379	-143.973
163	2.48491	0.253347	132.443	-143.343
164	2.48491	0.26112	132.512	-142.694
165	2.56495	0.271509	132.585	-141.998
166	2.56495	0.281926	132.665	-141.275
167	2.56495	0.28976	132.749	-140.532
168	2.56495	0.300232	132.839	-139.761
169	2.56495	0.310738	132.935	-138.964
170	2.56495	0.318639	133.037	-138.147
171	2.56495	0.329206	133.145	-137.303
172	2.56495	0.33981	133.261	-136.431
173	2.56495	0.350451	133.384	-135.532
174	2.56495	0.358459	133.512	-134.613
175	2.56495	0.369171	133.648	-133.666

176	2.56495	0.379927		133.793	-132.691
177	2.56495	0.388022		133.943	-131.696
178	2.56495	0.398855		134.102	-130.673
179	2.56495	0.409735		134.27	-129.622
180	2.56495	0.417928		134.445	-128.55
181	2.56495	0.428895		134.629	-127.45
182	2.56495	0.439913		134.822	-126.322
183	2.63906	0.448213		135.023	-125.139
184	2.63906	0.459327		135.234	-123.927
185	2.63906	0.470498		135.456	-122.685
186	2.63906	0.478914		135.685	-121.421
187	2.63906	0.490189		135.925	-120.128
188	2.63906	0.501527		136.177	-118.804
189	2.63906	0.510074		136.437	-117.458
190	2.63906	0.521527		136.709	-116.082
191	2.63906	0.533048		136.993	-114.675
192	2.63906	0.541736		137.287	-113.245
193	2.70805	0.553384		137.593	-111.747
194	2.70805	0.565108		137.912	-110.216
195	2.77259	0.573953		138.242	-108.625
196	2.77259	0.585815		138.585	-107.001
197	2.83321	0.597761		138.942	-105.307
198	2.89037	0.606775		139.31	-103.553
199	2.89037	0.618872		139.693	-101.764
200	2.99573	0.631062		140.091	-99.874
201	2.99573	0.640266		140.501	-97.9559
202	2.99573	0.652622		140.927	-96.0008
203	2.99573	0.665079		141.37	-94.0084
204	2.99573	0.67449	141.825	-91.9878	
205	2.99573	0.687131		142.297	-89.9294
206	3.04452	0.699883		142.787	-87.7986
207	3.04452	0.712751		143.295	-85.6286
208	3.09104	0.722479		143.817	-83.3954
209	3.09104	0.735557		144.358	-81.1217
210	3.09104	0.748762		144.918	-78.8073
211	3.13549	0.758753		145.494	-76.4282
212	3.13549	0.772193		146.09	-74.007
213	3.13549	0.785774		146.708	-71.5432
214	3.13549	0.796056		147.341	-69.0472
215	3.17805	0.809896		147.997	-66.4733
216	3.17805	0.823893		148.676	-63.8549
217	3.21888	0.834498		149.373	-61.1688
218	3.29584	0.848786		150.093	-58.3713
219	3.29584	0.863249		150.838	-55.5262
220	3.3322	0.874218		151.602	-52.6131
221	3.3673	0.889006		152.393	-49.6196
222	3.4012	0.903992		153.21	-46.5449
223	3.4012	0.915365		154.048	-43.4316
224	3.4012	0.930718		154.914	-40.266
225	3.43399	0.946291		155.81	-37.0165
226	3.46574	0.958125		156.728	-33.6959
227	3.46574	0.974114		157.676	-30.3198
228	3.46574	0.990356		158.657	-26.8875
229	3.46574	1.00271	159.663	-23.4124	
230	3.49651	1.01943	160.702	-19.848	
231	3.52636	1.03643	161.776	-16.1931	
232	3.52636	1.04939	162.877	-12.4926	
233	3.55535	1.06694	164.016	-8.69928	
234	3.58352	1.08482	165.193	-4.81179	
235	3.58352	1.09847	166.399	-0.875408	
236	3.61092	1.11699	167.647	3.15794	
237	3.63759	1.1359	168.937	7.28986	

238	3.63759	1.15035	170.26	11.4744
239	3.63759	1.17	171.629	15.7303
240	3.63759	1.19012	173.046	20.0595
241	3.66356	1.21073	174.512	24.4951
242	3.66356	1.22653	176.016	28.9885
243	3.68888	1.24809	177.574	33.5926
244	3.68888	1.27024	179.187	38.2783
245	3.68888	1.28727	180.844	43.0269
246	3.71357	1.31058	182.562	47.8938
247	3.71357	1.33462	184.343	52.8501
248	3.73767	1.35317	186.174	57.9078
249	3.73767	1.37866	188.075	63.0607
250	3.78419	1.40507	190.049	68.3778
251	3.78419	1.42554	192.081	73.7723
252	3.80666	1.4538	194.195	79.3065
253	3.8712	1.48328	196.395	85.0486
254	3.8712	1.50626	198.664	90.8796
255	3.89182	1.5382	201.03	96.866
256	3.95124	1.57179	203.5	103.077
257	3.97029	1.59819	206.054	109.422
258	4.00733	1.63524	208.728	115.975
259	4.07754	1.67466	211.533	122.803
260	4.11087	1.70604	214.444	129.817
261	4.18965	1.75069	217.508	137.151
262	4.29046	1.79912	220.745	144.87
263	4.30407	1.83843	224.125	152.783
264	4.31749	1.8957	227.719	160.968
265	4.34381	1.95996	231.56	169.481
266	4.34381	2.01409	235.617	178.23
267	4.36945	2.09693	240.014	187.393
268	4.38203	2.19728	244.842	197.021
269	4.52179	2.29036	250.088	207.378
270	4.69135	2.45727	256.126	218.906
271	4.78749	2.74777	263.676	232.061

Data Set Standard Deviation = 0.90973
Numerator = 53852.1
Denominator = 58919.6
W Statistic = 0.913993 = 53852.1 / 58919.6

5% Critical value of 0.976 exceeds 0.913993
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.913993
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 = 0.955335
0.955335 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.693147	0.00367647	-2.74777	113.167	348.683
2	0.693147	0.00735294	-2.45727	113.167	334.497
3	0.741937	0.0110294	-2.29036	118.387	326.346
4	0.916291	0.0147059	-2.19728	137.043	321.801
5	1.02962	0.0183824	-2.09693	149.169	316.9
6	1.02962	0.0220588	-2.01409	149.169	312.855
7	1.02962	0.0257353	-1.95996	149.169	310.211
8	1.06471	0.0294118	-1.8957	152.924	307.073
9	1.06471	0.0330882	-1.83843	152.924	304.276
10	1.09861	0.0367647	-1.79912	156.552	302.357
11	1.09861	0.0404412	-1.75069	156.552	299.992
12	1.09861	0.0441176	-1.70604	156.552	297.812
13	1.1314	0.0477941	-1.67466	160.06	296.279
14	1.1314	0.0514706	-1.63524	160.06	294.354
15	1.19392	0.0551471	-1.59819	166.75	292.545
16	1.22378	0.0588235	-1.57179	169.944	291.256
17	1.25276	0.0625	-1.5382	173.046	289.615
18	1.335	0.0661765	-1.50626	181.845	288.056
19	1.38629	0.0698529	-1.48328	187.333	286.934
20	1.38629	0.0735294	-1.4538	187.333	285.494
21	1.52606	0.0772059	-1.42554	202.288	284.114
22	1.60944	0.0808824	-1.40507	211.21	283.114
23	1.60944	0.0845588	-1.37866	211.21	281.824
24	1.60944	0.0882353	-1.35317	211.21	280.58
25	1.60944	0.0919118	-1.33462	211.21	279.674
26	1.60944	0.0955882	-1.31058	211.21	278.5
27	1.60944	0.0992647	-1.28727	211.21	277.362
28	1.60944	0.102941	-1.27024	211.21	276.53
29	1.60944	0.106618	-1.24809	211.21	275.448
30	1.60944	0.110294	-1.22653	211.21	274.395
31	1.60944	0.113971	-1.21073	211.21	273.624
32	1.60944	0.117647	-1.19012	211.21	272.617
33	1.60944	0.121324	-1.17	211.21	271.635
34	1.60944	0.125	-1.15035	211.21	270.675
35	1.60944	0.128676	-1.1359	211.21	269.97
36	1.60944	0.132353	-1.11699	211.21	269.046
37	1.60944	0.136029	-1.09847	211.21	268.142
38	1.60944	0.139706	-1.08482	211.21	267.476
39	1.60944	0.143382	-1.06694	211.21	266.602
40	1.60944	0.147059	-1.04939	211.21	265.745
41	1.60944	0.150735	-1.03643	211.21	265.112
42	1.60944	0.154412	-1.01943	211.21	264.282
43	1.60944	0.158088	-1.00271	211.21	263.466
44	1.60944	0.161765	-0.990356	211.21	262.862
45	1.60944	0.165441	-0.974114	211.21	262.069
46	1.60944	0.169118	-0.958125	211.21	261.288
47	1.60944	0.172794	-0.946291	211.21	260.711
48	1.60944	0.176471	-0.930718	211.21	259.95

49	1.60944	0.180147	-0.915365	211.21	259.2
50	1.60944	0.183824	-0.903992	211.21	258.645
51	1.60944	0.1875	-0.889006	211.21	257.913
52	1.60944	0.191176	-0.874218	211.21	257.191
53	1.60944	0.194853	-0.863249	211.21	256.655
54	1.60944	0.198529	-0.848786	211.21	255.949
55	1.60944	0.202206	-0.834498	211.21	255.251
56	1.60944	0.205882	-0.823893	211.21	254.733
57	1.60944	0.209559	-0.809896	211.21	254.05
58	1.60944	0.213235	-0.796056	211.21	253.374
59	1.60944	0.216912	-0.785774	211.21	252.872
60	1.60944	0.220588	-0.772193	211.21	252.209
61	1.60944	0.224265	-0.758753	211.21	251.552
62	1.60944	0.227941	-0.748762	211.21	251.065
63	1.60944	0.231618	-0.735557	211.21	250.42
64	1.60944	0.235294	-0.722479	211.21	249.781
65	1.60944	0.238971	-0.712751	211.21	249.306
66	1.60944	0.242647	-0.699883	211.21	248.678
67	1.60944	0.246324	-0.687131	211.21	248.055
68	1.60944	0.25	-0.67449	211.21	247.438
69	1.60944	0.253676	-0.665079	211.21	246.978
70	1.60944	0.257353	-0.652622	211.21	246.37
71	1.60944	0.261029	-0.640266	211.21	245.766
72	1.60944	0.264706	-0.631062	211.21	245.317
73	1.60944	0.268382	-0.618872	211.21	244.722
74	1.60944	0.272059	-0.606775	211.21	244.131
75	1.60944	0.275735	-0.597761	211.21	243.691
76	1.60944	0.279412	-0.585815	211.21	243.107
77	1.60944	0.283088	-0.573953	211.21	242.528
78	1.60944	0.286765	-0.565108	211.21	242.096
79	1.60944	0.290441	-0.553384	211.21	241.524
80	1.60944	0.294118	-0.541736	211.21	240.955
81	1.60944	0.297794	-0.533048	211.21	240.531
82	1.60944	0.301471	-0.521527	211.21	239.968
83	1.60944	0.305147	-0.510074	211.21	239.409
84	1.60944	0.308824	-0.501527	211.21	238.991
85	1.60944	0.3125	-0.490189	211.21	238.438
86	1.60944	0.316176	-0.478914	211.21	237.887
87	1.60944	0.319853	-0.470498	211.21	237.476
88	1.60944	0.323529	-0.459327	211.21	236.93
89	1.60944	0.327206	-0.448213	211.21	236.388
90	1.60944	0.330882	-0.439913	211.21	235.982
91	1.60944	0.334559	-0.428895	211.21	235.444
92	1.60944	0.338235	-0.417928	211.21	234.909
93	1.60944	0.341912	-0.409735	211.21	234.509
94	1.60944	0.345588	-0.398855	211.21	233.977
95	1.60944	0.349265	-0.388022	211.21	233.448
96	1.60944	0.352941	-0.379927	211.21	233.053
97	1.60944	0.356618	-0.369171	211.21	232.528
98	1.60944	0.360294	-0.358459	211.21	232.005
99	1.60944	0.363971	-0.350451	211.21	231.614
100	1.60944	0.367647	-0.33981	211.21	231.094
101	1.60944	0.371324	-0.329206	211.21	230.576
102	1.60944	0.375	-0.318639	211.21	230.06
103	1.60944	0.378676	-0.310738	211.21	229.674
104	1.60944	0.382353	-0.300232	211.21	229.161
105	1.60944	0.386029	-0.28976	211.21	228.65
106	1.60944	0.389706	-0.281926	211.21	228.267
107	1.60944	0.393382	-0.271509	211.21	227.759
108	1.60944	0.397059	-0.26112	211.21	227.251
109	1.60944	0.400735	-0.253347	211.21	226.872
110	1.60944	0.404412	-0.243007	211.21	226.367

111	1.60944	0.408088	-0.232693	211.21	225.863
112	1.60944	0.411765	-0.224974	211.21	225.486
113	1.60944	0.415441	-0.214702	211.21	224.985
114	1.60944	0.419118	-0.204452	211.21	224.484
115	1.60944	0.422794	-0.196779	211.21	224.109
116	1.60944	0.426471	-0.186567	211.21	223.611
117	1.60944	0.430147	-0.176374	211.21	223.113
118	1.64866	0.433824	-0.168741	215.406	222.74
119	1.6864	0.4375	-0.158579	219.445	222.244
120	1.79176	0.441176	-0.148434	230.718	221.749
121	1.79176	0.444853	-0.140835	230.718	221.377
122	1.8563	0.448529	-0.130716	237.624	220.883
123	1.94591	0.452206	-0.12061	247.212	220.39
124	1.94591	0.455882	-0.113039	247.212	220.02
125	1.94591	0.459559	-0.102953	247.212	219.528
126	1.94591	0.463235	-0.0928787	247.212	219.036
127	1.97408	0.466912	-0.0853288	250.227	218.667
128	2.02815	0.470588	-0.0752698	256.012	218.176
129	2.07944	0.474265	-0.0652187	261.5	217.685
130	2.07944	0.477941	-0.0576847	261.5	217.317
131	2.07944	0.481618	-0.0476439	261.5	216.827
132	2.07944	0.485294	-0.0376076	261.5	216.337
133	2.14007	0.488971	-0.0300838	267.987	215.969
134	2.17475	0.492647	-0.0200544	271.698	215.479
135	2.17475	0.496324	-0.0100272	271.698	214.99
136	2.19722	0.5	0	274.103	214.5
137	2.19722	0.503676	0.0100272	274.103	214.01
138	2.19722	0.507353	0.0200544	274.103	213.521
139	2.2192	0.511029	0.0300838	276.455	213.031
140	2.30259	0.514706	0.0376076	285.377	212.663
141	2.30259	0.518382	0.0476439	285.377	212.173
142	2.30259	0.522059	0.0576847	285.377	211.683
143	2.30259	0.525735	0.0652187	285.377	211.315
144	2.30259	0.529412	0.0752698	285.377	210.824
145	2.30259	0.533088	0.0853288	285.377	210.333
146	2.30259	0.536765	0.0928787	285.377	209.964
147	2.3979	0.540441	0.102953	295.575	209.472
148	2.3979	0.544118	0.113039	295.575	208.98
149	2.3979	0.547794	0.12061	295.575	208.61
150	2.3979	0.551471	0.130716	295.575	208.117
151	2.3979	0.555147	0.140835	295.575	207.623
152	2.48491	0.558824	0.148434	304.885	207.251
153	2.48491	0.5625	0.158579	304.885	206.756
154	2.48491	0.566176	0.168741	304.885	206.26
155	2.48491	0.569853	0.176374	304.885	205.887
156	2.48491	0.573529	0.186567	304.885	205.389
157	2.48491	0.577206	0.196779	304.885	204.891
158	2.48491	0.580882	0.204452	304.885	204.516
159	2.48491	0.584559	0.214702	304.885	204.015
160	2.48491	0.588235	0.224974	304.885	203.514
161	2.48491	0.591912	0.232693	304.885	203.137
162	2.48491	0.595588	0.243007	304.885	202.633
163	2.48491	0.599265	0.253347	304.885	202.128
164	2.48491	0.602941	0.26112	304.885	201.749
165	2.56495	0.606618	0.271509	313.45	201.241
166	2.56495	0.610294	0.281926	313.45	200.733
167	2.56495	0.613971	0.28976	313.45	200.35
168	2.56495	0.617647	0.300232	313.45	199.839
169	2.56495	0.621324	0.310738	313.45	199.326
170	2.56495	0.625	0.318639	313.45	198.94
171	2.56495	0.628676	0.329206	313.45	198.424
172	2.56495	0.632353	0.33981	313.45	197.906

173	2.56495	0.636029	0.350451	313.45	197.386
174	2.56495	0.639706	0.358459	313.45	196.995
175	2.56495	0.643382	0.369171	313.45	196.472
176	2.56495	0.647059	0.379927	313.45	195.947
177	2.56495	0.650735	0.388022	313.45	195.552
178	2.56495	0.654412	0.398855	313.45	195.023
179	2.56495	0.658088	0.409735	313.45	194.491
180	2.56495	0.661765	0.417928	313.45	194.091
181	2.56495	0.665441	0.428895	313.45	193.556
182	2.56495	0.669118	0.439913	313.45	193.018
183	2.63906	0.672794	0.448213	321.379	192.612
184	2.63906	0.676471	0.459327	321.379	192.07
185	2.63906	0.680147	0.470498	321.379	191.524
186	2.63906	0.683824	0.478914	321.379	191.113
187	2.63906	0.6875	0.490189	321.379	190.562
188	2.63906	0.691176	0.501527	321.379	190.009
189	2.63906	0.694853	0.510074	321.379	189.591
190	2.63906	0.698529	0.521527	321.379	189.032
191	2.63906	0.702206	0.533048	321.379	188.469
192	2.63906	0.705882	0.541736	321.379	188.045
193	2.70805	0.709559	0.553384	328.761	187.476
194	2.70805	0.713235	0.565108	328.761	186.904
195	2.77259	0.716912	0.573953	335.667	186.472
196	2.77259	0.720588	0.585815	335.667	185.893
197	2.83321	0.724265	0.597761	342.154	185.309
198	2.89037	0.727941	0.606775	348.27	184.869
199	2.89037	0.731618	0.618872	348.27	184.278
200	2.99573	0.735294	0.631062	359.543	183.683
201	2.99573	0.738971	0.640266	359.543	183.234
202	2.99573	0.742647	0.652622	359.543	182.63
203	2.99573	0.746324	0.665079	359.543	182.022
204	2.99573	0.75	0.67449	359.543	181.562
205	2.99573	0.753676	0.687131	359.543	180.945
206	3.04452	0.757353	0.699883	364.764	180.322
207	3.04452	0.761029	0.712751	364.764	179.694
208	3.09104	0.764706	0.722479	369.742	179.219
209	3.09104	0.768382	0.735557	369.742	178.58
210	3.09104	0.772059	0.748762	369.742	177.935
211	3.13549	0.775735	0.758753	374.498	177.448
212	3.13549	0.779412	0.772193	374.498	176.791
213	3.13549	0.783088	0.785774	374.498	176.128
214	3.13549	0.786765	0.796056	374.498	175.626
215	3.17805	0.790441	0.809896	379.052	174.95
216	3.17805	0.794118	0.823893	379.052	174.267
217	3.21888	0.797794	0.834498	383.42	173.749
218	3.29584	0.801471	0.848786	391.655	173.051
219	3.29584	0.805147	0.863249	391.655	172.345
220	3.3322	0.808824	0.874218	395.546	171.809
221	3.3673	0.8125	0.889006	399.301	171.087
222	3.4012	0.816176	0.903992	402.928	170.355
223	3.4012	0.819853	0.915365	402.928	169.8
224	3.4012	0.823529	0.930718	402.928	169.05
225	3.43399	0.827206	0.946291	406.437	168.289
226	3.46574	0.830882	0.958125	409.834	167.712
227	3.46574	0.834559	0.974114	409.834	166.931
228	3.46574	0.838235	0.990356	409.834	166.138
229	3.46574	0.841912	1.00271	409.834	165.534
230	3.49651	0.845588	1.01943	413.126	164.718
231	3.52636	0.849265	1.03643	416.321	163.888
232	3.52636	0.852941	1.04939	416.321	163.255
233	3.55535	0.856618	1.06694	419.422	162.398
234	3.58352	0.860294	1.08482	422.437	161.524

235	3.58352	0.863971		1.09847	422.437	160.858
236	3.61092	0.867647		1.11699	425.368	159.954
237	3.63759	0.871324		1.1359	428.222	159.03
238	3.63759	0.875	1.15035	428.222	158.325	
239	3.63759	0.878676		1.17	428.222	157.365
240	3.63759	0.882353		1.19012	428.222	156.383
241	3.66356	0.886029		1.21073	431.001	155.376
242	3.66356	0.889706		1.22653	431.001	154.605
243	3.68888	0.893382		1.24809	433.71	153.552
244	3.68888	0.897059		1.27024	433.71	152.47
245	3.68888	0.900735		1.28727	433.71	151.638
246	3.71357	0.904412		1.31058	436.352	150.5
247	3.71357	0.908088		1.33462	436.352	149.326
248	3.73767	0.911765		1.35317	438.931	148.42
249	3.73767	0.915441		1.37866	438.931	147.176
250	3.78419	0.919118		1.40507	443.908	145.886
251	3.78419	0.922794		1.42554	443.908	144.886
252	3.80666	0.926471		1.4538	446.313	143.506
253	3.8712	0.930147		1.48328	453.219	142.066
254	3.8712	0.933824		1.50626	453.219	140.944
255	3.89182	0.9375	1.5382	455.425	139.385	
256	3.95124	0.941176		1.57179	461.783	137.744
257	3.97029	0.944853		1.59819	463.821	136.455
258	4.00733	0.948529		1.63524	467.785	134.646
259	4.07754	0.952206		1.67466	475.297	132.721
260	4.11087	0.955882		1.70604	478.864	131.188
261	4.18965	0.959559		1.75069	487.293	129.008
262	4.29046	0.963235		1.79912	498.079	126.643
263	4.30407	0.966912		1.83843	499.535	124.724
264	4.31749	0.970588		1.8957	500.971	121.927
265	4.34381	0.974265		1.95996	503.787	118.789
266	4.34381	0.977941		2.01409	503.787	116.145
267	4.36945	0.981618		2.09693	506.531	112.1
268	4.38203	0.985294		2.19728	507.877	107.199
269	4.52179	0.988971		2.29036	522.831	102.654
270	4.69135	0.992647		2.45727	540.974	94.5032
271	4.78749	0.996324		2.74777	551.262	80.3175

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
LMW-4	1/16/1998	ND<1.60944		44.5
	3/16/1999	2.99573		200
	9/23/1999	2.07944	J	129
	3/14/2000	ND<1.60944		44.5
	9/23/2003	ND<1.60944		44.5
	3/10/2004	ND<1.60944		44.5
	10/12/2004	ND<1.60944		44.5
	4/1/2005	2.63906		183
	10/26/2005	2.48491		152
	6/19/2006	2.30259		140
	11/18/2006	2.56495		165
	6/2/2007	3.17805		215
	11/15/2007	2.56495		166
	5/20/2008	2.3979		147
	11/20/2008	2.63906		184
	6/11/2009	2.56495		167
	11/16/2009	2.56495		168
	6/30/2010	2.70805		193
	11/17/2010	2.63906		185
	7/6/2011	2.63906		186
	11/22/2011	2.77259		195
	5/16/2012	2.70805		194

Rank Sum = 3191.5
Rank Mean = 145.068

Background Rank Sum = 3191.5
Background Rank Mean = 145.068

Compliance Locations

Loc. ID	Date	Value		Rank
LMW-7	1/16/1998	ND<1.60944		44.5
	3/16/1999	2.99573		201
	9/23/1999	3.09104		208
	3/14/2000	ND<1.60944		44.5
	9/23/2003	ND<1.60944		44.5
	3/10/2004	ND<1.60944		44.5
	10/12/2004	ND<1.60944		44.5
	4/1/2005	3.43399		225
	10/26/2005	3.4012		222
	6/19/2006	2.99573		202
	11/18/2006	2.3979		148
	6/2/2007	3.29584		218
	11/15/2007	1.79176	J	120
	5/20/2008	1.60944	J	110
	11/20/2008	1.94591	J	123
	6/11/2009	2.48491		153
	11/17/2010	1.64866		118
	7/6/2011	2.56495		169

	11/22/2011	2.14007		133
	5/16/2012	2.02815		128

Rank Sum = 2700.5
Rank Mean = 135.025

LMW-10	3/14/2000	ND<1.60944		44.5
	9/23/2003	ND<1.60944		44.5
	3/10/2004	ND<1.60944		44.5
	10/12/2004	ND<1.60944		44.5
	4/1/2005	2.56495		170
	10/26/2005	ND<1.60944		44.5
	6/19/2006	2.99573		203
	11/18/2006	2.3979	149	
	6/2/2007	3.04452		206
	11/15/2007	ND<1.60944		44.5
	5/20/2008	2.48491		154
	11/20/2008	2.48491		155
	6/11/2009	2.56495		171
	11/16/2009	2.48491		156
	6/30/2010	2.48491		157
	11/17/2010	2.63906		187
	7/6/2011	3.04452		207
	11/22/2011	3.13549		211
	5/16/2012	3.13549		212

Rank Sum = 2605
Rank Mean = 137.105

LMW-14R	6/2/2007	2.63906		188
	11/15/2007	2.48491		158
	5/20/2008	2.19722	J	136
	11/20/2008	2.56495		172
	6/11/2009	2.56495		173
	11/16/2009	2.48491		159
	11/16/2009	3.8712	253	
	11/16/2009	2.63906		189
	6/30/2010	2.56495		174
	11/17/2010	2.48491		160
	7/6/2011	2.3979	150	
	11/22/2011	2.63906		190
	5/16/2012	2.56495		175

Rank Sum = 2277
Rank Mean = 175.154

LMW-15R	11/18/2006	3.61092		236
	6/2/2007	3.63759		237
	11/15/2007	ND<1.60944		44.5
	11/15/2007	3.29584		219
	5/20/2008	3.17805		216
	5/20/2008	ND<1.60944		44.5
	11/20/2008	ND<1.60944		44.5
	11/20/2008	3.63759		238
	6/11/2009	3.73767		248
	6/30/2010	3.58352		234
	11/17/2010	3.4012	223	
	7/6/2011	3.21888		217
	11/22/2011	3.46574		226
	5/16/2012	3.46574		227

Rank Sum = 2654.5
Rank Mean = 189.607

LMW-16	11/18/2006	3.13549		213
	6/2/2007	3.71357		246

	11/15/2007	3.55535		233
	5/20/2008	3.09104		209
	11/20/2008	3.13549		214
	6/11/2009	2.63906		191
	11/16/2009	2.56495		176
	6/30/2010	2.17475		134
	11/17/2010	2.30259		141
	7/6/2011	2.3979	151	
	11/22/2011	2.17475		135
	5/16/2012	2.2192	139	

Rank Sum = 2182
Rank Mean = 181.833

LMW-3	11/19/1996	ND<1.60944		44.5
	3/24/1997	ND<1.60944		44.5
	1/16/1998	ND<1.60944		44.5
	3/16/1999	2.07944	J	130
	9/23/1999	1.94591	J	124
	3/14/2000	ND<1.60944		44.5
	9/23/2003	ND<1.60944		44.5
	3/10/2004	ND<1.60944		44.5
	10/12/2004	ND<1.60944		44.5
	4/1/2005	ND<1.60944	44.5	
	10/26/2005	1.94591	J	125
	6/19/2006	1.60944	J	111
	11/18/2006	1.94591	J	126
	6/2/2007	1.60944	112	
	11/15/2007	ND<1.60944		44.5
	5/20/2008	1.60944	J	113
	11/20/2008	1.60944	J	114
	6/11/2009	1.97408		127
	11/16/2009	1.8563	122	
	6/30/2010	1.60944		115
	11/17/2010	2.56495		177
	7/6/2011	1.25276	105	
	11/22/2011	2.48491		161
	5/16/2012	1.52606		109

Rank Sum = 2271.5
Rank Mean = 94.6458

LMW-3s	5/16/2012	2.56495		178

Rank Sum = 178
Rank Mean = 178

LMW-6	1/16/1998	ND<1.60944		44.5
	3/16/1999	2.07944	J	131
	9/23/1999	2.89037		198
	3/14/2000	ND<1.60944		44.5
	9/23/2003	ND<1.60944		44.5
	3/10/2004	ND<1.60944		44.5
	10/12/2004	ND<1.60944		44.5
	4/1/2005	2.19722	J	137
	10/26/2005	2.48491		162
	6/19/2006	2.99573		204
	11/18/2006	3.49651		230
	6/2/2007	3.95124	256	
	11/15/2007	3.73767		249
	5/20/2008	3.89182		255
	11/20/2008	4.29046		262
	6/11/2009	4.52179		269
	11/16/2009	4.30407		263
	6/30/2010	4.34381		265

	11/17/2010	4.36945		267
	7/6/2011	4.00733		258
	11/22/2011	3.78419	J	250
	5/16/2012	3.58352		235

Rank Sum = 4113.5
Rank Mean = 186.977

LMW-8	1/16/1998	ND<1.60944		44.5
	3/16/1999	2.30259		142
	9/23/1999	4.69135		270
	3/14/2000	ND<1.60944		44.5
	9/23/2003	ND<1.60944		44.5
	3/10/2004	ND<1.60944		44.5
	10/12/2004	ND<1.60944		44.5
	4/1/2005	3.8712		254
	10/26/2005	3.63759		239
	6/19/2006	3.68888		243
	11/18/2006	3.46574		228
	6/2/2007	3.52636		231
	11/15/2007	3.71357		247
	5/20/2008	3.52636		232
	11/20/2008	3.3673		221
	6/11/2009	3.68888		244
	11/16/2009	3.68888		245
	6/30/2010	3.4012		224
	11/17/2010	3.78419		251
	7/6/2011	3.46574		229
	11/22/2011	3.80666		252
	5/16/2012	3.66356		241

Rank Sum = 4215.5
Rank Mean = 191.614

LMW-9	1/16/1998	ND<1.60944		44.5
	3/16/1999	2.30259		143
	9/23/1999	3.09104		210
	3/14/2000	ND<1.60944		44.5
	9/23/2003	ND<1.60944		44.5
	3/10/2004	ND<1.60944		44.5
	10/12/2004	ND<1.60944		44.5
	4/1/2005	ND<1.60944		44.5
	10/26/2005	ND<1.60944		44.5
	6/19/2006	2.30259		144
	11/18/2006	1.09861	J	98
	6/2/2007	1.79176		121
	11/15/2007	1.09861	J	99
	5/20/2008	0.693147	J	89
	11/20/2008	1.38629	J	107
	6/11/2009	1.1314		101
	11/16/2009	1.06471		96
	6/30/2010	1.02962		93
	11/17/2010	1.38629		108
	7/6/2011	1.19392		103
	11/22/2011	1.22378		104
	5/16/2012	2.56495		179

Rank Sum = 2106.5
Rank Mean = 95.75

LMW-9D	11/18/2006	2.56495		180
	6/2/2007	1.60944		116
	11/15/2007	4.78749		271
	5/20/2008	2.30259		145
	11/20/2008	1.09861	J	100

	6/11/2009	1.1314	102	
	11/16/2009	1.06471		97
	6/30/2010	0.741937		91
	11/17/2010	1.02962		94
	7/6/2011	1.335	106	
	11/22/2011	1.02962		95
	5/16/2012	0.916291		92

Rank Sum = 1489
Rank Mean = 124.083

LMW-9S	11/18/2006	4.34381		266
	6/2/2007	4.38203	268	
	11/15/2007	0.693147	J	90
	5/20/2008	4.31749		264
	11/20/2008	4.11087		260
	6/11/2009	3.3322	220	
	6/30/2010	3.63759		240
	11/17/2010	3.97029		257
	7/6/2011	4.07754	259	
	11/22/2011	4.18965		261
	5/16/2012	3.66356		242

Rank Sum = 2627
Rank Mean = 238.818

LMW-3S	11/18/2006	1.60944	J	117
	6/2/2007	2.89037	199	
	11/15/2007	2.56495		181
	5/20/2008	2.07944	J	132
	11/20/2008	2.56495		182
	6/11/2009	2.48491		163
	11/16/2009	2.30259		146
	6/30/2010	2.48491		164
	11/17/2010	2.77259		196
	7/6/2011	2.63906	192	
	11/22/2011	1.6864	119	

Rank Sum = 1791
Rank Mean = 162.818

LMW-11	3/14/2000	ND<1.60944		44.5
	9/23/2003	ND<1.60944		44.5
	3/10/2004	ND<1.60944		44.5
	10/12/2004	ND<1.60944		44.5
	4/1/2005	ND<1.60944	44.5	
	10/26/2005	ND<1.60944		44.5
	6/19/2006	ND<1.60944		44.5
	6/2/2007	ND<1.60944	44.5	
	11/15/2007	ND<1.60944		44.5
	5/20/2008	ND<1.60944		44.5
	11/20/2008	ND<1.60944		44.5

Rank Sum = 489.5
Rank Mean = 44.5

LMW-12	3/14/2000	ND<1.60944		44.5
	9/23/2003	ND<1.60944		44.5
	3/10/2004	ND<1.60944		44.5
	10/12/2004	ND<1.60944		44.5
	4/1/2005	ND<1.60944	44.5	
	10/26/2005	ND<1.60944		44.5
	6/19/2006	ND<1.60944		44.5
	6/2/2007	ND<1.60944	44.5	
	11/15/2007	ND<1.60944		44.5
	5/20/2008	ND<1.60944		44.5

	11/20/2008	ND<1.60944	44.5

Rank Sum = 489.5
Rank Mean = 44.5

LMW-13	3/14/2000	ND<1.60944	44.5
	9/23/2003	ND<1.60944	44.5
	3/10/2004	ND<1.60944	44.5
	10/12/2004	ND<1.60944	44.5
	4/1/2005	ND<1.60944	44.5
	10/26/2005	ND<1.60944	44.5
	6/19/2006	ND<1.60944	44.5
	6/2/2007	ND<1.60944	44.5
	11/15/2007	ND<1.60944	44.5
	5/20/2008	ND<1.60944	44.5
	11/20/2008	ND<1.60944	44.5

Rank Sum = 489.5
Rank Mean = 44.5

MW-5	1/16/1998	ND<1.60944	44.5
	3/16/1999	2.99573	205
	9/23/1999	2.19722 J	138
	3/14/2000	ND<1.60944	44.5
	9/23/2003	ND<1.60944	44.5
	3/10/2004	ND<1.60944	44.5
	10/12/2004	ND<1.60944	44.5
	4/1/2005	ND<1.60944	44.5
	10/26/2005	ND<1.60944	44.5
	6/19/2006	ND<1.60944	44.5
	11/15/2007	2.83321	197
	5/20/2008	ND<1.60944	44.5
	11/20/2008	ND<1.60944	44.5

Rank Sum = 985
Rank Mean = 75.7692

Calculation Results:

Kruskal-Wallis H Statistic = 120.507
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 124.779
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
120.507 > 27.5871 indicating a significant group difference at 5% significance level
124.779 > 27.5871 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 145.068

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-7	**135.025**	**-10.0432**	**56.3314**
LMW-10	**137.105**	**-7.9629**	**57.1026**
LMW-14R	**175.154**	**30.0857**	**63.7827**
LMW-15R	**189.607**	**44.539**	**62.3344**
LMW-16	**181.833**	**36.7652**	**65.4319**
LMW-3	**94.6458**	**-50.4223**	**53.8163**
LMW-3s	**178**	**32.9318**	**186.425**
LMW-6	**186.977**	**41.9091**	**54.9738**
LMW-8	**191.614**	**46.5455**	**54.9738**
LMW-9	**95.75**	**-49.3182**	**54.9738**
LMW-9D	**124.083**	**-20.9848**	**65.4319**
LMW-9S	**238.818**	**93.75**	**67.3289**
LMW-3S	**162.818**	**17.75**	**67.3289**
LMW-11	**44.5**	**-100.568**	**67.3289**

LMW-12	**44.5**	**-100.568**	**67.3289**
LMW-13	**44.5**	**-100.568**	**67.3289**
MW-5	**75.7692**	**-69.299**	**63.7827**

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 145.068

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-7	**135.025**	**-10.043**	**69.6932**
LMW-10	**137.105**	**-7.9629**	**70.6473**
LMW-14R	**175.154**	**30.0857**	**78.912**
LMW-15R	**189.607**	**44.539**	**77.1202**
LMW-16	**181.833**	**36.7652**	**80.9524**
LMW-3	**94.6458**	**-50.422**	**66.5816**
LMW-3s	**178**	**32.9318**	**230.645**
LMW-6	**186.977**	**41.9091**	**68.0136**
LMW-8	**191.614**	**46.5455**	**68.0136**
LMW-9	**95.75**	**-49.318**	**68.0136**
LMW-9D	**124.083**	**-20.9848**	**80.9524**
LMW-9S	**238.818**	**93.75**	**83.2993**
LMW-3S	**162.818**	**17.75**	**83.2993**
LMW-11	**44.5**	**-100.568**	**83.2993**
LMW-12	**44.5**	**-100.568**	**83.2993**
LMW-13	**44.5**	**-100.568**	**83.2993**
MW-5	**75.7692**	**-69.299**	**78.912**

Mann-Kendall Trend Analysis
Parameter: Barium
Location: LMW-9S
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
4.38203		4.34381	0.0382212	1	0
0.693147 J		4.34381	-3.650661	1	
4.31749		4.34381	-0.0263173	1	2
4.11087		4.34381	-0.232932	1	3
3.3322	4.34381	-1.0116	1	4
3.63759		4.34381	-0.706219	1	5
3.97029		4.34381	-0.373514	1	6
4.07754		4.34381	-0.266268	1	7
4.18965		4.34381	-0.154151	1	8
3.66356		4.34381	-0.680244	1	9
0.693147 J		4.38203	-3.688881	10	
4.31749		4.38203	-0.0645385	1	11
4.11087		4.38203	-0.271153	1	12
3.3322	4.38203	-1.049821	13
3.63759		4.38203	-0.744441	14
3.97029		4.38203	-0.411735	1	15
4.07754		4.38203	-0.304489	1	16
4.18965		4.38203	-0.192372	1	17
3.66356		4.38203	-0.718465	1	18
4.31749		0.693147 J	3.62434 2	18
4.11087		0.693147 J	3.41773 3	18
3.3322	0.693147 J	2.63906 4	18
3.63759		0.693147 J	2.94444 5	18
3.97029		0.693147 J	3.27714 6	18
4.07754		0.693147 J	3.38439 7	18
4.18965		0.693147 J	3.49651 8	18
3.66356		0.693147 J	2.97041 9	18
4.11087		4.31749	-0.206614	9	19
3.3322	4.31749	-0.985284	9	20
3.63759		4.31749	-0.679902	9	21
3.97029		4.31749	-0.347196	9	22
4.07754		4.31749	-0.239951	9	23
4.18965		4.31749	-0.127833	9	24
3.66356		4.31749	-0.653926	9	25
3.3322	4.11087	-0.778669	9	26
3.63759		4.11087	-0.473288	9	27
3.97029		4.11087	-0.140582	9	28
4.07754		4.11087	-0.0333364	9	29
4.18965		4.11087	0.0787809	10	29
3.66356		4.11087	-0.447312	10	30
3.63759		3.3322	0.305382	11	30
3.97029		3.3322	0.638087	12	30
4.07754		3.3322	0.745333	13	30
4.18965		3.3322	0.85745 14	30
3.66356		3.3322	0.331357	15	30

3.97029	3.63759	0.332706	16	30
4.07754	3.63759	0.439951	17	30
4.18965	3.63759	0.552069	18	30
3.66356	3.63759	0.0259755	19	30
4.07754	3.97029	0.107246	20	30
4.18965	3.97029	0.219363	21	30
3.66356	3.97029	-0.3067321	31	
4.18965	4.07754	0.112117	22	31
3.66356	4.07754	-0.413976	22	32
3.66356	4.18965	-0.526093	22	33

S Statistic = 22 - 33 = -11

Tied Group Value Members

Time Period		Observations
11/18/2006		1
6/2/2007	1	
11/15/2007		1
5/20/2008		1
11/20/2008		1
6/11/2009		1
6/30/2010		1
11/17/2010		1
7/6/2011	1	
11/22/2011		1
5/16/2012		1

There are 0 time periods with multiple data

A = 0
B = 0
C = 0
D = 0
E = 0
F = 0
a = 2970
b = 8910
c = 220
Group Variance = 165
Z-Score = -0.778499
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-0.778499| <= 1.97737 indicating no evidence of a trend

Shewhart-CUSUM Control Chart

Parameter: Barium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = 2.38593
Baseline Std Dev = 0.481385
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
11/18/2006	4.34381	3.06717	4.06717	
11/18/2006	4.34381	3.06717	4.06717	
6/2/2007	4.38203	6.21374	4.14657	
6/2/2007	4.38203	6.21374	4.14657	
11/15/2007	0.693147		1.69724	-3.51649
11/15/2007	0.693147		1.69724	-3.51649
5/20/2008	4.31749	4.70974	4.0125	
5/20/2008	4.31749	4.70974	4.0125	
11/20/2008	4.11087	7.29304	3.58329	
11/20/2008	4.11087	7.29304	3.58329	
6/11/2009	3.3322	8.25876	1.96573	
6/11/2009	3.3322	8.25876	1.96573	
6/30/2010	3.63759	9.85888	2.60011	
6/30/2010	3.63759	9.85888	2.60011	
11/17/2010	3.97029	12.1501	3.29125	
11/17/2010	3.97029	12.1501	3.29125	
7/6/2011	4.07754	14.6642	3.51404	
7/6/2011	4.07754	14.6642	3.51404	
11/22/2011	4.18965	17.4111	3.74695	
11/22/2011	4.18965	17.4111	3.74695	
5/16/2012	3.66356	19.0652	2.65407	
5/16/2012	3.66356	19.0652	2.65407	

Concentrations (ppb)
Parameter: Beryllium
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Measurements: 271
Total Non-Detect: 249
Percent Non-Detects: 91.8819%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	21 (95.4545%)	1/16/1998	ND<10	ND<10
			3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/14/2000	ND<10	ND<10
			9/23/2003	ND<10	ND<10
			3/10/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/26/2005	ND<10	ND<10
			6/19/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			6/2/2007	ND<10	ND<10
			11/15/2007	ND<10	ND<10
			5/20/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/11/2009	ND<0.07 U	ND<0.07 U
			11/16/2009	0.071 J	0.071 J
			6/30/2010	ND<0.07 U	ND<0.07 U
			11/17/2010	ND<0.07 U	ND<0.07 U
			7/6/2011	ND<0.07 U	ND<0.07 U
			11/22/2011	ND<0.07 U	ND<0.07 U
			5/16/2012	ND<0.07 U	ND<0.07 U

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-9D	12	12 (100%)	11/18/2006	ND<10	ND<10
			6/2/2007	ND<10	ND<10
			11/15/2007	ND<10	ND<10
			5/20/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/11/2009	ND<0.07 U	ND<0.07 U
			11/16/2009	ND<0.07 U	ND<0.07 U
			6/30/2010	ND<0.07 U	ND<0.07 U
			11/17/2010	ND<0.07 U	ND<0.07 U
			7/6/2011	ND<0.07 U	ND<0.07 U
			11/22/2011	ND<0.07 U	ND<0.07 U
			5/16/2012	ND<0.07 U	ND<0.07 U
LMW-9S	11	10 (90.9091%)	11/18/2006	ND<10	ND<10
			6/2/2007	ND<10	ND<10
			11/15/2007	ND<10	ND<10
			5/20/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/11/2009	ND<0.07 U	ND<0.07 U
			6/30/2010	ND<0.07 U	ND<0.07 U
			11/17/2010	0.071 J	0.071 J

			7/6/2011	ND<0.07 U	ND<0.07 U
			11/22/2011	ND<0.07 U	ND<0.07 U
			5/16/2012	ND<0.07 U	ND<0.07 U
LMW-9	22	19 (86.3636%)	1/16/1998	ND<10	ND<10
			3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/14/2000	ND<10	ND<10
			9/23/2003	ND<10	ND<10
			3/10/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/26/2005	ND<10	ND<10
			6/19/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			6/2/2007	ND<10	ND<10
			11/15/2007	ND<10	ND<10
			5/20/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/11/2009	0.089 J	0.089 J
			11/16/2009	ND<0.07 U	ND<0.07 U
			6/30/2010	ND<0.07 U	ND<0.07 U
			11/17/2010	0.12 J	0.12 J
			7/6/2011	ND<0.07 U	ND<0.07 U
			11/22/2011	ND<0.07 U	ND<0.07 U
			5/16/2012	0.27	0.27
LMW-7	20	17 (85%)	1/16/1998	ND<10	ND<10
			3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/14/2000	ND<10	ND<10
			9/23/2003	ND<10	ND<10
			3/10/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/26/2005	ND<10	ND<10
			6/19/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			6/2/2007	ND<10	ND<10
			11/15/2007	ND<10	ND<10
			5/20/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			6/11/2009	0.19 J	0.19 J
			11/17/2010	ND<0.07 U	ND<0.07 U
			7/6/2011	0.34	0.34
			11/22/2011	ND<0.07 U	ND<0.07 U
			5/16/2012	0.094 J	0.094 J
LMW-6	22	16 (72.7273%)	1/16/1998	ND<10	ND<10
			3/16/1999	ND<10	ND<10
			9/23/1999	ND<10	ND<10
			3/14/2000	ND<10	ND<10
			9/23/2003	ND<10	ND<10
			3/10/2004	ND<10	ND<10
			10/12/2004	ND<10	ND<10
			4/1/2005	ND<10	ND<10
			10/26/2005	ND<10	ND<10
			6/19/2006	ND<10	ND<10
			11/18/2006	ND<10	ND<10
			6/2/2007	ND<10	ND<10
			11/15/2007	ND<10	ND<10
			5/20/2008	ND<10	ND<10

			11/20/2008	ND<10	ND<10	
			6/11/2009	0.15 J	0.15 J	
			11/16/2009	0.15 J	0.15 J	
			6/30/2010	0.13 J	0.13 J	
			11/17/2010	0.16 J	0.16 J	
			7/6/2011	0.085 J	0.085 J	
			11/22/2011	ND<0.07 U		ND<0.07 U
			5/16/2012	0.075 J	0.075 J	
LMW-3s	1	1 (100%)	5/16/2012	ND<0.07 U		ND<0.07 U
LMW-3	24	24 (100%)	11/19/1996	ND<10	ND<10	
			3/24/1997	ND<10	ND<10	
			1/16/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<0.07 U		ND<0.07 U
			11/16/2009	ND<0.07 U		ND<0.07 U
			6/30/2010	ND<0.07 U		ND<0.07 U
			11/17/2010	ND<0.07 U		ND<0.07 U
			7/6/2011	ND<0.07 U	ND<0.07 U	
			11/22/2011	ND<0.07 U		ND<0.07 U
			5/16/2012	ND<0.07 U		ND<0.07 U
LMW-16	12	12 (100%)	11/18/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<0.07 U		ND<0.07 U
			11/16/2009	ND<0.07 U		ND<0.07 U
			6/30/2010	ND<0.07 U		ND<0.07 U
			11/17/2010	ND<0.07 U		ND<0.07 U
			7/6/2011	ND<0.07 U	ND<0.07 U	
			11/22/2011	ND<0.07 U		ND<0.07 U
			5/16/2012	ND<0.07 U		ND<0.07 U
LMW-15R	15	10 (66.6667%)	11/18/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	0.29	0.29	
			11/16/2009	ND<0.07 U		ND<0.07 U
			6/30/2010	0.17 J	0.17 J	
			11/17/2010	0.13 J	0.13 J	
			7/6/2011	0.13 J	0.13 J	

			11/22/2011	ND<0.07 U		ND<0.07 U
			5/16/2012	0.15 J	0.15 J	
LMW-10	19	19 (100%)	3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<0.07 U		ND<0.07 U
			11/16/2009	ND<0.07 U		ND<0.07 U
			6/30/2010	ND<0.07 U		ND<0.07 U
			11/17/2010	ND<0.07 U		ND<0.07 U
			7/6/2011	ND<0.07 U	ND<0.07 U	
			11/22/2011	ND<0.07 U		ND<0.07 U
			5/16/2012	ND<0.07 U		ND<0.07 U
LMW-14R	12	12 (100%)	6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<0.07 U		ND<0.07 U
			11/16/2009	ND<0.07 U		ND<0.07 U
			11/16/2009	ND<0.07 U		ND<0.07 U
			6/30/2010	ND<0.07 U		ND<0.07 U
			11/17/2010	ND<0.07 U		ND<0.07 U
			7/6/2011	ND<0.07 U	ND<0.07 U	
			11/22/2011	ND<0.07 U		ND<0.07 U
			5/16/2012	ND<0.07 U		ND<0.07 U
LMW-8	22	22 (100%)	1/16/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			11/18/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	ND<0.07 U		ND<0.07 U
			11/16/2009	ND<0.07 U		ND<0.07 U
			6/30/2010	ND<0.07 U		ND<0.07 U
			11/17/2010	ND<0.07 U		ND<0.07 U
			7/6/2011	ND<0.07 U	ND<0.07 U	
			11/22/2011	ND<0.07 U		ND<0.07 U
			5/16/2012	ND<0.07 U		ND<0.07 U
LMW-3S	11	8 (72.7273%)	11/18/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	

			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/11/2009	0.076 J	0.076 J	
			11/16/2009	ND<0.07 U		ND<0.07 U
			6/30/2010	ND<0.07 U		ND<0.07 U
			11/17/2010	0.12 J	0.12 J	
			7/6/2011	0.1 J	0.1 J	
			11/22/2011	ND<0.07 U		ND<0.07 U
LMW-13	11	11 (100%)	3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
MW-5	13	13 (100%)	1/16/1998	ND<10	ND<10	
			3/16/1999	ND<10	ND<10	
			9/23/1999	ND<10	ND<10	
			3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
LMW-12	11	11 (100%)	3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
LMW-11	11	11 (100%)	3/14/2000	ND<10	ND<10	
			9/23/2003	ND<10	ND<10	
			3/10/2004	ND<10	ND<10	
			10/12/2004	ND<10	ND<10	
			4/1/2005	ND<10	ND<10	
			10/26/2005	ND<10	ND<10	
			6/19/2006	ND<10	ND<10	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.035	-2.747777	.55021	-0.0961718
2	0.035	-2.45727	13.5884	-0.182176
3	0.035	-2.29036	18.8342	-0.262339
4	0.035	-2.19728	23.6622	-0.339244
5	0.035	-2.09693	28.0593	-0.412637
6	0.035	-2.01409	32.1159	-0.48313
7	0.035	-1.95996	35.9574	-0.551728
8	0.035	-1.8957	39.551	-0.618078
9	0.035	-1.83843	42.9308	-0.682423
10	0.035	-1.79912	46.1677	-0.745392
11	0.035	-1.75069	49.2326	-0.806666
12	0.035	-1.70604	52.1431	-0.866377
13	0.035	-1.67466	54.9476	-0.924991
14	0.035	-1.63524	57.6216	-0.982224
15	0.035	-1.59819	60.1758	-1.03816
16	0.035	-1.57179	62.6464	-1.09317
17	0.035	-1.5382	65.0124	-1.14701
18	0.035	-1.50626	67.2812	-1.19973
19	0.035	-1.48328	69.4814	-1.25164
20	0.035	-1.4538	71.5949	-1.30253
21	0.035	-1.42554	73.6271	-1.35242
22	0.035	-1.40507	75.6013	-1.4016
23	0.035	-1.37866	77.502	-1.44985
24	0.035	-1.35317	79.3331	-1.49721
25	0.035	-1.33462	81.1143	-1.54392
26	0.035	-1.31058	82.8319	-1.5898
27	0.035	-1.28727	84.489	-1.63485
28	0.035	-1.27024	86.1025	-1.67931
29	0.035	-1.24809	87.6602	-1.72299
30	0.035	-1.22653	89.1646	-1.76592
31	0.035	-1.21073	90.6305	-1.80829
32	0.035	-1.19012	92.0469	-1.84995
33	0.035	-1.17	93.4158	-1.8909
34	0.035	-1.15035	94.7391	-1.93116
35	0.035	-1.1359	96.0293	-1.97092
36	0.035	-1.11699	97.277	-2.01001
37	0.035	-1.09847	98.4836	-2.04846
38	0.035	-1.08482	99.6605	-2.08643
39	0.035	-1.06694	100.799	-2.12377
40	0.035	-1.04939	101.9	-2.1605
41	0.035	-1.03643	102.974	-2.19677
42	0.035	-1.01943	104.013	-2.23245
43	0.035	-1.00271	105.019	-2.26755
44	0.035	-0.990356	106	-2.30221
45	0.035	-0.974114	106.949	-2.33631
46	0.035	-0.958125	107.867	-2.36984
47	0.035	-0.946291	108.762	-2.40296
48	0.035	-0.930718	109.628	-2.43553
49	0.035	-0.915365	110.466	-2.46757
50	0.035	-0.903992	111.283	-2.49921
51	0.035	-0.889006	112.074	-2.53033

52	0.035	-0.874218	112.838	-2.56093
53	0.035	-0.863249	113.583	-2.59114
54	0.035	-0.848786	114.304	-2.62085
55	0.035	-0.834498	115	-2.65005
56	0.035	-0.823893	115.679	-2.67889
57	0.035	-0.809896	116.335	-2.70724
58	0.035	-0.796056	116.968	-2.7351
59	0.035	-0.785774	117.586	-2.7626
60	0.035	-0.772193	118.182	-2.78963
61	0.035	-0.758753	118.758	-2.81618
62	0.035	-0.748762	119.318	-2.84239
63	0.035	-0.735557	119.86	-2.86813
64	0.035	-0.722479	120.382	-2.89342
65	0.035	-0.712751	120.89	-2.91837
66	0.035	-0.699883	121.379	-2.94286
67	0.035	-0.687131	121.852	-2.96691
68	0.071	-0.67449	122.306	-3.0148
69	0.071	-0.665079	122.749	-3.06202
70	0.075	-0.652622	123.175	-3.11097
71	0.076	-0.640266	123.585	-3.15963
72	0.085	-0.631062	123.983	-3.21327
73	0.089	-0.618872	124.366	-3.26835
74	0.094	-0.606775	124.734	-3.32539
75	0.1	-0.597761	125.091	-3.38516
76	0.12	-0.585815	125.435	-3.45546
77	0.12	-0.573953	125.764	-3.52433
78	0.13	-0.565108	126.083	-3.5978
79	0.13	-0.553384	126.39	-3.66974
80	0.13	-0.541736	126.683	-3.74016
81	0.15	-0.533048	126.967	-3.82012
82	0.15	-0.521527	127.239	-3.89835
83	0.15	-0.510074	127.499	-3.97486
84	0.16	-0.501527	127.751	-4.05511
85	0.17	-0.490189	127.991	-4.13844
86	0.19	-0.478914	128.221	-4.22943
87	0.27	-0.470498	128.442	-4.35647
88	0.29	-0.459327	128.653	-4.48967
89	0.34	-0.448213	128.854	-4.64206
90	5	-0.439913	129.047	-6.84163
91	5	-0.428895	129.231	-8.98611
92	5	-0.417928	129.406	-11.0757
93	5	-0.409735	129.574	-13.1244
94	5	-0.398855	129.733	-15.1187
95	5	-0.388022	129.883	-17.0588
96	5	-0.379927	130.028	-18.9584
97	5	-0.369171	130.164	-20.8043
98	5	-0.358459	130.293	-22.5966
99	5	-0.350451	130.415	-24.3488
100	5	-0.33981	130.531	-26.0479
101	5	-0.329206	130.639	-27.6939
102	5	-0.318639	130.741	-29.2871
103	5	-0.310738	130.837	-30.8408
104	5	-0.300232	130.927	-32.342
105	5	-0.28976	131.011	-33.7908
106	5	-0.281926	131.091	-35.2004
107	5	-0.271509	131.165	-36.558
108	5	-0.26112	131.233	-37.8636
109	5	-0.253347	131.297	-39.1303
110	5	-0.243007	131.356	-40.3453
111	5	-0.232693	131.41	-41.5088
112	5	-0.224974	131.461	-42.6337
113	5	-0.214702	131.507	-43.7072

114	5	-0.204452	131.549	-44.7294
115	5	-0.196779	131.587	-45.7133
116	5	-0.186567	131.622	-46.6462
117	5	-0.176374	131.653	-47.528
118	5	-0.168741	131.682	-48.3717
119	5	-0.158579	131.707	-49.1646
120	5	-0.148434	131.729	-49.9068
121	5	-0.140835	131.749	-50.611
122	5	-0.130716	131.766	-51.2646
123	5	-0.12061	131.78	-51.8676
124	5	-0.113039	131.793	-52.4328
125	5	-0.102953	131.804	-52.9476
126	5	-0.0928787	131.812	-53.412
127	5	-0.0853288	131.82	-53.8386
128	5	-0.0752698	131.825	-54.215
129	5	-0.0652187	131.83	-54.541
130	5	-0.0576847	131.833	-54.8295
131	5	-0.0476439	131.835	-55.0677
132	5	-0.0376076	131.837	-55.2557
133	5	-0.0300838	131.838	-55.4061
134	5	-0.0200544	131.838	-55.5064
135	5	-0.0100272	131.838	-55.5566
136	5	0	131.838	-55.5566
137	5	0.0100272	131.838	-55.5064
138	5	0.0200544	131.839	-55.4061
139	5	0.0300838	131.839	-55.2557
140	5	0.0376076	131.841	-55.0677
141	5	0.0476439	131.843	-54.8295
142	5	0.0576847	131.846	-54.541
143	5	0.0652187	131.851	-54.215
144	5	0.0752698	131.856	-53.8386
145	5	0.0853288	131.864	-53.412
146	5	0.0928787	131.872	-52.9476
147	5	0.102953	131.883	-52.4328
148	5	0.113039	131.896	-51.8676
149	5	0.12061	131.91	-51.2646
150	5	0.130716	131.927	-50.611
151	5	0.140835	131.947	-49.9068
152	5	0.148434	131.969	-49.1646
153	5	0.158579	131.994	-48.3717
154	5	0.168741	132.023	-47.528
155	5	0.176374	132.054	-46.6462
156	5	0.186567	132.089	-45.7133
157	5	0.196779	132.127	-44.7294
158	5	0.204452	132.169	-43.7072
159	5	0.214702	132.215	-42.6337
160	5	0.224974	132.266	-41.5088
161	5	0.232693	132.32	-40.3453
162	5	0.243007	132.379	-39.1303
163	5	0.253347	132.443	-37.8636
164	5	0.26112	132.512	-36.558
165	5	0.271509	132.585	-35.2004
166	5	0.281926	132.665	-33.7908
167	5	0.28976	132.749	-32.342
168	5	0.300232	132.839	-30.8408
169	5	0.310738	132.935	-29.2871
170	5	0.318639	133.037	-27.6939
171	5	0.329206	133.145	-26.0479
172	5	0.33981	133.261	-24.3488
173	5	0.350451	133.384	-22.5966
174	5	0.358459	133.512	-20.8043
175	5	0.369171	133.648	-18.9584

176	5	0.379927		133.793	-17.0588
177	5	0.388022		133.943	-15.1187
178	5	0.398855		134.102	-13.1244
179	5	0.409735		134.27	-11.0757
180	5	0.417928		134.445	-8.98611
181	5	0.428895		134.629	-6.84163
182	5	0.439913		134.822	-4.64206
183	5	0.448213		135.023	-2.401
184	5	0.459327		135.234	-0.104367
185	5	0.470498		135.456	2.24812
186	5	0.478914		135.685	4.64269
187	5	0.490189		135.925	7.09364
188	5	0.501527		136.177	9.60127
189	5	0.510074		136.437	12.1516
190	5	0.521527		136.709	14.7593
191	5	0.533048		136.993	17.4245
192	5	0.541736		137.287	20.1332
193	5	0.553384		137.593	22.9001
194	5	0.565108		137.912	25.7257
195	5	0.573953		138.242	28.5954
196	5	0.585815		138.585	31.5245
197	5	0.597761		138.942	34.5133
198	5	0.606775		139.31	37.5472
199	5	0.618872		139.693	40.6415
200	5	0.631062		140.091	43.7968
201	5	0.640266		140.501	46.9982
202	5	0.652622		140.927	50.2613
203	5	0.665079		141.37	53.5867
204	5	0.67449	141.825	56.9591	
205	5	0.687131		142.297	60.3948
206	5	0.699883		142.787	63.8942
207	5	0.712751		143.295	67.458
208	5	0.722479		143.817	71.0704
209	5	0.735557		144.358	74.7481
210	5	0.748762		144.918	78.4919
211	5	0.758753		145.494	82.2857
212	5	0.772193		146.09	86.1467
213	5	0.785774		146.708	90.0755
214	5	0.796056		147.341	94.0558
215	5	0.809896		147.997	98.1053
216	5	0.823893		148.676	102.225
217	5	0.834498		149.373	106.397
218	5	0.848786		150.093	110.641
219	5	0.863249		150.838	114.957
220	5	0.874218		151.602	119.329
221	5	0.889006		152.393	123.774
222	5	0.903992		153.21	128.294
223	5	0.915365		154.048	132.87
224	5	0.930718		154.914	137.524
225	5	0.946291		155.81	142.255
226	5	0.958125		156.728	147.046
227	5	0.974114		157.676	151.917
228	5	0.990356		158.657	156.868
229	5	1.00271	159.663	161.882	
230	5	1.01943	160.702	166.979	
231	5	1.03643	161.776	172.161	
232	5	1.04939	162.877	177.408	
233	5	1.06694	164.016	182.743	
234	5	1.08482	165.193	188.167	
235	5	1.09847	166.399	193.659	
236	5	1.11699	167.647	199.244	
237	5	1.1359	168.937	204.924	

238	5	1.15035	170.26	210.675
239	5	1.17	171.629	216.525
240	5	1.19012	173.046	222.476
241	5	1.21073	174.512	228.53
242	5	1.22653	176.016	234.662
243	5	1.24809	177.574	240.903
244	5	1.27024	179.187	247.254
245	5	1.28727	180.844	253.69
246	5	1.31058	182.562	260.243
247	5	1.33462	184.343	266.916
248	5	1.35317	186.174	273.682
249	5	1.37866	188.075	280.575
250	5	1.40507	190.049	287.601
251	5	1.42554	192.081	294.729
252	5	1.4538	194.195	301.998
253	5	1.48328	196.395	309.414
254	5	1.50626	198.664	316.945
255	5	1.5382	201.03	324.636
256	5	1.57179	203.5	332.495
257	5	1.59819	206.054	340.486
258	5	1.63524	208.728	348.662
259	5	1.67466	211.533	357.036
260	5	1.70604	214.444	365.566
261	5	1.75069	217.508	374.319
262	5	1.79912	220.745	383.315
263	5	1.83843	224.125	392.507
264	5	1.8957	227.719	401.986
265	5	1.95996	231.56	411.785
266	5	2.01409	235.617	421.856
267	5	2.09693	240.014	432.34
268	5	2.19728	244.842	443.327
269	5	2.29036	250.088	454.779
270	5	2.45727	256.126	467.065
271	5	2.74777	263.676	480.804

Data Set Standard Deviation = 2.32366
Numerator = 231172
Denominator = 384397
W Statistic = 0.601389 = 231172 / 384397

5% Critical value of 0.976 exceeds 0.601389
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.601389
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 = 0.773274
0.773274 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.035	0.00367647		-2.74777	42.745	348.683
2	0.035	0.00735294		-2.45727	42.745	334.497
3	0.035	0.0110294		-2.29036	42.745	326.346
4	0.035	0.0147059		-2.19728	42.745	321.801
5	0.035	0.0183824		-2.09693	42.745	316.9
6	0.035	0.0220588		-2.01409	42.745	312.855
7	0.035	0.0257353		-1.95996	42.745	310.211
8	0.035	0.0294118		-1.8957	42.745	307.073
9	0.035	0.0330882		-1.83843	42.745	304.276
10	0.035	0.0367647		-1.79912	42.745	302.357
11	0.035	0.0404412		-1.75069	42.745	299.992
12	0.035	0.0441176		-1.70604	42.745	297.812
13	0.035	0.0477941		-1.67466	42.745	296.279
14	0.035	0.0514706		-1.63524	42.745	294.354
15	0.035	0.0551471		-1.59819	42.745	292.545
16	0.035	0.0588235		-1.57179	42.745	291.256
17	0.035	0.0625	-1.5382	42.745	289.615	
18	0.035	0.0661765		-1.50626	42.745	288.056
19	0.035	0.0698529		-1.48328	42.745	286.934
20	0.035	0.0735294		-1.4538	42.745	285.494
21	0.035	0.0772059		-1.42554	42.745	284.114
22	0.035	0.0808824		-1.40507	42.745	283.114
23	0.035	0.0845588		-1.37866	42.745	281.824
24	0.035	0.0882353		-1.35317	42.745	280.58
25	0.035	0.0919118		-1.33462	42.745	279.674
26	0.035	0.0955882		-1.31058	42.745	278.5
27	0.035	0.0992647		-1.28727	42.745	277.362
28	0.035	0.102941		-1.27024	42.745	276.53
29	0.035	0.106618		-1.24809	42.745	275.448
30	0.035	0.110294		-1.22653	42.745	274.395
31	0.035	0.113971		-1.21073	42.745	273.624
32	0.035	0.117647		-1.19012	42.745	272.617
33	0.035	0.121324		-1.17	42.745	271.635
34	0.035	0.125	-1.15035	42.745	270.675	
35	0.035	0.128676		-1.1359	42.745	269.97
36	0.035	0.132353		-1.11699	42.745	269.046
37	0.035	0.136029		-1.09847	42.745	268.142
38	0.035	0.139706		-1.08482	42.745	267.476
39	0.035	0.143382		-1.06694	42.745	266.602
40	0.035	0.147059		-1.04939	42.745	265.745
41	0.035	0.150735		-1.03643	42.745	265.112
42	0.035	0.154412		-1.01943	42.745	264.282
43	0.035	0.158088		-1.00271	42.745	263.466
44	0.035	0.161765		-0.990356	42.745	262.862
45	0.035	0.165441		-0.974114	42.745	262.069
46	0.035	0.169118		-0.958125	42.745	261.288
47	0.035	0.172794		-0.946291	42.745	260.711
48	0.035	0.176471		-0.930718	42.745	259.95

49	0.035	0.180147	-0.915365	42.745	259.2
50	0.035	0.183824	-0.903992	42.745	258.645
51	0.035	0.1875	-0.889006	42.745	257.913
52	0.035	0.191176	-0.874218	42.745	257.191
53	0.035	0.194853	-0.863249	42.745	256.655
54	0.035	0.198529	-0.848786	42.745	255.949
55	0.035	0.202206	-0.834498	42.745	255.251
56	0.035	0.205882	-0.823893	42.745	254.733
57	0.035	0.209559	-0.809896	42.745	254.05
58	0.035	0.213235	-0.796056	42.745	253.374
59	0.035	0.216912	-0.785774	42.745	252.872
60	0.035	0.220588	-0.772193	42.745	252.209
61	0.035	0.224265	-0.758753	42.745	251.552
62	0.035	0.227941	-0.748762	42.745	251.065
63	0.035	0.231618	-0.735557	42.745	250.42
64	0.035	0.235294	-0.722479	42.745	249.781
65	0.035	0.238971	-0.712751	42.745	249.306
66	0.035	0.242647	-0.699883	42.745	248.678
67	0.035	0.246324	-0.687131	42.745	248.055
68	0.071	0.25	-0.674494	6.597	247.438
69	0.071	0.253676	-0.665079	46.597	246.978
70	0.075	0.257353	-0.652622	47.025	246.37
71	0.076	0.261029	-0.640266	47.132	245.766
72	0.085	0.264706	-0.631062	48.095	245.317
73	0.089	0.268382	-0.618872	48.523	244.722
74	0.094	0.272059	-0.606775	49.058	244.131
75	0.1	0.275735	-0.597761	49.7	243.691
76	0.12	0.279412	-0.585815	51.84	243.107
77	0.12	0.283088	-0.573953	51.84	242.528
78	0.13	0.286765	-0.565108	52.91	242.096
79	0.13	0.290441	-0.553384	52.91	241.524
80	0.13	0.294118	-0.541736	52.91	240.955
81	0.15	0.297794	-0.533048	55.05	240.531
82	0.15	0.301471	-0.521527	55.05	239.968
83	0.15	0.305147	-0.510074	55.05	239.409
84	0.16	0.308824	-0.501527	56.12	238.991
85	0.17	0.3125	-0.490189	57.19	238.438
86	0.19	0.316176	-0.478914	59.33	237.887
87	0.27	0.319853	-0.470498	67.89	237.476
88	0.29	0.323529	-0.459327	70.03	236.93
89	0.34	0.327206	-0.448213	75.38	236.388
90	5	0.330882	-0.439913	574	235.982
91	5	0.334559	-0.428895	574	235.444
92	5	0.338235	-0.417928	574	234.909
93	5	0.341912	-0.409735	574	234.509
94	5	0.345588	-0.398855	574	233.977
95	5	0.349265	-0.388022	574	233.448
96	5	0.352941	-0.379927	574	233.053
97	5	0.356618	-0.369171	574	232.528
98	5	0.360294	-0.358459	574	232.005
99	5	0.363971	-0.350451	574	231.614
100	5	0.367647	-0.3398	1574	231.094
101	5	0.371324	-0.329206	574	230.576
102	5	0.375	-0.318639	574	230.06
103	5	0.378676	-0.310738	574	229.674
104	5	0.382353	-0.300232	574	229.161
105	5	0.386029	-0.2897	6574	228.65
106	5	0.389706	-0.281926	574	228.267
107	5	0.393382	-0.271509	574	227.759
108	5	0.397059	-0.2611	2574	227.251
109	5	0.400735	-0.253347	574	226.872
110	5	0.404412	-0.243007	574	226.367

111	5	0.408088	-0.232693	574	225.863
112	5	0.411765	-0.224974	574	225.486
113	5	0.415441	-0.214702	574	224.985
114	5	0.419118	-0.204452	574	224.484
115	5	0.422794	-0.196779	574	224.109
116	5	0.426471	-0.186567	574	223.611
117	5	0.430147	-0.176374	574	223.113
118	5	0.433824	-0.168741	574	222.74
119	5	0.4375	-0.158579	574	222.244
120	5	0.441176	-0.148434	574	221.749
121	5	0.444853	-0.140835	574	221.377
122	5	0.448529	-0.130716	574	220.883
123	5	0.452206	-0.12061	574	220.39
124	5	0.455882	-0.113039	574	220.02
125	5	0.459559	-0.102953	574	219.528
126	5	0.463235	-0.0928787	574	219.036
127	5	0.466912	-0.0853288	574	218.667
128	5	0.470588	-0.0752698	574	218.176
129	5	0.474265	-0.0652187	574	217.685
130	5	0.477941	-0.0576847	574	217.317
131	5	0.481618	-0.0476439	574	216.827
132	5	0.485294	-0.0376076	574	216.337
133	5	0.488971	-0.0300838	574	215.969
134	5	0.492647	-0.0200544	574	215.479
135	5	0.496324	-0.0100272	574	214.99
136	5	0.5	0	574	214.5
137	5	0.503676	0.0100272	574	214.01
138	5	0.507353	0.0200544	574	213.521
139	5	0.511029	0.0300838	574	213.031
140	5	0.514706	0.0376076	574	212.663
141	5	0.518382	0.0476439	574	212.173
142	5	0.522059	0.0576847	574	211.683
143	5	0.525735	0.0652187	574	211.315
144	5	0.529412	0.0752698	574	210.824
145	5	0.533088	0.0853288	574	210.333
146	5	0.536765	0.0928787	574	209.964
147	5	0.540441	0.102953	574	209.472
148	5	0.544118	0.113039	574	208.98
149	5	0.547794	0.12061	574	208.61
150	5	0.551471	0.130716	574	208.117
151	5	0.555147	0.140835	574	207.623
152	5	0.558824	0.148434	574	207.251
153	5	0.5625	0.158579	574	206.756
154	5	0.566176	0.168741	574	206.26
155	5	0.569853	0.176374	574	205.887
156	5	0.573529	0.186567	574	205.389
157	5	0.577206	0.196779	574	204.891
158	5	0.580882	0.204452	574	204.516
159	5	0.584559	0.214702	574	204.015
160	5	0.588235	0.224974	574	203.514
161	5	0.591912	0.232693	574	203.137
162	5	0.595588	0.243007	574	202.633
163	5	0.599265	0.253347	574	202.128
164	5	0.602941	0.26112	574	201.749
165	5	0.606618	0.271509	574	201.241
166	5	0.610294	0.281926	574	200.733
167	5	0.613971	0.28976	574	200.35
168	5	0.617647	0.300232	574	199.839
169	5	0.621324	0.310738	574	199.326
170	5	0.625	0.318639	574	198.94
171	5	0.628676	0.329206	574	198.424
172	5	0.632353	0.33981	574	197.906

173	5	0.636029	0.350451	574	197.386
174	5	0.639706	0.358459	574	196.995
175	5	0.643382	0.369171	574	196.472
176	5	0.647059	0.379927	574	195.947
177	5	0.650735	0.388022	574	195.552
178	5	0.654412	0.398855	574	195.023
179	5	0.658088	0.409735	574	194.491
180	5	0.661765	0.417928	574	194.091
181	5	0.665441	0.428895	574	193.556
182	5	0.669118	0.439913	574	193.018
183	5	0.672794	0.448213	574	192.612
184	5	0.676471	0.459327	574	192.07
185	5	0.680147	0.470498	574	191.524
186	5	0.683824	0.478914	574	191.113
187	5	0.6875	0.490189	574	190.562
188	5	0.691176	0.501527	574	190.009
189	5	0.694853	0.510074	574	189.591
190	5	0.698529	0.521527	574	189.032
191	5	0.702206	0.533048	574	188.469
192	5	0.705882	0.541736	574	188.045
193	5	0.709559	0.553384	574	187.476
194	5	0.713235	0.565108	574	186.904
195	5	0.716912	0.573953	574	186.472
196	5	0.720588	0.585815	574	185.893
197	5	0.724265	0.597761	574	185.309
198	5	0.727941	0.606775	574	184.869
199	5	0.731618	0.618872	574	184.278
200	5	0.735294	0.631062	574	183.683
201	5	0.738971	0.640266	574	183.234
202	5	0.742647	0.652622	574	182.63
203	5	0.746324	0.665079	574	182.022
204	5	0.75	0.67449	574	181.562
205	5	0.753676	0.687131	574	180.945
206	5	0.757353	0.699883	574	180.322
207	5	0.761029	0.712751	574	179.694
208	5	0.764706	0.722479	574	179.219
209	5	0.768382	0.735557	574	178.58
210	5	0.772059	0.748762	574	177.935
211	5	0.775735	0.758753	574	177.448
212	5	0.779412	0.772193	574	176.791
213	5	0.783088	0.785774	574	176.128
214	5	0.786765	0.796056	574	175.626
215	5	0.790441	0.809896	574	174.95
216	5	0.794118	0.823893	574	174.267
217	5	0.797794	0.834498	574	173.749
218	5	0.801471	0.848786	574	173.051
219	5	0.805147	0.863249	574	172.345
220	5	0.808824	0.874218	574	171.809
221	5	0.8125	0.889006	574	171.087
222	5	0.816176	0.903992	574	170.355
223	5	0.819853	0.915365	574	169.8
224	5	0.823529	0.930718	574	169.05
225	5	0.827206	0.946291	574	168.289
226	5	0.830882	0.958125	574	167.712
227	5	0.834559	0.974114	574	166.931
228	5	0.838235	0.990356	574	166.138
229	5	0.841912	1.00271	574	165.534
230	5	0.845588	1.01943	574	164.718
231	5	0.849265	1.03643	574	163.888
232	5	0.852941	1.04939	574	163.255
233	5	0.856618	1.06694	574	162.398
234	5	0.860294	1.08482	574	161.524

235	5	0.863971	1.09847	574	160.858
236	5	0.867647	1.11699	574	159.954
237	5	0.871324	1.1359	574	159.03
238	5	0.875	1.15035	574	158.325
239	5	0.878676	1.17	574	157.365
240	5	0.882353	1.19012	574	156.383
241	5	0.886029	1.21073	574	155.376
242	5	0.889706	1.22653	574	154.605
243	5	0.893382	1.24809	574	153.552
244	5	0.897059	1.27024	574	152.47
245	5	0.900735	1.28727	574	151.638
246	5	0.904412	1.31058	574	150.5
247	5	0.908088	1.33462	574	149.326
248	5	0.911765	1.35317	574	148.42
249	5	0.915441	1.37866	574	147.176
250	5	0.919118	1.40507	574	145.886
251	5	0.922794	1.42554	574	144.886
252	5	0.926471	1.4538	574	143.506
253	5	0.930147	1.48328	574	142.066
254	5	0.933824	1.50626	574	140.944
255	5	0.9375	1.5382	574	139.385
256	5	0.941176	1.57179	574	137.744
257	5	0.944853	1.59819	574	136.455
258	5	0.948529	1.63524	574	134.646
259	5	0.952206	1.67466	574	132.721
260	5	0.955882	1.70604	574	131.188
261	5	0.959559	1.75069	574	129.008
262	5	0.963235	1.79912	574	126.643
263	5	0.966912	1.83843	574	124.724
264	5	0.970588	1.8957	574	121.927
265	5	0.974265	1.95996	574	118.789
266	5	0.977941	2.01409	574	116.145
267	5	0.981618	2.09693	574	112.1
268	5	0.985294	2.19728	574	107.199
269	5	0.988971	2.29036	574	102.654
270	5	0.992647	2.45727	574	94.5032
271	5	0.996324	2.74777	574	80.3175

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-3.35241	-2.74777	7.55021	9.21163
2	-3.35241	-2.45727	13.5884	17.4494
3	-3.35241	-2.29036	18.8342	25.1276
4	-3.35241	-2.19728	23.6622	32.4938
5	-3.35241	-2.09693	28.0593	39.5236
6	-3.35241	-2.01409	32.1159	46.2757
7	-3.35241	-1.95996	35.9574	52.8462
8	-3.35241	-1.8957	39.551	59.2014
9	-3.35241	-1.83843	42.9308	65.3645
10	-3.35241	-1.79912	46.1677	71.3959
11	-3.35241	-1.75069	49.2326	77.2649
12	-3.35241	-1.70604	52.1431	82.9843
13	-3.35241	-1.67466	54.9476	88.5984
14	-3.35241	-1.63524	57.6216	94.0804
15	-3.35241	-1.59819	60.1758	99.4382
16	-3.35241	-1.57179	62.6464	104.707
17	-3.35241	-1.5382	65.0124	109.864
18	-3.35241	-1.50626	67.2812	114.914
19	-3.35241	-1.48328	69.4814	119.886
20	-3.35241	-1.4538	71.5949	124.76
21	-3.35241	-1.42554	73.6271	129.539
22	-3.35241	-1.40507	75.6013	134.249
23	-3.35241	-1.37866	77.502	138.871
24	-3.35241	-1.35317	79.3331	143.408
25	-3.35241	-1.33462	81.1143	147.882
26	-3.35241	-1.31058	82.8319	152.275
27	-3.35241	-1.28727	84.489	156.591
28	-3.35241	-1.27024	86.1025	160.849
29	-3.35241	-1.24809	87.6602	165.033
30	-3.35241	-1.22653	89.1646	169.145
31	-3.35241	-1.21073	90.6305	173.204
32	-3.35241	-1.19012	92.0469	177.194
33	-3.35241	-1.17	93.4158	181.116
34	-3.35241	-1.15035	94.7391	184.973
35	-3.35241	-1.1359	96.0293	188.781
36	-3.35241	-1.11699	97.277	192.525
37	-3.35241	-1.09847	98.4836	196.208
38	-3.35241	-1.08482	99.6605	199.844
39	-3.35241	-1.06694	100.799	203.421
40	-3.35241	-1.04939	101.9	206.939
41	-3.35241	-1.03643	102.974	210.414
42	-3.35241	-1.01943	104.013	213.831
43	-3.35241	-1.00271	105.019	217.193
44	-3.35241	-0.990356	106	220.513
45	-3.35241	-0.974114	106.949	223.778
46	-3.35241	-0.958125	107.867	226.99
47	-3.35241	-0.946291	108.762	230.163
48	-3.35241	-0.930718	109.628	233.283
49	-3.35241	-0.915365	110.466	236.352
50	-3.35241	-0.903992	111.283	239.382
51	-3.35241	-0.889006	112.074	242.363

52	-3.35241	-0.874218	112.838	245.293
53	-3.35241	-0.863249	113.583	248.187
54	-3.35241	-0.848786	114.304	251.033
55	-3.35241	-0.834498	115	253.83
56	-3.35241	-0.823893	115.679	256.592
57	-3.35241	-0.809896	116.335	259.307
58	-3.35241	-0.796056	116.968	261.976
59	-3.35241	-0.785774	117.586	264.61
60	-3.35241	-0.772193	118.182	267.199
61	-3.35241	-0.758753	118.758	269.743
62	-3.35241	-0.748762	119.318	272.253
63	-3.35241	-0.735557	119.86	274.719
64	-3.35241	-0.722479	120.382	277.141
65	-3.35241	-0.712751	120.89	279.53
66	-3.35241	-0.699883	121.379	281.877
67	-3.35241	-0.687131	121.852	284.18
68	-2.64508	-0.67449	122.306	285.964
69	-2.64508	-0.665079	122.749	287.723
70	-2.59027	-0.652622	123.175	289.414
71	-2.57702	-0.640266	123.585	291.064
72	-2.4651	-0.631062	123.983	292.619
73	-2.41912	-0.618872	124.366	294.117
74	-2.36446	-0.606775	124.734	295.551
75	-2.30259	-0.597761	125.091	296.928
76	-2.12026	-0.585815	125.435	298.17
77	-2.12026	-0.573953	125.764	299.387
78	-2.04022	-0.565108	126.083	300.54
79	-2.04022	-0.553384	126.39	301.669
80	-2.04022	-0.541736	126.683	302.774
81	-1.89712	-0.533048	126.967	303.785
82	-1.89712	-0.521527	127.239	304.775
83	-1.89712	-0.510074	127.499	305.742
84	-1.83258	-0.501527	127.751	306.661
85	-1.77196	-0.490189	127.991	307.53
86	-1.66073	-0.478914	128.221	308.325
87	-1.30933	-0.470498	128.442	308.941
88	-1.23787	-0.459327	128.653	309.51
89	-1.07881	-0.448213	128.854	309.993
90	1.60944	-0.439913	129.047	309.285
91	1.60944	-0.428895	129.231	308.595
92	1.60944	-0.417928	129.406	307.922
93	1.60944	-0.409735	129.574	307.263
94	1.60944	-0.398855	129.733	306.621
95	1.60944	-0.388022	129.883	305.997
96	1.60944	-0.379927	130.028	305.385
97	1.60944	-0.369171	130.164	304.791
98	1.60944	-0.358459	130.293	304.214
99	1.60944	-0.350451	130.415	303.65
100	1.60944	-0.33981	130.531	303.103
101	1.60944	-0.329206	130.639	302.573
102	1.60944	-0.318639	130.741	302.06
103	1.60944	-0.310738	130.837	301.56
104	1.60944	-0.300232	130.927	301.077
105	1.60944	-0.28976	131.011	300.611
106	1.60944	-0.281926	131.091	300.157
107	1.60944	-0.271509	131.165	299.72
108	1.60944	-0.26112	131.233	299.3
109	1.60944	-0.253347	131.297	298.892
110	1.60944	-0.243007	131.356	298.501
111	1.60944	-0.232693	131.41	298.126
112	1.60944	-0.224974	131.461	297.764
113	1.60944	-0.214702	131.507	297.419

114	1.60944	-0.204452	131.549	297.09
115	1.60944	-0.196779	131.587	296.773
116	1.60944	-0.186567	131.622	296.473
117	1.60944	-0.176374	131.653	296.189
118	1.60944	-0.168741	131.682	295.917
119	1.60944	-0.158579	131.707	295.662
120	1.60944	-0.148434	131.729	295.423
121	1.60944	-0.140835	131.749	295.197
122	1.60944	-0.130716	131.766	294.986
123	1.60944	-0.12061	131.78	294.792
124	1.60944	-0.113039	131.793	294.61
125	1.60944	-0.102953	131.804	294.444
126	1.60944	-0.0928787	131.812	294.295
127	1.60944	-0.0853288	131.82	294.158
128	1.60944	-0.0752698	131.825	294.036
129	1.60944	-0.0652187	131.83	293.932
130	1.60944	-0.0576847	131.833	293.839
131	1.60944	-0.0476439	131.835	293.762
132	1.60944	-0.0376076	131.837	293.701
133	1.60944	-0.0300838	131.838	293.653
134	1.60944	-0.0200544	131.838	293.621
135	1.60944	-0.0100272	131.838	293.605
136	1.60944	0	131.838	293.605
137	1.60944	0.0100272	131.838	293.621
138	1.60944	0.0200544	131.839	293.653
139	1.60944	0.0300838	131.839	293.701
140	1.60944	0.0376076	131.841	293.762
141	1.60944	0.0476439	131.843	293.839
142	1.60944	0.0576847	131.846	293.932
143	1.60944	0.0652187	131.851	294.036
144	1.60944	0.0752698	131.856	294.158
145	1.60944	0.0853288	131.864	294.295
146	1.60944	0.0928787	131.872	294.444
147	1.60944	0.102953	131.883	294.61
148	1.60944	0.113039	131.896	294.792
149	1.60944	0.12061	131.91	294.986
150	1.60944	0.130716	131.927	295.197
151	1.60944	0.140835	131.947	295.423
152	1.60944	0.148434	131.969	295.662
153	1.60944	0.158579	131.994	295.917
154	1.60944	0.168741	132.023	296.189
155	1.60944	0.176374	132.054	296.473
156	1.60944	0.186567	132.089	296.773
157	1.60944	0.196779	132.127	297.09
158	1.60944	0.204452	132.169	297.419
159	1.60944	0.214702	132.215	297.764
160	1.60944	0.224974	132.266	298.126
161	1.60944	0.232693	132.32	298.501
162	1.60944	0.243007	132.379	298.892
163	1.60944	0.253347	132.443	299.3
164	1.60944	0.26112	132.512	299.72
165	1.60944	0.271509	132.585	300.157
166	1.60944	0.281926	132.665	300.611
167	1.60944	0.28976	132.749	301.077
168	1.60944	0.300232	132.839	301.56
169	1.60944	0.310738	132.935	302.06
170	1.60944	0.318639	133.037	302.573
171	1.60944	0.329206	133.145	303.103
172	1.60944	0.33981	133.261	303.65
173	1.60944	0.350451	133.384	304.214
174	1.60944	0.358459	133.512	304.791
175	1.60944	0.369171	133.648	305.385

176	1.60944	0.379927		133.793	305.997
177	1.60944	0.388022		133.943	306.621
178	1.60944	0.398855		134.102	307.263
179	1.60944	0.409735		134.27	307.922
180	1.60944	0.417928		134.445	308.595
181	1.60944	0.428895		134.629	309.285
182	1.60944	0.439913		134.822	309.993
183	1.60944	0.448213		135.023	310.715
184	1.60944	0.459327		135.234	311.454
185	1.60944	0.470498		135.456	312.211
186	1.60944	0.478914		135.685	312.982
187	1.60944	0.490189		135.925	313.771
188	1.60944	0.501527		136.177	314.578
189	1.60944	0.510074		136.437	315.399
190	1.60944	0.521527		136.709	316.238
191	1.60944	0.533048		136.993	317.096
192	1.60944	0.541736		137.287	317.968
193	1.60944	0.553384		137.593	318.859
194	1.60944	0.565108		137.912	319.768
195	1.60944	0.573953		138.242	320.692
196	1.60944	0.585815		138.585	321.635
197	1.60944	0.597761		138.942	322.597
198	1.60944	0.606775		139.31	323.574
199	1.60944	0.618872		139.693	324.57
200	1.60944	0.631062		140.091	325.585
201	1.60944	0.640266		140.501	326.616
202	1.60944	0.652622		140.927	327.666
203	1.60944	0.665079		141.37	328.736
204	1.60944	0.67449	141.825	329.822	
205	1.60944	0.687131		142.297	330.928
206	1.60944	0.699883		142.787	332.054
207	1.60944	0.712751		143.295	333.201
208	1.60944	0.722479		143.817	334.364
209	1.60944	0.735557		144.358	335.548
210	1.60944	0.748762		144.918	336.753
211	1.60944	0.758753		145.494	337.974
212	1.60944	0.772193		146.09	339.217
213	1.60944	0.785774		146.708	340.482
214	1.60944	0.796056		147.341	341.763
215	1.60944	0.809896		147.997	343.066
216	1.60944	0.823893		148.676	344.392
217	1.60944	0.834498		149.373	345.736
218	1.60944	0.848786		150.093	347.102
219	1.60944	0.863249		150.838	348.491
220	1.60944	0.874218		151.602	349.898
221	1.60944	0.889006		152.393	351.329
222	1.60944	0.903992		153.21	352.784
223	1.60944	0.915365		154.048	354.257
224	1.60944	0.930718		154.914	355.755
225	1.60944	0.946291		155.81	357.278
226	1.60944	0.958125		156.728	358.82
227	1.60944	0.974114		157.676	360.388
228	1.60944	0.990356		158.657	361.982
229	1.60944	1.00271	159.663	363.595	
230	1.60944	1.01943	160.702	365.236	
231	1.60944	1.03643	161.776	366.904	
232	1.60944	1.04939	162.877	368.593	
233	1.60944	1.06694	164.016	370.31	
234	1.60944	1.08482	165.193	372.056	
235	1.60944	1.09847	166.399	373.824	
236	1.60944	1.11699	167.647	375.622	
237	1.60944	1.1359	168.937	377.45	

238	1.60944	1.15035	170.26	379.301
239	1.60944	1.17	171.629	381.184
240	1.60944	1.19012	173.046	383.1
241	1.60944	1.21073	174.512	385.048
242	1.60944	1.22653	176.016	387.022
243	1.60944	1.24809	177.574	389.031
244	1.60944	1.27024	179.187	391.076
245	1.60944	1.28727	180.844	393.147
246	1.60944	1.31058	182.562	395.257
247	1.60944	1.33462	184.343	397.405
248	1.60944	1.35317	186.174	399.582
249	1.60944	1.37866	188.075	401.801
250	1.60944	1.40507	190.049	404.063
251	1.60944	1.42554	192.081	406.357
252	1.60944	1.4538	194.195	408.697
253	1.60944	1.48328	196.395	411.084
254	1.60944	1.50626	198.664	413.508
255	1.60944	1.5382	201.03	415.984
256	1.60944	1.57179	203.5	418.514
257	1.60944	1.59819	206.054	421.086
258	1.60944	1.63524	208.728	423.718
259	1.60944	1.67466	211.533	426.413
260	1.60944	1.70604	214.444	429.159
261	1.60944	1.75069	217.508	431.976
262	1.60944	1.79912	220.745	434.872
263	1.60944	1.83843	224.125	437.831
264	1.60944	1.8957	227.719	440.882
265	1.60944	1.95996	231.56	444.036
266	1.60944	2.01409	235.617	447.278
267	1.60944	2.09693	240.014	450.653
268	1.60944	2.19728	244.842	454.189
269	1.60944	2.29036	250.088	457.875
270	1.60944	2.45727	256.126	461.83
271	1.60944	2.74777	263.676	466.252

Data Set Standard Deviation = 2.20984
Numerator = 217391
Denominator = 347661
W Statistic = 0.625296 = 217391 / 347661

5% Critical value of 0.976 exceeds 0.625296
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.625296
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 = 0.788606
0.788606 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.35241	0.00367647	-2.74777	96.7437	348.683
2	-3.35241	0.00735294	-2.45727	96.7437	334.497
3	-3.35241	0.0110294	-2.29036	96.7437	326.346
4	-3.35241	0.0147059	-2.19728	96.7437	321.801
5	-3.35241	0.0183824	-2.09693	96.7437	316.9
6	-3.35241	0.0220588	-2.01409	96.7437	312.855
7	-3.35241	0.0257353	-1.95996	96.7437	310.211
8	-3.35241	0.0294118	-1.8957	96.7437	307.073
9	-3.35241	0.0330882	-1.83843	96.7437	304.276
10	-3.35241	0.0367647	-1.79912	96.7437	302.357
11	-3.35241	0.0404412	-1.75069	96.7437	299.992
12	-3.35241	0.0441176	-1.70604	96.7437	297.812
13	-3.35241	0.0477941	-1.67466	96.7437	296.279
14	-3.35241	0.0514706	-1.63524	96.7437	294.354
15	-3.35241	0.0551471	-1.59819	96.7437	292.545
16	-3.35241	0.0588235	-1.57179	96.7437	291.256
17	-3.35241	0.0625	-1.5382	96.7437	289.615
18	-3.35241	0.0661765	-1.50626	96.7437	288.056
19	-3.35241	0.0698529	-1.48328	96.7437	286.934
20	-3.35241	0.0735294	-1.4538	96.7437	285.494
21	-3.35241	0.0772059	-1.42554	96.7437	284.114
22	-3.35241	0.0808824	-1.40507	96.7437	283.114
23	-3.35241	0.0845588	-1.37866	96.7437	281.824
24	-3.35241	0.0882353	-1.35317	96.7437	280.58
25	-3.35241	0.0919118	-1.33462	96.7437	279.674
26	-3.35241	0.0955882	-1.31058	96.7437	278.5
27	-3.35241	0.0992647	-1.28727	96.7437	277.362
28	-3.35241	0.102941	-1.27024	96.7437	276.53
29	-3.35241	0.106618	-1.24809	96.7437	275.448
30	-3.35241	0.110294	-1.22653	96.7437	274.395
31	-3.35241	0.113971	-1.21073	96.7437	273.624
32	-3.35241	0.117647	-1.19012	96.7437	272.617
33	-3.35241	0.121324	-1.17	96.7437	271.635
34	-3.35241	0.125	-1.15035	96.7437	270.675
35	-3.35241	0.128676	-1.1359	96.7437	269.97
36	-3.35241	0.132353	-1.11699	96.7437	269.046
37	-3.35241	0.136029	-1.09847	96.7437	268.142
38	-3.35241	0.139706	-1.08482	96.7437	267.476
39	-3.35241	0.143382	-1.06694	96.7437	266.602
40	-3.35241	0.147059	-1.04939	96.7437	265.745
41	-3.35241	0.150735	-1.03643	96.7437	265.112
42	-3.35241	0.154412	-1.01943	96.7437	264.282
43	-3.35241	0.158088	-1.00271	96.7437	263.466
44	-3.35241	0.161765	-0.990356	96.7437	262.862
45	-3.35241	0.165441	-0.974114	96.7437	262.069
46	-3.35241	0.169118	-0.958125	96.7437	261.288
47	-3.35241	0.172794	-0.946291	96.7437	260.711
48	-3.35241	0.176471	-0.930718	96.7437	259.95

49	-3.35241	0.180147	-0.915365	96.7437	259.2
50	-3.35241	0.183824	-0.903992	96.7437	258.645
51	-3.35241	0.1875	-0.889006	96.7437	257.913
52	-3.35241	0.191176	-0.874218	96.7437	257.191
53	-3.35241	0.194853	-0.863249	96.7437	256.655
54	-3.35241	0.198529	-0.848786	96.7437	255.949
55	-3.35241	0.202206	-0.834498	96.7437	255.251
56	-3.35241	0.205882	-0.823893	96.7437	254.733
57	-3.35241	0.209559	-0.809896	96.7437	254.05
58	-3.35241	0.213235	-0.796056	96.7437	253.374
59	-3.35241	0.216912	-0.785774	96.7437	252.872
60	-3.35241	0.220588	-0.772193	96.7437	252.209
61	-3.35241	0.224265	-0.758753	96.7437	251.552
62	-3.35241	0.227941	-0.748762	96.7437	251.065
63	-3.35241	0.231618	-0.735557	96.7437	250.42
64	-3.35241	0.235294	-0.722479	96.7437	249.781
65	-3.35241	0.238971	-0.712751	96.7437	249.306
66	-3.35241	0.242647	-0.699883	96.7437	248.678
67	-3.35241	0.246324	-0.687131	96.7437	248.055
68	-2.64508	0.25	-0.67449	159.814	247.438
69	-2.64508	0.253676	-0.665079	159.814	246.978
70	-2.59027	0.257353	-0.652622	164.701	246.37
71	-2.57702	0.261029	-0.640266	165.882	245.766
72	-2.4651	0.264706	-0.631062	175.862	245.317
73	-2.41912	0.268382	-0.618872	179.962	244.722
74	-2.36446	0.272059	-0.606775	184.836	244.131
75	-2.30259	0.275735	-0.597761	190.353	243.691
76	-2.12026	0.279412	-0.585815	206.61	243.107
77	-2.12026	0.283088	-0.573953	206.61	242.528
78	-2.04022	0.286765	-0.565108	213.747	242.096
79	-2.04022	0.290441	-0.553384	213.747	241.524
80	-2.04022	0.294118	-0.541736	213.747	240.955
81	-1.89712	0.297794	-0.533048	226.507	240.531
82	-1.89712	0.301471	-0.521527	226.507	239.968
83	-1.89712	0.305147	-0.510074	226.507	239.409
84	-1.83258	0.308824	-0.501527	232.261	238.991
85	-1.77196	0.3125	-0.490189	237.667	238.438
86	-1.66073	0.316176	-0.478914	247.585	237.887
87	-1.30933	0.319853	-0.470498	278.918	237.476
88	-1.23787	0.323529	-0.459327	285.29	236.93
89	-1.07881	0.327206	-0.448213	299.473	236.388
90	1.60944	0.330882	-0.439913	539.175	235.982
91	1.60944	0.334559	-0.428895	539.175	235.444
92	1.60944	0.338235	-0.417928	539.175	234.909
93	1.60944	0.341912	-0.409735	539.175	234.509
94	1.60944	0.345588	-0.398855	539.175	233.977
95	1.60944	0.349265	-0.388022	539.175	233.448
96	1.60944	0.352941	-0.379927	539.175	233.053
97	1.60944	0.356618	-0.369171	539.175	232.528
98	1.60944	0.360294	-0.358459	539.175	232.005
99	1.60944	0.363971	-0.350451	539.175	231.614
100	1.60944	0.367647	-0.33981	539.175	231.094
101	1.60944	0.371324	-0.329206	539.175	230.576
102	1.60944	0.375	-0.318639	539.175	230.06
103	1.60944	0.378676	-0.310738	539.175	229.674
104	1.60944	0.382353	-0.300232	539.175	229.161
105	1.60944	0.386029	-0.28976	539.175	228.65
106	1.60944	0.389706	-0.281926	539.175	228.267
107	1.60944	0.393382	-0.271509	539.175	227.759
108	1.60944	0.397059	-0.26112	539.175	227.251
109	1.60944	0.400735	-0.253347	539.175	226.872
110	1.60944	0.404412	-0.243007	539.175	226.367

111	1.60944	0.408088	-0.232693	539.175	225.863
112	1.60944	0.411765	-0.224974	539.175	225.486
113	1.60944	0.415441	-0.214702	539.175	224.985
114	1.60944	0.419118	-0.204452	539.175	224.484
115	1.60944	0.422794	-0.196779	539.175	224.109
116	1.60944	0.426471	-0.186567	539.175	223.611
117	1.60944	0.430147	-0.176374	539.175	223.113
118	1.60944	0.433824	-0.168741	539.175	222.74
119	1.60944	0.4375	-0.158579	539.175	222.244
120	1.60944	0.441176	-0.148434	539.175	221.749
121	1.60944	0.444853	-0.140835	539.175	221.377
122	1.60944	0.448529	-0.130716	539.175	220.883
123	1.60944	0.452206	-0.12061	539.175	220.39
124	1.60944	0.455882	-0.113039	539.175	220.02
125	1.60944	0.459559	-0.102953	539.175	219.528
126	1.60944	0.463235	-0.0928787	539.175	219.036
127	1.60944	0.466912	-0.0853288	539.175	218.667
128	1.60944	0.470588	-0.0752698	539.175	218.176
129	1.60944	0.474265	-0.0652187	539.175	217.685
130	1.60944	0.477941	-0.0576847	539.175	217.317
131	1.60944	0.481618	-0.0476439	539.175	216.827
132	1.60944	0.485294	-0.0376076	539.175	216.337
133	1.60944	0.488971	-0.0300838	539.175	215.969
134	1.60944	0.492647	-0.0200544	539.175	215.479
135	1.60944	0.496324	-0.0100272	539.175	214.99
136	1.60944	0.5	0	539.175	214.5
137	1.60944	0.503676	0.0100272	539.175	214.01
138	1.60944	0.507353	0.0200544	539.175	213.521
139	1.60944	0.511029	0.0300838	539.175	213.031
140	1.60944	0.514706	0.0376076	539.175	212.663
141	1.60944	0.518382	0.0476439	539.175	212.173
142	1.60944	0.522059	0.0576847	539.175	211.683
143	1.60944	0.525735	0.0652187	539.175	211.315
144	1.60944	0.529412	0.0752698	539.175	210.824
145	1.60944	0.533088	0.0853288	539.175	210.333
146	1.60944	0.536765	0.0928787	539.175	209.964
147	1.60944	0.540441	0.102953	539.175	209.472
148	1.60944	0.544118	0.113039	539.175	208.98
149	1.60944	0.547794	0.12061	539.175	208.61
150	1.60944	0.551471	0.130716	539.175	208.117
151	1.60944	0.555147	0.140835	539.175	207.623
152	1.60944	0.558824	0.148434	539.175	207.251
153	1.60944	0.5625	0.158579	539.175	206.756
154	1.60944	0.566176	0.168741	539.175	206.26
155	1.60944	0.569853	0.176374	539.175	205.887
156	1.60944	0.573529	0.186567	539.175	205.389
157	1.60944	0.577206	0.196779	539.175	204.891
158	1.60944	0.580882	0.204452	539.175	204.516
159	1.60944	0.584559	0.214702	539.175	204.015
160	1.60944	0.588235	0.224974	539.175	203.514
161	1.60944	0.591912	0.232693	539.175	203.137
162	1.60944	0.595588	0.243007	539.175	202.633
163	1.60944	0.599265	0.253347	539.175	202.128
164	1.60944	0.602941	0.26112	539.175	201.749
165	1.60944	0.606618	0.271509	539.175	201.241
166	1.60944	0.610294	0.281926	539.175	200.733
167	1.60944	0.613971	0.28976	539.175	200.35
168	1.60944	0.617647	0.300232	539.175	199.839
169	1.60944	0.621324	0.310738	539.175	199.326
170	1.60944	0.625	0.318639	539.175	198.94
171	1.60944	0.628676	0.329206	539.175	198.424
172	1.60944	0.632353	0.33981	539.175	197.906

173	1.60944	0.636029	0.350451	539.175	197.386
174	1.60944	0.639706	0.358459	539.175	196.995
175	1.60944	0.643382	0.369171	539.175	196.472
176	1.60944	0.647059	0.379927	539.175	195.947
177	1.60944	0.650735	0.388022	539.175	195.552
178	1.60944	0.654412	0.398855	539.175	195.023
179	1.60944	0.658088	0.409735	539.175	194.491
180	1.60944	0.661765	0.417928	539.175	194.091
181	1.60944	0.665441	0.428895	539.175	193.556
182	1.60944	0.669118	0.439913	539.175	193.018
183	1.60944	0.672794	0.448213	539.175	192.612
184	1.60944	0.676471	0.459327	539.175	192.07
185	1.60944	0.680147	0.470498	539.175	191.524
186	1.60944	0.683824	0.478914	539.175	191.113
187	1.60944	0.6875	0.490189	539.175	190.562
188	1.60944	0.691176	0.501527	539.175	190.009
189	1.60944	0.694853	0.510074	539.175	189.591
190	1.60944	0.698529	0.521527	539.175	189.032
191	1.60944	0.702206	0.533048	539.175	188.469
192	1.60944	0.705882	0.541736	539.175	188.045
193	1.60944	0.709559	0.553384	539.175	187.476
194	1.60944	0.713235	0.565108	539.175	186.904
195	1.60944	0.716912	0.573953	539.175	186.472
196	1.60944	0.720588	0.585815	539.175	185.893
197	1.60944	0.724265	0.597761	539.175	185.309
198	1.60944	0.727941	0.606775	539.175	184.869
199	1.60944	0.731618	0.618872	539.175	184.278
200	1.60944	0.735294	0.631062	539.175	183.683
201	1.60944	0.738971	0.640266	539.175	183.234
202	1.60944	0.742647	0.652622	539.175	182.63
203	1.60944	0.746324	0.665079	539.175	182.022
204	1.60944	0.75	0.67449	539.175	181.562
205	1.60944	0.753676	0.687131	539.175	180.945
206	1.60944	0.757353	0.699883	539.175	180.322
207	1.60944	0.761029	0.712751	539.175	179.694
208	1.60944	0.764706	0.722479	539.175	179.219
209	1.60944	0.768382	0.735557	539.175	178.58
210	1.60944	0.772059	0.748762	539.175	177.935
211	1.60944	0.775735	0.758753	539.175	177.448
212	1.60944	0.779412	0.772193	539.175	176.791
213	1.60944	0.783088	0.785774	539.175	176.128
214	1.60944	0.786765	0.796056	539.175	175.626
215	1.60944	0.790441	0.809896	539.175	174.95
216	1.60944	0.794118	0.823893	539.175	174.267
217	1.60944	0.797794	0.834498	539.175	173.749
218	1.60944	0.801471	0.848786	539.175	173.051
219	1.60944	0.805147	0.863249	539.175	172.345
220	1.60944	0.808824	0.874218	539.175	171.809
221	1.60944	0.8125	0.889006	539.175	171.087
222	1.60944	0.816176	0.903992	539.175	170.355
223	1.60944	0.819853	0.915365	539.175	169.8
224	1.60944	0.823529	0.930718	539.175	169.05
225	1.60944	0.827206	0.946291	539.175	168.289
226	1.60944	0.830882	0.958125	539.175	167.712
227	1.60944	0.834559	0.974114	539.175	166.931
228	1.60944	0.838235	0.990356	539.175	166.138
229	1.60944	0.841912	1.00271	539.175	165.534
230	1.60944	0.845588	1.01943	539.175	164.718
231	1.60944	0.849265	1.03643	539.175	163.888
232	1.60944	0.852941	1.04939	539.175	163.255
233	1.60944	0.856618	1.06694	539.175	162.398
234	1.60944	0.860294	1.08482	539.175	161.524

235	1.60944	0.863971	1.09847	539.175	160.858
236	1.60944	0.867647	1.11699	539.175	159.954
237	1.60944	0.871324	1.1359	539.175	159.03
238	1.60944	0.875	1.15035	539.175	158.325
239	1.60944	0.878676	1.17	539.175	157.365
240	1.60944	0.882353	1.19012	539.175	156.383
241	1.60944	0.886029	1.21073	539.175	155.376
242	1.60944	0.889706	1.22653	539.175	154.605
243	1.60944	0.893382	1.24809	539.175	153.552
244	1.60944	0.897059	1.27024	539.175	152.47
245	1.60944	0.900735	1.28727	539.175	151.638
246	1.60944	0.904412	1.31058	539.175	150.5
247	1.60944	0.908088	1.33462	539.175	149.326
248	1.60944	0.911765	1.35317	539.175	148.42
249	1.60944	0.915441	1.37866	539.175	147.176
250	1.60944	0.919118	1.40507	539.175	145.886
251	1.60944	0.922794	1.42554	539.175	144.886
252	1.60944	0.926471	1.4538	539.175	143.506
253	1.60944	0.930147	1.48328	539.175	142.066
254	1.60944	0.933824	1.50626	539.175	140.944
255	1.60944	0.9375	1.5382	539.175	139.385
256	1.60944	0.941176	1.57179	539.175	137.744
257	1.60944	0.944853	1.59819	539.175	136.455
258	1.60944	0.948529	1.63524	539.175	134.646
259	1.60944	0.952206	1.67466	539.175	132.721
260	1.60944	0.955882	1.70604	539.175	131.188
261	1.60944	0.959559	1.75069	539.175	129.008
262	1.60944	0.963235	1.79912	539.175	126.643
263	1.60944	0.966912	1.83843	539.175	124.724
264	1.60944	0.970588	1.8957	539.175	121.927
265	1.60944	0.974265	1.95996	539.175	118.789
266	1.60944	0.977941	2.01409	539.175	116.145
267	1.60944	0.981618	2.09693	539.175	112.1
268	1.60944	0.985294	2.19728	539.175	107.199
269	1.60944	0.988971	2.29036	539.175	102.654
270	1.60944	0.992647	2.45727	539.175	94.5032
271	1.60944	0.996324	2.74777	539.175	80.3175

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Beryllium
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 91.8819%
Number of comparisons = 17
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 1.60944
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-9D	5/16/2012	1	-3.35241	FALSE
LMW-9S	5/16/2012	1	-3.35241	FALSE
LMW-9	5/16/2012	1	-1.30933	FALSE
LMW-7	5/16/2012	1	-2.36446	FALSE
LMW-6	5/16/2012	1	-2.59027	FALSE
LMW-3s	5/16/2012	1	-3.35241	FALSE
LMW-3	5/16/2012	1	-3.35241	FALSE
LMW-16	5/16/2012	1	-3.35241	FALSE
LMW-15R	5/16/2012	1	-1.89712	FALSE
LMW-10	5/16/2012	1	-3.35241	FALSE
LMW-14R	5/16/2012	1	-3.35241	FALSE
LMW-8	5/16/2012	1	-3.35241	FALSE
LMW-3S	11/22/2011	1	-3.35241	FALSE
LMW-13	11/20/2008	1	1.60944	FALSE
MW-5	11/20/2008	1	1.60944	FALSE
LMW-12	11/20/2008	1	1.60944	FALSE
LMW-11	11/20/2008	1	1.60944	FALSE

Concentrations (ppb)

Parameter: Bromomethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 453
Total Non-Detect: 453
Percent Non-Detects: 100%
Total Background Measurements: 37
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	37	37 (100%)	1/16/1998	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.8 U	ND<0.8 U
			11/16/2009	ND<0.8 U	ND<0.8 U
			6/30/2010	ND<0.8 U	ND<0.8 U
			11/17/2010	ND<0.8 U	ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U
			11/22/2011	ND<0.8 U	ND<0.8 U
			5/16/2012	ND<0.8 U	ND<0.8 U

There are 16 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-9S	16	16 (100%)	11/18/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1

		5/20/2008	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.8 U	ND<0.8 U	
		6/30/2010	ND<0.8 U	ND<0.8 U	
		11/17/2010	ND<0.8 U	ND<0.8 U	
		7/6/2011	ND<0.8 U	ND<0.8 U	
		11/22/2011	ND<0.8 U	ND<0.8 U	
		5/16/2012	ND<0.8 U	ND<0.8 U	
LMW-15R	25	25 (100%)	11/18/2006	ND<1	ND<1
		11/18/2006	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.8 U	ND<0.8 U	
		11/16/2009	ND<0.8 U	ND<0.8 U	
		11/16/2009	ND<0.8 U	ND<0.8 U	
		11/16/2009	ND<0.8 U	ND<0.8 U	
		6/30/2010	ND<0.8 U	ND<0.8 U	
		11/17/2010	ND<0.8 U	ND<0.8 U	
		7/6/2011	ND<0.8 U	ND<0.8 U	
		11/22/2011	ND<0.8 U	ND<0.8 U	
		5/16/2012	ND<0.8 U	ND<0.8 U	
LMW-16	17	17 (100%)	11/18/2006	ND<1	ND<1
		11/18/2006	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.8 U	ND<0.8 U	
		11/16/2009	ND<0.8 U	ND<0.8 U	
		6/30/2010	ND<0.8 U	ND<0.8 U	
		11/17/2010	ND<0.8 U	ND<0.8 U	
		7/6/2011	ND<0.8 U	ND<0.8 U	
		11/22/2011	ND<0.8 U	ND<0.8 U	
		5/16/2012	ND<0.8 U	ND<0.8 U	
LMW-3	41	41 (100%)	11/19/1996	ND<1	ND<1
		11/19/1996	ND<1	ND<1	
		3/24/1997	ND<1	ND<1	
		3/24/1997	ND<1	ND<1	
		1/16/1998	ND<1	ND<1	
		1/16/1998	ND<1	ND<1	
		3/16/1999	ND<1	ND<1	

			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.8 U	ND<0.8 U
			11/16/2009	ND<0.8 U	ND<0.8 U
			6/30/2010	ND<0.8 U	ND<0.8 U
			11/17/2010	ND<0.8 U	ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U
			11/22/2011	ND<0.8 U	ND<0.8 U
			5/16/2012	ND<0.8 U	ND<0.8 U
LMW-9D	17	17 (100%)	11/18/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.8 U	ND<0.8 U
			11/16/2009	ND<0.8 U	ND<0.8 U
			6/30/2010	ND<0.8 U	ND<0.8 U
			11/17/2010	ND<0.8 U	ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U
			11/22/2011	ND<0.8 U	ND<0.8 U
			5/16/2012	ND<0.8 U	ND<0.8 U
LMW-14R	14	14 (100%)	6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.8 U	ND<0.8 U

			6/30/2010	ND<0.8 U	ND<0.8 U
			11/17/2010	ND<0.8 U	ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U
			11/22/2011	ND<0.8 U	ND<0.8 U
			5/16/2012	ND<0.8 U	ND<0.8 U
LMW-3S	17	17 (100%)	11/18/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.8 U	ND<0.8 U
			11/16/2009	ND<0.8 U	ND<0.8 U
			6/30/2010	ND<0.8 U	ND<0.8 U
			11/17/2010	ND<0.8 U	ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U
			11/22/2011	ND<0.8 U	ND<0.8 U
			5/16/2012	ND<0.8 U	ND<0.8 U
LMW-6	37	37 (100%)	1/16/1998	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.8 U	ND<0.8 U
			11/16/2009	ND<0.8 U	ND<0.8 U
			6/30/2010	ND<0.8 U	ND<0.8 U
			11/17/2010	ND<0.8 U	ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U
			11/22/2011	ND<0.8 U	ND<0.8 U
			5/16/2012	ND<0.8 U	ND<0.8 U

LMW-7	35	35 (100%)	1/16/1998	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.8 U	ND<0.8 U
			11/17/2010	ND<0.8 U	ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U
			11/22/2011	ND<0.8 U	ND<0.8 U
			5/16/2012	ND<0.8 U	ND<0.8 U
LMW-8	37	37 (100%)	1/16/1998	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1

			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.8 U	ND<0.8 U
			11/16/2009	ND<0.8 U	ND<0.8 U
			6/30/2010	ND<0.8 U	ND<0.8 U
			11/17/2010	ND<0.8 U	ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U
			11/22/2011	ND<0.8 U	ND<0.8 U
			5/16/2012	ND<0.8 U	ND<0.8 U
LMW-9	37	37 (100%)	1/16/1998	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.8 U	ND<0.8 U
			11/16/2009	ND<0.8 U	ND<0.8 U
			6/30/2010	ND<0.8 U	ND<0.8 U
			11/17/2010	ND<0.8 U	ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U
			11/22/2011	ND<0.8 U	ND<0.8 U
			5/16/2012	ND<0.8 U	ND<0.8 U
LMW-10	31	31 (100%)	3/14/2000	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1

			6/19/2006	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.8 U		ND<0.8 U
			11/16/2009	ND<0.8 U		ND<0.8 U
			6/30/2010	ND<0.8 U		ND<0.8 U
			11/17/2010	ND<0.8 U		ND<0.8 U
			7/6/2011	ND<0.8 U	ND<0.8 U	
			11/22/2011	ND<0.8 U		ND<0.8 U
			5/16/2012	ND<0.8 U		ND<0.8 U
MW-5	26	26 (100%)	1/16/1998		ND<1	ND<1
			1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-12	22	22 (100%)	3/14/2000		ND<1	ND<1
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	

		6/2/2007	ND<1	ND<1	
		11/15/2007		ND<1	ND<1
		11/15/2007		ND<1	ND<1
		5/20/2008		ND<1	ND<1
		5/20/2008		ND<1	ND<1
		11/20/2008		ND<1	ND<1
		11/20/2008		ND<1	ND<1
LMW-11	22	22 (100%)	3/14/2000	ND<1	ND<1
		3/14/2000		ND<1	ND<1
		9/23/2003		ND<1	ND<1
		9/23/2003		ND<1	ND<1
		3/10/2004		ND<1	ND<1
		3/10/2004		ND<1	ND<1
		10/12/2004		ND<1	ND<1
		10/12/2004		ND<1	ND<1
		4/1/2005	ND<1	ND<1	
		4/1/2005	ND<1	ND<1	
		10/26/2005		ND<1	ND<1
		10/26/2005		ND<1	ND<1
		6/19/2006		ND<1	ND<1
		6/19/2006		ND<1	ND<1
		6/2/2007	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		11/15/2007		ND<1	ND<1
		11/15/2007		ND<1	ND<1
		5/20/2008		ND<1	ND<1
		5/20/2008		ND<1	ND<1
		11/20/2008		ND<1	ND<1
		11/20/2008		ND<1	ND<1
LMW-13	22	22 (100%)	3/14/2000	ND<1	ND<1
		3/14/2000		ND<1	ND<1
		9/23/2003		ND<1	ND<1
		9/23/2003		ND<1	ND<1
		3/10/2004		ND<1	ND<1
		3/10/2004		ND<1	ND<1
		10/12/2004		ND<1	ND<1
		10/12/2004		ND<1	ND<1
		4/1/2005	ND<1	ND<1	
		4/1/2005	ND<1	ND<1	
		10/26/2005		ND<1	ND<1
		10/26/2005		ND<1	ND<1
		6/19/2006		ND<1	ND<1
		6/19/2006		ND<1	ND<1
		6/2/2007	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		11/15/2007		ND<1	ND<1
		11/15/2007		ND<1	ND<1
		5/20/2008		ND<1	ND<1
		5/20/2008		ND<1	ND<1
		11/20/2008		ND<1	ND<1
		11/20/2008		ND<1	ND<1

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality
Parameter: Bromomethane
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 453

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.4	-2.87815	8.28375	-1.15126
2	0.4	-2.65209	15.3173	-2.21209
3	0.4	-2.51213	21.6281	-3.21695
4	0.4	-2.40892	27.431	-4.18052
5	0.4	-2.29036	32.6768	-5.09666
6	0.4	-2.22621	37.6328	-5.98715
7	0.4	-2.17009	42.3421	-6.85518
8	0.4	-2.12007	46.8368	-7.70321
9	0.4	-2.07485	51.1418	-8.53315
10	0.4	-2.01409	55.1984	-9.33879
11	0.4	-1.97737	59.1083	-10.1297
12	0.4	-1.94314	62.8841	-10.907
13	0.4	-1.91103	66.5362	-11.6714
14	0.4	-1.88079	70.0735	-12.4237
15	0.4	-1.83843	73.4533	-13.1591
16	0.4	-1.81191	76.7364	-13.8839
17	0.4	-1.78661	79.9283	-14.5985
18	0.4	-1.76241	83.0344	-15.3035
19	0.4	-1.7392	86.0592	-15.9991
20	0.4	-1.70604	88.9698	-16.6816
21	0.4	-1.68494	91.8088	-17.3555
22	0.4	-1.66456	94.5796	-18.0214
23	0.4	-1.64485	97.2852	-18.6793
24	0.4	-1.62576	99.9283	-19.3296
25	0.4	-1.59819	102.482	-19.9689
26	0.4	-1.58047	104.98	-20.6011
27	0.4	-1.56322	107.424	-21.2264
28	0.4	-1.54643	109.815	-21.8449
29	0.4	-1.53007	112.157	-22.457
30	0.4	-1.50626	114.425	-23.0595
31	0.4	-1.49085	116.648	-23.6558
32	0.4	-1.47579	118.826	-24.2461
33	0.4	-1.46106	120.961	-24.8305
34	0.4	-1.44663	123.053	-25.4092
35	0.4	-1.42554	125.086	-25.9794
36	0.4	-1.41183	127.079	-26.5441
37	0.4	-1.39838	129.034	-27.1035
38	0.4	-1.38517	130.953	-27.6576
39	0.4	-1.3722	132.836	-28.2064
40	0.4	-1.35317	134.667	-28.7477
41	0.4	-1.34075	136.465	-29.284
42	0.4	-1.32854	138.23	-29.8154
43	0.4	-1.31652	139.963	-30.342
44	0.4	-1.30469	141.665	-30.8639
45	0.4	-1.28727	143.322	-31.3788
46	0.4	-1.27588	144.95	-31.8892
47	0.4	-1.26464	146.549	-32.395
48	0.4	-1.25357	148.121	-32.8965
49	0.4	-1.24264	149.665	-33.3935
50	0.4	-1.22653	151.169	-33.8841
51	0.4	-1.21596	152.648	-34.3705

52	0.4	-1.20553	154.101	-34.8527
53	0.4	-1.19522	155.53	-35.3308
54	0.4	-1.18504	156.934	-35.8048
55	0.4	-1.17	158.303	-36.2728
56	0.4	-1.16012	159.649	-36.7369
57	0.4	-1.15035	160.972	-37.197
58	0.4	-1.14069	162.273	-37.6533
59	0.4	-1.13113	163.553	-38.1057
60	0.4	-1.11699	164.8	-38.5525
61	0.4	-1.10768	166.027	-38.9956
62	0.4	-1.09847	167.234	-39.435
63	0.4	-1.08935	168.421	-39.8707
64	0.4	-1.08032	169.588	-40.3029
65	0.4	-1.06694	170.726	-40.7296
66	0.4	-1.05812	171.846	-41.1529
67	0.4	-1.04939	172.947	-41.5726
68	0.4	-1.04073	174.03	-41.9889
69	0.4	-1.03215	175.095	-42.4018
70	0.4	-1.01943	176.135	-42.8096
71	0.4	-1.01104	177.157	-43.214
72	0.4	-1.00271	178.162	-43.6151
73	0.4	-0.994457	179.151	-44.0128
74	0.4	-0.986272	180.124	-44.4074
75	0.4	-0.974114	181.073	-44.797
76	0.4	-0.966088	182.006	-45.1834
77	0.4	-0.958125	182.924	-45.5667
78	0.4	-0.950222	183.827	-45.9468
79	0.4	-0.938476	184.708	-46.3222
80	0.4	-0.930718	185.574	-46.6945
81	0.4	-0.923014	186.426	-47.0637
82	0.4	-0.915365	187.264	-47.4298
83	0.4	-0.907769	188.088	-47.7929
84	0.4	-0.896473	188.892	-48.1515
85	0.4	-0.889006	189.682	-48.5071
86	0.4	-0.881587	190.459	-48.8597
87	0.4	-0.874218	191.223	-49.2094
88	0.4	-0.866894	191.975	-49.5562
89	0.4	-0.855996	192.708	-49.8986
90	0.5	-0.848786	193.428	-50.323
91	0.5	-0.841621	194.136	-50.7438
92	0.5	-0.834498	194.833	-51.161
93	0.5	-0.827417	195.517	-51.5747
94	0.5	-0.816874	196.185	-51.9832
95	0.5	-0.809896	196.841	-52.3881
96	0.5	-0.802956	197.485	-52.7896
97	0.5	-0.796056	198.119	-53.1876
98	0.5	-0.789191	198.742	-53.5822
99	0.5	-0.778966	199.349	-53.9717
100	0.5	-0.772193	199.945	-54.3578
101	0.5	-0.765456	200.531	-54.7405
102	0.5	-0.758753	201.107	-55.1199
103	0.5	-0.752084	201.672	-55.496
104	0.5	-0.742143	202.223	-55.867
105	0.5	-0.735557	202.764	-56.2348
106	0.5	-0.729003	203.296	-56.5993
107	0.5	-0.722479	203.818	-56.9605
108	0.5	-0.715986	204.33	-57.3185
109	0.5	-0.706302	204.829	-57.6717
110	0.5	-0.699883	205.319	-58.0216
111	0.5	-0.693493	205.8	-58.3684
112	0.5	-0.687131	206.272	-58.7119
113	0.5	-0.680797	206.735	-59.0523

114	0.5	-0.671346	207.186	-59.388
115	0.5	-0.665079	207.628	-59.7206
116	0.5	-0.658838	208.063	-60.05
117	0.5	-0.652622	208.488	-60.3763
118	0.5	-0.646431	208.906	-60.6995
119	0.5	-0.637192	209.312	-61.0181
120	0.5	-0.631062	209.711	-61.3336
121	0.5	-0.624956	210.101	-61.6461
122	0.5	-0.618872	210.484	-61.9555
123	0.5	-0.612813	210.86	-62.2619
124	0.5	-0.603765	211.224	-62.5638
125	0.5	-0.597761	211.582	-62.8627
126	0.5	-0.591776	211.932	-63.1586
127	0.5	-0.585815	212.275	-63.4515
128	0.5	-0.579873	212.611	-63.7414
129	0.5	-0.570999	212.937	-64.0269
130	0.5	-0.565108	213.257	-64.3095
131	0.5	-0.559237	213.569	-64.5891
132	0.5	-0.553384	213.876	-64.8658
133	0.5	-0.547551	214.175	-65.1396
134	0.5	-0.538836	214.466	-65.409
135	0.5	-0.533048	214.75	-65.6755
136	0.5	-0.52728	215.028	-65.9392
137	0.5	-0.521527	215.3	-66.1999
138	0.5	-0.515791	215.566	-66.4578
139	0.5	-0.507221	215.823	-66.7114
140	0.5	-0.501527	216.075	-66.9622
141	0.5	-0.49585	216.321	-67.2101
142	0.5	-0.490189	216.561	-67.4552
143	0.5	-0.484544	216.796	-67.6975
144	0.5	-0.476105	217.022	-67.9355
145	0.5	-0.470498	217.244	-68.1708
146	0.5	-0.464904	217.46	-68.4032
147	0.5	-0.459327	217.671	-68.6329
148	0.5	-0.453763	217.877	-68.8598
149	0.5	-0.445443	218.075	-69.0825
150	0.5	-0.439913	218.269	-69.3025
151	0.5	-0.434397	218.457	-69.5197
152	0.5	-0.428895	218.641	-69.7341
153	0.5	-0.420664	218.818	-69.9444
154	0.5	-0.415193	218.991	-70.152
155	0.5	-0.409735	219.158	-70.3569
156	0.5	-0.40429	219.322	-70.5591
157	0.5	-0.398855	219.481	-70.7585
158	0.5	-0.390726	219.634	-70.9538
159	0.5	-0.385321	219.782	-71.1465
160	0.5	-0.379927	219.927	-71.3365
161	0.5	-0.374544	220.067	-71.5237
162	0.5	-0.369171	220.203	-71.7083
163	0.5	-0.361133	220.333	-71.8889
164	0.5	-0.355788	220.46	-72.0668
165	0.5	-0.350451	220.583	-72.242
166	0.5	-0.345126	220.702	-72.4146
167	0.5	-0.33981	220.817	-72.5845
168	0.5	-0.331854	220.928	-72.7504
169	0.5	-0.326561	221.034	-72.9137
170	0.5	-0.321278	221.137	-73.0743
171	0.5	-0.316004	221.237	-73.2323
172	0.5	-0.310738	221.334	-73.3877
173	0.5	-0.302855	221.426	-73.5391
174	0.5	-0.297612	221.514	-73.6879
175	0.5	-0.292375	221.6	-73.8341

176	0.5	-0.287147	221.682	-73.9777
177	0.5	-0.281926	221.762	-74.1187
178	0.5	-0.27411	221.837	-74.2557
179	0.5	-0.268908	221.909	-74.3902
180	0.5	-0.263715	221.979	-74.522
181	0.5	-0.258527	222.045	-74.6513
182	0.5	-0.253347	222.11	-74.778
183	0.5	-0.24559	222.17	-74.9008
184	0.5	-0.240426	222.228	-75.021
185	0.5	-0.235269	222.283	-75.1386
186	0.5	-0.230118	222.336	-75.2537
187	0.5	-0.224974	222.387	-75.3661
188	0.5	-0.217267	222.434	-75.4748
189	0.5	-0.212137	222.479	-75.5808
190	0.5	-0.207012	222.522	-75.6844
191	0.5	-0.201894	222.562	-75.7853
192	0.5	-0.196779	222.601	-75.8837
193	0.5	-0.189118	222.637	-75.9783
194	0.5	-0.184017	222.671	-76.0703
195	0.5	-0.17892	222.703	-76.1597
196	0.5	-0.173829	222.733	-76.2466
197	0.5	-0.168741	222.762	-76.331
198	0.5	-0.161119	222.787	-76.4116
199	0.5	-0.156042	222.812	-76.4896
200	0.5	-0.150969	222.835	-76.5651
201	0.5	-0.1459	222.856	-76.638
202	0.5	-0.140835	222.876	-76.7084
203	0.5	-0.133244	222.893	-76.7751
204	0.5	-0.128189	222.91	-76.8392
205	0.5	-0.123135	222.925	-76.9007
206	0.5	-0.118085	222.939	-76.9598
207	0.5	-0.113039	222.952	-77.0163
208	0.5	-0.105474	222.963	-77.069
209	0.5	-0.100433	222.973	-77.1192
210	0.5	-0.0953969	222.982	-77.1669
211	0.5	-0.0903606	222.99	-77.2121
212	0.5	-0.0853288	222.998	-77.2548
213	0.5	-0.0777834	223.004	-77.2937
214	0.5	-0.0727562	223.009	-77.33
215	0.5	-0.0677301	223.013	-77.3639
216	0.5	-0.0627062	223.017	-77.3953
217	0.5	-0.0576847	223.021	-77.4241
218	0.5	-0.0501541	223.023	-77.4492
219	0.5	-0.0451348	223.025	-77.4718
220	0.5	-0.0401167	223.027	-77.4918
221	0.5	-0.0350997	223.028	-77.5094
222	0.5	-0.0300838	223.029	-77.5244
223	0.5	-0.0225612	223.03	-77.5357
224	0.5	-0.0175476	223.03	-77.5445
225	0.5	-0.0125328	223.03	-77.5507
226	0.5	-0.00751925	223.03	-77.5545
227	0.5	0	223.03	-77.5545
228	0.5	0.00751925	223.03	-77.5507
229	0.5	0.0125328	223.03	-77.5445
230	0.5	0.0175476	223.031	-77.5357
231	0.5	0.0225612	223.031	-77.5244
232	0.5	0.0300838	223.032	-77.5094
233	0.5	0.0350997	223.033	-77.4918
234	0.5	0.0401167	223.035	-77.4718
235	0.5	0.0451348	223.037	-77.4492
236	0.5	0.0501541	223.039	-77.4241
237	0.5	0.0576847	223.043	-77.3953

238	0.5	0.0627062	223.047	-77.3639
239	0.5	0.0677301	223.051	-77.33
240	0.5	0.0727562	223.057	-77.2937
241	0.5	0.0777834	223.063	-77.2548
242	0.5	0.0853288	223.07	-77.2121
243	0.5	0.0903606	223.078	-77.1669
244	0.5	0.0953969	223.087	-77.1192
245	0.5	0.100433	223.097	-77.069
246	0.5	0.105474	223.108	-77.0163
247	0.5	0.113039	223.121	-76.9598
248	0.5	0.118085	223.135	-76.9007
249	0.5	0.123135	223.15	-76.8392
250	0.5	0.128189	223.167	-76.7751
251	0.5	0.133244	223.184	-76.7084
252	0.5	0.140835	223.204	-76.638
253	0.5	0.1459	223.226	-76.5651
254	0.5	0.150969	223.248	-76.4896
255	0.5	0.156042	223.273	-76.4116
256	0.5	0.161119	223.299	-76.331
257	0.5	0.168741	223.327	-76.2466
258	0.5	0.173829	223.357	-76.1597
259	0.5	0.17892	223.389	-76.0703
260	0.5	0.184017	223.423	-75.9783
261	0.5	0.189118	223.459	-75.8837
262	0.5	0.196779	223.498	-75.7853
263	0.5	0.201894	223.538	-75.6844
264	0.5	0.207012	223.581	-75.5808
265	0.5	0.212137	223.626	-75.4748
266	0.5	0.217267	223.674	-75.3661
267	0.5	0.224974	223.724	-75.2537
268	0.5	0.230118	223.777	-75.1386
269	0.5	0.235269	223.832	-75.021
270	0.5	0.240426	223.89	-74.9008
271	0.5	0.24559	223.951	-74.778
272	0.5	0.253347	224.015	-74.6513
273	0.5	0.258527	224.082	-74.522
274	0.5	0.263715	224.151	-74.3902
275	0.5	0.268908	224.223	-74.2557
276	0.5	0.27411	224.299	-74.1187
277	0.5	0.281926	224.378	-73.9777
278	0.5	0.287147	224.461	-73.8341
279	0.5	0.292375	224.546	-73.6879
280	0.5	0.297612	224.635	-73.5391
281	0.5	0.302855	224.726	-73.3877
282	0.5	0.310738	224.823	-73.2323
283	0.5	0.316004	224.923	-73.0743
284	0.5	0.321278	225.026	-72.9137
285	0.5	0.326561	225.133	-72.7504
286	0.5	0.331854	225.243	-72.5845
287	0.5	0.33981	225.358	-72.4146
288	0.5	0.345126	225.477	-72.242
289	0.5	0.350451	225.6	-72.0668
290	0.5	0.355788	225.727	-71.8889
291	0.5	0.361133	225.857	-71.7083
292	0.5	0.369171	225.993	-71.5237
293	0.5	0.374544	226.134	-71.3365
294	0.5	0.379927	226.278	-71.1465
295	0.5	0.385321	226.426	-70.9538
296	0.5	0.390726	226.579	-70.7585
297	0.5	0.398855	226.738	-70.5591
298	0.5	0.40429	226.902	-70.3569
299	0.5	0.409735	227.07	-70.152

300	0.5	0.415193	227.242	-69.9444
301	0.5	0.420664	227.419	-69.7341
302	0.5	0.428895	227.603	-69.5197
303	0.5	0.434397	227.792	-69.3025
304	0.5	0.439913	227.985	-69.0825
305	0.5	0.445443	228.184	-68.8598
306	0.5	0.453763	228.389	-68.6329
307	0.5	0.459327	228.6	-68.4032
308	0.5	0.464904	228.817	-68.1708
309	0.5	0.470498	229.038	-67.9355
310	0.5	0.476105	229.265	-67.6975
311	0.5	0.484544	229.499	-67.4552
312	0.5	0.490189	229.74	-67.2101
313	0.5	0.49585	229.986	-66.9622
314	0.5	0.501527	230.237	-66.7114
315	0.5	0.507221	230.494	-66.4578
316	0.5	0.515791	230.76	-66.1999
317	0.5	0.521527	231.032	-65.9392
318	0.5	0.52728	231.31	-65.6755
319	0.5	0.533048	231.595	-65.409
320	0.5	0.538836	231.885	-65.1396
321	0.5	0.547551	232.185	-64.8658
322	0.5	0.553384	232.491	-64.5891
323	0.5	0.559237	232.804	-64.3095
324	0.5	0.565108	233.123	-64.0269
325	0.5	0.570999	233.449	-63.7414
326	0.5	0.579873	233.785	-63.4515
327	0.5	0.585815	234.128	-63.1586
328	0.5	0.591776	234.479	-62.8627
329	0.5	0.597761	234.836	-62.5638
330	0.5	0.603765	235.201	-62.2619
331	0.5	0.612813	235.576	-61.9555
332	0.5	0.618872	235.959	-61.6461
333	0.5	0.624956	236.35	-61.3336
334	0.5	0.631062	236.748	-61.0181
335	0.5	0.637192	237.154	-60.6995
336	0.5	0.646431	237.572	-60.3763
337	0.5	0.652622	237.998	-60.05
338	0.5	0.658838	238.432	-59.7206
339	0.5	0.665079	238.874	-59.388
340	0.5	0.671346	239.325	-59.0523
341	0.5	0.680797	239.788	-58.7119
342	0.5	0.687131	240.26	-58.3684
343	0.5	0.693493	240.741	-58.0216
344	0.5	0.699883	241.231	-57.6717
345	0.5	0.706302	241.73	-57.3185
346	0.5	0.715986	242.243	-56.9605
347	0.5	0.722479	242.765	-56.5993
348	0.5	0.729003	243.296	-56.2348
349	0.5	0.735557	243.837	-55.867
350	0.5	0.742143	244.388	-55.496
351	0.5	0.752084	244.954	-55.1199
352	0.5	0.758753	245.529	-54.7405
353	0.5	0.765456	246.115	-54.3578
354	0.5	0.772193	246.711	-53.9717
355	0.5	0.778966	247.318	-53.5822
356	0.5	0.789191	247.941	-53.1876
357	0.5	0.796056	248.575	-52.7896
358	0.5	0.802956	249.22	-52.3881
359	0.5	0.809896	249.875	-51.9832
360	0.5	0.816874	250.543	-51.5747
361	0.5	0.827417	251.227	-51.161

362	0.5	0.834498	251.924	-50.7438
363	0.5	0.841621	252.632	-50.323
364	0.5	0.848786	253.352	-49.8986
365	0.5	0.855996	254.085	-49.4706
366	0.5	0.866894	254.837	-49.0371
367	0.5	0.874218	255.601	-48.6
368	0.5	0.881587	256.378	-48.1592
369	0.5	0.889006	257.169	-47.7147
370	0.5	0.896473	257.972	-47.2665
371	0.5	0.907769	258.796	-46.8126
372	0.5	0.915365	259.634	-46.3549
373	0.5	0.923014	260.486	-45.8934
374	0.5	0.930718	261.352	-45.4281
375	0.5	0.938476	262.233	-44.9588
376	0.5	0.950222	263.136	-44.4837
377	0.5	0.958125	264.054	-44.0047
378	0.5	0.966088	264.987	-43.5216
379	0.5	0.974114	265.936	-43.0346
380	0.5	0.986272	266.909	-42.5414
381	0.5	0.994457	267.898	-42.0442
382	0.5	1.00271	268.903	-41.5428
383	0.5	1.01104	269.925	-41.0373
384	0.5	1.01943	270.965	-40.5276
385	0.5	1.03215	272.03	-40.0115
386	0.5	1.04073	273.113	-39.4912
387	0.5	1.04939	274.214	-38.9665
388	0.5	1.05812	275.334	-38.4374
389	0.5	1.06694	276.472	-37.9039
390	0.5	1.08032	277.639	-37.3638
391	0.5	1.08935	278.826	-36.8191
392	0.5	1.09847	280.033	-36.2699
393	0.5	1.10768	281.26	-35.716
394	0.5	1.11699	282.507	-35.1575
395	0.5	1.13113	283.787	-34.592
396	0.5	1.14069	285.088	-34.0216
397	0.5	1.15035	286.411	-33.4464
398	0.5	1.16012	287.757	-32.8664
399	0.5	1.17	289.126	-32.2814
400	0.5	1.18504	290.53	-31.6889
401	0.5	1.19522	291.959	-31.0913
402	0.5	1.20553	293.412	-30.4885
403	0.5	1.21596	294.891	-29.8805
404	0.5	1.22653	296.395	-29.2672
405	0.5	1.24264	297.939	-28.6459
406	0.5	1.25357	299.511	-28.0191
407	0.5	1.26464	301.11	-27.3868
408	0.5	1.27588	302.738	-26.7489
409	0.5	1.28727	304.395	-26.1052
410	0.5	1.30469	306.097	-25.4529
411	0.5	1.31652	307.83	-24.7946
412	0.5	1.32854	309.596	-24.1304
413	0.5	1.34075	311.393	-23.46
414	0.5	1.35317	313.224	-22.7834
415	0.5	1.3722	315.107	-22.0973
416	0.5	1.38517	317.026	-21.4047
417	0.5	1.39838	318.981	-20.7055
418	0.5	1.41183	320.975	-19.9996
419	0.5	1.42554	323.007	-19.2868
420	0.5	1.44663	325.1	-18.5635
421	0.5	1.46106	327.234	-17.833
422	0.5	1.47579	329.412	-17.0951
423	0.5	1.49085	331.635	-16.3497

424	0.5	1.50626	333.904	-15.5965
425	0.5	1.53007	336.245	-14.8315
426	0.5	1.54643	338.636	-14.0583
427	0.5	1.56322	341.08	-13.2767
428	0.5	1.58047	343.578	-12.4865
429	0.5	1.59819	346.132	-11.6874
430	0.5	1.62576	348.775	-10.8745
431	0.5	1.64485	351.481	-10.0521
432	0.5	1.66456	354.251	-9.21977
433	0.5	1.68494	357.09	-8.3773
434	0.5	1.70604	360.001	-7.52428
435	0.5	1.7392	363.026	-6.65468
436	0.5	1.76241	366.132	-5.77347
437	0.5	1.78661	369.324	-4.88017
438	0.5	1.81191	372.607	-3.97421
439	0.5	1.83843	375.987	-3.055
440	0.5	1.88079	379.524	-2.1146
441	0.5	1.91103	383.176	-1.15909
442	0.5	1.94314	386.952	-0.187521
443	0.5	1.97737	390.862	0.801163
444	0.5	2.01409	394.918	1.80821
445	0.5	2.07485	399.223	2.84563
446	0.5	2.12007	403.718	3.90567
447	0.5	2.17009	408.427	4.99071
448	0.5	2.22621	413.383	6.10382
449	0.5	2.29036	418.629	7.249
450	0.5	2.40892	424.432	8.45346
451	0.5	2.51213	430.743	9.70953
452	0.5	2.65209	437.776	11.0356
453	0.5	2.87815	446.06	12.4746

Data Set Standard Deviation = 0.0397766
Numerator = 155.617
Denominator = 318.997
W Statistic = 0.487831 = 155.617 / 318.997

5% Critical value of 0.976 exceeds 0.487831
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.487831
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Bromomethane

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.69486
0.69486 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value Prob.	Quantile.	x	y
1	0.4	0.00220264	-2.87815467	355.05	
2	0.4	0.00440529	-2.65209467	344.01	
3	0.4	0.00660793	-2.51213467	337.176	
4	0.4	0.00881057	-2.40892467	332.136	
5	0.4	0.0110132	-2.29036467	326.346	
6	0.4	0.0132159	-2.22621467	323.213	
7	0.4	0.0154185	-2.17009467	320.473	
8	0.4	0.0176211	-2.12007467	318.03	
9	0.4	0.0198238	-2.07485467	315.822	
10	0.4	0.0220264	-2.01409467	312.855	
11	0.4	0.0242291	-1.97737467	311.062	
12	0.4	0.0264317	-1.94314467	309.39	
13	0.4	0.0286344	-1.91103467	307.822	
14	0.4	0.030837	-1.88079467	306.345	
15	0.4	0.0330396	-1.83843467	304.276	
16	0.4	0.0352423	-1.81191467	302.982	
17	0.4	0.0374449	-1.78661467	301.746	
18	0.4	0.0396476	-1.76241467	300.564	
19	0.4	0.0418502	-1.7392 467	299.431	
20	0.4	0.0440529	-1.70604467	297.812	
21	0.4	0.0462555	-1.68494467	296.781	
22	0.4	0.0484581	-1.66456467	295.786	
23	0.4	0.0506608	-1.64485467	294.824	
24	0.4	0.0528634	-1.62576467	293.891	
25	0.4	0.0550661	-1.59819467	292.545	
26	0.4	0.0572687	-1.58047467	291.679	
27	0.4	0.0594714	-1.56322467	290.837	
28	0.4	0.061674	-1.54643467	290.017	
29	0.4	0.0638767	-1.53007467	289.218	
30	0.4	0.0660793	-1.50626467	288.056	
31	0.4	0.0682819	-1.49085467	287.303	
32	0.4	0.0704846	-1.47579467	286.568	
33	0.4	0.0726872	-1.46106467	285.848	
34	0.4	0.0748899	-1.44663467	285.144	
35	0.4	0.0770925	-1.42554467	284.114	
36	0.4	0.0792952	-1.41183467	283.444	
37	0.4	0.0814978	-1.39838467	282.787	
38	0.4	0.0837004	-1.38517467	282.143	
39	0.4	0.0859031	-1.3722 467	281.509	
40	0.4	0.0881057	-1.35317467	280.58	
41	0.4	0.0903084	-1.34075467	279.974	
42	0.4	0.092511	-1.32854467	279.377	
43	0.4	0.0947137	-1.31652467	278.79	
44	0.4	0.0969163	-1.30469467	278.212	
45	0.4	0.0991189	-1.28727467	277.362	
46	0.4	0.101322	-1.27588467	276.805	
47	0.4	0.103524	-1.26464467	276.257	
48	0.4	0.105727	-1.25357467	275.716	

49	0.4	0.10793	-1.24264	467	275.182
50	0.4	0.110132	-1.22653	467	274.395
51	0.4	0.112335	-1.21596	467	273.879
52	0.4	0.114537	-1.20553	467	273.37
53	0.4	0.11674	-1.19522	467	272.867
54	0.4	0.118943	-1.18504	467	272.37
55	0.4	0.121145	-1.17	467	271.635
56	0.4	0.123348	-1.16012	467	271.153
57	0.4	0.125551	-1.15035	467	270.675
58	0.4	0.127753	-1.14069	467	270.204
59	0.4	0.129956	-1.13113	467	269.737
60	0.4	0.132159	-1.11699	467	269.046
61	0.4	0.134361	-1.10768	467	268.592
62	0.4	0.136564	-1.09847	467	268.142
63	0.4	0.138767	-1.08935	467	267.697
64	0.4	0.140969	-1.08032	467	267.256
65	0.4	0.143172	-1.06694	467	266.602
66	0.4	0.145374	-1.05812	467	266.172
67	0.4	0.147577	-1.04939	467	265.745
68	0.4	0.14978	-1.04073	467	265.322
69	0.4	0.151982	-1.03215	467	264.904
70	0.4	0.154185	-1.01943	467	264.282
71	0.4	0.156388	-1.01104	467	263.872
72	0.4	0.15859	-1.00271	467	263.466
73	0.4	0.160793	-0.994457	467	263.063
74	0.4	0.162996	-0.986272	467	262.663
75	0.4	0.165198	-0.974114	467	262.069
76	0.4	0.167401	-0.966088	467	261.677
77	0.4	0.169604	-0.958125	467	261.288
78	0.4	0.171806	-0.950222	467	260.903
79	0.4	0.174009	-0.938476	467	260.329
80	0.4	0.176211	-0.930718	467	259.95
81	0.4	0.178414	-0.923014	467	259.574
82	0.4	0.180617	-0.915365	467	259.2
83	0.4	0.182819	-0.907769	467	258.829
84	0.4	0.185022	-0.896473	467	258.278
85	0.4	0.187225	-0.889006	467	257.913
86	0.4	0.189427	-0.881587	467	257.551
87	0.4	0.19163	-0.874218	467	257.191
88	0.4	0.193833	-0.866894	467	256.833
89	0.4	0.196035	-0.855996	467	256.301
90	0.5	0.198238	-0.848786	574	255.949
91	0.5	0.200441	-0.841621	574	255.599
92	0.5	0.202643	-0.834498	574	255.251
93	0.5	0.204846	-0.827417	574	254.906
94	0.5	0.207048	-0.816874	574	254.391
95	0.5	0.209251	-0.809896	574	254.05
96	0.5	0.211454	-0.802956	574	253.711
97	0.5	0.213656	-0.796056	574	253.374
98	0.5	0.215859	-0.789191	574	253.039
99	0.5	0.218062	-0.778966	574	252.54
100	0.5	0.220264	-0.772193	574	252.209
101	0.5	0.222467	-0.765456	574	251.88
102	0.5	0.22467	-0.758753	574	251.552
103	0.5	0.226872	-0.752084	574	251.227
104	0.5	0.229075	-0.742143	574	250.741
105	0.5	0.231278	-0.735557	574	250.42
106	0.5	0.23348	-0.729003	574	250.1
107	0.5	0.235683	-0.722479	574	249.781
108	0.5	0.237885	-0.715986	574	249.464
109	0.5	0.240088	-0.706302	574	248.991
110	0.5	0.242291	-0.699883	574	248.678

111	0.5	0.244493	-0.693493	574	248.366
112	0.5	0.246696	-0.687131	574	248.055
113	0.5	0.248899	-0.680797	574	247.746
114	0.5	0.251101	-0.671346	574	247.284
115	0.5	0.253304	-0.665079	574	246.978
116	0.5	0.255507	-0.658838	574	246.673
117	0.5	0.257709	-0.652622	574	246.37
118	0.5	0.259912	-0.646431	574	246.067
119	0.5	0.262115	-0.637192	574	245.616
120	0.5	0.264317	-0.631062	574	245.317
121	0.5	0.26652	-0.624956	574	245.019
122	0.5	0.268722	-0.618872	574	244.722
123	0.5	0.270925	-0.612813	574	244.426
124	0.5	0.273128	-0.603765	574	243.984
125	0.5	0.27533	-0.597761	574	243.691
126	0.5	0.277533	-0.591776	574	243.398
127	0.5	0.279736	-0.585815	574	243.107
128	0.5	0.281938	-0.579873	574	242.817
129	0.5	0.284141	-0.570999	574	242.384
130	0.5	0.286344	-0.565108	574	242.096
131	0.5	0.288546	-0.559237	574	241.809
132	0.5	0.290749	-0.553384	574	241.524
133	0.5	0.292952	-0.547551	574	241.239
134	0.5	0.295154	-0.538836	574	240.813
135	0.5	0.297357	-0.533048	574	240.531
136	0.5	0.299559	-0.52728	574	240.249
137	0.5	0.301762	-0.521527	574	239.968
138	0.5	0.303965	-0.515791	574	239.688
139	0.5	0.306167	-0.507221	574	239.269
140	0.5	0.30837	-0.501527	574	238.991
141	0.5	0.310573	-0.49585	574	238.714
142	0.5	0.312775	-0.490189	574	238.438
143	0.5	0.314978	-0.484544	574	238.162
144	0.5	0.317181	-0.476105	574	237.75
145	0.5	0.319383	-0.470498	574	237.476
146	0.5	0.321586	-0.464904	574	237.203
147	0.5	0.323789	-0.459327	574	236.93
148	0.5	0.325991	-0.453763	574	236.659
149	0.5	0.328194	-0.445443	574	236.252
150	0.5	0.330396	-0.439913	574	235.982
151	0.5	0.332599	-0.434397	574	235.713
152	0.5	0.334802	-0.428895	574	235.444
153	0.5	0.337004	-0.420664	574	235.042
154	0.5	0.339207	-0.415193	574	234.775
155	0.5	0.34141	-0.409735	574	234.509
156	0.5	0.343612	-0.40429	574	234.243
157	0.5	0.345815	-0.398855	574	233.977
158	0.5	0.348018	-0.390726	574	233.58
159	0.5	0.35022	-0.385321	574	233.317
160	0.5	0.352423	-0.379927	574	233.053
161	0.5	0.354626	-0.374544	574	232.79
162	0.5	0.356828	-0.369171	574	232.528
163	0.5	0.359031	-0.361133	574	232.135
164	0.5	0.361233	-0.355788	574	231.874
165	0.5	0.363436	-0.350451	574	231.614
166	0.5	0.365639	-0.345126	574	231.354
167	0.5	0.367841	-0.33981	574	231.094
168	0.5	0.370044	-0.331854	574	230.706
169	0.5	0.372247	-0.326561	574	230.447
170	0.5	0.374449	-0.321278	574	230.189
171	0.5	0.376652	-0.316004	574	229.932
172	0.5	0.378855	-0.310738	574	229.674

173	0.5	0.381057	-0.302855	574	229.289
174	0.5	0.38326	-0.297612	574	229.033
175	0.5	0.385463	-0.292375	574	228.778
176	0.5	0.387665	-0.287147	574	228.522
177	0.5	0.389868	-0.281926	574	228.267
178	0.5	0.39207	-0.27411	574	227.886
179	0.5	0.394273	-0.268908	574	227.632
180	0.5	0.396476	-0.263715	574	227.378
181	0.5	0.398678	-0.258527	574	227.125
182	0.5	0.400881	-0.253347	574	226.872
183	0.5	0.403084	-0.24559	574	226.493
184	0.5	0.405286	-0.240426	574	226.241
185	0.5	0.407489	-0.235269	574	225.989
186	0.5	0.409692	-0.230118	574	225.737
187	0.5	0.411894	-0.224974	574	225.486
188	0.5	0.414097	-0.217267	574	225.11
189	0.5	0.4163	-0.212137	574	224.859
190	0.5	0.418502	-0.207012	574	224.609
191	0.5	0.420705	-0.201894	574	224.359
192	0.5	0.422907	-0.196779	574	224.109
193	0.5	0.42511	-0.189118	574	223.735
194	0.5	0.427313	-0.184017	574	223.486
195	0.5	0.429515	-0.17892	574	223.237
196	0.5	0.431718	-0.173829	574	222.989
197	0.5	0.433921	-0.168741	574	222.74
198	0.5	0.436123	-0.161119	574	222.368
199	0.5	0.438326	-0.156042	574	222.12
200	0.5	0.440529	-0.150969	574	221.872
201	0.5	0.442731	-0.1459	574	221.625
202	0.5	0.444934	-0.140835	574	221.377
203	0.5	0.447137	-0.133244	574	221.007
204	0.5	0.449339	-0.128189	574	220.76
205	0.5	0.451542	-0.123135	574	220.513
206	0.5	0.453744	-0.118085	574	220.267
207	0.5	0.455947	-0.113039	574	220.02
208	0.5	0.45815	-0.105474	574	219.651
209	0.5	0.460352	-0.100433	574	219.404
210	0.5	0.462555	-0.0953969	574	219.159
211	0.5	0.464758	-0.0903606	574	218.913
212	0.5	0.46696	-0.0853288	574	218.667
213	0.5	0.469163	-0.0777834	574	218.298
214	0.5	0.471366	-0.0727562	574	218.053
215	0.5	0.473568	-0.0677301	574	217.807
216	0.5	0.475771	-0.0627062	574	217.562
217	0.5	0.477974	-0.0576847	574	217.317
218	0.5	0.480176	-0.0501541	574	216.949
219	0.5	0.482379	-0.0451348	574	216.704
220	0.5	0.484581	-0.0401167	574	216.459
221	0.5	0.486784	-0.0350997	574	216.214
222	0.5	0.488987	-0.0300838	574	215.969
223	0.5	0.491189	-0.0225612	574	215.602
224	0.5	0.493392	-0.0175476	574	215.357
225	0.5	0.495595	-0.0125328	574	215.112
226	0.5	0.497797	-0.00751925	574	214.867
227	0.5	0.5	0	574	214.5
228	0.5	0.502203	0.00751925	574	214.133
229	0.5	0.504405	0.0125328	574	213.888
230	0.5	0.506608	0.0175476	574	213.643
231	0.5	0.508811	0.0225612	574	213.398
232	0.5	0.511013	0.0300838	574	213.031
233	0.5	0.513216	0.0350997	574	212.786
234	0.5	0.515419	0.0401167	574	212.541

235	0.5	0.517621	0.0451348	574	212.296
236	0.5	0.519824	0.0501541	574	212.051
237	0.5	0.522026	0.0576847	574	211.683
238	0.5	0.524229	0.0627062	574	211.438
239	0.5	0.526432	0.0677301	574	211.193
240	0.5	0.528634	0.0727562	574	210.947
241	0.5	0.530837	0.0777834	574	210.702
242	0.5	0.53304	0.0853288	574	210.333
243	0.5	0.535242	0.0903606	574	210.087
244	0.5	0.537445	0.0953969	574	209.841
245	0.5	0.539648	0.100433	574	209.596
246	0.5	0.54185	0.105474	574	209.349
247	0.5	0.544053	0.113039	574	208.98
248	0.5	0.546256	0.118085	574	208.733
249	0.5	0.548458	0.123135	574	208.487
250	0.5	0.550661	0.128189	574	208.24
251	0.5	0.552863	0.133244	574	207.993
252	0.5	0.555066	0.140835	574	207.623
253	0.5	0.557269	0.1459	574	207.375
254	0.5	0.559471	0.150969	574	207.128
255	0.5	0.561674	0.156042	574	206.88
256	0.5	0.563877	0.161119	574	206.632
257	0.5	0.566079	0.168741	574	206.26
258	0.5	0.568282	0.173829	574	206.011
259	0.5	0.570485	0.17892	574	205.763
260	0.5	0.572687	0.184017	574	205.514
261	0.5	0.57489	0.189118	574	205.265
262	0.5	0.577093	0.196779	574	204.891
263	0.5	0.579295	0.201894	574	204.641
264	0.5	0.581498	0.207012	574	204.391
265	0.5	0.5837	0.212137	574	204.141
266	0.5	0.585903	0.217267	574	203.89
267	0.5	0.588106	0.224974	574	203.514
268	0.5	0.590308	0.230118	574	203.263
269	0.5	0.592511	0.235269	574	203.011
270	0.5	0.594714	0.240426	574	202.759
271	0.5	0.596916	0.24559	574	202.507
272	0.5	0.599119	0.253347	574	202.128
273	0.5	0.601322	0.258527	574	201.875
274	0.5	0.603524	0.263715	574	201.622
275	0.5	0.605727	0.268908	574	201.368
276	0.5	0.60793	0.27411	574	201.114
277	0.5	0.610132	0.281926	574	200.733
278	0.5	0.612335	0.287147	574	200.478
279	0.5	0.614537	0.292375	574	200.222
280	0.5	0.61674	0.297612	574	199.967
281	0.5	0.618943	0.302855	574	199.711
282	0.5	0.621145	0.310738	574	199.326
283	0.5	0.623348	0.316004	574	199.068
284	0.5	0.625551	0.321278	574	198.811
285	0.5	0.627753	0.326561	574	198.553
286	0.5	0.629956	0.331854	574	198.294
287	0.5	0.632159	0.33981	574	197.906
288	0.5	0.634361	0.345126	574	197.646
289	0.5	0.636564	0.350451	574	197.386
290	0.5	0.638767	0.355788	574	197.126
291	0.5	0.640969	0.361133	574	196.865
292	0.5	0.643172	0.369171	574	196.472
293	0.5	0.645374	0.374544	574	196.21
294	0.5	0.647577	0.379927	574	195.947
295	0.5	0.64978	0.385321	574	195.683
296	0.5	0.651982	0.390726	574	195.42

297	0.5	0.654185	0.398855	574	195.023
298	0.5	0.656388	0.40429	574	194.757
299	0.5	0.65859	0.409735	574	194.491
300	0.5	0.660793	0.415193	574	194.225
301	0.5	0.662996	0.420664	574	193.958
302	0.5	0.665198	0.428895	574	193.556
303	0.5	0.667401	0.434397	574	193.287
304	0.5	0.669604	0.439913	574	193.018
305	0.5	0.671806	0.445443	574	192.748
306	0.5	0.674009	0.453763	574	192.341
307	0.5	0.676211	0.459327	574	192.07
308	0.5	0.678414	0.464904	574	191.797
309	0.5	0.680617	0.470498	574	191.524
310	0.5	0.682819	0.476105	574	191.25
311	0.5	0.685022	0.484544	574	190.838
312	0.5	0.687225	0.490189	574	190.562
313	0.5	0.689427	0.49585	574	190.286
314	0.5	0.69163	0.501527	574	190.009
315	0.5	0.693833	0.507221	574	189.731
316	0.5	0.696035	0.515791	574	189.312
317	0.5	0.698238	0.521527	574	189.032
318	0.5	0.700441	0.52728	574	188.751
319	0.5	0.702643	0.533048	574	188.469
320	0.5	0.704846	0.538836	574	188.187
321	0.5	0.707048	0.547551	574	187.761
322	0.5	0.709251	0.553384	574	187.476
323	0.5	0.711454	0.559237	574	187.191
324	0.5	0.713656	0.565108	574	186.904
325	0.5	0.715859	0.570999	574	186.616
326	0.5	0.718062	0.579873	574	186.183
327	0.5	0.720264	0.585815	574	185.893
328	0.5	0.722467	0.591776	574	185.602
329	0.5	0.72467	0.597761	574	185.309
330	0.5	0.726872	0.603765	574	185.016
331	0.5	0.729075	0.612813	574	184.574
332	0.5	0.731278	0.618872	574	184.278
333	0.5	0.73348	0.624956	574	183.981
334	0.5	0.735683	0.631062	574	183.683
335	0.5	0.737885	0.637192	574	183.384
336	0.5	0.740088	0.646431	574	182.933
337	0.5	0.742291	0.652622	574	182.63
338	0.5	0.744493	0.658838	574	182.327
339	0.5	0.746696	0.665079	574	182.022
340	0.5	0.748899	0.671346	574	181.716
341	0.5	0.751101	0.680797	574	181.254
342	0.5	0.753304	0.687131	574	180.945
343	0.5	0.755507	0.693493	574	180.634
344	0.5	0.757709	0.699883	574	180.322
345	0.5	0.759912	0.706302	574	180.009
346	0.5	0.762115	0.715986	574	179.536
347	0.5	0.764317	0.722479	574	179.219
348	0.5	0.76652	0.729003	574	178.9
349	0.5	0.768722	0.735557	574	178.58
350	0.5	0.770925	0.742143	574	178.259
351	0.5	0.773128	0.752084	574	177.773
352	0.5	0.77533	0.758753	574	177.448
353	0.5	0.777533	0.765456	574	177.12
354	0.5	0.779736	0.772193	574	176.791
355	0.5	0.781938	0.778966	574	176.46
356	0.5	0.784141	0.789191	574	175.961
357	0.5	0.786344	0.796056	574	175.626
358	0.5	0.788546	0.802956	574	175.289

359	0.5	0.790749	0.809896	574	174.95
360	0.5	0.792952	0.816874	574	174.609
361	0.5	0.795154	0.827417	574	174.094
362	0.5	0.797357	0.834498	574	173.749
363	0.5	0.799559	0.841621	574	173.401
364	0.5	0.801762	0.848786	574	173.051
365	0.5	0.803965	0.855996	574	172.699
366	0.5	0.806167	0.866894	574	172.167
367	0.5	0.80837	0.874218	574	171.809
368	0.5	0.810573	0.881587	574	171.449
369	0.5	0.812775	0.889006	574	171.087
370	0.5	0.814978	0.896473	574	170.722
371	0.5	0.817181	0.907769	574	170.171
372	0.5	0.819383	0.915365	574	169.8
373	0.5	0.821586	0.923014	574	169.426
374	0.5	0.823789	0.930718	574	169.05
375	0.5	0.825991	0.938476	574	168.671
376	0.5	0.828194	0.950222	574	168.097
377	0.5	0.830396	0.958125	574	167.712
378	0.5	0.832599	0.966088	574	167.323
379	0.5	0.834802	0.974114	574	166.931
380	0.5	0.837004	0.986272	574	166.337
381	0.5	0.839207	0.994457	574	165.937
382	0.5	0.84141	1.00271	574	165.534
383	0.5	0.843612	1.01104	574	165.128
384	0.5	0.845815	1.01943	574	164.718
385	0.5	0.848018	1.03215	574	164.096
386	0.5	0.85022	1.04073	574	163.678
387	0.5	0.852423	1.04939	574	163.255
388	0.5	0.854626	1.05812	574	162.828
389	0.5	0.856828	1.06694	574	162.398
390	0.5	0.859031	1.08032	574	161.744
391	0.5	0.861233	1.08935	574	161.303
392	0.5	0.863436	1.09847	574	160.858
393	0.5	0.865639	1.10768	574	160.408
394	0.5	0.867841	1.11699	574	159.954
395	0.5	0.870044	1.13113	574	159.263
396	0.5	0.872247	1.14069	574	158.796
397	0.5	0.874449	1.15035	574	158.325
398	0.5	0.876652	1.16012	574	157.847
399	0.5	0.878855	1.17	574	157.365
400	0.5	0.881057	1.18504	574	156.63
401	0.5	0.88326	1.19522	574	156.133
402	0.5	0.885463	1.20553	574	155.63
403	0.5	0.887665	1.21596	574	155.121
404	0.5	0.889868	1.22653	574	154.605
405	0.5	0.89207	1.24264	574	153.818
406	0.5	0.894273	1.25357	574	153.284
407	0.5	0.896476	1.26464	574	152.743
408	0.5	0.898678	1.27588	574	152.195
409	0.5	0.900881	1.28727	574	151.638
410	0.5	0.903084	1.30469	574	150.788
411	0.5	0.905286	1.31652	574	150.21
412	0.5	0.907489	1.32854	574	149.623
413	0.5	0.909692	1.34075	574	149.026
414	0.5	0.911894	1.35317	574	148.42
415	0.5	0.914097	1.3722	574	147.491
416	0.5	0.9163	1.38517	574	146.857
417	0.5	0.918502	1.39838	574	146.213
418	0.5	0.920705	1.41183	574	145.556
419	0.5	0.922907	1.42554	574	144.886
420	0.5	0.92511	1.44663	574	143.856

421	0.5	0.927313	1.46106	574	143.152
422	0.5	0.929515	1.47579	574	142.432
423	0.5	0.931718	1.49085	574	141.697
424	0.5	0.933921	1.50626	574	140.944
425	0.5	0.936123	1.53007	574	139.782
426	0.5	0.938326	1.54643	574	138.983
427	0.5	0.940529	1.56322	574	138.163
428	0.5	0.942731	1.58047	574	137.321
429	0.5	0.944934	1.59819	574	136.455
430	0.5	0.947137	1.62576	574	135.109
431	0.5	0.949339	1.64485	574	134.176
432	0.5	0.951542	1.66456	574	133.214
433	0.5	0.953744	1.68494	574	132.219
434	0.5	0.955947	1.70604	574	131.188
435	0.5	0.95815	1.7392	574	129.569
436	0.5	0.960352	1.76241	574	128.436
437	0.5	0.962555	1.78661	574	127.254
438	0.5	0.964758	1.81191	574	126.018
439	0.5	0.96696	1.83843	574	124.724
440	0.5	0.969163	1.88079	574	122.655
441	0.5	0.971366	1.91103	574	121.178
442	0.5	0.973568	1.94314	574	119.61
443	0.5	0.975771	1.97737	574	117.938
444	0.5	0.977974	2.01409	574	116.145
445	0.5	0.980176	2.07485	574	113.178
446	0.5	0.982379	2.12007	574	110.97
447	0.5	0.984581	2.17009	574	108.527
448	0.5	0.986784	2.22621	574	105.787
449	0.5	0.988987	2.29036	574	102.654
450	0.5	0.991189	2.40892	574	96.8642
451	0.5	0.993392	2.51213	574	91.8241
452	0.5	0.995595	2.65209	574	84.9898
453	0.5	0.997797	2.87815	574	73.9503

Shapiro-Francia Test of Normality
Parameter: Bromomethane
All Locations
Normality Test of Parameter Concentrations
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 453

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-0.916291	-2.87815	8.28375	2.63722
2	-0.916291	-2.65209	15.3173	5.06731
3	-0.916291	-2.51213	21.6281	7.36915
4	-0.916291	-2.40892	27.431	9.57642
5	-0.916291	-2.29036	32.6768	11.6751
6	-0.916291	-2.22621	37.6328	13.7149
7	-0.916291	-2.17009	42.3421	15.7033
8	-0.916291	-2.12007	46.8368	17.6459
9	-0.916291	-2.07485	51.1418	19.5471
10	-0.916291	-2.01409	55.1984	21.3926
11	-0.916291	-1.97737	59.1083	23.2045
12	-0.916291	-1.94314	62.8841	24.9849
13	-0.916291	-1.91103	66.5362	26.736
14	-0.916291	-1.88079	70.0735	28.4593
15	-0.916291	-1.83843	73.4533	30.1439
16	-0.916291	-1.81191	76.7364	31.8041
17	-0.916291	-1.78661	79.9283	33.4412
18	-0.916291	-1.76241	83.0344	35.056
19	-0.916291	-1.7392	86.0592	36.6497
20	-0.916291	-1.70604	88.9698	38.2129
21	-0.916291	-1.68494	91.8088	39.7568
22	-0.916291	-1.66456	94.5796	41.282
23	-0.916291	-1.64485	97.2852	42.7892
24	-0.916291	-1.62576	99.9283	44.2788
25	-0.916291	-1.59819	102.482	45.7432
26	-0.916291	-1.58047	104.98	47.1914
27	-0.916291	-1.56322	107.424	48.6238
28	-0.916291	-1.54643	109.815	50.0408
29	-0.916291	-1.53007	112.157	51.4427
30	-0.916291	-1.50626	114.425	52.8229
31	-0.916291	-1.49085	116.648	54.189
32	-0.916291	-1.47579	118.826	55.5412
33	-0.916291	-1.46106	120.961	56.88
34	-0.916291	-1.44663	123.053	58.2055
35	-0.916291	-1.42554	125.086	59.5117
36	-0.916291	-1.41183	127.079	60.8054
37	-0.916291	-1.39838	129.034	62.0867
38	-0.916291	-1.38517	130.953	63.3559
39	-0.916291	-1.3722	132.836	64.6133
40	-0.916291	-1.35317	134.667	65.8532
41	-0.916291	-1.34075	136.465	67.0817
42	-0.916291	-1.32854	138.23	68.299
43	-0.916291	-1.31652	139.963	69.5053
44	-0.916291	-1.30469	141.665	70.7008
45	-0.916291	-1.28727	143.322	71.8803
46	-0.916291	-1.27588	144.95	73.0494
47	-0.916291	-1.26464	146.549	74.2082
48	-0.916291	-1.25357	148.121	75.3568
49	-0.916291	-1.24264	149.665	76.4954
50	-0.916291	-1.22653	151.169	77.6193
51	-0.916291	-1.21596	152.648	78.7334

52	-0.916291	-1.20553	154.101	79.8381
53	-0.916291	-1.19522	155.53	80.9332
54	-0.916291	-1.18504	156.934	82.0191
55	-0.916291	-1.17	158.303	83.0911
56	-0.916291	-1.16012	159.649	84.1541
57	-0.916291	-1.15035	160.972	85.2082
58	-0.916291	-1.14069	162.273	86.2534
59	-0.916291	-1.13113	163.553	87.2898
60	-0.916291	-1.11699	164.8	88.3133
61	-0.916291	-1.10768	166.027	89.3283
62	-0.916291	-1.09847	167.234	90.3348
63	-0.916291	-1.08935	168.421	91.333
64	-0.916291	-1.08032	169.588	92.3228
65	-0.916291	-1.06694	170.726	93.3005
66	-0.916291	-1.05812	171.846	94.27
67	-0.916291	-1.04939	172.947	95.2316
68	-0.916291	-1.04073	174.03	96.1852
69	-0.916291	-1.03215	175.095	97.1309
70	-0.916291	-1.01943	176.135	98.065
71	-0.916291	-1.01104	177.157	98.9914
72	-0.916291	-1.00271	178.162	99.9102
73	-0.916291	-0.994457	179.151	100.821
74	-0.916291	-0.986272	180.124	101.725
75	-0.916291	-0.974114	181.073	102.618
76	-0.916291	-0.966088	182.006	103.503
77	-0.916291	-0.958125	182.924	104.381
78	-0.916291	-0.950222	183.827	105.252
79	-0.916291	-0.938476	184.708	106.111
80	-0.916291	-0.930718	185.574	106.964
81	-0.916291	-0.923014	186.426	107.81
82	-0.916291	-0.915365	187.264	108.649
83	-0.916291	-0.907769	188.088	109.481
84	-0.916291	-0.896473	188.892	110.302
85	-0.916291	-0.889006	189.682	111.117
86	-0.916291	-0.881587	190.459	111.924
87	-0.916291	-0.874218	191.223	112.725
88	-0.916291	-0.866894	191.975	113.52
89	-0.916291	-0.855996	192.708	114.304
90	-0.693147	-0.848786	193.428	114.892
91	-0.693147	-0.841621	194.136	115.476
92	-0.693147	-0.834498	194.833	116.054
93	-0.693147	-0.827417	195.517	116.628
94	-0.693147	-0.816874	196.185	117.194
95	-0.693147	-0.809896	196.841	117.755
96	-0.693147	-0.802956	197.485	118.312
97	-0.693147	-0.796056	198.119	118.864
98	-0.693147	-0.789191	198.742	119.411
99	-0.693147	-0.778966	199.349	119.951
100	-0.693147	-0.772193	199.945	120.486
101	-0.693147	-0.765456	200.531	121.016
102	-0.693147	-0.758753	201.107	121.542
103	-0.693147	-0.752084	201.672	122.064
104	-0.693147	-0.742143	202.223	122.578
105	-0.693147	-0.735557	202.764	123.088
106	-0.693147	-0.729003	203.296	123.593
107	-0.693147	-0.722479	203.818	124.094
108	-0.693147	-0.715986	204.33	124.59
109	-0.693147	-0.706302	204.829	125.08
110	-0.693147	-0.699883	205.319	125.565
111	-0.693147	-0.693493	205.8	126.046
112	-0.693147	-0.687131	206.272	126.522
113	-0.693147	-0.680797	206.735	126.994

114	-0.693147	-0.671346	207.186	127.459
115	-0.693147	-0.665079	207.628	127.92
116	-0.693147	-0.658838	208.063	128.377
117	-0.693147	-0.652622	208.488	128.829
118	-0.693147	-0.646431	208.906	129.277
119	-0.693147	-0.637192	209.312	129.719
120	-0.693147	-0.631062	209.711	130.156
121	-0.693147	-0.624956	210.101	130.59
122	-0.693147	-0.618872	210.484	131.019
123	-0.693147	-0.612813	210.86	131.443
124	-0.693147	-0.603765	211.224	131.862
125	-0.693147	-0.597761	211.582	132.276
126	-0.693147	-0.591776	211.932	132.686
127	-0.693147	-0.585815	212.275	133.092
128	-0.693147	-0.579873	212.611	133.494
129	-0.693147	-0.570999	212.937	133.89
130	-0.693147	-0.565108	213.257	134.282
131	-0.693147	-0.559237	213.569	134.669
132	-0.693147	-0.553384	213.876	135.053
133	-0.693147	-0.547551	214.175	135.433
134	-0.693147	-0.538836	214.466	135.806
135	-0.693147	-0.533048	214.75	136.176
136	-0.693147	-0.52728	215.028	136.541
137	-0.693147	-0.521527	215.3	136.902
138	-0.693147	-0.515791	215.566	137.26
139	-0.693147	-0.507221	215.823	137.612
140	-0.693147	-0.501527	216.075	137.959
141	-0.693147	-0.49585	216.321	138.303
142	-0.693147	-0.490189	216.561	138.643
143	-0.693147	-0.484544	216.796	138.979
144	-0.693147	-0.476105	217.022	139.309
145	-0.693147	-0.470498	217.244	139.635
146	-0.693147	-0.464904	217.46	139.957
147	-0.693147	-0.459327	217.671	140.275
148	-0.693147	-0.453763	217.877	140.59
149	-0.693147	-0.445443	218.075	140.899
150	-0.693147	-0.439913	218.269	141.204
151	-0.693147	-0.434397	218.457	141.505
152	-0.693147	-0.428895	218.641	141.802
153	-0.693147	-0.420664	218.818	142.093
154	-0.693147	-0.415193	218.991	142.381
155	-0.693147	-0.409735	219.158	142.665
156	-0.693147	-0.40429	219.322	142.946
157	-0.693147	-0.398855	219.481	143.222
158	-0.693147	-0.390726	219.634	143.493
159	-0.693147	-0.385321	219.782	143.76
160	-0.693147	-0.379927	219.927	144.023
161	-0.693147	-0.374544	220.067	144.283
162	-0.693147	-0.369171	220.203	144.539
163	-0.693147	-0.361133	220.333	144.789
164	-0.693147	-0.355788	220.46	145.036
165	-0.693147	-0.350451	220.583	145.279
166	-0.693147	-0.345126	220.702	145.518
167	-0.693147	-0.33981	220.817	145.753
168	-0.693147	-0.331854	220.928	145.983
169	-0.693147	-0.326561	221.034	146.21
170	-0.693147	-0.321278	221.137	146.432
171	-0.693147	-0.316004	221.237	146.651
172	-0.693147	-0.310738	221.334	146.867
173	-0.693147	-0.302855	221.426	147.077
174	-0.693147	-0.297612	221.514	147.283
175	-0.693147	-0.292375	221.6	147.486

176	-0.693147	-0.287147	221.682	147.685
177	-0.693147	-0.281926	221.762	147.88
178	-0.693147	-0.27411	221.837	148.07
179	-0.693147	-0.268908	221.909	148.257
180	-0.693147	-0.263715	221.979	148.439
181	-0.693147	-0.258527	222.045	148.619
182	-0.693147	-0.253347	222.11	148.794
183	-0.693147	-0.24559	222.17	148.964
184	-0.693147	-0.240426	222.228	149.131
185	-0.693147	-0.235269	222.283	149.294
186	-0.693147	-0.230118	222.336	149.454
187	-0.693147	-0.224974	222.387	149.61
188	-0.693147	-0.217267	222.434	149.76
189	-0.693147	-0.212137	222.479	149.907
190	-0.693147	-0.207012	222.522	150.051
191	-0.693147	-0.201894	222.562	150.191
192	-0.693147	-0.196779	222.601	150.327
193	-0.693147	-0.189118	222.637	150.458
194	-0.693147	-0.184017	222.671	150.586
195	-0.693147	-0.17892	222.703	150.71
196	-0.693147	-0.173829	222.733	150.83
197	-0.693147	-0.168741	222.762	150.947
198	-0.693147	-0.161119	222.787	151.059
199	-0.693147	-0.156042	222.812	151.167
200	-0.693147	-0.150969	222.835	151.272
201	-0.693147	-0.1459	222.856	151.373
202	-0.693147	-0.140835	222.876	151.47
203	-0.693147	-0.133244	222.893	151.563
204	-0.693147	-0.128189	222.91	151.652
205	-0.693147	-0.123135	222.925	151.737
206	-0.693147	-0.118085	222.939	151.819
207	-0.693147	-0.113039	222.952	151.897
208	-0.693147	-0.105474	222.963	151.97
209	-0.693147	-0.100433	222.973	152.04
210	-0.693147	-0.0953969	222.982	152.106
211	-0.693147	-0.0903606	222.99	152.169
212	-0.693147	-0.0853288	222.998	152.228
213	-0.693147	-0.0777834	223.004	152.282
214	-0.693147	-0.0727562	223.009	152.332
215	-0.693147	-0.0677301	223.013	152.379
216	-0.693147	-0.0627062	223.017	152.423
217	-0.693147	-0.0576847	223.021	152.463
218	-0.693147	-0.0501541	223.023	152.497
219	-0.693147	-0.0451348	223.025	152.529
220	-0.693147	-0.0401167	223.027	152.556
221	-0.693147	-0.0350997	223.028	152.581
222	-0.693147	-0.0300838	223.029	152.602
223	-0.693147	-0.0225612	223.03	152.617
224	-0.693147	-0.0175476	223.03	152.629
225	-0.693147	-0.0125328	223.03	152.638
226	-0.693147	-0.00751925	223.03	152.643
227	-0.693147	0	223.03	152.643
228	-0.693147	0.00751925	223.03	152.638
229	-0.693147	0.0125328	223.03	152.629
230	-0.693147	0.0175476	223.031	152.617
231	-0.693147	0.0225612	223.031	152.602
232	-0.693147	0.0300838	223.032	152.581
233	-0.693147	0.0350997	223.033	152.556
234	-0.693147	0.0401167	223.035	152.529
235	-0.693147	0.0451348	223.037	152.497
236	-0.693147	0.0501541	223.039	152.463
237	-0.693147	0.0576847	223.043	152.423

238	-0.693147	0.0627062	223.047	152.379
239	-0.693147	0.0677301	223.051	152.332
240	-0.693147	0.0727562	223.057	152.282
241	-0.693147	0.0777834	223.063	152.228
242	-0.693147	0.0853288	223.07	152.169
243	-0.693147	0.0903606	223.078	152.106
244	-0.693147	0.0953969	223.087	152.04
245	-0.693147	0.100433	223.097	151.97
246	-0.693147	0.105474	223.108	151.897
247	-0.693147	0.113039	223.121	151.819
248	-0.693147	0.118085	223.135	151.737
249	-0.693147	0.123135	223.15	151.652
250	-0.693147	0.128189	223.167	151.563
251	-0.693147	0.133244	223.184	151.47
252	-0.693147	0.140835	223.204	151.373
253	-0.693147	0.1459	223.226	151.272
254	-0.693147	0.150969	223.248	151.167
255	-0.693147	0.156042	223.273	151.059
256	-0.693147	0.161119	223.299	150.947
257	-0.693147	0.168741	223.327	150.83
258	-0.693147	0.173829	223.357	150.71
259	-0.693147	0.17892	223.389	150.586
260	-0.693147	0.184017	223.423	150.458
261	-0.693147	0.189118	223.459	150.327
262	-0.693147	0.196779	223.498	150.191
263	-0.693147	0.201894	223.538	150.051
264	-0.693147	0.207012	223.581	149.907
265	-0.693147	0.212137	223.626	149.76
266	-0.693147	0.217267	223.674	149.61
267	-0.693147	0.224974	223.724	149.454
268	-0.693147	0.230118	223.777	149.294
269	-0.693147	0.235269	223.832	149.131
270	-0.693147	0.240426	223.89	148.964
271	-0.693147	0.24559	223.951	148.794
272	-0.693147	0.253347	224.015	148.619
273	-0.693147	0.258527	224.082	148.439
274	-0.693147	0.263715	224.151	148.257
275	-0.693147	0.268908	224.223	148.07
276	-0.693147	0.27411	224.299	147.88
277	-0.693147	0.281926	224.378	147.685
278	-0.693147	0.287147	224.461	147.486
279	-0.693147	0.292375	224.546	147.283
280	-0.693147	0.297612	224.635	147.077
281	-0.693147	0.302855	224.726	146.867
282	-0.693147	0.310738	224.823	146.651
283	-0.693147	0.316004	224.923	146.432
284	-0.693147	0.321278	225.026	146.21
285	-0.693147	0.326561	225.133	145.983
286	-0.693147	0.331854	225.243	145.753
287	-0.693147	0.33981	225.358	145.518
288	-0.693147	0.345126	225.477	145.279
289	-0.693147	0.350451	225.6	145.036
290	-0.693147	0.355788	225.727	144.789
291	-0.693147	0.361133	225.857	144.539
292	-0.693147	0.369171	225.993	144.283
293	-0.693147	0.374544	226.134	144.023
294	-0.693147	0.379927	226.278	143.76
295	-0.693147	0.385321	226.426	143.493
296	-0.693147	0.390726	226.579	143.222
297	-0.693147	0.398855	226.738	142.946
298	-0.693147	0.40429	226.902	142.665
299	-0.693147	0.409735	227.07	142.381

300	-0.693147	0.415193	227.242	142.093
301	-0.693147	0.420664	227.419	141.802
302	-0.693147	0.428895	227.603	141.505
303	-0.693147	0.434397	227.792	141.204
304	-0.693147	0.439913	227.985	140.899
305	-0.693147	0.445443	228.184	140.59
306	-0.693147	0.453763	228.389	140.275
307	-0.693147	0.459327	228.6	139.957
308	-0.693147	0.464904	228.817	139.635
309	-0.693147	0.470498	229.038	139.309
310	-0.693147	0.476105	229.265	138.979
311	-0.693147	0.484544	229.499	138.643
312	-0.693147	0.490189	229.74	138.303
313	-0.693147	0.49585	229.986	137.959
314	-0.693147	0.501527	230.237	137.612
315	-0.693147	0.507221	230.494	137.26
316	-0.693147	0.515791	230.76	136.902
317	-0.693147	0.521527	231.032	136.541
318	-0.693147	0.52728	231.31	136.176
319	-0.693147	0.533048	231.595	135.806
320	-0.693147	0.538836	231.885	135.433
321	-0.693147	0.547551	232.185	135.053
322	-0.693147	0.553384	232.491	134.669
323	-0.693147	0.559237	232.804	134.282
324	-0.693147	0.565108	233.123	133.89
325	-0.693147	0.570999	233.449	133.494
326	-0.693147	0.579873	233.785	133.092
327	-0.693147	0.585815	234.128	132.686
328	-0.693147	0.591776	234.479	132.276
329	-0.693147	0.597761	234.836	131.862
330	-0.693147	0.603765	235.201	131.443
331	-0.693147	0.612813	235.576	131.019
332	-0.693147	0.618872	235.959	130.59
333	-0.693147	0.624956	236.35	130.156
334	-0.693147	0.631062	236.748	129.719
335	-0.693147	0.637192	237.154	129.277
336	-0.693147	0.646431	237.572	128.829
337	-0.693147	0.652622	237.998	128.377
338	-0.693147	0.658838	238.432	127.92
339	-0.693147	0.665079	238.874	127.459
340	-0.693147	0.671346	239.325	126.994
341	-0.693147	0.680797	239.788	126.522
342	-0.693147	0.687131	240.26	126.046
343	-0.693147	0.693493	240.741	125.565
344	-0.693147	0.699883	241.231	125.08
345	-0.693147	0.706302	241.73	124.59
346	-0.693147	0.715986	242.243	124.094
347	-0.693147	0.722479	242.765	123.593
348	-0.693147	0.729003	243.296	123.088
349	-0.693147	0.735557	243.837	122.578
350	-0.693147	0.742143	244.388	122.064
351	-0.693147	0.752084	244.954	121.542
352	-0.693147	0.758753	245.529	121.016
353	-0.693147	0.765456	246.115	120.486
354	-0.693147	0.772193	246.711	119.951
355	-0.693147	0.778966	247.318	119.411
356	-0.693147	0.789191	247.941	118.864
357	-0.693147	0.796056	248.575	118.312
358	-0.693147	0.802956	249.22	117.755
359	-0.693147	0.809896	249.875	117.194
360	-0.693147	0.816874	250.543	116.628
361	-0.693147	0.827417	251.227	116.054

362	-0.693147	0.834498	251.924	115.476
363	-0.693147	0.841621	252.632	114.892
364	-0.693147	0.848786	253.352	114.304
365	-0.693147	0.855996	254.085	113.711
366	-0.693147	0.866894	254.837	113.11
367	-0.693147	0.874218	255.601	112.504
368	-0.693147	0.881587	256.378	111.893
369	-0.693147	0.889006	257.169	111.277
370	-0.693147	0.896473	257.972	110.655
371	-0.693147	0.907769	258.796	110.026
372	-0.693147	0.915365	259.634	109.391
373	-0.693147	0.923014	260.486	108.752
374	-0.693147	0.930718	261.352	108.107
375	-0.693147	0.938476	262.233	107.456
376	-0.693147	0.950222	263.136	106.797
377	-0.693147	0.958125	264.054	106.133
378	-0.693147	0.966088	264.987	105.464
379	-0.693147	0.974114	265.936	104.788
380	-0.693147	0.986272	266.909	104.105
381	-0.693147	0.994457	267.898	103.416
382	-0.693147	1.00271	268.903	102.72
383	-0.693147	1.01104	269.925	102.02
384	-0.693147	1.01943	270.965	101.313
385	-0.693147	1.03215	272.03	100.598
386	-0.693147	1.04073	273.113	99.8763
387	-0.693147	1.04939	274.214	99.1489
388	-0.693147	1.05812	275.334	98.4155
389	-0.693147	1.06694	276.472	97.6759
390	-0.693147	1.08032	277.639	96.9271
391	-0.693147	1.08935	278.826	96.172
392	-0.693147	1.09847	280.033	95.4106
393	-0.693147	1.10768	281.26	94.6428
394	-0.693147	1.11699	282.507	93.8686
395	-0.693147	1.13113	283.787	93.0845
396	-0.693147	1.14069	285.088	92.2939
397	-0.693147	1.15035	286.411	91.4965
398	-0.693147	1.16012	287.757	90.6924
399	-0.693147	1.17	289.126	89.8814
400	-0.693147	1.18504	290.53	89.06
401	-0.693147	1.19522	291.959	88.2315
402	-0.693147	1.20553	293.412	87.3959
403	-0.693147	1.21596	294.891	86.5531
404	-0.693147	1.22653	296.395	85.7029
405	-0.693147	1.24264	297.939	84.8416
406	-0.693147	1.25357	299.511	83.9727
407	-0.693147	1.26464	301.11	83.0961
408	-0.693147	1.27588	302.738	82.2117
409	-0.693147	1.28727	304.395	81.3195
410	-0.693147	1.30469	306.097	80.4151
411	-0.693147	1.31652	307.83	79.5026
412	-0.693147	1.32854	309.596	78.5817
413	-0.693147	1.34075	311.393	77.6524
414	-0.693147	1.35317	313.224	76.7144
415	-0.693147	1.3722	315.107	75.7633
416	-0.693147	1.38517	317.026	74.8031
417	-0.693147	1.39838	318.981	73.8339
418	-0.693147	1.41183	320.975	72.8553
419	-0.693147	1.42554	323.007	71.8671
420	-0.693147	1.44663	325.1	70.8644
421	-0.693147	1.46106	327.234	69.8517
422	-0.693147	1.47579	329.412	68.8287
423	-0.693147	1.49085	331.635	67.7954

424	-0.693147	1.50626	333.904	66.7513
425	-0.693147	1.53007	336.245	65.6907
426	-0.693147	1.54643	338.636	64.6188
427	-0.693147	1.56322	341.08	63.5353
428	-0.693147	1.58047	343.578	62.4398
429	-0.693147	1.59819	346.132	61.332
430	-0.693147	1.62576	348.775	60.2051
431	-0.693147	1.64485	351.481	59.065
432	-0.693147	1.66456	354.251	57.9112
433	-0.693147	1.68494	357.09	56.7433
434	-0.693147	1.70604	360.001	55.5608
435	-0.693147	1.7392	363.026	54.3552
436	-0.693147	1.76241	366.132	53.1336
437	-0.693147	1.78661	369.324	51.8952
438	-0.693147	1.81191	372.607	50.6393
439	-0.693147	1.83843	375.987	49.365
440	-0.693147	1.88079	379.524	48.0614
441	-0.693147	1.91103	383.176	46.7367
442	-0.693147	1.94314	386.952	45.3899
443	-0.693147	1.97737	390.862	44.0193
444	-0.693147	2.01409	394.918	42.6232
445	-0.693147	2.07485	399.223	41.185
446	-0.693147	2.12007	403.718	39.7155
447	-0.693147	2.17009	408.427	38.2113
448	-0.693147	2.22621	413.383	36.6682
449	-0.693147	2.29036	418.629	35.0807
450	-0.693147	2.40892	424.432	33.4109
451	-0.693147	2.51213	430.743	31.6696
452	-0.693147	2.65209	437.776	29.8313
453	-0.693147	2.87815	446.06	27.8364

Data Set Standard Deviation = 0.0887589
Numerator = 774.863
Denominator = 1588.38
W Statistic = 0.487831 = 774.863 / 1588.38

5% Critical value of 0.976 exceeds 0.487831
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.487831
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Bromomethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.69486
0.69486 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-0.916291	0.00220264	-2.8781	83.7845	355.05
2	-0.916291	0.00440529	-2.6520	83.7845	344.01
3	-0.916291	0.00660793	-2.5121	83.7845	337.176
4	-0.916291	0.00881057	-2.4089	83.7845	332.136
5	-0.916291	0.0110132	-2.2903	83.7845	326.346
6	-0.916291	0.0132159	-2.2262	83.7845	323.213
7	-0.916291	0.0154185	-2.1700	83.7845	320.473
8	-0.916291	0.0176211	-2.1200	83.7845	318.03
9	-0.916291	0.0198238	-2.0748	83.7845	315.822
10	-0.916291	0.0220264	-2.0140	83.7845	312.855
11	-0.916291	0.0242291	-1.9773	83.7845	311.062
12	-0.916291	0.0264317	-1.9431	83.7845	309.39
13	-0.916291	0.0286344	-1.9110	83.7845	307.822
14	-0.916291	0.030837	-1.8807	83.7845	306.345
15	-0.916291	0.0330396	-1.8384	83.7845	304.276
16	-0.916291	0.0352423	-1.8119	83.7845	302.982
17	-0.916291	0.0374449	-1.7866	83.7845	301.746
18	-0.916291	0.0396476	-1.7624	83.7845	300.564
19	-0.916291	0.0418502	-1.7392	83.7845	299.431
20	-0.916291	0.0440529	-1.7060	83.7845	297.812
21	-0.916291	0.0462555	-1.6849	83.7845	296.781
22	-0.916291	0.0484581	-1.6645	83.7845	295.786
23	-0.916291	0.0506608	-1.6448	83.7845	294.824
24	-0.916291	0.0528634	-1.6257	83.7845	293.891
25	-0.916291	0.0550661	-1.5981	83.7845	292.545
26	-0.916291	0.0572687	-1.5804	83.7845	291.679
27	-0.916291	0.0594714	-1.5632	83.7845	290.837
28	-0.916291	0.061674	-1.5464	83.7845	290.017
29	-0.916291	0.0638767	-1.5300	83.7845	289.218
30	-0.916291	0.0660793	-1.5062	83.7845	288.056
31	-0.916291	0.0682819	-1.4908	83.7845	287.303
32	-0.916291	0.0704846	-1.4757	83.7845	286.568
33	-0.916291	0.0726872	-1.4610	83.7845	285.848
34	-0.916291	0.0748899	-1.4466	83.7845	285.144
35	-0.916291	0.0770925	-1.4255	83.7845	284.114
36	-0.916291	0.0792952	-1.4118	83.7845	283.444
37	-0.916291	0.0814978	-1.3983	83.7845	282.787
38	-0.916291	0.0837004	-1.3851	83.7845	282.143
39	-0.916291	0.0859031	-1.3722	83.7845	281.509
40	-0.916291	0.0881057	-1.3531	83.7845	280.58
41	-0.916291	0.0903084	-1.3407	83.7845	279.974
42	-0.916291	0.092511	-1.3285	83.7845	279.377
43	-0.916291	0.0947137	-1.3165	83.7845	278.79
44	-0.916291	0.0969163	-1.3046	83.7845	278.212
45	-0.916291	0.0991189	-1.2872	83.7845	277.362
46	-0.916291	0.101322	-1.2758	83.7845	276.805
47	-0.916291	0.103524	-1.2646	83.7845	276.257
48	-0.916291	0.105727	-1.2535	83.7845	275.716

49	-0.916291	0.10793	-1.2426	83.7845	275.182
50	-0.916291	0.110132	-1.2265	83.7845	274.395
51	-0.916291	0.112335	-1.2159	83.7845	273.879
52	-0.916291	0.114537	-1.2055	83.7845	273.37
53	-0.916291	0.11674	-1.1952	83.7845	272.867
54	-0.916291	0.118943	-1.1850	83.7845	272.37
55	-0.916291	0.121145	-1.17	83.7845	271.635
56	-0.916291	0.123348	-1.1601	83.7845	271.153
57	-0.916291	0.125551	-1.1503	83.7845	270.675
58	-0.916291	0.127753	-1.1406	83.7845	270.204
59	-0.916291	0.129956	-1.1311	83.7845	269.737
60	-0.916291	0.132159	-1.1169	83.7845	269.046
61	-0.916291	0.134361	-1.1076	83.7845	268.592
62	-0.916291	0.136564	-1.0984	83.7845	268.142
63	-0.916291	0.138767	-1.0893	83.7845	267.697
64	-0.916291	0.140969	-1.0803	83.7845	267.256
65	-0.916291	0.143172	-1.0669	83.7845	266.602
66	-0.916291	0.145374	-1.0581	83.7845	266.172
67	-0.916291	0.147577	-1.0493	83.7845	265.745
68	-0.916291	0.14978	-1.0407	83.7845	265.322
69	-0.916291	0.151982	-1.0321	83.7845	264.904
70	-0.916291	0.154185	-1.0194	83.7845	264.282
71	-0.916291	0.156388	-1.0110	83.7845	263.872
72	-0.916291	0.15859	-1.0027	83.7845	263.466
73	-0.916291	0.160793	-0.994457	83.7845	263.063
74	-0.916291	0.162996	-0.986272	83.7845	262.663
75	-0.916291	0.165198	-0.974114	83.7845	262.069
76	-0.916291	0.167401	-0.966088	83.7845	261.677
77	-0.916291	0.169604	-0.958125	83.7845	261.288
78	-0.916291	0.171806	-0.950222	83.7845	260.903
79	-0.916291	0.174009	-0.938476	83.7845	260.329
80	-0.916291	0.176211	-0.930718	83.7845	259.95
81	-0.916291	0.178414	-0.923014	83.7845	259.574
82	-0.916291	0.180617	-0.915365	83.7845	259.2
83	-0.916291	0.182819	-0.907769	83.7845	258.829
84	-0.916291	0.185022	-0.896473	83.7845	258.278
85	-0.916291	0.187225	-0.889006	83.7845	257.913
86	-0.916291	0.189427	-0.881587	83.7845	257.551
87	-0.916291	0.19163	-0.874218	83.7845	257.191
88	-0.916291	0.193833	-0.866894	83.7845	256.833
89	-0.916291	0.196035	-0.855996	83.7845	256.301
90	-0.693147	0.198238	-0.848786	203.166	255.949
91	-0.693147	0.200441	-0.841621	203.166	255.599
92	-0.693147	0.202643	-0.834498	203.166	255.251
93	-0.693147	0.204846	-0.827417	203.166	254.906
94	-0.693147	0.207048	-0.816874	203.166	254.391
95	-0.693147	0.209251	-0.809896	203.166	254.05
96	-0.693147	0.211454	-0.802956	203.166	253.711
97	-0.693147	0.213656	-0.796056	203.166	253.374
98	-0.693147	0.215859	-0.789191	203.166	253.039
99	-0.693147	0.218062	-0.778966	203.166	252.54
100	-0.693147	0.220264	-0.772193	203.166	252.209
101	-0.693147	0.222467	-0.765456	203.166	251.88
102	-0.693147	0.22467	-0.758753	203.166	251.552
103	-0.693147	0.226872	-0.752084	203.166	251.227
104	-0.693147	0.229075	-0.742143	203.166	250.741
105	-0.693147	0.231278	-0.735557	203.166	250.42
106	-0.693147	0.23348	-0.729003	203.166	250.1
107	-0.693147	0.235683	-0.722479	203.166	249.781
108	-0.693147	0.237885	-0.715986	203.166	249.464
109	-0.693147	0.240088	-0.706302	203.166	248.991
110	-0.693147	0.242291	-0.699883	203.166	248.678

111	-0.693147	0.244493	-0.693493	203.166	248.366
112	-0.693147	0.246696	-0.687131	203.166	248.055
113	-0.693147	0.248899	-0.680797	203.166	247.746
114	-0.693147	0.251101	-0.671346	203.166	247.284
115	-0.693147	0.253304	-0.665079	203.166	246.978
116	-0.693147	0.255507	-0.658838	203.166	246.673
117	-0.693147	0.257709	-0.652622	203.166	246.37
118	-0.693147	0.259912	-0.646431	203.166	246.067
119	-0.693147	0.262115	-0.637192	203.166	245.616
120	-0.693147	0.264317	-0.631062	203.166	245.317
121	-0.693147	0.26652	-0.624956	203.166	245.019
122	-0.693147	0.268722	-0.618872	203.166	244.722
123	-0.693147	0.270925	-0.612813	203.166	244.426
124	-0.693147	0.273128	-0.603765	203.166	243.984
125	-0.693147	0.27533	-0.597761	203.166	243.691
126	-0.693147	0.277533	-0.591776	203.166	243.398
127	-0.693147	0.279736	-0.585815	203.166	243.107
128	-0.693147	0.281938	-0.579873	203.166	242.817
129	-0.693147	0.284141	-0.570999	203.166	242.384
130	-0.693147	0.286344	-0.565108	203.166	242.096
131	-0.693147	0.288546	-0.559237	203.166	241.809
132	-0.693147	0.290749	-0.553384	203.166	241.524
133	-0.693147	0.292952	-0.547551	203.166	241.239
134	-0.693147	0.295154	-0.538836	203.166	240.813
135	-0.693147	0.297357	-0.533048	203.166	240.531
136	-0.693147	0.299559	-0.52728	203.166	240.249
137	-0.693147	0.301762	-0.521527	203.166	239.968
138	-0.693147	0.303965	-0.515791	203.166	239.688
139	-0.693147	0.306167	-0.507221	203.166	239.269
140	-0.693147	0.30837	-0.501527	203.166	238.991
141	-0.693147	0.310573	-0.49585	203.166	238.714
142	-0.693147	0.312775	-0.490189	203.166	238.438
143	-0.693147	0.314978	-0.484544	203.166	238.162
144	-0.693147	0.317181	-0.476105	203.166	237.75
145	-0.693147	0.319383	-0.470498	203.166	237.476
146	-0.693147	0.321586	-0.464904	203.166	237.203
147	-0.693147	0.323789	-0.459327	203.166	236.93
148	-0.693147	0.325991	-0.453763	203.166	236.659
149	-0.693147	0.328194	-0.445443	203.166	236.252
150	-0.693147	0.330396	-0.439913	203.166	235.982
151	-0.693147	0.332599	-0.434397	203.166	235.713
152	-0.693147	0.334802	-0.428895	203.166	235.444
153	-0.693147	0.337004	-0.420664	203.166	235.042
154	-0.693147	0.339207	-0.415193	203.166	234.775
155	-0.693147	0.34141	-0.409735	203.166	234.509
156	-0.693147	0.343612	-0.40429	203.166	234.243
157	-0.693147	0.345815	-0.398855	203.166	233.977
158	-0.693147	0.348018	-0.390726	203.166	233.58
159	-0.693147	0.35022	-0.385321	203.166	233.317
160	-0.693147	0.352423	-0.379927	203.166	233.053
161	-0.693147	0.354626	-0.374544	203.166	232.79
162	-0.693147	0.356828	-0.369171	203.166	232.528
163	-0.693147	0.359031	-0.361133	203.166	232.135
164	-0.693147	0.361233	-0.355788	203.166	231.874
165	-0.693147	0.363436	-0.350451	203.166	231.614
166	-0.693147	0.365639	-0.345126	203.166	231.354
167	-0.693147	0.367841	-0.33981	203.166	231.094
168	-0.693147	0.370044	-0.331854	203.166	230.706
169	-0.693147	0.372247	-0.326561	203.166	230.447
170	-0.693147	0.374449	-0.321278	203.166	230.189
171	-0.693147	0.376652	-0.316004	203.166	229.932
172	-0.693147	0.378855	-0.310738	203.166	229.674

173	-0.693147	0.381057	-0.302855	203.166	229.289
174	-0.693147	0.38326	-0.297612	203.166	229.033
175	-0.693147	0.385463	-0.292375	203.166	228.778
176	-0.693147	0.387665	-0.287147	203.166	228.522
177	-0.693147	0.389868	-0.281926	203.166	228.267
178	-0.693147	0.39207	-0.27411	203.166	227.886
179	-0.693147	0.394273	-0.268908	203.166	227.632
180	-0.693147	0.396476	-0.263715	203.166	227.378
181	-0.693147	0.398678	-0.258527	203.166	227.125
182	-0.693147	0.400881	-0.253347	203.166	226.872
183	-0.693147	0.403084	-0.24559	203.166	226.493
184	-0.693147	0.405286	-0.240426	203.166	226.241
185	-0.693147	0.407489	-0.235269	203.166	225.989
186	-0.693147	0.409692	-0.230118	203.166	225.737
187	-0.693147	0.411894	-0.224974	203.166	225.486
188	-0.693147	0.414097	-0.217267	203.166	225.11
189	-0.693147	0.4163	-0.212137	203.166	224.859
190	-0.693147	0.418502	-0.207012	203.166	224.609
191	-0.693147	0.420705	-0.201894	203.166	224.359
192	-0.693147	0.422907	-0.196779	203.166	224.109
193	-0.693147	0.42511	-0.189118	203.166	223.735
194	-0.693147	0.427313	-0.184017	203.166	223.486
195	-0.693147	0.429515	-0.17892	203.166	223.237
196	-0.693147	0.431718	-0.173829	203.166	222.989
197	-0.693147	0.433921	-0.168741	203.166	222.74
198	-0.693147	0.436123	-0.161119	203.166	222.368
199	-0.693147	0.438326	-0.156042	203.166	222.12
200	-0.693147	0.440529	-0.150969	203.166	221.872
201	-0.693147	0.442731	-0.1459	203.166	221.625
202	-0.693147	0.444934	-0.140835	203.166	221.377
203	-0.693147	0.447137	-0.133244	203.166	221.007
204	-0.693147	0.449339	-0.128189	203.166	220.76
205	-0.693147	0.451542	-0.123135	203.166	220.513
206	-0.693147	0.453744	-0.118085	203.166	220.267
207	-0.693147	0.455947	-0.113039	203.166	220.02
208	-0.693147	0.45815	-0.105474	203.166	219.651
209	-0.693147	0.460352	-0.100433	203.166	219.404
210	-0.693147	0.462555	-0.0953969	203.166	219.159
211	-0.693147	0.464758	-0.0903606	203.166	218.913
212	-0.693147	0.46696	-0.0853288	203.166	218.667
213	-0.693147	0.469163	-0.0777834	203.166	218.298
214	-0.693147	0.471366	-0.0727562	203.166	218.053
215	-0.693147	0.473568	-0.0677301	203.166	217.807
216	-0.693147	0.475771	-0.0627062	203.166	217.562
217	-0.693147	0.477974	-0.0576847	203.166	217.317
218	-0.693147	0.480176	-0.0501541	203.166	216.949
219	-0.693147	0.482379	-0.0451348	203.166	216.704
220	-0.693147	0.484581	-0.0401167	203.166	216.459
221	-0.693147	0.486784	-0.0350997	203.166	216.214
222	-0.693147	0.488987	-0.0300838	203.166	215.969
223	-0.693147	0.491189	-0.0225612	203.166	215.602
224	-0.693147	0.493392	-0.0175476	203.166	215.357
225	-0.693147	0.495595	-0.0125328	203.166	215.112
226	-0.693147	0.497797	-0.00751925	203.166	214.867
227	-0.693147	0.5	0	203.166	214.5
228	-0.693147	0.502203	0.00751925	203.166	214.133
229	-0.693147	0.504405	0.0125328	203.166	213.888
230	-0.693147	0.506608	0.0175476	203.166	213.643
231	-0.693147	0.508811	0.0225612	203.166	213.398
232	-0.693147	0.511013	0.0300838	203.166	213.031
233	-0.693147	0.513216	0.0350997	203.166	212.786
234	-0.693147	0.515419	0.0401167	203.166	212.541

235	-0.693147	0.517621	0.0451348	203.166	212.296
236	-0.693147	0.519824	0.0501541	203.166	212.051
237	-0.693147	0.522026	0.0576847	203.166	211.683
238	-0.693147	0.524229	0.0627062	203.166	211.438
239	-0.693147	0.526432	0.0677301	203.166	211.193
240	-0.693147	0.528634	0.0727562	203.166	210.947
241	-0.693147	0.530837	0.0777834	203.166	210.702
242	-0.693147	0.53304	0.0853288	203.166	210.333
243	-0.693147	0.535242	0.0903606	203.166	210.087
244	-0.693147	0.537445	0.0953969	203.166	209.841
245	-0.693147	0.539648	0.100433	203.166	209.596
246	-0.693147	0.54185	0.105474	203.166	209.349
247	-0.693147	0.544053	0.113039	203.166	208.98
248	-0.693147	0.546256	0.118085	203.166	208.733
249	-0.693147	0.548458	0.123135	203.166	208.487
250	-0.693147	0.550661	0.128189	203.166	208.24
251	-0.693147	0.552863	0.133244	203.166	207.993
252	-0.693147	0.555066	0.140835	203.166	207.623
253	-0.693147	0.557269	0.1459	203.166	207.375
254	-0.693147	0.559471	0.150969	203.166	207.128
255	-0.693147	0.561674	0.156042	203.166	206.88
256	-0.693147	0.563877	0.161119	203.166	206.632
257	-0.693147	0.566079	0.168741	203.166	206.26
258	-0.693147	0.568282	0.173829	203.166	206.011
259	-0.693147	0.570485	0.17892	203.166	205.763
260	-0.693147	0.572687	0.184017	203.166	205.514
261	-0.693147	0.57489	0.189118	203.166	205.265
262	-0.693147	0.577093	0.196779	203.166	204.891
263	-0.693147	0.579295	0.201894	203.166	204.641
264	-0.693147	0.581498	0.207012	203.166	204.391
265	-0.693147	0.5837	0.212137	203.166	204.141
266	-0.693147	0.585903	0.217267	203.166	203.89
267	-0.693147	0.588106	0.224974	203.166	203.514
268	-0.693147	0.590308	0.230118	203.166	203.263
269	-0.693147	0.592511	0.235269	203.166	203.011
270	-0.693147	0.594714	0.240426	203.166	202.759
271	-0.693147	0.596916	0.24559	203.166	202.507
272	-0.693147	0.599119	0.253347	203.166	202.128
273	-0.693147	0.601322	0.258527	203.166	201.875
274	-0.693147	0.603524	0.263715	203.166	201.622
275	-0.693147	0.605727	0.268908	203.166	201.368
276	-0.693147	0.60793	0.27411	203.166	201.114
277	-0.693147	0.610132	0.281926	203.166	200.733
278	-0.693147	0.612335	0.287147	203.166	200.478
279	-0.693147	0.614537	0.292375	203.166	200.222
280	-0.693147	0.61674	0.297612	203.166	199.967
281	-0.693147	0.618943	0.302855	203.166	199.711
282	-0.693147	0.621145	0.310738	203.166	199.326
283	-0.693147	0.623348	0.316004	203.166	199.068
284	-0.693147	0.625551	0.321278	203.166	198.811
285	-0.693147	0.627753	0.326561	203.166	198.553
286	-0.693147	0.629956	0.331854	203.166	198.294
287	-0.693147	0.632159	0.33981	203.166	197.906
288	-0.693147	0.634361	0.345126	203.166	197.646
289	-0.693147	0.636564	0.350451	203.166	197.386
290	-0.693147	0.638767	0.355788	203.166	197.126
291	-0.693147	0.640969	0.361133	203.166	196.865
292	-0.693147	0.643172	0.369171	203.166	196.472
293	-0.693147	0.645374	0.374544	203.166	196.21
294	-0.693147	0.647577	0.379927	203.166	195.947
295	-0.693147	0.64978	0.385321	203.166	195.683
296	-0.693147	0.651982	0.390726	203.166	195.42

297	-0.693147	0.654185	0.398855	203.166	195.023
298	-0.693147	0.656388	0.40429	203.166	194.757
299	-0.693147	0.65859	0.409735	203.166	194.491
300	-0.693147	0.660793	0.415193	203.166	194.225
301	-0.693147	0.662996	0.420664	203.166	193.958
302	-0.693147	0.665198	0.428895	203.166	193.556
303	-0.693147	0.667401	0.434397	203.166	193.287
304	-0.693147	0.669604	0.439913	203.166	193.018
305	-0.693147	0.671806	0.445443	203.166	192.748
306	-0.693147	0.674009	0.453763	203.166	192.341
307	-0.693147	0.676211	0.459327	203.166	192.07
308	-0.693147	0.678414	0.464904	203.166	191.797
309	-0.693147	0.680617	0.470498	203.166	191.524
310	-0.693147	0.682819	0.476105	203.166	191.25
311	-0.693147	0.685022	0.484544	203.166	190.838
312	-0.693147	0.687225	0.490189	203.166	190.562
313	-0.693147	0.689427	0.49585	203.166	190.286
314	-0.693147	0.69163	0.501527	203.166	190.009
315	-0.693147	0.693833	0.507221	203.166	189.731
316	-0.693147	0.696035	0.515791	203.166	189.312
317	-0.693147	0.698238	0.521527	203.166	189.032
318	-0.693147	0.700441	0.52728	203.166	188.751
319	-0.693147	0.702643	0.533048	203.166	188.469
320	-0.693147	0.704846	0.538836	203.166	188.187
321	-0.693147	0.707048	0.547551	203.166	187.761
322	-0.693147	0.709251	0.553384	203.166	187.476
323	-0.693147	0.711454	0.559237	203.166	187.191
324	-0.693147	0.713656	0.565108	203.166	186.904
325	-0.693147	0.715859	0.570999	203.166	186.616
326	-0.693147	0.718062	0.579873	203.166	186.183
327	-0.693147	0.720264	0.585815	203.166	185.893
328	-0.693147	0.722467	0.591776	203.166	185.602
329	-0.693147	0.72467	0.597761	203.166	185.309
330	-0.693147	0.726872	0.603765	203.166	185.016
331	-0.693147	0.729075	0.612813	203.166	184.574
332	-0.693147	0.731278	0.618872	203.166	184.278
333	-0.693147	0.73348	0.624956	203.166	183.981
334	-0.693147	0.735683	0.631062	203.166	183.683
335	-0.693147	0.737885	0.637192	203.166	183.384
336	-0.693147	0.740088	0.646431	203.166	182.933
337	-0.693147	0.742291	0.652622	203.166	182.63
338	-0.693147	0.744493	0.658838	203.166	182.327
339	-0.693147	0.746696	0.665079	203.166	182.022
340	-0.693147	0.748899	0.671346	203.166	181.716
341	-0.693147	0.751101	0.680797	203.166	181.254
342	-0.693147	0.753304	0.687131	203.166	180.945
343	-0.693147	0.755507	0.693493	203.166	180.634
344	-0.693147	0.757709	0.699883	203.166	180.322
345	-0.693147	0.759912	0.706302	203.166	180.009
346	-0.693147	0.762115	0.715986	203.166	179.536
347	-0.693147	0.764317	0.722479	203.166	179.219
348	-0.693147	0.76652	0.729003	203.166	178.9
349	-0.693147	0.768722	0.735557	203.166	178.58
350	-0.693147	0.770925	0.742143	203.166	178.259
351	-0.693147	0.773128	0.752084	203.166	177.773
352	-0.693147	0.77533	0.758753	203.166	177.448
353	-0.693147	0.777533	0.765456	203.166	177.12
354	-0.693147	0.779736	0.772193	203.166	176.791
355	-0.693147	0.781938	0.778966	203.166	176.46
356	-0.693147	0.784141	0.789191	203.166	175.961
357	-0.693147	0.786344	0.796056	203.166	175.626
358	-0.693147	0.788546	0.802956	203.166	175.289

359	-0.693147	0.790749	0.809896	203.166	174.95
360	-0.693147	0.792952	0.816874	203.166	174.609
361	-0.693147	0.795154	0.827417	203.166	174.094
362	-0.693147	0.797357	0.834498	203.166	173.749
363	-0.693147	0.799559	0.841621	203.166	173.401
364	-0.693147	0.801762	0.848786	203.166	173.051
365	-0.693147	0.803965	0.855996	203.166	172.699
366	-0.693147	0.806167	0.866894	203.166	172.167
367	-0.693147	0.80837	0.874218	203.166	171.809
368	-0.693147	0.810573	0.881587	203.166	171.449
369	-0.693147	0.812775	0.889006	203.166	171.087
370	-0.693147	0.814978	0.896473	203.166	170.722
371	-0.693147	0.817181	0.907769	203.166	170.171
372	-0.693147	0.819383	0.915365	203.166	169.8
373	-0.693147	0.821586	0.923014	203.166	169.426
374	-0.693147	0.823789	0.930718	203.166	169.05
375	-0.693147	0.825991	0.938476	203.166	168.671
376	-0.693147	0.828194	0.950222	203.166	168.097
377	-0.693147	0.830396	0.958125	203.166	167.712
378	-0.693147	0.832599	0.966088	203.166	167.323
379	-0.693147	0.834802	0.974114	203.166	166.931
380	-0.693147	0.837004	0.986272	203.166	166.337
381	-0.693147	0.839207	0.994457	203.166	165.937
382	-0.693147	0.84141	1.00271	203.166	165.534
383	-0.693147	0.843612	1.01104	203.166	165.128
384	-0.693147	0.845815	1.01943	203.166	164.718
385	-0.693147	0.848018	1.03215	203.166	164.096
386	-0.693147	0.85022	1.04073	203.166	163.678
387	-0.693147	0.852423	1.04939	203.166	163.255
388	-0.693147	0.854626	1.05812	203.166	162.828
389	-0.693147	0.856828	1.06694	203.166	162.398
390	-0.693147	0.859031	1.08032	203.166	161.744
391	-0.693147	0.861233	1.08935	203.166	161.303
392	-0.693147	0.863436	1.09847	203.166	160.858
393	-0.693147	0.865639	1.10768	203.166	160.408
394	-0.693147	0.867841	1.11699	203.166	159.954
395	-0.693147	0.870044	1.13113	203.166	159.263
396	-0.693147	0.872247	1.14069	203.166	158.796
397	-0.693147	0.874449	1.15035	203.166	158.325
398	-0.693147	0.876652	1.16012	203.166	157.847
399	-0.693147	0.878855	1.17	203.166	157.365
400	-0.693147	0.881057	1.18504	203.166	156.63
401	-0.693147	0.88326	1.19522	203.166	156.133
402	-0.693147	0.885463	1.20553	203.166	155.63
403	-0.693147	0.887665	1.21596	203.166	155.121
404	-0.693147	0.889868	1.22653	203.166	154.605
405	-0.693147	0.89207	1.24264	203.166	153.818
406	-0.693147	0.894273	1.25357	203.166	153.284
407	-0.693147	0.896476	1.26464	203.166	152.743
408	-0.693147	0.898678	1.27588	203.166	152.195
409	-0.693147	0.900881	1.28727	203.166	151.638
410	-0.693147	0.903084	1.30469	203.166	150.788
411	-0.693147	0.905286	1.31652	203.166	150.21
412	-0.693147	0.907489	1.32854	203.166	149.623
413	-0.693147	0.909692	1.34075	203.166	149.026
414	-0.693147	0.911894	1.35317	203.166	148.42
415	-0.693147	0.914097	1.3722	203.166	147.491
416	-0.693147	0.9163	1.38517	203.166	146.857
417	-0.693147	0.918502	1.39838	203.166	146.213
418	-0.693147	0.920705	1.41183	203.166	145.556
419	-0.693147	0.922907	1.42554	203.166	144.886
420	-0.693147	0.92511	1.44663	203.166	143.856

421	-0.693147	0.927313	1.46106	203.166	143.152
422	-0.693147	0.929515	1.47579	203.166	142.432
423	-0.693147	0.931718	1.49085	203.166	141.697
424	-0.693147	0.933921	1.50626	203.166	140.944
425	-0.693147	0.936123	1.53007	203.166	139.782
426	-0.693147	0.938326	1.54643	203.166	138.983
427	-0.693147	0.940529	1.56322	203.166	138.163
428	-0.693147	0.942731	1.58047	203.166	137.321
429	-0.693147	0.944934	1.59819	203.166	136.455
430	-0.693147	0.947137	1.62576	203.166	135.109
431	-0.693147	0.949339	1.64485	203.166	134.176
432	-0.693147	0.951542	1.66456	203.166	133.214
433	-0.693147	0.953744	1.68494	203.166	132.219
434	-0.693147	0.955947	1.70604	203.166	131.188
435	-0.693147	0.95815	1.7392	203.166	129.569
436	-0.693147	0.960352	1.76241	203.166	128.436
437	-0.693147	0.962555	1.78661	203.166	127.254
438	-0.693147	0.964758	1.81191	203.166	126.018
439	-0.693147	0.96696	1.83843	203.166	124.724
440	-0.693147	0.969163	1.88079	203.166	122.655
441	-0.693147	0.971366	1.91103	203.166	121.178
442	-0.693147	0.973568	1.94314	203.166	119.61
443	-0.693147	0.975771	1.97737	203.166	117.938
444	-0.693147	0.977974	2.01409	203.166	116.145
445	-0.693147	0.980176	2.07485	203.166	113.178
446	-0.693147	0.982379	2.12007	203.166	110.97
447	-0.693147	0.984581	2.17009	203.166	108.527
448	-0.693147	0.986784	2.22621	203.166	105.787
449	-0.693147	0.988987	2.29036	203.166	102.654
450	-0.693147	0.991189	2.40892	203.166	96.8642
451	-0.693147	0.993392	2.51213	203.166	91.8241
452	-0.693147	0.995595	2.65209	203.166	84.9898
453	-0.693147	0.997797	2.87815	203.166	73.9503

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Bromomethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 100%
Number of comparisons = 16
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 37
Maximum Background Value = 0
Confidence Level = 82.2%
False Positive Rate = 17.8%

Location	Date	Count	Mean	Significant
LMW-9S	5/16/2012	1	-0.916291	FALSE
LMW-15R	5/16/2012	1	-0.916291	FALSE
LMW-16	5/16/2012	1	-0.916291	FALSE
LMW-3	5/16/2012	1	-0.916291	FALSE
LMW-9D	5/16/2012	1	-0.916291	FALSE
LMW-14R	5/16/2012	1	-0.916291	FALSE
LMW-3S	5/16/2012	1	-0.916291	FALSE
LMW-6	5/16/2012	1	-0.916291	FALSE
LMW-7	5/16/2012	1	-0.916291	FALSE
LMW-8	5/16/2012	1	-0.916291	FALSE
LMW-9	5/16/2012	1	-0.916291	FALSE
LMW-10	5/16/2012	1	-0.916291	FALSE
MW-5	11/20/2008	2	-0.693147	FALSE
LMW-12	11/20/2008	2	-0.693147	FALSE
LMW-11	11/20/2008	2	-0.693147	FALSE
LMW-13	11/20/2008	2	-0.693147	FALSE

Concentrations (ppb)

Parameter: Cadmium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 251
Percent Non-Detects: 92.6199%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	20 (90.9091%)	1/16/1998	4	4
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/14/2000	3 J	3 J
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<0.2 U	ND<0.2 U
			11/16/2009	ND<0.2 U	ND<0.2 U
			6/30/2010	ND<0.2 U	ND<0.2 U
			11/17/2010	ND<0.2 U	ND<0.2 U
			7/6/2011	ND<0.2 U	ND<0.2 U
			11/22/2011	ND<0.2 U	ND<0.2 U
			5/16/2012	ND<0.2 U	ND<0.2 U

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-3s	1	1 (100%)	5/16/2012	ND<0.2 U	ND<0.2 U
LMW-10	19	18 (94.7368%)	3/14/2000	1 J	1 J
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<0 J	ND<0 J
			11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<0.2 U	ND<0.2 U
			11/16/2009	ND<0.2 U	ND<0.2 U
			6/30/2010	ND<0.2 U	ND<0.2 U
			11/17/2010	ND<0.2 U	ND<0.2 U
			7/6/2011	ND<0.2 U	ND<0.2 U
			11/22/2011	ND<0.2 U	ND<0.2 U
			5/16/2012	ND<0.2 U	ND<0.2 U

LMW-15R	17	17 (100%)	11/18/2006	ND<20	ND<20
		6/2/2007	ND<20	ND<20	
		11/15/2007	ND<20	ND<20	
		11/15/2007	ND<20	ND<20	
		5/20/2008	ND<20	ND<20	
		5/20/2008	ND<20	ND<20	
		11/20/2008	ND<20	ND<20	
		11/20/2008	ND<20	ND<20	
		6/11/2009	ND<0.2 U	ND<0.2 U	
		11/16/2009	ND<0.2 U	ND<0.2 U	
		11/16/2009	ND<0.2 U	ND<0.2 U	
		11/16/2009	ND<0.2 U	ND<0.2 U	
		6/30/2010	ND<0.2 U	ND<0.2 U	
		11/17/2010	ND<0.2 U	ND<0.2 U	
		7/6/2011	ND<0.2 U	ND<0.2 U	
		11/22/2011	ND<0.2 U	ND<0.2 U	
		5/16/2012	ND<0.2 U	ND<0.2 U	
LMW-14R	10	10 (100%)	6/2/2007	ND<20	ND<20
		11/15/2007	ND<20	ND<20	
		5/20/2008	ND<20	ND<20	
		11/20/2008	ND<20	ND<20	
		6/11/2009	ND<0.2 U	ND<0.2 U	
		6/30/2010	ND<0.2 U	ND<0.2 U	
		11/17/2010	ND<0.2 U	ND<0.2 U	
		7/6/2011	ND<0.2 U	ND<0.2 U	
		11/22/2011	ND<0.2 U	ND<0.2 U	
		5/16/2012	ND<0.2 U	ND<0.2 U	
LMW-3	24	23 (95.8333%)	11/19/1996	ND<20	ND<20
		3/24/1997	ND<20	ND<20	
		1/16/1998	ND<20	ND<20	
		3/16/1999	ND<20	ND<20	
		9/23/1999	ND<20	ND<20	
		3/14/2000	2 J	2 J	
		9/23/2003	ND<20	ND<20	
		3/10/2004	ND<20	ND<20	
		10/12/2004	ND<20	ND<20	
		4/1/2005	ND<20	ND<20	
		10/26/2005	ND<20	ND<20	
		6/19/2006	ND<20	ND<20	
		11/18/2006	ND<20	ND<20	
		6/2/2007	ND<20	ND<20	
		11/15/2007	ND<20	ND<20	
		5/20/2008	ND<20	ND<20	
		11/20/2008	ND<20	ND<20	
		6/11/2009	ND<0.2 U	ND<0.2 U	
		11/16/2009	ND<0.2 U	ND<0.2 U	
		6/30/2010	ND<0.2 U	ND<0.2 U	
		11/17/2010	ND<0.2 U	ND<0.2 U	
		7/6/2011	ND<0.2 U	ND<0.2 U	
		11/22/2011	ND<0.2 U	ND<0.2 U	
		5/16/2012	ND<0.2 U	ND<0.2 U	
LMW-6	22	20 (90.9091%)	1/16/1998	ND<20	ND<20
		3/16/1999	ND<20	ND<20	
		9/23/1999	ND<20	ND<20	
		3/14/2000	1 J	1 J	
		9/23/2003	31	31	
		3/10/2004	ND<20	ND<20	
		10/12/2004	ND<20	ND<20	

			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.2 U		ND<0.2 U
			11/16/2009	ND<0.2 U		ND<0.2 U
			6/30/2010	ND<0.2 U		ND<0.2 U
			11/17/2010	ND<0.2 U		ND<0.2 U
			7/6/2011	ND<0.2 U	ND<0.2 U	
			11/22/2011	ND<0.2 U		ND<0.2 U
			5/16/2012	ND<0.2 U		ND<0.2 U
LMW-7	20	12 (60%)	1/16/1998	38	38	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	3 J	3 J	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	1 J	1 J	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<0 J	ND<0 J	
			6/19/2006	ND<0 J	ND<0 J	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	1.2	1.2	
			11/17/2010	0.6	0.6	
			7/6/2011	4.9	4.9	
			11/22/2011	0.68	0.68	
			5/16/2012	0.24 J	0.24 J	
LMW-8	22	21 (95.4545%)	1/16/1998	2 J	2 J	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.2 U		ND<0.2 U
			11/16/2009	ND<0.2 U		ND<0.2 U
			6/30/2010	ND<0.2 U		ND<0.2 U
			11/17/2010	ND<0.2 U		ND<0.2 U
			7/6/2011	ND<0.2 U	ND<0.2 U	
			11/22/2011	ND<0.2 U		ND<0.2 U
			5/16/2012	ND<0.2 U		ND<0.2 U
LMW-9	22	22 (100%)	1/16/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	

			9/23/1999	ND<20	ND<20
			3/14/2000	ND<20	ND<20
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<0.2 U	ND<0.2 U
			11/16/2009	ND<0.2 U	ND<0.2 U
			6/30/2010	ND<0.2 U	ND<0.2 U
			11/17/2010	ND<0.2 U	ND<0.2 U
			7/6/2011	ND<0.2 U	ND<0.2 U
			11/22/2011	ND<0.2 U	ND<0.2 U
			5/16/2012	ND<0.2 U	ND<0.2 U
LMW-9D	12	12 (100%)	11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<0.2 U	ND<0.2 U
			11/16/2009	ND<0.2 U	ND<0.2 U
			6/30/2010	ND<0.2 U	ND<0.2 U
			11/17/2010	ND<0.2 U	ND<0.2 U
			7/6/2011	ND<0.2 U	ND<0.2 U
			11/22/2011	ND<0.2 U	ND<0.2 U
			5/16/2012	ND<0.2 U	ND<0.2 U
LMW-9S	11	11 (100%)	11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<0.2 U	ND<0.2 U
			6/30/2010	ND<0.2 U	ND<0.2 U
			11/17/2010	ND<0.2 U	ND<0.2 U
			7/6/2011	ND<0.2 U	ND<0.2 U
			11/22/2011	ND<0.2 U	ND<0.2 U
			5/16/2012	ND<0.2 U	ND<0.2 U
LMW-16	12	11 (91.6667%)	11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	2 J	2 J
			6/11/2009	ND<0.2 U	ND<0.2 U
			11/16/2009	ND<0.2 U	ND<0.2 U
			6/30/2010	ND<0.2 U	ND<0.2 U
			11/17/2010	ND<0.2 U	ND<0.2 U
			7/6/2011	ND<0.2 U	ND<0.2 U
			11/22/2011	ND<0.2 U	ND<0.2 U
			5/16/2012	ND<0.2 U	ND<0.2 U
LMW-3S	11	11 (100%)	11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20

			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<0.2 U	ND<0.2 U
			11/16/2009	ND<0.2 U	ND<0.2 U
			6/30/2010	ND<0.2 U	ND<0.2 U
			11/17/2010	ND<0.2 U	ND<0.2 U
			7/6/2011	ND<0.2 U	ND<0.2 U
			11/22/2011	ND<0.2 U	ND<0.2 U
LMW-12	11	10 (90.9091%)	3/14/2000	4 J	4 J
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
LMW-11	11	10 (90.9091%)	3/14/2000	ND<20	ND<20
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	2 J	2 J
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
MW-5	13	12 (92.3077%)	1/16/1998	ND<20	ND<20
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/14/2000	3 J	3 J
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
LMW-13	11	10 (90.9091%)	3/14/2000	1 J	1 J
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20

There are 0 unused locations

Loc.	Meas. ND	Date	Conc. Original

Shapiro-Francia Test of Normality
Parameter: Cadmium
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.747777.55021	0	
2	0	-2.4572713.5884	0	
3	0	-2.2903618.8342	0	
4	0.1	-2.1972823.6622	-0.219728	
5	0.1	-2.0969328.0593	-0.429422	
6	0.1	-2.0140932.1159	-0.630831	
7	0.1	-1.9599635.9574	-0.826827	
8	0.1	-1.8957 39.551	-1.0164	
9	0.1	-1.8384342.9308	-1.20024	
10	0.1	-1.7991246.1677	-1.38015	
11	0.1	-1.7506949.2326	-1.55522	
12	0.1	-1.7060452.1431	-1.72582	
13	0.1	-1.6746654.9476	-1.89329	
14	0.1	-1.6352457.6216	-2.05681	
15	0.1	-1.5981960.1758	-2.21663	
16	0.1	-1.5717962.6464	-2.37381	
17	0.1	-1.5382 65.0124	-2.52763	
18	0.1	-1.5062667.2812	-2.67826	
19	0.1	-1.4832869.4814	-2.82659	
20	0.1	-1.4538 71.5949	-2.97197	
21	0.1	-1.4255473.6271	-3.11452	
22	0.1	-1.4050775.6013	-3.25503	
23	0.1	-1.3786677.502	-3.39289	
24	0.1	-1.3531779.3331	-3.52821	
25	0.1	-1.3346281.1143	-3.66167	
26	0.1	-1.3105882.8319	-3.79273	
27	0.1	-1.2872784.489	-3.92146	
28	0.1	-1.2702486.1025	-4.04848	
29	0.1	-1.2480987.6602	-4.17329	
30	0.1	-1.2265389.1646	-4.29594	
31	0.1	-1.2107390.6305	-4.41702	
32	0.1	-1.1901292.0469	-4.53603	
33	0.1	-1.17 93.4158	-4.65303	
34	0.1	-1.1503594.7391	-4.76806	
35	0.1	-1.1359 96.0293	-4.88165	
36	0.1	-1.1169997.277	-4.99335	
37	0.1	-1.0984798.4836	-5.1032	
38	0.1	-1.0848299.6605	-5.21168	
39	0.1	-1.06694100.799	-5.31837	
40	0.1	-1.04939101.9	-5.42331	
41	0.1	-1.03643102.974	-5.52696	
42	0.1	-1.01943104.013	-5.6289	
43	0.1	-1.00271105.019	-5.72917	
44	0.1	-0.990356	106	-5.82821
45	0.1	-0.974114	106.949	-5.92562
46	0.1	-0.958125	107.867	-6.02143
47	0.1	-0.946291	108.762	-6.11606
48	0.1	-0.930718	109.628	-6.20913
49	0.1	-0.915365	110.466	-6.30067
50	0.1	-0.903992	111.283	-6.39107
51	0.1	-0.889006	112.074	-6.47997

52	0.1	-0.874218	112.838	-6.56739
53	0.1	-0.863249	113.583	-6.65371
54	0.1	-0.848786	114.304	-6.73859
55	0.1	-0.834498	115	-6.82204
56	0.1	-0.823893	115.679	-6.90443
57	0.1	-0.809896	116.335	-6.98542
58	0.1	-0.796056	116.968	-7.06503
59	0.1	-0.785774	117.586	-7.1436
60	0.1	-0.772193	118.182	-7.22082
61	0.1	-0.758753	118.758	-7.2967
62	0.1	-0.748762	119.318	-7.37158
63	0.1	-0.735557	119.86	-7.44513
64	0.1	-0.722479	120.382	-7.51738
65	0.1	-0.712751	120.89	-7.58865
66	0.1	-0.699883	121.379	-7.65864
67	0.1	-0.687131	121.852	-7.72736
68	0.1	-0.67449	122.306	-7.7948
69	0.1	-0.665079	122.749	-7.86131
70	0.1	-0.652622	123.175	-7.92657
71	0.1	-0.640266	123.585	-7.9906
72	0.1	-0.631062	123.983	-8.05371
73	0.1	-0.618872	124.366	-8.11559
74	0.1	-0.606775	124.734	-8.17627
75	0.1	-0.597761	125.091	-8.23605
76	0.1	-0.585815	125.435	-8.29463
77	0.1	-0.573953	125.764	-8.35202
78	0.1	-0.565108	126.083	-8.40854
79	0.1	-0.553384	126.39	-8.46387
80	0.1	-0.541736	126.683	-8.51805
81	0.1	-0.533048	126.967	-8.57135
82	0.1	-0.521527	127.239	-8.6235
83	0.1	-0.510074	127.499	-8.67451
84	0.1	-0.501527	127.751	-8.72467
85	0.1	-0.490189	127.991	-8.77368
86	0.1	-0.478914	128.221	-8.82158
87	0.1	-0.470498	128.442	-8.86863
88	0.24	-0.459327	128.653	-8.97886
89	0.6	-0.448213	128.854	-9.24779
90	0.68	-0.439913	129.047	-9.54693
91	1	-0.428895	129.231	-9.97583
92	1	-0.417928	129.406	-10.3938
93	1	-0.409735	129.574	-10.8035
94	1	-0.398855	129.733	-11.2023
95	1.2	-0.388022	129.883	-11.668
96	2	-0.379927	130.028	-12.4278
97	2	-0.369171	130.164	-13.1662
98	2	-0.358459	130.293	-13.8831
99	2	-0.350451	130.415	-14.584
100	3	-0.33981	130.531	-15.6034
101	3	-0.329206	130.639	-16.591
102	3	-0.318639	130.741	-17.547
103	4	-0.310738	130.837	-18.7899
104	4	-0.300232	130.927	-19.9908
105	4.9	-0.28976	131.011	-21.4107
106	10	-0.281926	131.091	-24.2299
107	10	-0.271509	131.165	-26.945
108	10	-0.26112	131.233	-29.5562
109	10	-0.253347	131.297	-32.0897
110	10	-0.243007	131.356	-34.5198
111	10	-0.232693	131.41	-36.8467
112	10	-0.224974	131.461	-39.0964
113	10	-0.214702	131.507	-41.2434

114	10	-0.204452	131.549	-43.288
115	10	-0.196779	131.587	-45.2558
116	10	-0.186567	131.622	-47.1214
117	10	-0.176374	131.653	-48.8852
118	10	-0.168741	131.682	-50.5726
119	10	-0.158579	131.707	-52.1584
120	10	-0.148434	131.729	-53.6427
121	10	-0.140835	131.749	-55.0511
122	10	-0.130716	131.766	-56.3582
123	10	-0.12061	131.78	-57.5643
124	10	-0.113039	131.793	-58.6947
125	10	-0.102953	131.804	-59.7242
126	10	-0.0928787	131.812	-60.653
127	10	-0.0853288	131.82	-61.5063
128	10	-0.0752698	131.825	-62.259
129	10	-0.0652187	131.83	-62.9112
130	10	-0.0576847	131.833	-63.488
131	10	-0.0476439	131.835	-63.9645
132	10	-0.0376076	131.837	-64.3406
133	10	-0.0300838	131.838	-64.6414
134	10	-0.0200544	131.838	-64.8419
135	10	-0.0100272	131.838	-64.9422
136	10	0	131.838	-64.9422
137	10	0.0100272	131.838	-64.8419
138	10	0.0200544	131.839	-64.6414
139	10	0.0300838	131.839	-64.3406
140	10	0.0376076	131.841	-63.9645
141	10	0.0476439	131.843	-63.488
142	10	0.0576847	131.846	-62.9112
143	10	0.0652187	131.851	-62.259
144	10	0.0752698	131.856	-61.5063
145	10	0.0853288	131.864	-60.653
146	10	0.0928787	131.872	-59.7242
147	10	0.102953	131.883	-58.6947
148	10	0.113039	131.896	-57.5643
149	10	0.12061	131.91	-56.3582
150	10	0.130716	131.927	-55.0511
151	10	0.140835	131.947	-53.6427
152	10	0.148434	131.969	-52.1584
153	10	0.158579	131.994	-50.5726
154	10	0.168741	132.023	-48.8852
155	10	0.176374	132.054	-47.1214
156	10	0.186567	132.089	-45.2558
157	10	0.196779	132.127	-43.288
158	10	0.204452	132.169	-41.2434
159	10	0.214702	132.215	-39.0964
160	10	0.224974	132.266	-36.8467
161	10	0.232693	132.32	-34.5198
162	10	0.243007	132.379	-32.0897
163	10	0.253347	132.443	-29.5562
164	10	0.26112	132.512	-26.945
165	10	0.271509	132.585	-24.2299
166	10	0.281926	132.665	-21.4107
167	10	0.28976	132.749	-18.5131
168	10	0.300232	132.839	-15.5107
169	10	0.310738	132.935	-12.4034
170	10	0.318639	133.037	-9.21696
171	10	0.329206	133.145	-5.9249
172	10	0.33981	133.261	-2.5268
173	10	0.350451	133.384	0.977711
174	10	0.358459	133.512	4.5623
175	10	0.369171	133.648	8.25401

176	10	0.379927		133.793	12.0533
177	10	0.388022		133.943	15.9335
178	10	0.398855		134.102	19.9221
179	10	0.409735		134.27	24.0194
180	10	0.417928		134.445	28.1987
181	10	0.428895		134.629	32.4876
182	10	0.439913		134.822	36.8868
183	10	0.448213		135.023	41.3689
184	10	0.459327		135.234	45.9622
185	10	0.470498		135.456	50.6671
186	10	0.478914		135.685	55.4563
187	10	0.490189		135.925	60.3582
188	10	0.501527		136.177	65.3734
189	10	0.510074		136.437	70.4742
190	10	0.521527		136.709	75.6894
191	10	0.533048		136.993	81.0199
192	10	0.541736		137.287	86.4373
193	10	0.553384		137.593	91.9711
194	10	0.565108		137.912	97.6222
195	10	0.573953		138.242	103.362
196	10	0.585815		138.585	109.22
197	10	0.597761		138.942	115.197
198	10	0.606775		139.31	121.265
199	10	0.618872		139.693	127.454
200	10	0.631062		140.091	133.765
201	10	0.640266		140.501	140.167
202	10	0.652622		140.927	146.693
203	10	0.665079		141.37	153.344
204	10	0.67449	141.825	160.089	
205	10	0.687131		142.297	166.96
206	10	0.699883		142.787	173.959
207	10	0.712751		143.295	181.087
208	10	0.722479		143.817	188.312
209	10	0.735557		144.358	195.667
210	10	0.748762		144.918	203.155
211	10	0.758753		145.494	210.742
212	10	0.772193		146.09	218.464
213	10	0.785774		146.708	226.322
214	10	0.796056		147.341	234.283
215	10	0.809896		147.997	242.382
216	10	0.823893		148.676	250.62
217	10	0.834498		149.373	258.965
218	10	0.848786		150.093	267.453
219	10	0.863249		150.838	276.086
220	10	0.874218		151.602	284.828
221	10	0.889006		152.393	293.718
222	10	0.903992		153.21	302.758
223	10	0.915365		154.048	311.912
224	10	0.930718		154.914	321.219
225	10	0.946291		155.81	330.682
226	10	0.958125		156.728	340.263
227	10	0.974114		157.676	350.004
228	10	0.990356		158.657	359.908
229	10	1.00271	159.663	369.935	
230	10	1.01943	160.702	380.129	
231	10	1.03643	161.776	390.493	
232	10	1.04939	162.877	400.987	
233	10	1.06694	164.016	411.657	
234	10	1.08482	165.193	422.505	
235	10	1.09847	166.399	433.489	
236	10	1.11699	167.647	444.659	
237	10	1.1359	168.937	456.018	

238	10	1.15035	170.26	467.522
239	10	1.17	171.629	479.222
240	10	1.19012	173.046	491.123
241	10	1.21073	174.512	503.23
242	10	1.22653	176.016	515.496
243	10	1.24809	177.574	527.976
244	10	1.27024	179.187	540.679
245	10	1.28727	180.844	553.552
246	10	1.31058	182.562	566.657
247	10	1.33462	184.343	580.004
248	10	1.35317	186.174	593.535
249	10	1.37866	188.075	607.322
250	10	1.40507	190.049	621.373
251	10	1.42554	192.081	635.628
252	10	1.4538	194.195	650.166
253	10	1.48328	196.395	664.999
254	10	1.50626	198.664	680.062
255	10	1.5382	201.03	695.444
256	10	1.57179	203.5	711.161
257	10	1.59819	206.054	727.143
258	10	1.63524	208.728	743.496
259	10	1.67466	211.533	760.242
260	10	1.70604	214.444	777.303
261	10	1.75069	217.508	794.81
262	10	1.79912	220.745	812.801
263	10	1.83843	224.125	831.185
264	10	1.8957	227.719	850.142
265	10	1.95996	231.56	869.742
266	10	2.01409	235.617	889.883
267	10	2.09693	240.014	910.852
268	10	2.19728	244.842	932.825
269	10	2.29036	250.088	955.728
270	31	2.45727	256.126	1031.9
271	38	2.74777	263.676	1136.32

Data Set Standard Deviation = 5.29096
Numerator = 1.29122e+006
Denominator = 1.99298e+006
W Statistic = 0.647883 = 1.29122e+006 / 1.99298e+006

5% Critical value of 0.976 exceeds 0.647883
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.647883
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Cadmium

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.805144
0.805144 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00367647		-2.747773	9	348.683
2	0	0.00735294		-2.457273	9	334.497
3	0	0.0110294		-2.290363	9	326.346
4	0.1	0.0147059		-2.197284	0.3375	321.801
5	0.1	0.0183824		-2.096934	0.3375	316.9
6	0.1	0.0220588		-2.014094	0.3375	312.855
7	0.1	0.0257353		-1.959964	0.3375	310.211
8	0.1	0.0294118		-1.8957	40.3375	307.073
9	0.1	0.0330882		-1.838434	0.3375	304.276
10	0.1	0.0367647		-1.799124	0.3375	302.357
11	0.1	0.0404412		-1.750694	0.3375	299.992
12	0.1	0.0441176		-1.706044	0.3375	297.812
13	0.1	0.0477941		-1.674664	0.3375	296.279
14	0.1	0.0514706		-1.635244	0.3375	294.354
15	0.1	0.0551471		-1.598194	0.3375	292.545
16	0.1	0.0588235		-1.571794	0.3375	291.256
17	0.1	0.0625	-1.5382	40.3375	289.615	
18	0.1	0.0661765		-1.506264	0.3375	288.056
19	0.1	0.0698529		-1.483284	0.3375	286.934
20	0.1	0.0735294		-1.4538	40.3375	285.494
21	0.1	0.0772059		-1.425544	0.3375	284.114
22	0.1	0.0808824		-1.405074	0.3375	283.114
23	0.1	0.0845588		-1.378664	0.3375	281.824
24	0.1	0.0882353		-1.353174	0.3375	280.58
25	0.1	0.0919118		-1.334624	0.3375	279.674
26	0.1	0.0955882		-1.310584	0.3375	278.5
27	0.1	0.0992647		-1.287274	0.3375	277.362
28	0.1	0.102941		-1.270244	0.3375	276.53
29	0.1	0.106618		-1.248094	0.3375	275.448
30	0.1	0.110294		-1.226534	0.3375	274.395
31	0.1	0.113971		-1.210734	0.3375	273.624
32	0.1	0.117647		-1.190124	0.3375	272.617
33	0.1	0.121324		-1.17	40.3375	271.635
34	0.1	0.125	-1.150354	0.3375	270.675	
35	0.1	0.128676		-1.1359	40.3375	269.97
36	0.1	0.132353		-1.116994	0.3375	269.046
37	0.1	0.136029		-1.098474	0.3375	268.142
38	0.1	0.139706		-1.084824	0.3375	267.476
39	0.1	0.143382		-1.066944	0.3375	266.602
40	0.1	0.147059		-1.049394	0.3375	265.745
41	0.1	0.150735		-1.036434	0.3375	265.112
42	0.1	0.154412		-1.019434	0.3375	264.282
43	0.1	0.158088		-1.002714	0.3375	263.466
44	0.1	0.161765		-0.990356	40.3375	262.862
45	0.1	0.165441		-0.974114	40.3375	262.069
46	0.1	0.169118		-0.958125	40.3375	261.288
47	0.1	0.172794		-0.946291	40.3375	260.711
48	0.1	0.176471		-0.930718	40.3375	259.95

49	0.1	0.180147	-0.915365	40.3375	259.2
50	0.1	0.183824	-0.903992	40.3375	258.645
51	0.1	0.1875	-0.889006	40.3375	257.913
52	0.1	0.191176	-0.874218	40.3375	257.191
53	0.1	0.194853	-0.863249	40.3375	256.655
54	0.1	0.198529	-0.848786	40.3375	255.949
55	0.1	0.202206	-0.834498	40.3375	255.251
56	0.1	0.205882	-0.823893	40.3375	254.733
57	0.1	0.209559	-0.809896	40.3375	254.05
58	0.1	0.213235	-0.796056	40.3375	253.374
59	0.1	0.216912	-0.785774	40.3375	252.872
60	0.1	0.220588	-0.772193	40.3375	252.209
61	0.1	0.224265	-0.758753	40.3375	251.552
62	0.1	0.227941	-0.748762	40.3375	251.065
63	0.1	0.231618	-0.735557	40.3375	250.42
64	0.1	0.235294	-0.722479	40.3375	249.781
65	0.1	0.238971	-0.712751	40.3375	249.306
66	0.1	0.242647	-0.699883	40.3375	248.678
67	0.1	0.246324	-0.687131	40.3375	248.055
68	0.1	0.25	-0.67449	40.3375	247.438
69	0.1	0.253676	-0.665079	40.3375	246.978
70	0.1	0.257353	-0.652622	40.3375	246.37
71	0.1	0.261029	-0.640266	40.3375	245.766
72	0.1	0.264706	-0.631062	40.3375	245.317
73	0.1	0.268382	-0.618872	40.3375	244.722
74	0.1	0.272059	-0.606775	40.3375	244.131
75	0.1	0.275735	-0.597761	40.3375	243.691
76	0.1	0.279412	-0.585815	40.3375	243.107
77	0.1	0.283088	-0.573953	40.3375	242.528
78	0.1	0.286765	-0.565108	40.3375	242.096
79	0.1	0.290441	-0.553384	40.3375	241.524
80	0.1	0.294118	-0.541736	40.3375	240.955
81	0.1	0.297794	-0.533048	40.3375	240.531
82	0.1	0.301471	-0.521527	40.3375	239.968
83	0.1	0.305147	-0.510074	40.3375	239.409
84	0.1	0.308824	-0.501527	40.3375	238.991
85	0.1	0.3125	-0.490189	40.3375	238.438
86	0.1	0.316176	-0.478914	40.3375	237.887
87	0.1	0.319853	-0.470498	40.3375	237.476
88	0.24	0.323529	-0.459327	42.21	236.93
89	0.6	0.327206	-0.448213	47.025	236.388
90	0.68	0.330882	-0.439913	48.095	235.982
91	1	0.334559	-0.428895	52.375	235.444
92	1	0.338235	-0.417928	52.375	234.909
93	1	0.341912	-0.409735	52.375	234.509
94	1	0.345588	-0.398855	52.375	233.977
95	1.2	0.349265	-0.388022	55.05	233.448
96	2	0.352941	-0.379927	65.75	233.053
97	2	0.356618	-0.369171	65.75	232.528
98	2	0.360294	-0.358459	65.75	232.005
99	2	0.363971	-0.350451	65.75	231.614
100	3	0.367647	-0.33981	79.125	231.094
101	3	0.371324	-0.329206	79.125	230.576
102	3	0.375	-0.318639	79.125	230.06
103	4	0.378676	-0.310738	92.5	229.674
104	4	0.382353	-0.300232	92.5	229.161
105	4.9	0.386029	-0.28976	104.538	228.65
106	10	0.389706	-0.281926	172.75	228.267
107	10	0.393382	-0.271509	172.75	227.759
108	10	0.397059	-0.26112	172.75	227.251
109	10	0.400735	-0.253347	172.75	226.872
110	10	0.404412	-0.243007	172.75	226.367

111	10	0.408088	-0.232693	172.75	225.863
112	10	0.411765	-0.224974	172.75	225.486
113	10	0.415441	-0.214702	172.75	224.985
114	10	0.419118	-0.204452	172.75	224.484
115	10	0.422794	-0.196779	172.75	224.109
116	10	0.426471	-0.186567	172.75	223.611
117	10	0.430147	-0.176374	172.75	223.113
118	10	0.433824	-0.168741	172.75	222.74
119	10	0.4375	-0.158579	172.75	222.244
120	10	0.441176	-0.148434	172.75	221.749
121	10	0.444853	-0.140835	172.75	221.377
122	10	0.448529	-0.130716	172.75	220.883
123	10	0.452206	-0.12061	172.75	220.39
124	10	0.455882	-0.113039	172.75	220.02
125	10	0.459559	-0.102953	172.75	219.528
126	10	0.463235	-0.0928787	172.75	219.036
127	10	0.466912	-0.0853288	172.75	218.667
128	10	0.470588	-0.0752698	172.75	218.176
129	10	0.474265	-0.0652187	172.75	217.685
130	10	0.477941	-0.0576847	172.75	217.317
131	10	0.481618	-0.0476439	172.75	216.827
132	10	0.485294	-0.0376076	172.75	216.337
133	10	0.488971	-0.0300838	172.75	215.969
134	10	0.492647	-0.0200544	172.75	215.479
135	10	0.496324	-0.0100272	172.75	214.99
136	10	0.5	0	172.75	214.5
137	10	0.503676	0.0100272	172.75	214.01
138	10	0.507353	0.0200544	172.75	213.521
139	10	0.511029	0.0300838	172.75	213.031
140	10	0.514706	0.0376076	172.75	212.663
141	10	0.518382	0.0476439	172.75	212.173
142	10	0.522059	0.0576847	172.75	211.683
143	10	0.525735	0.0652187	172.75	211.315
144	10	0.529412	0.0752698	172.75	210.824
145	10	0.533088	0.0853288	172.75	210.333
146	10	0.536765	0.0928787	172.75	209.964
147	10	0.540441	0.102953	172.75	209.472
148	10	0.544118	0.113039	172.75	208.98
149	10	0.547794	0.12061	172.75	208.61
150	10	0.551471	0.130716	172.75	208.117
151	10	0.555147	0.140835	172.75	207.623
152	10	0.558824	0.148434	172.75	207.251
153	10	0.5625	0.158579	172.75	206.756
154	10	0.566176	0.168741	172.75	206.26
155	10	0.569853	0.176374	172.75	205.887
156	10	0.573529	0.186567	172.75	205.389
157	10	0.577206	0.196779	172.75	204.891
158	10	0.580882	0.204452	172.75	204.516
159	10	0.584559	0.214702	172.75	204.015
160	10	0.588235	0.224974	172.75	203.514
161	10	0.591912	0.232693	172.75	203.137
162	10	0.595588	0.243007	172.75	202.633
163	10	0.599265	0.253347	172.75	202.128
164	10	0.602941	0.26112	172.75	201.749
165	10	0.606618	0.271509	172.75	201.241
166	10	0.610294	0.281926	172.75	200.733
167	10	0.613971	0.28976	172.75	200.35
168	10	0.617647	0.300232	172.75	199.839
169	10	0.621324	0.310738	172.75	199.326
170	10	0.625	0.318639	172.75	198.94
171	10	0.628676	0.329206	172.75	198.424
172	10	0.632353	0.33981	172.75	197.906

173	10	0.636029	0.350451	172.75	197.386
174	10	0.639706	0.358459	172.75	196.995
175	10	0.643382	0.369171	172.75	196.472
176	10	0.647059	0.379927	172.75	195.947
177	10	0.650735	0.388022	172.75	195.552
178	10	0.654412	0.398855	172.75	195.023
179	10	0.658088	0.409735	172.75	194.491
180	10	0.661765	0.417928	172.75	194.091
181	10	0.665441	0.428895	172.75	193.556
182	10	0.669118	0.439913	172.75	193.018
183	10	0.672794	0.448213	172.75	192.612
184	10	0.676471	0.459327	172.75	192.07
185	10	0.680147	0.470498	172.75	191.524
186	10	0.683824	0.478914	172.75	191.113
187	10	0.6875	0.490189	172.75	190.562
188	10	0.691176	0.501527	172.75	190.009
189	10	0.694853	0.510074	172.75	189.591
190	10	0.698529	0.521527	172.75	189.032
191	10	0.702206	0.533048	172.75	188.469
192	10	0.705882	0.541736	172.75	188.045
193	10	0.709559	0.553384	172.75	187.476
194	10	0.713235	0.565108	172.75	186.904
195	10	0.716912	0.573953	172.75	186.472
196	10	0.720588	0.585815	172.75	185.893
197	10	0.724265	0.597761	172.75	185.309
198	10	0.727941	0.606775	172.75	184.869
199	10	0.731618	0.618872	172.75	184.278
200	10	0.735294	0.631062	172.75	183.683
201	10	0.738971	0.640266	172.75	183.234
202	10	0.742647	0.652622	172.75	182.63
203	10	0.746324	0.665079	172.75	182.022
204	10	0.75	0.67449	172.75	181.562
205	10	0.753676	0.687131	172.75	180.945
206	10	0.757353	0.699883	172.75	180.322
207	10	0.761029	0.712751	172.75	179.694
208	10	0.764706	0.722479	172.75	179.219
209	10	0.768382	0.735557	172.75	178.58
210	10	0.772059	0.748762	172.75	177.935
211	10	0.775735	0.758753	172.75	177.448
212	10	0.779412	0.772193	172.75	176.791
213	10	0.783088	0.785774	172.75	176.128
214	10	0.786765	0.796056	172.75	175.626
215	10	0.790441	0.809896	172.75	174.95
216	10	0.794118	0.823893	172.75	174.267
217	10	0.797794	0.834498	172.75	173.749
218	10	0.801471	0.848786	172.75	173.051
219	10	0.805147	0.863249	172.75	172.345
220	10	0.808824	0.874218	172.75	171.809
221	10	0.8125	0.889006	172.75	171.087
222	10	0.816176	0.903992	172.75	170.355
223	10	0.819853	0.915365	172.75	169.8
224	10	0.823529	0.930718	172.75	169.05
225	10	0.827206	0.946291	172.75	168.289
226	10	0.830882	0.958125	172.75	167.712
227	10	0.834559	0.974114	172.75	166.931
228	10	0.838235	0.990356	172.75	166.138
229	10	0.841912	1.00271	172.75	165.534
230	10	0.845588	1.01943	172.75	164.718
231	10	0.849265	1.03643	172.75	163.888
232	10	0.852941	1.04939	172.75	163.255
233	10	0.856618	1.06694	172.75	162.398
234	10	0.860294	1.08482	172.75	161.524

235	10	0.863971	1.09847	172.75	160.858
236	10	0.867647	1.11699	172.75	159.954
237	10	0.871324	1.1359	172.75	159.03
238	10	0.875	1.15035	172.75	158.325
239	10	0.878676	1.17	172.75	157.365
240	10	0.882353	1.19012	172.75	156.383
241	10	0.886029	1.21073	172.75	155.376
242	10	0.889706	1.22653	172.75	154.605
243	10	0.893382	1.24809	172.75	153.552
244	10	0.897059	1.27024	172.75	152.47
245	10	0.900735	1.28727	172.75	151.638
246	10	0.904412	1.31058	172.75	150.5
247	10	0.908088	1.33462	172.75	149.326
248	10	0.911765	1.35317	172.75	148.42
249	10	0.915441	1.37866	172.75	147.176
250	10	0.919118	1.40507	172.75	145.886
251	10	0.922794	1.42554	172.75	144.886
252	10	0.926471	1.4538	172.75	143.506
253	10	0.930147	1.48328	172.75	142.066
254	10	0.933824	1.50626	172.75	140.944
255	10	0.9375	1.5382	172.75	139.385
256	10	0.941176	1.57179	172.75	137.744
257	10	0.944853	1.59819	172.75	136.455
258	10	0.948529	1.63524	172.75	134.646
259	10	0.952206	1.67466	172.75	132.721
260	10	0.955882	1.70604	172.75	131.188
261	10	0.959559	1.75069	172.75	129.008
262	10	0.963235	1.79912	172.75	126.643
263	10	0.966912	1.83843	172.75	124.724
264	10	0.970588	1.8957	172.75	121.927
265	10	0.974265	1.95996	172.75	118.789
266	10	0.977941	2.01409	172.75	116.145
267	10	0.981618	2.09693	172.75	112.1
268	10	0.985294	2.19728	172.75	107.199
269	10	0.988971	2.29036	172.75	102.654
270	31	0.992647	2.45727	453.625	94.5032
271	38	0.996324	2.74777	547.25	80.3175

Shapiro-Francia Test of Normality

Parameter: Cadmium

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 271

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	-2.19728	23.6622	22.3182
5	-2.30259	-2.09693	28.0593	27.1466
6	-2.30259	-2.01409	32.1159	31.7842
7	-2.30259	-1.95996	35.9574	36.2972
8	-2.30259	-1.8957	39.551	40.6622
9	-2.30259	-1.83843	42.9308	44.8953
10	-2.30259	-1.79912	46.1677	49.0379
11	-2.30259	-1.75069	49.2326	53.0691
12	-2.30259	-1.70604	52.1431	56.9974
13	-2.30259	-1.67466	54.9476	60.8534
14	-2.30259	-1.63524	57.6216	64.6187
15	-2.30259	-1.59819	60.1758	68.2987
16	-2.30259	-1.57179	62.6464	71.9178
17	-2.30259	-1.5382	65.0124	75.4597
18	-2.30259	-1.50626	67.2812	78.928
19	-2.30259	-1.48328	69.4814	82.3433
20	-2.30259	-1.4538	71.5949	85.6909
21	-2.30259	-1.42554	73.6271	88.9733
22	-2.30259	-1.40507	75.6013	92.2086
23	-2.30259	-1.37866	77.502	95.3831
24	-2.30259	-1.35317	79.3331	98.4989
25	-2.30259	-1.33462	81.1143	101.572
26	-2.30259	-1.31058	82.8319	104.59
27	-2.30259	-1.28727	84.489	107.554
28	-2.30259	-1.27024	86.1025	110.479
29	-2.30259	-1.24809	87.6602	113.352
30	-2.30259	-1.22653	89.1646	116.177
31	-2.30259	-1.21073	90.6305	118.964
32	-2.30259	-1.19012	92.0469	121.705
33	-2.30259	-1.17	93.4158	124.399
34	-2.30259	-1.15035	94.7391	127.048
35	-2.30259	-1.1359	96.0293	129.663
36	-2.30259	-1.11699	97.277	132.235
37	-2.30259	-1.09847	98.4836	134.764
38	-2.30259	-1.08482	99.6605	137.262
39	-2.30259	-1.06694	100.799	139.719
40	-2.30259	-1.04939	101.9	142.135
41	-2.30259	-1.03643	102.974	144.522
42	-2.30259	-1.01943	104.013	146.869
43	-2.30259	-1.00271	105.019	149.178
44	-2.30259	-0.990356	106	151.458
45	-2.30259	-0.974114	106.949	153.701
46	-2.30259	-0.958125	107.867	155.907
47	-2.30259	-0.946291	108.762	158.086
48	-2.30259	-0.930718	109.628	160.229
49	-2.30259	-0.915365	110.466	162.337
50	-2.30259	-0.903992	111.283	164.419
51	-2.30259	-0.889006	112.074	166.466

52	-2.30259	-0.874218	112.838	168.479
53	-2.30259	-0.863249	113.583	170.466
54	-2.30259	-0.848786	114.304	172.421
55	-2.30259	-0.834498	115	174.342
56	-2.30259	-0.823893	115.679	176.239
57	-2.30259	-0.809896	116.335	178.104
58	-2.30259	-0.796056	116.968	179.937
59	-2.30259	-0.785774	117.586	181.746
60	-2.30259	-0.772193	118.182	183.524
61	-2.30259	-0.758753	118.758	185.271
62	-2.30259	-0.748762	119.318	186.996
63	-2.30259	-0.735557	119.86	188.689
64	-2.30259	-0.722479	120.382	190.353
65	-2.30259	-0.712751	120.89	191.994
66	-2.30259	-0.699883	121.379	193.606
67	-2.30259	-0.687131	121.852	195.188
68	-2.30259	-0.67449	122.306	196.741
69	-2.30259	-0.665079	122.749	198.272
70	-2.30259	-0.652622	123.175	199.775
71	-2.30259	-0.640266	123.585	201.249
72	-2.30259	-0.631062	123.983	202.702
73	-2.30259	-0.618872	124.366	204.127
74	-2.30259	-0.606775	124.734	205.524
75	-2.30259	-0.597761	125.091	206.901
76	-2.30259	-0.585815	125.435	208.25
77	-2.30259	-0.573953	125.764	209.571
78	-2.30259	-0.565108	126.083	210.872
79	-2.30259	-0.553384	126.39	212.147
80	-2.30259	-0.541736	126.683	213.394
81	-2.30259	-0.533048	126.967	214.621
82	-2.30259	-0.521527	127.239	215.822
83	-2.30259	-0.510074	127.499	216.997
84	-2.30259	-0.501527	127.751	218.152
85	-1.42712	-0.490189	127.991	218.851
86	-0.510826	-0.478914	128.221	219.096
87	-0.385662	-0.470498	128.442	219.277
88	0	-0.459327	128.653	219.277
89	0	-0.448213	128.854	219.277
90	0	-0.439913	129.047	219.277
91	0	-0.428895	129.231	219.277
92	0	-0.417928	129.406	219.277
93	0	-0.409735	129.574	219.277
94	0	-0.398855	129.733	219.277
95	0.182322	-0.388022	129.883	219.207
96	0.693147	-0.379927	130.028	218.943
97	0.693147	-0.369171	130.164	218.687
98	0.693147	-0.358459	130.293	218.439
99	0.693147	-0.350451	130.415	218.196
100	1.09861	-0.33981	130.531	217.823
101	1.09861	-0.329206	130.639	217.461
102	1.09861	-0.318639	130.741	217.111
103	1.38629	-0.310738	130.837	216.68
104	1.38629	-0.300232	130.927	216.264
105	1.58924	-0.28976	131.011	215.803
106	2.30259	-0.281926	131.091	215.154
107	2.30259	-0.271509	131.165	214.529
108	2.30259	-0.26112	131.233	213.928
109	2.30259	-0.253347	131.297	213.344
110	2.30259	-0.243007	131.356	212.785
111	2.30259	-0.232693	131.41	212.249
112	2.30259	-0.224974	131.461	211.731
113	2.30259	-0.214702	131.507	211.237

114	2.30259	-0.204452	131.549	210.766
115	2.30259	-0.196779	131.587	210.313
116	2.30259	-0.186567	131.622	209.883
117	2.30259	-0.176374	131.653	209.477
118	2.30259	-0.168741	131.682	209.089
119	2.30259	-0.158579	131.707	208.723
120	2.30259	-0.148434	131.729	208.382
121	2.30259	-0.140835	131.749	208.057
122	2.30259	-0.130716	131.766	207.756
123	2.30259	-0.12061	131.78	207.479
124	2.30259	-0.113039	131.793	207.218
125	2.30259	-0.102953	131.804	206.981
126	2.30259	-0.0928787	131.812	206.768
127	2.30259	-0.0853288	131.82	206.571
128	2.30259	-0.0752698	131.825	206.398
129	2.30259	-0.0652187	131.83	206.248
130	2.30259	-0.0576847	131.833	206.115
131	2.30259	-0.0476439	131.835	206.005
132	2.30259	-0.0376076	131.837	205.918
133	2.30259	-0.0300838	131.838	205.849
134	2.30259	-0.0200544	131.838	205.803
135	2.30259	-0.0100272	131.838	205.78
136	2.30259	0	131.838	205.78
137	2.30259	0.0100272	131.838	205.803
138	2.30259	0.0200544	131.839	205.849
139	2.30259	0.0300838	131.839	205.918
140	2.30259	0.0376076	131.841	206.005
141	2.30259	0.0476439	131.843	206.115
142	2.30259	0.0576847	131.846	206.248
143	2.30259	0.0652187	131.851	206.398
144	2.30259	0.0752698	131.856	206.571
145	2.30259	0.0853288	131.864	206.768
146	2.30259	0.0928787	131.872	206.981
147	2.30259	0.102953	131.883	207.218
148	2.30259	0.113039	131.896	207.479
149	2.30259	0.12061	131.91	207.756
150	2.30259	0.130716	131.927	208.057
151	2.30259	0.140835	131.947	208.382
152	2.30259	0.148434	131.969	208.723
153	2.30259	0.158579	131.994	209.089
154	2.30259	0.168741	132.023	209.477
155	2.30259	0.176374	132.054	209.883
156	2.30259	0.186567	132.089	210.313
157	2.30259	0.196779	132.127	210.766
158	2.30259	0.204452	132.169	211.237
159	2.30259	0.214702	132.215	211.731
160	2.30259	0.224974	132.266	212.249
161	2.30259	0.232693	132.32	212.785
162	2.30259	0.243007	132.379	213.344
163	2.30259	0.253347	132.443	213.928
164	2.30259	0.26112	132.512	214.529
165	2.30259	0.271509	132.585	215.154
166	2.30259	0.281926	132.665	215.803
167	2.30259	0.28976	132.749	216.471
168	2.30259	0.300232	132.839	217.162
169	2.30259	0.310738	132.935	217.877
170	2.30259	0.318639	133.037	218.611
171	2.30259	0.329206	133.145	219.369
172	2.30259	0.33981	133.261	220.152
173	2.30259	0.350451	133.384	220.959
174	2.30259	0.358459	133.512	221.784
175	2.30259	0.369171	133.648	222.634

176	2.30259	0.379927		133.793	223.509
177	2.30259	0.388022		133.943	224.402
178	2.30259	0.398855		134.102	225.321
179	2.30259	0.409735		134.27	226.264
180	2.30259	0.417928		134.445	227.226
181	2.30259	0.428895		134.629	228.214
182	2.30259	0.439913		134.822	229.227
183	2.30259	0.448213		135.023	230.259
184	2.30259	0.459327		135.234	231.317
185	2.30259	0.470498		135.456	232.4
186	2.30259	0.478914		135.685	233.503
187	2.30259	0.490189		135.925	234.631
188	2.30259	0.501527		136.177	235.786
189	2.30259	0.510074		136.437	236.961
190	2.30259	0.521527		136.709	238.162
191	2.30259	0.533048		136.993	239.389
192	2.30259	0.541736		137.287	240.636
193	2.30259	0.553384		137.593	241.911
194	2.30259	0.565108		137.912	243.212
195	2.30259	0.573953		138.242	244.533
196	2.30259	0.585815		138.585	245.882
197	2.30259	0.597761		138.942	247.259
198	2.30259	0.606775		139.31	248.656
199	2.30259	0.618872		139.693	250.081
200	2.30259	0.631062		140.091	251.534
201	2.30259	0.640266		140.501	253.008
202	2.30259	0.652622		140.927	254.511
203	2.30259	0.665079		141.37	256.042
204	2.30259	0.67449	141.825	257.595	
205	2.30259	0.687131		142.297	259.177
206	2.30259	0.699883		142.787	260.789
207	2.30259	0.712751		143.295	262.43
208	2.30259	0.722479		143.817	264.094
209	2.30259	0.735557		144.358	265.787
210	2.30259	0.748762		144.918	267.512
211	2.30259	0.758753		145.494	269.259
212	2.30259	0.772193		146.09	271.037
213	2.30259	0.785774		146.708	272.846
214	2.30259	0.796056		147.341	274.679
215	2.30259	0.809896		147.997	276.544
216	2.30259	0.823893		148.676	278.441
217	2.30259	0.834498		149.373	280.362
218	2.30259	0.848786		150.093	282.317
219	2.30259	0.863249		150.838	284.304
220	2.30259	0.874218		151.602	286.317
221	2.30259	0.889006		152.393	288.364
222	2.30259	0.903992		153.21	290.446
223	2.30259	0.915365		154.048	292.554
224	2.30259	0.930718		154.914	294.697
225	2.30259	0.946291		155.81	296.876
226	2.30259	0.958125		156.728	299.082
227	2.30259	0.974114		157.676	301.325
228	2.30259	0.990356		158.657	303.605
229	2.30259	1.00271	159.663	305.914	
230	2.30259	1.01943	160.702	308.261	
231	2.30259	1.03643	161.776	310.648	
232	2.30259	1.04939	162.877	313.064	
233	2.30259	1.06694	164.016	315.521	
234	2.30259	1.08482	165.193	318.019	
235	2.30259	1.09847	166.399	320.548	
236	2.30259	1.11699	167.647	323.12	
237	2.30259	1.1359	168.937	325.735	

238	2.30259	1.15035	170.26	328.384
239	2.30259	1.17	171.629	331.078
240	2.30259	1.19012	173.046	333.819
241	2.30259	1.21073	174.512	336.606
242	2.30259	1.22653	176.016	339.431
243	2.30259	1.24809	177.574	342.304
244	2.30259	1.27024	179.187	345.229
245	2.30259	1.28727	180.844	348.193
246	2.30259	1.31058	182.562	351.211
247	2.30259	1.33462	184.343	354.284
248	2.30259	1.35317	186.174	357.4
249	2.30259	1.37866	188.075	360.574
250	2.30259	1.40507	190.049	363.81
251	2.30259	1.42554	192.081	367.092
252	2.30259	1.4538	194.195	370.44
253	2.30259	1.48328	196.395	373.855
254	2.30259	1.50626	198.664	377.323
255	2.30259	1.5382	201.03	380.865
256	2.30259	1.57179	203.5	384.484
257	2.30259	1.59819	206.054	388.164
258	2.30259	1.63524	208.728	391.93
259	2.30259	1.67466	211.533	395.786
260	2.30259	1.70604	214.444	399.714
261	2.30259	1.75069	217.508	403.745
262	2.30259	1.79912	220.745	407.888
263	2.30259	1.83843	224.125	412.121
264	2.30259	1.8957	227.719	416.486
265	2.30259	1.95996	231.56	420.999
266	2.30259	2.01409	235.617	425.636
267	2.30259	2.09693	240.014	430.465
268	2.30259	2.19728	244.842	435.524
269	2.30259	2.29036	250.088	440.798
270	3.43399	2.45727	256.126	449.236
271	3.63759	2.74777	263.676	459.231

Data Set Standard Deviation = 2.11461
Numerator = 210894
Denominator = 318342
W Statistic = 0.662474 = 210894 / 318342

5% Critical value of 0.976 exceeds 0.662474
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.662474
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Cadmium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.81186
0.81186 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.30259	0.00367647	-2.74777	92.3024	348.683
2	-2.30259	0.00735294	-2.45727	92.3024	334.497
3	-2.30259	0.0110294	-2.29036	92.3024	326.346
4	-2.30259	0.0147059	-2.19728	92.3024	321.801
5	-2.30259	0.0183824	-2.09693	92.3024	316.9
6	-2.30259	0.0220588	-2.01409	92.3024	312.855
7	-2.30259	0.0257353	-1.95996	92.3024	310.211
8	-2.30259	0.0294118	-1.8957	92.3024	307.073
9	-2.30259	0.0330882	-1.83843	92.3024	304.276
10	-2.30259	0.0367647	-1.79912	92.3024	302.357
11	-2.30259	0.0404412	-1.75069	92.3024	299.992
12	-2.30259	0.0441176	-1.70604	92.3024	297.812
13	-2.30259	0.0477941	-1.67466	92.3024	296.279
14	-2.30259	0.0514706	-1.63524	92.3024	294.354
15	-2.30259	0.0551471	-1.59819	92.3024	292.545
16	-2.30259	0.0588235	-1.57179	92.3024	291.256
17	-2.30259	0.0625	-1.5382	92.3024	289.615
18	-2.30259	0.0661765	-1.50626	92.3024	288.056
19	-2.30259	0.0698529	-1.48328	92.3024	286.934
20	-2.30259	0.0735294	-1.4538	92.3024	285.494
21	-2.30259	0.0772059	-1.42554	92.3024	284.114
22	-2.30259	0.0808824	-1.40507	92.3024	283.114
23	-2.30259	0.0845588	-1.37866	92.3024	281.824
24	-2.30259	0.0882353	-1.35317	92.3024	280.58
25	-2.30259	0.0919118	-1.33462	92.3024	279.674
26	-2.30259	0.0955882	-1.31058	92.3024	278.5
27	-2.30259	0.0992647	-1.28727	92.3024	277.362
28	-2.30259	0.102941	-1.27024	92.3024	276.53
29	-2.30259	0.106618	-1.24809	92.3024	275.448
30	-2.30259	0.110294	-1.22653	92.3024	274.395
31	-2.30259	0.113971	-1.21073	92.3024	273.624
32	-2.30259	0.117647	-1.19012	92.3024	272.617
33	-2.30259	0.121324	-1.17	92.3024	271.635
34	-2.30259	0.125	-1.15035	92.3024	270.675
35	-2.30259	0.128676	-1.1359	92.3024	269.97
36	-2.30259	0.132353	-1.11699	92.3024	269.046
37	-2.30259	0.136029	-1.09847	92.3024	268.142
38	-2.30259	0.139706	-1.08482	92.3024	267.476
39	-2.30259	0.143382	-1.06694	92.3024	266.602
40	-2.30259	0.147059	-1.04939	92.3024	265.745
41	-2.30259	0.150735	-1.03643	92.3024	265.112
42	-2.30259	0.154412	-1.01943	92.3024	264.282
43	-2.30259	0.158088	-1.00271	92.3024	263.466
44	-2.30259	0.161765	-0.990356	92.3024	262.862
45	-2.30259	0.165441	-0.974114	92.3024	262.069
46	-2.30259	0.169118	-0.958125	92.3024	261.288
47	-2.30259	0.172794	-0.946291	92.3024	260.711
48	-2.30259	0.176471	-0.930718	92.3024	259.95

49	-2.30259	0.180147	-0.915365	92.3024	259.2
50	-2.30259	0.183824	-0.903992	92.3024	258.645
51	-2.30259	0.1875	-0.889006	92.3024	257.913
52	-2.30259	0.191176	-0.874218	92.3024	257.191
53	-2.30259	0.194853	-0.863249	92.3024	256.655
54	-2.30259	0.198529	-0.848786	92.3024	255.949
55	-2.30259	0.202206	-0.834498	92.3024	255.251
56	-2.30259	0.205882	-0.823893	92.3024	254.733
57	-2.30259	0.209559	-0.809896	92.3024	254.05
58	-2.30259	0.213235	-0.796056	92.3024	253.374
59	-2.30259	0.216912	-0.785774	92.3024	252.872
60	-2.30259	0.220588	-0.772193	92.3024	252.209
61	-2.30259	0.224265	-0.758753	92.3024	251.552
62	-2.30259	0.227941	-0.748762	92.3024	251.065
63	-2.30259	0.231618	-0.735557	92.3024	250.42
64	-2.30259	0.235294	-0.722479	92.3024	249.781
65	-2.30259	0.238971	-0.712751	92.3024	249.306
66	-2.30259	0.242647	-0.699883	92.3024	248.678
67	-2.30259	0.246324	-0.687131	92.3024	248.055
68	-2.30259	0.25	-0.674499	92.3024	247.438
69	-2.30259	0.253676	-0.665079	92.3024	246.978
70	-2.30259	0.257353	-0.652622	92.3024	246.37
71	-2.30259	0.261029	-0.640266	92.3024	245.766
72	-2.30259	0.264706	-0.631062	92.3024	245.317
73	-2.30259	0.268382	-0.618872	92.3024	244.722
74	-2.30259	0.272059	-0.606775	92.3024	244.131
75	-2.30259	0.275735	-0.597761	92.3024	243.691
76	-2.30259	0.279412	-0.585815	92.3024	243.107
77	-2.30259	0.283088	-0.573953	92.3024	242.528
78	-2.30259	0.286765	-0.565108	92.3024	242.096
79	-2.30259	0.290441	-0.553384	92.3024	241.524
80	-2.30259	0.294118	-0.541736	92.3024	240.955
81	-2.30259	0.297794	-0.533048	92.3024	240.531
82	-2.30259	0.301471	-0.521527	92.3024	239.968
83	-2.30259	0.305147	-0.510074	92.3024	239.409
84	-2.30259	0.308824	-0.501527	92.3024	238.991
85	-1.42712	0.3125	-0.490189	159.213	238.438
86	-0.510826	0.316176	-0.478914	229.244	237.887
87	-0.385662	0.319853	-0.470498	238.81	237.476
88	0	0.323529	-0.459327	268.286	236.93
89	0	0.327206	-0.448213	268.286	236.388
90	0	0.330882	-0.439913	268.286	235.982
91	0	0.334559	-0.428895	268.286	235.444
92	0	0.338235	-0.417928	268.286	234.909
93	0	0.341912	-0.409735	268.286	234.509
94	0	0.345588	-0.398855	268.286	233.977
95	0.182322	0.349265	-0.388022	282.22	233.448
96	0.693147	0.352941	-0.379927	321.262	233.053
97	0.693147	0.356618	-0.369171	321.262	232.528
98	0.693147	0.360294	-0.358459	321.262	232.005
99	0.693147	0.363971	-0.350451	321.262	231.614
100	1.09861	0.367647	-0.33981	352.251	231.094
101	1.09861	0.371324	-0.329206	352.251	230.576
102	1.09861	0.375	-0.318639	352.251	230.06
103	1.38629	0.378676	-0.310738	374.238	229.674
104	1.38629	0.382353	-0.300232	374.238	229.161
105	1.58924	0.386029	-0.28976	389.749	228.65
106	2.30259	0.389706	-0.281926	444.269	228.267
107	2.30259	0.393382	-0.271509	444.269	227.759
108	2.30259	0.397059	-0.26112	444.269	227.251
109	2.30259	0.400735	-0.253347	444.269	226.872
110	2.30259	0.404412	-0.243007	444.269	226.367

111	2.30259	0.408088	-0.232693	444.269	225.863
112	2.30259	0.411765	-0.224974	444.269	225.486
113	2.30259	0.415441	-0.214702	444.269	224.985
114	2.30259	0.419118	-0.204452	444.269	224.484
115	2.30259	0.422794	-0.196779	444.269	224.109
116	2.30259	0.426471	-0.186567	444.269	223.611
117	2.30259	0.430147	-0.176374	444.269	223.113
118	2.30259	0.433824	-0.168741	444.269	222.74
119	2.30259	0.4375	-0.158579	444.269	222.244
120	2.30259	0.441176	-0.148434	444.269	221.749
121	2.30259	0.444853	-0.140835	444.269	221.377
122	2.30259	0.448529	-0.130716	444.269	220.883
123	2.30259	0.452206	-0.12061	444.269	220.39
124	2.30259	0.455882	-0.113039	444.269	220.02
125	2.30259	0.459559	-0.102953	444.269	219.528
126	2.30259	0.463235	-0.0928787	444.269	219.036
127	2.30259	0.466912	-0.0853288	444.269	218.667
128	2.30259	0.470588	-0.0752698	444.269	218.176
129	2.30259	0.474265	-0.0652187	444.269	217.685
130	2.30259	0.477941	-0.0576847	444.269	217.317
131	2.30259	0.481618	-0.0476439	444.269	216.827
132	2.30259	0.485294	-0.0376076	444.269	216.337
133	2.30259	0.488971	-0.0300838	444.269	215.969
134	2.30259	0.492647	-0.0200544	444.269	215.479
135	2.30259	0.496324	-0.0100272	444.269	214.99
136	2.30259	0.5	0	444.269	214.5
137	2.30259	0.503676	0.0100272	444.269	214.01
138	2.30259	0.507353	0.0200544	444.269	213.521
139	2.30259	0.511029	0.0300838	444.269	213.031
140	2.30259	0.514706	0.0376076	444.269	212.663
141	2.30259	0.518382	0.0476439	444.269	212.173
142	2.30259	0.522059	0.0576847	444.269	211.683
143	2.30259	0.525735	0.0652187	444.269	211.315
144	2.30259	0.529412	0.0752698	444.269	210.824
145	2.30259	0.533088	0.0853288	444.269	210.333
146	2.30259	0.536765	0.0928787	444.269	209.964
147	2.30259	0.540441	0.102953	444.269	209.472
148	2.30259	0.544118	0.113039	444.269	208.98
149	2.30259	0.547794	0.12061	444.269	208.61
150	2.30259	0.551471	0.130716	444.269	208.117
151	2.30259	0.555147	0.140835	444.269	207.623
152	2.30259	0.558824	0.148434	444.269	207.251
153	2.30259	0.5625	0.158579	444.269	206.756
154	2.30259	0.566176	0.168741	444.269	206.26
155	2.30259	0.569853	0.176374	444.269	205.887
156	2.30259	0.573529	0.186567	444.269	205.389
157	2.30259	0.577206	0.196779	444.269	204.891
158	2.30259	0.580882	0.204452	444.269	204.516
159	2.30259	0.584559	0.214702	444.269	204.015
160	2.30259	0.588235	0.224974	444.269	203.514
161	2.30259	0.591912	0.232693	444.269	203.137
162	2.30259	0.595588	0.243007	444.269	202.633
163	2.30259	0.599265	0.253347	444.269	202.128
164	2.30259	0.602941	0.26112	444.269	201.749
165	2.30259	0.606618	0.271509	444.269	201.241
166	2.30259	0.610294	0.281926	444.269	200.733
167	2.30259	0.613971	0.28976	444.269	200.35
168	2.30259	0.617647	0.300232	444.269	199.839
169	2.30259	0.621324	0.310738	444.269	199.326
170	2.30259	0.625	0.318639	444.269	198.94
171	2.30259	0.628676	0.329206	444.269	198.424
172	2.30259	0.632353	0.33981	444.269	197.906

173	2.30259	0.636029	0.350451	444.269	197.386
174	2.30259	0.639706	0.358459	444.269	196.995
175	2.30259	0.643382	0.369171	444.269	196.472
176	2.30259	0.647059	0.379927	444.269	195.947
177	2.30259	0.650735	0.388022	444.269	195.552
178	2.30259	0.654412	0.398855	444.269	195.023
179	2.30259	0.658088	0.409735	444.269	194.491
180	2.30259	0.661765	0.417928	444.269	194.091
181	2.30259	0.665441	0.428895	444.269	193.556
182	2.30259	0.669118	0.439913	444.269	193.018
183	2.30259	0.672794	0.448213	444.269	192.612
184	2.30259	0.676471	0.459327	444.269	192.07
185	2.30259	0.680147	0.470498	444.269	191.524
186	2.30259	0.683824	0.478914	444.269	191.113
187	2.30259	0.6875	0.490189	444.269	190.562
188	2.30259	0.691176	0.501527	444.269	190.009
189	2.30259	0.694853	0.510074	444.269	189.591
190	2.30259	0.698529	0.521527	444.269	189.032
191	2.30259	0.702206	0.533048	444.269	188.469
192	2.30259	0.705882	0.541736	444.269	188.045
193	2.30259	0.709559	0.553384	444.269	187.476
194	2.30259	0.713235	0.565108	444.269	186.904
195	2.30259	0.716912	0.573953	444.269	186.472
196	2.30259	0.720588	0.585815	444.269	185.893
197	2.30259	0.724265	0.597761	444.269	185.309
198	2.30259	0.727941	0.606775	444.269	184.869
199	2.30259	0.731618	0.618872	444.269	184.278
200	2.30259	0.735294	0.631062	444.269	183.683
201	2.30259	0.738971	0.640266	444.269	183.234
202	2.30259	0.742647	0.652622	444.269	182.63
203	2.30259	0.746324	0.665079	444.269	182.022
204	2.30259	0.75	0.67449	444.269	181.562
205	2.30259	0.753676	0.687131	444.269	180.945
206	2.30259	0.757353	0.699883	444.269	180.322
207	2.30259	0.761029	0.712751	444.269	179.694
208	2.30259	0.764706	0.722479	444.269	179.219
209	2.30259	0.768382	0.735557	444.269	178.58
210	2.30259	0.772059	0.748762	444.269	177.935
211	2.30259	0.775735	0.758753	444.269	177.448
212	2.30259	0.779412	0.772193	444.269	176.791
213	2.30259	0.783088	0.785774	444.269	176.128
214	2.30259	0.786765	0.796056	444.269	175.626
215	2.30259	0.790441	0.809896	444.269	174.95
216	2.30259	0.794118	0.823893	444.269	174.267
217	2.30259	0.797794	0.834498	444.269	173.749
218	2.30259	0.801471	0.848786	444.269	173.051
219	2.30259	0.805147	0.863249	444.269	172.345
220	2.30259	0.808824	0.874218	444.269	171.809
221	2.30259	0.8125	0.889006	444.269	171.087
222	2.30259	0.816176	0.903992	444.269	170.355
223	2.30259	0.819853	0.915365	444.269	169.8
224	2.30259	0.823529	0.930718	444.269	169.05
225	2.30259	0.827206	0.946291	444.269	168.289
226	2.30259	0.830882	0.958125	444.269	167.712
227	2.30259	0.834559	0.974114	444.269	166.931
228	2.30259	0.838235	0.990356	444.269	166.138
229	2.30259	0.841912	1.00271	444.269	165.534
230	2.30259	0.845588	1.01943	444.269	164.718
231	2.30259	0.849265	1.03643	444.269	163.888
232	2.30259	0.852941	1.04939	444.269	163.255
233	2.30259	0.856618	1.06694	444.269	162.398
234	2.30259	0.860294	1.08482	444.269	161.524

235	2.30259	0.863971	1.09847	444.269	160.858
236	2.30259	0.867647	1.11699	444.269	159.954
237	2.30259	0.871324	1.1359	444.269	159.03
238	2.30259	0.875	1.15035	444.269	158.325
239	2.30259	0.878676	1.17	444.269	157.365
240	2.30259	0.882353	1.19012	444.269	156.383
241	2.30259	0.886029	1.21073	444.269	155.376
242	2.30259	0.889706	1.22653	444.269	154.605
243	2.30259	0.893382	1.24809	444.269	153.552
244	2.30259	0.897059	1.27024	444.269	152.47
245	2.30259	0.900735	1.28727	444.269	151.638
246	2.30259	0.904412	1.31058	444.269	150.5
247	2.30259	0.908088	1.33462	444.269	149.326
248	2.30259	0.911765	1.35317	444.269	148.42
249	2.30259	0.915441	1.37866	444.269	147.176
250	2.30259	0.919118	1.40507	444.269	145.886
251	2.30259	0.922794	1.42554	444.269	144.886
252	2.30259	0.926471	1.4538	444.269	143.506
253	2.30259	0.930147	1.48328	444.269	142.066
254	2.30259	0.933824	1.50626	444.269	140.944
255	2.30259	0.9375	1.5382	444.269	139.385
256	2.30259	0.941176	1.57179	444.269	137.744
257	2.30259	0.944853	1.59819	444.269	136.455
258	2.30259	0.948529	1.63524	444.269	134.646
259	2.30259	0.952206	1.67466	444.269	132.721
260	2.30259	0.955882	1.70604	444.269	131.188
261	2.30259	0.959559	1.75069	444.269	129.008
262	2.30259	0.963235	1.79912	444.269	126.643
263	2.30259	0.966912	1.83843	444.269	124.724
264	2.30259	0.970588	1.8957	444.269	121.927
265	2.30259	0.974265	1.95996	444.269	118.789
266	2.30259	0.977941	2.01409	444.269	116.145
267	2.30259	0.981618	2.09693	444.269	112.1
268	2.30259	0.985294	2.19728	444.269	107.199
269	2.30259	0.988971	2.29036	444.269	102.654
270	3.43399	0.992647	2.45727	530.74	94.5032
271	3.63759	0.996324	2.74777	546.301	80.3175

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Cadmium
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 92.6199%
Number of comparisons = 17
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 2.30259
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-3s	5/16/2012	1	-2.30259	FALSE
LMW-10	5/16/2012	1	-2.30259	FALSE
LMW-15R	5/16/2012	1	-2.30259	FALSE
LMW-14R	5/16/2012	1	-2.30259	FALSE
LMW-3	5/16/2012	1	-2.30259	FALSE
LMW-6	5/16/2012	1	-2.30259	FALSE
LMW-7	5/16/2012	1	-1.42712	FALSE
LMW-8	5/16/2012	1	-2.30259	FALSE
LMW-9	5/16/2012	1	-2.30259	FALSE
LMW-9D	5/16/2012	1	-2.30259	FALSE
LMW-9S	5/16/2012	1	-2.30259	FALSE
LMW-16	5/16/2012	1	-2.30259	FALSE
LMW-3S	11/22/2011	1	-2.30259	FALSE
LMW-12	11/20/2008	1	2.30259	FALSE
LMW-11	11/20/2008	1	2.30259	FALSE
MW-5	11/20/2008	1	2.30259	FALSE
LMW-13	11/20/2008	1	2.30259	FALSE

Concentrations (ppb)

Parameter: Chloroform

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 257
Percent Non-Detects: 94.8339%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	21 (95.4545%)	1/16/1998	78	78
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.14 U	ND<0.14 U
			11/16/2009	ND<0.14 U	ND<0.14 U
			6/30/2010	ND<0.14 U	ND<0.14 U
			11/17/2010	ND<0.14 U	ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U
			11/22/2011	ND<0.14 U	ND<0.14 U
			5/16/2012	ND<0.14 U	ND<0.14 U

There are 16 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-3S	12	12 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.14 U	ND<0.14 U
			11/16/2009	ND<0.14 U	ND<0.14 U
			6/30/2010	ND<0.14 U	ND<0.14 U
			11/17/2010	ND<0.14 U	ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U
			11/22/2011	ND<0.14 U	ND<0.14 U
			5/16/2012	ND<0.14 U	ND<0.14 U
LMW-15R	17	17 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1

			6/11/2009	ND<0.14 U	ND<0.14 U
			11/16/2009	ND<0.14 U	ND<0.14 U
			11/16/2009	ND<0.14 U	ND<0.14 U
			11/16/2009	ND<0.14 U	ND<0.14 U
			6/30/2010	ND<0.14 U	ND<0.14 U
			11/17/2010	ND<0.14 U	ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U
			11/22/2011	ND<0.14 U	ND<0.14 U
			5/16/2012	ND<0.14 U	ND<0.14 U
LMW-9	22	21 (95.4545%)	1/16/1998	ND<1	ND<1
			3/16/1999	3	3
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.14 U	ND<0.14 U
			11/16/2009	ND<0.14 U	ND<0.14 U
			6/30/2010	ND<0.14 U	ND<0.14 U
			11/17/2010	ND<0.14 U	ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U
			11/22/2011	ND<0.14 U	ND<0.14 U
			5/16/2012	ND<0.14 U	ND<0.14 U
LMW-16	12	12 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.14 U	ND<0.14 U
			11/16/2009	ND<0.14 U	ND<0.14 U
			6/30/2010	ND<0.14 U	ND<0.14 U
			11/17/2010	ND<0.14 U	ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U
			11/22/2011	ND<0.14 U	ND<0.14 U
			5/16/2012	ND<0.14 U	ND<0.14 U
LMW-10	19	16 (84.2105%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.14 U	ND<0.14 U
			11/16/2009	ND<0.14 U	ND<0.14 U
			6/30/2010	ND<0.14 U	ND<0.14 U
			11/17/2010	0.2 J	0.2 J

			7/6/2011	0.14 J	0.14 J	
			11/22/2011	0.23 J	0.23 J	
			5/16/2012	ND<0.14 U		ND<0.14 U
LMW-14R	10	10 (100%)	6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.14 U		ND<0.14 U
			6/30/2010	ND<0.14 U		ND<0.14 U
			11/17/2010	ND<0.14 U		ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U	
			11/22/2011	ND<0.14 U		ND<0.14 U
			5/16/2012	ND<0.14 U		ND<0.14 U
LMW-3	24	17 (70.8333%)	11/19/1996	ND<1	ND<1	
			3/24/1997	ND<1	ND<1	
			1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<0 J	ND<0 J	
			11/20/2008	ND<0 J	ND<0 J	
			6/11/2009	0.33 J	0.33 J	
			11/16/2009	0.5 J	0.5 J	
			6/30/2010	0.31 J	0.31 J	
			11/17/2010	0.42 J	0.42 J	
			7/6/2011	0.4 J	0.4 J	
			11/22/2011	0.44 J	0.44 J	
			5/16/2012	0.41 J	0.41 J	
LMW-6	22	21 (95.4545%)	1/16/1998	6	6	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.14 U		ND<0.14 U
			11/16/2009	ND<0.14 U		ND<0.14 U
			6/30/2010	ND<0.14 U		ND<0.14 U
			11/17/2010	ND<0.14 U		ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U	
			11/22/2011	ND<0.14 U		ND<0.14 U
			5/16/2012	ND<0.14 U		ND<0.14 U

LMW-7	20	20 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.14 U	ND<0.14 U
			11/17/2010	ND<0.14 U	ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U
			11/22/2011	ND<0.14 U	ND<0.14 U
			5/16/2012	ND<0.14 U	ND<0.14 U
LMW-8	22	22 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.14 U	ND<0.14 U
			11/16/2009	ND<0.14 U	ND<0.14 U
			6/30/2010	ND<0.14 U	ND<0.14 U
			11/17/2010	ND<0.14 U	ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U
			11/22/2011	ND<0.14 U	ND<0.14 U
			5/16/2012	ND<0.14 U	ND<0.14 U
LMW-9S	11	11 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.14 U	ND<0.14 U
			6/30/2010	ND<0.14 U	ND<0.14 U
			11/17/2010	ND<0.14 U	ND<0.14 U
			7/6/2011	ND<0.14 U	ND<0.14 U
			11/22/2011	ND<0.14 U	ND<0.14 U
			5/16/2012	ND<0.14 U	ND<0.14 U
LMW-9D	12	12 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1

			6/11/2009	ND<0.14 U	ND<0.14 U	
			11/16/2009	ND<0.14 U	ND<0.14 U	
			6/30/2010	ND<0.14 U	ND<0.14 U	
			11/17/2010	ND<0.14 U	ND<0.14 U	
			7/6/2011	ND<0.14 U	ND<0.14 U	
			11/22/2011	ND<0.14 U	ND<0.14 U	
			5/16/2012	ND<0.14 U	ND<0.14 U	
LMW-11	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
MW-5	13	12 (92.3077%)	1/16/1998	8	8	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-12	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-13	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.747777	7.55021	0
2	0	-2.45727	13.5884	0
3	0.07	-2.29036	18.8342	-0.160325
4	0.07	-2.19728	23.6622	-0.314135
5	0.07	-2.09693	28.0593	-0.46092
6	0.07	-2.01409	32.1159	-0.601907
7	0.07	-1.95996	35.9574	-0.739104
8	0.07	-1.8957	39.551	-0.871803
9	0.07	-1.83843	42.9308	-1.00049
10	0.07	-1.79912	46.1677	-1.12643
11	0.07	-1.75069	49.2326	-1.24898
12	0.07	-1.70604	52.1431	-1.3684
13	0.07	-1.67466	54.9476	-1.48563
14	0.07	-1.63524	57.6216	-1.60009
15	0.07	-1.59819	60.1758	-1.71197
16	0.07	-1.57179	62.6464	-1.82199
17	0.07	-1.5382	65.0124	-1.92967
18	0.07	-1.50626	67.2812	-2.03511
19	0.07	-1.48328	69.4814	-2.13894
20	0.07	-1.4538	71.5949	-2.2407
21	0.07	-1.42554	73.6271	-2.34049
22	0.07	-1.40507	75.6013	-2.43885
23	0.07	-1.37866	77.502	-2.53535
24	0.07	-1.35317	79.3331	-2.63007
25	0.07	-1.33462	81.1143	-2.7235
26	0.07	-1.31058	82.8319	-2.81524
27	0.07	-1.28727	84.489	-2.90535
28	0.07	-1.27024	86.1025	-2.99426
29	0.07	-1.24809	87.6602	-3.08163
30	0.07	-1.22653	89.1646	-3.16749
31	0.07	-1.21073	90.6305	-3.25224
32	0.07	-1.19012	92.0469	-3.33555
33	0.07	-1.17	93.4158	-3.41745
34	0.07	-1.15035	94.7391	-3.49797
35	0.07	-1.1359	96.0293	-3.57748
36	0.07	-1.11699	97.277	-3.65567
37	0.07	-1.09847	98.4836	-3.73256
38	0.07	-1.08482	99.6605	-3.8085
39	0.07	-1.06694	100.799	-3.88319
40	0.07	-1.04939	101.9	-3.95664
41	0.07	-1.03643	102.974	-4.0292
42	0.07	-1.01943	104.013	-4.10056
43	0.07	-1.00271	105.019	-4.17074
44	0.07	-0.990356	106	-4.24007
45	0.07	-0.974114	106.949	-4.30826
46	0.07	-0.958125	107.867	-4.37533
47	0.07	-0.946291	108.762	-4.44157
48	0.07	-0.930718	109.628	-4.50672
49	0.07	-0.915365	110.466	-4.57079
50	0.07	-0.903992	111.283	-4.63407
51	0.07	-0.889006	112.074	-4.6963

52	0.07	-0.874218	112.838	-4.7575
53	0.07	-0.863249	113.583	-4.81793
54	0.07	-0.848786	114.304	-4.87734
55	0.07	-0.834498	115	-4.93576
56	0.07	-0.823893	115.679	-4.99343
57	0.07	-0.809896	116.335	-5.05012
58	0.07	-0.796056	116.968	-5.10584
59	0.07	-0.785774	117.586	-5.16085
60	0.07	-0.772193	118.182	-5.2149
61	0.07	-0.758753	118.758	-5.26801
62	0.07	-0.748762	119.318	-5.32043
63	0.07	-0.735557	119.86	-5.37192
64	0.07	-0.722479	120.382	-5.42249
65	0.07	-0.712751	120.89	-5.47238
66	0.07	-0.699883	121.379	-5.52137
67	0.07	-0.687131	121.852	-5.56947
68	0.07	-0.67449	122.306	-5.61669
69	0.07	-0.665079	122.749	-5.66324
70	0.07	-0.652622	123.175	-5.70893
71	0.07	-0.640266	123.585	-5.75375
72	0.07	-0.631062	123.983	-5.79792
73	0.07	-0.618872	124.366	-5.84124
74	0.07	-0.606775	124.734	-5.88372
75	0.07	-0.597761	125.091	-5.92556
76	0.07	-0.585815	125.435	-5.96657
77	0.07	-0.573953	125.764	-6.00674
78	0.07	-0.565108	126.083	-6.0463
79	0.07	-0.553384	126.39	-6.08504
80	0.07	-0.541736	126.683	-6.12296
81	0.07	-0.533048	126.967	-6.16027
82	0.14	-0.521527	127.239	-6.23329
83	0.2	-0.510074	127.499	-6.3353
84	0.23	-0.501527	127.751	-6.45065
85	0.31	-0.490189	127.991	-6.60261
86	0.33	-0.478914	128.221	-6.76065
87	0.4	-0.470498	128.442	-6.94885
88	0.41	-0.459327	128.653	-7.13717
89	0.42	-0.448213	128.854	-7.32542
90	0.44	-0.439913	129.047	-7.51899
91	0.5	-0.428895	129.231	-7.73343
92	0.5	-0.417928	129.406	-7.9424
93	0.5	-0.409735	129.574	-8.14727
94	0.5	-0.398855	129.733	-8.34669
95	0.5	-0.388022	129.883	-8.5407
96	0.5	-0.379927	130.028	-8.73067
97	0.5	-0.369171	130.164	-8.91525
98	0.5	-0.358459	130.293	-9.09448
99	0.5	-0.350451	130.415	-9.26971
100	0.5	-0.33981	130.531	-9.43961
101	0.5	-0.329206	130.639	-9.60422
102	0.5	-0.318639	130.741	-9.76354
103	0.5	-0.310738	130.837	-9.9189
104	0.5	-0.300232	130.927	-10.069
105	0.5	-0.28976	131.011	-10.2139
106	0.5	-0.281926	131.091	-10.3549
107	0.5	-0.271509	131.165	-10.4906
108	0.5	-0.26112	131.233	-10.6212
109	0.5	-0.253347	131.297	-10.7479
110	0.5	-0.243007	131.356	-10.8694
111	0.5	-0.232693	131.41	-10.9857
112	0.5	-0.224974	131.461	-11.0982
113	0.5	-0.214702	131.507	-11.2055

114	0.5	-0.204452	131.549	-11.3078
115	0.5	-0.196779	131.587	-11.4062
116	0.5	-0.186567	131.622	-11.4994
117	0.5	-0.176374	131.653	-11.5876
118	0.5	-0.168741	131.682	-11.672
119	0.5	-0.158579	131.707	-11.7513
120	0.5	-0.148434	131.729	-11.8255
121	0.5	-0.140835	131.749	-11.8959
122	0.5	-0.130716	131.766	-11.9613
123	0.5	-0.12061	131.78	-12.0216
124	0.5	-0.113039	131.793	-12.0781
125	0.5	-0.102953	131.804	-12.1296
126	0.5	-0.0928787	131.812	-12.176
127	0.5	-0.0853288	131.82	-12.2187
128	0.5	-0.0752698	131.825	-12.2563
129	0.5	-0.0652187	131.83	-12.2889
130	0.5	-0.0576847	131.833	-12.3178
131	0.5	-0.0476439	131.835	-12.3416
132	0.5	-0.0376076	131.837	-12.3604
133	0.5	-0.0300838	131.838	-12.3754
134	0.5	-0.0200544	131.838	-12.3855
135	0.5	-0.0100272	131.838	-12.3905
136	0.5	0	131.838	-12.3905
137	0.5	0.0100272	131.838	-12.3855
138	0.5	0.0200544	131.839	-12.3754
139	0.5	0.0300838	131.839	-12.3604
140	0.5	0.0376076	131.841	-12.3416
141	0.5	0.0476439	131.843	-12.3178
142	0.5	0.0576847	131.846	-12.2889
143	0.5	0.0652187	131.851	-12.2563
144	0.5	0.0752698	131.856	-12.2187
145	0.5	0.0853288	131.864	-12.176
146	0.5	0.0928787	131.872	-12.1296
147	0.5	0.102953	131.883	-12.0781
148	0.5	0.113039	131.896	-12.0216
149	0.5	0.12061	131.91	-11.9613
150	0.5	0.130716	131.927	-11.8959
151	0.5	0.140835	131.947	-11.8255
152	0.5	0.148434	131.969	-11.7513
153	0.5	0.158579	131.994	-11.672
154	0.5	0.168741	132.023	-11.5876
155	0.5	0.176374	132.054	-11.4994
156	0.5	0.186567	132.089	-11.4062
157	0.5	0.196779	132.127	-11.3078
158	0.5	0.204452	132.169	-11.2055
159	0.5	0.214702	132.215	-11.0982
160	0.5	0.224974	132.266	-10.9857
161	0.5	0.232693	132.32	-10.8694
162	0.5	0.243007	132.379	-10.7479
163	0.5	0.253347	132.443	-10.6212
164	0.5	0.26112	132.512	-10.4906
165	0.5	0.271509	132.585	-10.3549
166	0.5	0.281926	132.665	-10.2139
167	0.5	0.28976	132.749	-10.069
168	0.5	0.300232	132.839	-9.9189
169	0.5	0.310738	132.935	-9.76354
170	0.5	0.318639	133.037	-9.60422
171	0.5	0.329206	133.145	-9.43961
172	0.5	0.33981	133.261	-9.26971
173	0.5	0.350451	133.384	-9.09448
174	0.5	0.358459	133.512	-8.91525
175	0.5	0.369171	133.648	-8.73067

176	0.5	0.379927		133.793	-8.5407
177	0.5	0.388022		133.943	-8.34669
178	0.5	0.398855		134.102	-8.14727
179	0.5	0.409735		134.27	-7.9424
180	0.5	0.417928		134.445	-7.73343
181	0.5	0.428895		134.629	-7.51899
182	0.5	0.439913		134.822	-7.29903
183	0.5	0.448213		135.023	-7.07492
184	0.5	0.459327		135.234	-6.84526
185	0.5	0.470498		135.456	-6.61001
186	0.5	0.478914		135.685	-6.37055
187	0.5	0.490189		135.925	-6.12546
188	0.5	0.501527		136.177	-5.8747
189	0.5	0.510074		136.437	-5.61966
190	0.5	0.521527		136.709	-5.3589
191	0.5	0.533048		136.993	-5.09237
192	0.5	0.541736		137.287	-4.8215
193	0.5	0.553384		137.593	-4.54481
194	0.5	0.565108		137.912	-4.26226
195	0.5	0.573953		138.242	-3.97528
196	0.5	0.585815		138.585	-3.68237
197	0.5	0.597761		138.942	-3.38349
198	0.5	0.606775		139.31	-3.08011
199	0.5	0.618872		139.693	-2.77067
200	0.5	0.631062		140.091	-2.45514
201	0.5	0.640266		140.501	-2.13501
202	0.5	0.652622		140.927	-1.80869
203	0.5	0.665079		141.37	-1.47616
204	0.5	0.67449	141.825	-1.13891	
205	0.5	0.687131		142.297	-0.795344
206	0.5	0.699883		142.787	-0.445403
207	0.5	0.712751		143.295	-0.0890273
208	0.5	0.722479		143.817	0.272212
209	0.5	0.735557		144.358	0.639991
210	0.5	0.748762		144.918	1.01437
211	0.5	0.758753		145.494	1.39375
212	0.5	0.772193		146.09	1.77984
213	0.5	0.785774		146.708	2.17273
214	0.5	0.796056		147.341	2.57076
215	0.5	0.809896		147.997	2.97571
216	0.5	0.823893		148.676	3.38765
217	0.5	0.834498		149.373	3.8049
218	0.5	0.848786		150.093	4.2293
219	0.5	0.863249		150.838	4.66092
220	0.5	0.874218		151.602	5.09803
221	0.5	0.889006		152.393	5.54253
222	0.5	0.903992		153.21	5.99453
223	0.5	0.915365		154.048	6.45221
224	0.5	0.930718		154.914	6.91757
225	0.5	0.946291		155.81	7.39072
226	0.5	0.958125		156.728	7.86978
227	0.5	0.974114		157.676	8.35683
228	0.5	0.990356		158.657	8.85201
229	0.5	1.00271	159.663	9.35337	
230	0.5	1.01943	160.702	9.86308	
231	0.5	1.03643	161.776	10.3813	
232	0.5	1.04939	162.877	10.906	
233	0.5	1.06694	164.016	11.4395	
234	0.5	1.08482	165.193	11.9819	
235	0.5	1.09847	166.399	12.5311	
236	0.5	1.11699	167.647	13.0896	
237	0.5	1.1359	168.937	13.6575	

238	0.5	1.15035	170.26	14.2327
239	0.5	1.17	171.629	14.8177
240	0.5	1.19012	173.046	15.4128
241	0.5	1.21073	174.512	16.0181
242	0.5	1.22653	176.016	16.6314
243	0.5	1.24809	177.574	17.2555
244	0.5	1.27024	179.187	17.8906
245	0.5	1.28727	180.844	18.5342
246	0.5	1.31058	182.562	19.1895
247	0.5	1.33462	184.343	19.8568
248	0.5	1.35317	186.174	20.5334
249	0.5	1.37866	188.075	21.2227
250	0.5	1.40507	190.049	21.9253
251	0.5	1.42554	192.081	22.638
252	0.5	1.4538	194.195	23.3649
253	0.5	1.48328	196.395	24.1066
254	0.5	1.50626	198.664	24.8597
255	0.5	1.5382	201.03	25.6288
256	0.5	1.57179	203.5	26.4147
257	0.5	1.59819	206.054	27.2138
258	0.5	1.63524	208.728	28.0314
259	0.5	1.67466	211.533	28.8687
260	0.5	1.70604	214.444	29.7218
261	0.5	1.75069	217.508	30.5971
262	0.5	1.79912	220.745	31.4967
263	0.5	1.83843	224.125	32.4159
264	0.5	1.8957	227.719	33.3637
265	0.5	1.95996	231.56	34.3437
266	0.5	2.01409	235.617	35.3508
267	0.5	2.09693	240.014	36.3992
268	3	2.19728	244.842	42.9911
269	6	2.29036	250.088	56.7333
270	8	2.45727	256.126	76.3914
271	78	2.74777	263.676	290.717

Data Set Standard Deviation = 4.75424
Numerator = 84516.5
Denominator = 1.60915e+006
W Statistic = 0.0525224 = 84516.5 / 1.60915e+006

5% Critical value of 0.976 exceeds 0.0525224
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.0525224
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 = 0.235671
0.235671 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00367647		-2.747773	9	348.683
2	0	0.00735294		-2.457273	9	334.497
3	0.07	0.0110294		-2.290363	9.4681	326.346
4	0.07	0.0147059		-2.197283	9.4681	321.801
5	0.07	0.0183824		-2.096933	9.4681	316.9
6	0.07	0.0220588		-2.014093	9.4681	312.855
7	0.07	0.0257353		-1.959963	9.4681	310.211
8	0.07	0.0294118		-1.8957	39.4681	307.073
9	0.07	0.0330882		-1.838433	9.4681	304.276
10	0.07	0.0367647		-1.799123	9.4681	302.357
11	0.07	0.0404412		-1.750693	9.4681	299.992
12	0.07	0.0441176		-1.706043	9.4681	297.812
13	0.07	0.0477941		-1.674663	9.4681	296.279
14	0.07	0.0514706		-1.635243	9.4681	294.354
15	0.07	0.0551471		-1.598193	9.4681	292.545
16	0.07	0.0588235		-1.571793	9.4681	291.256
17	0.07	0.0625	-1.5382	39.4681	289.615	
18	0.07	0.0661765		-1.506263	9.4681	288.056
19	0.07	0.0698529		-1.483283	9.4681	286.934
20	0.07	0.0735294		-1.4538	39.4681	285.494
21	0.07	0.0772059		-1.425543	9.4681	284.114
22	0.07	0.0808824		-1.405073	9.4681	283.114
23	0.07	0.0845588		-1.378663	9.4681	281.824
24	0.07	0.0882353		-1.353173	9.4681	280.58
25	0.07	0.0919118		-1.334623	9.4681	279.674
26	0.07	0.0955882		-1.310583	9.4681	278.5
27	0.07	0.0992647		-1.287273	9.4681	277.362
28	0.07	0.102941		-1.270243	9.4681	276.53
29	0.07	0.106618		-1.248093	9.4681	275.448
30	0.07	0.110294		-1.226533	9.4681	274.395
31	0.07	0.113971		-1.210733	9.4681	273.624
32	0.07	0.117647		-1.190123	9.4681	272.617
33	0.07	0.121324		-1.17	39.4681	271.635
34	0.07	0.125	-1.15035	39.4681	270.675	
35	0.07	0.128676		-1.1359	39.4681	269.97
36	0.07	0.132353		-1.116993	9.4681	269.046
37	0.07	0.136029		-1.098473	9.4681	268.142
38	0.07	0.139706		-1.084823	9.4681	267.476
39	0.07	0.143382		-1.066943	9.4681	266.602
40	0.07	0.147059		-1.049393	9.4681	265.745
41	0.07	0.150735		-1.036433	9.4681	265.112
42	0.07	0.154412		-1.019433	9.4681	264.282
43	0.07	0.158088		-1.002713	9.4681	263.466
44	0.07	0.161765		-0.990356	39.4681	262.862
45	0.07	0.165441		-0.974114	39.4681	262.069
46	0.07	0.169118		-0.958125	39.4681	261.288
47	0.07	0.172794		-0.946291	39.4681	260.711
48	0.07	0.176471		-0.930718	39.4681	259.95

49	0.07	0.180147	-0.915365	39.4681	259.2
50	0.07	0.183824	-0.903992	39.4681	258.645
51	0.07	0.1875	-0.889006	39.4681	257.913
52	0.07	0.191176	-0.874218	39.4681	257.191
53	0.07	0.194853	-0.863249	39.4681	256.655
54	0.07	0.198529	-0.848786	39.4681	255.949
55	0.07	0.202206	-0.834498	39.4681	255.251
56	0.07	0.205882	-0.823893	39.4681	254.733
57	0.07	0.209559	-0.809896	39.4681	254.05
58	0.07	0.213235	-0.796056	39.4681	253.374
59	0.07	0.216912	-0.785774	39.4681	252.872
60	0.07	0.220588	-0.772193	39.4681	252.209
61	0.07	0.224265	-0.758753	39.4681	251.552
62	0.07	0.227941	-0.748762	39.4681	251.065
63	0.07	0.231618	-0.735557	39.4681	250.42
64	0.07	0.235294	-0.722479	39.4681	249.781
65	0.07	0.238971	-0.712751	39.4681	249.306
66	0.07	0.242647	-0.699883	39.4681	248.678
67	0.07	0.246324	-0.687131	39.4681	248.055
68	0.07	0.25	-0.674493	39.4681	247.438
69	0.07	0.253676	-0.665079	39.4681	246.978
70	0.07	0.257353	-0.652622	39.4681	246.37
71	0.07	0.261029	-0.640266	39.4681	245.766
72	0.07	0.264706	-0.631062	39.4681	245.317
73	0.07	0.268382	-0.618872	39.4681	244.722
74	0.07	0.272059	-0.606775	39.4681	244.131
75	0.07	0.275735	-0.597761	39.4681	243.691
76	0.07	0.279412	-0.585815	39.4681	243.107
77	0.07	0.283088	-0.573953	39.4681	242.528
78	0.07	0.286765	-0.565108	39.4681	242.096
79	0.07	0.290441	-0.553384	39.4681	241.524
80	0.07	0.294118	-0.541736	39.4681	240.955
81	0.07	0.297794	-0.533048	39.4681	240.531
82	0.14	0.301471	-0.521527	39.9363	239.968
83	0.2	0.305147	-0.510074	40.3375	239.409
84	0.23	0.308824	-0.501527	40.5381	238.991
85	0.31	0.3125	-0.490189	41.0731	238.438
86	0.33	0.316176	-0.478914	41.2069	237.887
87	0.4	0.319853	-0.470498	41.675	237.476
88	0.41	0.323529	-0.459327	41.7419	236.93
89	0.42	0.327206	-0.448213	41.8088	236.388
90	0.44	0.330882	-0.439913	41.9425	235.982
91	0.5	0.334559	-0.428895	42.3438	235.444
92	0.5	0.338235	-0.417928	42.3438	234.909
93	0.5	0.341912	-0.409735	42.3438	234.509
94	0.5	0.345588	-0.398855	42.3438	233.977
95	0.5	0.349265	-0.388022	42.3438	233.448
96	0.5	0.352941	-0.379927	42.3438	233.053
97	0.5	0.356618	-0.369171	42.3438	232.528
98	0.5	0.360294	-0.358459	42.3438	232.005
99	0.5	0.363971	-0.350451	42.3438	231.614
100	0.5	0.367647	-0.339814	42.3438	231.094
101	0.5	0.371324	-0.329206	42.3438	230.576
102	0.5	0.375	-0.318639	42.3438	230.06
103	0.5	0.378676	-0.310738	42.3438	229.674
104	0.5	0.382353	-0.300232	42.3438	229.161
105	0.5	0.386029	-0.289764	42.3438	228.65
106	0.5	0.389706	-0.281926	42.3438	228.267
107	0.5	0.393382	-0.271509	42.3438	227.759
108	0.5	0.397059	-0.261124	42.3438	227.251
109	0.5	0.400735	-0.253347	42.3438	226.872
110	0.5	0.404412	-0.243007	42.3438	226.367

111	0.5	0.408088	-0.232693	42.3438	225.863
112	0.5	0.411765	-0.224974	42.3438	225.486
113	0.5	0.415441	-0.214702	42.3438	224.985
114	0.5	0.419118	-0.204452	42.3438	224.484
115	0.5	0.422794	-0.196779	42.3438	224.109
116	0.5	0.426471	-0.186567	42.3438	223.611
117	0.5	0.430147	-0.176374	42.3438	223.113
118	0.5	0.433824	-0.168741	42.3438	222.74
119	0.5	0.4375	-0.158579	42.3438	222.244
120	0.5	0.441176	-0.148434	42.3438	221.749
121	0.5	0.444853	-0.140835	42.3438	221.377
122	0.5	0.448529	-0.130716	42.3438	220.883
123	0.5	0.452206	-0.12061	42.3438	220.39
124	0.5	0.455882	-0.113039	42.3438	220.02
125	0.5	0.459559	-0.102953	42.3438	219.528
126	0.5	0.463235	-0.0928787	42.3438	219.036
127	0.5	0.466912	-0.0853288	42.3438	218.667
128	0.5	0.470588	-0.0752698	42.3438	218.176
129	0.5	0.474265	-0.0652187	42.3438	217.685
130	0.5	0.477941	-0.0576847	42.3438	217.317
131	0.5	0.481618	-0.0476439	42.3438	216.827
132	0.5	0.485294	-0.0376076	42.3438	216.337
133	0.5	0.488971	-0.0300838	42.3438	215.969
134	0.5	0.492647	-0.0200544	42.3438	215.479
135	0.5	0.496324	-0.0100272	42.3438	214.99
136	0.5	0.5	0	42.3438	214.5
137	0.5	0.503676	0.0100272	42.3438	214.01
138	0.5	0.507353	0.0200544	42.3438	213.521
139	0.5	0.511029	0.0300838	42.3438	213.031
140	0.5	0.514706	0.0376076	42.3438	212.663
141	0.5	0.518382	0.0476439	42.3438	212.173
142	0.5	0.522059	0.0576847	42.3438	211.683
143	0.5	0.525735	0.0652187	42.3438	211.315
144	0.5	0.529412	0.0752698	42.3438	210.824
145	0.5	0.533088	0.0853288	42.3438	210.333
146	0.5	0.536765	0.0928787	42.3438	209.964
147	0.5	0.540441	0.102953	42.3438	209.472
148	0.5	0.544118	0.113039	42.3438	208.98
149	0.5	0.547794	0.12061	42.3438	208.61
150	0.5	0.551471	0.130716	42.3438	208.117
151	0.5	0.555147	0.140835	42.3438	207.623
152	0.5	0.558824	0.148434	42.3438	207.251
153	0.5	0.5625	0.158579	42.3438	206.756
154	0.5	0.566176	0.168741	42.3438	206.26
155	0.5	0.569853	0.176374	42.3438	205.887
156	0.5	0.573529	0.186567	42.3438	205.389
157	0.5	0.577206	0.196779	42.3438	204.891
158	0.5	0.580882	0.204452	42.3438	204.516
159	0.5	0.584559	0.214702	42.3438	204.015
160	0.5	0.588235	0.224974	42.3438	203.514
161	0.5	0.591912	0.232693	42.3438	203.137
162	0.5	0.595588	0.243007	42.3438	202.633
163	0.5	0.599265	0.253347	42.3438	202.128
164	0.5	0.602941	0.26112	42.3438	201.749
165	0.5	0.606618	0.271509	42.3438	201.241
166	0.5	0.610294	0.281926	42.3438	200.733
167	0.5	0.613971	0.28976	42.3438	200.35
168	0.5	0.617647	0.300232	42.3438	199.839
169	0.5	0.621324	0.310738	42.3438	199.326
170	0.5	0.625	0.318639	42.3438	198.94
171	0.5	0.628676	0.329206	42.3438	198.424
172	0.5	0.632353	0.33981	42.3438	197.906

173	0.5	0.636029	0.350451	42.3438	197.386
174	0.5	0.639706	0.358459	42.3438	196.995
175	0.5	0.643382	0.369171	42.3438	196.472
176	0.5	0.647059	0.379927	42.3438	195.947
177	0.5	0.650735	0.388022	42.3438	195.552
178	0.5	0.654412	0.398855	42.3438	195.023
179	0.5	0.658088	0.409735	42.3438	194.491
180	0.5	0.661765	0.417928	42.3438	194.091
181	0.5	0.665441	0.428895	42.3438	193.556
182	0.5	0.669118	0.439913	42.3438	193.018
183	0.5	0.672794	0.448213	42.3438	192.612
184	0.5	0.676471	0.459327	42.3438	192.07
185	0.5	0.680147	0.470498	42.3438	191.524
186	0.5	0.683824	0.478914	42.3438	191.113
187	0.5	0.6875	0.490189	42.3438	190.562
188	0.5	0.691176	0.501527	42.3438	190.009
189	0.5	0.694853	0.510074	42.3438	189.591
190	0.5	0.698529	0.521527	42.3438	189.032
191	0.5	0.702206	0.533048	42.3438	188.469
192	0.5	0.705882	0.541736	42.3438	188.045
193	0.5	0.709559	0.553384	42.3438	187.476
194	0.5	0.713235	0.565108	42.3438	186.904
195	0.5	0.716912	0.573953	42.3438	186.472
196	0.5	0.720588	0.585815	42.3438	185.893
197	0.5	0.724265	0.597761	42.3438	185.309
198	0.5	0.727941	0.606775	42.3438	184.869
199	0.5	0.731618	0.618872	42.3438	184.278
200	0.5	0.735294	0.631062	42.3438	183.683
201	0.5	0.738971	0.640266	42.3438	183.234
202	0.5	0.742647	0.652622	42.3438	182.63
203	0.5	0.746324	0.665079	42.3438	182.022
204	0.5	0.75	0.67449	42.3438	181.562
205	0.5	0.753676	0.687131	42.3438	180.945
206	0.5	0.757353	0.699883	42.3438	180.322
207	0.5	0.761029	0.712751	42.3438	179.694
208	0.5	0.764706	0.722479	42.3438	179.219
209	0.5	0.768382	0.735557	42.3438	178.58
210	0.5	0.772059	0.748762	42.3438	177.935
211	0.5	0.775735	0.758753	42.3438	177.448
212	0.5	0.779412	0.772193	42.3438	176.791
213	0.5	0.783088	0.785774	42.3438	176.128
214	0.5	0.786765	0.796056	42.3438	175.626
215	0.5	0.790441	0.809896	42.3438	174.95
216	0.5	0.794118	0.823893	42.3438	174.267
217	0.5	0.797794	0.834498	42.3438	173.749
218	0.5	0.801471	0.848786	42.3438	173.051
219	0.5	0.805147	0.863249	42.3438	172.345
220	0.5	0.808824	0.874218	42.3438	171.809
221	0.5	0.8125	0.889006	42.3438	171.087
222	0.5	0.816176	0.903992	42.3438	170.355
223	0.5	0.819853	0.915365	42.3438	169.8
224	0.5	0.823529	0.930718	42.3438	169.05
225	0.5	0.827206	0.946291	42.3438	168.289
226	0.5	0.830882	0.958125	42.3438	167.712
227	0.5	0.834559	0.974114	42.3438	166.931
228	0.5	0.838235	0.990356	42.3438	166.138
229	0.5	0.841912	1.00271	42.3438	165.534
230	0.5	0.845588	1.01943	42.3438	164.718
231	0.5	0.849265	1.03643	42.3438	163.888
232	0.5	0.852941	1.04939	42.3438	163.255
233	0.5	0.856618	1.06694	42.3438	162.398
234	0.5	0.860294	1.08482	42.3438	161.524

235	0.5	0.863971		1.09847	42.3438	160.858
236	0.5	0.867647		1.11699	42.3438	159.954
237	0.5	0.871324		1.1359	42.3438	159.03
238	0.5	0.875	1.15035	42.3438	158.325	
239	0.5	0.878676		1.17	42.3438	157.365
240	0.5	0.882353		1.19012	42.3438	156.383
241	0.5	0.886029		1.21073	42.3438	155.376
242	0.5	0.889706		1.22653	42.3438	154.605
243	0.5	0.893382		1.24809	42.3438	153.552
244	0.5	0.897059		1.27024	42.3438	152.47
245	0.5	0.900735		1.28727	42.3438	151.638
246	0.5	0.904412		1.31058	42.3438	150.5
247	0.5	0.908088		1.33462	42.3438	149.326
248	0.5	0.911765		1.35317	42.3438	148.42
249	0.5	0.915441		1.37866	42.3438	147.176
250	0.5	0.919118		1.40507	42.3438	145.886
251	0.5	0.922794		1.42554	42.3438	144.886
252	0.5	0.926471		1.4538	42.3438	143.506
253	0.5	0.930147		1.48328	42.3438	142.066
254	0.5	0.933824		1.50626	42.3438	140.944
255	0.5	0.9375	1.5382	42.3438	139.385	
256	0.5	0.941176		1.57179	42.3438	137.744
257	0.5	0.944853		1.59819	42.3438	136.455
258	0.5	0.948529		1.63524	42.3438	134.646
259	0.5	0.952206		1.67466	42.3438	132.721
260	0.5	0.955882		1.70604	42.3438	131.188
261	0.5	0.959559		1.75069	42.3438	129.008
262	0.5	0.963235		1.79912	42.3438	126.643
263	0.5	0.966912		1.83843	42.3438	124.724
264	0.5	0.970588		1.8957	42.3438	121.927
265	0.5	0.974265		1.95996	42.3438	118.789
266	0.5	0.977941		2.01409	42.3438	116.145
267	0.5	0.981618		2.09693	42.3438	112.1
268	3	0.985294		2.19728	59.0625	107.199
269	6	0.988971		2.29036	79.125	102.654
270	8	0.992647		2.45727	92.5	94.5032
271	78	0.996324		2.74777	560.625	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 = 271

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	-2.19728	23.6622	25.7754
5	-2.65926	-2.09693	28.0593	31.3517
6	-2.65926	-2.01409	32.1159	36.7077
7	-2.65926	-1.95996	35.9574	41.9197
8	-2.65926	-1.8957	39.551	46.9609
9	-2.65926	-1.83843	42.9308	51.8497
10	-2.65926	-1.79912	46.1677	56.634
11	-2.65926	-1.75069	49.2326	61.2896
12	-2.65926	-1.70604	52.1431	65.8264
13	-2.65926	-1.67466	54.9476	70.2797
14	-2.65926	-1.63524	57.6216	74.6282
15	-2.65926	-1.59819	60.1758	78.8782
16	-2.65926	-1.57179	62.6464	83.058
17	-2.65926	-1.5382	65.0124	87.1485
18	-2.65926	-1.50626	67.2812	91.1541
19	-2.65926	-1.48328	69.4814	95.0985
20	-2.65926	-1.4538	71.5949	98.9645
21	-2.65926	-1.42554	73.6271	102.755
22	-2.65926	-1.40507	75.6013	106.492
23	-2.65926	-1.37866	77.502	110.158
24	-2.65926	-1.35317	79.3331	113.757
25	-2.65926	-1.33462	81.1143	117.306
26	-2.65926	-1.31058	82.8319	120.791
27	-2.65926	-1.28727	84.489	124.214
28	-2.65926	-1.27024	86.1025	127.592
29	-2.65926	-1.24809	87.6602	130.911
30	-2.65926	-1.22653	89.1646	134.173
31	-2.65926	-1.21073	90.6305	137.392
32	-2.65926	-1.19012	92.0469	140.557
33	-2.65926	-1.17	93.4158	143.668
34	-2.65926	-1.15035	94.7391	146.727
35	-2.65926	-1.1359	96.0293	149.748
36	-2.65926	-1.11699	97.277	152.718
37	-2.65926	-1.09847	98.4836	155.64
38	-2.65926	-1.08482	99.6605	158.524
39	-2.65926	-1.06694	100.799	161.362
40	-2.65926	-1.04939	101.9	164.152
41	-2.65926	-1.03643	102.974	166.908
42	-2.65926	-1.01943	104.013	169.619
43	-2.65926	-1.00271	105.019	172.286
44	-2.65926	-0.990356	106	174.919
45	-2.65926	-0.974114	106.949	177.51
46	-2.65926	-0.958125	107.867	180.058
47	-2.65926	-0.946291	108.762	182.574
48	-2.65926	-0.930718	109.628	185.049
49	-2.65926	-0.915365	110.466	187.483
50	-2.65926	-0.903992	111.283	189.887
51	-2.65926	-0.889006	112.074	192.251

52	-2.65926	-0.874218	112.838	194.576
53	-2.65926	-0.863249	113.583	196.872
54	-2.65926	-0.848786	114.304	199.129
55	-2.65926	-0.834498	115	201.348
56	-2.65926	-0.823893	115.679	203.539
57	-2.65926	-0.809896	116.335	205.693
58	-2.65926	-0.796056	116.968	207.81
59	-2.65926	-0.785774	117.586	209.899
60	-2.65926	-0.772193	118.182	211.953
61	-2.65926	-0.758753	118.758	213.97
62	-2.65926	-0.748762	119.318	215.962
63	-2.65926	-0.735557	119.86	217.918
64	-2.65926	-0.722479	120.382	219.839
65	-2.65926	-0.712751	120.89	221.734
66	-2.65926	-0.699883	121.379	223.595
67	-2.65926	-0.687131	121.852	225.423
68	-2.65926	-0.67449	122.306	227.216
69	-2.65926	-0.665079	122.749	228.985
70	-2.65926	-0.652622	123.175	230.72
71	-2.65926	-0.640266	123.585	232.423
72	-2.65926	-0.631062	123.983	234.101
73	-2.65926	-0.618872	124.366	235.747
74	-2.65926	-0.606775	124.734	237.361
75	-2.65926	-0.597761	125.091	238.95
76	-2.65926	-0.585815	125.435	240.508
77	-2.65926	-0.573953	125.764	242.034
78	-2.65926	-0.565108	126.083	243.537
79	-2.65926	-0.553384	126.39	245.009
80	-1.96611	-0.541736	126.683	246.074
81	-1.60944	-0.533048	126.967	246.932
82	-1.46968	-0.521527	127.239	247.698
83	-1.17118	-0.510074	127.499	248.296
84	-1.10866	-0.501527	127.751	248.852
85	-0.916291	-0.490189	127.991	249.301
86	-0.891598	-0.478914	128.221	249.728
87	-0.867501	-0.470498	128.442	250.136
88	-0.820981	-0.459327	128.653	250.513
89	-0.693147	-0.448213	128.854	250.824
90	-0.693147	-0.439913	129.047	251.129
91	-0.693147	-0.428895	129.231	251.426
92	-0.693147	-0.417928	129.406	251.716
93	-0.693147	-0.409735	129.574	252
94	-0.693147	-0.398855	129.733	252.276
95	-0.693147	-0.388022	129.883	252.545
96	-0.693147	-0.379927	130.028	252.808
97	-0.693147	-0.369171	130.164	253.064
98	-0.693147	-0.358459	130.293	253.313
99	-0.693147	-0.350451	130.415	253.556
100	-0.693147	-0.33981	130.531	253.791
101	-0.693147	-0.329206	130.639	254.019
102	-0.693147	-0.318639	130.741	254.24
103	-0.693147	-0.310738	130.837	254.456
104	-0.693147	-0.300232	130.927	254.664
105	-0.693147	-0.28976	131.011	254.865
106	-0.693147	-0.281926	131.091	255.06
107	-0.693147	-0.271509	131.165	255.248
108	-0.693147	-0.26112	131.233	255.429
109	-0.693147	-0.253347	131.297	255.605
110	-0.693147	-0.243007	131.356	255.773
111	-0.693147	-0.232693	131.41	255.934
112	-0.693147	-0.224974	131.461	256.09
113	-0.693147	-0.214702	131.507	256.239

114	-0.693147	-0.204452	131.549	256.381
115	-0.693147	-0.196779	131.587	256.517
116	-0.693147	-0.186567	131.622	256.647
117	-0.693147	-0.176374	131.653	256.769
118	-0.693147	-0.168741	131.682	256.886
119	-0.693147	-0.158579	131.707	256.996
120	-0.693147	-0.148434	131.729	257.099
121	-0.693147	-0.140835	131.749	257.196
122	-0.693147	-0.130716	131.766	257.287
123	-0.693147	-0.12061	131.78	257.37
124	-0.693147	-0.113039	131.793	257.449
125	-0.693147	-0.102953	131.804	257.52
126	-0.693147	-0.0928787	131.812	257.585
127	-0.693147	-0.0853288	131.82	257.644
128	-0.693147	-0.0752698	131.825	257.696
129	-0.693147	-0.0652187	131.83	257.741
130	-0.693147	-0.0576847	131.833	257.781
131	-0.693147	-0.0476439	131.835	257.814
132	-0.693147	-0.0376076	131.837	257.84
133	-0.693147	-0.0300838	131.838	257.861
134	-0.693147	-0.0200544	131.838	257.875
135	-0.693147	-0.0100272	131.838	257.882
136	-0.693147	0	131.838	257.882
137	-0.693147	0.0100272	131.838	257.875
138	-0.693147	0.0200544	131.839	257.861
139	-0.693147	0.0300838	131.839	257.84
140	-0.693147	0.0376076	131.841	257.814
141	-0.693147	0.0476439	131.843	257.781
142	-0.693147	0.0576847	131.846	257.741
143	-0.693147	0.0652187	131.851	257.696
144	-0.693147	0.0752698	131.856	257.644
145	-0.693147	0.0853288	131.864	257.585
146	-0.693147	0.0928787	131.872	257.52
147	-0.693147	0.102953	131.883	257.449
148	-0.693147	0.113039	131.896	257.37
149	-0.693147	0.12061	131.91	257.287
150	-0.693147	0.130716	131.927	257.196
151	-0.693147	0.140835	131.947	257.099
152	-0.693147	0.148434	131.969	256.996
153	-0.693147	0.158579	131.994	256.886
154	-0.693147	0.168741	132.023	256.769
155	-0.693147	0.176374	132.054	256.647
156	-0.693147	0.186567	132.089	256.517
157	-0.693147	0.196779	132.127	256.381
158	-0.693147	0.204452	132.169	256.239
159	-0.693147	0.214702	132.215	256.09
160	-0.693147	0.224974	132.266	255.934
161	-0.693147	0.232693	132.32	255.773
162	-0.693147	0.243007	132.379	255.605
163	-0.693147	0.253347	132.443	255.429
164	-0.693147	0.26112	132.512	255.248
165	-0.693147	0.271509	132.585	255.06
166	-0.693147	0.281926	132.665	254.865
167	-0.693147	0.28976	132.749	254.664
168	-0.693147	0.300232	132.839	254.456
169	-0.693147	0.310738	132.935	254.24
170	-0.693147	0.318639	133.037	254.019
171	-0.693147	0.329206	133.145	253.791
172	-0.693147	0.33981	133.261	253.556
173	-0.693147	0.350451	133.384	253.313
174	-0.693147	0.358459	133.512	253.064
175	-0.693147	0.369171	133.648	252.808

176	-0.693147	0.379927	133.793	252.545
177	-0.693147	0.388022	133.943	252.276
178	-0.693147	0.398855	134.102	252
179	-0.693147	0.409735	134.27	251.716
180	-0.693147	0.417928	134.445	251.426
181	-0.693147	0.428895	134.629	251.129
182	-0.693147	0.439913	134.822	250.824
183	-0.693147	0.448213	135.023	250.513
184	-0.693147	0.459327	135.234	250.195
185	-0.693147	0.470498	135.456	249.868
186	-0.693147	0.478914	135.685	249.536
187	-0.693147	0.490189	135.925	249.197
188	-0.693147	0.501527	136.177	248.849
189	-0.693147	0.510074	136.437	248.496
190	-0.693147	0.521527	136.709	248.134
191	-0.693147	0.533048	136.993	247.765
192	-0.693147	0.541736	137.287	247.389
193	-0.693147	0.553384	137.593	247.005
194	-0.693147	0.565108	137.912	246.614
195	-0.693147	0.573953	138.242	246.216
196	-0.693147	0.585815	138.585	245.81
197	-0.693147	0.597761	138.942	245.396
198	-0.693147	0.606775	139.31	244.975
199	-0.693147	0.618872	139.693	244.546
200	-0.693147	0.631062	140.091	244.109
201	-0.693147	0.640266	140.501	243.665
202	-0.693147	0.652622	140.927	243.212
203	-0.693147	0.665079	141.37	242.751
204	-0.693147	0.67449	141.825	242.284
205	-0.693147	0.687131	142.297	241.808
206	-0.693147	0.699883	142.787	241.322
207	-0.693147	0.712751	143.295	240.828
208	-0.693147	0.722479	143.817	240.328
209	-0.693147	0.735557	144.358	239.818
210	-0.693147	0.748762	144.918	239.299
211	-0.693147	0.758753	145.494	238.773
212	-0.693147	0.772193	146.09	238.238
213	-0.693147	0.785774	146.708	237.693
214	-0.693147	0.796056	147.341	237.141
215	-0.693147	0.809896	147.997	236.58
216	-0.693147	0.823893	148.676	236.009
217	-0.693147	0.834498	149.373	235.43
218	-0.693147	0.848786	150.093	234.842
219	-0.693147	0.863249	150.838	234.244
220	-0.693147	0.874218	151.602	233.638
221	-0.693147	0.889006	152.393	233.021
222	-0.693147	0.903992	153.21	232.395
223	-0.693147	0.915365	154.048	231.76
224	-0.693147	0.930718	154.914	231.115
225	-0.693147	0.946291	155.81	230.459
226	-0.693147	0.958125	156.728	229.795
227	-0.693147	0.974114	157.676	229.12
228	-0.693147	0.990356	158.657	228.434
229	-0.693147	1.00271	159.663	227.739
230	-0.693147	1.01943	160.702	227.032
231	-0.693147	1.03643	161.776	226.313
232	-0.693147	1.04939	162.877	225.586
233	-0.693147	1.06694	164.016	224.847
234	-0.693147	1.08482	165.193	224.095
235	-0.693147	1.09847	166.399	223.333
236	-0.693147	1.11699	167.647	222.559
237	-0.693147	1.1359	168.937	221.772

238	-0.693147		1.15035	170.26	220.974
239	-0.693147		1.17	171.629	220.163
240	-0.693147		1.19012	173.046	219.338
241	-0.693147		1.21073	174.512	218.499
242	-0.693147		1.22653	176.016	217.649
243	-0.693147		1.24809	177.574	216.784
244	-0.693147		1.27024	179.187	215.903
245	-0.693147		1.28727	180.844	215.011
246	-0.693147		1.31058	182.562	214.103
247	-0.693147		1.33462	184.343	213.178
248	-0.693147		1.35317	186.174	212.24
249	-0.693147		1.37866	188.075	211.284
250	-0.693147		1.40507	190.049	210.31
251	-0.693147		1.42554	192.081	209.322
252	-0.693147		1.4538	194.195	208.314
253	-0.693147		1.48328	196.395	207.286
254	-0.693147		1.50626	198.664	206.242
255	-0.693147		1.5382	201.03	205.176
256	-0.693147		1.57179	203.5	204.086
257	-0.693147		1.59819	206.054	202.979
258	-0.693147		1.63524	208.728	201.845
259	-0.693147		1.67466	211.533	200.684
260	-0.693147		1.70604	214.444	199.502
261	-0.693147		1.75069	217.508	198.288
262	-0.693147		1.79912	220.745	197.041
263	-0.693147		1.83843	224.125	195.767
264	-0.693147		1.8957	227.719	194.453
265	-0.693147		1.95996	231.56	193.095
266	0	2.01409	235.617	193.095	
267	0	2.09693	240.014	193.095	
268	1.09861	2.19728	244.842	195.509	
269	1.79176	2.29036	250.088	199.612	
270	2.07944	2.45727	256.126	204.722	
271	4.35671	2.74777	263.676	216.693	

Data Set Standard Deviation = 1.00629
Numerator = 46956
Denominator = 72090.7
W Statistic = 0.651346 = 46956 / 72090.7

5% Critical value of 0.976 exceeds 0.651346
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.651346
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 = 0.808003
0.808003 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.65926	0.00367647	-2.74777	61.787	348.683
2	-2.65926	0.00735294	-2.45727	61.787	334.497
3	-2.65926	0.0110294	-2.29036	61.787	326.346
4	-2.65926	0.0147059	-2.19728	61.787	321.801
5	-2.65926	0.0183824	-2.09693	61.787	316.9
6	-2.65926	0.0220588	-2.01409	61.787	312.855
7	-2.65926	0.0257353	-1.95996	61.787	310.211
8	-2.65926	0.0294118	-1.8957	61.787	307.073
9	-2.65926	0.0330882	-1.83843	61.787	304.276
10	-2.65926	0.0367647	-1.79912	61.787	302.357
11	-2.65926	0.0404412	-1.75069	61.787	299.992
12	-2.65926	0.0441176	-1.70604	61.787	297.812
13	-2.65926	0.0477941	-1.67466	61.787	296.279
14	-2.65926	0.0514706	-1.63524	61.787	294.354
15	-2.65926	0.0551471	-1.59819	61.787	292.545
16	-2.65926	0.0588235	-1.57179	61.787	291.256
17	-2.65926	0.0625	-1.5382	61.787	289.615
18	-2.65926	0.0661765	-1.50626	61.787	288.056
19	-2.65926	0.0698529	-1.48328	61.787	286.934
20	-2.65926	0.0735294	-1.4538	61.787	285.494
21	-2.65926	0.0772059	-1.42554	61.787	284.114
22	-2.65926	0.0808824	-1.40507	61.787	283.114
23	-2.65926	0.0845588	-1.37866	61.787	281.824
24	-2.65926	0.0882353	-1.35317	61.787	280.58
25	-2.65926	0.0919118	-1.33462	61.787	279.674
26	-2.65926	0.0955882	-1.31058	61.787	278.5
27	-2.65926	0.0992647	-1.28727	61.787	277.362
28	-2.65926	0.102941	-1.27024	61.787	276.53
29	-2.65926	0.106618	-1.24809	61.787	275.448
30	-2.65926	0.110294	-1.22653	61.787	274.395
31	-2.65926	0.113971	-1.21073	61.787	273.624
32	-2.65926	0.117647	-1.19012	61.787	272.617
33	-2.65926	0.121324	-1.17	61.787	271.635
34	-2.65926	0.125	-1.15035	61.787	270.675
35	-2.65926	0.128676	-1.1359	61.787	269.97
36	-2.65926	0.132353	-1.11699	61.787	269.046
37	-2.65926	0.136029	-1.09847	61.787	268.142
38	-2.65926	0.139706	-1.08482	61.787	267.476
39	-2.65926	0.143382	-1.06694	61.787	266.602
40	-2.65926	0.147059	-1.04939	61.787	265.745
41	-2.65926	0.150735	-1.03643	61.787	265.112
42	-2.65926	0.154412	-1.01943	61.787	264.282
43	-2.65926	0.158088	-1.00271	61.787	263.466
44	-2.65926	0.161765	-0.990356	61.787	262.862
45	-2.65926	0.165441	-0.974114	61.787	262.069
46	-2.65926	0.169118	-0.958125	61.787	261.288
47	-2.65926	0.172794	-0.946291	61.787	260.711
48	-2.65926	0.176471	-0.930718	61.787	259.95

49	-2.659260.180147	-0.915365	61.787	259.2	
50	-2.659260.183824	-0.903992	61.787	258.645	
51	-2.659260.1875	-0.889006	61.787	257.913	
52	-2.659260.191176	-0.874218	61.787	257.191	
53	-2.659260.194853	-0.863249	61.787	256.655	
54	-2.659260.198529	-0.848786	61.787	255.949	
55	-2.659260.202206	-0.834498	61.787	255.251	
56	-2.659260.205882	-0.823893	61.787	254.733	
57	-2.659260.209559	-0.809896	61.787	254.05	
58	-2.659260.213235	-0.796056	61.787	253.374	
59	-2.659260.216912	-0.785774	61.787	252.872	
60	-2.659260.220588	-0.772193	61.787	252.209	
61	-2.659260.224265	-0.758753	61.787	251.552	
62	-2.659260.227941	-0.748762	61.787	251.065	
63	-2.659260.231618	-0.735557	61.787	250.42	
64	-2.659260.235294	-0.722479	61.787	249.781	
65	-2.659260.238971	-0.712751	61.787	249.306	
66	-2.659260.242647	-0.699883	61.787	248.678	
67	-2.659260.246324	-0.687131	61.787	248.055	
68	-2.659260.25	-0.674496	61.787	247.438	
69	-2.659260.253676	-0.665079	61.787	246.978	
70	-2.659260.257353	-0.652622	61.787	246.37	
71	-2.659260.261029	-0.640266	61.787	245.766	
72	-2.659260.264706	-0.631062	61.787	245.317	
73	-2.659260.268382	-0.618872	61.787	244.722	
74	-2.659260.272059	-0.606775	61.787	244.131	
75	-2.659260.275735	-0.597761	61.787	243.691	
76	-2.659260.279412	-0.585815	61.787	243.107	
77	-2.659260.283088	-0.573953	61.787	242.528	
78	-2.659260.286765	-0.565108	61.787	242.096	
79	-2.659260.290441	-0.553384	61.787	241.524	
80	-1.966110.294118	-0.541736	108.141	240.955	
81	-1.609440.297794	-0.533048	131.994	240.531	
82	-1.469680.301471	-0.521527	141.34	239.968	
83	-1.171180.305147	-0.510074	161.302	239.409	
84	-1.108660.308824	-0.501527	165.483	238.991	
85	-0.916291	0.3125	-0.490189	178.348	238.438
86	-0.891598	0.316176	-0.478914	179.999	237.887
87	-0.867501	0.319853	-0.470498	181.611	237.476
88	-0.820981	0.323529	-0.459327	184.722	236.93
89	-0.693147	0.327206	-0.448213	193.271	236.388
90	-0.693147	0.330882	-0.439913	193.271	235.982
91	-0.693147	0.334559	-0.428895	193.271	235.444
92	-0.693147	0.338235	-0.417928	193.271	234.909
93	-0.693147	0.341912	-0.409735	193.271	234.509
94	-0.693147	0.345588	-0.398855	193.271	233.977
95	-0.693147	0.349265	-0.388022	193.271	233.448
96	-0.693147	0.352941	-0.379927	193.271	233.053
97	-0.693147	0.356618	-0.369171	193.271	232.528
98	-0.693147	0.360294	-0.358459	193.271	232.005
99	-0.693147	0.363971	-0.350451	193.271	231.614
100	-0.693147	0.367647	-0.33981	193.271	231.094
101	-0.693147	0.371324	-0.329206	193.271	230.576
102	-0.693147	0.375	-0.318639	193.271	230.06
103	-0.693147	0.378676	-0.310738	193.271	229.674
104	-0.693147	0.382353	-0.300232	193.271	229.161
105	-0.693147	0.386029	-0.28976	193.271	228.65
106	-0.693147	0.389706	-0.281926	193.271	228.267
107	-0.693147	0.393382	-0.271509	193.271	227.759
108	-0.693147	0.397059	-0.26112	193.271	227.251
109	-0.693147	0.400735	-0.253347	193.271	226.872
110	-0.693147	0.404412	-0.243007	193.271	226.367

111	-0.693147	0.408088	-0.232693	193.271	225.863
112	-0.693147	0.411765	-0.224974	193.271	225.486
113	-0.693147	0.415441	-0.214702	193.271	224.985
114	-0.693147	0.419118	-0.204452	193.271	224.484
115	-0.693147	0.422794	-0.196779	193.271	224.109
116	-0.693147	0.426471	-0.186567	193.271	223.611
117	-0.693147	0.430147	-0.176374	193.271	223.113
118	-0.693147	0.433824	-0.168741	193.271	222.74
119	-0.693147	0.4375	-0.158579	193.271	222.244
120	-0.693147	0.441176	-0.148434	193.271	221.749
121	-0.693147	0.444853	-0.140835	193.271	221.377
122	-0.693147	0.448529	-0.130716	193.271	220.883
123	-0.693147	0.452206	-0.12061	193.271	220.39
124	-0.693147	0.455882	-0.113039	193.271	220.02
125	-0.693147	0.459559	-0.102953	193.271	219.528
126	-0.693147	0.463235	-0.0928787	193.271	219.036
127	-0.693147	0.466912	-0.0853288	193.271	218.667
128	-0.693147	0.470588	-0.0752698	193.271	218.176
129	-0.693147	0.474265	-0.0652187	193.271	217.685
130	-0.693147	0.477941	-0.0576847	193.271	217.317
131	-0.693147	0.481618	-0.0476439	193.271	216.827
132	-0.693147	0.485294	-0.0376076	193.271	216.337
133	-0.693147	0.488971	-0.0300838	193.271	215.969
134	-0.693147	0.492647	-0.0200544	193.271	215.479
135	-0.693147	0.496324	-0.0100272	193.271	214.99
136	-0.693147	0.5	0	193.271	214.5
137	-0.693147	0.503676	0.0100272	193.271	214.01
138	-0.693147	0.507353	0.0200544	193.271	213.521
139	-0.693147	0.511029	0.0300838	193.271	213.031
140	-0.693147	0.514706	0.0376076	193.271	212.663
141	-0.693147	0.518382	0.0476439	193.271	212.173
142	-0.693147	0.522059	0.0576847	193.271	211.683
143	-0.693147	0.525735	0.0652187	193.271	211.315
144	-0.693147	0.529412	0.0752698	193.271	210.824
145	-0.693147	0.533088	0.0853288	193.271	210.333
146	-0.693147	0.536765	0.0928787	193.271	209.964
147	-0.693147	0.540441	0.102953	193.271	209.472
148	-0.693147	0.544118	0.113039	193.271	208.98
149	-0.693147	0.547794	0.12061	193.271	208.61
150	-0.693147	0.551471	0.130716	193.271	208.117
151	-0.693147	0.555147	0.140835	193.271	207.623
152	-0.693147	0.558824	0.148434	193.271	207.251
153	-0.693147	0.5625	0.158579	193.271	206.756
154	-0.693147	0.566176	0.168741	193.271	206.26
155	-0.693147	0.569853	0.176374	193.271	205.887
156	-0.693147	0.573529	0.186567	193.271	205.389
157	-0.693147	0.577206	0.196779	193.271	204.891
158	-0.693147	0.580882	0.204452	193.271	204.516
159	-0.693147	0.584559	0.214702	193.271	204.015
160	-0.693147	0.588235	0.224974	193.271	203.514
161	-0.693147	0.591912	0.232693	193.271	203.137
162	-0.693147	0.595588	0.243007	193.271	202.633
163	-0.693147	0.599265	0.253347	193.271	202.128
164	-0.693147	0.602941	0.26112	193.271	201.749
165	-0.693147	0.606618	0.271509	193.271	201.241
166	-0.693147	0.610294	0.281926	193.271	200.733
167	-0.693147	0.613971	0.28976	193.271	200.35
168	-0.693147	0.617647	0.300232	193.271	199.839
169	-0.693147	0.621324	0.310738	193.271	199.326
170	-0.693147	0.625	0.318639	193.271	198.94
171	-0.693147	0.628676	0.329206	193.271	198.424
172	-0.693147	0.632353	0.33981	193.271	197.906

173	-0.693147	0.636029	0.350451	193.271	197.386
174	-0.693147	0.639706	0.358459	193.271	196.995
175	-0.693147	0.643382	0.369171	193.271	196.472
176	-0.693147	0.647059	0.379927	193.271	195.947
177	-0.693147	0.650735	0.388022	193.271	195.552
178	-0.693147	0.654412	0.398855	193.271	195.023
179	-0.693147	0.658088	0.409735	193.271	194.491
180	-0.693147	0.661765	0.417928	193.271	194.091
181	-0.693147	0.665441	0.428895	193.271	193.556
182	-0.693147	0.669118	0.439913	193.271	193.018
183	-0.693147	0.672794	0.448213	193.271	192.612
184	-0.693147	0.676471	0.459327	193.271	192.07
185	-0.693147	0.680147	0.470498	193.271	191.524
186	-0.693147	0.683824	0.478914	193.271	191.113
187	-0.693147	0.6875	0.490189	193.271	190.562
188	-0.693147	0.691176	0.501527	193.271	190.009
189	-0.693147	0.694853	0.510074	193.271	189.591
190	-0.693147	0.698529	0.521527	193.271	189.032
191	-0.693147	0.702206	0.533048	193.271	188.469
192	-0.693147	0.705882	0.541736	193.271	188.045
193	-0.693147	0.709559	0.553384	193.271	187.476
194	-0.693147	0.713235	0.565108	193.271	186.904
195	-0.693147	0.716912	0.573953	193.271	186.472
196	-0.693147	0.720588	0.585815	193.271	185.893
197	-0.693147	0.724265	0.597761	193.271	185.309
198	-0.693147	0.727941	0.606775	193.271	184.869
199	-0.693147	0.731618	0.618872	193.271	184.278
200	-0.693147	0.735294	0.631062	193.271	183.683
201	-0.693147	0.738971	0.640266	193.271	183.234
202	-0.693147	0.742647	0.652622	193.271	182.63
203	-0.693147	0.746324	0.665079	193.271	182.022
204	-0.693147	0.75	0.67449	193.271	181.562
205	-0.693147	0.753676	0.687131	193.271	180.945
206	-0.693147	0.757353	0.699883	193.271	180.322
207	-0.693147	0.761029	0.712751	193.271	179.694
208	-0.693147	0.764706	0.722479	193.271	179.219
209	-0.693147	0.768382	0.735557	193.271	178.58
210	-0.693147	0.772059	0.748762	193.271	177.935
211	-0.693147	0.775735	0.758753	193.271	177.448
212	-0.693147	0.779412	0.772193	193.271	176.791
213	-0.693147	0.783088	0.785774	193.271	176.128
214	-0.693147	0.786765	0.796056	193.271	175.626
215	-0.693147	0.790441	0.809896	193.271	174.95
216	-0.693147	0.794118	0.823893	193.271	174.267
217	-0.693147	0.797794	0.834498	193.271	173.749
218	-0.693147	0.801471	0.848786	193.271	173.051
219	-0.693147	0.805147	0.863249	193.271	172.345
220	-0.693147	0.808824	0.874218	193.271	171.809
221	-0.693147	0.8125	0.889006	193.271	171.087
222	-0.693147	0.816176	0.903992	193.271	170.355
223	-0.693147	0.819853	0.915365	193.271	169.8
224	-0.693147	0.823529	0.930718	193.271	169.05
225	-0.693147	0.827206	0.946291	193.271	168.289
226	-0.693147	0.830882	0.958125	193.271	167.712
227	-0.693147	0.834559	0.974114	193.271	166.931
228	-0.693147	0.838235	0.990356	193.271	166.138
229	-0.693147	0.841912	1.00271	193.271	165.534
230	-0.693147	0.845588	1.01943	193.271	164.718
231	-0.693147	0.849265	1.03643	193.271	163.888
232	-0.693147	0.852941	1.04939	193.271	163.255
233	-0.693147	0.856618	1.06694	193.271	162.398
234	-0.693147	0.860294	1.08482	193.271	161.524

235	-0.693147	0.863971	1.09847	193.271	160.858
236	-0.693147	0.867647	1.11699	193.271	159.954
237	-0.693147	0.871324	1.1359	193.271	159.03
238	-0.693147	0.875	1.15035	193.271	158.325
239	-0.693147	0.878676	1.17	193.271	157.365
240	-0.693147	0.882353	1.19012	193.271	156.383
241	-0.693147	0.886029	1.21073	193.271	155.376
242	-0.693147	0.889706	1.22653	193.271	154.605
243	-0.693147	0.893382	1.24809	193.271	153.552
244	-0.693147	0.897059	1.27024	193.271	152.47
245	-0.693147	0.900735	1.28727	193.271	151.638
246	-0.693147	0.904412	1.31058	193.271	150.5
247	-0.693147	0.908088	1.33462	193.271	149.326
248	-0.693147	0.911765	1.35317	193.271	148.42
249	-0.693147	0.915441	1.37866	193.271	147.176
250	-0.693147	0.919118	1.40507	193.271	145.886
251	-0.693147	0.922794	1.42554	193.271	144.886
252	-0.693147	0.926471	1.4538	193.271	143.506
253	-0.693147	0.930147	1.48328	193.271	142.066
254	-0.693147	0.933824	1.50626	193.271	140.944
255	-0.693147	0.9375	1.5382	193.271	139.385
256	-0.693147	0.941176	1.57179	193.271	137.744
257	-0.693147	0.944853	1.59819	193.271	136.455
258	-0.693147	0.948529	1.63524	193.271	134.646
259	-0.693147	0.952206	1.67466	193.271	132.721
260	-0.693147	0.955882	1.70604	193.271	131.188
261	-0.693147	0.959559	1.75069	193.271	129.008
262	-0.693147	0.963235	1.79912	193.271	126.643
263	-0.693147	0.966912	1.83843	193.271	124.724
264	-0.693147	0.970588	1.8957	193.271	121.927
265	-0.693147	0.974265	1.95996	193.271	118.789
266	0	0.977941	2.01409	239.625	116.145
267	0	0.981618	2.09693	239.625	112.1
268	1.09861	0.985294	2.19728	313.095	107.199
269	1.79176	0.988971	2.29036	359.449	102.654
270	2.07944	0.992647	2.45727	378.688	94.5032
271	4.35671	0.996324	2.74777	530.98	80.3175

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Chloroform

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 94.8339%
Number of comparisons = 16
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 4.35671
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-3S	5/16/2012	1	-2.65926	FALSE
LMW-15R	5/16/2012	1	-2.65926	FALSE
LMW-9	5/16/2012	1	-2.65926	FALSE
LMW-16	5/16/2012	1	-2.65926	FALSE
LMW-10	5/16/2012	1	-2.65926	FALSE
LMW-14R	5/16/2012	1	-2.65926	FALSE
LMW-3	5/16/2012	1	-0.891598	FALSE
LMW-6	5/16/2012	1	-2.65926	FALSE
LMW-7	5/16/2012	1	-2.65926	FALSE
LMW-8	5/16/2012	1	-2.65926	FALSE
LMW-9S	5/16/2012	1	-2.65926	FALSE
LMW-9D	5/16/2012	1	-2.65926	FALSE
LMW-11	11/20/2008	1	-0.693147	FALSE
MW-5	11/20/2008	1	-0.693147	FALSE
LMW-12	11/20/2008	1	-0.693147	FALSE
LMW-13	11/20/2008	1	-0.693147	FALSE

Concentrations (ppb)
Parameter: Chromium
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Measurements: 271
Total Non-Detect: 162
Percent Non-Detects: 59.7786%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	11 (50%)	1/16/1998	345	345
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/14/2000	87	87
			9/23/2003	ND<20	ND<20
			3/10/2004	120	120
			10/12/2004	ND<20	ND<20
			4/1/2005	10 J	10 J
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			6/2/2007	21	21
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	0.84 J	0.84 J
			11/16/2009	1 B	1 B
			6/30/2010	0.72 J	0.72 J
			11/17/2010	1	1
			7/6/2011	1.7	1.7
			11/22/2011	ND<0.16 U	ND<0.16 U
			5/16/2012	0.23 J	0.23 J

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-6	22	13 (59.0909%)	1/16/1998	13 J	13 J
			3/16/1999	ND<20	ND<20
			9/23/1999	6 J	6 J
			3/14/2000	34	34
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			6/2/2007	4 J	4 J
			11/15/2007	ND<20	ND<20
			5/20/2008	7 J	7 J
			11/20/2008	ND<20	ND<20
			6/11/2009	0.48 J	0.48 J
			11/16/2009	ND<0.16 U	ND<0.16 U
			6/30/2010	0.57 J	0.57 J
			11/17/2010	0.24 J	0.24 J
			7/6/2011	0.18 J	0.18 J
			11/22/2011	ND<0.16 U	ND<0.16 U

			5/16/2012	ND<0.16 U	ND<0.16 U	
LMW-3	24	20 (83.3333%)	11/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			1/16/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.32 J	0.32 J	
			11/16/2009	1.1 B	1.1 B	
			6/30/2010	0.76 J	0.76 J	
			11/17/2010	0.94 J	0.94 J	
			7/6/2011	ND<0.16 U	ND<0.16 U	
			11/22/2011	ND<0.16 U	ND<0.16 U	
			5/16/2012	ND<0.16 U	ND<0.16 U	
LMW-3s	1	1 (100%)	5/16/2012	ND<0.16 U	ND<0.16 U	
LMW-9S	11	7 (63.6364%)	11/18/2006	ND<20	ND<20	
			6/2/2007	5	5	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	1	1	
			6/30/2010	0.58 J	0.58 J	
			11/17/2010	4.4	4.4	
			7/6/2011	ND<0.16 U	ND<0.16 U	
			11/22/2011	ND<0.16 U	ND<0.16 U	
			5/16/2012	ND<0.16 U	ND<0.16 U	
LMW-9D	12	4 (33.3333%)	11/18/2006	6 J	6 J	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	3 J	3 J	
			11/20/2008	ND<20	ND<20	
			6/11/2009	1	1	
			11/16/2009	1.1	1.1	
			6/30/2010	0.5 J	0.5 J	
			11/17/2010	0.58 J	0.58 J	
			7/6/2011	3.1	3.1	
			11/22/2011	ND<0.16 U	ND<0.16 U	
			5/16/2012	0.35 J	0.35 J	
LMW-9	22	10 (45.4545%)	1/16/1998	23	23	
			3/16/1999	ND<20	ND<20	
			9/23/1999	22	22	
			3/14/2000	17 J	17 J	
			9/23/2003	ND<20	ND<20	
			3/10/2004	19 J	19 J	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	

			10/26/2005	ND<20	ND<20	
			6/19/2006	10 J	10 J	
			11/18/2006	ND<20	ND<20	
			6/2/2007	7	7	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	1.2	1.2	
			11/16/2009	0.62 J	0.62 J	
			6/30/2010	0.44 J	0.44 J	
			11/17/2010	2.1	2.1	
			7/6/2011	0.56 J	0.56 J	
			11/22/2011	ND<0.16 U		ND<0.16 U
			5/16/2012	0.32 J	0.32 J	
LMW-8	22	14 (63.6364%)	1/16/1998		ND<20	ND<20
			3/16/1999	6 J	6 J	
			9/23/1999	13 J	13 J	
			3/14/2000	21	21	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.28 J	0.28 J	
			11/16/2009	0.69 J	0.69 J	
			6/30/2010	0.35 J	0.35 J	
			11/17/2010	0.16 J	0.16 J	
			7/6/2011	0.18 J	0.18 J	
			11/22/2011	ND<0.16 U		ND<0.16 U
			5/16/2012	ND<0.16 U		ND<0.16 U
LMW-7	20	7 (35%)	1/16/1998	10 J	10 J	
			3/16/1999	ND<20	ND<20	
			9/23/1999	5 J	5 J	
			3/14/2000	34	34	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	19 J	19 J	
			10/26/2005	23	23	
			6/19/2006	ND<20	ND<20	
			11/18/2006	5 J	5 J	
			6/2/2007	24	24	
			11/15/2007	ND<20	ND<20	
			5/20/2008	7 J	7 J	
			11/20/2008	ND<20	ND<20	
			6/11/2009	5.8	5.8	
			11/17/2010	0.25 J	0.25 J	
			7/6/2011	12	12	
			11/22/2011	0.27 J	0.27 J	
			5/16/2012	0.37 J	0.37 J	
LMW-16	12	7 (58.3333%)	11/18/2006		ND<20	ND<20
			6/2/2007	20	20	
			11/15/2007	ND<20	ND<20	

			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.83 J	0.83 J	
			11/16/2009	0.53 J B	0.53 J B	
			6/30/2010	0.56 J	0.56 J	
			11/17/2010	ND<0.16 U		ND<0.16 U
			7/6/2011	0.7 J	0.7 J	
			11/22/2011	ND<0.16 U		ND<0.16 U
			5/16/2012	ND<0.16 U		ND<0.16 U
LMW-15R	17	10 (58.8235%)	11/18/2006		ND<20	ND<20
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	5.5	5.5	
			11/16/2009	0.16 J B	0.16 J B	
			11/16/2009	0.44 J B	0.44 J B	
			11/16/2009	0.53 J B	0.53 J B	
			6/30/2010	0.51 J	0.51 J	
			11/17/2010	0.24 J	0.24 J	
			7/6/2011	0.2 J	0.2 J	
			11/22/2011	ND<0.16 U		ND<0.16 U
			5/16/2012	ND<0.16 U		ND<0.16 U
LMW-14R	10	4 (40%)	6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	1.6	1.6	
			6/30/2010	0.49 J	0.49 J	
			11/17/2010	0.6 J	0.6 J	
			7/6/2011	1.2	1.2	
			11/22/2011	0.18 J	0.18 J	
			5/16/2012	0.35 J	0.35 J	
LMW-10	19	9 (47.3684%)	3/14/2000		28	28
			9/23/2003	ND<20	ND<20	
			3/10/2004	36	36	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	2	2	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.36 J	0.36 J	
			11/16/2009	0.26 J	0.26 J	
			6/30/2010	0.36 J	0.36 J	
			11/17/2010	0.3 J	0.3 J	
			7/6/2011	0.61 J	0.61 J	
			11/22/2011	0.33 J	0.33 J	
			5/16/2012	0.44 J	0.44 J	
LMW-3S	11	5 (45.4545%)	11/18/2006		ND<20	ND<20
			6/2/2007	11	11	
			11/15/2007	ND<20	ND<20	

			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	1.7	1.7	
			11/16/2009	0.54 J	0.54 J	
			6/30/2010	0.37 J	0.37 J	
			11/17/2010	4.1	4.1	
			7/6/2011	3.3	3.3	
			11/22/2011	ND<0.16 U		ND<0.16 U
LMW-11	11	9 (81.8182%)	3/14/2000		20	20
			9/23/2003	ND<20	ND<20	
			3/10/2004	40	40	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
MW-5	13	11 (84.6154%)	1/16/1998		ND<20	ND<20
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	79	79	
			9/23/2003	ND<20	ND<20	
			3/10/2004	84	84	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
LMW-12	11	10 (90.9091%)	3/14/2000		93	93
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
LMW-13	11	10 (90.9091%)	3/14/2000		27	27
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.08	-2.747777	.55021	-0.219821
2	0.08	-2.457271	3.5884	-0.416403
3	0.08	-2.290361	8.8342	-0.599632
4	0.08	-2.197282	3.6622	-0.775415
5	0.08	-2.096932	8.0593	-0.943169
6	0.08	-2.014093	2.1159	-1.1043
7	0.08	-1.959963	5.9574	-1.26109
8	0.08	-1.8957	39.551	-1.41275
9	0.08	-1.838434	2.9308	-1.55982
10	0.08	-1.799124	6.1677	-1.70375
11	0.08	-1.750694	9.2326	-1.84381
12	0.08	-1.706045	2.1431	-1.98029
13	0.08	-1.674665	4.9476	-2.11426
14	0.08	-1.635245	7.6216	-2.24508
15	0.08	-1.598196	0.1758	-2.37294
16	0.08	-1.571796	2.6464	-2.49868
17	0.08	-1.5382	65.0124	-2.62174
18	0.08	-1.506267	7.2812	-2.74224
19	0.08	-1.483286	9.4814	-2.8609
20	0.08	-1.4538	71.5949	-2.97721
21	0.08	-1.425547	3.6271	-3.09125
22	0.16	-1.405077	5.6013	-3.31606
23	0.16	-1.378677	7.502	-3.53665
24	0.18	-1.353177	9.3331	-3.78022
25	0.18	-1.334628	1.1143	-4.02045
26	0.18	-1.310588	2.8319	-4.25635
27	0.2	-1.287278	4.489	-4.51381
28	0.23	-1.270248	6.1025	-4.80596
29	0.24	-1.248098	7.6602	-5.1055
30	0.24	-1.226538	9.1646	-5.39987
31	0.25	-1.210739	0.6305	-5.70255
32	0.26	-1.190129	2.0469	-6.01198
33	0.27	-1.17	93.4158	-6.32788
34	0.28	-1.150359	4.7391	-6.64998
35	0.3	-1.1359	96.0293	-6.99075
36	0.32	-1.116999	7.277	-7.34819
37	0.32	-1.098479	8.4836	-7.6997
38	0.33	-1.084829	9.6605	-8.05769
39	0.35	-1.066941	00.799	-8.43112
40	0.35	-1.049391	01.9	-8.7984
41	0.35	-1.036431	02.974	-9.16115
42	0.36	-1.019431	04.013	-9.52815
43	0.36	-1.002711	05.019	-9.88912
44	0.37	-0.990356	106	-10.2556
45	0.37	-0.974114	106.949	-10.616
46	0.44	-0.958125	107.867	-11.0376
47	0.44	-0.946291	108.762	-11.4539
48	0.44	-0.930718	109.628	-11.8634
49	0.48	-0.915365	110.466	-12.3028
50	0.49	-0.903992	111.283	-12.7458
51	0.5	-0.889006	112.074	-13.1903

52	0.51	-0.874218	112.838	-13.6361
53	0.53	-0.863249	113.583	-14.0936
54	0.53	-0.848786	114.304	-14.5435
55	0.54	-0.834498	115	-14.9941
56	0.56	-0.823893	115.679	-15.4555
57	0.56	-0.809896	116.335	-15.909
58	0.57	-0.796056	116.968	-16.3628
59	0.58	-0.785774	117.586	-16.8186
60	0.58	-0.772193	118.182	-17.2664
61	0.6	-0.758753	118.758	-17.7217
62	0.61	-0.748762	119.318	-18.1784
63	0.62	-0.735557	119.86	-18.6345
64	0.69	-0.722479	120.382	-19.133
65	0.7	-0.712751	120.89	-19.6319
66	0.72	-0.699883	121.379	-20.1358
67	0.76	-0.687131	121.852	-20.658
68	0.83	-0.67449	122.306	-21.2179
69	0.84	-0.665079	122.749	-21.7765
70	0.94	-0.652622	123.175	-22.39
71	1	-0.640266	123.585	-23.0303
72	1	-0.631062	123.983	-23.6613
73	1	-0.618872	124.366	-24.2802
74	1	-0.606775	124.734	-24.887
75	1.1	-0.597761	125.091	-25.5445
76	1.1	-0.585815	125.435	-26.1889
77	1.2	-0.573953	125.764	-26.8776
78	1.2	-0.565108	126.083	-27.5558
79	1.6	-0.553384	126.39	-28.4412
80	1.7	-0.541736	126.683	-29.3621
81	1.7	-0.533048	126.967	-30.2683
82	2	-0.521527	127.239	-31.3114
83	2.1	-0.510074	127.499	-32.3825
84	3	-0.501527	127.751	-33.8871
85	3.1	-0.490189	127.991	-35.4067
86	3.3	-0.478914	128.221	-36.9871
87	4	-0.470498	128.442	-38.8691
88	4.1	-0.459327	128.653	-40.7523
89	4.4	-0.448213	128.854	-42.7245
90	5	-0.439913	129.047	-44.924
91	5	-0.428895	129.231	-47.0685
92	5	-0.417928	129.406	-49.1582
93	5.5	-0.409735	129.574	-51.4117
94	5.8	-0.398855	129.733	-53.7251
95	6	-0.388022	129.883	-56.0532
96	6	-0.379927	130.028	-58.3328
97	6	-0.369171	130.164	-60.5478
98	7	-0.358459	130.293	-63.057
99	7	-0.350451	130.415	-65.5102
100	7	-0.33981	130.531	-67.8888
101	10	-0.329206	130.639	-71.1809
102	10	-0.318639	130.741	-74.3673
103	10	-0.310738	130.837	-77.4747
104	10	-0.300232	130.927	-80.477
105	10	-0.28976	131.011	-83.3746
106	10	-0.281926	131.091	-86.1939
107	10	-0.271509	131.165	-88.9089
108	10	-0.26112	131.233	-91.5201
109	10	-0.253347	131.297	-94.0536
110	10	-0.243007	131.356	-96.4837
111	10	-0.232693	131.41	-98.8106
112	10	-0.224974	131.461	-101.06
113	10	-0.214702	131.507	-103.207

114	10	-0.204452	131.549	-105.252
115	10	-0.196779	131.587	-107.22
116	10	-0.186567	131.622	-109.085
117	10	-0.176374	131.653	-110.849
118	10	-0.168741	131.682	-112.537
119	10	-0.158579	131.707	-114.122
120	10	-0.148434	131.729	-115.607
121	10	-0.140835	131.749	-117.015
122	10	-0.130716	131.766	-118.322
123	10	-0.12061	131.78	-119.528
124	10	-0.113039	131.793	-120.659
125	10	-0.102953	131.804	-121.688
126	10	-0.0928787	131.812	-122.617
127	10	-0.0853288	131.82	-123.47
128	10	-0.0752698	131.825	-124.223
129	10	-0.0652187	131.83	-124.875
130	10	-0.0576847	131.833	-125.452
131	10	-0.0476439	131.835	-125.928
132	10	-0.0376076	131.837	-126.304
133	10	-0.0300838	131.838	-126.605
134	10	-0.0200544	131.838	-126.806
135	10	-0.0100272	131.838	-126.906
136	10	0	131.838	-126.906
137	10	0.0100272	131.838	-126.806
138	10	0.0200544	131.839	-126.605
139	10	0.0300838	131.839	-126.304
140	10	0.0376076	131.841	-125.928
141	10	0.0476439	131.843	-125.452
142	10	0.0576847	131.846	-124.875
143	10	0.0652187	131.851	-124.223
144	10	0.0752698	131.856	-123.47
145	10	0.0853288	131.864	-122.617
146	10	0.0928787	131.872	-121.688
147	10	0.102953	131.883	-120.659
148	10	0.113039	131.896	-119.528
149	10	0.12061	131.91	-118.322
150	10	0.130716	131.927	-117.015
151	10	0.140835	131.947	-115.607
152	10	0.148434	131.969	-114.122
153	10	0.158579	131.994	-112.537
154	10	0.168741	132.023	-110.849
155	10	0.176374	132.054	-109.085
156	10	0.186567	132.089	-107.22
157	10	0.196779	132.127	-105.252
158	10	0.204452	132.169	-103.207
159	10	0.214702	132.215	-101.06
160	10	0.224974	132.266	-98.8106
161	10	0.232693	132.32	-96.4837
162	10	0.243007	132.379	-94.0536
163	10	0.253347	132.443	-91.5201
164	10	0.26112	132.512	-88.9089
165	10	0.271509	132.585	-86.1939
166	10	0.281926	132.665	-83.3746
167	10	0.28976	132.749	-80.477
168	10	0.300232	132.839	-77.4747
169	10	0.310738	132.935	-74.3673
170	10	0.318639	133.037	-71.1809
171	10	0.329206	133.145	-67.8888
172	10	0.33981	133.261	-64.4907
173	10	0.350451	133.384	-60.9862
174	10	0.358459	133.512	-57.4016
175	10	0.369171	133.648	-53.7099

176	10	0.379927		133.793	-49.9107
177	10	0.388022		133.943	-46.0304
178	10	0.398855		134.102	-42.0419
179	10	0.409735		134.27	-37.9445
180	10	0.417928		134.445	-33.7652
181	10	0.428895		134.629	-29.4763
182	10	0.439913		134.822	-25.0772
183	10	0.448213		135.023	-20.595
184	10	0.459327		135.234	-16.0018
185	10	0.470498		135.456	-11.2968
186	10	0.478914		135.685	-6.50765
187	10	0.490189		135.925	-1.60576
188	10	0.501527		136.177	3.40951
189	10	0.510074		136.437	8.51025
190	10	0.521527		136.709	13.7255
191	10	0.533048		136.993	19.056
192	10	0.541736		137.287	24.4734
193	10	0.553384		137.593	30.0072
194	10	0.565108		137.912	35.6583
195	10	0.573953		138.242	41.3978
196	10	0.585815		138.585	47.256
197	10	0.597761		138.942	53.2336
198	10	0.606775		139.31	59.3013
199	10	0.618872		139.693	65.49
200	10	0.631062		140.091	71.8007
201	10	0.640266		140.501	78.2033
202	10	0.652622		140.927	84.7295
203	10	0.665079		141.37	91.3803
204	10	0.67449	141.825	98.1252	
205	10	0.687131		142.297	104.997
206	10	0.699883		142.787	111.995
207	10	0.712751		143.295	119.123
208	10	0.722479		143.817	126.348
209	10	0.735557		144.358	133.703
210	10	0.748762		144.918	141.191
211	10	0.758753		145.494	148.778
212	10	0.772193		146.09	156.5
213	10	0.785774		146.708	164.358
214	10	0.796056		147.341	172.319
215	10	0.809896		147.997	180.418
216	10	0.823893		148.676	188.657
217	10	0.834498		149.373	197.001
218	10	0.848786		150.093	205.489
219	10	0.863249		150.838	214.122
220	10	0.874218		151.602	222.864
221	10	0.889006		152.393	231.754
222	10	0.903992		153.21	240.794
223	10	0.915365		154.048	249.948
224	10	0.930718		154.914	259.255
225	10	0.946291		155.81	268.718
226	10	0.958125		156.728	278.299
227	10	0.974114		157.676	288.04
228	10	0.990356		158.657	297.944
229	10	1.00271	159.663	307.971	
230	10	1.01943	160.702	318.165	
231	10	1.03643	161.776	328.529	
232	10	1.04939	162.877	339.023	
233	10	1.06694	164.016	349.693	
234	10	1.08482	165.193	360.541	
235	10	1.09847	166.399	371.526	
236	10	1.11699	167.647	382.695	
237	10	1.1359	168.937	394.054	

238	10	1.15035	170.26	405.558
239	10	1.17	171.629	417.258
240	10	1.19012	173.046	429.159
241	10	1.21073	174.512	441.266
242	10	1.22653	176.016	453.532
243	10	1.24809	177.574	466.013
244	10	1.27024	179.187	478.715
245	11	1.28727	180.844	492.875
246	12	1.31058	182.562	508.602
247	13	1.33462	184.343	525.952
248	13	1.35317	186.174	543.543
249	17	1.37866	188.075	566.98
250	19	1.40507	190.049	593.677
251	19	1.42554	192.081	620.762
252	20	1.4538	194.195	649.838
253	20	1.48328	196.395	679.504
254	21	1.50626	198.664	711.135
255	21	1.5382	201.03	743.438
256	22	1.57179	203.5	778.017
257	23	1.59819	206.054	814.775
258	23	1.63524	208.728	852.386
259	24	1.67466	211.533	892.578
260	27	1.70604	214.444	938.641
261	28	1.75069	217.508	987.66
262	34	1.79912	220.745	1048.83
263	34	1.83843	224.125	1111.34
264	36	1.8957	227.719	1179.58
265	40	1.95996	231.56	1257.98
266	79	2.01409	235.617	1417.09
267	84	2.09693	240.014	1593.24
268	87	2.19728	244.842	1784.4
269	93	2.29036	250.088	1997.4
270	120	2.45727	256.126	2292.28
271	345	2.74777	263.676	3240.25

Data Set Standard Deviation = 24.3392
Numerator = 1.04993e+007
Denominator = 4.21743e+007
W Statistic = 0.248949 = 1.04993e+007 / 4.21743e+007

5% Critical value of 0.976 exceeds 0.248949
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.248949
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 = 0.504983
0.504983 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.08	0.00367647	-2.74777	39.107	348.683	
2	0.08	0.00735294	-2.45727	39.107	334.497	
3	0.08	0.0110294	-2.29036	39.107	326.346	
4	0.08	0.0147059	-2.19728	39.107	321.801	
5	0.08	0.0183824	-2.09693	39.107	316.9	
6	0.08	0.0220588	-2.01409	39.107	312.855	
7	0.08	0.0257353	-1.95996	39.107	310.211	
8	0.08	0.0294118	-1.8957	39.107	307.073	
9	0.08	0.0330882	-1.83843	39.107	304.276	
10	0.08	0.0367647	-1.79912	39.107	302.357	
11	0.08	0.0404412	-1.75069	39.107	299.992	
12	0.08	0.0441176	-1.70604	39.107	297.812	
13	0.08	0.0477941	-1.67466	39.107	296.279	
14	0.08	0.0514706	-1.63524	39.107	294.354	
15	0.08	0.0551471	-1.59819	39.107	292.545	
16	0.08	0.0588235	-1.57179	39.107	291.256	
17	0.08	0.0625	-1.5382	39.107	289.615	
18	0.08	0.0661765	-1.50626	39.107	288.056	
19	0.08	0.0698529	-1.48328	39.107	286.934	
20	0.08	0.0735294	-1.4538	39.107	285.494	
21	0.08	0.0772059	-1.42554	39.107	284.114	
22	0.16	0.0808824	-1.40507	39.214	283.114	
23	0.16	0.0845588	-1.37866	39.214	281.824	
24	0.18	0.0882353	-1.35317	39.2407	280.58	
25	0.18	0.0919118	-1.33462	39.2407	279.674	
26	0.18	0.0955882	-1.31058	39.2407	278.5	
27	0.2	0.0992647	-1.28727	39.2675	277.362	
28	0.23	0.102941	-1.27024	39.3076	276.53	
29	0.24	0.106618	-1.24809	39.321	275.448	
30	0.24	0.110294	-1.22653	39.321	274.395	
31	0.25	0.113971	-1.21073	39.3344	273.624	
32	0.26	0.117647	-1.19012	39.3477	272.617	
33	0.27	0.121324	-1.17	39.3611	271.635	
34	0.28	0.125	-1.15035	39.3745	270.675	
35	0.3	0.128676	-1.1359	39.4012	269.97	
36	0.32	0.132353	-1.11699	39.428	269.046	
37	0.32	0.136029	-1.09847	39.428	268.142	
38	0.33	0.139706	-1.08482	39.4414	267.476	
39	0.35	0.143382	-1.06694	39.4681	266.602	
40	0.35	0.147059	-1.04939	39.4681	265.745	
41	0.35	0.150735	-1.03643	39.4681	265.112	
42	0.36	0.154412	-1.01943	39.4815	264.282	
43	0.36	0.158088	-1.00271	39.4815	263.466	
44	0.37	0.161765	-0.990356	39.4949	262.862	
45	0.37	0.165441	-0.974114	39.4949	262.069	
46	0.44	0.169118	-0.958125	39.5885	261.288	
47	0.44	0.172794	-0.946291	39.5885	260.711	
48	0.44	0.176471	-0.930718	39.5885	259.95	

49	0.48	0.180147	-0.915365	39.642	259.2
50	0.49	0.183824	-0.903992	39.6554	258.645
51	0.5	0.1875	-0.889006	39.6688	257.913
52	0.51	0.191176	-0.874218	39.6821	257.191
53	0.53	0.194853	-0.863249	39.7089	256.655
54	0.53	0.198529	-0.848786	39.7089	255.949
55	0.54	0.202206	-0.834498	39.7223	255.251
56	0.56	0.205882	-0.823893	39.749	254.733
57	0.56	0.209559	-0.809896	39.749	254.05
58	0.57	0.213235	-0.796056	39.7624	253.374
59	0.58	0.216912	-0.785774	39.7758	252.872
60	0.58	0.220588	-0.772193	39.7758	252.209
61	0.6	0.224265	-0.758753	39.8025	251.552
62	0.61	0.227941	-0.748762	39.8159	251.065
63	0.62	0.231618	-0.735557	39.8293	250.42
64	0.69	0.235294	-0.722479	39.9229	249.781
65	0.7	0.238971	-0.712751	39.9363	249.306
66	0.72	0.242647	-0.699883	39.963	248.678
67	0.76	0.246324	-0.687131	40.0165	248.055
68	0.83	0.25	-0.674494	40.1101	247.438
69	0.84	0.253676	-0.665079	40.1235	246.978
70	0.94	0.257353	-0.652622	40.2572	246.37
71	1	0.261029	-0.640266	40.3375	245.766
72	1	0.264706	-0.631062	40.3375	245.317
73	1	0.268382	-0.618872	40.3375	244.722
74	1	0.272059	-0.606775	40.3375	244.131
75	1.1	0.275735	-0.597761	40.4712	243.691
76	1.1	0.279412	-0.585815	40.4712	243.107
77	1.2	0.283088	-0.573953	40.605	242.528
78	1.2	0.286765	-0.565108	40.605	242.096
79	1.6	0.290441	-0.553384	41.14	241.524
80	1.7	0.294118	-0.541736	41.2738	240.955
81	1.7	0.297794	-0.533048	41.2738	240.531
82	2	0.301471	-0.521527	41.675	239.968
83	2.1	0.305147	-0.510074	41.8088	239.409
84	3	0.308824	-0.501527	43.0125	238.991
85	3.1	0.3125	-0.490189	43.1463	238.438
86	3.3	0.316176	-0.478914	43.4138	237.887
87	4	0.319853	-0.470498	44.35	237.476
88	4.1	0.323529	-0.459327	44.4838	236.93
89	4.4	0.327206	-0.448213	44.885	236.388
90	5	0.330882	-0.439913	45.6875	235.982
91	5	0.334559	-0.428895	45.6875	235.444
92	5	0.338235	-0.417928	45.6875	234.909
93	5.5	0.341912	-0.409735	46.3563	234.509
94	5.8	0.345588	-0.398855	46.7575	233.977
95	6	0.349265	-0.388022	47.025	233.448
96	6	0.352941	-0.379927	47.025	233.053
97	6	0.356618	-0.369171	47.025	232.528
98	7	0.360294	-0.358459	48.3625	232.005
99	7	0.363971	-0.350451	48.3625	231.614
100	7	0.367647	-0.339814	48.3625	231.094
101	10	0.371324	-0.329206	52.375	230.576
102	10	0.375	-0.318639	52.375	230.06
103	10	0.378676	-0.310738	52.375	229.674
104	10	0.382353	-0.300232	52.375	229.161
105	10	0.386029	-0.289765	52.375	228.65
106	10	0.389706	-0.281926	52.375	228.267
107	10	0.393382	-0.271509	52.375	227.759
108	10	0.397059	-0.261125	52.375	227.251
109	10	0.400735	-0.253347	52.375	226.872
110	10	0.404412	-0.243007	52.375	226.367

111	10	0.408088	-0.232693	52.375	225.863
112	10	0.411765	-0.224974	52.375	225.486
113	10	0.415441	-0.214702	52.375	224.985
114	10	0.419118	-0.204452	52.375	224.484
115	10	0.422794	-0.196779	52.375	224.109
116	10	0.426471	-0.186567	52.375	223.611
117	10	0.430147	-0.176374	52.375	223.113
118	10	0.433824	-0.168741	52.375	222.74
119	10	0.4375	-0.158579	52.375	222.244
120	10	0.441176	-0.148434	52.375	221.749
121	10	0.444853	-0.140835	52.375	221.377
122	10	0.448529	-0.130716	52.375	220.883
123	10	0.452206	-0.12061	52.375	220.39
124	10	0.455882	-0.113039	52.375	220.02
125	10	0.459559	-0.102953	52.375	219.528
126	10	0.463235	-0.0928787	52.375	219.036
127	10	0.466912	-0.0853288	52.375	218.667
128	10	0.470588	-0.0752698	52.375	218.176
129	10	0.474265	-0.0652187	52.375	217.685
130	10	0.477941	-0.0576847	52.375	217.317
131	10	0.481618	-0.0476439	52.375	216.827
132	10	0.485294	-0.0376076	52.375	216.337
133	10	0.488971	-0.0300838	52.375	215.969
134	10	0.492647	-0.0200544	52.375	215.479
135	10	0.496324	-0.0100272	52.375	214.99
136	10	0.5	0	52.375	214.5
137	10	0.503676	0.0100272	52.375	214.01
138	10	0.507353	0.0200544	52.375	213.521
139	10	0.511029	0.0300838	52.375	213.031
140	10	0.514706	0.0376076	52.375	212.663
141	10	0.518382	0.0476439	52.375	212.173
142	10	0.522059	0.0576847	52.375	211.683
143	10	0.525735	0.0652187	52.375	211.315
144	10	0.529412	0.0752698	52.375	210.824
145	10	0.533088	0.0853288	52.375	210.333
146	10	0.536765	0.0928787	52.375	209.964
147	10	0.540441	0.102953	52.375	209.472
148	10	0.544118	0.113039	52.375	208.98
149	10	0.547794	0.12061	52.375	208.61
150	10	0.551471	0.130716	52.375	208.117
151	10	0.555147	0.140835	52.375	207.623
152	10	0.558824	0.148434	52.375	207.251
153	10	0.5625	0.158579	52.375	206.756
154	10	0.566176	0.168741	52.375	206.26
155	10	0.569853	0.176374	52.375	205.887
156	10	0.573529	0.186567	52.375	205.389
157	10	0.577206	0.196779	52.375	204.891
158	10	0.580882	0.204452	52.375	204.516
159	10	0.584559	0.214702	52.375	204.015
160	10	0.588235	0.224974	52.375	203.514
161	10	0.591912	0.232693	52.375	203.137
162	10	0.595588	0.243007	52.375	202.633
163	10	0.599265	0.253347	52.375	202.128
164	10	0.602941	0.26112	52.375	201.749
165	10	0.606618	0.271509	52.375	201.241
166	10	0.610294	0.281926	52.375	200.733
167	10	0.613971	0.28976	52.375	200.35
168	10	0.617647	0.300232	52.375	199.839
169	10	0.621324	0.310738	52.375	199.326
170	10	0.625	0.318639	52.375	198.94
171	10	0.628676	0.329206	52.375	198.424
172	10	0.632353	0.33981	52.375	197.906

173	10	0.636029	0.350451	52.375	197.386
174	10	0.639706	0.358459	52.375	196.995
175	10	0.643382	0.369171	52.375	196.472
176	10	0.647059	0.379927	52.375	195.947
177	10	0.650735	0.388022	52.375	195.552
178	10	0.654412	0.398855	52.375	195.023
179	10	0.658088	0.409735	52.375	194.491
180	10	0.661765	0.417928	52.375	194.091
181	10	0.665441	0.428895	52.375	193.556
182	10	0.669118	0.439913	52.375	193.018
183	10	0.672794	0.448213	52.375	192.612
184	10	0.676471	0.459327	52.375	192.07
185	10	0.680147	0.470498	52.375	191.524
186	10	0.683824	0.478914	52.375	191.113
187	10	0.6875	0.490189	52.375	190.562
188	10	0.691176	0.501527	52.375	190.009
189	10	0.694853	0.510074	52.375	189.591
190	10	0.698529	0.521527	52.375	189.032
191	10	0.702206	0.533048	52.375	188.469
192	10	0.705882	0.541736	52.375	188.045
193	10	0.709559	0.553384	52.375	187.476
194	10	0.713235	0.565108	52.375	186.904
195	10	0.716912	0.573953	52.375	186.472
196	10	0.720588	0.585815	52.375	185.893
197	10	0.724265	0.597761	52.375	185.309
198	10	0.727941	0.606775	52.375	184.869
199	10	0.731618	0.618872	52.375	184.278
200	10	0.735294	0.631062	52.375	183.683
201	10	0.738971	0.640266	52.375	183.234
202	10	0.742647	0.652622	52.375	182.63
203	10	0.746324	0.665079	52.375	182.022
204	10	0.75	0.67449	52.375	181.562
205	10	0.753676	0.687131	52.375	180.945
206	10	0.757353	0.699883	52.375	180.322
207	10	0.761029	0.712751	52.375	179.694
208	10	0.764706	0.722479	52.375	179.219
209	10	0.768382	0.735557	52.375	178.58
210	10	0.772059	0.748762	52.375	177.935
211	10	0.775735	0.758753	52.375	177.448
212	10	0.779412	0.772193	52.375	176.791
213	10	0.783088	0.785774	52.375	176.128
214	10	0.786765	0.796056	52.375	175.626
215	10	0.790441	0.809896	52.375	174.95
216	10	0.794118	0.823893	52.375	174.267
217	10	0.797794	0.834498	52.375	173.749
218	10	0.801471	0.848786	52.375	173.051
219	10	0.805147	0.863249	52.375	172.345
220	10	0.808824	0.874218	52.375	171.809
221	10	0.8125	0.889006	52.375	171.087
222	10	0.816176	0.903992	52.375	170.355
223	10	0.819853	0.915365	52.375	169.8
224	10	0.823529	0.930718	52.375	169.05
225	10	0.827206	0.946291	52.375	168.289
226	10	0.830882	0.958125	52.375	167.712
227	10	0.834559	0.974114	52.375	166.931
228	10	0.838235	0.990356	52.375	166.138
229	10	0.841912	1.00271	52.375	165.534
230	10	0.845588	1.01943	52.375	164.718
231	10	0.849265	1.03643	52.375	163.888
232	10	0.852941	1.04939	52.375	163.255
233	10	0.856618	1.06694	52.375	162.398
234	10	0.860294	1.08482	52.375	161.524

235	10	0.863971		1.09847	52.375	160.858
236	10	0.867647		1.11699	52.375	159.954
237	10	0.871324		1.1359	52.375	159.03
238	10	0.875	1.15035	52.375	158.325	
239	10	0.878676		1.17	52.375	157.365
240	10	0.882353		1.19012	52.375	156.383
241	10	0.886029		1.21073	52.375	155.376
242	10	0.889706		1.22653	52.375	154.605
243	10	0.893382		1.24809	52.375	153.552
244	10	0.897059		1.27024	52.375	152.47
245	11	0.900735		1.28727	53.7125	151.638
246	12	0.904412		1.31058	55.05	150.5
247	13	0.908088		1.33462	56.3875	149.326
248	13	0.911765		1.35317	56.3875	148.42
249	17	0.915441		1.37866	61.7375	147.176
250	19	0.919118		1.40507	64.4125	145.886
251	19	0.922794		1.42554	64.4125	144.886
252	20	0.926471		1.4538	65.75	143.506
253	20	0.930147		1.48328	65.75	142.066
254	21	0.933824		1.50626	67.0875	140.944
255	21	0.9375	1.5382	67.0875	139.385	
256	22	0.941176		1.57179	68.425	137.744
257	23	0.944853		1.59819	69.7625	136.455
258	23	0.948529		1.63524	69.7625	134.646
259	24	0.952206		1.67466	71.1	132.721
260	27	0.955882		1.70604	75.1125	131.188
261	28	0.959559		1.75069	76.45	129.008
262	34	0.963235		1.79912	84.475	126.643
263	34	0.966912		1.83843	84.475	124.724
264	36	0.970588		1.8957	87.15	121.927
265	40	0.974265		1.95996	92.5	118.789
266	79	0.977941		2.01409	144.663	116.145
267	84	0.981618		2.09693	151.35	112.1
268	87	0.985294		2.19728	155.363	107.199
269	93	0.988971		2.29036	163.387	102.654
270	120	0.992647		2.45727	199.5	94.5032
271	345	0.996324		2.74777	500.438	80.3175

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.52573	-2.74777	7.55021	6.94011
2	-2.52573	-2.45727	13.5884	13.1465
3	-2.52573	-2.29036	18.8342	18.9313
4	-2.52573	-2.19728	23.6622	24.4811
5	-2.52573	-2.09693	28.0593	29.7774
6	-2.52573	-2.01409	32.1159	34.8644
7	-2.52573	-1.95996	35.9574	39.8148
8	-2.52573	-1.8957	39.551	44.6028
9	-2.52573	-1.83843	42.9308	49.2461
10	-2.52573	-1.79912	46.1677	53.7902
11	-2.52573	-1.75069	49.2326	58.212
12	-2.52573	-1.70604	52.1431	62.521
13	-2.52573	-1.67466	54.9476	66.7507
14	-2.52573	-1.63524	57.6216	70.8809
15	-2.52573	-1.59819	60.1758	74.9175
16	-2.52573	-1.57179	62.6464	78.8874
17	-2.52573	-1.5382	65.0124	82.7725
18	-2.52573	-1.50626	67.2812	86.5769
19	-2.52573	-1.48328	69.4814	90.3232
20	-2.52573	-1.4538	71.5949	93.9952
21	-2.52573	-1.42554	73.6271	97.5957
22	-1.83258	-1.40507	75.6013	100.171
23	-1.83258	-1.37866	77.502	102.697
24	-1.7148	-1.35317	79.3331	105.018
25	-1.7148	-1.33462	81.1143	107.306
26	-1.7148	-1.31058	82.8319	109.554
27	-1.60944	-1.28727	84.489	111.625
28	-1.46968	-1.27024	86.1025	113.492
29	-1.42712	-1.24809	87.6602	115.273
30	-1.42712	-1.22653	89.1646	117.024
31	-1.38629	-1.21073	90.6305	118.702
32	-1.34707	-1.19012	92.0469	120.305
33	-1.30933	-1.17	93.4158	121.837
34	-1.27297	-1.15035	94.7391	123.302
35	-1.20397	-1.1359	96.0293	124.669
36	-1.13943	-1.11699	97.277	125.942
37	-1.13943	-1.09847	98.4836	127.194
38	-1.10866	-1.08482	99.6605	128.396
39	-1.04982	-1.06694	100.799	129.516
40	-1.04982	-1.04939	101.9	130.618
41	-1.04982	-1.03643	102.974	131.706
42	-1.02165	-1.01943	104.013	132.748
43	-1.02165	-1.00271	105.019	133.772
44	-0.994252	-0.990356	106	134.757
45	-0.994252	-0.974114	106.949	135.725
46	-0.820981	-0.958125	107.867	136.512
47	-0.820981	-0.946291	108.762	137.289
48	-0.820981	-0.930718	109.628	138.053
49	-0.733969	-0.915365	110.466	138.725
50	-0.71335	-0.903992	111.283	139.369
51	-0.693147	-0.889006	112.074	139.986

52	-0.673345	-0.874218	112.838	140.574
53	-0.634878	-0.863249	113.583	141.122
54	-0.634878	-0.848786	114.304	141.661
55	-0.616186	-0.834498	115	142.175
56	-0.579818	-0.823893	115.679	142.653
57	-0.579818	-0.809896	116.335	143.123
58	-0.562119	-0.796056	116.968	143.57
59	-0.544727	-0.785774	117.586	143.998
60	-0.544727	-0.772193	118.182	144.419
61	-0.510826	-0.758753	118.758	144.807
62	-0.494296	-0.748762	119.318	145.177
63	-0.478036	-0.735557	119.86	145.528
64	-0.371064	-0.722479	120.382	145.796
65	-0.356675	-0.712751	120.89	146.051
66	-0.328504	-0.699883	121.379	146.28
67	-0.274437	-0.687131	121.852	146.469
68	-0.18633	-0.67449	122.306	146.595
69	-0.174353	-0.665079	122.749	146.711
70	-0.0618754	-0.652622	123.175	146.751
71	0	-0.640266	123.585	146.751
72	0	-0.631062	123.983	146.751
73	0	-0.618872	124.366	146.751
74	0	-0.606775	124.734	146.751
75	0.0953102	-0.597761	125.091	146.694
76	0.0953102	-0.585815	125.435	146.638
77	0.182322	-0.573953	125.764	146.534
78	0.182322	-0.565108	126.083	146.431
79	0.470004	-0.553384	126.39	146.17
80	0.530628	-0.541736	126.683	145.883
81	0.530628	-0.533048	126.967	145.6
82	0.693147	-0.521527	127.239	145.239
83	0.741937	-0.510074	127.499	144.86
84	1.09861	-0.501527	127.751	144.309
85	1.1314	-0.490189	127.991	143.755
86	1.19392	-0.478914	128.221	143.183
87	1.38629	-0.470498	128.442	142.531
88	1.41099	-0.459327	128.653	141.883
89	1.4816	-0.448213	128.854	141.218
90	1.60944	-0.439913	129.047	140.51
91	1.60944	-0.428895	129.231	139.82
92	1.60944	-0.417928	129.406	139.148
93	1.70475	-0.409735	129.574	138.449
94	1.75786	-0.398855	129.733	137.748
95	1.79176	-0.388022	129.883	137.053
96	1.79176	-0.379927	130.028	136.372
97	1.79176	-0.369171	130.164	135.71
98	1.94591	-0.358459	130.293	135.013
99	1.94591	-0.350451	130.415	134.331
100	1.94591	-0.33981	130.531	133.67
101	2.30259	-0.329206	130.639	132.912
102	2.30259	-0.318639	130.741	132.178
103	2.30259	-0.310738	130.837	131.463
104	2.30259	-0.300232	130.927	130.771
105	2.30259	-0.28976	131.011	130.104
106	2.30259	-0.281926	131.091	129.455
107	2.30259	-0.271509	131.165	128.83
108	2.30259	-0.26112	131.233	128.228
109	2.30259	-0.253347	131.297	127.645
110	2.30259	-0.243007	131.356	127.086
111	2.30259	-0.232693	131.41	126.55
112	2.30259	-0.224974	131.461	126.032
113	2.30259	-0.214702	131.507	125.537

114	2.30259	-0.204452		131.549	125.067
115	2.30259	-0.196779		131.587	124.613
116	2.30259	-0.186567		131.622	124.184
117	2.30259	-0.176374		131.653	123.778
118	2.30259	-0.168741		131.682	123.389
119	2.30259	-0.158579		131.707	123.024
120	2.30259	-0.148434		131.729	122.682
121	2.30259	-0.140835		131.749	122.358
122	2.30259	-0.130716		131.766	122.057
123	2.30259	-0.12061	131.78	121.779	
124	2.30259	-0.113039		131.793	121.519
125	2.30259	-0.102953		131.804	121.282
126	2.30259	-0.0928787		131.812	121.068
127	2.30259	-0.0853288		131.82	120.872
128	2.30259	-0.0752698		131.825	120.698
129	2.30259	-0.0652187		131.83	120.548
130	2.30259	-0.0576847		131.833	120.415
131	2.30259	-0.0476439		131.835	120.306
132	2.30259	-0.0376076		131.837	120.219
133	2.30259	-0.0300838		131.838	120.15
134	2.30259	-0.0200544		131.838	120.104
135	2.30259	-0.0100272		131.838	120.08
136	2.30259	0	131.838	120.08	
137	2.30259	0.0100272		131.838	120.104
138	2.30259	0.0200544		131.839	120.15
139	2.30259	0.0300838		131.839	120.219
140	2.30259	0.0376076		131.841	120.306
141	2.30259	0.0476439		131.843	120.415
142	2.30259	0.0576847		131.846	120.548
143	2.30259	0.0652187		131.851	120.698
144	2.30259	0.0752698		131.856	120.872
145	2.30259	0.0853288		131.864	121.068
146	2.30259	0.0928787		131.872	121.282
147	2.30259	0.102953		131.883	121.519
148	2.30259	0.113039		131.896	121.779
149	2.30259	0.12061	131.91	122.057	
150	2.30259	0.130716		131.927	122.358
151	2.30259	0.140835		131.947	122.682
152	2.30259	0.148434		131.969	123.024
153	2.30259	0.158579		131.994	123.389
154	2.30259	0.168741		132.023	123.778
155	2.30259	0.176374		132.054	124.184
156	2.30259	0.186567		132.089	124.613
157	2.30259	0.196779		132.127	125.067
158	2.30259	0.204452		132.169	125.537
159	2.30259	0.214702		132.215	126.032
160	2.30259	0.224974		132.266	126.55
161	2.30259	0.232693		132.32	127.086
162	2.30259	0.243007		132.379	127.645
163	2.30259	0.253347		132.443	128.228
164	2.30259	0.26112	132.512	128.83	
165	2.30259	0.271509		132.585	129.455
166	2.30259	0.281926		132.665	130.104
167	2.30259	0.28976	132.749	130.771	
168	2.30259	0.300232		132.839	131.463
169	2.30259	0.310738		132.935	132.178
170	2.30259	0.318639		133.037	132.912
171	2.30259	0.329206		133.145	133.67
172	2.30259	0.33981	133.261	134.452	
173	2.30259	0.350451		133.384	135.259
174	2.30259	0.358459		133.512	136.084
175	2.30259	0.369171		133.648	136.935

176	2.30259	0.379927		133.793	137.809
177	2.30259	0.388022		133.943	138.703
178	2.30259	0.398855		134.102	139.621
179	2.30259	0.409735		134.27	140.565
180	2.30259	0.417928		134.445	141.527
181	2.30259	0.428895		134.629	142.515
182	2.30259	0.439913		134.822	143.527
183	2.30259	0.448213		135.023	144.56
184	2.30259	0.459327		135.234	145.617
185	2.30259	0.470498		135.456	146.701
186	2.30259	0.478914		135.685	147.803
187	2.30259	0.490189		135.925	148.932
188	2.30259	0.501527		136.177	150.087
189	2.30259	0.510074		136.437	151.261
190	2.30259	0.521527		136.709	152.462
191	2.30259	0.533048		136.993	153.69
192	2.30259	0.541736		137.287	154.937
193	2.30259	0.553384		137.593	156.211
194	2.30259	0.565108		137.912	157.512
195	2.30259	0.573953		138.242	158.834
196	2.30259	0.585815		138.585	160.183
197	2.30259	0.597761		138.942	161.559
198	2.30259	0.606775		139.31	162.956
199	2.30259	0.618872		139.693	164.381
200	2.30259	0.631062		140.091	165.834
201	2.30259	0.640266		140.501	167.309
202	2.30259	0.652622		140.927	168.811
203	2.30259	0.665079		141.37	170.343
204	2.30259	0.67449	141.825	171.896	
205	2.30259	0.687131		142.297	173.478
206	2.30259	0.699883		142.787	175.09
207	2.30259	0.712751		143.295	176.731
208	2.30259	0.722479		143.817	178.394
209	2.30259	0.735557		144.358	180.088
210	2.30259	0.748762		144.918	181.812
211	2.30259	0.758753		145.494	183.559
212	2.30259	0.772193		146.09	185.337
213	2.30259	0.785774		146.708	187.147
214	2.30259	0.796056		147.341	188.98
215	2.30259	0.809896		147.997	190.844
216	2.30259	0.823893		148.676	192.741
217	2.30259	0.834498		149.373	194.663
218	2.30259	0.848786		150.093	196.617
219	2.30259	0.863249		150.838	198.605
220	2.30259	0.874218		151.602	200.618
221	2.30259	0.889006		152.393	202.665
222	2.30259	0.903992		153.21	204.747
223	2.30259	0.915365		154.048	206.854
224	2.30259	0.930718		154.914	208.997
225	2.30259	0.946291		155.81	211.176
226	2.30259	0.958125		156.728	213.382
227	2.30259	0.974114		157.676	215.625
228	2.30259	0.990356		158.657	217.906
229	2.30259	1.00271	159.663	220.215	
230	2.30259	1.01943	160.702	222.562	
231	2.30259	1.03643	161.776	224.948	
232	2.30259	1.04939	162.877	227.365	
233	2.30259	1.06694	164.016	229.821	
234	2.30259	1.08482	165.193	232.319	
235	2.30259	1.09847	166.399	234.849	
236	2.30259	1.11699	167.647	237.421	
237	2.30259	1.1359	168.937	240.036	

238	2.30259	1.15035	170.26	242.685
239	2.30259	1.17	171.629	245.379
240	2.30259	1.19012	173.046	248.119
241	2.30259	1.21073	174.512	250.907
242	2.30259	1.22653	176.016	253.731
243	2.30259	1.24809	177.574	256.605
244	2.30259	1.27024	179.187	259.53
245	2.3979	1.28727	180.844	262.617
246	2.48491	1.31058	182.562	265.873
247	2.56495	1.33462	184.343	269.297
248	2.56495	1.35317	186.174	272.767
249	2.83321	1.37866	188.075	276.673
250	2.94444	1.40507	190.049	280.811
251	2.94444	1.42554	192.081	285.008
252	2.99573	1.4538	194.195	289.363
253	2.99573	1.48328	196.395	293.807
254	3.04452	1.50626	198.664	298.393
255	3.04452	1.5382	201.03	303.076
256	3.09104	1.57179	203.5	307.934
257	3.13549	1.59819	206.054	312.945
258	3.13549	1.63524	208.728	318.072
259	3.17805	1.67466	211.533	323.395
260	3.29584	1.70604	214.444	329.017
261	3.3322	1.75069	217.508	334.851
262	3.52636	1.79912	220.745	341.195
263	3.52636	1.83843	224.125	347.678
264	3.58352	1.8957	227.719	354.472
265	3.68888	1.95996	231.56	361.702
266	4.36945	2.01409	235.617	370.502
267	4.43082	2.09693	240.014	379.793
268	4.46591	2.19728	244.842	389.606
269	4.5326	2.29036	250.088	399.987
270	4.78749	2.45727	256.126	411.752
271	5.84354	2.74777	263.676	427.808

Data Set Standard Deviation = 1.78664
Numerator = 183020
Denominator = 227252
W Statistic = 0.805362 = 183020 / 227252

5% Critical value of 0.976 exceeds 0.805362
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.805362
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 = 0.897183
0.897183 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.52573	0.00367647	-2.74777	67.1928	348.683
2	-2.52573	0.00735294	-2.45727	67.1928	334.497
3	-2.52573	0.0110294	-2.29036	67.1928	326.346
4	-2.52573	0.0147059	-2.19728	67.1928	321.801
5	-2.52573	0.0183824	-2.09693	67.1928	316.9
6	-2.52573	0.0220588	-2.01409	67.1928	312.855
7	-2.52573	0.0257353	-1.95996	67.1928	310.211
8	-2.52573	0.0294118	-1.8957	67.1928	307.073
9	-2.52573	0.0330882	-1.83843	67.1928	304.276
10	-2.52573	0.0367647	-1.79912	67.1928	302.357
11	-2.52573	0.0404412	-1.75069	67.1928	299.992
12	-2.52573	0.0441176	-1.70604	67.1928	297.812
13	-2.52573	0.0477941	-1.67466	67.1928	296.279
14	-2.52573	0.0514706	-1.63524	67.1928	294.354
15	-2.52573	0.0551471	-1.59819	67.1928	292.545
16	-2.52573	0.0588235	-1.57179	67.1928	291.256
17	-2.52573	0.0625	-1.5382	67.1928	289.615
18	-2.52573	0.0661765	-1.50626	67.1928	288.056
19	-2.52573	0.0698529	-1.48328	67.1928	286.934
20	-2.52573	0.0735294	-1.4538	67.1928	285.494
21	-2.52573	0.0772059	-1.42554	67.1928	284.114
22	-1.83258	0.0808824	-1.40507	108.397	283.114
23	-1.83258	0.0845588	-1.37866	108.397	281.824
24	-1.7148	0.0882353	-1.35317	115.398	280.58
25	-1.7148	0.0919118	-1.33462	115.398	279.674
26	-1.7148	0.0955882	-1.31058	115.398	278.5
27	-1.60944	0.0992647	-1.28727	121.661	277.362
28	-1.46968	0.102941	-1.27024	129.969	276.53
29	-1.42712	0.106618	-1.24809	132.499	275.448
30	-1.42712	0.110294	-1.22653	132.499	274.395
31	-1.38629	0.113971	-1.21073	134.926	273.624
32	-1.34707	0.117647	-1.19012	137.257	272.617
33	-1.30933	0.121324	-1.17	139.501	271.635
34	-1.27297	0.125	-1.15035	141.663	270.675
35	-1.20397	0.128676	-1.1359	145.764	269.97
36	-1.13943	0.132353	-1.11699	149.6	269.046
37	-1.13943	0.136029	-1.09847	149.6	268.142
38	-1.10866	0.139706	-1.08482	151.429	267.476
39	-1.04982	0.143382	-1.06694	154.927	266.602
40	-1.04982	0.147059	-1.04939	154.927	265.745
41	-1.04982	0.150735	-1.03643	154.927	265.112
42	-1.02165	0.154412	-1.01943	156.602	264.282
43	-1.02165	0.158088	-1.00271	156.602	263.466
44	-0.994252	0.161765	-0.990356	158.231	262.862
45	-0.994252	0.165441	-0.974114	158.231	262.069
46	-0.820981	0.169118	-0.958125	168.531	261.288
47	-0.820981	0.172794	-0.946291	168.531	260.711
48	-0.820981	0.176471	-0.930718	168.531	259.95

49	-0.733969	0.180147	-0.915365	173.703	259.2
50	-0.713350.183824	-0.903992	174.929	258.645	
51	-0.693147	0.1875	-0.889006	176.13	257.913
52	-0.673345	0.191176	-0.874218	177.307	257.191
53	-0.634878	0.194853	-0.863249	179.593	256.655
54	-0.634878	0.198529	-0.848786	179.593	255.949
55	-0.616186	0.202206	-0.834498	180.704	255.251
56	-0.579818	0.205882	-0.823893	182.866	254.733
57	-0.579818	0.209559	-0.809896	182.866	254.05
58	-0.562119	0.213235	-0.796056	183.918	253.374
59	-0.544727	0.216912	-0.785774	184.952	252.872
60	-0.544727	0.220588	-0.772193	184.952	252.209
61	-0.510826	0.224265	-0.758753	186.968	251.552
62	-0.494296	0.227941	-0.748762	187.95	251.065
63	-0.478036	0.231618	-0.735557	188.917	250.42
64	-0.371064	0.235294	-0.722479	195.276	249.781
65	-0.356675	0.238971	-0.712751	196.131	249.306
66	-0.328504	0.242647	-0.699883	197.806	248.678
67	-0.274437	0.246324	-0.687131	201.02	248.055
68	-0.186330.25	-0.67449206.257	247.438		
69	-0.174353	0.253676	-0.665079	206.969	246.978
70	-0.0618754	0.257353	-0.652622	213.655	246.37
71	0	0.261029	-0.640266	217.333	245.766
72	0	0.264706	-0.631062	217.333	245.317
73	0	0.268382	-0.618872	217.333	244.722
74	0	0.272059	-0.606775	217.333	244.131
75	0.0953102	0.275735	-0.597761	222.999	243.691
76	0.0953102	0.279412	-0.585815	222.999	243.107
77	0.182322	0.283088	-0.573953	228.171	242.528
78	0.182322	0.286765	-0.565108	228.171	242.096
79	0.470004	0.290441	-0.553384	245.272	241.524
80	0.530628	0.294118	-0.541736	248.876	240.955
81	0.530628	0.297794	-0.533048	248.876	240.531
82	0.693147	0.301471	-0.521527	258.537	239.968
83	0.741937	0.305147	-0.510074	261.437	239.409
84	1.09861	0.308824	-0.501527	282.64	238.991
85	1.1314	0.3125	-0.490189	284.589	238.438
86	1.19392	0.316176	-0.478914	288.305	237.887
87	1.38629	0.319853	-0.470498	299.741	237.476
88	1.41099	0.323529	-0.459327	301.209	236.93
89	1.4816	0.327206	-0.448213	305.406	236.388
90	1.60944	0.330882	-0.439913	313.005	235.982
91	1.60944	0.334559	-0.428895	313.005	235.444
92	1.60944	0.338235	-0.417928	313.005	234.909
93	1.70475	0.341912	-0.409735	318.671	234.509
94	1.75786	0.345588	-0.398855	321.828	233.977
95	1.79176	0.349265	-0.388022	323.843	233.448
96	1.79176	0.352941	-0.379927	323.843	233.053
97	1.79176	0.356618	-0.369171	323.843	232.528
98	1.94591	0.360294	-0.358459	333.007	232.005
99	1.94591	0.363971	-0.350451	333.007	231.614
100	1.94591	0.367647	-0.33981333.007	231.094	
101	2.30259	0.371324	-0.329206	354.209	230.576
102	2.30259	0.375	-0.318639	354.209	230.06
103	2.30259	0.378676	-0.310738	354.209	229.674
104	2.30259	0.382353	-0.300232	354.209	229.161
105	2.30259	0.386029	-0.28976354.209	228.65	
106	2.30259	0.389706	-0.281926	354.209	228.267
107	2.30259	0.393382	-0.271509	354.209	227.759
108	2.30259	0.397059	-0.26112354.209	227.251	
109	2.30259	0.400735	-0.253347	354.209	226.872
110	2.30259	0.404412	-0.243007	354.209	226.367

111	2.30259	0.408088	-0.232693	354.209	225.863
112	2.30259	0.411765	-0.224974	354.209	225.486
113	2.30259	0.415441	-0.214702	354.209	224.985
114	2.30259	0.419118	-0.204452	354.209	224.484
115	2.30259	0.422794	-0.196779	354.209	224.109
116	2.30259	0.426471	-0.186567	354.209	223.611
117	2.30259	0.430147	-0.176374	354.209	223.113
118	2.30259	0.433824	-0.168741	354.209	222.74
119	2.30259	0.4375	-0.158579	354.209	222.244
120	2.30259	0.441176	-0.148434	354.209	221.749
121	2.30259	0.444853	-0.140835	354.209	221.377
122	2.30259	0.448529	-0.130716	354.209	220.883
123	2.30259	0.452206	-0.12061	354.209	220.39
124	2.30259	0.455882	-0.113039	354.209	220.02
125	2.30259	0.459559	-0.102953	354.209	219.528
126	2.30259	0.463235	-0.0928787	354.209	219.036
127	2.30259	0.466912	-0.0853288	354.209	218.667
128	2.30259	0.470588	-0.0752698	354.209	218.176
129	2.30259	0.474265	-0.0652187	354.209	217.685
130	2.30259	0.477941	-0.0576847	354.209	217.317
131	2.30259	0.481618	-0.0476439	354.209	216.827
132	2.30259	0.485294	-0.0376076	354.209	216.337
133	2.30259	0.488971	-0.0300838	354.209	215.969
134	2.30259	0.492647	-0.0200544	354.209	215.479
135	2.30259	0.496324	-0.0100272	354.209	214.99
136	2.30259	0.5	0	354.209	214.5
137	2.30259	0.503676	0.0100272	354.209	214.01
138	2.30259	0.507353	0.0200544	354.209	213.521
139	2.30259	0.511029	0.0300838	354.209	213.031
140	2.30259	0.514706	0.0376076	354.209	212.663
141	2.30259	0.518382	0.0476439	354.209	212.173
142	2.30259	0.522059	0.0576847	354.209	211.683
143	2.30259	0.525735	0.0652187	354.209	211.315
144	2.30259	0.529412	0.0752698	354.209	210.824
145	2.30259	0.533088	0.0853288	354.209	210.333
146	2.30259	0.536765	0.0928787	354.209	209.964
147	2.30259	0.540441	0.102953	354.209	209.472
148	2.30259	0.544118	0.113039	354.209	208.98
149	2.30259	0.547794	0.12061	354.209	208.61
150	2.30259	0.551471	0.130716	354.209	208.117
151	2.30259	0.555147	0.140835	354.209	207.623
152	2.30259	0.558824	0.148434	354.209	207.251
153	2.30259	0.5625	0.158579	354.209	206.756
154	2.30259	0.566176	0.168741	354.209	206.26
155	2.30259	0.569853	0.176374	354.209	205.887
156	2.30259	0.573529	0.186567	354.209	205.389
157	2.30259	0.577206	0.196779	354.209	204.891
158	2.30259	0.580882	0.204452	354.209	204.516
159	2.30259	0.584559	0.214702	354.209	204.015
160	2.30259	0.588235	0.224974	354.209	203.514
161	2.30259	0.591912	0.232693	354.209	203.137
162	2.30259	0.595588	0.243007	354.209	202.633
163	2.30259	0.599265	0.253347	354.209	202.128
164	2.30259	0.602941	0.26112	354.209	201.749
165	2.30259	0.606618	0.271509	354.209	201.241
166	2.30259	0.610294	0.281926	354.209	200.733
167	2.30259	0.613971	0.28976	354.209	200.35
168	2.30259	0.617647	0.300232	354.209	199.839
169	2.30259	0.621324	0.310738	354.209	199.326
170	2.30259	0.625	0.318639	354.209	198.94
171	2.30259	0.628676	0.329206	354.209	198.424
172	2.30259	0.632353	0.33981	354.209	197.906

173	2.30259	0.636029	0.350451	354.209	197.386
174	2.30259	0.639706	0.358459	354.209	196.995
175	2.30259	0.643382	0.369171	354.209	196.472
176	2.30259	0.647059	0.379927	354.209	195.947
177	2.30259	0.650735	0.388022	354.209	195.552
178	2.30259	0.654412	0.398855	354.209	195.023
179	2.30259	0.658088	0.409735	354.209	194.491
180	2.30259	0.661765	0.417928	354.209	194.091
181	2.30259	0.665441	0.428895	354.209	193.556
182	2.30259	0.669118	0.439913	354.209	193.018
183	2.30259	0.672794	0.448213	354.209	192.612
184	2.30259	0.676471	0.459327	354.209	192.07
185	2.30259	0.680147	0.470498	354.209	191.524
186	2.30259	0.683824	0.478914	354.209	191.113
187	2.30259	0.6875	0.490189	354.209	190.562
188	2.30259	0.691176	0.501527	354.209	190.009
189	2.30259	0.694853	0.510074	354.209	189.591
190	2.30259	0.698529	0.521527	354.209	189.032
191	2.30259	0.702206	0.533048	354.209	188.469
192	2.30259	0.705882	0.541736	354.209	188.045
193	2.30259	0.709559	0.553384	354.209	187.476
194	2.30259	0.713235	0.565108	354.209	186.904
195	2.30259	0.716912	0.573953	354.209	186.472
196	2.30259	0.720588	0.585815	354.209	185.893
197	2.30259	0.724265	0.597761	354.209	185.309
198	2.30259	0.727941	0.606775	354.209	184.869
199	2.30259	0.731618	0.618872	354.209	184.278
200	2.30259	0.735294	0.631062	354.209	183.683
201	2.30259	0.738971	0.640266	354.209	183.234
202	2.30259	0.742647	0.652622	354.209	182.63
203	2.30259	0.746324	0.665079	354.209	182.022
204	2.30259	0.75	0.67449	354.209	181.562
205	2.30259	0.753676	0.687131	354.209	180.945
206	2.30259	0.757353	0.699883	354.209	180.322
207	2.30259	0.761029	0.712751	354.209	179.694
208	2.30259	0.764706	0.722479	354.209	179.219
209	2.30259	0.768382	0.735557	354.209	178.58
210	2.30259	0.772059	0.748762	354.209	177.935
211	2.30259	0.775735	0.758753	354.209	177.448
212	2.30259	0.779412	0.772193	354.209	176.791
213	2.30259	0.783088	0.785774	354.209	176.128
214	2.30259	0.786765	0.796056	354.209	175.626
215	2.30259	0.790441	0.809896	354.209	174.95
216	2.30259	0.794118	0.823893	354.209	174.267
217	2.30259	0.797794	0.834498	354.209	173.749
218	2.30259	0.801471	0.848786	354.209	173.051
219	2.30259	0.805147	0.863249	354.209	172.345
220	2.30259	0.808824	0.874218	354.209	171.809
221	2.30259	0.8125	0.889006	354.209	171.087
222	2.30259	0.816176	0.903992	354.209	170.355
223	2.30259	0.819853	0.915365	354.209	169.8
224	2.30259	0.823529	0.930718	354.209	169.05
225	2.30259	0.827206	0.946291	354.209	168.289
226	2.30259	0.830882	0.958125	354.209	167.712
227	2.30259	0.834559	0.974114	354.209	166.931
228	2.30259	0.838235	0.990356	354.209	166.138
229	2.30259	0.841912	1.00271	354.209	165.534
230	2.30259	0.845588	1.01943	354.209	164.718
231	2.30259	0.849265	1.03643	354.209	163.888
232	2.30259	0.852941	1.04939	354.209	163.255
233	2.30259	0.856618	1.06694	354.209	162.398
234	2.30259	0.860294	1.08482	354.209	161.524

235	2.30259	0.863971		1.09847	354.209	160.858
236	2.30259	0.867647		1.11699	354.209	159.954
237	2.30259	0.871324		1.1359	354.209	159.03
238	2.30259	0.875	1.15035	354.209	158.325	
239	2.30259	0.878676		1.17	354.209	157.365
240	2.30259	0.882353		1.19012	354.209	156.383
241	2.30259	0.886029		1.21073	354.209	155.376
242	2.30259	0.889706		1.22653	354.209	154.605
243	2.30259	0.893382		1.24809	354.209	153.552
244	2.30259	0.897059		1.27024	354.209	152.47
245	2.3979	0.900735		1.28727	359.875	151.638
246	2.48491	0.904412		1.31058	365.047	150.5
247	2.56495	0.908088		1.33462	369.805	149.326
248	2.56495	0.911765		1.35317	369.805	148.42
249	2.83321	0.915441		1.37866	385.752	147.176
250	2.94444	0.919118		1.40507	392.364	145.886
251	2.94444	0.922794		1.42554	392.364	144.886
252	2.99573	0.926471		1.4538	395.413	143.506
253	2.99573	0.930147		1.48328	395.413	142.066
254	3.04452	0.933824		1.50626	398.313	140.944
255	3.04452	0.9375	1.5382	398.313	139.385	
256	3.09104	0.941176		1.57179	401.079	137.744
257	3.13549	0.944853		1.59819	403.721	136.455
258	3.13549	0.948529		1.63524	403.721	134.646
259	3.17805	0.952206		1.67466	406.251	132.721
260	3.29584	0.955882		1.70604	413.253	131.188
261	3.3322	0.959559		1.75069	415.414	129.008
262	3.52636	0.963235		1.79912	426.956	126.643
263	3.52636	0.966912		1.83843	426.956	124.724
264	3.58352	0.970588		1.8957	430.354	121.927
265	3.68888	0.974265		1.95996	436.617	118.789
266	4.36945	0.977941		2.01409	477.073	116.145
267	4.43082	0.981618		2.09693	480.721	112.1
268	4.46591	0.985294		2.19728	482.807	107.199
269	4.5326	0.988971		2.29036	486.771	102.654
270	4.78749	0.992647		2.45727	501.923	94.5032
271	5.84354	0.996324		2.74777	564.7	80.3175

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
LMW-4	1/16/1998	5.84354	271
	3/16/1999	ND<2.30259	81.5
	9/23/1999	ND<2.30259	81.5
	3/14/2000	4.46591	268
	9/23/2003	ND<2.30259	81.5
	3/10/2004	4.78749	270
	10/12/2004	ND<2.30259	81.5
	4/1/2005	2.30259 J	242
	10/26/2005	ND<2.30259	81.5
	6/19/2006	ND<2.30259	81.5
	11/18/2006	ND<2.30259	81.5
	6/2/2007	3.04452	254
	11/15/2007	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5
	6/11/2009	-0.174353 J	210
	11/16/2009	0 B	212
	6/30/2010	-0.328504 J	207
	11/17/2010	0	213
	7/6/2011	0.530628	221
	11/22/2011	ND<-2.52573 U	81.5
	5/16/2012	-1.46968 J	169

Rank Sum = 3433.5
Rank Mean = 156.068

Background Rank Sum = 3433.5
Background Rank Mean = 156.068

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-6	1/16/1998	2.56495 J	247
	3/16/1999	ND<2.30259	81.5
	9/23/1999	1.79176 J	236
	3/14/2000	3.52636	262
	9/23/2003	ND<2.30259	81.5
	3/10/2004	ND<2.30259	81.5
	10/12/2004	ND<2.30259	81.5
	4/1/2005	ND<2.30259	81.5
	10/26/2005	ND<2.30259	81.5
	6/19/2006	ND<2.30259	81.5
	11/18/2006	ND<2.30259	81.5
	6/2/2007	1.38629 J	228
	11/15/2007	ND<2.30259	81.5
	5/20/2008	1.94591 J	239
	11/20/2008	ND<2.30259	81.5
	6/11/2009	-0.733969 J	190
	11/16/2009	ND<-2.52573 U	81.5
	6/30/2010	-0.562119 J	199

	11/17/2010	-1.42712	J	170
	7/6/2011	-1.7148	J	165
	11/22/2011	ND<-2.52573	U	81.5
	5/16/2012	ND<-2.52573	U	81.5

Rank Sum = 2995.5
Rank Mean = 136.159

LMW-3	11/19/1996	ND<2.30259		81.5
	3/24/1997	ND<2.30259		81.5
	1/16/1998	ND<2.30259		81.5
	3/16/1999	ND<2.30259		81.5
	9/23/1999	ND<2.30259		81.5
	3/14/2000	ND<2.30259		81.5
	9/23/2003	ND<2.30259		81.5
	3/10/2004	ND<2.30259		81.5
	10/12/2004	ND<2.30259		81.5
	4/1/2005	ND<2.30259		81.5
	10/26/2005	ND<2.30259		81.5
	6/19/2006	ND<2.30259		81.5
	11/18/2006	ND<2.30259		81.5
	6/2/2007	ND<2.30259		81.5
	11/15/2007	ND<2.30259		81.5
	5/20/2008	ND<2.30259		81.5
	11/20/2008	ND<2.30259		81.5
	6/11/2009	-1.13943	J	177
	11/16/2009	0.0953102	B	216
	6/30/2010	-0.274437	J	208
	11/17/2010	-0.0618754	J	211
	7/6/2011	ND<-2.52573	U	81.5
	11/22/2011	ND<-2.52573	U	81.5
	5/16/2012	ND<-2.52573	U	81.5

Rank Sum = 2442
Rank Mean = 101.75

LMW-3s	5/16/2012	ND<-2.52573	U	81.5

Rank Sum = 81.5
Rank Mean = 81.5

LMW-9S	11/18/2006	ND<2.30259		81.5
	6/2/2007	1.60944		231
	11/15/2007	ND<2.30259		81.5
	5/20/2008	ND<2.30259		81.5
	11/20/2008	ND<2.30259		81.5
	6/11/2009	0		214
	6/30/2010	-0.544727	J	200
	11/17/2010	1.4816		230
	7/6/2011	ND<-2.52573	U	81.5
	11/22/2011	ND<-2.52573	U	81.5
	5/16/2012	ND<-2.52573	U	81.5

Rank Sum = 1445.5
Rank Mean = 131.409

LMW-9D	11/18/2006	1.79176	J	237
	6/2/2007	ND<2.30259		81.5
	11/15/2007	ND<2.30259		81.5
	5/20/2008	1.09861	J	225
	11/20/2008	ND<2.30259		81.5
	6/11/2009	0		215
	11/16/2009	0.0953102		217
	6/30/2010	-0.693147	J	192
	11/17/2010	-0.544727	J	201
	7/6/2011	1.1314		226

	11/22/2011	ND<-2.52573 U	81.5
	5/16/2012	-1.04982 J	180

Rank Sum = 2019
Rank Mean = 168.25

LMW-9	1/16/1998	3.13549	257
	3/16/1999	ND<2.30259	81.5
	9/23/1999	3.09104	256
	3/14/2000	2.83321 J	249
	9/23/2003	ND<2.30259	81.5
	3/10/2004	2.94444 J	250
	10/12/2004	ND<2.30259	81.5
	4/1/2005	ND<2.30259	81.5
	10/26/2005	ND<2.30259	81.5
	6/19/2006	2.30259 J	243
	11/18/2006	ND<2.30259	81.5
	6/2/2007	1.94591	240
	11/15/2007	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5
	6/11/2009	0.182322	218
	11/16/2009	-0.478036 J	204
	6/30/2010	-0.820981 J	187
	11/17/2010	0.741937	224
	7/6/2011	-0.579818 J	197
	11/22/2011	ND<-2.52573 U	81.5
	5/16/2012	-1.13943 J	178

Rank Sum = 3518
Rank Mean = 159.909

LMW-8	1/16/1998	ND<2.30259	81.5
	3/16/1999	1.79176 J	238
	9/23/1999	2.56495 J	248
	3/14/2000	3.04452	255
	9/23/2003	ND<2.30259	81.5
	3/10/2004	ND<2.30259	81.5
	10/12/2004	ND<2.30259	81.5
	4/1/2005	ND<2.30259	81.5
	10/26/2005	ND<2.30259	81.5
	6/19/2006	ND<2.30259	81.5
	11/18/2006	ND<2.30259	81.5
	6/2/2007	ND<2.30259	81.5
	11/15/2007	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5
	6/11/2009	-1.27297 J	175
	11/16/2009	-0.371064 J	205
	6/30/2010	-1.04982 J	181
	11/17/2010	-1.83258 J	163
	7/6/2011	-1.7148 J	166
	11/22/2011	ND<-2.52573 U	81.5
	5/16/2012	ND<-2.52573 U	81.5

Rank Sum = 2772
Rank Mean = 126

LMW-7	1/16/1998	2.30259 J	244
	3/16/1999	ND<2.30259	81.5
	9/23/1999	1.60944 J	232
	3/14/2000	3.52636	263
	9/23/2003	ND<2.30259	81.5
	3/10/2004	ND<2.30259	81.5
	10/12/2004	ND<2.30259	81.5

	4/1/2005	2.94444 J	251
	10/26/2005	3.13549	258
	6/19/2006	ND<2.30259	81.5
	11/18/2006	1.60944 J	233
	6/2/2007	3.17805	259
	11/15/2007	ND<2.30259	81.5
	5/20/2008	1.94591 J	241
	11/20/2008	ND<2.30259	81.5
	6/11/2009	1.75786	235
	11/17/2010	-1.38629 J	172
	7/6/2011	2.48491	246
	11/22/2011	-1.30933 J	174
	5/16/2012	-0.994252 J	185

Rank Sum = 3563.5
Rank Mean = 178.175

LMW-16	11/18/2006	ND<2.30259	81.5
	6/2/2007	2.99573	252
	11/15/2007	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5
	6/11/2009	-0.18633 J	209
	11/16/2009	-0.634878 J B	194
	6/30/2010	-0.579818 J	198
	11/17/2010	ND<-2.52573 U	81.5
	7/6/2011	-0.356675 J	206
	11/22/2011	ND<-2.52573 U	81.5
	5/16/2012	ND<-2.52573 U	81.5

Rank Sum = 1629.5
Rank Mean = 135.792

LMW-15R	11/18/2006	ND<2.30259	81.5
	6/2/2007	ND<2.30259	81.5
	11/15/2007	ND<2.30259	81.5
	11/15/2007	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5
	6/11/2009	1.70475	234
	11/16/2009	-1.83258 J B	164
	11/16/2009	-0.820981 J B	188
	11/16/2009	-0.634878 J B	195
	6/30/2010	-0.673345 J	193
	11/17/2010	-1.42712 J	171
	7/6/2011	-1.60944 J	168
	11/22/2011	ND<-2.52573 U	81.5
	5/16/2012	ND<-2.52573 U	81.5

Rank Sum = 2128
Rank Mean = 125.176

LMW-14R	6/2/2007	ND<2.30259	81.5
	11/15/2007	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5
	6/11/2009	0.470004	220
	6/30/2010	-0.71335 J	191
	11/17/2010	-0.510826 J	202
	7/6/2011	0.182322	219
	11/22/2011	-1.7148 J	167
	5/16/2012	-1.04982 J	182

Rank Sum = 1507

Rank Mean = 150.7

LMW-10	3/14/2000	3.3322		261
	9/23/2003	ND<2.30259		81.5
	3/10/2004	3.58352		264
	10/12/2004	ND<2.30259		81.5
	4/1/2005	ND<2.30259		81.5
	10/26/2005	ND<2.30259		81.5
	6/19/2006	ND<2.30259		81.5
	11/18/2006	ND<2.30259		81.5
	6/2/2007	0.693147		223
	11/15/2007	ND<2.30259		81.5
	5/20/2008	ND<2.30259		81.5
	11/20/2008	ND<2.30259		81.5
	6/11/2009	-1.02165	J	183
	11/16/2009	-1.34707	J	173
	6/30/2010	-1.02165	J	184
	11/17/2010	-1.20397	J	176
	7/6/2011	-0.494296	J	203
	11/22/2011	-1.10866	J	179
	5/16/2012	-0.820981	J	189

Rank Sum = 2768.5
Rank Mean = 145.711

LMW-3S	11/18/2006	ND<2.30259		81.5
	6/2/2007	2.3979		245
	11/15/2007	ND<2.30259		81.5
	5/20/2008	ND<2.30259		81.5
	11/20/2008	ND<2.30259		81.5
	6/11/2009	0.530628		222
	11/16/2009	-0.616186	J	196
	6/30/2010	-0.994252	J	186
	11/17/2010	1.41099		229
	7/6/2011	1.19392		227
	11/22/2011	ND<-2.52573	U	81.5

Rank Sum = 1712.5
Rank Mean = 155.682

LMW-11	3/14/2000	2.99573		253
	9/23/2003	ND<2.30259		81.5
	3/10/2004	3.68888		265
	10/12/2004	ND<2.30259		81.5
	4/1/2005	ND<2.30259		81.5
	10/26/2005	ND<2.30259		81.5
	6/19/2006	ND<2.30259		81.5
	6/2/2007	ND<2.30259		81.5
	11/15/2007	ND<2.30259		81.5
	5/20/2008	ND<2.30259		81.5
	11/20/2008	ND<2.30259		81.5

Rank Sum = 1251.5
Rank Mean = 113.773

MW-5	1/16/1998	ND<2.30259		81.5
	3/16/1999	ND<2.30259		81.5
	9/23/1999	ND<2.30259		81.5
	3/14/2000	4.36945		266
	9/23/2003	ND<2.30259		81.5
	3/10/2004	4.43082		267
	10/12/2004	ND<2.30259		81.5
	4/1/2005	ND<2.30259		81.5
	10/26/2005	ND<2.30259		81.5
	6/19/2006	ND<2.30259		81.5

	11/15/2007	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5

Rank Sum = 1429.5
Rank Mean = 109.962

LMW-12	3/14/2000	4.5326	269
	9/23/2003	ND<2.30259	81.5
	3/10/2004	ND<2.30259	81.5
	10/12/2004	ND<2.30259	81.5
	4/1/2005	ND<2.30259	81.5
	10/26/2005	ND<2.30259	81.5
	6/19/2006	ND<2.30259	81.5
	6/2/2007	ND<2.30259	81.5
	11/15/2007	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5

Rank Sum = 1084
Rank Mean = 98.5455

LMW-13	3/14/2000	3.29584	260
	9/23/2003	ND<2.30259	81.5
	3/10/2004	ND<2.30259	81.5
	10/12/2004	ND<2.30259	81.5
	4/1/2005	ND<2.30259	81.5
	10/26/2005	ND<2.30259	81.5
	6/19/2006	ND<2.30259	81.5
	6/2/2007	ND<2.30259	81.5
	11/15/2007	ND<2.30259	81.5
	5/20/2008	ND<2.30259	81.5
	11/20/2008	ND<2.30259	81.5

Rank Sum = 1075
Rank Mean = 97.7273

Calculation Results:

Kruskal-Wallis H Statistic = 25.892
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 32.9253
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
25.892 < 27.5871 indicating no significant group difference at 5% significance level
32.9253 > 27.5871 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 156.068

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-6	**136.159**	**-19.9091**	**54.9738**
LMW-3	**101.75**	**-54.3182**	**53.8163**
LMW-3s	**81.5**	**-74.5682**	**186.425**
LMW-9S	**131.409**	**-24.6591**	**67.3289**
LMW-9D	**168.25**	**12.1818**	**65.4319**
LMW-9	**159.909**	**3.84091**	**54.9738**
LMW-8	**126**	**-30.0682**	**54.9738**
LMW-7	**178.175**	**22.1068**	**56.3314**
LMW-16	**135.792**	**-20.2765**	**65.4319**
LMW-15R	**125.176**	**-30.8917**	**58.8774**
LMW-14R	**150.7**	**-5.36818**	**69.537**
LMW-10	**145.711**	**-10.3577**	**57.1026**
LMW-3S	**155.682**	**-0.386364**	**67.3289**
LMW-11	**113.773**	**-42.2955**	**67.3289**

MW-5	**109.962**	**-46.1066**	**63.7827**
LMW-12	**98.5455**	**-57.5227**	**67.3289**
LMW-13	**97.7273**	**-58.3409**	**67.3289**

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 156.068

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-6	**136.159**	**-19.9091**	**68.0136**
LMW-3	**101.75**	**-54.3182**	**66.5816**
LMW-3s	**81.5**	**-74.5682**	**230.645**
LMW-9S	**131.409**	**-24.6591**	**83.2993**
LMW-9D	**168.25**	**12.1818**	**80.9524**
LMW-9	**159.909**	**3.84091**	**68.0136**
LMW-8	**126**	**-30.0682**	**68.0136**
LMW-7	**178.175**	**22.1068**	**69.6932**
LMW-16	**135.792**	**-20.2765**	**80.9524**
LMW-15R	**125.176**	**-30.8917**	**72.8431**
LMW-14R	**150.7**	**-5.36818**	**86.0311**
LMW-10	**145.711**	**-10.3577**	**70.6473**
LMW-3S	**155.682**	**-0.386364**	**83.2993**
LMW-11	**113.773**	**-42.2955**	**83.2993**
MW-5	**109.962**	**-46.1066**	**78.912**
LMW-12	**98.5455**	**-57.5227**	**83.2993**
LMW-13	**97.7273**	**-58.3409**	**83.2993**

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Chromium
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 59.7786%
Number of comparisons = 17
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 345
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-6	5/16/2012	1	0.16	FALSE
LMW-3	5/16/2012	1	0.16	FALSE
LMW-3s	5/16/2012	1	0.16	FALSE
LMW-9S	5/16/2012	1	0.16	FALSE
LMW-9D	5/16/2012	1	0.35	FALSE
LMW-9	5/16/2012	1	0.32	FALSE
LMW-8	5/16/2012	1	0.16	FALSE
LMW-7	5/16/2012	1	0.37	FALSE
LMW-16	5/16/2012	1	0.16	FALSE
LMW-15R	5/16/2012	1	0.16	FALSE
LMW-14R	5/16/2012	1	0.35	FALSE
LMW-10	5/16/2012	1	0.44	FALSE
LMW-3S	11/22/2011	1	0.16	FALSE
LMW-11	11/20/2008	1	20	FALSE
MW-5	11/20/2008	1	20	FALSE
LMW-12	11/20/2008	1	20	FALSE
LMW-13	11/20/2008	1	20	FALSE

Concentrations (ppb)

Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 182
Percent Non-Detects: 67.1587%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	15 (68.1818%)	1/16/1998	ND<20	ND<20
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/14/2000	ND<20	ND<20
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	0.24	0.24
			11/16/2009	0.24	0.24
			6/30/2010	0.27	0.27
			11/17/2010	0.29	0.29
			7/6/2011	0.27	0.27
			11/22/2011	0.25	0.25
			5/16/2012	0.26	0.26

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-10	19	12 (63.1579%)	3/14/2000	ND<20	ND<20
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	0.13 J	0.13 J
			11/16/2009	0.15 J	0.15 J
			6/30/2010	0.2	0.2
			11/17/2010	0.16 J	0.16 J
			7/6/2011	0.23	0.23
			11/22/2011	0.19 J	0.19 J
			5/16/2012	0.25	0.25
LMW-9D	12	9 (75%)	11/18/2006	ND<20	ND<20

			6/2/2007	ND<20	ND<20	
			11/15/2007	3 J	3 J	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.078 U		ND<0.078 U
			11/16/2009	ND<0.078 U		ND<0.078 U
			6/30/2010	ND<0.078 U		ND<0.078 U
			11/17/2010	0.081 J	0.081 J	
			7/6/2011	0.13 J	0.13 J	
			11/22/2011	ND<0.078 U		ND<0.078 U
			5/16/2012	ND<0.078 U		ND<0.078 U
LMW-9	22	14 (63.6364%)	1/16/1998		ND<20	ND<20
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	10 J	10 J	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.15 J	0.15 J	
			11/16/2009	0.13 J	0.13 J	
			6/30/2010	0.13 J	0.13 J	
			11/17/2010	0.16 J	0.16 J	
			7/6/2011	0.13 J	0.13 J	
			11/22/2011	0.11 J	0.11 J	
			5/16/2012	1.3	1.3	
LMW-8	22	15 (68.1818%)	1/16/1998		ND<20	ND<20
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<0 J	ND<0 J	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.47	0.47	
			11/16/2009	0.71	0.71	
			6/30/2010	0.78	0.78	
			11/17/2010	0.71	0.71	
			7/6/2011	1.5	1.5	
			11/22/2011	1.4	1.4	
			5/16/2012	1.2	1.2	
LMW-7	20	14 (70%)	1/16/1998		ND<20	ND<20
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	

			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	1 J	1 J	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.63	0.63	
			11/17/2010	0.19 J	0.19 J	
			7/6/2011	2.7	2.7	
			11/22/2011	0.44	0.44	
			5/16/2012	0.29	0.29	
LMW-6	22	14 (63.6364%)	1/16/1998		ND<20	ND<20
			3/16/1999	ND<20	ND<20	
			9/23/1999	11 J	11 J	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<0 J	ND<0 J	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<0 J	ND<0 J	
			11/20/2008	ND<20	ND<20	
			6/11/2009	1.4	1.4	
			11/16/2009	1.2	1.2	
			6/30/2010	1.2	1.2	
			11/17/2010	1.1	1.1	
			7/6/2011	0.72	0.72	
			11/22/2011	0.52	0.52	
			5/16/2012	0.46	0.46	
LMW-3s	1	0 (0%)	5/16/2012	0.52	0.52	
LMW-3	24	17 (70.8333%)	11/19/1996		ND<20	ND<20
			3/24/1997	ND<20	ND<20	
			1/16/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.16 J	0.16 J	
			11/16/2009	0.16 J	0.16 J	
			6/30/2010	0.17 J	0.17 J	

			11/17/2010	0.51	0.51	
			7/6/2011	0.16 J	0.16 J	
			11/22/2011	0.43	0.43	
			5/16/2012	0.18 J	0.18 J	
LMW-16	12	7 (58.3333%)	11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<0.078 U	ND<0.078 U	
			11/16/2009	0.08 J	0.08 J	
			6/30/2010	0.098 J	0.098 J	
			11/17/2010	0.078 J	0.078 J	
			7/6/2011	0.13 J	0.13 J	
			11/22/2011	ND<0.078 U	ND<0.078 U	
			5/16/2012	0.14 J	0.14 J	
LMW-15R	17	8 (47.0588%)	11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			5/20/2008	ND<0 J	ND<0 J	
			11/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.83	0.83	
			11/16/2009	0.3	0.3	
			11/16/2009	0.26	0.26	
			11/16/2009	0.25	0.25	
			6/30/2010	0.7	0.7	
			11/17/2010	0.58	0.58	
			7/6/2011	0.75	0.75	
			11/22/2011	0.6	0.6	
			5/16/2012	0.58	0.58	
LMW-14R	10	4 (40%)	6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<0 J	ND<0 J	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.24	0.24	
			6/30/2010	0.17 J	0.17 J	
			11/17/2010	0.21	0.21	
			7/6/2011	0.2	0.2	
			11/22/2011	0.18 J	0.18 J	
			5/16/2012	0.15 J	0.15 J	
LMW-9S	11	2 (18.1818%)	11/18/2006	1 J	1 J	
			6/2/2007	1 J	1 J	
			11/15/2007	ND<20	ND<20	
			5/20/2008	1 J	1 J	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.13 J	0.13 J	
			6/30/2010	0.16 J	0.16 J	
			11/17/2010	0.26	0.26	
			7/6/2011	0.87	0.87	
			11/22/2011	1.1	1.1	
			5/16/2012	1	1	
LMW-3S	11	5 (45.4545%)	11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	

			5/20/2008	ND<0 J	ND<0 J	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.42	0.42	
			11/16/2009	0.42	0.42	
			6/30/2010	0.57	0.57	
			11/17/2010	0.53	0.53	
			7/6/2011	0.45	0.45	
			11/22/2011	0.2	0.2	
LMW-11	11	11 (100%)	3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
MW-5	13	13 (100%)	1/16/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
LMW-12	11	11 (100%)	3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
LMW-13	11	11 (100%)	3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.74777	7.55021	0
2	0	-2.45727	13.5884	0
3	0	-2.29036	18.8342	0
4	0	-2.19728	23.6622	0
5	0	-2.09693	28.0593	0
6	0	-2.01409	32.1159	0
7	0.039	-1.95996	35.9574	-0.0764385
8	0.039	-1.8957	39.551	-0.150371
9	0.039	-1.83843	42.9308	-0.222069
10	0.039	-1.79912	46.1677	-0.292235
11	0.039	-1.75069	49.2326	-0.360512
12	0.039	-1.70604	52.1431	-0.427047
13	0.039	-1.67466	54.9476	-0.492359
14	0.078	-1.63524	57.6216	-0.619907
15	0.08	-1.59819	60.1758	-0.747763
16	0.081	-1.57179	62.6464	-0.875078
17	0.098	-1.5382	65.0124	-1.02582
18	0.11	-1.50626	67.2812	-1.19151
19	0.13	-1.48328	69.4814	-1.38434
20	0.13	-1.4538	71.5949	-1.57333
21	0.13	-1.42554	73.6271	-1.75865
22	0.13	-1.40507	75.6013	-1.94131
23	0.13	-1.37866	77.502	-2.12054
24	0.13	-1.35317	79.3331	-2.29645
25	0.13	-1.33462	81.1143	-2.46995
26	0.14	-1.31058	82.8319	-2.65343
27	0.15	-1.28727	84.489	-2.84652
28	0.15	-1.27024	86.1025	-3.03706
29	0.15	-1.24809	87.6602	-3.22427
30	0.16	-1.22653	89.1646	-3.42052
31	0.16	-1.21073	90.6305	-3.61423
32	0.16	-1.19012	92.0469	-3.80465
33	0.16	-1.17	93.4158	-3.99185
34	0.16	-1.15035	94.7391	-4.17591
35	0.16	-1.1359	96.0293	-4.35765
36	0.17	-1.11699	97.277	-4.54754
37	0.17	-1.09847	98.4836	-4.73428
38	0.18	-1.08482	99.6605	-4.92955
39	0.18	-1.06694	100.799	-5.12159
40	0.19	-1.04939	101.9	-5.32098
41	0.19	-1.03643	102.974	-5.5179
42	0.2	-1.01943	104.013	-5.72179
43	0.2	-1.00271	105.019	-5.92233
44	0.2	-0.990356	106	-6.1204
45	0.21	-0.974114	106.949	-6.32496
46	0.23	-0.958125	107.867	-6.54533
47	0.24	-0.946291	108.762	-6.77244
48	0.24	-0.930718	109.628	-6.99581
49	0.24	-0.915365	110.466	-7.2155
50	0.25	-0.903992	111.283	-7.4415
51	0.25	-0.889006	112.074	-7.66375

52	0.25	-0.874218	112.838	-7.88231
53	0.26	-0.863249	113.583	-8.10675
54	0.26	-0.848786	114.304	-8.32743
55	0.26	-0.834498	115	-8.5444
56	0.27	-0.823893	115.679	-8.76686
57	0.27	-0.809896	116.335	-8.98553
58	0.29	-0.796056	116.968	-9.21638
59	0.29	-0.785774	117.586	-9.44426
60	0.3	-0.772193	118.182	-9.67592
61	0.42	-0.758753	118.758	-9.99459
62	0.42	-0.748762	119.318	-10.3091
63	0.43	-0.735557	119.86	-10.6254
64	0.44	-0.722479	120.382	-10.9433
65	0.45	-0.712751	120.89	-11.264
66	0.46	-0.699883	121.379	-11.5859
67	0.47	-0.687131	121.852	-11.9089
68	0.51	-0.67449	122.306	-12.2529
69	0.52	-0.665079	122.749	-12.5987
70	0.52	-0.652622	123.175	-12.9381
71	0.53	-0.640266	123.585	-13.2774
72	0.57	-0.631062	123.983	-13.6371
73	0.58	-0.618872	124.366	-13.9961
74	0.58	-0.606775	124.734	-14.348
75	0.6	-0.597761	125.091	-14.7067
76	0.63	-0.585815	125.435	-15.0757
77	0.7	-0.573953	125.764	-15.4775
78	0.71	-0.565108	126.083	-15.8787
79	0.71	-0.553384	126.39	-16.2716
80	0.72	-0.541736	126.683	-16.6617
81	0.75	-0.533048	126.967	-17.0615
82	0.78	-0.521527	127.239	-17.4682
83	0.83	-0.510074	127.499	-17.8916
84	0.87	-0.501527	127.751	-18.3279
85	1	-0.490189	127.991	-18.8181
86	1	-0.478914	128.221	-19.297
87	1	-0.470498	128.442	-19.7675
88	1	-0.459327	128.653	-20.2269
89	1	-0.448213	128.854	-20.6751
90	1.1	-0.439913	129.047	-21.159
91	1.1	-0.428895	129.231	-21.6308
92	1.2	-0.417928	129.406	-22.1323
93	1.2	-0.409735	129.574	-22.624
94	1.2	-0.398855	129.733	-23.1026
95	1.3	-0.388022	129.883	-23.607
96	1.4	-0.379927	130.028	-24.1389
97	1.4	-0.369171	130.164	-24.6558
98	1.5	-0.358459	130.293	-25.1934
99	2.7	-0.350451	130.415	-26.1397
100	3	-0.33981	130.531	-27.1591
101	10	-0.329206	130.639	-30.4512
102	10	-0.318639	130.741	-33.6375
103	10	-0.310738	130.837	-36.7449
104	10	-0.300232	130.927	-39.7472
105	10	-0.28976	131.011	-42.6449
106	10	-0.281926	131.091	-45.4641
107	10	-0.271509	131.165	-48.1792
108	10	-0.26112	131.233	-50.7904
109	10	-0.253347	131.297	-53.3239
110	10	-0.243007	131.356	-55.7539
111	10	-0.232693	131.41	-58.0809
112	10	-0.224974	131.461	-60.3306
113	10	-0.214702	131.507	-62.4776

114	10	-0.204452	131.549	-64.5222
115	10	-0.196779	131.587	-66.49
116	10	-0.186567	131.622	-68.3556
117	10	-0.176374	131.653	-70.1194
118	10	-0.168741	131.682	-71.8068
119	10	-0.158579	131.707	-73.3926
120	10	-0.148434	131.729	-74.8769
121	10	-0.140835	131.749	-76.2853
122	10	-0.130716	131.766	-77.5924
123	10	-0.12061	131.78	-78.7985
124	10	-0.113039	131.793	-79.9289
125	10	-0.102953	131.804	-80.9584
126	10	-0.0928787	131.812	-81.8872
127	10	-0.0853288	131.82	-82.7405
128	10	-0.0752698	131.825	-83.4932
129	10	-0.0652187	131.83	-84.1454
130	10	-0.0576847	131.833	-84.7222
131	10	-0.0476439	131.835	-85.1987
132	10	-0.0376076	131.837	-85.5748
133	10	-0.0300838	131.838	-85.8756
134	10	-0.0200544	131.838	-86.0761
135	10	-0.0100272	131.838	-86.1764
136	10	0	131.838	-86.1764
137	10	0.0100272	131.838	-86.0761
138	10	0.0200544	131.839	-85.8756
139	10	0.0300838	131.839	-85.5748
140	10	0.0376076	131.841	-85.1987
141	10	0.0476439	131.843	-84.7222
142	10	0.0576847	131.846	-84.1454
143	10	0.0652187	131.851	-83.4932
144	10	0.0752698	131.856	-82.7405
145	10	0.0853288	131.864	-81.8872
146	10	0.0928787	131.872	-80.9584
147	10	0.102953	131.883	-79.9289
148	10	0.113039	131.896	-78.7985
149	10	0.12061	131.91	-77.5924
150	10	0.130716	131.927	-76.2853
151	10	0.140835	131.947	-74.8769
152	10	0.148434	131.969	-73.3926
153	10	0.158579	131.994	-71.8068
154	10	0.168741	132.023	-70.1194
155	10	0.176374	132.054	-68.3556
156	10	0.186567	132.089	-66.49
157	10	0.196779	132.127	-64.5222
158	10	0.204452	132.169	-62.4776
159	10	0.214702	132.215	-60.3306
160	10	0.224974	132.266	-58.0809
161	10	0.232693	132.32	-55.7539
162	10	0.243007	132.379	-53.3239
163	10	0.253347	132.443	-50.7904
164	10	0.26112	132.512	-48.1792
165	10	0.271509	132.585	-45.4641
166	10	0.281926	132.665	-42.6449
167	10	0.28976	132.749	-39.7472
168	10	0.300232	132.839	-36.7449
169	10	0.310738	132.935	-33.6375
170	10	0.318639	133.037	-30.4512
171	10	0.329206	133.145	-27.1591
172	10	0.33981	133.261	-23.761
173	10	0.350451	133.384	-20.2565
174	10	0.358459	133.512	-16.6719
175	10	0.369171	133.648	-12.9802

176	10	0.379927		133.793	-9.18092
177	10	0.388022		133.943	-5.30069
178	10	0.398855		134.102	-1.31214
179	10	0.409735		134.27	2.78522
180	10	0.417928		134.445	6.96449
181	10	0.428895		134.629	11.2534
182	10	0.439913		134.822	15.6526
183	10	0.448213		135.023	20.1347
184	10	0.459327		135.234	24.728
185	10	0.470498		135.456	29.4329
186	10	0.478914		135.685	34.2221
187	10	0.490189		135.925	39.124
188	10	0.501527		136.177	44.1392
189	10	0.510074		136.437	49.24
190	10	0.521527		136.709	54.4553
191	10	0.533048		136.993	59.7857
192	10	0.541736		137.287	65.2031
193	10	0.553384		137.593	70.7369
194	10	0.565108		137.912	76.388
195	10	0.573953		138.242	82.1275
196	10	0.585815		138.585	87.9857
197	10	0.597761		138.942	93.9633
198	10	0.606775		139.31	100.031
199	10	0.618872		139.693	106.22
200	10	0.631062		140.091	112.53
201	10	0.640266		140.501	118.933
202	10	0.652622		140.927	125.459
203	10	0.665079		141.37	132.11
204	10	0.67449	141.825	138.855	
205	10	0.687131		142.297	145.726
206	10	0.699883		142.787	152.725
207	10	0.712751		143.295	159.853
208	10	0.722479		143.817	167.077
209	10	0.735557		144.358	174.433
210	10	0.748762		144.918	181.921
211	10	0.758753		145.494	189.508
212	10	0.772193		146.09	197.23
213	10	0.785774		146.708	205.088
214	10	0.796056		147.341	213.048
215	10	0.809896		147.997	221.147
216	10	0.823893		148.676	229.386
217	10	0.834498		149.373	237.731
218	10	0.848786		150.093	246.219
219	10	0.863249		150.838	254.852
220	10	0.874218		151.602	263.594
221	10	0.889006		152.393	272.484
222	10	0.903992		153.21	281.524
223	10	0.915365		154.048	290.677
224	10	0.930718		154.914	299.985
225	10	0.946291		155.81	309.447
226	10	0.958125		156.728	319.029
227	10	0.974114		157.676	328.77
228	10	0.990356		158.657	338.673
229	10	1.00271	159.663	348.701	
230	10	1.01943	160.702	358.895	
231	10	1.03643	161.776	369.259	
232	10	1.04939	162.877	379.753	
233	10	1.06694	164.016	390.422	
234	10	1.08482	165.193	401.271	
235	10	1.09847	166.399	412.255	
236	10	1.11699	167.647	423.425	
237	10	1.1359	168.937	434.784	

238	10	1.15035	170.26	446.288
239	10	1.17	171.629	457.988
240	10	1.19012	173.046	469.889
241	10	1.21073	174.512	481.996
242	10	1.22653	176.016	494.261
243	10	1.24809	177.574	506.742
244	10	1.27024	179.187	519.445
245	10	1.28727	180.844	532.317
246	10	1.31058	182.562	545.423
247	10	1.33462	184.343	558.769
248	10	1.35317	186.174	572.301
249	10	1.37866	188.075	586.088
250	10	1.40507	190.049	600.138
251	10	1.42554	192.081	614.394
252	10	1.4538	194.195	628.932
253	10	1.48328	196.395	643.765
254	10	1.50626	198.664	658.827
255	10	1.5382	201.03	674.209
256	10	1.57179	203.5	689.927
257	10	1.59819	206.054	705.909
258	10	1.63524	208.728	722.261
259	10	1.67466	211.533	739.008
260	10	1.70604	214.444	756.069
261	10	1.75069	217.508	773.575
262	10	1.79912	220.745	791.567
263	10	1.83843	224.125	809.951
264	10	1.8957	227.719	828.908
265	10	1.95996	231.56	848.507
266	10	2.01409	235.617	868.648
267	10	2.09693	240.014	889.618
268	10	2.19728	244.842	911.59
269	10	2.29036	250.088	934.494
270	10	2.45727	256.126	959.067
271	11	2.74777	263.676	989.292

Data Set Standard Deviation = 4.62908
Numerator = 978699
Denominator = 1.52554e+006
W Statistic = 0.641543 = 978699 / 1.52554e+006

5% Critical value of 0.976 exceeds 0.641543
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.641543
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 = 0.798659
0.798659 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00367647		-2.747773	9	348.683
2	0	0.00735294		-2.457273	9	334.497
3	0	0.0110294		-2.290363	9	326.346
4	0	0.0147059		-2.197283	9	321.801
5	0	0.0183824		-2.096933	9	316.9
6	0	0.0220588		-2.014093	9	312.855
7	0.039	0.0257353		-1.959964	0.0433	310.211
8	0.039	0.0294118		-1.8957	40.0433	307.073
9	0.039	0.0330882		-1.838434	0.0433	304.276
10	0.039	0.0367647		-1.799124	0.0433	302.357
11	0.039	0.0404412		-1.750694	0.0433	299.992
12	0.039	0.0441176		-1.706044	0.0433	297.812
13	0.039	0.0477941		-1.674664	0.0433	296.279
14	0.078	0.0514706		-1.635244	1.0865	294.354
15	0.08	0.0551471		-1.598194	1.14	292.545
16	0.081	0.0588235		-1.571794	1.1668	291.256
17	0.098	0.0625	-1.5382	41.6215	289.615	
18	0.11	0.0661765		-1.506264	1.9425	288.056
19	0.13	0.0698529		-1.483284	2.4775	286.934
20	0.13	0.0735294		-1.4538	42.4775	285.494
21	0.13	0.0772059		-1.425544	2.4775	284.114
22	0.13	0.0808824		-1.405074	2.4775	283.114
23	0.13	0.0845588		-1.378664	2.4775	281.824
24	0.13	0.0882353		-1.353174	2.4775	280.58
25	0.13	0.0919118		-1.334624	2.4775	279.674
26	0.14	0.0955882		-1.310584	2.745	278.5
27	0.15	0.0992647		-1.287274	3.0125	277.362
28	0.15	0.102941		-1.270244	3.0125	276.53
29	0.15	0.106618		-1.248094	3.0125	275.448
30	0.16	0.110294		-1.226534	3.28	274.395
31	0.16	0.113971		-1.210734	3.28	273.624
32	0.16	0.117647		-1.190124	3.28	272.617
33	0.16	0.121324		-1.17	43.28	271.635
34	0.16	0.125	-1.150354	3.28	270.675	
35	0.16	0.128676		-1.1359	43.28	269.97
36	0.17	0.132353		-1.116994	3.5475	269.046
37	0.17	0.136029		-1.098474	3.5475	268.142
38	0.18	0.139706		-1.084824	3.815	267.476
39	0.18	0.143382		-1.066944	3.815	266.602
40	0.19	0.147059		-1.049394	4.0825	265.745
41	0.19	0.150735		-1.036434	4.0825	265.112
42	0.2	0.154412		-1.019434	4.35	264.282
43	0.2	0.158088		-1.002714	4.35	263.466
44	0.2	0.161765		-0.990356	44.35	262.862
45	0.21	0.165441		-0.974114	44.6175	262.069
46	0.23	0.169118		-0.958125	45.1525	261.288
47	0.24	0.172794		-0.946291	45.42	260.711
48	0.24	0.176471		-0.930718	45.42	259.95

49	0.24	0.180147	-0.915365	45.42	259.2
50	0.25	0.183824	-0.903992	45.6875	258.645
51	0.25	0.1875	-0.889006	45.6875	257.913
52	0.25	0.191176	-0.874218	45.6875	257.191
53	0.26	0.194853	-0.863249	45.955	256.655
54	0.26	0.198529	-0.848786	45.955	255.949
55	0.26	0.202206	-0.834498	45.955	255.251
56	0.27	0.205882	-0.823893	46.2225	254.733
57	0.27	0.209559	-0.809896	46.2225	254.05
58	0.29	0.213235	-0.796056	46.7575	253.374
59	0.29	0.216912	-0.785774	46.7575	252.872
60	0.3	0.220588	-0.772193	47.025	252.209
61	0.42	0.224265	-0.758753	50.235	251.552
62	0.42	0.227941	-0.748762	50.235	251.065
63	0.43	0.231618	-0.735557	50.5025	250.42
64	0.44	0.235294	-0.722479	50.77	249.781
65	0.45	0.238971	-0.712751	51.0375	249.306
66	0.46	0.242647	-0.699883	51.305	248.678
67	0.47	0.246324	-0.687131	51.5725	248.055
68	0.51	0.25	-0.674495	52.6425	247.438
69	0.52	0.253676	-0.665079	52.91	246.978
70	0.52	0.257353	-0.652622	52.91	246.37
71	0.53	0.261029	-0.640266	53.1775	245.766
72	0.57	0.264706	-0.631062	54.2475	245.317
73	0.58	0.268382	-0.618872	54.515	244.722
74	0.58	0.272059	-0.606775	54.515	244.131
75	0.6	0.275735	-0.597761	55.05	243.691
76	0.63	0.279412	-0.585815	55.8525	243.107
77	0.7	0.283088	-0.573953	57.725	242.528
78	0.71	0.286765	-0.565108	57.9925	242.096
79	0.71	0.290441	-0.553384	57.9925	241.524
80	0.72	0.294118	-0.541736	58.26	240.955
81	0.75	0.297794	-0.533048	59.0625	240.531
82	0.78	0.301471	-0.521527	59.865	239.968
83	0.83	0.305147	-0.510074	61.2025	239.409
84	0.87	0.308824	-0.501527	62.2725	238.991
85	1	0.3125	-0.490189	65.75	238.438
86	1	0.316176	-0.478914	65.75	237.887
87	1	0.319853	-0.470498	65.75	237.476
88	1	0.323529	-0.459327	65.75	236.93
89	1	0.327206	-0.448213	65.75	236.388
90	1.1	0.330882	-0.439913	68.425	235.982
91	1.1	0.334559	-0.428895	68.425	235.444
92	1.2	0.338235	-0.417928	71.1	234.909
93	1.2	0.341912	-0.409735	71.1	234.509
94	1.2	0.345588	-0.398855	71.1	233.977
95	1.3	0.349265	-0.388022	73.775	233.448
96	1.4	0.352941	-0.379927	76.45	233.053
97	1.4	0.356618	-0.369171	76.45	232.528
98	1.5	0.360294	-0.358459	79.125	232.005
99	2.7	0.363971	-0.350451	111.225	231.614
100	3	0.367647	-0.33981	119.25	231.094
101	10	0.371324	-0.329206	306.5	230.576
102	10	0.375	-0.318639	306.5	230.06
103	10	0.378676	-0.310738	306.5	229.674
104	10	0.382353	-0.300232	306.5	229.161
105	10	0.386029	-0.28976	306.5	228.65
106	10	0.389706	-0.281926	306.5	228.267
107	10	0.393382	-0.271509	306.5	227.759
108	10	0.397059	-0.26112	306.5	227.251
109	10	0.400735	-0.253347	306.5	226.872
110	10	0.404412	-0.243007	306.5	226.367

111	10	0.408088	-0.232693	306.5	225.863
112	10	0.411765	-0.224974	306.5	225.486
113	10	0.415441	-0.214702	306.5	224.985
114	10	0.419118	-0.204452	306.5	224.484
115	10	0.422794	-0.196779	306.5	224.109
116	10	0.426471	-0.186567	306.5	223.611
117	10	0.430147	-0.176374	306.5	223.113
118	10	0.433824	-0.168741	306.5	222.74
119	10	0.4375	-0.158579	306.5	222.244
120	10	0.441176	-0.148434	306.5	221.749
121	10	0.444853	-0.140835	306.5	221.377
122	10	0.448529	-0.130716	306.5	220.883
123	10	0.452206	-0.12061	306.5	220.39
124	10	0.455882	-0.113039	306.5	220.02
125	10	0.459559	-0.102953	306.5	219.528
126	10	0.463235	-0.0928787	306.5	219.036
127	10	0.466912	-0.0853288	306.5	218.667
128	10	0.470588	-0.0752698	306.5	218.176
129	10	0.474265	-0.0652187	306.5	217.685
130	10	0.477941	-0.0576847	306.5	217.317
131	10	0.481618	-0.0476439	306.5	216.827
132	10	0.485294	-0.0376076	306.5	216.337
133	10	0.488971	-0.0300838	306.5	215.969
134	10	0.492647	-0.0200544	306.5	215.479
135	10	0.496324	-0.0100272	306.5	214.99
136	10	0.5	0	306.5	214.5
137	10	0.503676	0.0100272	306.5	214.01
138	10	0.507353	0.0200544	306.5	213.521
139	10	0.511029	0.0300838	306.5	213.031
140	10	0.514706	0.0376076	306.5	212.663
141	10	0.518382	0.0476439	306.5	212.173
142	10	0.522059	0.0576847	306.5	211.683
143	10	0.525735	0.0652187	306.5	211.315
144	10	0.529412	0.0752698	306.5	210.824
145	10	0.533088	0.0853288	306.5	210.333
146	10	0.536765	0.0928787	306.5	209.964
147	10	0.540441	0.102953	306.5	209.472
148	10	0.544118	0.113039	306.5	208.98
149	10	0.547794	0.12061	306.5	208.61
150	10	0.551471	0.130716	306.5	208.117
151	10	0.555147	0.140835	306.5	207.623
152	10	0.558824	0.148434	306.5	207.251
153	10	0.5625	0.158579	306.5	206.756
154	10	0.566176	0.168741	306.5	206.26
155	10	0.569853	0.176374	306.5	205.887
156	10	0.573529	0.186567	306.5	205.389
157	10	0.577206	0.196779	306.5	204.891
158	10	0.580882	0.204452	306.5	204.516
159	10	0.584559	0.214702	306.5	204.015
160	10	0.588235	0.224974	306.5	203.514
161	10	0.591912	0.232693	306.5	203.137
162	10	0.595588	0.243007	306.5	202.633
163	10	0.599265	0.253347	306.5	202.128
164	10	0.602941	0.26112	306.5	201.749
165	10	0.606618	0.271509	306.5	201.241
166	10	0.610294	0.281926	306.5	200.733
167	10	0.613971	0.28976	306.5	200.35
168	10	0.617647	0.300232	306.5	199.839
169	10	0.621324	0.310738	306.5	199.326
170	10	0.625	0.318639	306.5	198.94
171	10	0.628676	0.329206	306.5	198.424
172	10	0.632353	0.33981	306.5	197.906

173	10	0.636029	0.350451	306.5	197.386
174	10	0.639706	0.358459	306.5	196.995
175	10	0.643382	0.369171	306.5	196.472
176	10	0.647059	0.379927	306.5	195.947
177	10	0.650735	0.388022	306.5	195.552
178	10	0.654412	0.398855	306.5	195.023
179	10	0.658088	0.409735	306.5	194.491
180	10	0.661765	0.417928	306.5	194.091
181	10	0.665441	0.428895	306.5	193.556
182	10	0.669118	0.439913	306.5	193.018
183	10	0.672794	0.448213	306.5	192.612
184	10	0.676471	0.459327	306.5	192.07
185	10	0.680147	0.470498	306.5	191.524
186	10	0.683824	0.478914	306.5	191.113
187	10	0.6875	0.490189	306.5	190.562
188	10	0.691176	0.501527	306.5	190.009
189	10	0.694853	0.510074	306.5	189.591
190	10	0.698529	0.521527	306.5	189.032
191	10	0.702206	0.533048	306.5	188.469
192	10	0.705882	0.541736	306.5	188.045
193	10	0.709559	0.553384	306.5	187.476
194	10	0.713235	0.565108	306.5	186.904
195	10	0.716912	0.573953	306.5	186.472
196	10	0.720588	0.585815	306.5	185.893
197	10	0.724265	0.597761	306.5	185.309
198	10	0.727941	0.606775	306.5	184.869
199	10	0.731618	0.618872	306.5	184.278
200	10	0.735294	0.631062	306.5	183.683
201	10	0.738971	0.640266	306.5	183.234
202	10	0.742647	0.652622	306.5	182.63
203	10	0.746324	0.665079	306.5	182.022
204	10	0.75	0.67449	306.5	181.562
205	10	0.753676	0.687131	306.5	180.945
206	10	0.757353	0.699883	306.5	180.322
207	10	0.761029	0.712751	306.5	179.694
208	10	0.764706	0.722479	306.5	179.219
209	10	0.768382	0.735557	306.5	178.58
210	10	0.772059	0.748762	306.5	177.935
211	10	0.775735	0.758753	306.5	177.448
212	10	0.779412	0.772193	306.5	176.791
213	10	0.783088	0.785774	306.5	176.128
214	10	0.786765	0.796056	306.5	175.626
215	10	0.790441	0.809896	306.5	174.95
216	10	0.794118	0.823893	306.5	174.267
217	10	0.797794	0.834498	306.5	173.749
218	10	0.801471	0.848786	306.5	173.051
219	10	0.805147	0.863249	306.5	172.345
220	10	0.808824	0.874218	306.5	171.809
221	10	0.8125	0.889006	306.5	171.087
222	10	0.816176	0.903992	306.5	170.355
223	10	0.819853	0.915365	306.5	169.8
224	10	0.823529	0.930718	306.5	169.05
225	10	0.827206	0.946291	306.5	168.289
226	10	0.830882	0.958125	306.5	167.712
227	10	0.834559	0.974114	306.5	166.931
228	10	0.838235	0.990356	306.5	166.138
229	10	0.841912	1.00271	306.5	165.534
230	10	0.845588	1.01943	306.5	164.718
231	10	0.849265	1.03643	306.5	163.888
232	10	0.852941	1.04939	306.5	163.255
233	10	0.856618	1.06694	306.5	162.398
234	10	0.860294	1.08482	306.5	161.524

235	10	0.863971	1.09847	306.5	160.858
236	10	0.867647	1.11699	306.5	159.954
237	10	0.871324	1.1359	306.5	159.03
238	10	0.875	1.15035	306.5	158.325
239	10	0.878676	1.17	306.5	157.365
240	10	0.882353	1.19012	306.5	156.383
241	10	0.886029	1.21073	306.5	155.376
242	10	0.889706	1.22653	306.5	154.605
243	10	0.893382	1.24809	306.5	153.552
244	10	0.897059	1.27024	306.5	152.47
245	10	0.900735	1.28727	306.5	151.638
246	10	0.904412	1.31058	306.5	150.5
247	10	0.908088	1.33462	306.5	149.326
248	10	0.911765	1.35317	306.5	148.42
249	10	0.915441	1.37866	306.5	147.176
250	10	0.919118	1.40507	306.5	145.886
251	10	0.922794	1.42554	306.5	144.886
252	10	0.926471	1.4538	306.5	143.506
253	10	0.930147	1.48328	306.5	142.066
254	10	0.933824	1.50626	306.5	140.944
255	10	0.9375	1.5382	306.5	139.385
256	10	0.941176	1.57179	306.5	137.744
257	10	0.944853	1.59819	306.5	136.455
258	10	0.948529	1.63524	306.5	134.646
259	10	0.952206	1.67466	306.5	132.721
260	10	0.955882	1.70604	306.5	131.188
261	10	0.959559	1.75069	306.5	129.008
262	10	0.963235	1.79912	306.5	126.643
263	10	0.966912	1.83843	306.5	124.724
264	10	0.970588	1.8957	306.5	121.927
265	10	0.974265	1.95996	306.5	118.789
266	10	0.977941	2.01409	306.5	116.145
267	10	0.981618	2.09693	306.5	112.1
268	10	0.985294	2.19728	306.5	107.199
269	10	0.988971	2.29036	306.5	102.654
270	10	0.992647	2.45727	306.5	94.5032
271	11	0.996324	2.74777	333.25	80.3175

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-3.24419	-2.74777	7.55021	8.91428
2	-3.24419	-2.45727	13.5884	16.8862
3	-3.24419	-2.29036	18.8342	24.3165
4	-3.24419	-2.19728	23.6622	31.4449
5	-3.24419	-2.09693	28.0593	38.2478
6	-3.24419	-2.01409	32.1159	44.7819
7	-3.24419	-1.95996	35.9574	51.1404
8	-2.55105	-1.8957	39.551	55.9764
9	-2.52573	-1.83843	42.9308	60.6198
10	-2.51331	-1.79912	46.1677	65.1415
11	-2.32279	-1.75069	49.2326	69.208
12	-2.20727	-1.70604	52.1431	72.9737
13	-2.04022	-1.67466	54.9476	76.3904
14	-2.04022	-1.63524	57.6216	79.7266
15	-2.04022	-1.59819	60.1758	82.9873
16	-2.04022	-1.57179	62.6464	86.1941
17	-2.04022	-1.5382	65.0124	89.3323
18	-2.04022	-1.50626	67.2812	92.4054
19	-2.04022	-1.48328	69.4814	95.4317
20	-1.96611	-1.4538	71.5949	98.29
21	-1.89712	-1.42554	73.6271	100.994
22	-1.89712	-1.40507	75.6013	103.66
23	-1.89712	-1.37866	77.502	106.276
24	-1.83258	-1.35317	79.3331	108.755
25	-1.83258	-1.33462	81.1143	111.201
26	-1.83258	-1.31058	82.8319	113.603
27	-1.83258	-1.28727	84.489	115.962
28	-1.83258	-1.27024	86.1025	118.29
29	-1.83258	-1.24809	87.6602	120.577
30	-1.77196	-1.22653	89.1646	122.75
31	-1.77196	-1.21073	90.6305	124.896
32	-1.7148	-1.19012	92.0469	126.936
33	-1.7148	-1.17	93.4158	128.943
34	-1.66073	-1.15035	94.7391	130.853
35	-1.66073	-1.1359	96.0293	132.74
36	-1.60944	-1.11699	97.277	134.537
37	-1.60944	-1.09847	98.4836	136.305
38	-1.60944	-1.08482	99.6605	138.051
39	-1.56065	-1.06694	100.799	139.716
40	-1.46968	-1.04939	101.9	141.259
41	-1.42712	-1.03643	102.974	142.738
42	-1.42712	-1.01943	104.013	144.193
43	-1.42712	-1.00271	105.019	145.624
44	-1.38629	-0.990356	106	146.996
45	-1.38629	-0.974114	106.949	148.347
46	-1.38629	-0.958125	107.867	149.675
47	-1.34707	-0.946291	108.762	150.95
48	-1.34707	-0.930718	109.628	152.204
49	-1.34707	-0.915365	110.466	153.437
50	-1.30933	-0.903992	111.283	154.62
51	-1.30933	-0.889006	112.074	155.784

52	-1.23787	-0.874218	112.838	156.866
53	-1.23787	-0.863249	113.583	157.935
54	-1.20397	-0.848786	114.304	158.957
55	-0.867501	-0.834498	115	159.681
56	-0.867501	-0.823893	115.679	160.396
57	-0.84397	-0.809896	116.335	161.079
58	-0.820981	-0.796056	116.968	161.733
59	-0.798508	-0.785774	117.586	162.36
60	-0.776529	-0.772193	118.182	162.96
61	-0.755023	-0.758753	118.758	163.533
62	-0.673345	-0.748762	119.318	164.037
63	-0.653926	-0.735557	119.86	164.518
64	-0.653926	-0.722479	120.382	164.99
65	-0.634878	-0.712751	120.89	165.443
66	-0.562119	-0.699883	121.379	165.836
67	-0.544727	-0.687131	121.852	166.21
68	-0.544727	-0.67449	122.306	166.578
69	-0.510826	-0.665079	122.749	166.918
70	-0.462035	-0.652622	123.175	167.219
71	-0.356675	-0.640266	123.585	167.448
72	-0.34249	-0.631062	123.983	167.664
73	-0.34249	-0.618872	124.366	167.876
74	-0.328504	-0.606775	124.734	168.075
75	-0.287682	-0.597761	125.091	168.247
76	-0.248461	-0.585815	125.435	168.392
77	-0.18633	-0.573953	125.764	168.499
78	-0.139262	-0.565108	126.083	168.578
79	0	-0.553384	126.39	168.578
80	0	-0.541736	126.683	168.578
81	0	-0.533048	126.967	168.578
82	0	-0.521527	127.239	168.578
83	0	-0.510074	127.499	168.578
84	0	-0.501527	127.751	168.578
85	0	-0.490189	127.991	168.578
86	0	-0.478914	128.221	168.578
87	0	-0.470498	128.442	168.578
88	0	-0.459327	128.653	168.578
89	0	-0.448213	128.854	168.578
90	0.0953102	-0.439913	129.047	168.536
91	0.0953102	-0.428895	129.231	168.495
92	0.182322	-0.417928	129.406	168.419
93	0.182322	-0.409735	129.574	168.344
94	0.182322	-0.398855	129.733	168.272
95	0.262364	-0.388022	129.883	168.17
96	0.336472	-0.379927	130.028	168.042
97	0.336472	-0.369171	130.164	167.918
98	0.405465	-0.358459	130.293	167.772
99	0.993252	-0.350451	130.415	167.424
100	1.09861	-0.33981	130.531	167.051
101	2.30259	-0.329206	130.639	166.293
102	2.30259	-0.318639	130.741	165.559
103	2.30259	-0.310738	130.837	164.844
104	2.30259	-0.300232	130.927	164.153
105	2.30259	-0.28976	131.011	163.485
106	2.30259	-0.281926	131.091	162.836
107	2.30259	-0.271509	131.165	162.211
108	2.30259	-0.26112	131.233	161.61
109	2.30259	-0.253347	131.297	161.026
110	2.30259	-0.243007	131.356	160.467
111	2.30259	-0.232693	131.41	159.931
112	2.30259	-0.224974	131.461	159.413
113	2.30259	-0.214702	131.507	158.919

114	2.30259	-0.204452	131.549	158.448
115	2.30259	-0.196779	131.587	157.995
116	2.30259	-0.186567	131.622	157.565
117	2.30259	-0.176374	131.653	157.159
118	2.30259	-0.168741	131.682	156.771
119	2.30259	-0.158579	131.707	156.405
120	2.30259	-0.148434	131.729	156.064
121	2.30259	-0.140835	131.749	155.739
122	2.30259	-0.130716	131.766	155.438
123	2.30259	-0.12061	131.78	155.161
124	2.30259	-0.113039	131.793	154.9
125	2.30259	-0.102953	131.804	154.663
126	2.30259	-0.0928787	131.812	154.449
127	2.30259	-0.0853288	131.82	154.253
128	2.30259	-0.0752698	131.825	154.08
129	2.30259	-0.0652187	131.83	153.929
130	2.30259	-0.0576847	131.833	153.797
131	2.30259	-0.0476439	131.835	153.687
132	2.30259	-0.0376076	131.837	153.6
133	2.30259	-0.0300838	131.838	153.531
134	2.30259	-0.0200544	131.838	153.485
135	2.30259	-0.0100272	131.838	153.462
136	2.30259	0	131.838	153.462
137	2.30259	0.0100272	131.838	153.485
138	2.30259	0.0200544	131.839	153.531
139	2.30259	0.0300838	131.839	153.6
140	2.30259	0.0376076	131.841	153.687
141	2.30259	0.0476439	131.843	153.797
142	2.30259	0.0576847	131.846	153.929
143	2.30259	0.0652187	131.851	154.08
144	2.30259	0.0752698	131.856	154.253
145	2.30259	0.0853288	131.864	154.449
146	2.30259	0.0928787	131.872	154.663
147	2.30259	0.102953	131.883	154.9
148	2.30259	0.113039	131.896	155.161
149	2.30259	0.12061	131.91	155.438
150	2.30259	0.130716	131.927	155.739
151	2.30259	0.140835	131.947	156.064
152	2.30259	0.148434	131.969	156.405
153	2.30259	0.158579	131.994	156.771
154	2.30259	0.168741	132.023	157.159
155	2.30259	0.176374	132.054	157.565
156	2.30259	0.186567	132.089	157.995
157	2.30259	0.196779	132.127	158.448
158	2.30259	0.204452	132.169	158.919
159	2.30259	0.214702	132.215	159.413
160	2.30259	0.224974	132.266	159.931
161	2.30259	0.232693	132.32	160.467
162	2.30259	0.243007	132.379	161.026
163	2.30259	0.253347	132.443	161.61
164	2.30259	0.26112	132.512	162.211
165	2.30259	0.271509	132.585	162.836
166	2.30259	0.281926	132.665	163.485
167	2.30259	0.28976	132.749	164.153
168	2.30259	0.300232	132.839	164.844
169	2.30259	0.310738	132.935	165.559
170	2.30259	0.318639	133.037	166.293
171	2.30259	0.329206	133.145	167.051
172	2.30259	0.33981	133.261	167.834
173	2.30259	0.350451	133.384	168.64
174	2.30259	0.358459	133.512	169.466
175	2.30259	0.369171	133.648	170.316

176	2.30259	0.379927		133.793	171.191
177	2.30259	0.388022		133.943	172.084
178	2.30259	0.398855		134.102	173.003
179	2.30259	0.409735		134.27	173.946
180	2.30259	0.417928		134.445	174.908
181	2.30259	0.428895		134.629	175.896
182	2.30259	0.439913		134.822	176.909
183	2.30259	0.448213		135.023	177.941
184	2.30259	0.459327		135.234	178.998
185	2.30259	0.470498		135.456	180.082
186	2.30259	0.478914		135.685	181.185
187	2.30259	0.490189		135.925	182.313
188	2.30259	0.501527		136.177	183.468
189	2.30259	0.510074		136.437	184.643
190	2.30259	0.521527		136.709	185.843
191	2.30259	0.533048		136.993	187.071
192	2.30259	0.541736		137.287	188.318
193	2.30259	0.553384		137.593	189.592
194	2.30259	0.565108		137.912	190.894
195	2.30259	0.573953		138.242	192.215
196	2.30259	0.585815		138.585	193.564
197	2.30259	0.597761		138.942	194.941
198	2.30259	0.606775		139.31	196.338
199	2.30259	0.618872		139.693	197.763
200	2.30259	0.631062		140.091	199.216
201	2.30259	0.640266		140.501	200.69
202	2.30259	0.652622		140.927	202.193
203	2.30259	0.665079		141.37	203.724
204	2.30259	0.67449	141.825	205.277	
205	2.30259	0.687131		142.297	206.859
206	2.30259	0.699883		142.787	208.471
207	2.30259	0.712751		143.295	210.112
208	2.30259	0.722479		143.817	211.776
209	2.30259	0.735557		144.358	213.469
210	2.30259	0.748762		144.918	215.193
211	2.30259	0.758753		145.494	216.941
212	2.30259	0.772193		146.09	218.719
213	2.30259	0.785774		146.708	220.528
214	2.30259	0.796056		147.341	222.361
215	2.30259	0.809896		147.997	224.226
216	2.30259	0.823893		148.676	226.123
217	2.30259	0.834498		149.373	228.044
218	2.30259	0.848786		150.093	229.999
219	2.30259	0.863249		150.838	231.986
220	2.30259	0.874218		151.602	233.999
221	2.30259	0.889006		152.393	236.046
222	2.30259	0.903992		153.21	238.128
223	2.30259	0.915365		154.048	240.236
224	2.30259	0.930718		154.914	242.379
225	2.30259	0.946291		155.81	244.558
226	2.30259	0.958125		156.728	246.764
227	2.30259	0.974114		157.676	249.007
228	2.30259	0.990356		158.657	251.287
229	2.30259	1.00271	159.663	253.596	
230	2.30259	1.01943	160.702	255.943	
231	2.30259	1.03643	161.776	258.33	
232	2.30259	1.04939	162.877	260.746	
233	2.30259	1.06694	164.016	263.203	
234	2.30259	1.08482	165.193	265.701	
235	2.30259	1.09847	166.399	268.23	
236	2.30259	1.11699	167.647	270.802	
237	2.30259	1.1359	168.937	273.417	

238	2.30259	1.15035	170.26	276.066
239	2.30259	1.17	171.629	278.76
240	2.30259	1.19012	173.046	281.501
241	2.30259	1.21073	174.512	284.288
242	2.30259	1.22653	176.016	287.113
243	2.30259	1.24809	177.574	289.986
244	2.30259	1.27024	179.187	292.911
245	2.30259	1.28727	180.844	295.875
246	2.30259	1.31058	182.562	298.893
247	2.30259	1.33462	184.343	301.966
248	2.30259	1.35317	186.174	305.082
249	2.30259	1.37866	188.075	308.256
250	2.30259	1.40507	190.049	311.492
251	2.30259	1.42554	192.081	314.774
252	2.30259	1.4538	194.195	318.122
253	2.30259	1.48328	196.395	321.537
254	2.30259	1.50626	198.664	325.005
255	2.30259	1.5382	201.03	328.547
256	2.30259	1.57179	203.5	332.166
257	2.30259	1.59819	206.054	335.846
258	2.30259	1.63524	208.728	339.612
259	2.30259	1.67466	211.533	343.468
260	2.30259	1.70604	214.444	347.396
261	2.30259	1.75069	217.508	351.427
262	2.30259	1.79912	220.745	355.57
263	2.30259	1.83843	224.125	359.803
264	2.30259	1.8957	227.719	364.168
265	2.30259	1.95996	231.56	368.681
266	2.30259	2.01409	235.617	373.318
267	2.30259	2.09693	240.014	378.147
268	2.30259	2.19728	244.842	383.206
269	2.30259	2.29036	250.088	388.48
270	2.30259	2.45727	256.126	394.138
271	2.3979	2.74777	263.676	400.727

Data Set Standard Deviation = 1.77554
Numerator = 160582
Denominator = 224438
W Statistic = 0.715484 = 160582 / 224438

5% Critical value of 0.976 exceeds 0.715484
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.715484
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 = 0.844484
0.844484 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.24419	0.00367647	-2.74777	96.7652	348.683
2	-3.24419	0.00735294	-2.45727	96.7652	334.497
3	-3.24419	0.0110294	-2.29036	96.7652	326.346
4	-3.24419	0.0147059	-2.19728	96.7652	321.801
5	-3.24419	0.0183824	-2.09693	96.7652	316.9
6	-3.24419	0.0220588	-2.01409	96.7652	312.855
7	-3.24419	0.0257353	-1.95996	96.7652	310.211
8	-2.55105	0.0294118	-1.8957	149.741	307.073
9	-2.52573	0.0330882	-1.83843	151.676	304.276
10	-2.51331	0.0367647	-1.79912	152.626	302.357
11	-2.32279	0.0404412	-1.75069	167.187	299.992
12	-2.20727	0.0441176	-1.70604	176.015	297.812
13	-2.04022	0.0477941	-1.67466	188.783	296.279
14	-2.04022	0.0514706	-1.63524	188.783	294.354
15	-2.04022	0.0551471	-1.59819	188.783	292.545
16	-2.04022	0.0588235	-1.57179	188.783	291.256
17	-2.04022	0.0625	-1.5382	188.783	289.615
18	-2.04022	0.0661765	-1.50626	188.783	288.056
19	-2.04022	0.0698529	-1.48328	188.783	286.934
20	-1.96611	0.0735294	-1.4538	194.447	285.494
21	-1.89712	0.0772059	-1.42554	199.72	284.114
22	-1.89712	0.0808824	-1.40507	199.72	283.114
23	-1.89712	0.0845588	-1.37866	199.72	281.824
24	-1.83258	0.0882353	-1.35317	204.653	280.58
25	-1.83258	0.0919118	-1.33462	204.653	279.674
26	-1.83258	0.0955882	-1.31058	204.653	278.5
27	-1.83258	0.0992647	-1.28727	204.653	277.362
28	-1.83258	0.102941	-1.27024	204.653	276.53
29	-1.83258	0.106618	-1.24809	204.653	275.448
30	-1.77196	0.110294	-1.22653	209.286	274.395
31	-1.77196	0.113971	-1.21073	209.286	273.624
32	-1.7148	0.117647	-1.19012	213.655	272.617
33	-1.7148	0.121324	-1.17	213.655	271.635
34	-1.66073	0.125	-1.15035	217.787	270.675
35	-1.66073	0.128676	-1.1359	217.787	269.97
36	-1.60944	0.132353	-1.11699	221.707	269.046
37	-1.60944	0.136029	-1.09847	221.707	268.142
38	-1.60944	0.139706	-1.08482	221.707	267.476
39	-1.56065	0.143382	-1.06694	225.436	266.602
40	-1.46968	0.147059	-1.04939	232.389	265.745
41	-1.42712	0.150735	-1.03643	235.642	265.112
42	-1.42712	0.154412	-1.01943	235.642	264.282
43	-1.42712	0.158088	-1.00271	235.642	263.466
44	-1.38629	0.161765	-0.990356	238.762	262.862
45	-1.38629	0.165441	-0.974114	238.762	262.069
46	-1.38629	0.169118	-0.958125	238.762	261.288
47	-1.34707	0.172794	-0.946291	241.759	260.711
48	-1.34707	0.176471	-0.930718	241.759	259.95

49	-1.34707	0.180147	-0.915365	241.759	259.2
50	-1.30933	0.183824	-0.903992	244.644	258.645
51	-1.30933	0.1875	-0.889006	244.644	257.913
52	-1.23787	0.191176	-0.874218	250.105	257.191
53	-1.23787	0.194853	-0.863249	250.105	256.655
54	-1.20397	0.198529	-0.848786	252.696	255.949
55	-0.867501	0.202206	-0.834498	278.412	255.251
56	-0.867501	0.205882	-0.823893	278.412	254.733
57	-0.84397	0.209559	-0.809896	280.211	254.05
58	-0.820981	0.213235	-0.796056	281.968	253.374
59	-0.798508	0.216912	-0.785774	283.685	252.872
60	-0.776529	0.220588	-0.772193	285.365	252.209
61	-0.755023	0.224265	-0.758753	287.009	251.552
62	-0.673345	0.227941	-0.748762	293.252	251.065
63	-0.653926	0.231618	-0.735557	294.736	250.42
64	-0.653926	0.235294	-0.722479	294.736	249.781
65	-0.634878	0.238971	-0.712751	296.191	249.306
66	-0.562119	0.242647	-0.699883	301.752	248.678
67	-0.544727	0.246324	-0.687131	303.082	248.055
68	-0.544727	0.25	-0.67449	303.082	247.438
69	-0.510826	0.253676	-0.665079	305.673	246.978
70	-0.462035	0.257353	-0.652622	309.402	246.37
71	-0.356675	0.261029	-0.640266	317.454	245.766
72	-0.34249	0.264706	-0.631062	318.538	245.317
73	-0.34249	0.268382	-0.618872	318.538	244.722
74	-0.328504	0.272059	-0.606775	319.607	244.131
75	-0.287682	0.275735	-0.597761	322.727	243.691
76	-0.248461	0.279412	-0.585815	325.725	243.107
77	-0.18633	0.283088	-0.573953	330.473	242.528
78	-0.139262	0.286765	-0.565108	334.071	242.096
79	0	0.290441	-0.553384	344.714	241.524
80	0	0.294118	-0.541736	344.714	240.955
81	0	0.297794	-0.533048	344.714	240.531
82	0	0.301471	-0.521527	344.714	239.968
83	0	0.305147	-0.510074	344.714	239.409
84	0	0.308824	-0.501527	344.714	238.991
85	0	0.3125	-0.490189	344.714	238.438
86	0	0.316176	-0.478914	344.714	237.887
87	0	0.319853	-0.470498	344.714	237.476
88	0	0.323529	-0.459327	344.714	236.93
89	0	0.327206	-0.448213	344.714	236.388
90	0.0953102	0.330882	-0.439913	351.999	235.982
91	0.0953102	0.334559	-0.428895	351.999	235.444
92	0.182322	0.338235	-0.417928	358.649	234.909
93	0.182322	0.341912	-0.409735	358.649	234.509
94	0.182322	0.345588	-0.398855	358.649	233.977
95	0.262364	0.349265	-0.388022	364.766	233.448
96	0.336472	0.352941	-0.379927	370.43	233.053
97	0.336472	0.356618	-0.369171	370.43	232.528
98	0.405465	0.360294	-0.358459	375.703	232.005
99	0.993252	0.363971	-0.350451	420.627	231.614
100	1.09861	0.367647	-0.33981	428.68	231.094
101	2.30259	0.371324	-0.329206	520.698	230.576
102	2.30259	0.375	-0.318639	520.698	230.06
103	2.30259	0.378676	-0.310738	520.698	229.674
104	2.30259	0.382353	-0.300232	520.698	229.161
105	2.30259	0.386029	-0.28976	520.698	228.65
106	2.30259	0.389706	-0.281926	520.698	228.267
107	2.30259	0.393382	-0.271509	520.698	227.759
108	2.30259	0.397059	-0.26112	520.698	227.251
109	2.30259	0.400735	-0.253347	520.698	226.872
110	2.30259	0.404412	-0.243007	520.698	226.367

111	2.30259	0.408088	-0.232693	520.698	225.863
112	2.30259	0.411765	-0.224974	520.698	225.486
113	2.30259	0.415441	-0.214702	520.698	224.985
114	2.30259	0.419118	-0.204452	520.698	224.484
115	2.30259	0.422794	-0.196779	520.698	224.109
116	2.30259	0.426471	-0.186567	520.698	223.611
117	2.30259	0.430147	-0.176374	520.698	223.113
118	2.30259	0.433824	-0.168741	520.698	222.74
119	2.30259	0.4375	-0.158579	520.698	222.244
120	2.30259	0.441176	-0.148434	520.698	221.749
121	2.30259	0.444853	-0.140835	520.698	221.377
122	2.30259	0.448529	-0.130716	520.698	220.883
123	2.30259	0.452206	-0.12061	520.698	220.39
124	2.30259	0.455882	-0.113039	520.698	220.02
125	2.30259	0.459559	-0.102953	520.698	219.528
126	2.30259	0.463235	-0.0928787	520.698	219.036
127	2.30259	0.466912	-0.0853288	520.698	218.667
128	2.30259	0.470588	-0.0752698	520.698	218.176
129	2.30259	0.474265	-0.0652187	520.698	217.685
130	2.30259	0.477941	-0.0576847	520.698	217.317
131	2.30259	0.481618	-0.0476439	520.698	216.827
132	2.30259	0.485294	-0.0376076	520.698	216.337
133	2.30259	0.488971	-0.0300838	520.698	215.969
134	2.30259	0.492647	-0.0200544	520.698	215.479
135	2.30259	0.496324	-0.0100272	520.698	214.99
136	2.30259	0.5	0	520.698	214.5
137	2.30259	0.503676	0.0100272	520.698	214.01
138	2.30259	0.507353	0.0200544	520.698	213.521
139	2.30259	0.511029	0.0300838	520.698	213.031
140	2.30259	0.514706	0.0376076	520.698	212.663
141	2.30259	0.518382	0.0476439	520.698	212.173
142	2.30259	0.522059	0.0576847	520.698	211.683
143	2.30259	0.525735	0.0652187	520.698	211.315
144	2.30259	0.529412	0.0752698	520.698	210.824
145	2.30259	0.533088	0.0853288	520.698	210.333
146	2.30259	0.536765	0.0928787	520.698	209.964
147	2.30259	0.540441	0.102953	520.698	209.472
148	2.30259	0.544118	0.113039	520.698	208.98
149	2.30259	0.547794	0.12061	520.698	208.61
150	2.30259	0.551471	0.130716	520.698	208.117
151	2.30259	0.555147	0.140835	520.698	207.623
152	2.30259	0.558824	0.148434	520.698	207.251
153	2.30259	0.5625	0.158579	520.698	206.756
154	2.30259	0.566176	0.168741	520.698	206.26
155	2.30259	0.569853	0.176374	520.698	205.887
156	2.30259	0.573529	0.186567	520.698	205.389
157	2.30259	0.577206	0.196779	520.698	204.891
158	2.30259	0.580882	0.204452	520.698	204.516
159	2.30259	0.584559	0.214702	520.698	204.015
160	2.30259	0.588235	0.224974	520.698	203.514
161	2.30259	0.591912	0.232693	520.698	203.137
162	2.30259	0.595588	0.243007	520.698	202.633
163	2.30259	0.599265	0.253347	520.698	202.128
164	2.30259	0.602941	0.26112	520.698	201.749
165	2.30259	0.606618	0.271509	520.698	201.241
166	2.30259	0.610294	0.281926	520.698	200.733
167	2.30259	0.613971	0.28976	520.698	200.35
168	2.30259	0.617647	0.300232	520.698	199.839
169	2.30259	0.621324	0.310738	520.698	199.326
170	2.30259	0.625	0.318639	520.698	198.94
171	2.30259	0.628676	0.329206	520.698	198.424
172	2.30259	0.632353	0.33981	520.698	197.906

173	2.30259	0.636029	0.350451	520.698	197.386
174	2.30259	0.639706	0.358459	520.698	196.995
175	2.30259	0.643382	0.369171	520.698	196.472
176	2.30259	0.647059	0.379927	520.698	195.947
177	2.30259	0.650735	0.388022	520.698	195.552
178	2.30259	0.654412	0.398855	520.698	195.023
179	2.30259	0.658088	0.409735	520.698	194.491
180	2.30259	0.661765	0.417928	520.698	194.091
181	2.30259	0.665441	0.428895	520.698	193.556
182	2.30259	0.669118	0.439913	520.698	193.018
183	2.30259	0.672794	0.448213	520.698	192.612
184	2.30259	0.676471	0.459327	520.698	192.07
185	2.30259	0.680147	0.470498	520.698	191.524
186	2.30259	0.683824	0.478914	520.698	191.113
187	2.30259	0.6875	0.490189	520.698	190.562
188	2.30259	0.691176	0.501527	520.698	190.009
189	2.30259	0.694853	0.510074	520.698	189.591
190	2.30259	0.698529	0.521527	520.698	189.032
191	2.30259	0.702206	0.533048	520.698	188.469
192	2.30259	0.705882	0.541736	520.698	188.045
193	2.30259	0.709559	0.553384	520.698	187.476
194	2.30259	0.713235	0.565108	520.698	186.904
195	2.30259	0.716912	0.573953	520.698	186.472
196	2.30259	0.720588	0.585815	520.698	185.893
197	2.30259	0.724265	0.597761	520.698	185.309
198	2.30259	0.727941	0.606775	520.698	184.869
199	2.30259	0.731618	0.618872	520.698	184.278
200	2.30259	0.735294	0.631062	520.698	183.683
201	2.30259	0.738971	0.640266	520.698	183.234
202	2.30259	0.742647	0.652622	520.698	182.63
203	2.30259	0.746324	0.665079	520.698	182.022
204	2.30259	0.75	0.67449	520.698	181.562
205	2.30259	0.753676	0.687131	520.698	180.945
206	2.30259	0.757353	0.699883	520.698	180.322
207	2.30259	0.761029	0.712751	520.698	179.694
208	2.30259	0.764706	0.722479	520.698	179.219
209	2.30259	0.768382	0.735557	520.698	178.58
210	2.30259	0.772059	0.748762	520.698	177.935
211	2.30259	0.775735	0.758753	520.698	177.448
212	2.30259	0.779412	0.772193	520.698	176.791
213	2.30259	0.783088	0.785774	520.698	176.128
214	2.30259	0.786765	0.796056	520.698	175.626
215	2.30259	0.790441	0.809896	520.698	174.95
216	2.30259	0.794118	0.823893	520.698	174.267
217	2.30259	0.797794	0.834498	520.698	173.749
218	2.30259	0.801471	0.848786	520.698	173.051
219	2.30259	0.805147	0.863249	520.698	172.345
220	2.30259	0.808824	0.874218	520.698	171.809
221	2.30259	0.8125	0.889006	520.698	171.087
222	2.30259	0.816176	0.903992	520.698	170.355
223	2.30259	0.819853	0.915365	520.698	169.8
224	2.30259	0.823529	0.930718	520.698	169.05
225	2.30259	0.827206	0.946291	520.698	168.289
226	2.30259	0.830882	0.958125	520.698	167.712
227	2.30259	0.834559	0.974114	520.698	166.931
228	2.30259	0.838235	0.990356	520.698	166.138
229	2.30259	0.841912	1.00271	520.698	165.534
230	2.30259	0.845588	1.01943	520.698	164.718
231	2.30259	0.849265	1.03643	520.698	163.888
232	2.30259	0.852941	1.04939	520.698	163.255
233	2.30259	0.856618	1.06694	520.698	162.398
234	2.30259	0.860294	1.08482	520.698	161.524

235	2.30259	0.863971		1.09847	520.698	160.858
236	2.30259	0.867647		1.11699	520.698	159.954
237	2.30259	0.871324		1.1359	520.698	159.03
238	2.30259	0.875	1.15035	520.698	158.325	
239	2.30259	0.878676		1.17	520.698	157.365
240	2.30259	0.882353		1.19012	520.698	156.383
241	2.30259	0.886029		1.21073	520.698	155.376
242	2.30259	0.889706		1.22653	520.698	154.605
243	2.30259	0.893382		1.24809	520.698	153.552
244	2.30259	0.897059		1.27024	520.698	152.47
245	2.30259	0.900735		1.28727	520.698	151.638
246	2.30259	0.904412		1.31058	520.698	150.5
247	2.30259	0.908088		1.33462	520.698	149.326
248	2.30259	0.911765		1.35317	520.698	148.42
249	2.30259	0.915441		1.37866	520.698	147.176
250	2.30259	0.919118		1.40507	520.698	145.886
251	2.30259	0.922794		1.42554	520.698	144.886
252	2.30259	0.926471		1.4538	520.698	143.506
253	2.30259	0.930147		1.48328	520.698	142.066
254	2.30259	0.933824		1.50626	520.698	140.944
255	2.30259	0.9375	1.5382	520.698	139.385	
256	2.30259	0.941176		1.57179	520.698	137.744
257	2.30259	0.944853		1.59819	520.698	136.455
258	2.30259	0.948529		1.63524	520.698	134.646
259	2.30259	0.952206		1.67466	520.698	132.721
260	2.30259	0.955882		1.70604	520.698	131.188
261	2.30259	0.959559		1.75069	520.698	129.008
262	2.30259	0.963235		1.79912	520.698	126.643
263	2.30259	0.966912		1.83843	520.698	124.724
264	2.30259	0.970588		1.8957	520.698	121.927
265	2.30259	0.974265		1.95996	520.698	118.789
266	2.30259	0.977941		2.01409	520.698	116.145
267	2.30259	0.981618		2.09693	520.698	112.1
268	2.30259	0.985294		2.19728	520.698	107.199
269	2.30259	0.988971		2.29036	520.698	102.654
270	2.30259	0.992647		2.45727	520.698	94.5032
271	2.3979	0.996324		2.74777	527.982	80.3175

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
LMW-4	1/16/1998	ND<2.30259	91.5
	3/16/1999	ND<2.30259	91.5
	9/23/1999	ND<2.30259	91.5
	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5
	11/18/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	-1.42712	216
	11/16/2009	-1.42712	217
	6/30/2010	-1.30933	225
	11/17/2010	-1.23787	227
	7/6/2011	-1.30933	226
	11/22/2011	-1.38629	219
	5/16/2012	-1.34707	222

Rank Sum = 2924.5
Rank Mean = 132.932

Background Rank Sum = 2924.5
Background Rank Mean = 132.932

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-10	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5
	11/18/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	-2.04022 J	188
	11/16/2009	-1.89712 J	196
	6/30/2010	-1.60944	211
	11/17/2010	-1.83258 J	199
	7/6/2011	-1.46968	215
	11/22/2011	-1.66073 J	209

	5/16/2012	-1.38629	220

Rank Sum = 2536
Rank Mean = 133.474

LMW-9D	11/18/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	1.09861 J	269
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	ND<-3.24419 U	91.5
	11/16/2009	ND<-3.24419 U	91.5
	6/30/2010	ND<-3.24419 U	91.5
	11/17/2010	-2.51331 J	185
	7/6/2011	-2.04022 J	189
	11/22/2011	ND<-3.24419 U	91.5
	5/16/2012	ND<-3.24419 U	91.5

Rank Sum = 1466.5
Rank Mean = 122.208

LMW-9	1/16/1998	ND<2.30259	91.5
	3/16/1999	ND<2.30259	91.5
	9/23/1999	ND<2.30259	91.5
	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	2.30259 J	270
	11/18/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	-1.89712 J	197
	11/16/2009	-2.04022 J	190
	6/30/2010	-2.04022 J	191
	11/17/2010	-1.83258 J	200
	7/6/2011	-2.04022 J	192
	11/22/2011	-2.20727 J	187
	5/16/2012	0.262364	264

Rank Sum = 2972
Rank Mean = 135.091

LMW-8	1/16/1998	ND<2.30259	91.5
	3/16/1999	ND<2.30259	91.5
	9/23/1999	ND<2.30259	91.5
	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5
	11/18/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<0 J	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	-0.755023	236
	11/16/2009	-0.34249	247
	6/30/2010	-0.248461	251

	11/17/2010	-0.34249	248
	7/6/2011	0.405465	267
	11/22/2011	0.336472	265
	5/16/2012	0.182322	261

Rank Sum = 3147.5
Rank Mean = 143.068

LMW-7	1/16/1998	ND<2.30259	91.5
	3/16/1999	ND<2.30259	91.5
	9/23/1999	ND<2.30259	91.5
	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5
	11/18/2006	0 J	254
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	-0.462035	245
	11/17/2010	-1.66073 J	210
	7/6/2011	0.993252	268
	11/22/2011	-0.820981	233
	5/16/2012	-1.23787	228

Rank Sum = 2719
Rank Mean = 135.95

LMW-6	1/16/1998	ND<2.30259	91.5
	3/16/1999	ND<2.30259	91.5
	9/23/1999	2.3979 J	271
	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5
	11/18/2006	ND<0 J	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<0 J	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	0.336472	266
	11/16/2009	0.182322	262
	6/30/2010	0.182322	263
	11/17/2010	0.0953102	259
	7/6/2011	-0.328504	249
	11/22/2011	-0.653926	238
	5/16/2012	-0.776529	235

Rank Sum = 3324
Rank Mean = 151.091

LMW-3s	5/16/2012	-0.653926	239

Rank Sum = 239
Rank Mean = 239

LMW-3	11/19/1996	ND<2.30259	91.5
	3/24/1997	ND<2.30259	91.5
	1/16/1998	ND<2.30259	91.5

	3/16/1999	ND<2.30259	91.5
	9/23/1999	ND<2.30259	91.5
	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5
	11/18/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	-1.83258 J	201
	11/16/2009	-1.83258 J	202
	6/30/2010	-1.77196 J	205
	11/17/2010	-0.673345	237
	7/6/2011	-1.83258 J	203
	11/22/2011	-0.84397	232
	5/16/2012	-1.7148 J	207

Rank Sum = 3042.5
Rank Mean = 126.771

LMW-16	11/18/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	ND<-3.24419 U	91.5
	11/16/2009	-2.52573 J	184
	6/30/2010	-2.32279 J	186
	11/17/2010	-2.55105 J	183
	7/6/2011	-2.04022 J	193
	11/22/2011	ND<-3.24419 U	91.5
	5/16/2012	-1.96611 J	195

Rank Sum = 1581.5
Rank Mean = 131.792

LMW-15R	11/18/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	5/20/2008	ND<0 J	91.5
	11/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	-0.18633	252
	11/16/2009	-1.20397	229
	11/16/2009	-1.34707	223
	11/16/2009	-1.38629	221
	6/30/2010	-0.356675	246
	11/17/2010	-0.544727	242
	7/6/2011	-0.287682	250
	11/22/2011	-0.510826	244
	5/16/2012	-0.544727	243

Rank Sum = 2882
Rank Mean = 169.529

LMW-14R	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<0 J	91.5

	11/20/2008	ND<2.30259	91.5
	6/11/2009	-1.42712	218
	6/30/2010	-1.77196 J	206
	11/17/2010	-1.56065	214
	7/6/2011	-1.60944	212
	11/22/2011	-1.7148 J	208
	5/16/2012	-1.89712 J	198

Rank Sum = 1622
Rank Mean = 162.2

LMW-9S	11/18/2006	0 J	255
	6/2/2007	0 J	256
	11/15/2007	ND<2.30259	91.5
	5/20/2008	0 J	257
	11/20/2008	ND<2.30259	91.5
	6/11/2009	-2.04022 J	194
	6/30/2010	-1.83258 J	204
	11/17/2010	-1.34707	224
	7/6/2011	-0.139262	253
	11/22/2011	0.0953102	260
	5/16/2012	0	258

Rank Sum = 2344
Rank Mean = 213.091

LMW-3S	11/18/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<0 J	91.5
	11/20/2008	ND<2.30259	91.5
	6/11/2009	-0.867501	230
	11/16/2009	-0.867501	231
	6/30/2010	-0.562119	241
	11/17/2010	-0.634878	240
	7/6/2011	-0.798508	234
	11/22/2011	-1.60944	213

Rank Sum = 1846.5
Rank Mean = 167.864

LMW-11	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5

Rank Sum = 1006.5
Rank Mean = 91.5

MW-5	1/16/1998	ND<2.30259	91.5
	3/16/1999	ND<2.30259	91.5
	9/23/1999	ND<2.30259	91.5
	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5

	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5

Rank Sum = 1189.5
Rank Mean = 91.5

LMW-12	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5

Rank Sum = 1006.5
Rank Mean = 91.5

LMW-13	3/14/2000	ND<2.30259	91.5
	9/23/2003	ND<2.30259	91.5
	3/10/2004	ND<2.30259	91.5
	10/12/2004	ND<2.30259	91.5
	4/1/2005	ND<2.30259	91.5
	10/26/2005	ND<2.30259	91.5
	6/19/2006	ND<2.30259	91.5
	6/2/2007	ND<2.30259	91.5
	11/15/2007	ND<2.30259	91.5
	5/20/2008	ND<2.30259	91.5
	11/20/2008	ND<2.30259	91.5

Rank Sum = 1006.5
Rank Mean = 91.5

Calculation Results:

Kruskal-Wallis H Statistic = 35.0358
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 50.2593
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
35.0358 > 27.5871 indicating a significant group difference at 5% significance level
50.2593 > 27.5871 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 132.932

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-10	**133.474**	**0.541866**	**57.1026**
LMW-9D	**122.208**	**-10.7235**	**65.4319**
LMW-9	**135.091**	**2.15909**	**54.9738**
LMW-8	**143.068**	**10.1364**	**54.9738**
LMW-7	**135.95**	**3.01818**	**56.3314**
LMW-6	**151.091**	**18.1591**	**54.9738**
LMW-3s	**239**	**106.068**	**186.425**
LMW-3	**126.771**	**-6.16098**	**53.8163**
LMW-16	**131.792**	**-1.14015**	**65.4319**
LMW-15R	**169.529**	**36.5976**	**58.8774**
LMW-14R	**162.2**	**29.2682**	**69.537**
LMW-9S	**213.091**	**80.1591**	**67.3289**
LMW-3S	**167.864**	**34.9318**	**67.3289**
LMW-11	**91.5**	**-41.4318**	**67.3289**

MW-5	91.5	-41.4318	63.7827
LMW-12	91.5	-41.4318	67.3289
LMW-13	91.5	-41.4318	67.3289

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 132.932

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-10	133.474	0.541866	70.6473
LMW-9D	122.208	-10.7235	80.9524
LMW-9	135.091	2.15909	68.0136
LMW-8	143.068	10.1364	68.0136
LMW-7	135.95	3.01818	69.6932
LMW-6	151.091	18.1591	68.0136
LMW-3s	239	106.068	230.645
LMW-3	126.771	-6.16098	66.5816
LMW-16	131.792	-1.14015	80.9524
LMW-15R		169.529	36.5976	72.8431
LMW-14R		162.2	29.2682	86.0311
LMW-9S	213.091	80.1591	83.2993
LMW-3S	167.864	34.9318	83.2993
LMW-11	91.5	-41.4318	83.2993
MW-5	91.5	-41.4318	78.912
LMW-12	91.5	-41.4318	83.2993
LMW-13	91.5	-41.4318	83.2993

Mann-Kendall Trend Analysis
Parameter: Cobalt
Location: LMW-9S
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives	
0 J	0 J	0	0	0	
ND<2.30259	0 J	2.30259	1	0	
0 J	0 J	0	1	0	
ND<2.30259	0 J	2.30259	2	0	
-2.04022 J	0 J	-2.04022	2	1	
-1.83258 J	0 J	-1.83258	2	2	
-1.34707	0 J	-1.34707	2	3	
-0.139262	0 J	-0.139262	2	4	
0.0953102	0 J	0.0953102	3	4	
0	0 J	0	3	4	
ND<2.30259	0 J	2.30259	4	4	
0 J	0 J	0	4	4	
ND<2.30259	0 J	2.30259	5	4	
-2.04022 J	0 J	-2.04022	5	5	
-1.83258 J	0 J	-1.83258	5	6	
-1.34707	0 J	-1.34707	5	7	
-0.139262	0 J	-0.139262	5	8	
0.0953102	0 J	0.0953102	6	8	
0	0 J	0	6	8	
0 J	ND<2.30259	-2.30259	6	9	
ND<2.30259	ND<2.30259	0	6	9	
-2.04022 J	ND<2.30259	-4.34281	6	10	
-1.83258 J	ND<2.30259	-4.13517	6	11	
-1.34707	ND<2.30259	-3.64966	6	12	
-0.139262	ND<2.30259	-2.44185	6	13	
0.0953102	ND<2.30259	-2.20727	6	14	
0	ND<2.30259	-2.30259	6	15	
ND<2.30259	0 J	2.30259	7	15	
-2.04022 J	0 J	-2.04022	7	16	
-1.83258 J	0 J	-1.83258	7	17	
-1.34707	0 J	-1.34707	7	18	
-0.139262	0 J	-0.139262	7	19	
0.0953102	0 J	0.0953102	8	19	
0	0 J	0	8	19	
-2.04022 J	ND<2.30259	-4.34281	8	20	
-1.83258 J	ND<2.30259	-4.13517	8	21	
-1.34707	ND<2.30259	-3.64966	8	22	
-0.139262	ND<2.30259	-2.44185	8	23	
0.0953102	ND<2.30259	-2.20727	8	24	
0	ND<2.30259	-2.30259	8	25	
-1.83258 J	-2.04022 J	0.207639	9	25	
-1.34707	-2.04022 J	0.693147	10	25	
-0.139262	-2.04022 J	1.90096	11	25	
0.0953102	-2.04022 J	2.13553	12	25	
0	-2.04022 J	2.04022	13	25	

-1.34707	-1.83258 J	0.485508	14	25	
-0.139262	-1.83258 J	1.69332	15	25	
0.0953102	-1.83258 J	1.92789	16	25	
0	-1.83258 J	1.83258	17	25	
-0.139262	-1.34707	1.20781	18	25	
0.0953102	-1.34707	1.44238	19	25	
0	-1.34707	1.34707	20	25	
0.0953102	-0.139262	0.234572	21	25	
0	-0.139262	0.139262	22	25	
0	0.0953102	-0.0953102	22	26	

S Statistic = 22 - 26 = -4

Tied Group	Value	Members
1	0	4
2	2.30259	2

Time Period	Observations
11/18/2006	1
6/2/2007	1
11/15/2007	1
5/20/2008	1
11/20/2008	1
6/11/2009	1
6/30/2010	1
11/17/2010	1
7/6/2011	1
11/22/2011	1
5/16/2012	1

There are 0 time periods with multiple data

A = 174
B = 0
C = 24
D = 0
E = 14
F = 0
a = 2970
b = 8910
c = 220
Group Variance = 155.333
Z-Score = -0.240707
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-0.240707| <= 1.97737 indicating no evidence of a trend

Shewhart-CUSUM Control Chart

Parameter: Cobalt

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = 1.14067
Baseline Std Dev = 1.7413
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
11/18/2006	0	0	-0.655065
11/18/2006	0	0	-0.655065
6/2/2007	0	0	-0.655065
6/2/2007	0	0	-0.655065
11/15/2007	2.30259	0	0.667271
11/15/2007	2.30259	0	0.667271
5/20/2008	0	0	-0.655065
5/20/2008	0	0	-0.655065
11/20/2008	2.30259	0	0.667271
11/20/2008	2.30259	0	0.667271
6/11/2009	-2.04022	0	-1.82673
6/11/2009	-2.04022	0	-1.82673
6/30/2010	-1.83258	0	-1.70749
6/30/2010	-1.83258	0	-1.70749
11/17/2010	-1.34707	0	-1.42867
11/17/2010	-1.34707	0	-1.42867
7/6/2011	-0.139262	0	-0.735041
7/6/2011	-0.139262	0	-0.735041
11/22/2011	0.0953102	0	-0.60033
11/22/2011	0.0953102	0	-0.60033
5/16/2012	0	0	-0.655065
5/16/2012	0	0	-0.655065

Concentrations (ppb)

Parameter: Copper

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 266
Total Non-Detect: 144
Percent Non-Detects: 54.1353%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	11 (50%)	1/16/1998	73	73
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/14/2000	ND<20	ND<20
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			6/2/2007	8 J	8 J
			11/15/2007	5 J	5 J
			5/20/2008	8 J	8 J
			11/20/2008	ND<20	ND<20
			6/11/2009	0.74 J	0.74 J
			11/16/2009	0.78 J	0.78 J
			6/30/2010	1.3	1.3
			11/17/2010	0.87 J	0.87 J
			7/6/2011	1.1	1.1
			11/22/2011	0.79 J	0.79 J
			5/16/2012	0.87 J	0.87 J

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-10	19	13 (68.4211%)	3/14/2000	ND<20	ND<20
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			6/2/2007	ND<20	ND<20
			11/15/2007	ND<20	ND<20
			5/20/2008	2 J	2 J
			11/20/2008	ND<20	ND<20
			6/11/2009	0.51 J	0.51 J
			11/16/2009	ND<0.21 U	ND<0.21 U
			6/30/2010	1.9	1.9
			11/17/2010	0.39 J	0.39 J
			7/6/2011	0.35 J	0.35 J
			11/22/2011	0.57 J	0.57 J
			5/16/2012	ND<0.21 U	ND<0.21 U
LMW-9S	11	4 (36.3636%)	11/18/2006	ND<20	ND<20

			6/2/2007	ND<20	ND<20	
			11/15/2007	7 J	7 J	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.83 J	0.83 J	
			6/30/2010	1.7	1.7	
			11/17/2010	1.6	1.6	
			7/6/2011	0.49 J	0.49 J	
			11/22/2011	0.76 J	0.76 J	
			5/16/2012	0.23 J	0.23 J	
LMW-9	22	11 (50%)	1/16/1998	9 J	9 J	
			3/16/1999	ND<20	ND<20	
			9/23/1999	12 J	12 J	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	5 J	5 J	
			11/15/2007	7 J	7 J	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.88 J	0.88 J	
			11/16/2009	0.59 J	0.59 J	
			6/30/2010	2.4	2.4	
			11/17/2010	1.7	1.7	
			7/6/2011	0.65 J	0.65 J	
			11/22/2011	0.78 J	0.78 J	
			5/16/2012	4.2	4.2	
LMW-8	22	12 (54.5455%)	1/16/1998	2 J	2 J	
			3/16/1999	5 J	5 J	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	6 J	6 J	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.75 J	0.75 J	
			11/16/2009	0.65 J	0.65 J	
			6/30/2010	1.3	1.3	
			11/17/2010	0.75 J	0.75 J	
			7/6/2011	0.48 J	0.48 J	
			11/22/2011	2.1	2.1	
			5/16/2012	0.46 J	0.46 J	
LMW-7	20	7 (35%)	1/16/1998	20	20	
			3/16/1999	5 J	5 J	
			9/23/1999	5 J	5 J	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	

			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	10 J	10 J	
			10/26/2005	11 J	11 J	
			6/19/2006	10 J	10 J	
			11/18/2006	ND<20	ND<20	
			6/2/2007	6 J	6 J	
			11/15/2007	8 J	8 J	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	4	4	
			11/17/2010	3.8	3.8	
			7/6/2011	13	13	
			11/22/2011	3.5	3.5	
			5/16/2012	2.1	2.1	
LMW-6	22	12 (54.5455%)	1/16/1998	18 J	18 J	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	7 J	7 J	
			11/15/2007	7 J	7 J	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	1.7	1.7	
			11/16/2009	1.2	1.2	
			6/30/2010	3	3	
			11/17/2010	2.2	2.2	
			7/6/2011	1.1	1.1	
			11/22/2011	0.55 J	0.55 J	
			5/16/2012	0.49 J	0.49 J	
LMW-3s	1	0 (0%)	5/16/2012	0.81 J	0.81 J	
LMW-3	23	15 (65.2174%)	11/19/1996	ND<20	ND<20	
			3/24/1997	ND<20	ND<20	
			1/16/1998	4 J	4 J	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	9 J	9 J	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	0.7 J	0.7 J	
			11/16/2009	1.1	1.1	
			11/17/2010	1.6	1.6	
			7/6/2011	1	1	

		11/22/2011	0.84 J	0.84 J	
		5/16/2012	0.78 J	0.78 J	
LMW-16	11	2 (18.1818%)	11/18/2006	ND<20	ND<20
		6/2/2007	7 J	7 J	
		11/15/2007	6 J	6 J	
		5/20/2008	ND<20	ND<20	
		11/20/2008	5 J	5 J	
		6/11/2009	0.36 J	0.36 J	
		11/16/2009	0.59 J	0.59 J	
		11/17/2010	0.46 J	0.46 J	
		7/6/2011	0.67 J	0.67 J	
		11/22/2011	0.95 J	0.95 J	
		5/16/2012	0.27 J	0.27 J	
LMW-15R	16	4 (25%)	11/18/2006	3 J	3 J
		6/2/2007	5 J	5 J	
		11/15/2007	5 J	5 J	
		11/15/2007	ND<20	ND<20	
		5/20/2008	ND<20	ND<20	
		5/20/2008	ND<20	ND<20	
		11/20/2008	ND<20	ND<20	
		11/20/2008	5 J	5 J	
		6/11/2009	3.7	3.7	
		11/16/2009	0.57 J	0.57 J	
		11/16/2009	1.7	1.7	
		11/16/2009	0.92 J	0.92 J	
		11/17/2010	2.3	2.3	
		7/6/2011	0.59 J	0.59 J	
		11/22/2011	0.74 J	0.74 J	
		5/16/2012	0.51 J	0.51 J	
LMW-9D	12	2 (16.6667%)	11/18/2006	6 J	6 J
		6/2/2007	ND<20	ND<20	
		11/15/2007	9 J	9 J	
		5/20/2008	2 J	2 J	
		11/20/2008	ND<20	ND<20	
		6/11/2009	0.69 J	0.69 J	
		11/16/2009	0.75 J	0.75 J	
		6/30/2010	0.9 J	0.9 J	
		11/17/2010	0.53 J	0.53 J	
		7/6/2011	2	2	
		11/22/2011	0.94 J	0.94 J	
		5/16/2012	0.63 J	0.63 J	
LMW-14R	9	4 (44.4444%)	6/2/2007	ND<20	ND<20
		11/15/2007	ND<20	ND<20	
		5/20/2008	ND<20	ND<20	
		11/20/2008	ND<20	ND<20	
		6/11/2009	0.81 J	0.81 J	
		11/17/2010	0.96 J	0.96 J	
		7/6/2011	2	2	
		11/22/2011	0.72 J	0.72 J	
		5/16/2012	0.41 J	0.41 J	
LMW-3S	10	3 (30%)	11/18/2006	2 J	2 J
		6/2/2007	ND<20	ND<20	
		11/15/2007	6 J	6 J	
		5/20/2008	ND<20	ND<20	
		11/20/2008	ND<20	ND<20	
		6/11/2009	1.4	1.4	
		11/16/2009	0.82 J	0.82 J	

			11/17/2010	1.7	1.7	
			7/6/2011	1.3	1.3	
			11/22/2011	1.1	1.1	
LMW-11	11	11 (100%)	3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
LMW-13	11	11 (100%)	3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
LMW-12	11	11 (100%)	3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
MW-5	13	11 (84.6154%)	1/16/1998	3 J	3 J	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/15/2007	5 J	5 J	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	

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 = 266

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.105	-2.747777	7.55021	-0.288515
2	0.105	-2.45727	13.5884	-0.546529
3	0.23	-2.29036	18.8342	-1.07331
4	0.27	-2.19728	23.6622	-1.66658
5	0.35	-2.09693	28.0593	-2.40051
6	0.36	-2.01409	32.1159	-3.12558
7	0.39	-1.94314	35.8917	-3.8834
8	0.41	-1.8957	39.4854	-4.66064
9	0.46	-1.83843	42.8652	-5.50631
10	0.46	-1.78661	46.0571	-6.32815
11	0.48	-1.7392	49.082	-7.16297
12	0.49	-1.70604	51.9925	-7.99893
13	0.49	-1.66456	54.7633	-8.81457
14	0.51	-1.62576	57.4064	-9.64371
15	0.51	-1.58927	59.9322	-10.4542
16	0.53	-1.56322	62.3759	-11.2827
17	0.55	-1.53007	64.717	-12.1243
18	0.57	-1.49852	66.9625	-12.9784
19	0.57	-1.46838	69.1187	-13.8154
20	0.59	-1.44663	71.2114	-14.6689
21	0.59	-1.41865	73.224	-15.5059
22	0.59	-1.39175	75.1609	-16.3271
23	0.63	-1.36581	77.0264	-17.1875
24	0.65	-1.34694	78.8406	-18.063
25	0.65	-1.32251	80.5896	-18.9227
26	0.67	-1.29884	82.2766	-19.7929
27	0.69	-1.27588	83.9045	-20.6732
28	0.7	-1.25908	85.4897	-21.5546
29	0.72	-1.23724	87.0205	-22.4454
30	0.74	-1.21596	88.4991	-23.3452
31	0.74	-1.19522	89.9276	-24.2297
32	0.75	-1.18	91.32	-25.1147
33	0.75	-1.16012	92.6659	-25.9848
34	0.75	-1.14069	93.9671	-26.8403
35	0.76	-1.12168	95.2252	-27.6928
36	0.78	-1.10768	96.4522	-28.5567
37	0.78	-1.08935	97.6389	-29.4064
38	0.78	-1.07138	98.7867	-30.2421
39	0.79	-1.05375	99.8971	-31.0746
40	0.81	-1.04073	100.98	-31.9176
41	0.81	-1.02365	102.028	-32.7467
42	0.82	-1.00687	103.042	-33.5724
43	0.83	-0.990356	104.023	-34.3943
44	0.84	-0.97815	104.979	-35.216
45	0.87	-0.9621	105.905	-36.053
46	0.87	-0.946291	106.801	-36.8763
47	0.88	-0.930718	107.667	-37.6953
48	0.9	-0.919183	108.512	-38.5226
49	0.92	-0.903992	109.329	-39.3543
50	0.94	-0.889006	110.119	-40.1899
51	0.95	-0.874218	110.883	-41.0204

52	0.96	-0.863249	111.629	-41.8492
53	1	-0.848786	112.349	-42.6979
54	1.1	-0.834498	113.045	-43.6159
55	1.1	-0.823893	113.724	-44.5222
56	1.1	-0.809896	114.38	-45.4131
57	1.1	-0.796056	115.014	-46.2887
58	1.2	-0.782366	115.626	-47.2276
59	1.3	-0.772193	116.222	-48.2314
60	1.3	-0.758753	116.798	-49.2178
61	1.3	-0.745449	117.354	-50.1869
62	1.4	-0.732275	117.89	-51.2121
63	1.6	-0.722479	118.412	-52.368
64	1.6	-0.709522	118.915	-53.5033
65	1.7	-0.696684	119.401	-54.6876
66	1.7	-0.68396	119.868	-55.8503
67	1.7	-0.67449	120.323	-56.997
68	1.7	-0.661955	120.762	-58.1223
69	1.7	-0.649522	121.183	-59.2265
70	1.9	-0.637192	121.59	-60.4372
71	2	-0.628006	121.984	-61.6932
72	2	-0.615839	122.363	-62.9249
73	2	-0.603765	122.728	-64.1324
74	2	-0.591776	123.078	-65.3159
75	2	-0.582841	123.418	-66.4816
76	2	-0.570999	123.744	-67.6236
77	2.1	-0.559237	124.056	-68.798
78	2.1	-0.547551	124.356	-69.9479
79	2.2	-0.538836	124.647	-71.1333
80	2.3	-0.52728	124.925	-72.346
81	2.4	-0.515791	125.191	-73.5839
82	3	-0.504372	125.445	-75.0971
83	3	-0.49585	125.691	-76.5846
84	3	-0.484544	125.926	-78.0382
85	3.5	-0.473299	126.15	-79.6948
86	3.7	-0.462114	126.363	-81.4046
87	3.8	-0.453763	126.569	-83.1289
88	4	-0.442676	126.765	-84.8996
89	4	-0.431644	126.951	-86.6262
90	4.2	-0.420664	127.128	-88.393
91	5	-0.412463	127.298	-90.4553
92	5	-0.401571	127.46	-92.4631
93	5	-0.390726	127.612	-94.4168
94	5	-0.379927	127.757	-96.3164
95	5	-0.371856	127.895	-98.1757
96	5	-0.361133	128.025	-99.9814
97	5	-0.350451	128.148	-101.734
98	5	-0.33981	128.264	-103.433
99	5	-0.331854	128.374	-105.092
100	5	-0.321278	128.477	-106.698
101	6	-0.310738	128.574	-108.563
102	6	-0.300232	128.664	-110.364
103	6	-0.292375	128.749	-112.118
104	6	-0.281926	128.829	-113.81
105	6	-0.271509	128.902	-115.439
106	7	-0.26112	128.971	-117.267
107	7	-0.253347	129.035	-119.04
108	7	-0.243007	129.094	-120.741
109	7	-0.232693	129.148	-122.37
110	7	-0.224974	129.199	-123.945
111	8	-0.214702	129.245	-125.663
112	8	-0.204452	129.287	-127.298
113	8	-0.194225	129.324	-128.852

114	9	-0.186567	129.359	-130.531
115	9	-0.176374	129.39	-132.118
116	9	-0.166199	129.418	-133.614
117	10	-0.156042	129.442	-135.175
118	10	-0.148434	129.464	-136.659
119	10	-0.138305	129.483	-138.042
120	10	-0.128189	129.5	-139.324
121	10	-0.118085	129.514	-140.505
122	10	-0.110516	129.526	-141.61
123	10	-0.100433	129.536	-142.614
124	10	-0.0903606	129.544	-143.518
125	10	-0.0802981	129.551	-144.321
126	10	-0.0727562	129.556	-145.048
127	10	-0.0627062	129.56	-145.676
128	10	-0.0526632	129.563	-146.202
129	10	-0.0426257	129.564	-146.628
130	10	-0.0350997	129.566	-146.979
131	10	-0.0250691	129.566	-147.23
132	10	-0.0150408	129.566	-147.381
133	10	-0.00501359	129.567	-147.431
134	10	0.00501359	129.567	-147.381
135	10	0.0150408	129.567	-147.23
136	10	0.0250691	129.567	-146.979
137	10	0.0350997	129.569	-146.628
138	10	0.0426257	129.57	-146.202
139	10	0.0526632	129.573	-145.676
140	10	0.0627062	129.577	-145.048
141	10	0.0727562	129.582	-144.321
142	10	0.0802981	129.589	-143.518
143	10	0.0903606	129.597	-142.614
144	10	0.100433	129.607	-141.61
145	10	0.110516	129.619	-140.505
146	10	0.118085	129.633	-139.324
147	10	0.128189	129.65	-138.042
148	10	0.138305	129.669	-136.659
149	10	0.148434	129.691	-135.175
150	10	0.156042	129.715	-133.614
151	10	0.166199	129.743	-131.952
152	10	0.176374	129.774	-130.189
153	10	0.186567	129.809	-128.323
154	10	0.194225	129.846	-126.381
155	10	0.204452	129.888	-124.336
156	10	0.214702	129.934	-122.189
157	10	0.224974	129.985	-119.939
158	10	0.232693	130.039	-117.612
159	10	0.243007	130.098	-115.182
160	10	0.253347	130.162	-112.649
161	10	0.26112	130.231	-110.038
162	10	0.271509	130.304	-107.323
163	10	0.281926	130.384	-104.503
164	10	0.292375	130.469	-101.58
165	10	0.300232	130.559	-98.5773
166	10	0.310738	130.656	-95.4699
167	10	0.321278	130.759	-92.2571
168	10	0.331854	130.869	-88.9386
169	10	0.33981	130.985	-85.5405
170	10	0.350451	131.108	-82.0359
171	10	0.361133	131.238	-78.4246
172	10	0.371856	131.376	-74.7061
173	10	0.379927	131.521	-70.9068
174	10	0.390726	131.673	-66.9995
175	10	0.401571	131.835	-62.9838

176	10	0.412463		132.005	-58.8592
177	10	0.420664		132.182	-54.6526
178	10	0.431644		132.368	-50.3361
179	10	0.442676		132.564	-45.9094
180	10	0.453763		132.77	-41.3717
181	10	0.462114		132.983	-36.7506
182	10	0.473299		133.207	-32.0176
183	10	0.484544		133.442	-27.1722
184	10	0.49585	133.688	-22.2137	
185	10	0.504372		133.942	-17.1699
186	10	0.515791		134.208	-12.012
187	10	0.52728	134.486	-6.73923	
188	10	0.538836		134.777	-1.35088
189	10	0.547551		135.077	4.12463
190	10	0.559237		135.389	9.717
191	10	0.570999		135.715	15.427
192	10	0.582841		136.055	21.2554
193	10	0.591776		136.405	27.1732
194	10	0.603765		136.77	33.2108
195	10	0.615839		137.149	39.3692
196	10	0.628006		137.544	45.6493
197	10	0.637192		137.95	52.0212
198	10	0.649522		138.371	58.5164
199	10	0.661955		138.81	65.136
200	10	0.67449	139.265	71.8809	
201	10	0.68396	139.732	78.7205	
202	10	0.696684		140.218	85.6873
203	10	0.709522		140.721	92.7825
204	10	0.722479		141.243	100.007
205	10	0.732275		141.779	107.33
206	10	0.745449		142.335	114.785
207	10	0.758753		142.911	122.372
208	10	0.772193		143.507	130.094
209	10	0.782366		144.119	137.918
210	10	0.796056		144.753	145.878
211	10	0.809896		145.409	153.977
212	10	0.823893		146.088	162.216
213	10	0.834498		146.784	170.561
214	10	0.848786		147.504	179.049
215	10	0.863249		148.25	187.681
216	10	0.874218		149.014	196.424
217	10	0.889006		149.804	205.314
218	10	0.903992		150.621	214.354
219	10	0.919183		151.466	223.545
220	10	0.930718		152.332	232.853
221	10	0.946291		153.228	242.316
222	10	0.9621	154.154	251.937	
223	10	0.97815	155.11	261.718	
224	10	0.990356		156.091	271.622
225	10	1.00687	157.105	281.69	
226	10	1.02365	158.153	291.927	
227	10	1.04073	159.236	302.334	
228	10	1.05375	160.346	312.872	
229	10	1.07138	161.494	323.585	
230	10	1.08935	162.681	334.479	
231	10	1.10768	163.908	345.556	
232	10	1.12168	165.166	356.772	
233	10	1.14069	166.467	368.179	
234	10	1.16012	167.813	379.78	
235	10	1.18	169.205	391.58	
236	10	1.19522	170.634	403.533	
237	10	1.21596	172.113	415.692	

238	10	1.23724	173.643	428.065
239	10	1.25908	175.229	440.655
240	10	1.27588	176.856	453.414
241	10	1.29884	178.543	466.403
242	10	1.32251	180.292	479.628
243	10	1.34694	182.107	493.097
244	10	1.36581	183.972	506.755
245	10	1.39175	185.909	520.673
246	10	1.41865	187.922	534.859
247	10	1.44663	190.014	549.325
248	10	1.46838	192.171	564.009
249	10	1.49852	194.416	578.994
250	10	1.53007	196.757	594.295
251	10	1.56322	199.201	609.927
252	10	1.58927	201.727	625.82
253	10	1.62576	204.37	642.078
254	10	1.66456	207.14	658.723
255	10	1.70604	210.051	675.784
256	10	1.7392	213.076	693.176
257	10	1.78661	216.268	711.042
258	10	1.83843	219.648	729.426
259	10	1.8957	223.241	748.383
260	10	1.94314	227.017	767.814
261	11	2.01409	231.074	789.969
262	12	2.09693	235.471	815.133
263	13	2.19728	240.299	843.697
264	18	2.29036	245.545	884.924
265	20	2.45727	251.583	934.069
266	73	2.74777	259.133	1134.66

Data Set Standard Deviation = 5.86574
Numerator = 1.28744e+006
Denominator = 2.36273e+006
W Statistic = 0.544897 = 1.28744e+006 / 2.36273e+006

5% Critical value of 0.976 exceeds 0.544897
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.544897
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 = 0.741325
0.741325 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.105	0.00374532	-2.747	77	39.7022	348.683
2	0.105	0.00749064	-2.457	27	39.7022	334.497
3	0.23	0.011236	-2.290	36	40.5381	326.346
4	0.27	0.0149813	-2.197	28	40.8056	321.801
5	0.35	0.0187266	-2.096	93	41.3406	316.9
6	0.36	0.0224719	-2.014	09	41.4075	312.855
7	0.39	0.0262172	-1.943	14	41.6081	309.39
8	0.41	0.0299625	-1.895	7	41.7419	307.073
9	0.46	0.0337079	-1.838	43	42.0763	304.276
10	0.46	0.0374532	-1.786	61	42.0763	301.746
11	0.48	0.0411985	-1.739	2	42.21	299.431
12	0.49	0.0449438	-1.706	04	42.2769	297.812
13	0.49	0.0486891	-1.664	56	42.2769	295.786
14	0.51	0.0524345	-1.625	76	42.4106	293.891
15	0.51	0.0561798	-1.589	27	42.4106	292.109
16	0.53	0.0599251	-1.563	22	42.5444	290.837
17	0.55	0.0636704	-1.530	07	42.6781	289.218
18	0.57	0.0674157	-1.498	52	42.8119	287.677
19	0.57	0.071161	-1.468	38	42.8119	286.206
20	0.59	0.0749064	-1.446	63	42.9456	285.144
21	0.59	0.0786517	-1.418	65	42.9456	283.778
22	0.59	0.082397	-1.391	75	42.9456	282.464
23	0.63	0.0861423	-1.365	81	43.2131	281.197
24	0.65	0.0898876	-1.346	94	43.3469	280.276
25	0.65	0.093633	-1.322	51	43.3469	279.082
26	0.67	0.0973783	-1.298	84	43.4806	277.926
27	0.69	0.101124	-1.275	88	43.6144	276.805
28	0.7	0.104869	-1.259	08	43.6812	275.985
29	0.72	0.108614	-1.237	24	43.815	274.918
30	0.74	0.11236	-1.215	96	43.9487	273.879
31	0.74	0.116105	-1.195	22	43.9487	272.867
32	0.75	0.11985	-1.18		44.0156	272.123
33	0.75	0.123596	-1.160	12	44.0156	271.153
34	0.75	0.127341	-1.140	69	44.0156	270.204
35	0.76	0.131086	-1.121	68	44.0825	269.275
36	0.78	0.134831	-1.107	68	44.2163	268.592
37	0.78	0.138577	-1.089	35	44.2163	267.697
38	0.78	0.142322	-1.071	38	44.2163	266.819
39	0.79	0.146067	-1.053	75	44.2831	265.958
40	0.81	0.149813	-1.040	73	44.4169	265.322
41	0.81	0.153558	-1.023	65	44.4169	264.488
42	0.82	0.157303	-1.006	87	44.4838	263.669
43	0.83	0.161049	-0.990356		44.5506	262.862
44	0.84	0.164794	-0.978	15	44.6175	262.266
45	0.87	0.168539	-0.962	1	44.8181	261.483
46	0.87	0.172285	-0.946291		44.8181	260.711
47	0.88	0.17603	-0.930718		44.885	259.95
48	0.9	0.179775	-0.919183		45.0187	259.387

49	0.92	0.183521	-0.903992	45.1525	258.645
50	0.94	0.187266	-0.889006	45.2863	257.913
51	0.95	0.191011	-0.874218	45.3531	257.191
52	0.96	0.194757	-0.863249	45.42	256.655
53	1	0.198502	-0.848786	45.6875	255.949
54	1.1	0.202247	-0.834498	46.3563	255.251
55	1.1	0.205993	-0.823893	46.3563	254.733
56	1.1	0.209738	-0.809896	46.3563	254.05
57	1.1	0.213483	-0.796056	46.3563	253.374
58	1.2	0.217228	-0.782366	47.025	252.706
59	1.3	0.220974	-0.772193	47.6938	252.209
60	1.3	0.224719	-0.758753	47.6938	251.552
61	1.3	0.228464	-0.745449	47.6938	250.903
62	1.4	0.23221	-0.732275	48.3625	250.259
63	1.6	0.235955	-0.722479	49.7	249.781
64	1.6	0.2397	-0.709522	49.7	249.148
65	1.7	0.243446	-0.696684	50.3687	248.521
66	1.7	0.247191	-0.683965	50.3687	247.9
67	1.7	0.250936	-0.674495	50.3687	247.438
68	1.7	0.254682	-0.661955	50.3687	246.825
69	1.7	0.258427	-0.649522	50.3687	246.218
70	1.9	0.262172	-0.637192	51.7062	245.616
71	2	0.265918	-0.628006	52.375	245.168
72	2	0.269663	-0.615839	52.375	244.573
73	2	0.273408	-0.603765	52.375	243.984
74	2	0.277154	-0.591776	52.375	243.398
75	2	0.280899	-0.582841	52.375	242.962
76	2	0.284644	-0.570999	52.375	242.384
77	2.1	0.28839	-0.559237	53.0438	241.809
78	2.1	0.292135	-0.547551	53.0438	241.239
79	2.2	0.29588	-0.538836	53.7125	240.813
80	2.3	0.299625	-0.527285	54.3813	240.249
81	2.4	0.303371	-0.515791	55.05	239.688
82	3	0.307116	-0.504372	59.0625	239.13
83	3	0.310861	-0.495855	59.0625	238.714
84	3	0.314607	-0.484544	59.0625	238.162
85	3.5	0.318352	-0.473299	62.4063	237.613
86	3.7	0.322097	-0.462114	63.7437	237.067
87	3.8	0.325843	-0.453763	64.4125	236.659
88	4	0.329588	-0.442676	65.75	236.117
89	4	0.333333	-0.431644	65.75	235.579
90	4.2	0.337079	-0.420664	67.0875	235.042
91	5	0.340824	-0.412463	72.4375	234.642
92	5	0.344569	-0.401571	72.4375	234.11
93	5	0.348315	-0.390726	72.4375	233.58
94	5	0.35206	-0.379927	72.4375	233.053
95	5	0.355805	-0.371856	72.4375	232.659
96	5	0.359551	-0.361133	72.4375	232.135
97	5	0.363296	-0.350451	72.4375	231.614
98	5	0.367041	-0.339817	72.4375	231.094
99	5	0.370787	-0.331854	72.4375	230.706
100	5	0.374532	-0.321278	72.4375	230.189
101	6	0.378277	-0.310738	79.125	229.674
102	6	0.382022	-0.300232	79.125	229.161
103	6	0.385768	-0.292375	79.125	228.778
104	6	0.389513	-0.281926	79.125	228.267
105	6	0.393258	-0.271509	79.125	227.759
106	7	0.397004	-0.261128	85.8125	227.251
107	7	0.400749	-0.253347	85.8125	226.872
108	7	0.404494	-0.243007	85.8125	226.367
109	7	0.40824	-0.232693	85.8125	225.863
110	7	0.411985	-0.224974	85.8125	225.486

111	8	0.41573	-0.214702	92.5	224.985
112	8	0.419476	-0.204452	92.5	224.484
113	8	0.423221	-0.194225	92.5	223.985
114	9	0.426966	-0.186567	99.1875	223.611
115	9	0.430712	-0.176374	99.1875	223.113
116	9	0.434457	-0.166199	99.1875	222.616
117	10	0.438202	-0.156042	105.875	222.12
118	10	0.441948	-0.148434	105.875	221.749
119	10	0.445693	-0.138305	105.875	221.254
120	10	0.449438	-0.128189	105.875	220.76
121	10	0.453184	-0.118085	105.875	220.267
122	10	0.456929	-0.110516	105.875	219.897
123	10	0.460674	-0.100433	105.875	219.404
124	10	0.464419	-0.0903606	105.875	218.913
125	10	0.468165	-0.0802981	105.875	218.421
126	10	0.47191	-0.0727562	105.875	218.053
127	10	0.475655	-0.0627062	105.875	217.562
128	10	0.479401	-0.0526632	105.875	217.072
129	10	0.483146	-0.0426257	105.875	216.582
130	10	0.486891	-0.0350997	105.875	216.214
131	10	0.490637	-0.0250691	105.875	215.724
132	10	0.494382	-0.0150408	105.875	215.234
133	10	0.498127	-0.00501359	105.875	214.745
134	10	0.501873	0.00501359	105.875	214.255
135	10	0.505618	0.0150408	105.875	213.766
136	10	0.509363	0.0250691	105.875	213.276
137	10	0.513109	0.0350997	105.875	212.786
138	10	0.516854	0.0426257	105.875	212.418
139	10	0.520599	0.0526632	105.875	211.928
140	10	0.524345	0.0627062	105.875	211.438
141	10	0.52809	0.0727562	105.875	210.947
142	10	0.531835	0.0802981	105.875	210.579
143	10	0.535581	0.0903606	105.875	210.087
144	10	0.539326	0.100433	105.875	209.596
145	10	0.543071	0.110516	105.875	209.103
146	10	0.546816	0.118085	105.875	208.733
147	10	0.550562	0.128189	105.875	208.24
148	10	0.554307	0.138305	105.875	207.746
149	10	0.558052	0.148434	105.875	207.251
150	10	0.561798	0.156042	105.875	206.88
151	10	0.565543	0.166199	105.875	206.384
152	10	0.569288	0.176374	105.875	205.887
153	10	0.573034	0.186567	105.875	205.389
154	10	0.576779	0.194225	105.875	205.015
155	10	0.580524	0.204452	105.875	204.516
156	10	0.58427	0.214702	105.875	204.015
157	10	0.588015	0.224974	105.875	203.514
158	10	0.59176	0.232693	105.875	203.137
159	10	0.595506	0.243007	105.875	202.633
160	10	0.599251	0.253347	105.875	202.128
161	10	0.602996	0.26112	105.875	201.749
162	10	0.606742	0.271509	105.875	201.241
163	10	0.610487	0.281926	105.875	200.733
164	10	0.614232	0.292375	105.875	200.222
165	10	0.617978	0.300232	105.875	199.839
166	10	0.621723	0.310738	105.875	199.326
167	10	0.625468	0.321278	105.875	198.811
168	10	0.629213	0.331854	105.875	198.294
169	10	0.632959	0.33981	105.875	197.906
170	10	0.636704	0.350451	105.875	197.386
171	10	0.640449	0.361133	105.875	196.865
172	10	0.644195	0.371856	105.875	196.341

173	10	0.64794	0.379927	105.875	195.947
174	10	0.651685	0.390726	105.875	195.42
175	10	0.655431	0.401571	105.875	194.89
176	10	0.659176	0.412463	105.875	194.358
177	10	0.662921	0.420664	105.875	193.958
178	10	0.666667	0.431644	105.875	193.421
179	10	0.670412	0.442676	105.875	192.883
180	10	0.674157	0.453763	105.875	192.341
181	10	0.677903	0.462114	105.875	191.933
182	10	0.681648	0.473299	105.875	191.387
183	10	0.685393	0.484544	105.875	190.838
184	10	0.689139	0.49585	105.875	190.286
185	10	0.692884	0.504372	105.875	189.87
186	10	0.696629	0.515791	105.875	189.312
187	10	0.700375	0.52728	105.875	188.751
188	10	0.70412	0.538836	105.875	188.187
189	10	0.707865	0.547551	105.875	187.761
190	10	0.71161	0.559237	105.875	187.191
191	10	0.715356	0.570999	105.875	186.616
192	10	0.719101	0.582841	105.875	186.038
193	10	0.722846	0.591776	105.875	185.602
194	10	0.726592	0.603765	105.875	185.016
195	10	0.730337	0.615839	105.875	184.427
196	10	0.734082	0.628006	105.875	183.832
197	10	0.737828	0.637192	105.875	183.384
198	10	0.741573	0.649522	105.875	182.782
199	10	0.745318	0.661955	105.875	182.175
200	10	0.749064	0.67449	105.875	181.562
201	10	0.752809	0.68396	105.875	181.1
202	10	0.756554	0.696684	105.875	180.479
203	10	0.7603	0.709522	105.875	179.852
204	10	0.764045	0.722479	105.875	179.219
205	10	0.76779	0.732275	105.875	178.741
206	10	0.771536	0.745449	105.875	178.097
207	10	0.775281	0.758753	105.875	177.448
208	10	0.779026	0.772193	105.875	176.791
209	10	0.782772	0.782366	105.875	176.294
210	10	0.786517	0.796056	105.875	175.626
211	10	0.790262	0.809896	105.875	174.95
212	10	0.794007	0.823893	105.875	174.267
213	10	0.797753	0.834498	105.875	173.749
214	10	0.801498	0.848786	105.875	173.051
215	10	0.805243	0.863249	105.875	172.345
216	10	0.808989	0.874218	105.875	171.809
217	10	0.812734	0.889006	105.875	171.087
218	10	0.816479	0.903992	105.875	170.355
219	10	0.820225	0.919183	105.875	169.613
220	10	0.82397	0.930718	105.875	169.05
221	10	0.827715	0.946291	105.875	168.289
222	10	0.831461	0.9621	105.875	167.517
223	10	0.835206	0.97815	105.875	166.734
224	10	0.838951	0.990356	105.875	166.138
225	10	0.842697	1.00687	105.875	165.331
226	10	0.846442	1.02365	105.875	164.512
227	10	0.850187	1.04073	105.875	163.678
228	10	0.853933	1.05375	105.875	163.042
229	10	0.857678	1.07138	105.875	162.181
230	10	0.861423	1.08935	105.875	161.303
231	10	0.865169	1.10768	105.875	160.408
232	10	0.868914	1.12168	105.875	159.725
233	10	0.872659	1.14069	105.875	158.796
234	10	0.876404	1.16012	105.875	157.847

235	10	0.88015	1.18	105.875	156.877	
236	10	0.883895		1.19522	105.875	156.133
237	10	0.88764	1.21596	105.875	155.121	
238	10	0.891386		1.23724	105.875	154.082
239	10	0.895131		1.25908	105.875	153.015
240	10	0.898876		1.27588	105.875	152.195
241	10	0.902622		1.29884	105.875	151.074
242	10	0.906367		1.32251	105.875	149.918
243	10	0.910112		1.34694	105.875	148.724
244	10	0.913858		1.36581	105.875	147.803
245	10	0.917603		1.39175	105.875	146.536
246	10	0.921348		1.41865	105.875	145.222
247	10	0.925094		1.44663	105.875	143.856
248	10	0.928839		1.46838	105.875	142.794
249	10	0.932584		1.49852	105.875	141.323
250	10	0.93633	1.53007	105.875	139.782	
251	10	0.940075		1.56322	105.875	138.163
252	10	0.94382	1.58927	105.875	136.891	
253	10	0.947566		1.62576	105.875	135.109
254	10	0.951311		1.66456	105.875	133.214
255	10	0.955056		1.70604	105.875	131.188
256	10	0.958801		1.7392	105.875	129.569
257	10	0.962547		1.78661	105.875	127.254
258	10	0.966292		1.83843	105.875	124.724
259	10	0.970037		1.8957	105.875	121.927
260	10	0.973783		1.94314	105.875	119.61
261	11	0.977528		2.01409	112.563	116.145
262	12	0.981273		2.09693	119.25	112.1
263	13	0.985019		2.19728	125.938	107.199
264	18	0.988764		2.29036	159.375	102.654
265	20	0.992509		2.45727	172.75	94.5032
266	73	0.996255		2.74777	527.188	80.3175

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 = 266

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.25379	-2.74777	7.55021	6.1929
2	-2.25379	-2.45727	13.5884	11.7311
3	-1.46968	-2.29036	18.8342	15.0972
4	-1.30933	-2.19728	23.6622	17.9742
5	-1.04982	-2.09693	28.0593	20.1756
6	-1.02165	-2.01409	32.1159	22.2333
7	-0.941609	-1.94314	35.8917	24.0629
8	-0.891598	-1.8957	39.4854	25.7531
9	-0.776529	-1.83843	42.8652	27.1807
10	-0.776529	-1.78661	46.0571	28.5681
11	-0.733969	-1.7392	49.082	29.8446
12	-0.71335	-1.70604	51.9925	31.0616
13	-0.71335	-1.66456	54.7633	32.249
14	-0.673345	-1.62576	57.4064	33.3437
15	-0.673345	-1.58927	59.9322	34.4138
16	-0.634878	-1.56322	62.3759	35.4063
17	-0.597837	-1.53007	64.717	36.321
18	-0.562119	-1.49852	66.9625	37.1634
19	-0.562119	-1.46838	69.1187	37.9888
20	-0.527633	-1.44663	71.2114	38.7521
21	-0.527633	-1.41865	73.224	39.5006
22	-0.527633	-1.39175	75.1609	40.2349
23	-0.462035	-1.36581	77.0264	40.866
24	-0.430783	-1.34694	78.8406	41.4462
25	-0.430783	-1.32251	80.5896	42.0159
26	-0.400478	-1.29884	82.2766	42.5361
27	-0.371064	-1.27588	83.9045	43.0095
28	-0.356675	-1.25908	85.4897	43.4586
29	-0.328504	-1.23724	87.0205	43.865
30	-0.301105	-1.21596	88.4991	44.2312
31	-0.301105	-1.19522	89.9276	44.5911
32	-0.287682	-1.18	91.32	44.9305
33	-0.287682	-1.16012	92.6659	45.2643
34	-0.287682	-1.14069	93.9671	45.5924
35	-0.274437	-1.12168	95.2252	45.9003
36	-0.248461	-1.10768	96.4522	46.1755
37	-0.248461	-1.08935	97.6389	46.4461
38	-0.248461	-1.07138	98.7867	46.7123
39	-0.235722	-1.05375	99.8971	46.9607
40	-0.210721	-1.04073	100.98	47.18
41	-0.210721	-1.02365	102.028	47.3957
42	-0.198451	-1.00687	103.042	47.5955
43	-0.18633	-0.990356	104.023	47.7801
44	-0.174353	-0.97815	104.979	47.9506
45	-0.139262	-0.9621	105.905	48.0846
46	-0.139262	-0.946291	106.801	48.2164
47	-0.127833	-0.930718	107.667	48.3354
48	-0.105361	-0.919183	108.512	48.4322
49	-0.0833816	-0.903992	109.329	48.5076
50	-0.0618754	-0.889006	110.119	48.5626
51	-0.0512933	-0.874218	110.883	48.6074

52	-0.040822	-0.863249	111.629	48.6427
53	0	-0.848786	112.349	48.6427
54	0.0953102	-0.834498	113.045	48.5631
55	0.0953102	-0.823893	113.724	48.4846
56	0.0953102	-0.809896	114.38	48.4074
57	0.0953102	-0.796056	115.014	48.3315
58	0.182322	-0.782366	115.626	48.1889
59	0.262364	-0.772193	116.222	47.9863
60	0.262364	-0.758753	116.798	47.7872
61	0.262364	-0.745449	117.354	47.5917
62	0.336472	-0.732275	117.89	47.3453
63	0.470004	-0.722479	118.412	47.0057
64	0.470004	-0.709522	118.915	46.6722
65	0.530628	-0.696684	119.401	46.3025
66	0.530628	-0.68396	119.868	45.9396
67	0.530628	-0.67449	120.323	45.5817
68	0.530628	-0.661955	120.762	45.2305
69	0.530628	-0.649522	121.183	44.8858
70	0.641854	-0.637192	121.59	44.4768
71	0.693147	-0.628006	121.984	44.0415
72	0.693147	-0.615839	122.363	43.6147
73	0.693147	-0.603765	122.728	43.1962
74	0.693147	-0.591776	123.078	42.786
75	0.693147	-0.582841	123.418	42.382
76	0.693147	-0.570999	123.744	41.9862
77	0.741937	-0.559237	124.056	41.5713
78	0.741937	-0.547551	124.356	41.165
79	0.788457	-0.538836	124.647	40.7402
80	0.832909	-0.52728	124.925	40.301
81	0.875469	-0.515791	125.191	39.8494
82	1.09861	-0.504372	125.445	39.2953
83	1.09861	-0.49585	125.691	38.7506
84	1.09861	-0.484544	125.926	38.2183
85	1.25276	-0.473299	126.15	37.6253
86	1.30833	-0.462114	126.363	37.0207
87	1.335	-0.453763	126.569	36.4149
88	1.38629	-0.442676	126.765	35.8013
89	1.38629	-0.431644	126.951	35.2029
90	1.43508	-0.420664	127.128	34.5992
91	1.60944	-0.412463	127.298	33.9354
92	1.60944	-0.401571	127.46	33.2891
93	1.60944	-0.390726	127.612	32.6602
94	1.60944	-0.379927	127.757	32.0487
95	1.60944	-0.371856	127.895	31.4503
96	1.60944	-0.361133	128.025	30.869
97	1.60944	-0.350451	128.148	30.305
98	1.60944	-0.33981	128.264	29.7581
99	1.60944	-0.331854	128.374	29.224
100	1.60944	-0.321278	128.477	28.7069
101	1.79176	-0.310738	128.574	28.1502
102	1.79176	-0.300232	128.664	27.6122
103	1.79176	-0.292375	128.749	27.0884
104	1.79176	-0.281926	128.829	26.5832
105	1.79176	-0.271509	128.902	26.0967
106	1.94591	-0.26112	128.971	25.5886
107	1.94591	-0.253347	129.035	25.0956
108	1.94591	-0.243007	129.094	24.6228
109	1.94591	-0.232693	129.148	24.17
110	1.94591	-0.224974	129.199	23.7322
111	2.07944	-0.214702	129.245	23.2857
112	2.07944	-0.204452	129.287	22.8606
113	2.07944	-0.194225	129.324	22.4567

114	2.19722	-0.186567	129.359	22.0468
115	2.19722	-0.176374	129.39	21.6592
116	2.19722	-0.166199	129.418	21.2941
117	2.30259	-0.156042	129.442	20.9348
118	2.30259	-0.148434	129.464	20.593
119	2.30259	-0.138305	129.483	20.2745
120	2.30259	-0.128189	129.5	19.9793
121	2.30259	-0.118085	129.514	19.7074
122	2.30259	-0.110516	129.526	19.453
123	2.30259	-0.100433	129.536	19.2217
124	2.30259	-0.0903606	129.544	19.0137
125	2.30259	-0.0802981	129.551	18.8288
126	2.30259	-0.0727562	129.556	18.6612
127	2.30259	-0.0627062	129.56	18.5168
128	2.30259	-0.0526632	129.563	18.3956
129	2.30259	-0.0426257	129.564	18.2974
130	2.30259	-0.0350997	129.566	18.2166
131	2.30259	-0.0250691	129.566	18.1589
132	2.30259	-0.0150408	129.566	18.1243
133	2.30259	-0.00501359	129.567	18.1127
134	2.30259	0.00501359	129.567	18.1243
135	2.30259	0.0150408	129.567	18.1589
136	2.30259	0.0250691	129.567	18.2166
137	2.30259	0.0350997	129.569	18.2974
138	2.30259	0.0426257	129.57	18.3956
139	2.30259	0.0526632	129.573	18.5168
140	2.30259	0.0627062	129.577	18.6612
141	2.30259	0.0727562	129.582	18.8288
142	2.30259	0.0802981	129.589	19.0137
143	2.30259	0.0903606	129.597	19.2217
144	2.30259	0.100433	129.607	19.453
145	2.30259	0.110516	129.619	19.7074
146	2.30259	0.118085	129.633	19.9793
147	2.30259	0.128189	129.65	20.2745
148	2.30259	0.138305	129.669	20.593
149	2.30259	0.148434	129.691	20.9348
150	2.30259	0.156042	129.715	21.2941
151	2.30259	0.166199	129.743	21.6767
152	2.30259	0.176374	129.774	22.0829
153	2.30259	0.186567	129.809	22.5124
154	2.30259	0.194225	129.846	22.9597
155	2.30259	0.204452	129.888	23.4304
156	2.30259	0.214702	129.934	23.9248
157	2.30259	0.224974	129.985	24.4428
158	2.30259	0.232693	130.039	24.9786
159	2.30259	0.243007	130.098	25.5382
160	2.30259	0.253347	130.162	26.1215
161	2.30259	0.26112	130.231	26.7228
162	2.30259	0.271509	130.304	27.3479
163	2.30259	0.281926	130.384	27.9971
164	2.30259	0.292375	130.469	28.6703
165	2.30259	0.300232	130.559	29.3616
166	2.30259	0.310738	130.656	30.0771
167	2.30259	0.321278	130.759	30.8169
168	2.30259	0.331854	130.869	31.581
169	2.30259	0.33981	130.985	32.3635
170	2.30259	0.350451	131.108	33.1704
171	2.30259	0.361133	131.238	34.0019
172	2.30259	0.371856	131.376	34.8582
173	2.30259	0.379927	131.521	35.733
174	2.30259	0.390726	131.673	36.6327
175	2.30259	0.401571	131.835	37.5573

176	2.30259	0.412463		132.005	38.507
177	2.30259	0.420664		132.182	39.4757
178	2.30259	0.431644		132.368	40.4696
179	2.30259	0.442676		132.564	41.4889
180	2.30259	0.453763		132.77	42.5337
181	2.30259	0.462114		132.983	43.5977
182	2.30259	0.473299		133.207	44.6876
183	2.30259	0.484544		133.442	45.8033
184	2.30259	0.49585	133.688	46.945	
185	2.30259	0.504372		133.942	48.1063
186	2.30259	0.515791		134.208	49.294
187	2.30259	0.52728	134.486	50.5081	
188	2.30259	0.538836		134.777	51.7488
189	2.30259	0.547551		135.077	53.0096
190	2.30259	0.559237		135.389	54.2973
191	2.30259	0.570999		135.715	55.6121
192	2.30259	0.582841		136.055	56.9541
193	2.30259	0.591776		136.405	58.3167
194	2.30259	0.603765		136.77	59.7069
195	2.30259	0.615839		137.149	61.125
196	2.30259	0.628006		137.544	62.571
197	2.30259	0.637192		137.95	64.0382
198	2.30259	0.649522		138.371	65.5338
199	2.30259	0.661955		138.81	67.058
200	2.30259	0.67449	139.265	68.6111	
201	2.30259	0.68396	139.732	70.1859	
202	2.30259	0.696684		140.218	71.7901
203	2.30259	0.709522		140.721	73.4238
204	2.30259	0.722479		141.243	75.0874
205	2.30259	0.732275		141.779	76.7735
206	2.30259	0.745449		142.335	78.49
207	2.30259	0.758753		142.911	80.2371
208	2.30259	0.772193		143.507	82.0151
209	2.30259	0.782366		144.119	83.8166
210	2.30259	0.796056		144.753	85.6496
211	2.30259	0.809896		145.409	87.5144
212	2.30259	0.823893		146.088	89.4115
213	2.30259	0.834498		146.784	91.333
214	2.30259	0.848786		147.504	93.2874
215	2.30259	0.863249		148.25	95.2751
216	2.30259	0.874218		149.014	97.2881
217	2.30259	0.889006		149.804	99.3351
218	2.30259	0.903992		150.621	101.417
219	2.30259	0.919183		151.466	103.533
220	2.30259	0.930718		152.332	105.676
221	2.30259	0.946291		153.228	107.855
222	2.30259	0.9621	154.154	110.07	
223	2.30259	0.97815	155.11	112.323	
224	2.30259	0.990356		156.091	114.603
225	2.30259	1.00687	157.105	116.921	
226	2.30259	1.02365	158.153	119.278	
227	2.30259	1.04073	159.236	121.675	
228	2.30259	1.05375	160.346	124.101	
229	2.30259	1.07138	161.494	126.568	
230	2.30259	1.08935	162.681	129.076	
231	2.30259	1.10768	163.908	131.627	
232	2.30259	1.12168	165.166	134.21	
233	2.30259	1.14069	166.467	136.836	
234	2.30259	1.16012	167.813	139.508	
235	2.30259	1.18	169.205	142.225	
236	2.30259	1.19522	170.634	144.977	
237	2.30259	1.21596	172.113	147.777	

238	2.30259	1.23724	173.643	150.625
239	2.30259	1.25908	175.229	153.525
240	2.30259	1.27588	176.856	156.462
241	2.30259	1.29884	178.543	159.453
242	2.30259	1.32251	180.292	162.498
243	2.30259	1.34694	182.107	165.6
244	2.30259	1.36581	183.972	168.745
245	2.30259	1.39175	185.909	171.949
246	2.30259	1.41865	187.922	175.216
247	2.30259	1.44663	190.014	178.547
248	2.30259	1.46838	192.171	181.928
249	2.30259	1.49852	194.416	185.378
250	2.30259	1.53007	196.757	188.901
251	2.30259	1.56322	199.201	192.501
252	2.30259	1.58927	201.727	196.16
253	2.30259	1.62576	204.37	199.904
254	2.30259	1.66456	207.14	203.737
255	2.30259	1.70604	210.051	207.665
256	2.30259	1.7392	213.076	211.669
257	2.30259	1.78661	216.268	215.783
258	2.30259	1.83843	219.648	220.016
259	2.30259	1.8957	223.241	224.381
260	2.30259	1.94314	227.017	228.856
261	2.3979	2.01409	231.074	233.685
262	2.48491	2.09693	235.471	238.896
263	2.56495	2.19728	240.299	244.532
264	2.89037	2.29036	245.545	251.152
265	2.99573	2.45727	251.583	258.513
266	4.29046	2.74777	259.133	270.302

Data Set Standard Deviation = 1.18026
Numerator = 73063.4
Denominator = 95658.2
W Statistic = 0.763796 = 73063.4 / 95658.2

5% Critical value of 0.976 exceeds 0.763796
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.763796
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 = 0.873939
0.873939 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.25379	0.00374532	-2.74777	88.9025	348.683
2	-2.25379	0.00749064	-2.45727	88.9025	334.497
3	-1.46968	0.011236	-2.29036	141.34	326.346
4	-1.30933	0.0149813	-2.19728	152.063	321.801
5	-1.04982	0.0187266	-2.09693	169.418	316.9
6	-1.02165	0.0224719	-2.01409	171.302	312.855
7	-0.941609	0.0262172	-1.94314	176.655	309.39
8	-0.891598	0.0299625	-1.8957	179.999	307.073
9	-0.776529	0.0337079	-1.83843	187.695	304.276
10	-0.776529	0.0374532	-1.78661	187.695	301.746
11	-0.733969	0.0411985	-1.7392	190.541	299.431
12	-0.71335	0.0449438	-1.70604	191.92	297.812
13	-0.71335	0.0486891	-1.66456	191.92	295.786
14	-0.673345	0.0524345	-1.62576	194.595	293.891
15	-0.673345	0.0561798	-1.58927	194.595	292.109
16	-0.634878	0.0599251	-1.56322	197.168	290.837
17	-0.597837	0.0636704	-1.53007	199.645	289.218
18	-0.562119	0.0674157	-1.49852	202.033	287.677
19	-0.562119	0.071161	-1.46838	202.033	286.206
20	-0.527633	0.0749064	-1.44663	204.34	285.144
21	-0.527633	0.0786517	-1.41865	204.34	283.778
22	-0.527633	0.082397	-1.39175	204.34	282.464
23	-0.462035	0.0861423	-1.36581	208.726	281.197
24	-0.430783	0.0898876	-1.34694	210.816	280.276
25	-0.430783	0.093633	-1.32251	210.816	279.082
26	-0.400478	0.0973783	-1.29884	212.843	277.926
27	-0.371064	0.101124	-1.27588	214.81	276.805
28	-0.356675	0.104869	-1.25908	215.772	275.985
29	-0.328504	0.108614	-1.23724	217.656	274.918
30	-0.301105	0.11236	-1.21596	219.489	273.879
31	-0.301105	0.116105	-1.19522	219.489	272.867
32	-0.287682	0.11985	-1.18	220.386	272.123
33	-0.287682	0.123596	-1.16012	220.386	271.153
34	-0.287682	0.127341	-1.14069	220.386	270.204
35	-0.274437	0.131086	-1.12168	221.272	269.275
36	-0.248461	0.134831	-1.10768	223.009	268.592
37	-0.248461	0.138577	-1.08935	223.009	267.697
38	-0.248461	0.142322	-1.07138	223.009	266.819
39	-0.235722	0.146067	-1.05375	223.861	265.958
40	-0.210721	0.149813	-1.04073	225.533	265.322
41	-0.210721	0.153558	-1.02365	225.533	264.488
42	-0.198451	0.157303	-1.00687	226.354	263.669
43	-0.18633	0.161049	-0.990356	227.164	262.862
44	-0.174353	0.164794	-0.97815	227.965	262.266
45	-0.139262	0.168539	-0.9621	230.312	261.483
46	-0.139262	0.172285	-0.946291	230.312	260.711
47	-0.127833	0.17603	-0.930718	231.076	259.95
48	-0.105361	0.179775	-0.919183	232.579	259.387

49	-0.0833816	0.183521	-0.903992	234.049	258.645
50	-0.0618754	0.187266	-0.889006	235.487	257.913
51	-0.0512933	0.191011	-0.874218	236.195	257.191
52	-0.040822	0.194757	-0.863249	236.895	256.655
53	0	0.198502	-0.848786	239.625	255.949
54	0.0953102	0.202247	-0.834498	245.999	255.251
55	0.0953102	0.205993	-0.823893	245.999	254.733
56	0.0953102	0.209738	-0.809896	245.999	254.05
57	0.0953102	0.213483	-0.796056	245.999	253.374
58	0.182322	0.217228	-0.782366	251.818	252.706
59	0.262364	0.220974	-0.772193	257.171	252.209
60	0.262364	0.224719	-0.758753	257.171	251.552
61	0.262364	0.228464	-0.745449	257.171	250.903
62	0.336472	0.23221	-0.732275	262.127	250.259
63	0.470004	0.235955	-0.722479	271.056	249.781
64	0.470004	0.2397	-0.709522	271.056	249.148
65	0.530628	0.243446	-0.696684	275.111	248.521
66	0.530628	0.247191	-0.68396	275.111	247.9
67	0.530628	0.250936	-0.67449	275.111	247.438
68	0.530628	0.254682	-0.661955	275.111	246.825
69	0.530628	0.258427	-0.649522	275.111	246.218
70	0.641854	0.262172	-0.637192	282.549	245.616
71	0.693147	0.265918	-0.628006	285.979	245.168
72	0.693147	0.269663	-0.615839	285.979	244.573
73	0.693147	0.273408	-0.603765	285.979	243.984
74	0.693147	0.277154	-0.591776	285.979	243.398
75	0.693147	0.280899	-0.582841	285.979	242.962
76	0.693147	0.284644	-0.570999	285.979	242.384
77	0.741937	0.28839	-0.559237	289.242	241.809
78	0.741937	0.292135	-0.547551	289.242	241.239
79	0.788457	0.29588	-0.538836	292.353	240.813
80	0.832909	0.299625	-0.52728	295.326	240.249
81	0.875469	0.303371	-0.515791	298.172	239.688
82	1.09861	0.307116	-0.504372	313.095	239.13
83	1.09861	0.310861	-0.49585	313.095	238.714
84	1.09861	0.314607	-0.484544	313.095	238.162
85	1.25276	0.318352	-0.473299	323.404	237.613
86	1.30833	0.322097	-0.462114	327.12	237.067
87	1.335	0.325843	-0.453763	328.903	236.659
88	1.38629	0.329588	-0.442676	332.333	236.117
89	1.38629	0.333333	-0.431644	332.333	235.579
90	1.43508	0.337079	-0.420664	335.596	235.042
91	1.60944	0.340824	-0.412463	347.256	234.642
92	1.60944	0.344569	-0.401571	347.256	234.11
93	1.60944	0.348315	-0.390726	347.256	233.58
94	1.60944	0.35206	-0.379927	347.256	233.053
95	1.60944	0.355805	-0.371856	347.256	232.659
96	1.60944	0.359551	-0.361133	347.256	232.135
97	1.60944	0.363296	-0.350451	347.256	231.614
98	1.60944	0.367041	-0.33981	347.256	231.094
99	1.60944	0.370787	-0.331854	347.256	230.706
100	1.60944	0.374532	-0.321278	347.256	230.189
101	1.79176	0.378277	-0.310738	359.449	229.674
102	1.79176	0.382022	-0.300232	359.449	229.161
103	1.79176	0.385768	-0.292375	359.449	228.778
104	1.79176	0.389513	-0.281926	359.449	228.267
105	1.79176	0.393258	-0.271509	359.449	227.759
106	1.94591	0.397004	-0.26112	369.758	227.251
107	1.94591	0.400749	-0.253347	369.758	226.872
108	1.94591	0.404494	-0.243007	369.758	226.367
109	1.94591	0.40824	-0.232693	369.758	225.863
110	1.94591	0.411985	-0.224974	369.758	225.486

111	2.07944	0.41573	-0.214702	378.688	224.985
112	2.07944	0.419476	-0.204452	378.688	224.484
113	2.07944	0.423221	-0.194225	378.688	223.985
114	2.19722	0.426966	-0.186567	386.564	223.611
115	2.19722	0.430712	-0.176374	386.564	223.113
116	2.19722	0.434457	-0.166199	386.564	222.616
117	2.30259	0.438202	-0.156042	393.61	222.12
118	2.30259	0.441948	-0.148434	393.61	221.749
119	2.30259	0.445693	-0.138305	393.61	221.254
120	2.30259	0.449438	-0.128189	393.61	220.76
121	2.30259	0.453184	-0.118085	393.61	220.267
122	2.30259	0.456929	-0.110516	393.61	219.897
123	2.30259	0.460674	-0.100433	393.61	219.404
124	2.30259	0.464419	-0.0903606	393.61	218.913
125	2.30259	0.468165	-0.0802981	393.61	218.421
126	2.30259	0.47191	-0.0727562	393.61	218.053
127	2.30259	0.475655	-0.0627062	393.61	217.562
128	2.30259	0.479401	-0.0526632	393.61	217.072
129	2.30259	0.483146	-0.0426257	393.61	216.582
130	2.30259	0.486891	-0.0350997	393.61	216.214
131	2.30259	0.490637	-0.0250691	393.61	215.724
132	2.30259	0.494382	-0.0150408	393.61	215.234
133	2.30259	0.498127	-0.00501359	393.61	214.745
134	2.30259	0.501873	0.00501359	393.61	214.255
135	2.30259	0.505618	0.0150408	393.61	213.766
136	2.30259	0.509363	0.0250691	393.61	213.276
137	2.30259	0.513109	0.0350997	393.61	212.786
138	2.30259	0.516854	0.0426257	393.61	212.418
139	2.30259	0.520599	0.0526632	393.61	211.928
140	2.30259	0.524345	0.0627062	393.61	211.438
141	2.30259	0.52809	0.0727562	393.61	210.947
142	2.30259	0.531835	0.0802981	393.61	210.579
143	2.30259	0.535581	0.0903606	393.61	210.087
144	2.30259	0.539326	0.100433	393.61	209.596
145	2.30259	0.543071	0.110516	393.61	209.103
146	2.30259	0.546816	0.118085	393.61	208.733
147	2.30259	0.550562	0.128189	393.61	208.24
148	2.30259	0.554307	0.138305	393.61	207.746
149	2.30259	0.558052	0.148434	393.61	207.251
150	2.30259	0.561798	0.156042	393.61	206.88
151	2.30259	0.565543	0.166199	393.61	206.384
152	2.30259	0.569288	0.176374	393.61	205.887
153	2.30259	0.573034	0.186567	393.61	205.389
154	2.30259	0.576779	0.194225	393.61	205.015
155	2.30259	0.580524	0.204452	393.61	204.516
156	2.30259	0.58427	0.214702	393.61	204.015
157	2.30259	0.588015	0.224974	393.61	203.514
158	2.30259	0.59176	0.232693	393.61	203.137
159	2.30259	0.595506	0.243007	393.61	202.633
160	2.30259	0.599251	0.253347	393.61	202.128
161	2.30259	0.602996	0.26112	393.61	201.749
162	2.30259	0.606742	0.271509	393.61	201.241
163	2.30259	0.610487	0.281926	393.61	200.733
164	2.30259	0.614232	0.292375	393.61	200.222
165	2.30259	0.617978	0.300232	393.61	199.839
166	2.30259	0.621723	0.310738	393.61	199.326
167	2.30259	0.625468	0.321278	393.61	198.811
168	2.30259	0.629213	0.331854	393.61	198.294
169	2.30259	0.632959	0.33981	393.61	197.906
170	2.30259	0.636704	0.350451	393.61	197.386
171	2.30259	0.640449	0.361133	393.61	196.865
172	2.30259	0.644195	0.371856	393.61	196.341

173	2.30259	0.64794	0.379927	393.61	195.947	
174	2.30259	0.651685	0.390726	393.61	195.42	
175	2.30259	0.655431	0.401571	393.61	194.89	
176	2.30259	0.659176	0.412463	393.61	194.358	
177	2.30259	0.662921	0.420664	393.61	193.958	
178	2.30259	0.666667	0.431644	393.61	193.421	
179	2.30259	0.670412	0.442676	393.61	192.883	
180	2.30259	0.674157	0.453763	393.61	192.341	
181	2.30259	0.677903	0.462114	393.61	191.933	
182	2.30259	0.681648	0.473299	393.61	191.387	
183	2.30259	0.685393	0.484544	393.61	190.838	
184	2.30259	0.689139	0.49585	393.61	190.286	
185	2.30259	0.692884	0.504372	393.61	189.87	
186	2.30259	0.696629	0.515791	393.61	189.312	
187	2.30259	0.700375	0.52728	393.61	188.751	
188	2.30259	0.70412	0.538836	393.61	188.187	
189	2.30259	0.707865	0.547551	393.61	187.761	
190	2.30259	0.71161	0.559237	393.61	187.191	
191	2.30259	0.715356	0.570999	393.61	186.616	
192	2.30259	0.719101	0.582841	393.61	186.038	
193	2.30259	0.722846	0.591776	393.61	185.602	
194	2.30259	0.726592	0.603765	393.61	185.016	
195	2.30259	0.730337	0.615839	393.61	184.427	
196	2.30259	0.734082	0.628006	393.61	183.832	
197	2.30259	0.737828	0.637192	393.61	183.384	
198	2.30259	0.741573	0.649522	393.61	182.782	
199	2.30259	0.745318	0.661955	393.61	182.175	
200	2.30259	0.749064	0.67449	393.61	181.562	
201	2.30259	0.752809	0.68396	393.61	181.1	
202	2.30259	0.756554	0.696684	393.61	180.479	
203	2.30259	0.7603	0.709522	393.61	179.852	
204	2.30259	0.764045	0.722479	393.61	179.219	
205	2.30259	0.76779	0.732275	393.61	178.741	
206	2.30259	0.771536	0.745449	393.61	178.097	
207	2.30259	0.775281	0.758753	393.61	177.448	
208	2.30259	0.779026	0.772193	393.61	176.791	
209	2.30259	0.782772	0.782366	393.61	176.294	
210	2.30259	0.786517	0.796056	393.61	175.626	
211	2.30259	0.790262	0.809896	393.61	174.95	
212	2.30259	0.794007	0.823893	393.61	174.267	
213	2.30259	0.797753	0.834498	393.61	173.749	
214	2.30259	0.801498	0.848786	393.61	173.051	
215	2.30259	0.805243	0.863249	393.61	172.345	
216	2.30259	0.808989	0.874218	393.61	171.809	
217	2.30259	0.812734	0.889006	393.61	171.087	
218	2.30259	0.816479	0.903992	393.61	170.355	
219	2.30259	0.820225	0.919183	393.61	169.613	
220	2.30259	0.82397	0.930718	393.61	169.05	
221	2.30259	0.827715	0.946291	393.61	168.289	
222	2.30259	0.831461	0.9621	393.61	167.517	
223	2.30259	0.835206	0.97815	393.61	166.734	
224	2.30259	0.838951	0.990356	393.61	166.138	
225	2.30259	0.842697	1.00687	393.61	165.331	
226	2.30259	0.846442	1.02365	393.61	164.512	
227	2.30259	0.850187	1.04073	393.61	163.678	
228	2.30259	0.853933	1.05375	393.61	163.042	
229	2.30259	0.857678	1.07138	393.61	162.181	
230	2.30259	0.861423	1.08935	393.61	161.303	
231	2.30259	0.865169	1.10768	393.61	160.408	
232	2.30259	0.868914	1.12168	393.61	159.725	
233	2.30259	0.872659	1.14069	393.61	158.796	
234	2.30259	0.876404	1.16012	393.61	157.847	

235	2.30259	0.88015	1.18	393.61	156.877	
236	2.30259	0.883895		1.19522	393.61	156.133
237	2.30259	0.88764	1.21596	393.61	155.121	
238	2.30259	0.891386		1.23724	393.61	154.082
239	2.30259	0.895131		1.25908	393.61	153.015
240	2.30259	0.898876		1.27588	393.61	152.195
241	2.30259	0.902622		1.29884	393.61	151.074
242	2.30259	0.906367		1.32251	393.61	149.918
243	2.30259	0.910112		1.34694	393.61	148.724
244	2.30259	0.913858		1.36581	393.61	147.803
245	2.30259	0.917603		1.39175	393.61	146.536
246	2.30259	0.921348		1.41865	393.61	145.222
247	2.30259	0.925094		1.44663	393.61	143.856
248	2.30259	0.928839		1.46838	393.61	142.794
249	2.30259	0.932584		1.49852	393.61	141.323
250	2.30259	0.93633	1.53007	393.61	139.782	
251	2.30259	0.940075		1.56322	393.61	138.163
252	2.30259	0.94382	1.58927	393.61	136.891	
253	2.30259	0.947566		1.62576	393.61	135.109
254	2.30259	0.951311		1.66456	393.61	133.214
255	2.30259	0.955056		1.70604	393.61	131.188
256	2.30259	0.958801		1.7392	393.61	129.569
257	2.30259	0.962547		1.78661	393.61	127.254
258	2.30259	0.966292		1.83843	393.61	124.724
259	2.30259	0.970037		1.8957	393.61	121.927
260	2.30259	0.973783		1.94314	393.61	119.61
261	2.3979	0.977528		2.01409	399.984	116.145
262	2.48491	0.981273		2.09693	405.803	112.1
263	2.56495	0.985019		2.19728	411.156	107.199
264	2.89037	0.988764		2.29036	432.919	102.654
265	2.99573	0.992509		2.45727	439.965	94.5032
266	4.29046	0.996255		2.74777	526.549	80.3175

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
LMW-4	1/16/1998	4.29046	266
	3/16/1999	ND<2.30259	72.5
	9/23/1999	ND<2.30259	72.5
	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	11/18/2006	ND<2.30259	72.5
	6/2/2007	2.07944 J	253
	11/15/2007	1.60944 J	233
	5/20/2008	2.07944 J	254
	11/20/2008	ND<2.30259	72.5
	6/11/2009	-0.301105 J	172
	11/16/2009	-0.248461 J	178
	6/30/2010	0.262364	201
	11/17/2010	-0.139262 J	187
	7/6/2011	0.0953102	196
	11/22/2011	-0.235722 J	181
	5/16/2012	-0.139262 J	188

Rank Sum = 3106.5
Rank Mean = 141.205

Background Rank Sum = 3106.5
Background Rank Mean = 141.205

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-10	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	11/18/2006	ND<2.30259	72.5
	6/2/2007	ND<2.30259	72.5
	11/15/2007	ND<2.30259	72.5
	5/20/2008	0.693147 J	213
	11/20/2008	ND<2.30259	72.5
	6/11/2009	-0.673345 J	156
	11/16/2009	ND<-2.25379 U	72.5
	6/30/2010	0.641854	212
	11/17/2010	-0.941609 J	149
	7/6/2011	-1.04982 J	147
	11/22/2011	-0.562119 J	160

	5/16/2012	ND<-2.25379 U	72.5

Rank Sum = 1979.5
Rank Mean = 104.184

LMW-9S	11/18/2006	ND<2.30259	72.5
	6/2/2007	ND<2.30259	72.5
	11/15/2007	1.94591 J	248
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5
	6/11/2009	-0.18633 J	185
	6/30/2010	0.530628	207
	11/17/2010	0.470004	205
	7/6/2011	-0.71335 J	154
	11/22/2011	-0.274437 J	177
	5/16/2012	-1.46968 J	145

Rank Sum = 1611
Rank Mean = 146.455

LMW-9	1/16/1998	2.19722 J	256
	3/16/1999	ND<2.30259	72.5
	9/23/1999	2.48491 J	262
	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	11/18/2006	ND<2.30259	72.5
	6/2/2007	1.60944 J	234
	11/15/2007	1.94591 J	249
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5
	6/11/2009	-0.127833 J	189
	11/16/2009	-0.527633 J	162
	6/30/2010	0.875469	223
	11/17/2010	0.530628	208
	7/6/2011	-0.430783 J	166
	11/22/2011	-0.248461 J	179
	5/16/2012	1.43508	232

Rank Sum = 3157.5
Rank Mean = 143.523

LMW-8	1/16/1998	0.693147 J	214
	3/16/1999	1.60944 J	235
	9/23/1999	ND<2.30259	72.5
	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	11/18/2006	ND<2.30259	72.5
	6/2/2007	ND<2.30259	72.5
	11/15/2007	1.79176 J	243
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5
	6/11/2009	-0.287682 J	174
	11/16/2009	-0.430783 J	167
	6/30/2010	0.262364	202
	11/17/2010	-0.287682 J	175

	7/6/2011	-0.733969 J	153
	11/22/2011	0.741937	219
	5/16/2012	-0.776529 J	151

Rank Sum = 2803
Rank Mean = 127.409

LMW-7	1/16/1998	2.99573	265
	3/16/1999	1.60944 J	236
	9/23/1999	1.60944 J	237
	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	2.30259 J	259
	10/26/2005	2.3979 J	261
	6/19/2006	2.30259 J	260
	11/18/2006	ND<2.30259	72.5
	6/2/2007	1.79176 J	244
	11/15/2007	2.07944 J	255
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5
	6/11/2009	1.38629	230
	11/17/2010	1.335	229
	7/6/2011	2.56495	263
	11/22/2011	1.25276	227
	5/16/2012	0.741937	220

Rank Sum = 3693.5
Rank Mean = 184.675

LMW-6	1/16/1998	2.89037 J	264
	3/16/1999	ND<2.30259	72.5
	9/23/1999	ND<2.30259	72.5
	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	11/18/2006	ND<2.30259	72.5
	6/2/2007	1.94591 J	250
	11/15/2007	1.94591 J	251
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5
	6/11/2009	0.530628	209
	11/16/2009	0.182322	200
	6/30/2010	1.09861	224
	11/17/2010	0.788457	221
	7/6/2011	0.0953102	197
	11/22/2011	-0.597837 J	159
	5/16/2012	-0.71335 J	155

Rank Sum = 3000
Rank Mean = 136.364

LMW-3s	5/16/2012	-0.210721 J	182

Rank Sum = 182
Rank Mean = 182

LMW-3	11/19/1996	ND<2.30259	72.5
	3/24/1997	ND<2.30259	72.5
	1/16/1998	1.38629 J	231
	3/16/1999	ND<2.30259	72.5

	9/23/1999	ND<2.30259	72.5
	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	11/18/2006	ND<2.30259	72.5
	6/2/2007	ND<2.30259	72.5
	11/15/2007	2.19722 J	257
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5
	6/11/2009	-0.356675 J	170
	11/16/2009	0.0953102	198
	11/17/2010	0.470004	206
	7/6/2011	0	195
	11/22/2011	-0.174353 J	186
	5/16/2012	-0.248461 J	180

Rank Sum = 2710.5
Rank Mean = 117.848

LMW-16	11/18/2006	ND<2.30259	72.5
	6/2/2007	1.94591 J	252
	11/15/2007	1.79176 J	245
	5/20/2008	ND<2.30259	72.5
	11/20/2008	1.60944 J	238
	6/11/2009	-1.02165 J	148
	11/16/2009	-0.527633 J	163
	11/17/2010	-0.776529 J	152
	7/6/2011	-0.400478 J	168
	11/22/2011	-0.0512933 J	193
	5/16/2012	-1.30933 J	146

Rank Sum = 1850
Rank Mean = 168.182

LMW-15R	11/18/2006	1.09861 J	225
	6/2/2007	1.60944 J	239
	11/15/2007	1.60944 J	240
	11/15/2007	ND<2.30259	72.5
	5/20/2008	ND<2.30259	72.5
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5
	11/20/2008	1.60944 J	241
	6/11/2009	1.30833	228
	11/16/2009	-0.562119 J	161
	11/16/2009	0.530628	210
	11/16/2009	-0.0833816 J	191
	11/17/2010	0.832909	222
	7/6/2011	-0.527633 J	164
	11/22/2011	-0.301105 J	173
	5/16/2012	-0.673345 J	157

Rank Sum = 2741
Rank Mean = 171.313

LMW-9D	11/18/2006	1.79176 J	246
	6/2/2007	ND<2.30259	72.5
	11/15/2007	2.19722 J	258
	5/20/2008	0.693147 J	215
	11/20/2008	ND<2.30259	72.5
	6/11/2009	-0.371064 J	169
	11/16/2009	-0.287682 J	176

	6/30/2010	-0.105361 J	190
	11/17/2010	-0.634878 J	158
	7/6/2011	0.693147	216
	11/22/2011	-0.0618754 J	192
	5/16/2012	-0.462035 J	165

Rank Sum = 2130
Rank Mean = 177.5

LMW-14R	6/2/2007	ND<2.30259	72.5
	11/15/2007	ND<2.30259	72.5
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5
	6/11/2009	-0.210721 J	183
	11/17/2010	-0.040822 J	194
	7/6/2011	0.693147	217
	11/22/2011	-0.328504 J	171
	5/16/2012	-0.891598 J	150

Rank Sum = 1205
Rank Mean = 133.889

LMW-3S	11/18/2006	0.693147 J	218
	6/2/2007	ND<2.30259	72.5
	11/15/2007	1.79176 J	247
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5
	6/11/2009	0.336472	204
	11/16/2009	-0.198451 J	184
	11/17/2010	0.530628	211
	7/6/2011	0.262364	203
	11/22/2011	0.0953102	199

Rank Sum = 1683.5
Rank Mean = 168.35

LMW-11	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	6/2/2007	ND<2.30259	72.5
	11/15/2007	ND<2.30259	72.5
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-13	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	6/2/2007	ND<2.30259	72.5
	11/15/2007	ND<2.30259	72.5
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-12	3/14/2000	ND<2.30259	72.5

	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	6/2/2007	ND<2.30259	72.5
	11/15/2007	ND<2.30259	72.5
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5

Rank Sum = 797.5
Rank Mean = 72.5

MW-5	1/16/1998	1.09861 J	226
	3/16/1999	ND<2.30259	72.5
	9/23/1999	ND<2.30259	72.5
	3/14/2000	ND<2.30259	72.5
	9/23/2003	ND<2.30259	72.5
	3/10/2004	ND<2.30259	72.5
	10/12/2004	ND<2.30259	72.5
	4/1/2005	ND<2.30259	72.5
	10/26/2005	ND<2.30259	72.5
	6/19/2006	ND<2.30259	72.5
	11/15/2007	1.60944 J	242
	5/20/2008	ND<2.30259	72.5
	11/20/2008	ND<2.30259	72.5

Rank Sum = 1265.5
Rank Mean = 97.3462

Calculation Results:

Kruskal-Wallis H Statistic = 49.7294
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 59.1064
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
49.7294 > 27.5871 indicating a significant group difference at 5% significance level
59.1064 > 27.5871 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 141.205

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-10	**104.184**	**-37.0203**	**56.051**
LMW-9S	**146.455**	**5.25**	**66.0889**
LMW-9	**143.523**	**2.31818**	**53.9614**
LMW-8	**127.409**	**-13.7955**	**53.9614**
LMW-7	**184.675**	**43.4705**	**55.294**
LMW-6	**136.364**	**-4.8409**	**53.9614**
LMW-3s	**182**	**40.7955**	**182.992**
LMW-3	**117.848**	**-23.3567**	**53.3716**
LMW-16	**168.182**	**26.9773**	**66.0889**
LMW-15R	**171.313**	**30.108**	**58.803**
LMW-9D	**177.5**	**36.2955**	**64.2269**
LMW-14R	**133.889**	**-7.3156**	**70.8154**
LMW-3S	**168.35**	**27.1455**	**68.2563**
LMW-11	**72.5**	**-68.7045**	**66.0889**
LMW-13	**72.5**	**-68.7045**	**66.0889**
LMW-12	**72.5**	**-68.7045**	**66.0889**
MW-5	**97.3462**	**-43.8584**	**62.6081**

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 141.205

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-10	104.184	-37.0203	69.3463
LMW-9S	146.455	5.25	81.7652
LMW-9	143.523	2.31818	66.761
LMW-8	127.409	-13.7955	66.761
LMW-7	184.675	43.4705	68.4097
LMW-6	136.364	-4.84091	66.761
LMW-3s	182	40.7955	226.398
LMW-3	117.848	-23.3567	66.0314
LMW-16	168.182	26.9773	81.7652
LMW-15R	171.313	30.108	72.7511
LMW-9D	177.5	36.2955	79.4615
LMW-14R	133.889	-7.31566	87.6128
LMW-3S	168.35	27.1455	84.4468
LMW-11	72.5	-68.7045	81.7652
LMW-13	72.5	-68.7045	81.7652
LMW-12	72.5	-68.7045	81.7652
MW-5	97.3462	-43.8584	77.4587

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Copper

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 54.1353%
Number of comparisons = 17
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 4.29046
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-10	5/16/2012	1	-2.25379	FALSE
LMW-9S	5/16/2012	1	-1.46968	FALSE
LMW-9	5/16/2012	1	1.43508	FALSE
LMW-8	5/16/2012	1	-0.776529	FALSE
LMW-7	5/16/2012	1	0.741937	FALSE
LMW-6	5/16/2012	1	-0.71335	FALSE
LMW-3s	5/16/2012	1	-0.210721	FALSE
LMW-3	5/16/2012	1	-0.248461	FALSE
LMW-16	5/16/2012	1	-1.30933	FALSE
LMW-15R	5/16/2012	1	-0.673345	FALSE
LMW-9D	5/16/2012	1	-0.462035	FALSE
LMW-14R	5/16/2012	1	-0.891598	FALSE
LMW-3S	11/22/2011	1	0.0953102	FALSE
LMW-11	11/20/2008	1	2.30259	FALSE
LMW-13	11/20/2008	1	2.30259	FALSE
LMW-12	11/20/2008	1	2.30259	FALSE
MW-5	11/20/2008	1	2.30259	FALSE

Concentrations (ppb)

Parameter: Dichlorodifluoromethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 258
Total Non-Detect: 232
Percent Non-Detects: 89.9225%
Total Background Measurements: 21
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	21	16 (76.1905%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<0 J	ND<0 J
			11/18/2006	ND<0 J	ND<0 J
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<0 J	ND<0 J
			11/20/2008	1	1
			11/16/2009	1.1	1.1
			6/30/2010	ND<0.25 U	ND<0.25 U
			11/17/2010	0.81 J	0.81 J
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	1	1
			5/16/2012	0.66 J	0.66 J

There are 16 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-14R	9	9 (100%)	6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/30/2010	ND<0.25 U	ND<0.25 U
			11/17/2010	ND<0.25 U	ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	ND<0.25 U	ND<0.25 U
LMW-15R	16	16 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/16/2009	ND<0.25 U	ND<0.25 U
			11/16/2009	ND<0.25 U	ND<0.25 U
			11/16/2009	ND<0.25 U	ND<0.25 U
			6/30/2010	ND<0.25 U	ND<0.25 U

			11/17/2010	ND<0.25 U	ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	ND<0.25 U	ND<0.25 U
LMW-16	11	11 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/16/2009	ND<0.25 U	ND<0.25 U
			6/30/2010	ND<0.25 U	ND<0.25 U
			11/17/2010	ND<0.25 U	ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	ND<0.25 U	ND<0.25 U
LMW-3	23	21 (91.3043%)	11/19/1996	ND<1	ND<1
			3/24/1997	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<0 J	ND<0 J
			11/20/2008	ND<0 J	ND<0 J
			11/16/2009	0.41 J	0.41 J
			6/30/2010	ND<0.25 U	ND<0.25 U
			11/17/2010	ND<0.25 U	ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	0.31 J	0.31 J
LMW-3S	11	3 (27.2727%)	11/18/2006	12	12
			6/2/2007	ND<1	ND<1
			11/15/2007	2	2
			5/20/2008	ND<0 J	ND<0 J
			11/20/2008	2	2
			11/16/2009	2.2	2.2
			6/30/2010	4	4
			11/17/2010	2.3	2.3
			7/6/2011	0.76 J	0.76 J
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	2.1	2.1
LMW-6	21	19 (90.4762%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1

			6/19/2006	ND<0 J	ND<0 J
			11/18/2006	2	2
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<0 J	ND<0 J
			11/20/2008	ND<0 J	ND<0 J
			11/16/2009	ND<0.25 U	ND<0.25 U
			6/30/2010	ND<0.25 U	ND<0.25 U
			11/17/2010	ND<0.25 U	ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	0.69 J	0.69 J
LMW-7	19	19 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/17/2010	ND<0.25 U	ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	ND<0.25 U	ND<0.25 U
LMW-8	21	21 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/16/2009	ND<0.25 U	ND<0.25 U
			6/30/2010	ND<0.25 U	ND<0.25 U
			11/17/2010	ND<0.25 U	ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	ND<0.25 U	ND<0.25 U
LMW-9	21	21 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1

			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			11/16/2009	ND<0.25 U	ND<0.25 U	
			6/30/2010	ND<0.25 U	ND<0.25 U	
			11/17/2010	ND<0.25 U	ND<0.25 U	
			7/6/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			5/16/2012	ND<0.25 U	ND<0.25 U	
LMW-9S	10	10 (100%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/30/2010	ND<0.25 U	ND<0.25 U	
			11/17/2010	ND<0.25 U	ND<0.25 U	
			7/6/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			5/16/2012	ND<0.25 U	ND<0.25 U	
LMW-10	18	10 (55.5556%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	2	2	
			11/18/2006	9	9	
			6/2/2007	2	2	
			11/15/2007	ND<1	ND<1	
			5/20/2008	4	4	
			11/20/2008	2	2	
			11/16/2009	4.9	4.9	
			6/30/2010	ND<0.25 U	ND<0.25 U	
			11/17/2010	ND<0.25 U	ND<0.25 U	
			7/6/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	10	10	
			5/16/2012	6.7	6.7	
LMW-9D	11	11 (100%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			11/16/2009	ND<0.25 U	ND<0.25 U	
			6/30/2010	ND<0.25 U	ND<0.25 U	
			11/17/2010	ND<0.25 U	ND<0.25 U	
			7/6/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			5/16/2012	ND<0.25 U	ND<0.25 U	
LMW-11	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	

			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
MW-5	13	12 (92.3077%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/15/2007	3	3	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-12	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-13	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	

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 = 258

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.74777	7.55021	0
2	0	-2.45727	13.5884	0
3	0	-2.29036	18.8342	0
4	0	-2.17009	23.5435	0
5	0	-2.07485	27.8485	0
6	0	-1.99539	31.8301	0
7	0	-1.92684	35.5428	0
8	0	-1.88079	39.0801	0
9	0	-1.82501	42.4108	0
10	0.125	-1.77438	45.5592	-0.221797
11	0.125	-1.72793	48.5449	-0.437789
12	0.125	-1.68494	51.384	-0.648406
13	0.125	-1.64485	54.0895	-0.854013
14	0.125	-1.60725	56.6727	-1.05492
15	0.125	-1.58047	59.1706	-1.25248
16	0.125	-1.54643	61.5621	-1.44578
17	0.125	-1.5141	63.8546	-1.63504
18	0.125	-1.48328	66.0547	-1.82045
19	0.125	-1.4538	68.1683	-2.00218
20	0.125	-1.42554	70.2004	-2.18037
21	0.125	-1.39838	72.1559	-2.35517
22	0.125	-1.37866	74.0566	-2.5275
23	0.125	-1.35317	75.8877	-2.69665
24	0.125	-1.32854	77.6527	-2.86272
25	0.125	-1.30469	79.3549	-3.0258
26	0.125	-1.28155	80.9973	-3.186
27	0.125	-1.25908	82.5825	-3.34338
28	0.125	-1.23724	84.1133	-3.49804
29	0.125	-1.22123	85.6047	-3.65069
30	0.125	-1.20036	87.0456	-3.80073
31	0.125	-1.18	88.438	-3.94823
32	0.125	-1.16012	89.7838	-4.09325
33	0.125	-1.14069	91.085	-4.23584
34	0.125	-1.12168	92.3432	-4.37605
35	0.125	-1.10306	93.5599	-4.51393
36	0.125	-1.08935	94.7466	-4.6501
37	0.125	-1.07138	95.8945	-4.78402
38	0.125	-1.05375	97.0048	-4.91574
39	0.125	-1.03643	98.079	-5.04529
40	0.125	-1.01943	99.1183	-5.17272
41	0.125	-1.00271	100.124	-5.29806
42	0.125	-0.986272	101.096	-5.42134
43	0.125	-0.970094	102.038	-5.5426
44	0.125	-0.958125	102.956	-5.66237
45	0.125	-0.942375	103.844	-5.78017
46	0.125	-0.926859	104.703	-5.89602
47	0.125	-0.911562	105.534	-6.00997
48	0.125	-0.896473	106.337	-6.12203
49	0.125	-0.881587	107.114	-6.23223
50	0.125	-0.866894	107.866	-6.34059
51	0.125	-0.855996	108.599	-6.44759

52	0.125	-0.841621	109.307	-6.55279
53	0.125	-0.827417	109.992	-6.65622
54	0.125	-0.813379	110.653	-6.75789
55	0.125	-0.7995	111.292	-6.85783
56	0.125	-0.785774	111.91	-6.95605
57	0.125	-0.772193	112.506	-7.05257
58	0.125	-0.7621	113.087	-7.14784
59	0.125	-0.748762	113.648	-7.24143
60	0.125	-0.735557	114.189	-7.33338
61	0.125	-0.722479	114.711	-7.42369
62	0.125	-0.709522	115.214	-7.51238
63	0.125	-0.696684	115.699	-7.59946
64	0.125	-0.68396	116.167	-7.68496
65	0.125	-0.67449	116.622	-7.76927
66	0.125	-0.661955	117.06	-7.85201
67	0.125	-0.649522	117.482	-7.9332
68	0.125	-0.637192	117.888	-8.01285
69	0.125	-0.624956	118.279	-8.09097
70	0.125	-0.612813	118.654	-8.16757
71	0.31	-0.60076	119.015	-8.35381
72	0.41	-0.591776	119.365	-8.59644
73	0.5	-0.579873	119.702	-8.88637
74	0.5	-0.568052	120.024	-9.1704
75	0.5	-0.556308	120.334	-9.44855
76	0.5	-0.544642	120.63	-9.72087
77	0.5	-0.533048	120.915	-9.9874
78	0.5	-0.521527	121.187	-10.2482
79	0.5	-0.510074	121.447	-10.5032
80	0.5	-0.501527	121.698	-10.754
81	0.5	-0.490189	121.939	-10.9991
82	0.5	-0.478914	122.168	-11.2385
83	0.5	-0.467699	122.387	-11.4724
84	0.5	-0.456542	122.595	-11.7006
85	0.5	-0.445443	122.794	-11.9234
86	0.5	-0.434397	122.982	-12.1406
87	0.5	-0.426148	123.164	-12.3536
88	0.5	-0.415193	123.336	-12.5612
89	0.5	-0.40429	123.5	-12.7634
90	0.5	-0.393433	123.654	-12.9601
91	0.5	-0.382622	123.801	-13.1514
92	0.5	-0.371856	123.939	-13.3373
93	0.5	-0.361133	124.07	-13.5179
94	0.5	-0.353118	124.194	-13.6945
95	0.5	-0.342466	124.312	-13.8657
96	0.5	-0.331854	124.422	-14.0316
97	0.5	-0.321278	124.525	-14.1923
98	0.5	-0.310738	124.621	-14.3476
99	0.5	-0.300232	124.712	-14.4977
100	0.5	-0.28976	124.796	-14.6426
101	0.5	-0.281926	124.875	-14.7836
102	0.5	-0.271509	124.949	-14.9193
103	0.5	-0.26112	125.017	-15.0499
104	0.5	-0.250759	125.08	-15.1753
105	0.5	-0.240426	125.138	-15.2955
106	0.5	-0.230118	125.191	-15.4105
107	0.5	-0.219834	125.239	-15.5205
108	0.5	-0.212137	125.284	-15.6265
109	0.5	-0.201894	125.325	-15.7275
110	0.5	-0.191671	125.361	-15.8233
111	0.5	-0.181468	125.394	-15.914
112	0.5	-0.171285	125.424	-15.9997
113	0.5	-0.161119	125.45	-16.0803

114	0.5	-0.150969	125.472	-16.1557
115	0.5	-0.140835	125.492	-16.2262
116	0.5	-0.133244	125.51	-16.2928
117	0.5	-0.123135	125.525	-16.3543
118	0.5	-0.113039	125.538	-16.4109
119	0.5	-0.102953	125.549	-16.4623
120	0.5	-0.0928787	125.557	-16.5088
121	0.5	-0.0828129	125.564	-16.5502
122	0.5	-0.0727562	125.569	-16.5866
123	0.5	-0.0652187	125.574	-16.6192
124	0.5	-0.0551734	125.577	-16.6468
125	0.5	-0.0451348	125.579	-16.6693
126	0.5	-0.0350997	125.58	-16.6869
127	0.5	-0.0250691	125.581	-16.6994
128	0.5	-0.0150408	125.581	-16.7069
129	0.5	-0.00501359	125.581	-16.7094
130	0.5	0.00501359	125.581	-16.7069
131	0.5	0.0150408	125.581	-16.6994
132	0.5	0.0250691	125.582	-16.6869
133	0.5	0.0350997	125.583	-16.6693
134	0.5	0.0451348	125.585	-16.6468
135	0.5	0.0551734	125.588	-16.6192
136	0.5	0.0652187	125.592	-16.5866
137	0.5	0.0727562	125.598	-16.5502
138	0.5	0.0828129	125.604	-16.5088
139	0.5	0.0928787	125.613	-16.4623
140	0.5	0.102953	125.624	-16.4109
141	0.5	0.113039	125.636	-16.3543
142	0.5	0.123135	125.652	-16.2928
143	0.5	0.133244	125.669	-16.2262
144	0.5	0.140835	125.689	-16.1557
145	0.5	0.150969	125.712	-16.0803
146	0.5	0.161119	125.738	-15.9997
147	0.5	0.171285	125.767	-15.914
148	0.5	0.181468	125.8	-15.8233
149	0.5	0.191671	125.837	-15.7275
150	0.5	0.201894	125.878	-15.6265
151	0.5	0.212137	125.923	-15.5205
152	0.5	0.219834	125.971	-15.4105
153	0.5	0.230118	126.024	-15.2955
154	0.5	0.240426	126.082	-15.1753
155	0.5	0.250759	126.145	-15.0499
156	0.5	0.26112	126.213	-14.9193
157	0.5	0.271509	126.287	-14.7836
158	0.5	0.281926	126.366	-14.6426
159	0.5	0.28976	126.45	-14.4977
160	0.5	0.300232	126.54	-14.3476
161	0.5	0.310738	126.637	-14.1923
162	0.5	0.321278	126.74	-14.0316
163	0.5	0.331854	126.85	-13.8657
164	0.5	0.342466	126.967	-13.6945
165	0.5	0.353118	127.092	-13.5179
166	0.5	0.361133	127.222	-13.3373
167	0.5	0.371856	127.361	-13.1514
168	0.5	0.382622	127.507	-12.9601
169	0.5	0.393433	127.662	-12.7634
170	0.5	0.40429	127.825	-12.5612
171	0.5	0.415193	127.998	-12.3536
172	0.5	0.426148	128.179	-12.1406
173	0.5	0.434397	128.368	-11.9234
174	0.5	0.445443	128.566	-11.7006
175	0.5	0.456542	128.775	-11.4724

176	0.5	0.467699		128.994	-11.2385
177	0.5	0.478914		129.223	-10.9991
178	0.5	0.490189		129.463	-10.754
179	0.5	0.501527		129.715	-10.5032
180	0.5	0.510074		129.975	-10.2482
181	0.5	0.521527		130.247	-9.9874
182	0.5	0.533048		130.531	-9.72087
183	0.5	0.544642		130.828	-9.44855
184	0.5	0.556308		131.137	-9.1704
185	0.5	0.568052		131.46	-8.88637
186	0.5	0.579873		131.796	-8.59644
187	0.5	0.591776		132.146	-8.30055
188	0.5	0.60076	132.507	-8.00017	
189	0.5	0.612813		132.883	-7.69376
190	0.5	0.624956		133.273	-7.38128
191	0.5	0.637192		133.679	-7.06269
192	0.5	0.649522		134.101	-6.73793
193	0.5	0.661955		134.539	-6.40695
194	0.5	0.67449	134.994	-6.0697	
195	0.5	0.68396	135.462	-5.72772	
196	0.5	0.696684		135.948	-5.37938
197	0.5	0.709522		136.451	-5.02462
198	0.5	0.722479		136.973	-4.66338
199	0.5	0.735557		137.514	-4.2956
200	0.5	0.748762		138.075	-3.92122
201	0.5	0.7621	138.655	-3.54017	
202	0.5	0.772193		139.252	-3.15408
203	0.5	0.785774		139.869	-2.76119
204	0.5	0.7995	140.508	-2.36144	
205	0.5	0.813379		141.17	-1.95475
206	0.5	0.827417		141.855	-1.54104
207	0.5	0.841621		142.563	-1.12023
208	0.5	0.855996		143.296	-0.692232
209	0.5	0.866894		144.047	-0.258785
210	0.5	0.881587		144.824	0.182009
211	0.5	0.896473		145.628	0.630245
212	0.5	0.911562		146.459	1.08603
213	0.5	0.926859		147.318	1.54946
214	0.5	0.942375		148.206	2.02064
215	0.5	0.958125		149.124	2.49971
216	0.5	0.970094		150.065	2.98475
217	0.5	0.986272		151.038	3.47789
218	0.5	1.00271	152.043	3.97924	
219	0.5	1.01943	153.083	4.48896	
220	0.5	1.03643	154.157	5.00718	
221	0.5	1.05375	155.267	5.53405	
222	0.5	1.07138	156.415	6.06974	
223	0.5	1.08935	157.602	6.61441	
224	0.5	1.10306	158.818	7.16594	
225	0.5	1.12168	160.077	7.72678	
226	0.5	1.14069	161.378	8.29713	
227	0.5	1.16012	162.724	8.87719	
228	0.5	1.18	164.116	9.46719	
229	0.5	1.20036	165.557	10.0674	
230	0.5	1.22123	167.048	10.678	
231	0.5	1.23724	168.579	11.2966	
232	0.5	1.25908	170.164	11.9261	
233	0.5	1.28155	171.807	12.5669	
234	0.5	1.30469	173.509	13.2193	
235	0.66	1.32854	175.274	14.0961	
236	0.69	1.35317	177.105	15.0298	
237	0.76	1.37866	179.006	16.0776	

238	0.81	1.39838	180.961	17.2102
239	1	1.42554	182.993	18.6358
240	1	1.4538	185.107	20.0896
241	1.1	1.48328	187.307	21.7212
242	2	1.5141	189.599	24.7494
243	2	1.54643	191.991	27.8423
244	2	1.58047	194.489	31.0032
245	2	1.60725	197.072	34.2177
246	2	1.64485	199.778	37.5074
247	2	1.68494	202.617	40.8773
248	2.1	1.72793	205.602	44.5059
249	2.2	1.77438	208.751	48.4096
250	2.3	1.82501	212.081	52.6071
251	3	1.88079	215.619	58.2495
252	4	1.92684	219.332	65.9568
253	4	1.99539	223.313	73.9384
254	4.9	2.07485	227.618	84.1051
255	6.7	2.17009	232.327	98.6448
256	9	2.29036	237.573	119.258
257	10	2.45727	243.611	143.831
258	12	2.74777	251.162	176.804

Data Set Standard Deviation = 1.26565
Numerator = 31259.6
Denominator = 103399
W Statistic = 0.30232 = 31259.6 / 103399

5% Critical value of 0.976 exceeds 0.30232
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.30232
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 = 0.55472
0.55472 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.003861		-2.747773	9	348.683
2	0	0.00772201		-2.457273	9	334.497
3	0	0.011583		-2.290363	9	326.346
4	0	0.015444		-2.170093	9	320.473
5	0	0.019305		-2.074853	9	315.822
6	0	0.023166		-1.995393	9	311.942
7	0	0.027027		-1.926843	9	308.594
8	0	0.030888		-1.880793	9	306.345
9	0	0.034749		-1.825013	9	303.621
10	0.125	0.03861	-1.77438	42.3438	301.149	
11	0.125	0.042471		-1.727934	2.3438	298.881
12	0.125	0.046332		-1.684944	2.3438	296.781
13	0.125	0.0501931		-1.644854	2.3438	294.824
14	0.125	0.0540541		-1.607254	2.3438	292.987
15	0.125	0.0579151		-1.580474	2.3438	291.679
16	0.125	0.0617761		-1.546434	2.3438	290.017
17	0.125	0.0656371		-1.5141	42.3438	288.439
18	0.125	0.0694981		-1.483284	2.3438	286.934
19	0.125	0.0733591		-1.4538	42.3438	285.494
20	0.125	0.0772201		-1.425544	2.3438	284.114
21	0.125	0.0810811		-1.398384	2.3438	282.787
22	0.125	0.0849421		-1.378664	2.3438	281.824
23	0.125	0.0888031		-1.353174	2.3438	280.58
24	0.125	0.0926641		-1.328544	2.3438	279.377
25	0.125	0.0965251		-1.304694	2.3438	278.212
26	0.125	0.100386		-1.281554	2.3438	277.082
27	0.125	0.104247		-1.259084	2.3438	275.985
28	0.125	0.108108		-1.237244	2.3438	274.918
29	0.125	0.111969		-1.221234	2.3438	274.137
30	0.125	0.11583	-1.20036	42.3438	273.118	
31	0.125	0.119691		-1.18	42.3438	272.123
32	0.125	0.123552		-1.160124	2.3438	271.153
33	0.125	0.127413		-1.140694	2.3438	270.204
34	0.125	0.131274		-1.121684	2.3438	269.275
35	0.125	0.135135		-1.103064	2.3438	268.366
36	0.125	0.138996		-1.089354	2.3438	267.697
37	0.125	0.142857		-1.071384	2.3438	266.819
38	0.125	0.146718		-1.053754	2.3438	265.958
39	0.125	0.150579		-1.036434	2.3438	265.112
40	0.125	0.15444	-1.01943	42.3438	264.282	
41	0.125	0.158301		-1.002714	2.3438	263.466
42	0.125	0.162162		-0.986272	42.3438	262.663
43	0.125	0.166023		-0.970094	42.3438	261.873
44	0.125	0.169884		-0.958125	42.3438	261.288
45	0.125	0.173745		-0.942375	42.3438	260.519
46	0.125	0.177606		-0.926859	42.3438	259.762
47	0.125	0.181467		-0.911562	42.3438	259.015
48	0.125	0.185328		-0.896473	42.3438	258.278

49	0.125	0.189189	-0.881587	42.3438	257.551
50	0.125	0.19305	-0.866894	42.3438	256.833
51	0.125	0.196911	-0.855996	42.3438	256.301
52	0.125	0.200772	-0.841621	42.3438	255.599
53	0.125	0.204633	-0.827417	42.3438	254.906
54	0.125	0.208494	-0.813379	42.3438	254.22
55	0.125	0.212355	-0.7995	42.3438	253.542
56	0.125	0.216216	-0.785774	42.3438	252.872
57	0.125	0.220077	-0.772193	42.3438	252.209
58	0.125	0.223938	-0.7621	42.3438	251.716
59	0.125	0.227799	-0.748762	42.3438	251.065
60	0.125	0.23166	-0.735557	42.3438	250.42
61	0.125	0.235521	-0.722479	42.3438	249.781
62	0.125	0.239382	-0.709522	42.3438	249.148
63	0.125	0.243243	-0.696684	42.3438	248.521
64	0.125	0.247104	-0.683964	42.3438	247.9
65	0.125	0.250965	-0.674494	42.3438	247.438
66	0.125	0.254826	-0.661955	42.3438	246.825
67	0.125	0.258687	-0.649522	42.3438	246.218
68	0.125	0.262548	-0.637192	42.3438	245.616
69	0.125	0.266409	-0.624956	42.3438	245.019
70	0.125	0.27027	-0.612813	42.3438	244.426
71	0.31	0.274131	-0.600764	47.2925	243.837
72	0.41	0.277992	-0.591776	49.9675	243.398
73	0.5	0.281853	-0.579873	52.375	242.817
74	0.5	0.285714	-0.568052	52.375	242.24
75	0.5	0.289575	-0.556308	52.375	241.666
76	0.5	0.293436	-0.544642	52.375	241.097
77	0.5	0.297297	-0.533048	52.375	240.531
78	0.5	0.301158	-0.521527	52.375	239.968
79	0.5	0.305019	-0.510074	52.375	239.409
80	0.5	0.30888	-0.501527	52.375	238.991
81	0.5	0.312741	-0.490189	52.375	238.438
82	0.5	0.316602	-0.478914	52.375	237.887
83	0.5	0.320463	-0.467699	52.375	237.339
84	0.5	0.324324	-0.456542	52.375	236.794
85	0.5	0.328185	-0.445443	52.375	236.252
86	0.5	0.332046	-0.434397	52.375	235.713
87	0.5	0.335907	-0.426148	52.375	235.31
88	0.5	0.339768	-0.415193	52.375	234.775
89	0.5	0.343629	-0.404295	52.375	234.243
90	0.5	0.34749	-0.393433	52.375	233.713
91	0.5	0.351351	-0.382622	52.375	233.185
92	0.5	0.355212	-0.371856	52.375	232.659
93	0.5	0.359073	-0.361133	52.375	232.135
94	0.5	0.362934	-0.353118	52.375	231.744
95	0.5	0.366795	-0.342466	52.375	231.224
96	0.5	0.370656	-0.331854	52.375	230.706
97	0.5	0.374517	-0.321278	52.375	230.189
98	0.5	0.378378	-0.310738	52.375	229.674
99	0.5	0.382239	-0.300232	52.375	229.161
100	0.5	0.3861	-0.289765	52.375	228.65
101	0.5	0.389961	-0.281926	52.375	228.267
102	0.5	0.393822	-0.271509	52.375	227.759
103	0.5	0.397683	-0.261125	52.375	227.251
104	0.5	0.401544	-0.250759	52.375	226.745
105	0.5	0.405405	-0.240426	52.375	226.241
106	0.5	0.409266	-0.230118	52.375	225.737
107	0.5	0.413127	-0.219834	52.375	225.235
108	0.5	0.416988	-0.212137	52.375	224.859
109	0.5	0.420849	-0.201894	52.375	224.359
110	0.5	0.42471	-0.191671	52.375	223.86

111	0.5	0.428571	-0.181468	52.375	223.362
112	0.5	0.432432	-0.171285	52.375	222.864
113	0.5	0.436293	-0.161119	52.375	222.368
114	0.5	0.440154	-0.150969	52.375	221.872
115	0.5	0.444015	-0.140835	52.375	221.377
116	0.5	0.447876	-0.133244	52.375	221.007
117	0.5	0.451737	-0.123135	52.375	220.513
118	0.5	0.455598	-0.113039	52.375	220.02
119	0.5	0.459459	-0.102953	52.375	219.528
120	0.5	0.46332	-0.0928787	52.375	219.036
121	0.5	0.467181	-0.0828129	52.375	218.544
122	0.5	0.471042	-0.0727562	52.375	218.053
123	0.5	0.474903	-0.0652187	52.375	217.685
124	0.5	0.478764	-0.0551734	52.375	217.194
125	0.5	0.482625	-0.0451348	52.375	216.704
126	0.5	0.486486	-0.0350997	52.375	216.214
127	0.5	0.490347	-0.0250691	52.375	215.724
128	0.5	0.494208	-0.0150408	52.375	215.234
129	0.5	0.498069	-0.00501359	52.375	214.745
130	0.5	0.501931	0.00501359	52.375	214.255
131	0.5	0.505792	0.0150408	52.375	213.766
132	0.5	0.509653	0.0250691	52.375	213.276
133	0.5	0.513514	0.0350997	52.375	212.786
134	0.5	0.517375	0.0451348	52.375	212.296
135	0.5	0.521236	0.0551734	52.375	211.806
136	0.5	0.525097	0.0652187	52.375	211.315
137	0.5	0.528958	0.0727562	52.375	210.947
138	0.5	0.532819	0.0828129	52.375	210.456
139	0.5	0.53668	0.0928787	52.375	209.964
140	0.5	0.540541	0.102953	52.375	209.472
141	0.5	0.544402	0.113039	52.375	208.98
142	0.5	0.548263	0.123135	52.375	208.487
143	0.5	0.552124	0.133244	52.375	207.993
144	0.5	0.555985	0.140835	52.375	207.623
145	0.5	0.559846	0.150969	52.375	207.128
146	0.5	0.563707	0.161119	52.375	206.632
147	0.5	0.567568	0.171285	52.375	206.136
148	0.5	0.571429	0.181468	52.375	205.638
149	0.5	0.57529	0.191671	52.375	205.14
150	0.5	0.579151	0.201894	52.375	204.641
151	0.5	0.583012	0.212137	52.375	204.141
152	0.5	0.586873	0.219834	52.375	203.765
153	0.5	0.590734	0.230118	52.375	203.263
154	0.5	0.594595	0.240426	52.375	202.759
155	0.5	0.598456	0.250759	52.375	202.255
156	0.5	0.602317	0.26112	52.375	201.749
157	0.5	0.606178	0.271509	52.375	201.241
158	0.5	0.610039	0.281926	52.375	200.733
159	0.5	0.6139	0.28976	52.375	200.35
160	0.5	0.617761	0.300232	52.375	199.839
161	0.5	0.621622	0.310738	52.375	199.326
162	0.5	0.625483	0.321278	52.375	198.811
163	0.5	0.629344	0.331854	52.375	198.294
164	0.5	0.633205	0.342466	52.375	197.776
165	0.5	0.637066	0.353118	52.375	197.256
166	0.5	0.640927	0.361133	52.375	196.865
167	0.5	0.644788	0.371856	52.375	196.341
168	0.5	0.648649	0.382622	52.375	195.815
169	0.5	0.65251	0.393433	52.375	195.287
170	0.5	0.656371	0.40429	52.375	194.757
171	0.5	0.660232	0.415193	52.375	194.225
172	0.5	0.664093	0.426148	52.375	193.69

173	0.5	0.667954	0.434397	52.375	193.287
174	0.5	0.671815	0.445443	52.375	192.748
175	0.5	0.675676	0.456542	52.375	192.206
176	0.5	0.679537	0.467699	52.375	191.661
177	0.5	0.683398	0.478914	52.375	191.113
178	0.5	0.687259	0.490189	52.375	190.562
179	0.5	0.69112	0.501527	52.375	190.009
180	0.5	0.694981	0.510074	52.375	189.591
181	0.5	0.698842	0.521527	52.375	189.032
182	0.5	0.702703	0.533048	52.375	188.469
183	0.5	0.706564	0.544642	52.375	187.903
184	0.5	0.710425	0.556308	52.375	187.334
185	0.5	0.714286	0.568052	52.375	186.76
186	0.5	0.718147	0.579873	52.375	186.183
187	0.5	0.722008	0.591776	52.375	185.602
188	0.5	0.725869	0.60076	52.375	185.163
189	0.5	0.72973	0.612813	52.375	184.574
190	0.5	0.733591	0.624956	52.375	183.981
191	0.5	0.737452	0.637192	52.375	183.384
192	0.5	0.741313	0.649522	52.375	182.782
193	0.5	0.745174	0.661955	52.375	182.175
194	0.5	0.749035	0.67449	52.375	181.562
195	0.5	0.752896	0.68396	52.375	181.1
196	0.5	0.756757	0.696684	52.375	180.479
197	0.5	0.760618	0.709522	52.375	179.852
198	0.5	0.764479	0.722479	52.375	179.219
199	0.5	0.76834	0.735557	52.375	178.58
200	0.5	0.772201	0.748762	52.375	177.935
201	0.5	0.776062	0.7621	52.375	177.284
202	0.5	0.779923	0.772193	52.375	176.791
203	0.5	0.783784	0.785774	52.375	176.128
204	0.5	0.787645	0.7995	52.375	175.458
205	0.5	0.791506	0.813379	52.375	174.78
206	0.5	0.795367	0.827417	52.375	174.094
207	0.5	0.799228	0.841621	52.375	173.401
208	0.5	0.803089	0.855996	52.375	172.699
209	0.5	0.80695	0.866894	52.375	172.167
210	0.5	0.810811	0.881587	52.375	171.449
211	0.5	0.814672	0.896473	52.375	170.722
212	0.5	0.818533	0.911562	52.375	169.985
213	0.5	0.822394	0.926859	52.375	169.238
214	0.5	0.826255	0.942375	52.375	168.481
215	0.5	0.830116	0.958125	52.375	167.712
216	0.5	0.833977	0.970094	52.375	167.127
217	0.5	0.837838	0.986272	52.375	166.337
218	0.5	0.841699	1.00271	52.375	165.534
219	0.5	0.84556	1.01943	52.375	164.718
220	0.5	0.849421	1.03643	52.375	163.888
221	0.5	0.853282	1.05375	52.375	163.042
222	0.5	0.857143	1.07138	52.375	162.181
223	0.5	0.861004	1.08935	52.375	161.303
224	0.5	0.864865	1.10306	52.375	160.634
225	0.5	0.868726	1.12168	52.375	159.725
226	0.5	0.872587	1.14069	52.375	158.796
227	0.5	0.876448	1.16012	52.375	157.847
228	0.5	0.880309	1.18	52.375	156.877
229	0.5	0.88417	1.20036	52.375	155.882
230	0.5	0.888031	1.22123	52.375	154.863
231	0.5	0.891892	1.23724	52.375	154.082
232	0.5	0.895753	1.25908	52.375	153.015
233	0.5	0.899614	1.28155	52.375	151.918
234	0.5	0.903475	1.30469	52.375	150.788

235	0.66	0.907336	1.32854	56.655	149.623
236	0.69	0.911197	1.35317	57.4575	148.42
237	0.76	0.915058	1.37866	59.33	147.176
238	0.81	0.918919	1.39838	60.6675	146.213
239	1	0.92278	1.42554	65.75	144.886
240	1	0.926641	1.4538	65.75	143.506
241	1.1	0.930502	1.48328	68.425	142.066
242	2	0.934363	1.5141	92.5	140.561
243	2	0.938224	1.54643	92.5	138.983
244	2	0.942085	1.58047	92.5	137.321
245	2	0.945946	1.60725	92.5	136.013
246	2	0.949807	1.64485	92.5	134.176
247	2	0.953668	1.68494	92.5	132.219
248	2.1	0.957529	1.72793	95.175	130.119
249	2.2	0.96139	1.77438	97.85	127.851
250	2.3	0.965251	1.82501	100.525	125.379
251	3	0.969112	1.88079	119.25	122.655
252	4	0.972973	1.92684	146	120.406
253	4	0.976834	1.99539	146	117.058
254	4.9	0.980695	2.07485	170.075	113.178
255	6.7	0.984556	2.17009	218.225	108.527
256	9	0.988417	2.29036	279.75	102.654
257	10	0.992278	2.45727	306.5	94.5032
258	12	0.996139	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 = 258

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	-1.88079	39.0801	36.4804
9	-2.07944	-1.82501	42.4108	40.2754
10	-2.07944	-1.77438	45.5592	43.9651
11	-2.07944	-1.72793	48.5449	47.5582
12	-2.07944	-1.68494	51.384	51.062
13	-2.07944	-1.64485	54.0895	54.4823
14	-2.07944	-1.60725	56.6727	57.8245
15	-2.07944	-1.58047	59.1706	61.111
16	-2.07944	-1.54643	61.5621	64.3267
17	-2.07944	-1.5141	63.8546	67.4752
18	-2.07944	-1.48328	66.0547	70.5596
19	-2.07944	-1.4538	68.1683	73.5827
20	-2.07944	-1.42554	70.2004	76.5471
21	-2.07944	-1.39838	72.1559	79.4549
22	-2.07944	-1.37866	74.0566	82.3217
23	-2.07944	-1.35317	75.8877	85.1356
24	-2.07944	-1.32854	77.6527	87.8982
25	-2.07944	-1.30469	79.3549	90.6112
26	-2.07944	-1.28155	80.9973	93.2761
27	-2.07944	-1.25908	82.5825	95.8943
28	-2.07944	-1.23724	84.1133	98.4671
29	-2.07944	-1.22123	85.6047	101.007
30	-2.07944	-1.20036	87.0456	103.503
31	-2.07944	-1.18	88.438	105.956
32	-2.07944	-1.16012	89.7838	108.369
33	-2.07944	-1.14069	91.085	110.741
34	-2.07944	-1.12168	92.3432	113.073
35	-2.07944	-1.10306	93.5599	115.367
36	-2.07944	-1.08935	94.7466	117.632
37	-2.07944	-1.07138	95.8945	119.86
38	-2.07944	-1.05375	97.0048	122.051
39	-2.07944	-1.03643	98.079	124.206
40	-2.07944	-1.01943	99.1183	126.326
41	-2.07944	-1.00271	100.124	128.411
42	-2.07944	-0.986272	101.096	130.462
43	-2.07944	-0.970094	102.038	132.48
44	-2.07944	-0.958125	102.956	134.472
45	-2.07944	-0.942375	103.844	136.432
46	-2.07944	-0.926859	104.703	138.359
47	-2.07944	-0.911562	105.534	140.254
48	-2.07944	-0.896473	106.337	142.119
49	-2.07944	-0.881587	107.114	143.952
50	-2.07944	-0.866894	107.866	145.754
51	-2.07944	-0.855996	108.599	147.534

52	-2.07944	-0.841621	109.307	149.285	
53	-2.07944	-0.827417	109.992	151.005	
54	-2.07944	-0.813379	110.653	152.696	
55	-2.07944	-0.7995	111.292	154.359	
56	-2.07944	-0.785774	111.91	155.993	
57	-2.07944	-0.772193	112.506	157.599	
58	-2.07944	-0.7621	113.087	159.183	
59	-2.07944	-0.748762	113.648	160.74	
60	-2.07944	-0.735557	114.189	162.27	
61	-2.07944	-0.722479	114.711	163.772	
62	-1.17118	-0.709522	115.214	164.603	
63	-0.891598	-0.696684	115.699	165.224	
64	-0.693147	-0.68396	116.167	165.699	
65	-0.693147	-0.67449	116.622	166.166	
66	-0.693147	-0.661955	117.06	166.625	
67	-0.693147	-0.649522	117.482	167.075	
68	-0.693147	-0.637192	117.888	167.517	
69	-0.693147	-0.624956	118.279	167.95	
70	-0.693147	-0.612813	118.654	168.375	
71	-0.693147	-0.60076	119.015	168.791	
72	-0.693147	-0.591776	119.365	169.201	
73	-0.693147	-0.579873	119.702	169.603	
74	-0.693147	-0.568052	120.024	169.997	
75	-0.693147	-0.556308	120.334	170.383	
76	-0.693147	-0.544642	120.63	170.76	
77	-0.693147	-0.533048	120.915	171.13	
78	-0.693147	-0.521527	121.187	171.491	
79	-0.693147	-0.510074	121.447	171.845	
80	-0.693147	-0.501527	121.698	172.192	
81	-0.693147	-0.490189	121.939	172.532	
82	-0.693147	-0.478914	122.168	172.864	
83	-0.693147	-0.467699	122.387	173.188	
84	-0.693147	-0.456542	122.595	173.505	
85	-0.693147	-0.445443	122.794	173.813	
86	-0.693147	-0.434397	122.982	174.115	
87	-0.693147	-0.426148	123.164	174.41	
88	-0.693147	-0.415193	123.336	174.698	
89	-0.693147	-0.40429	123.5	174.978	
90	-0.693147	-0.393433	123.654	175.251	
91	-0.693147	-0.382622	123.801	175.516	
92	-0.693147	-0.371856	123.939	175.774	
93	-0.693147	-0.361133	124.07	176.024	
94	-0.693147	-0.353118	124.194	176.269	
95	-0.693147	-0.342466	124.312	176.506	
96	-0.693147	-0.331854	124.422	176.736	
97	-0.693147	-0.321278	124.525	176.959	
98	-0.693147	-0.310738	124.621	177.174	
99	-0.693147	-0.300232	124.712	177.382	
100	-0.693147	-0.28976	124.796	177.583	
101	-0.693147	-0.281926	124.875	177.779	
102	-0.693147	-0.271509	124.949	177.967	
103	-0.693147	-0.26112	125.017	178.148	
104	-0.693147	-0.250759	125.08	178.322	
105	-0.693147	-0.240426	125.138	178.488	
106	-0.693147	-0.230118	125.191	178.648	
107	-0.693147	-0.219834	125.239	178.8	
108	-0.693147	-0.212137	125.284	178.947	
109	-0.693147	-0.201894	125.325	179.087	
110	-0.693147	-0.191671	125.361	179.22	
111	-0.693147	-0.181468	125.394	179.346	
112	-0.693147	-0.171285	125.424	179.464	
113	-0.693147	-0.161119	125.45	179.576	

114	-0.693147	-0.150969	125.472	179.681
115	-0.693147	-0.140835	125.492	179.778
116	-0.693147	-0.133244	125.51	179.871
117	-0.693147	-0.123135	125.525	179.956
118	-0.693147	-0.113039	125.538	180.034
119	-0.693147	-0.102953	125.549	180.106
120	-0.693147	-0.0928787	125.557	180.17
121	-0.693147	-0.0828129	125.564	180.228
122	-0.693147	-0.0727562	125.569	180.278
123	-0.693147	-0.0652187	125.574	180.323
124	-0.693147	-0.0551734	125.577	180.361
125	-0.693147	-0.0451348	125.579	180.393
126	-0.693147	-0.0350997	125.58	180.417
127	-0.693147	-0.0250691	125.581	180.434
128	-0.693147	-0.0150408	125.581	180.445
129	-0.693147	-0.00501359	125.581	180.448
130	-0.693147	0.00501359	125.581	180.445
131	-0.693147	0.0150408	125.581	180.434
132	-0.693147	0.0250691	125.582	180.417
133	-0.693147	0.0350997	125.583	180.393
134	-0.693147	0.0451348	125.585	180.361
135	-0.693147	0.0551734	125.588	180.323
136	-0.693147	0.0652187	125.592	180.278
137	-0.693147	0.0727562	125.598	180.228
138	-0.693147	0.0828129	125.604	180.17
139	-0.693147	0.0928787	125.613	180.106
140	-0.693147	0.102953	125.624	180.034
141	-0.693147	0.113039	125.636	179.956
142	-0.693147	0.123135	125.652	179.871
143	-0.693147	0.133244	125.669	179.778
144	-0.693147	0.140835	125.689	179.681
145	-0.693147	0.150969	125.712	179.576
146	-0.693147	0.161119	125.738	179.464
147	-0.693147	0.171285	125.767	179.346
148	-0.693147	0.181468	125.8	179.22
149	-0.693147	0.191671	125.837	179.087
150	-0.693147	0.201894	125.878	178.947
151	-0.693147	0.212137	125.923	178.8
152	-0.693147	0.219834	125.971	178.648
153	-0.693147	0.230118	126.024	178.488
154	-0.693147	0.240426	126.082	178.322
155	-0.693147	0.250759	126.145	178.148
156	-0.693147	0.26112	126.213	177.967
157	-0.693147	0.271509	126.287	177.779
158	-0.693147	0.281926	126.366	177.583
159	-0.693147	0.28976	126.45	177.382
160	-0.693147	0.300232	126.54	177.174
161	-0.693147	0.310738	126.637	176.959
162	-0.693147	0.321278	126.74	176.736
163	-0.693147	0.331854	126.85	176.506
164	-0.693147	0.342466	126.967	176.269
165	-0.693147	0.353118	127.092	176.024
166	-0.693147	0.361133	127.222	175.774
167	-0.693147	0.371856	127.361	175.516
168	-0.693147	0.382622	127.507	175.251
169	-0.693147	0.393433	127.662	174.978
170	-0.693147	0.40429	127.825	174.698
171	-0.693147	0.415193	127.998	174.41
172	-0.693147	0.426148	128.179	174.115
173	-0.693147	0.434397	128.368	173.813
174	-0.693147	0.445443	128.566	173.505
175	-0.693147	0.456542	128.775	173.188

176	-0.693147		0.467699	128.994	172.864
177	-0.693147		0.478914	129.223	172.532
178	-0.693147		0.490189	129.463	172.192
179	-0.693147		0.501527	129.715	171.845
180	-0.693147		0.510074	129.975	171.491
181	-0.693147		0.521527	130.247	171.13
182	-0.693147		0.533048	130.531	170.76
183	-0.693147		0.544642	130.828	170.383
184	-0.693147		0.556308	131.137	169.997
185	-0.693147		0.568052	131.46	169.603
186	-0.693147		0.579873	131.796	169.201
187	-0.693147		0.591776	132.146	168.791
188	-0.693147		0.60076	132.507	168.375
189	-0.693147		0.612813	132.883	167.95
190	-0.693147		0.624956	133.273	167.517
191	-0.693147		0.637192	133.679	167.075
192	-0.693147		0.649522	134.101	166.625
193	-0.693147		0.661955	134.539	166.166
194	-0.693147		0.67449	134.994	165.699
195	-0.693147		0.68396	135.462	165.224
196	-0.693147		0.696684	135.948	164.742
197	-0.693147		0.709522	136.451	164.25
198	-0.693147		0.722479	136.973	163.749
199	-0.693147		0.735557	137.514	163.239
200	-0.693147		0.748762	138.075	162.72
201	-0.693147		0.7621	138.655	162.192
202	-0.693147		0.772193	139.252	161.657
203	-0.693147		0.785774	139.869	161.112
204	-0.693147		0.7995	140.508	160.558
205	-0.693147		0.813379	141.17	159.994
206	-0.693147		0.827417	141.855	159.421
207	-0.693147		0.841621	142.563	158.837
208	-0.693147		0.855996	143.296	158.244
209	-0.693147		0.866894	144.047	157.643
210	-0.693147		0.881587	144.824	157.032
211	-0.693147		0.896473	145.628	156.41
212	-0.693147		0.911562	146.459	155.779
213	-0.693147		0.926859	147.318	155.136
214	-0.693147		0.942375	148.206	154.483
215	-0.693147		0.958125	149.124	153.819
216	-0.693147		0.970094	150.065	153.146
217	-0.693147		0.986272	151.038	152.463
218	-0.693147		1.00271	152.043	151.768
219	-0.693147		1.01943	153.083	151.061
220	-0.693147		1.03643	154.157	150.343
221	-0.693147		1.05375	155.267	149.612
222	-0.693147		1.07138	156.415	148.87
223	-0.693147		1.08935	157.602	148.115
224	-0.693147		1.10306	158.818	147.35
225	-0.693147		1.12168	160.077	146.573
226	-0.415515		1.14069	161.378	146.099
227	-0.371064		1.16012	162.724	145.668
228	-0.274437		1.18	164.116	145.344
229	-0.210721		1.20036	165.557	145.091
230	0	1.22123	167.048	145.091	
231	0	1.23724	168.579	145.091	
232	0	1.25908	170.164	145.091	
233	0	1.28155	171.807	145.091	
234	0	1.30469	173.509	145.091	
235	0	1.32854	175.274	145.091	
236	0	1.35317	177.105	145.091	
237	0	1.37866	179.006	145.091	

238	0	1.39838	180.961	145.091	
239	0	1.42554	182.993	145.091	
240	0	1.4538	185.107	145.091	
241	0.0953102		1.48328	187.307	145.233
242	0.693147		1.5141	189.599	146.282
243	0.693147		1.54643	191.991	147.354
244	0.693147		1.58047	194.489	148.45
245	0.693147		1.60725	197.072	149.564
246	0.693147		1.64485	199.778	150.704
247	0.693147		1.68494	202.617	151.872
248	0.741937		1.72793	205.602	153.154
249	0.788457		1.77438	208.751	154.553
250	0.832909		1.82501	212.081	156.073
251	1.09861	1.88079	215.619	158.139	
252	1.38629	1.92684	219.332	160.81	
253	1.38629	1.99539	223.313	163.576	
254	1.58924	2.07485	227.618	166.874	
255	1.90211	2.17009	232.327	171.002	
256	2.19722	2.29036	237.573	176.034	
257	2.30259	2.45727	243.611	181.692	
258	2.48491	2.74777	251.162	188.52	

Data Set Standard Deviation = 0.851371
Numerator = 35539.8
Denominator = 46786.8
W Statistic = 0.759611 = 35539.8 / 46786.8

5% Critical value of 0.976 exceeds 0.759611
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.759611
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 = 0.87237
0.87237 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.07944	0.003861	-2.74777	121.083	348.683
2	-2.07944	0.00772201	-2.45727	121.083	334.497
3	-2.07944	0.011583	-2.29036	121.083	326.346
4	-2.07944	0.015444	-2.17009	121.083	320.473
5	-2.07944	0.019305	-2.07485	121.083	315.822
6	-2.07944	0.023166	-1.99539	121.083	311.942
7	-2.07944	0.027027	-1.92684	121.083	308.594
8	-2.07944	0.030888	-1.88079	121.083	306.345
9	-2.07944	0.034749	-1.82501	121.083	303.621
10	-2.07944	0.03861	-1.77438	121.083	301.149
11	-2.07944	0.042471	-1.72793	121.083	298.881
12	-2.07944	0.046332	-1.68494	121.083	296.781
13	-2.07944	0.0501931	-1.64485	121.083	294.824
14	-2.07944	0.0540541	-1.60725	121.083	292.987
15	-2.07944	0.0579151	-1.58047	121.083	291.679
16	-2.07944	0.0617761	-1.54643	121.083	290.017
17	-2.07944	0.0656371	-1.5141	121.083	288.439
18	-2.07944	0.0694981	-1.48328	121.083	286.934
19	-2.07944	0.0733591	-1.4538	121.083	285.494
20	-2.07944	0.0772201	-1.42554	121.083	284.114
21	-2.07944	0.0810811	-1.39838	121.083	282.787
22	-2.07944	0.0849421	-1.37866	121.083	281.824
23	-2.07944	0.0888031	-1.35317	121.083	280.58
24	-2.07944	0.0926641	-1.32854	121.083	279.377
25	-2.07944	0.0965251	-1.30469	121.083	278.212
26	-2.07944	0.100386	-1.28155	121.083	277.082
27	-2.07944	0.104247	-1.25908	121.083	275.985
28	-2.07944	0.108108	-1.23724	121.083	274.918
29	-2.07944	0.111969	-1.22123	121.083	274.137
30	-2.07944	0.11583	-1.20036	121.083	273.118
31	-2.07944	0.119691	-1.18	121.083	272.123
32	-2.07944	0.123552	-1.16012	121.083	271.153
33	-2.07944	0.127413	-1.14069	121.083	270.204
34	-2.07944	0.131274	-1.12168	121.083	269.275
35	-2.07944	0.135135	-1.10306	121.083	268.366
36	-2.07944	0.138996	-1.08935	121.083	267.697
37	-2.07944	0.142857	-1.07138	121.083	266.819
38	-2.07944	0.146718	-1.05375	121.083	265.958
39	-2.07944	0.150579	-1.03643	121.083	265.112
40	-2.07944	0.15444	-1.01943	121.083	264.282
41	-2.07944	0.158301	-1.00271	121.083	263.466
42	-2.07944	0.162162	-0.986272	121.083	262.663
43	-2.07944	0.166023	-0.970094	121.083	261.873
44	-2.07944	0.169884	-0.958125	121.083	261.288
45	-2.07944	0.173745	-0.942375	121.083	260.519
46	-2.07944	0.177606	-0.926859	121.083	259.762
47	-2.07944	0.181467	-0.911562	121.083	259.015
48	-2.07944	0.185328	-0.896473	121.083	258.278

49	-2.07944	0.189189	-0.881587	121.083	257.551
50	-2.07944	0.19305	-0.866894	121.083	256.833
51	-2.07944	0.196911	-0.855996	121.083	256.301
52	-2.07944	0.200772	-0.841621	121.083	255.599
53	-2.07944	0.204633	-0.827417	121.083	254.906
54	-2.07944	0.208494	-0.813379	121.083	254.22
55	-2.07944	0.212355	-0.7995	121.083	253.542
56	-2.07944	0.216216	-0.785774	121.083	252.872
57	-2.07944	0.220077	-0.772193	121.083	252.209
58	-2.07944	0.223938	-0.7621	121.083	251.716
59	-2.07944	0.227799	-0.748762	121.083	251.065
60	-2.07944	0.23166	-0.735557	121.083	250.42
61	-2.07944	0.235521	-0.722479	121.083	249.781
62	-1.17118	0.239382	-0.709522	202.07	249.148
63	-0.891598	0.243243	-0.696684	226.999	248.521
64	-0.693147	0.247104	-0.68396	244.694	247.9
65	-0.693147	0.250965	-0.67449	244.694	247.438
66	-0.693147	0.254826	-0.661955	244.694	246.825
67	-0.693147	0.258687	-0.649522	244.694	246.218
68	-0.693147	0.262548	-0.637192	244.694	245.616
69	-0.693147	0.266409	-0.624956	244.694	245.019
70	-0.693147	0.27027	-0.612813	244.694	244.426
71	-0.693147	0.274131	-0.60076	244.694	243.837
72	-0.693147	0.277992	-0.591776	244.694	243.398
73	-0.693147	0.281853	-0.579873	244.694	242.817
74	-0.693147	0.285714	-0.568052	244.694	242.24
75	-0.693147	0.289575	-0.556308	244.694	241.666
76	-0.693147	0.293436	-0.544642	244.694	241.097
77	-0.693147	0.297297	-0.533048	244.694	240.531
78	-0.693147	0.301158	-0.521527	244.694	239.968
79	-0.693147	0.305019	-0.510074	244.694	239.409
80	-0.693147	0.30888	-0.501527	244.694	238.991
81	-0.693147	0.312741	-0.490189	244.694	238.438
82	-0.693147	0.316602	-0.478914	244.694	237.887
83	-0.693147	0.320463	-0.467699	244.694	237.339
84	-0.693147	0.324324	-0.456542	244.694	236.794
85	-0.693147	0.328185	-0.445443	244.694	236.252
86	-0.693147	0.332046	-0.434397	244.694	235.713
87	-0.693147	0.335907	-0.426148	244.694	235.31
88	-0.693147	0.339768	-0.415193	244.694	234.775
89	-0.693147	0.343629	-0.40429	244.694	234.243
90	-0.693147	0.34749	-0.393433	244.694	233.713
91	-0.693147	0.351351	-0.382622	244.694	233.185
92	-0.693147	0.355212	-0.371856	244.694	232.659
93	-0.693147	0.359073	-0.361133	244.694	232.135
94	-0.693147	0.362934	-0.353118	244.694	231.744
95	-0.693147	0.366795	-0.342466	244.694	231.224
96	-0.693147	0.370656	-0.331854	244.694	230.706
97	-0.693147	0.374517	-0.321278	244.694	230.189
98	-0.693147	0.378378	-0.310738	244.694	229.674
99	-0.693147	0.382239	-0.300232	244.694	229.161
100	-0.693147	0.3861	-0.28976	244.694	228.65
101	-0.693147	0.389961	-0.281926	244.694	228.267
102	-0.693147	0.393822	-0.271509	244.694	227.759
103	-0.693147	0.397683	-0.26112	244.694	227.251
104	-0.693147	0.401544	-0.250759	244.694	226.745
105	-0.693147	0.405405	-0.240426	244.694	226.241
106	-0.693147	0.409266	-0.230118	244.694	225.737
107	-0.693147	0.413127	-0.219834	244.694	225.235
108	-0.693147	0.416988	-0.212137	244.694	224.859
109	-0.693147	0.420849	-0.201894	244.694	224.359
110	-0.693147	0.42471	-0.191671	244.694	223.86

111	-0.693147	0.428571	-0.181468	244.694	223.362
112	-0.693147	0.432432	-0.171285	244.694	222.864
113	-0.693147	0.436293	-0.161119	244.694	222.368
114	-0.693147	0.440154	-0.150969	244.694	221.872
115	-0.693147	0.444015	-0.140835	244.694	221.377
116	-0.693147	0.447876	-0.133244	244.694	221.007
117	-0.693147	0.451737	-0.123135	244.694	220.513
118	-0.693147	0.455598	-0.113039	244.694	220.02
119	-0.693147	0.459459	-0.102953	244.694	219.528
120	-0.693147	0.46332	-0.0928787	244.694	219.036
121	-0.693147	0.467181	-0.0828129	244.694	218.544
122	-0.693147	0.471042	-0.0727562	244.694	218.053
123	-0.693147	0.474903	-0.0652187	244.694	217.685
124	-0.693147	0.478764	-0.0551734	244.694	217.194
125	-0.693147	0.482625	-0.0451348	244.694	216.704
126	-0.693147	0.486486	-0.0350997	244.694	216.214
127	-0.693147	0.490347	-0.0250691	244.694	215.724
128	-0.693147	0.494208	-0.0150408	244.694	215.234
129	-0.693147	0.498069	-0.00501359	244.694	214.745
130	-0.693147	0.501931	0.00501359	244.694	214.255
131	-0.693147	0.505792	0.0150408	244.694	213.766
132	-0.693147	0.509653	0.0250691	244.694	213.276
133	-0.693147	0.513514	0.0350997	244.694	212.786
134	-0.693147	0.517375	0.0451348	244.694	212.296
135	-0.693147	0.521236	0.0551734	244.694	211.806
136	-0.693147	0.525097	0.0652187	244.694	211.315
137	-0.693147	0.528958	0.0727562	244.694	210.947
138	-0.693147	0.532819	0.0828129	244.694	210.456
139	-0.693147	0.53668	0.0928787	244.694	209.964
140	-0.693147	0.540541	0.102953	244.694	209.472
141	-0.693147	0.544402	0.113039	244.694	208.98
142	-0.693147	0.548263	0.123135	244.694	208.487
143	-0.693147	0.552124	0.133244	244.694	207.993
144	-0.693147	0.555985	0.140835	244.694	207.623
145	-0.693147	0.559846	0.150969	244.694	207.128
146	-0.693147	0.563707	0.161119	244.694	206.632
147	-0.693147	0.567568	0.171285	244.694	206.136
148	-0.693147	0.571429	0.181468	244.694	205.638
149	-0.693147	0.57529	0.191671	244.694	205.14
150	-0.693147	0.579151	0.201894	244.694	204.641
151	-0.693147	0.583012	0.212137	244.694	204.141
152	-0.693147	0.586873	0.219834	244.694	203.765
153	-0.693147	0.590734	0.230118	244.694	203.263
154	-0.693147	0.594595	0.240426	244.694	202.759
155	-0.693147	0.598456	0.250759	244.694	202.255
156	-0.693147	0.602317	0.26112	244.694	201.749
157	-0.693147	0.606178	0.271509	244.694	201.241
158	-0.693147	0.610039	0.281926	244.694	200.733
159	-0.693147	0.6139	0.28976	244.694	200.35
160	-0.693147	0.617761	0.300232	244.694	199.839
161	-0.693147	0.621622	0.310738	244.694	199.326
162	-0.693147	0.625483	0.321278	244.694	198.811
163	-0.693147	0.629344	0.331854	244.694	198.294
164	-0.693147	0.633205	0.342466	244.694	197.776
165	-0.693147	0.637066	0.353118	244.694	197.256
166	-0.693147	0.640927	0.361133	244.694	196.865
167	-0.693147	0.644788	0.371856	244.694	196.341
168	-0.693147	0.648649	0.382622	244.694	195.815
169	-0.693147	0.65251	0.393433	244.694	195.287
170	-0.693147	0.656371	0.40429	244.694	194.757
171	-0.693147	0.660232	0.415193	244.694	194.225
172	-0.693147	0.664093	0.426148	244.694	193.69

173	-0.693147	0.667954	0.434397	244.694	193.287
174	-0.693147	0.671815	0.445443	244.694	192.748
175	-0.693147	0.675676	0.456542	244.694	192.206
176	-0.693147	0.679537	0.467699	244.694	191.661
177	-0.693147	0.683398	0.478914	244.694	191.113
178	-0.693147	0.687259	0.490189	244.694	190.562
179	-0.693147	0.69112	0.501527	244.694	190.009
180	-0.693147	0.694981	0.510074	244.694	189.591
181	-0.693147	0.698842	0.521527	244.694	189.032
182	-0.693147	0.702703	0.533048	244.694	188.469
183	-0.693147	0.706564	0.544642	244.694	187.903
184	-0.693147	0.710425	0.556308	244.694	187.334
185	-0.693147	0.714286	0.568052	244.694	186.76
186	-0.693147	0.718147	0.579873	244.694	186.183
187	-0.693147	0.722008	0.591776	244.694	185.602
188	-0.693147	0.725869	0.60076	244.694	185.163
189	-0.693147	0.72973	0.612813	244.694	184.574
190	-0.693147	0.733591	0.624956	244.694	183.981
191	-0.693147	0.737452	0.637192	244.694	183.384
192	-0.693147	0.741313	0.649522	244.694	182.782
193	-0.693147	0.745174	0.661955	244.694	182.175
194	-0.693147	0.749035	0.67449	244.694	181.562
195	-0.693147	0.752896	0.68396	244.694	181.1
196	-0.693147	0.756757	0.696684	244.694	180.479
197	-0.693147	0.760618	0.709522	244.694	179.852
198	-0.693147	0.764479	0.722479	244.694	179.219
199	-0.693147	0.76834	0.735557	244.694	178.58
200	-0.693147	0.772201	0.748762	244.694	177.935
201	-0.693147	0.776062	0.7621	244.694	177.284
202	-0.693147	0.779923	0.772193	244.694	176.791
203	-0.693147	0.783784	0.785774	244.694	176.128
204	-0.693147	0.787645	0.7995	244.694	175.458
205	-0.693147	0.791506	0.813379	244.694	174.78
206	-0.693147	0.795367	0.827417	244.694	174.094
207	-0.693147	0.799228	0.841621	244.694	173.401
208	-0.693147	0.803089	0.855996	244.694	172.699
209	-0.693147	0.80695	0.866894	244.694	172.167
210	-0.693147	0.810811	0.881587	244.694	171.449
211	-0.693147	0.814672	0.896473	244.694	170.722
212	-0.693147	0.818533	0.911562	244.694	169.985
213	-0.693147	0.822394	0.926859	244.694	169.238
214	-0.693147	0.826255	0.942375	244.694	168.481
215	-0.693147	0.830116	0.958125	244.694	167.712
216	-0.693147	0.833977	0.970094	244.694	167.127
217	-0.693147	0.837838	0.986272	244.694	166.337
218	-0.693147	0.841699	1.00271	244.694	165.534
219	-0.693147	0.84556	1.01943	244.694	164.718
220	-0.693147	0.849421	1.03643	244.694	163.888
221	-0.693147	0.853282	1.05375	244.694	163.042
222	-0.693147	0.857143	1.07138	244.694	162.181
223	-0.693147	0.861004	1.08935	244.694	161.303
224	-0.693147	0.864865	1.10306	244.694	160.634
225	-0.693147	0.868726	1.12168	244.694	159.725
226	-0.415515	0.872587	1.14069	269.45	158.796
227	-0.371064	0.876448	1.16012	273.413	157.847
228	-0.274437	0.880309	1.18	282.029	156.877
229	-0.210721	0.88417	1.20036	287.711	155.882
230	0	0.888031	1.22123	306.5	154.863
231	0	0.891892	1.23724	306.5	154.082
232	0	0.895753	1.25908	306.5	153.015
233	0	0.899614	1.28155	306.5	151.918
234	0	0.903475	1.30469	306.5	150.788

235	0	0.907336	1.32854	306.5	149.623	
236	0	0.911197	1.35317	306.5	148.42	
237	0	0.915058	1.37866	306.5	147.176	
238	0	0.918919	1.39838	306.5	146.213	
239	0	0.92278	1.42554	306.5	144.886	
240	0	0.926641	1.4538	306.5	143.506	
241	0.0953102	0.930502	1.48328	314.998	142.066	
242	0.693147	0.934363	1.5141	368.306	140.561	
243	0.693147	0.938224	1.54643	368.306	138.983	
244	0.693147	0.942085	1.58047	368.306	137.321	
245	0.693147	0.945946	1.60725	368.306	136.013	
246	0.693147	0.949807	1.64485	368.306	134.176	
247	0.693147	0.953668	1.68494	368.306	132.219	
248	0.741937	0.957529	1.72793	372.656	130.119	
249	0.788457	0.96139	1.77438	376.804	127.851	
250	0.832909	0.965251	1.82501	380.768	125.379	
251	1.09861	0.969112	1.88079	404.46	122.655	
252	1.38629	0.972973	1.92684	430.111	120.406	
253	1.38629	0.976834	1.99539	430.111	117.058	
254	1.58924	0.980695	2.07485	448.207	113.178	
255	1.90211	0.984556	2.17009	476.105	108.527	
256	2.19722	0.988417	2.29036	502.419	102.654	
257	2.30259	0.992278	2.45727	511.814	94.5032	
258	2.48491	0.996139	2.74777	528.071	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
LMW-4	1/16/1998	ND<-0.693147	116.5
	3/16/1999	ND<-0.693147	116.5
	9/23/1999	ND<-0.693147	116.5
	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<0 J	116.5
	11/18/2006	ND<0 J	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<0 J	116.5
	11/20/2008	0	239
	11/16/2009	0.0953102	241
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	-0.210721 J	238
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	0	240
	5/16/2012	-0.415515 J	235

Rank Sum = 3057
Rank Mean = 145.571

Background Rank Sum = 3057
Background Rank Mean = 145.571

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-14R	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	ND<-2.07944 U	116.5

Rank Sum = 1048.5
Rank Mean = 116.5

LMW-15R	11/18/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5

	11/20/2008	ND<-0.693147	116.5
	11/16/2009	ND<-2.07944 U	116.5
	11/16/2009	ND<-2.07944 U	116.5
	11/16/2009	ND<-2.07944 U	116.5
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	ND<-2.07944 U	116.5

Rank Sum = 1864
Rank Mean = 116.5

LMW-16	11/18/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5
	11/16/2009	ND<-2.07944 U	116.5
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	ND<-2.07944 U	116.5

Rank Sum = 1281.5
Rank Mean = 116.5

LMW-3	11/19/1996	ND<-0.693147	116.5
	3/24/1997	ND<-0.693147	116.5
	1/16/1998	ND<-0.693147	116.5
	3/16/1999	ND<-0.693147	116.5
	9/23/1999	ND<-0.693147	116.5
	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<-0.693147	116.5
	11/18/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<0 J	116.5
	11/20/2008	ND<0 J	116.5
	11/16/2009	-0.891598 J	234
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	-1.17118 J	233

Rank Sum = 2913.5
Rank Mean = 126.674

LMW-3S	11/18/2006	2.48491	258
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	0.693147	242
	5/20/2008	ND<0 J	116.5
	11/20/2008	0.693147	243
	11/16/2009	0.788457	249
	6/30/2010	1.38629	252
	11/17/2010	0.832909	250
	7/6/2011	-0.274437 J	237
	11/22/2011	ND<-2.07944 U	116.5

	5/16/2012	0.741937	248

Rank Sum = 2328.5
Rank Mean = 211.682

LMW-6	1/16/1998	ND<-0.693147	116.5
	3/16/1999	ND<-0.693147	116.5
	9/23/1999	ND<-0.693147	116.5
	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<0 J	116.5
	11/18/2006	0.693147	244
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<0 J	116.5
	11/20/2008	ND<0 J	116.5
	11/16/2009	ND<-2.07944 U	116.5
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	-0.371064 J	236

Rank Sum = 2693.5
Rank Mean = 128.262

LMW-7	1/16/1998	ND<-0.693147	116.5
	3/16/1999	ND<-0.693147	116.5
	9/23/1999	ND<-0.693147	116.5
	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<-0.693147	116.5
	11/18/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	ND<-2.07944 U	116.5

Rank Sum = 2213.5
Rank Mean = 116.5

LMW-8	1/16/1998	ND<-0.693147	116.5
	3/16/1999	ND<-0.693147	116.5
	9/23/1999	ND<-0.693147	116.5
	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<-0.693147	116.5
	11/18/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5

	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5
	11/16/2009	ND<-2.07944 U	116.5
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	ND<-2.07944 U	116.5

Rank Sum = 2446.5
Rank Mean = 116.5

LMW-9	1/16/1998	ND<-0.693147	116.5
	3/16/1999	ND<-0.693147	116.5
	9/23/1999	ND<-0.693147	116.5
	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<-0.693147	116.5
	11/18/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5
	11/16/2009	ND<-2.07944 U	116.5
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	ND<-2.07944 U	116.5

Rank Sum = 2446.5
Rank Mean = 116.5

LMW-9S	11/18/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	ND<-2.07944 U	116.5

Rank Sum = 1165
Rank Mean = 116.5

LMW-10	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	0.693147	245
	11/18/2006	2.19722	256
	6/2/2007	0.693147	246
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	1.38629	253
	11/20/2008	0.693147	247
	11/16/2009	1.58924	254

	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	2.30259	257
	5/16/2012	1.90211	255

Rank Sum = 3178
Rank Mean = 176.556

LMW-9D	11/18/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5
	11/16/2009	ND<-2.07944 U	116.5
	6/30/2010	ND<-2.07944 U	116.5
	11/17/2010	ND<-2.07944 U	116.5
	7/6/2011	ND<-2.07944 U	116.5
	11/22/2011	ND<-2.07944 U	116.5
	5/16/2012	ND<-2.07944 U	116.5

Rank Sum = 1281.5
Rank Mean = 116.5

LMW-11	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5

Rank Sum = 1281.5
Rank Mean = 116.5

MW-5	1/16/1998	ND<-0.693147	116.5
	3/16/1999	ND<-0.693147	116.5
	9/23/1999	ND<-0.693147	116.5
	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<-0.693147	116.5
	11/15/2007	1.09861	251
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5

Rank Sum = 1649
Rank Mean = 126.846

LMW-12	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5

	11/20/2008	ND<-0.693147	116.5

Rank Sum = 1281.5
Rank Mean = 116.5

LMW-13	3/14/2000	ND<-0.693147	116.5
	9/23/2003	ND<-0.693147	116.5
	3/10/2004	ND<-0.693147	116.5
	10/12/2004	ND<-0.693147	116.5
	4/1/2005	ND<-0.693147	116.5
	10/26/2005	ND<-0.693147	116.5
	6/19/2006	ND<-0.693147	116.5
	6/2/2007	ND<-0.693147	116.5
	11/15/2007	ND<-0.693147	116.5
	5/20/2008	ND<-0.693147	116.5
	11/20/2008	ND<-0.693147	116.5

Rank Sum = 1281.5
Rank Mean = 116.5

Calculation Results:

Kruskal-Wallis H Statistic = 26.111
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 95.685
95% Confidence comparison value is 26.2962 at 16 degrees of freedom
26.111 < 26.2962 indicating no significant group difference at 5% significance level
95.685 > 26.2962 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 145.571

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-14R	**116.5**	**-29.0714**	**69.1628**
LMW-15R	**116.5**	**-29.0714**	**57.6068**
LMW-16	**116.5**	**-29.0714**	**64.6118**
LMW-3	**126.674**	**-18.8975**	**52.3957**
LMW-3S	**211.682**	**66.1104**	**64.6118**
LMW-6	**128.262**	**-17.3095**	**53.5733**
LMW-7	**116.5**	**-29.0714**	**54.965**
LMW-8	**116.5**	**-29.0714**	**53.5733**
LMW-9	**116.5**	**-29.0714**	**53.5733**
LMW-9S	**116.5**	**-29.0714**	**66.6982**
LMW-10	**176.556**	**30.9841**	**55.7608**
LMW-9D	**116.5**	**-29.0714**	**64.6118**
LMW-11	**116.5**	**-29.0714**	**64.6118**
MW-5	**126.846**	**-18.7253**	**61.2634**
LMW-12	**116.5**	**-29.0714**	**64.6118**
LMW-13	**116.5**	**-29.0714**	**64.6118**

Individual Well Comparisons at Groupwise 5% Significance Level (0.3125% Significance Level per comparison)

0.3125% Z score is 2.74777
Mean background rank is 145.571

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-14R	**116.5**	**-29.0714**	**81.6918**
LMW-15R	**116.5**	**-29.0714**	**68.0425**
LMW-16	**116.5**	**-29.0714**	**76.3164**
LMW-3	**126.674**	**-18.8975**	**61.8873**
LMW-3S	**211.682**	**66.1104**	**76.3164**
LMW-6	**128.262**	**-17.3095**	**63.2782**
LMW-7	**116.5**	**-29.0714**	**64.9221**

LMW-8	116.5	-29.071	463.2782
LMW-9	116.5	-29.071	463.2782
LMW-9S	116.5	-29.071	478.7807
LMW-10	176.556	30.9841	65.862
LMW-9D	116.5	-29.071	476.3164
LMW-11	116.5	-29.071	476.3164
MW-5	126.846	-18.725	372.3614
LMW-12	116.5	-29.071	476.3164
LMW-13	116.5	-29.071	476.3164

Mann-Kendall Trend Analysis
Parameter: Dichlorodifluoromethane
Location: LMW-3S
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives	
ND<-0.693147	2.48491	-3.178050	1		
0.693147	2.48491	-1.791760	2		
ND<0 J	2.48491	-2.484910	3		
0.693147	2.48491	-1.791760	4		
0.788457	2.48491	-1.696450	5		
1.38629	2.48491	-1.098610	6		
0.832909	2.48491	-1.652 0	7		
-0.274437 J	2.48491	-2.759340	8		
ND<-2.07944 U	2.48491	-4.564350	9		
0.741937	2.48491	-1.742970	10		
0.693147	ND<-0.693147	1.38629 1	10		
ND<0 J	ND<-0.693147	0.693147 2	10		
0.693147	ND<-0.693147	1.38629 3	10		
0.788457	ND<-0.693147	1.4816 4	10		
1.38629	ND<-0.693147	2.07944 5	10		
0.832909	ND<-0.693147	1.52606 6	10		
-0.274437 J	ND<-0.693147	0.41871 7	10		
ND<-2.07944 U	ND<-0.693147	-1.386297	11		
0.741937	ND<-0.693147	1.43508 8	11		
ND<0 J	0.693147	-0.693147 8	12		
0.693147	0.693147	0 8	12		
0.788457	0.693147	0.095310 2	9	12	
1.38629	0.693147	0.693147	10	12	
0.832909	0.693147	0.139762	11	12	
-0.274437 J	0.693147	-0.967584	11	13	
ND<-2.07944 U	0.693147	-2.772591 1	14		
0.741937	0.693147	0.048790 2	12	14	
0.693147	ND<0 J	0.693147 13	14		
0.788457	ND<0 J	0.788457 14	14		
1.38629	ND<0 J	1.38629 15	14		
0.832909	ND<0 J	0.832909 16	14		
-0.274437 J	ND<0 J	-0.274437 16	15		
ND<-2.07944 U	ND<0 J	-2.079441 6	16		
0.741937	ND<0 J	0.741937 17	16		
0.788457	0.693147	0.095310 2	18	16	
1.38629	0.693147	0.693147	19	16	
0.832909	0.693147	0.139762	20	16	
-0.274437 J	0.693147	-0.967584	20	17	
ND<-2.07944 U	0.693147	-2.772592 0	18		
0.741937	0.693147	0.048790 2	21	18	
1.38629	0.788457	0.597837	22	18	
0.832909	0.788457	0.044451 8	23	18	
-0.274437 J	0.788457	-1.062892 3	19		
ND<-2.07944 U	0.788457	-2.8679 23	20		
0.741937	0.788457	-0.046522 3	21		

0.832909	1.38629	-0.553385	23	22
-0.274437 J	1.38629	-1.660732	23	
ND<-2.07944 U	1.38629	-3.465742	23	
0.741937	1.38629	-0.644357	23	25
-0.274437 J	0.832909	-1.107352	23	
ND<-2.07944 U	0.832909	-2.912352	23	
0.741937	0.832909	-0.090971	8 23	28
ND<-2.07944 U	-0.274437 J	-1.805	23	29
0.741937	-0.274437 J	1.01637	24	29
0.741937	ND<-2.07944 U	2.82138	25	29

S Statistic = 25 - 29 = -4

Tied Group	Value	Members
1	0.693147	2

Time Period		Observations
11/18/2006		1
6/2/2007	1	
11/15/2007		1
5/20/2008		1
11/20/2008		1
11/16/2009		1
6/30/2010		1
11/17/2010		1
7/6/2011	1	
11/22/2011		1
5/16/2012		1

There are 0 time periods with multiple data

A = 18
B = 0
C = 0
D = 0
E = 2
F = 0
a = 2970
b = 8910
c = 220
Group Variance = 164
Z-Score = -0.234261
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-0.234261| <= 1.97737 indicating no evidence of a trend

Shewhart-CUSUM Control Chart

Parameter: Dichlorodifluoromethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = -0.586401
Baseline Std Dev = 0.588986
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
11/18/2006	2.48491	4.21457	5.21457	
11/18/2006	2.48491	4.21457	5.21457	
6/2/2007	-0.693147	3.03334	-0.181237	
6/2/2007	-0.693147	3.03334	-0.181237	
11/15/2007	0.693147	4.2058	2.17246	
11/15/2007	0.693147	4.2058	2.17246	
5/20/2008	0	4.20141	0.995612	
5/20/2008	0	4.20141	0.995612	
11/20/2008	0.693147	5.37387	2.17246	
11/20/2008	0.693147	5.37387	2.17246	
11/16/2009	0.788457	6.70815	2.33428	
11/16/2009	0.788457	6.70815	2.33428	
6/30/2010	1.38629	9.05746	3.34931	
6/30/2010	1.38629	9.05746	3.34931	
11/17/2010	0.832909	10.4672	2.40975	
11/17/2010	0.832909	10.4672	2.40975	
7/6/2011	-0.274437	9.99688	0.529664	
7/6/2011	-0.274437	9.99688	0.529664	
11/22/2011	-2.07944	6.46195	-2.53494	
11/22/2011	-2.07944	6.46195	-2.53494	
5/16/2012	0.741937	7.71725	2.2553	
5/16/2012	0.741937	7.71725	2.2553	

Concentrations (ppb)

Parameter: Lead

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 174
Percent Non-Detects: 64.2066%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	11 (50%)	1/16/1998	17	17
			3/16/1999	ND<1	ND<1
			9/23/1999	9	9
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	25	25
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<0 J	ND<0 J
			6/2/2007	3	3
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	0.13 J	0.13 J
			11/16/2009	0.3 J	0.3 J
			6/30/2010	0.19 J	0.19 J
			11/17/2010	0.16 J	0.16 J
			7/6/2011	0.26 J	0.26 J
			11/22/2011	0.13 J	0.13 J
			5/16/2012	0.3	0.3

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-6	22	17 (77.2727%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	16	16
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<0 J	ND<0 J
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	0.084 J	0.084 J
			11/16/2009	ND<0.08 U	ND<0.08 U
			6/30/2010	0.14 J	0.14 J
			11/17/2010	0.17 J	0.17 J
			7/6/2011	0.099 J	0.099 J
			11/22/2011	ND<0.08 U	ND<0.08 U

		5/16/2012	ND<0.08 U	ND<0.08 U	
LMW-14R	10	4 (40%)	6/2/2007	4	4
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	0.22 J	0.22 J	
		6/30/2010	0.1 J	0.1 J	
		11/17/2010	0.11 J	0.11 J	
		7/6/2011	0.3	0.3	
		11/22/2011	ND<0.08 U	ND<0.08 U	
		5/16/2012	0.12 J	0.12 J	
LMW-15R	17	9 (52.9412%)	11/18/2006	ND<0 J	ND<0 J
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		11/20/2008	1	1	
		6/11/2009	0.89	0.89	
		11/16/2009	ND<0.08 U	ND<0.08 U	
		11/16/2009	0.21 J	0.21 J	
		11/16/2009	0.14 J	0.14 J	
		6/30/2010	0.08 J	0.08 J	
		11/17/2010	0.16 J	0.16 J	
		7/6/2011	0.48	0.48	
		11/22/2011	ND<0.08 U	ND<0.08 U	
		5/16/2012	0.15 J	0.15 J	
LMW-16	12	7 (58.3333%)	11/18/2006	ND<0 J	ND<0 J
		6/2/2007	5	5	
		11/15/2007	2	2	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.08 U	ND<0.08 U	
		11/16/2009	0.099 J	0.099 J	
		6/30/2010	0.26 J	0.26 J	
		11/17/2010	ND<0.08 U	ND<0.08 U	
		7/6/2011	0.16 J	0.16 J	
		11/22/2011	ND<0.08 U	ND<0.08 U	
		5/16/2012	ND<0.08 U	ND<0.08 U	
LMW-3	24	17 (70.8333%)	11/19/1996	ND<1	ND<1
		3/24/1997	11	11	
		1/16/1998	ND<1	ND<1	
		3/16/1999	ND<1	ND<1	
		9/23/1999	8	8	
		3/14/2000	ND<1	ND<1	
		9/23/2003	ND<1	ND<1	
		3/10/2004	ND<1	ND<1	
		10/12/2004	ND<1	ND<1	
		4/1/2005	ND<1	ND<1	
		10/26/2005	ND<1	ND<1	
		6/19/2006	ND<1	ND<1	
		11/18/2006	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		11/15/2007	1	1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.08 U	ND<0.08 U	

			11/16/2009	0.37	0.37	
			6/30/2010	0.17 J	0.17 J	
			11/17/2010	0.51	0.51	
			7/6/2011	0.12 J	0.12 J	
			11/22/2011	ND<0.08 U		ND<0.08 U
			5/16/2012	ND<0.08 U		ND<0.08 U
LMW-10	19	14 (73.6842%)	3/14/2000		50	50
			9/23/2003	ND<1	ND<1	
			3/10/2004	130	130	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<0 J	ND<0 J	
			11/18/2006	ND<1	ND<1	
			6/2/2007	4	4	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<0 J	ND<0 J	
			6/11/2009	ND<0.08 U		ND<0.08 U
			11/16/2009	ND<0.08 U		ND<0.08 U
			6/30/2010	0.11 J	0.11 J	
			11/17/2010	ND<0.08 U		ND<0.08 U
			7/6/2011	ND<0.08 U	ND<0.08 U	
			11/22/2011	ND<0.08 U		ND<0.08 U
			5/16/2012	0.25 J	0.25 J	
LMW-7	20	8 (40%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	18	18	
			3/14/2000	16	16	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	3	3	
			10/26/2005	3	3	
			6/19/2006	3	3	
			11/18/2006	1	1	
			6/2/2007	3	3	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	0.88	0.88	
			11/17/2010	0.86	0.86	
			7/6/2011	2.5	2.5	
			11/22/2011	0.36	0.36	
			5/16/2012	0.4	0.4	
LMW-8	22	21 (95.4545%)	1/16/1998		ND<1	ND<1
			3/16/1999	ND<1	ND<1	
			9/23/1999	21	21	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	

			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.08 U	ND<0.08 U
			11/16/2009	ND<0.08 U	ND<0.08 U
			6/30/2010	ND<0.08 U	ND<0.08 U
			11/17/2010	ND<0.08 U	ND<0.08 U
			7/6/2011	ND<0.08 U	ND<0.08 U
			11/22/2011	ND<0.08 U	ND<0.08 U
			5/16/2012	ND<0.08 U	ND<0.08 U
LMW-9	22	14 (63.6364%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	27	27
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	13	13
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<0 J	ND<0 J
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<0 J	ND<0 J
			11/18/2006	ND<0 J	ND<0 J
			6/2/2007	1	1
			11/15/2007	ND<1	ND<1
			5/20/2008	1	1
			11/20/2008	ND<1	ND<1
			6/11/2009	0.17 J	0.17 J
			11/16/2009	ND<0.08 U	ND<0.08 U
			6/30/2010	0.16 J	0.16 J
			11/17/2010	0.57	0.57
			7/6/2011	ND<0.08 U	ND<0.08 U
			11/22/2011	ND<0.08 U	ND<0.08 U
			5/16/2012	0.097 J	0.097 J
LMW-9D	12	2 (16.6667%)	11/18/2006	3	3
			6/2/2007	3	3
			11/15/2007	ND<0 J	ND<0 J
			5/20/2008	3	3
			11/20/2008	ND<1	ND<1
			6/11/2009	0.71	0.71
			11/16/2009	0.31	0.31
			6/30/2010	0.23 J	0.23 J
			11/17/2010	0.44	0.44
			7/6/2011	0.46	0.46
			11/22/2011	0.12 J	0.12 J
			5/16/2012	0.49	0.49
LMW-9S	11	7 (63.6364%)	11/18/2006	ND<1	ND<1
			6/2/2007	2	2
			11/15/2007	1	1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<0 J	ND<0 J
			6/11/2009	ND<0.08 U	ND<0.08 U
			6/30/2010	0.11 J	0.11 J
			11/17/2010	0.55	0.55
			7/6/2011	ND<0.08 U	ND<0.08 U
			11/22/2011	ND<0.08 U	ND<0.08 U
			5/16/2012	ND<0.08 U	ND<0.08 U
LMW-3s	1	1 (100%)	5/16/2012	ND<0.08 U	ND<0.08 U
LMW-3S	11	5 (45.4545%)	11/18/2006	ND<1	ND<1
			6/2/2007	3	3
			11/15/2007	1	1

			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	0.58	0.58	
			11/16/2009	ND<0.08 U		ND<0.08 U
			6/30/2010	0.093 J	0.093 J	
			11/17/2010	1.7	1.7	
			7/6/2011	1.7	1.7	
			11/22/2011	ND<0.08 U		ND<0.08 U
LMW-12	11	9 (81.8182%)	3/14/2000		49	49
			9/23/2003	ND<1	ND<1	
			3/10/2004	18	18	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-13	11	9 (81.8182%)	3/14/2000		44	44
			9/23/2003	ND<1	ND<1	
			3/10/2004	35	35	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-11	11	9 (81.8182%)	3/14/2000		19	19
			9/23/2003	ND<1	ND<1	
			3/10/2004	46	46	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
MW-5	13	10 (76.9231%)	1/16/1998		ND<1	ND<1
			3/16/1999	ND<1	ND<1	
			9/23/1999	14	14	
			3/14/2000	22	22	
			9/23/2003	ND<1	ND<1	
			3/10/2004	52	52	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.74777	7.55021	0
2	0	-2.45727	13.5884	0
3	0	-2.29036	18.8342	0
4	0	-2.19728	23.6622	0
5	0	-2.09693	28.0593	0
6	0	-2.01409	32.1159	0
7	0	-1.95996	35.9574	0
8	0	-1.8957	39.551	0
9	0	-1.83843	42.9308	0
10	0	-1.79912	46.1677	0
11	0	-1.75069	49.2326	0
12	0.04	-1.70604	52.1431	-0.0682418
13	0.04	-1.67466	54.9476	-0.135228
14	0.04	-1.63524	57.6216	-0.200638
15	0.04	-1.59819	60.1758	-0.264565
16	0.04	-1.57179	62.6464	-0.327437
17	0.04	-1.5382	65.0124	-0.388965
18	0.04	-1.50626	67.2812	-0.449215
19	0.04	-1.48328	69.4814	-0.508547
20	0.04	-1.4538	71.5949	-0.566699
21	0.04	-1.42554	73.6271	-0.62372
22	0.04	-1.40507	75.6013	-0.679923
23	0.04	-1.37866	77.502	-0.73507
24	0.04	-1.35317	79.3331	-0.789197
25	0.04	-1.33462	81.1143	-0.842582
26	0.04	-1.31058	82.8319	-0.895005
27	0.04	-1.28727	84.489	-0.946496
28	0.04	-1.27024	86.1025	-0.997305
29	0.04	-1.24809	87.6602	-1.04723
30	0.04	-1.22653	89.1646	-1.09629
31	0.04	-1.21073	90.6305	-1.14472
32	0.04	-1.19012	92.0469	-1.19232
33	0.04	-1.17	93.4158	-1.23912
34	0.04	-1.15035	94.7391	-1.28514
35	0.04	-1.1359	96.0293	-1.33057
36	0.04	-1.11699	97.277	-1.37525
37	0.04	-1.09847	98.4836	-1.41919
38	0.04	-1.08482	99.6605	-1.46258
39	0.04	-1.06694	100.799	-1.50526
40	0.04	-1.04939	101.9	-1.54724
41	0.04	-1.03643	102.974	-1.58869
42	0.04	-1.01943	104.013	-1.62947
43	0.04	-1.00271	105.019	-1.66958
44	0.04	-0.990356	106	-1.70919
45	0.04	-0.974114	106.949	-1.74816
46	0.04	-0.958125	107.867	-1.78648
47	0.08	-0.946291	108.762	-1.86219
48	0.084	-0.930718	109.628	-1.94037
49	0.093	-0.915365	110.466	-2.0255
50	0.097	-0.903992	111.283	-2.11318
51	0.099	-0.889006	112.074	-2.2012

52	0.099	-0.874218	112.838	-2.28774
53	0.1	-0.863249	113.583	-2.37407
54	0.11	-0.848786	114.304	-2.46743
55	0.11	-0.834498	115	-2.55923
56	0.11	-0.823893	115.679	-2.64986
57	0.12	-0.809896	116.335	-2.74705
58	0.12	-0.796056	116.968	-2.84257
59	0.12	-0.785774	117.586	-2.93686
60	0.13	-0.772193	118.182	-3.03725
61	0.13	-0.758753	118.758	-3.13589
62	0.14	-0.748762	119.318	-3.24071
63	0.14	-0.735557	119.86	-3.34369
64	0.15	-0.722479	120.382	-3.45206
65	0.16	-0.712751	120.89	-3.5661
66	0.16	-0.699883	121.379	-3.67809
67	0.16	-0.687131	121.852	-3.78803
68	0.16	-0.67449	122.306	-3.89594
69	0.17	-0.665079	122.749	-4.00901
70	0.17	-0.652622	123.175	-4.11995
71	0.17	-0.640266	123.585	-4.2288
72	0.19	-0.631062	123.983	-4.3487
73	0.21	-0.618872	124.366	-4.47866
74	0.22	-0.606775	124.734	-4.61215
75	0.23	-0.597761	125.091	-4.74964
76	0.25	-0.585815	125.435	-4.89609
77	0.26	-0.573953	125.764	-5.04532
78	0.26	-0.565108	126.083	-5.19225
79	0.3	-0.553384	126.39	-5.35826
80	0.3	-0.541736	126.683	-5.52079
81	0.3	-0.533048	126.967	-5.6807
82	0.31	-0.521527	127.239	-5.84237
83	0.36	-0.510074	127.499	-6.026
84	0.37	-0.501527	127.751	-6.21156
85	0.4	-0.490189	127.991	-6.40764
86	0.44	-0.478914	128.221	-6.61836
87	0.46	-0.470498	128.442	-6.83479
88	0.48	-0.459327	128.653	-7.05527
89	0.49	-0.448213	128.854	-7.27489
90	0.5	-0.439913	129.047	-7.49485
91	0.5	-0.428895	129.231	-7.7093
92	0.5	-0.417928	129.406	-7.91826
93	0.5	-0.409735	129.574	-8.12313
94	0.5	-0.398855	129.733	-8.32256
95	0.5	-0.388022	129.883	-8.51657
96	0.5	-0.379927	130.028	-8.70653
97	0.5	-0.369171	130.164	-8.89112
98	0.5	-0.358459	130.293	-9.07035
99	0.5	-0.350451	130.415	-9.24557
100	0.5	-0.33981	130.531	-9.41548
101	0.5	-0.329206	130.639	-9.58008
102	0.5	-0.318639	130.741	-9.7394
103	0.5	-0.310738	130.837	-9.89477
104	0.5	-0.300232	130.927	-10.0449
105	0.5	-0.28976	131.011	-10.1898
106	0.5	-0.281926	131.091	-10.3307
107	0.5	-0.271509	131.165	-10.4665
108	0.5	-0.26112	131.233	-10.597
109	0.5	-0.253347	131.297	-10.7237
110	0.5	-0.243007	131.356	-10.8452
111	0.5	-0.232693	131.41	-10.9616
112	0.5	-0.224974	131.461	-11.0741
113	0.5	-0.214702	131.507	-11.1814

114	0.5	-0.204452	131.549	-11.2836
115	0.5	-0.196779	131.587	-11.382
116	0.5	-0.186567	131.622	-11.4753
117	0.5	-0.176374	131.653	-11.5635
118	0.5	-0.168741	131.682	-11.6479
119	0.5	-0.158579	131.707	-11.7271
120	0.5	-0.148434	131.729	-11.8014
121	0.5	-0.140835	131.749	-11.8718
122	0.5	-0.130716	131.766	-11.9371
123	0.5	-0.12061	131.78	-11.9974
124	0.5	-0.113039	131.793	-12.054
125	0.5	-0.102953	131.804	-12.1054
126	0.5	-0.0928787	131.812	-12.1519
127	0.5	-0.0853288	131.82	-12.1945
128	0.5	-0.0752698	131.825	-12.2322
129	0.5	-0.0652187	131.83	-12.2648
130	0.5	-0.0576847	131.833	-12.2936
131	0.5	-0.0476439	131.835	-12.3175
132	0.5	-0.0376076	131.837	-12.3363
133	0.5	-0.0300838	131.838	-12.3513
134	0.5	-0.0200544	131.838	-12.3613
135	0.5	-0.0100272	131.838	-12.3663
136	0.5	0	131.838	-12.3663
137	0.5	0.0100272	131.838	-12.3613
138	0.5	0.0200544	131.839	-12.3513
139	0.5	0.0300838	131.839	-12.3363
140	0.5	0.0376076	131.841	-12.3175
141	0.5	0.0476439	131.843	-12.2936
142	0.5	0.0576847	131.846	-12.2648
143	0.5	0.0652187	131.851	-12.2322
144	0.5	0.0752698	131.856	-12.1945
145	0.5	0.0853288	131.864	-12.1519
146	0.5	0.0928787	131.872	-12.1054
147	0.5	0.102953	131.883	-12.054
148	0.5	0.113039	131.896	-11.9974
149	0.5	0.12061	131.91	-11.9371
150	0.5	0.130716	131.927	-11.8718
151	0.5	0.140835	131.947	-11.8014
152	0.5	0.148434	131.969	-11.7271
153	0.5	0.158579	131.994	-11.6479
154	0.5	0.168741	132.023	-11.5635
155	0.5	0.176374	132.054	-11.4753
156	0.5	0.186567	132.089	-11.382
157	0.5	0.196779	132.127	-11.2836
158	0.5	0.204452	132.169	-11.1814
159	0.5	0.214702	132.215	-11.0741
160	0.5	0.224974	132.266	-10.9616
161	0.5	0.232693	132.32	-10.8452
162	0.5	0.243007	132.379	-10.7237
163	0.5	0.253347	132.443	-10.597
164	0.5	0.26112	132.512	-10.4665
165	0.5	0.271509	132.585	-10.3307
166	0.5	0.281926	132.665	-10.1898
167	0.5	0.28976	132.749	-10.0449
168	0.5	0.300232	132.839	-9.89477
169	0.5	0.310738	132.935	-9.7394
170	0.5	0.318639	133.037	-9.58008
171	0.5	0.329206	133.145	-9.41548
172	0.5	0.33981	133.261	-9.24557
173	0.5	0.350451	133.384	-9.07035
174	0.5	0.358459	133.512	-8.89112
175	0.5	0.369171	133.648	-8.70653

176	0.5	0.379927		133.793	-8.51657
177	0.5	0.388022		133.943	-8.32256
178	0.5	0.398855		134.102	-8.12313
179	0.5	0.409735		134.27	-7.91826
180	0.5	0.417928		134.445	-7.7093
181	0.5	0.428895		134.629	-7.49485
182	0.5	0.439913		134.822	-7.27489
183	0.5	0.448213		135.023	-7.05079
184	0.5	0.459327		135.234	-6.82112
185	0.5	0.470498		135.456	-6.58587
186	0.5	0.478914		135.685	-6.34642
187	0.5	0.490189		135.925	-6.10132
188	0.5	0.501527		136.177	-5.85056
189	0.5	0.510074		136.437	-5.59552
190	0.5	0.521527		136.709	-5.33476
191	0.5	0.533048		136.993	-5.06823
192	0.5	0.541736		137.287	-4.79737
193	0.5	0.553384		137.593	-4.52067
194	0.5	0.565108		137.912	-4.23812
195	0.5	0.573953		138.242	-3.95114
196	0.5	0.585815		138.585	-3.65824
197	0.5	0.597761		138.942	-3.35936
198	0.5	0.606775		139.31	-3.05597
199	0.5	0.618872		139.693	-2.74653
200	0.5	0.631062		140.091	-2.431
201	0.5	0.640266		140.501	-2.11087
202	0.5	0.652622		140.927	-1.78456
203	0.5	0.665079		141.37	-1.45202
204	0.5	0.67449	141.825	-1.11477	
205	0.5	0.687131		142.297	-0.771207
206	0.5	0.699883		142.787	-0.421265
207	0.5	0.712751		143.295	-0.0648902
208	0.5	0.722479		143.817	0.296349
209	0.5	0.735557		144.358	0.664128
210	0.5	0.748762		144.918	1.03851
211	0.5	0.758753		145.494	1.41789
212	0.5	0.772193		146.09	1.80398
213	0.5	0.785774		146.708	2.19687
214	0.5	0.796056		147.341	2.5949
215	0.5	0.809896		147.997	2.99984
216	0.5	0.823893		148.676	3.41179
217	0.5	0.834498		149.373	3.82904
218	0.51	0.848786		150.093	4.26192
219	0.55	0.863249		150.838	4.73671
220	0.57	0.874218		151.602	5.23501
221	0.58	0.889006		152.393	5.75064
222	0.71	0.903992		153.21	6.39247
223	0.86	0.915365		154.048	7.17968
224	0.88	0.930718		154.914	7.99872
225	0.89	0.946291		155.81	8.84091
226	1	0.958125		156.728	9.79904
227	1	0.974114		157.676	10.7732
228	1	0.990356		158.657	11.7635
229	1	1.00271	159.663	12.7662	
230	1	1.01943	160.702	13.7856	
231	1	1.03643	161.776	14.8221	
232	1	1.04939	162.877	15.8715	
233	1.7	1.06694	164.016	17.6853	
234	1.7	1.08482	165.193	19.5295	
235	2	1.09847	166.399	21.7264	
236	2	1.11699	167.647	23.9604	
237	2.5	1.1359	168.937	26.8001	

238	3	1.15035	170.26	30.2512
239	3	1.17	171.629	33.7612
240	3	1.19012	173.046	37.3315
241	3	1.21073	174.512	40.9637
242	3	1.22653	176.016	44.6433
243	3	1.24809	177.574	48.3875
244	3	1.27024	179.187	52.1983
245	3	1.28727	180.844	56.0601
246	3	1.31058	182.562	59.9918
247	4	1.33462	184.343	65.3303
248	4	1.35317	186.174	70.743
249	5	1.37866	188.075	77.6363
250	8	1.40507	190.049	88.8769
251	9	1.42554	192.081	101.707
252	11	1.4538	194.195	117.699
253	13	1.48328	196.395	136.981
254	14	1.50626	198.664	158.069
255	16	1.5382	201.03	182.68
256	16	1.57179	203.5	207.829
257	17	1.59819	206.054	234.998
258	18	1.63524	208.728	264.432
259	18	1.67466	211.533	294.576
260	19	1.70604	214.444	326.991
261	21	1.75069	217.508	363.755
262	22	1.79912	220.745	403.336
263	25	1.83843	224.125	449.297
264	27	1.8957	227.719	500.48
265	35	1.95996	231.56	569.079
266	44	2.01409	235.617	657.699
267	46	2.09693	240.014	754.158
268	49	2.19728	244.842	861.825
269	50	2.29036	250.088	976.343
270	52	2.45727	256.126	1104.12
271	130	2.74777	263.676	1461.33

Data Set Standard Deviation = 10.9481
Numerator = 2.13549e+006
Denominator = 8.53321e+006
W Statistic = 0.250256 = 2.13549e+006 / 8.53321e+006

5% Critical value of 0.976 exceeds 0.250256
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.250256
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 = 0.505894
0.505894 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00367647		-2.747773	9	348.683
2	0	0.00735294		-2.457273	9	334.497
3	0	0.0110294		-2.290363	9	326.346
4	0	0.0147059		-2.197283	9	321.801
5	0	0.0183824		-2.096933	9	316.9
6	0	0.0220588		-2.014093	9	312.855
7	0	0.0257353		-1.959963	9	310.211
8	0	0.0294118		-1.8957	39	307.073
9	0	0.0330882		-1.838433	9	304.276
10	0	0.0367647		-1.799123	9	302.357
11	0	0.0404412		-1.750693	9	299.992
12	0.04	0.0441176		-1.706043	9.107	297.812
13	0.04	0.0477941		-1.674663	9.107	296.279
14	0.04	0.0514706		-1.635243	9.107	294.354
15	0.04	0.0551471		-1.598193	9.107	292.545
16	0.04	0.0588235		-1.571793	9.107	291.256
17	0.04	0.0625	-1.5382	39.107	289.615	
18	0.04	0.0661765		-1.506263	9.107	288.056
19	0.04	0.0698529		-1.483283	9.107	286.934
20	0.04	0.0735294		-1.4538	39.107	285.494
21	0.04	0.0772059		-1.425543	9.107	284.114
22	0.04	0.0808824		-1.405073	9.107	283.114
23	0.04	0.0845588		-1.378663	9.107	281.824
24	0.04	0.0882353		-1.353173	9.107	280.58
25	0.04	0.0919118		-1.334623	9.107	279.674
26	0.04	0.0955882		-1.310583	9.107	278.5
27	0.04	0.0992647		-1.287273	9.107	277.362
28	0.04	0.102941		-1.270243	9.107	276.53
29	0.04	0.106618		-1.248093	9.107	275.448
30	0.04	0.110294		-1.226533	9.107	274.395
31	0.04	0.113971		-1.210733	9.107	273.624
32	0.04	0.117647		-1.190123	9.107	272.617
33	0.04	0.121324		-1.17	39.107	271.635
34	0.04	0.125	-1.15035	39.107	270.675	
35	0.04	0.128676		-1.1359	39.107	269.97
36	0.04	0.132353		-1.116993	9.107	269.046
37	0.04	0.136029		-1.098473	9.107	268.142
38	0.04	0.139706		-1.084823	9.107	267.476
39	0.04	0.143382		-1.066943	9.107	266.602
40	0.04	0.147059		-1.049393	9.107	265.745
41	0.04	0.150735		-1.036433	9.107	265.112
42	0.04	0.154412		-1.019433	9.107	264.282
43	0.04	0.158088		-1.002713	9.107	263.466
44	0.04	0.161765		-0.990356	39.107	262.862
45	0.04	0.165441		-0.974114	39.107	262.069
46	0.04	0.169118		-0.958125	39.107	261.288
47	0.08	0.172794		-0.946291	39.214	260.711
48	0.084	0.176471		-0.930718	39.2247	259.95

49	0.093	0.180147	-0.915365	39.2488	259.2
50	0.097	0.183824	-0.903992	39.2595	258.645
51	0.099	0.1875	-0.889006	39.2648	257.913
52	0.099	0.191176	-0.874218	39.2648	257.191
53	0.1	0.194853	-0.863249	39.2675	256.655
54	0.11	0.198529	-0.848786	39.2942	255.949
55	0.11	0.202206	-0.834498	39.2942	255.251
56	0.11	0.205882	-0.823893	39.2942	254.733
57	0.12	0.209559	-0.809896	39.321	254.05
58	0.12	0.213235	-0.796056	39.321	253.374
59	0.12	0.216912	-0.785774	39.321	252.872
60	0.13	0.220588	-0.772193	39.3477	252.209
61	0.13	0.224265	-0.758753	39.3477	251.552
62	0.14	0.227941	-0.748762	39.3745	251.065
63	0.14	0.231618	-0.735557	39.3745	250.42
64	0.15	0.235294	-0.722479	39.4012	249.781
65	0.16	0.238971	-0.712751	39.428	249.306
66	0.16	0.242647	-0.699883	39.428	248.678
67	0.16	0.246324	-0.687131	39.428	248.055
68	0.16	0.25	-0.674499	39.428	247.438
69	0.17	0.253676	-0.665079	39.4547	246.978
70	0.17	0.257353	-0.652622	39.4547	246.37
71	0.17	0.261029	-0.640266	39.4547	245.766
72	0.19	0.264706	-0.631062	39.5082	245.317
73	0.21	0.268382	-0.618872	39.5618	244.722
74	0.22	0.272059	-0.606775	39.5885	244.131
75	0.23	0.275735	-0.597761	39.6153	243.691
76	0.25	0.279412	-0.585815	39.6688	243.107
77	0.26	0.283088	-0.573953	39.6955	242.528
78	0.26	0.286765	-0.565108	39.6955	242.096
79	0.3	0.290441	-0.553384	39.8025	241.524
80	0.3	0.294118	-0.541736	39.8025	240.955
81	0.3	0.297794	-0.533048	39.8025	240.531
82	0.31	0.301471	-0.521527	39.8293	239.968
83	0.36	0.305147	-0.510074	39.963	239.409
84	0.37	0.308824	-0.501527	39.9898	238.991
85	0.4	0.3125	-0.490189	40.07	238.438
86	0.44	0.316176	-0.478914	40.177	237.887
87	0.46	0.319853	-0.470498	40.2305	237.476
88	0.48	0.323529	-0.459327	40.284	236.93
89	0.49	0.327206	-0.448213	40.3107	236.388
90	0.5	0.330882	-0.439913	40.3375	235.982
91	0.5	0.334559	-0.428895	40.3375	235.444
92	0.5	0.338235	-0.417928	40.3375	234.909
93	0.5	0.341912	-0.409735	40.3375	234.509
94	0.5	0.345588	-0.398855	40.3375	233.977
95	0.5	0.349265	-0.388022	40.3375	233.448
96	0.5	0.352941	-0.379927	40.3375	233.053
97	0.5	0.356618	-0.369171	40.3375	232.528
98	0.5	0.360294	-0.358459	40.3375	232.005
99	0.5	0.363971	-0.350451	40.3375	231.614
100	0.5	0.367647	-0.339814	40.3375	231.094
101	0.5	0.371324	-0.329206	40.3375	230.576
102	0.5	0.375	-0.318639	40.3375	230.06
103	0.5	0.378676	-0.310738	40.3375	229.674
104	0.5	0.382353	-0.300232	40.3375	229.161
105	0.5	0.386029	-0.289764	40.3375	228.65
106	0.5	0.389706	-0.281926	40.3375	228.267
107	0.5	0.393382	-0.271509	40.3375	227.759
108	0.5	0.397059	-0.261124	40.3375	227.251
109	0.5	0.400735	-0.253347	40.3375	226.872
110	0.5	0.404412	-0.243007	40.3375	226.367

111	0.5	0.408088	-0.232693	40.3375	225.863
112	0.5	0.411765	-0.224974	40.3375	225.486
113	0.5	0.415441	-0.214702	40.3375	224.985
114	0.5	0.419118	-0.204452	40.3375	224.484
115	0.5	0.422794	-0.196779	40.3375	224.109
116	0.5	0.426471	-0.186567	40.3375	223.611
117	0.5	0.430147	-0.176374	40.3375	223.113
118	0.5	0.433824	-0.168741	40.3375	222.74
119	0.5	0.4375	-0.158579	40.3375	222.244
120	0.5	0.441176	-0.148434	40.3375	221.749
121	0.5	0.444853	-0.140835	40.3375	221.377
122	0.5	0.448529	-0.130716	40.3375	220.883
123	0.5	0.452206	-0.12061	40.3375	220.39
124	0.5	0.455882	-0.113039	40.3375	220.02
125	0.5	0.459559	-0.102953	40.3375	219.528
126	0.5	0.463235	-0.0928787	40.3375	219.036
127	0.5	0.466912	-0.0853288	40.3375	218.667
128	0.5	0.470588	-0.0752698	40.3375	218.176
129	0.5	0.474265	-0.0652187	40.3375	217.685
130	0.5	0.477941	-0.0576847	40.3375	217.317
131	0.5	0.481618	-0.0476439	40.3375	216.827
132	0.5	0.485294	-0.0376076	40.3375	216.337
133	0.5	0.488971	-0.0300838	40.3375	215.969
134	0.5	0.492647	-0.0200544	40.3375	215.479
135	0.5	0.496324	-0.0100272	40.3375	214.99
136	0.5	0.5	0	40.3375	214.5
137	0.5	0.503676	0.0100272	40.3375	214.01
138	0.5	0.507353	0.0200544	40.3375	213.521
139	0.5	0.511029	0.0300838	40.3375	213.031
140	0.5	0.514706	0.0376076	40.3375	212.663
141	0.5	0.518382	0.0476439	40.3375	212.173
142	0.5	0.522059	0.0576847	40.3375	211.683
143	0.5	0.525735	0.0652187	40.3375	211.315
144	0.5	0.529412	0.0752698	40.3375	210.824
145	0.5	0.533088	0.0853288	40.3375	210.333
146	0.5	0.536765	0.0928787	40.3375	209.964
147	0.5	0.540441	0.102953	40.3375	209.472
148	0.5	0.544118	0.113039	40.3375	208.98
149	0.5	0.547794	0.12061	40.3375	208.61
150	0.5	0.551471	0.130716	40.3375	208.117
151	0.5	0.555147	0.140835	40.3375	207.623
152	0.5	0.558824	0.148434	40.3375	207.251
153	0.5	0.5625	0.158579	40.3375	206.756
154	0.5	0.566176	0.168741	40.3375	206.26
155	0.5	0.569853	0.176374	40.3375	205.887
156	0.5	0.573529	0.186567	40.3375	205.389
157	0.5	0.577206	0.196779	40.3375	204.891
158	0.5	0.580882	0.204452	40.3375	204.516
159	0.5	0.584559	0.214702	40.3375	204.015
160	0.5	0.588235	0.224974	40.3375	203.514
161	0.5	0.591912	0.232693	40.3375	203.137
162	0.5	0.595588	0.243007	40.3375	202.633
163	0.5	0.599265	0.253347	40.3375	202.128
164	0.5	0.602941	0.26112	40.3375	201.749
165	0.5	0.606618	0.271509	40.3375	201.241
166	0.5	0.610294	0.281926	40.3375	200.733
167	0.5	0.613971	0.28976	40.3375	200.35
168	0.5	0.617647	0.300232	40.3375	199.839
169	0.5	0.621324	0.310738	40.3375	199.326
170	0.5	0.625	0.318639	40.3375	198.94
171	0.5	0.628676	0.329206	40.3375	198.424
172	0.5	0.632353	0.33981	40.3375	197.906

173	0.5	0.636029	0.350451	40.3375	197.386
174	0.5	0.639706	0.358459	40.3375	196.995
175	0.5	0.643382	0.369171	40.3375	196.472
176	0.5	0.647059	0.379927	40.3375	195.947
177	0.5	0.650735	0.388022	40.3375	195.552
178	0.5	0.654412	0.398855	40.3375	195.023
179	0.5	0.658088	0.409735	40.3375	194.491
180	0.5	0.661765	0.417928	40.3375	194.091
181	0.5	0.665441	0.428895	40.3375	193.556
182	0.5	0.669118	0.439913	40.3375	193.018
183	0.5	0.672794	0.448213	40.3375	192.612
184	0.5	0.676471	0.459327	40.3375	192.07
185	0.5	0.680147	0.470498	40.3375	191.524
186	0.5	0.683824	0.478914	40.3375	191.113
187	0.5	0.6875	0.490189	40.3375	190.562
188	0.5	0.691176	0.501527	40.3375	190.009
189	0.5	0.694853	0.510074	40.3375	189.591
190	0.5	0.698529	0.521527	40.3375	189.032
191	0.5	0.702206	0.533048	40.3375	188.469
192	0.5	0.705882	0.541736	40.3375	188.045
193	0.5	0.709559	0.553384	40.3375	187.476
194	0.5	0.713235	0.565108	40.3375	186.904
195	0.5	0.716912	0.573953	40.3375	186.472
196	0.5	0.720588	0.585815	40.3375	185.893
197	0.5	0.724265	0.597761	40.3375	185.309
198	0.5	0.727941	0.606775	40.3375	184.869
199	0.5	0.731618	0.618872	40.3375	184.278
200	0.5	0.735294	0.631062	40.3375	183.683
201	0.5	0.738971	0.640266	40.3375	183.234
202	0.5	0.742647	0.652622	40.3375	182.63
203	0.5	0.746324	0.665079	40.3375	182.022
204	0.5	0.75	0.67449	40.3375	181.562
205	0.5	0.753676	0.687131	40.3375	180.945
206	0.5	0.757353	0.699883	40.3375	180.322
207	0.5	0.761029	0.712751	40.3375	179.694
208	0.5	0.764706	0.722479	40.3375	179.219
209	0.5	0.768382	0.735557	40.3375	178.58
210	0.5	0.772059	0.748762	40.3375	177.935
211	0.5	0.775735	0.758753	40.3375	177.448
212	0.5	0.779412	0.772193	40.3375	176.791
213	0.5	0.783088	0.785774	40.3375	176.128
214	0.5	0.786765	0.796056	40.3375	175.626
215	0.5	0.790441	0.809896	40.3375	174.95
216	0.5	0.794118	0.823893	40.3375	174.267
217	0.5	0.797794	0.834498	40.3375	173.749
218	0.51	0.801471	0.848786	40.3642	173.051
219	0.55	0.805147	0.863249	40.4712	172.345
220	0.57	0.808824	0.874218	40.5247	171.809
221	0.58	0.8125	0.889006	40.5515	171.087
222	0.71	0.816176	0.903992	40.8993	170.355
223	0.86	0.819853	0.915365	41.3005	169.8
224	0.88	0.823529	0.930718	41.354	169.05
225	0.89	0.827206	0.946291	41.3807	168.289
226	1	0.830882	0.958125	41.675	167.712
227	1	0.834559	0.974114	41.675	166.931
228	1	0.838235	0.990356	41.675	166.138
229	1	0.841912	1.00271	41.675	165.534
230	1	0.845588	1.01943	41.675	164.718
231	1	0.849265	1.03643	41.675	163.888
232	1	0.852941	1.04939	41.675	163.255
233	1.7	0.856618	1.06694	43.5475	162.398
234	1.7	0.860294	1.08482	43.5475	161.524

235	2	0.863971		1.09847	44.35	160.858
236	2	0.867647		1.11699	44.35	159.954
237	2.5	0.871324		1.1359	45.6875	159.03
238	3	0.875	1.15035	47.025	158.325	
239	3	0.878676		1.17	47.025	157.365
240	3	0.882353		1.19012	47.025	156.383
241	3	0.886029		1.21073	47.025	155.376
242	3	0.889706		1.22653	47.025	154.605
243	3	0.893382		1.24809	47.025	153.552
244	3	0.897059		1.27024	47.025	152.47
245	3	0.900735		1.28727	47.025	151.638
246	3	0.904412		1.31058	47.025	150.5
247	4	0.908088		1.33462	49.7	149.326
248	4	0.911765		1.35317	49.7	148.42
249	5	0.915441		1.37866	52.375	147.176
250	8	0.919118		1.40507	60.4	145.886
251	9	0.922794		1.42554	63.075	144.886
252	11	0.926471		1.4538	68.425	143.506
253	13	0.930147		1.48328	73.775	142.066
254	14	0.933824		1.50626	76.45	140.944
255	16	0.9375	1.5382	81.8	139.385	
256	16	0.941176		1.57179	81.8	137.744
257	17	0.944853		1.59819	84.475	136.455
258	18	0.948529		1.63524	87.15	134.646
259	18	0.952206		1.67466	87.15	132.721
260	19	0.955882		1.70604	89.825	131.188
261	21	0.959559		1.75069	95.175	129.008
262	22	0.963235		1.79912	97.85	126.643
263	25	0.966912		1.83843	105.875	124.724
264	27	0.970588		1.8957	111.225	121.927
265	35	0.974265		1.95996	132.625	118.789
266	44	0.977941		2.01409	156.7	116.145
267	46	0.981618		2.09693	162.05	112.1
268	49	0.985294		2.19728	170.075	107.199
269	50	0.988971		2.29036	172.75	102.654
270	52	0.992647		2.45727	178.1	94.5032
271	130	0.996324		2.74777	386.75	80.3175

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-3.21888	-2.74777	7.55021	8.84472
2	-3.21888	-2.45727	13.5884	16.7544
3	-3.21888	-2.29036	18.8342	24.1268
4	-3.21888	-2.19728	23.6622	31.1995
5	-3.21888	-2.09693	28.0593	37.9493
6	-3.21888	-2.01409	32.1159	44.4324
7	-3.21888	-1.95996	35.9574	50.7413
8	-3.21888	-1.8957	39.551	56.8433
9	-3.21888	-1.83843	42.9308	62.761
10	-3.21888	-1.79912	46.1677	68.5521
11	-3.21888	-1.75069	49.2326	74.1874
12	-3.21888	-1.70604	52.1431	79.6789
13	-3.21888	-1.67466	54.9476	85.0694
14	-3.21888	-1.63524	57.6216	90.333
15	-3.21888	-1.59819	60.1758	95.4774
16	-3.21888	-1.57179	62.6464	100.537
17	-3.21888	-1.5382	65.0124	105.488
18	-3.21888	-1.50626	67.2812	110.337
19	-3.21888	-1.48328	69.4814	115.111
20	-3.21888	-1.4538	71.5949	119.791
21	-3.21888	-1.42554	73.6271	124.379
22	-3.21888	-1.40507	75.6013	128.902
23	-3.21888	-1.37866	77.502	133.34
24	-3.21888	-1.35317	79.3331	137.696
25	-3.21888	-1.33462	81.1143	141.991
26	-3.21888	-1.31058	82.8319	146.21
27	-3.21888	-1.28727	84.489	150.354
28	-3.21888	-1.27024	86.1025	154.442
29	-3.21888	-1.24809	87.6602	158.46
30	-3.21888	-1.22653	89.1646	162.408
31	-3.21888	-1.21073	90.6305	166.305
32	-3.21888	-1.19012	92.0469	170.136
33	-3.21888	-1.17	93.4158	173.902
34	-3.21888	-1.15035	94.7391	177.605
35	-3.21888	-1.1359	96.0293	181.261
36	-2.52573	-1.11699	97.277	184.082
37	-2.47694	-1.09847	98.4836	186.803
38	-2.37516	-1.08482	99.6605	189.38
39	-2.33304	-1.06694	100.799	191.869
40	-2.31264	-1.04939	101.9	194.296
41	-2.31264	-1.03643	102.974	196.693
42	-2.30259	-1.01943	104.013	199.04
43	-2.20727	-1.00271	105.019	201.253
44	-2.20727	-0.990356	106	203.439
45	-2.20727	-0.974114	106.949	205.589
46	-2.12026	-0.958125	107.867	207.621
47	-2.12026	-0.946291	108.762	209.627
48	-2.12026	-0.930718	109.628	211.601
49	-2.04022	-0.915365	110.466	213.468
50	-2.04022	-0.903992	111.283	215.313
51	-1.96611	-0.889006	112.074	217.06

52	-1.96611	-0.874218	112.838	218.779
53	-1.89712	-0.863249	113.583	220.417
54	-1.83258	-0.848786	114.304	221.972
55	-1.83258	-0.834498	115	223.502
56	-1.83258	-0.823893	115.679	225.012
57	-1.83258	-0.809896	116.335	226.496
58	-1.77196	-0.796056	116.968	227.906
59	-1.77196	-0.785774	117.586	229.299
60	-1.77196	-0.772193	118.182	230.667
61	-1.66073	-0.758753	118.758	231.927
62	-1.56065	-0.748762	119.318	233.096
63	-1.51413	-0.735557	119.86	234.209
64	-1.46968	-0.722479	120.382	235.271
65	-1.38629	-0.712751	120.89	236.259
66	-1.34707	-0.699883	121.379	237.202
67	-1.34707	-0.687131	121.852	238.128
68	-1.20397	-0.67449	122.306	238.94
69	-1.20397	-0.665079	122.749	239.74
70	-1.20397	-0.652622	123.175	240.526
71	-1.17118	-0.640266	123.585	241.276
72	-1.02165	-0.631062	123.983	241.921
73	-0.994252	-0.618872	124.366	242.536
74	-0.916291	-0.606775	124.734	243.092
75	-0.820981	-0.597761	125.091	243.583
76	-0.776529	-0.585815	125.435	244.038
77	-0.733969	-0.573953	125.764	244.459
78	-0.71335	-0.565108	126.083	244.862
79	-0.693147	-0.553384	126.39	245.246
80	-0.693147	-0.541736	126.683	245.621
81	-0.693147	-0.533048	126.967	245.991
82	-0.693147	-0.521527	127.239	246.352
83	-0.693147	-0.510074	127.499	246.706
84	-0.693147	-0.501527	127.751	247.053
85	-0.693147	-0.490189	127.991	247.393
86	-0.693147	-0.478914	128.221	247.725
87	-0.693147	-0.470498	128.442	248.051
88	-0.693147	-0.459327	128.653	248.37
89	-0.693147	-0.448213	128.854	248.68
90	-0.693147	-0.439913	129.047	248.985
91	-0.693147	-0.428895	129.231	249.282
92	-0.693147	-0.417928	129.406	249.572
93	-0.693147	-0.409735	129.574	249.856
94	-0.693147	-0.398855	129.733	250.133
95	-0.693147	-0.388022	129.883	250.402
96	-0.693147	-0.379927	130.028	250.665
97	-0.693147	-0.369171	130.164	250.921
98	-0.693147	-0.358459	130.293	251.169
99	-0.693147	-0.350451	130.415	251.412
100	-0.693147	-0.33981	130.531	251.648
101	-0.693147	-0.329206	130.639	251.876
102	-0.693147	-0.318639	130.741	252.097
103	-0.693147	-0.310738	130.837	252.312
104	-0.693147	-0.300232	130.927	252.52
105	-0.693147	-0.28976	131.011	252.721
106	-0.693147	-0.281926	131.091	252.917
107	-0.693147	-0.271509	131.165	253.105
108	-0.693147	-0.26112	131.233	253.286
109	-0.693147	-0.253347	131.297	253.461
110	-0.693147	-0.243007	131.356	253.63
111	-0.693147	-0.232693	131.41	253.791
112	-0.693147	-0.224974	131.461	253.947
113	-0.693147	-0.214702	131.507	254.096

114	-0.693147	-0.204452	131.549	254.238
115	-0.693147	-0.196779	131.587	254.374
116	-0.693147	-0.186567	131.622	254.503
117	-0.693147	-0.176374	131.653	254.626
118	-0.693147	-0.168741	131.682	254.742
119	-0.693147	-0.158579	131.707	254.852
120	-0.693147	-0.148434	131.729	254.955
121	-0.693147	-0.140835	131.749	255.053
122	-0.693147	-0.130716	131.766	255.144
123	-0.693147	-0.12061	131.78	255.227
124	-0.693147	-0.113039	131.793	255.305
125	-0.693147	-0.102953	131.804	255.377
126	-0.693147	-0.0928787	131.812	255.441
127	-0.693147	-0.0853288	131.82	255.5
128	-0.693147	-0.0752698	131.825	255.553
129	-0.693147	-0.0652187	131.83	255.598
130	-0.693147	-0.0576847	131.833	255.638
131	-0.693147	-0.0476439	131.835	255.671
132	-0.693147	-0.0376076	131.837	255.697
133	-0.693147	-0.0300838	131.838	255.718
134	-0.693147	-0.0200544	131.838	255.732
135	-0.693147	-0.0100272	131.838	255.739
136	-0.693147	0	131.838	255.739
137	-0.693147	0.0100272	131.838	255.732
138	-0.693147	0.0200544	131.839	255.718
139	-0.693147	0.0300838	131.839	255.697
140	-0.693147	0.0376076	131.841	255.671
141	-0.693147	0.0476439	131.843	255.638
142	-0.693147	0.0576847	131.846	255.598
143	-0.693147	0.0652187	131.851	255.553
144	-0.693147	0.0752698	131.856	255.5
145	-0.693147	0.0853288	131.864	255.441
146	-0.693147	0.0928787	131.872	255.377
147	-0.693147	0.102953	131.883	255.305
148	-0.693147	0.113039	131.896	255.227
149	-0.693147	0.12061	131.91	255.144
150	-0.693147	0.130716	131.927	255.053
151	-0.693147	0.140835	131.947	254.955
152	-0.693147	0.148434	131.969	254.852
153	-0.693147	0.158579	131.994	254.742
154	-0.693147	0.168741	132.023	254.626
155	-0.693147	0.176374	132.054	254.503
156	-0.693147	0.186567	132.089	254.374
157	-0.693147	0.196779	132.127	254.238
158	-0.693147	0.204452	132.169	254.096
159	-0.693147	0.214702	132.215	253.947
160	-0.693147	0.224974	132.266	253.791
161	-0.693147	0.232693	132.32	253.63
162	-0.693147	0.243007	132.379	253.461
163	-0.693147	0.253347	132.443	253.286
164	-0.693147	0.26112	132.512	253.105
165	-0.693147	0.271509	132.585	252.917
166	-0.693147	0.281926	132.665	252.721
167	-0.693147	0.28976	132.749	252.52
168	-0.693147	0.300232	132.839	252.312
169	-0.693147	0.310738	132.935	252.097
170	-0.693147	0.318639	133.037	251.876
171	-0.693147	0.329206	133.145	251.648
172	-0.693147	0.33981	133.261	251.412
173	-0.693147	0.350451	133.384	251.169
174	-0.693147	0.358459	133.512	250.921
175	-0.693147	0.369171	133.648	250.665

176	-0.693147	0.379927	133.793	250.402
177	-0.693147	0.388022	133.943	250.133
178	-0.693147	0.398855	134.102	249.856
179	-0.693147	0.409735	134.27	249.572
180	-0.693147	0.417928	134.445	249.282
181	-0.693147	0.428895	134.629	248.985
182	-0.693147	0.439913	134.822	248.68
183	-0.693147	0.448213	135.023	248.37
184	-0.693147	0.459327	135.234	248.051
185	-0.693147	0.470498	135.456	247.725
186	-0.693147	0.478914	135.685	247.393
187	-0.693147	0.490189	135.925	247.053
188	-0.693147	0.501527	136.177	246.706
189	-0.693147	0.510074	136.437	246.352
190	-0.693147	0.521527	136.709	245.991
191	-0.693147	0.533048	136.993	245.621
192	-0.693147	0.541736	137.287	245.246
193	-0.693147	0.553384	137.593	244.862
194	-0.693147	0.565108	137.912	244.47
195	-0.693147	0.573953	138.242	244.073
196	-0.693147	0.585815	138.585	243.667
197	-0.693147	0.597761	138.942	243.252
198	-0.693147	0.606775	139.31	242.832
199	-0.693147	0.618872	139.693	242.403
200	-0.693147	0.631062	140.091	241.965
201	-0.693147	0.640266	140.501	241.521
202	-0.693147	0.652622	140.927	241.069
203	-0.693147	0.665079	141.37	240.608
204	-0.693147	0.67449	141.825	240.141
205	-0.693147	0.687131	142.297	239.664
206	-0.693147	0.699883	142.787	239.179
207	-0.673345	0.712751	143.295	238.699
208	-0.597837	0.722479	143.817	238.267
209	-0.562119	0.735557	144.358	237.854
210	-0.544727	0.748762	144.918	237.446
211	-0.342490.758753		145.494	237.186
212	-0.150823	0.772193	146.09	237.07
213	-0.127833	0.785774	146.708	236.969
214	-0.116534	0.796056	147.341	236.876
215	0	0.809896	147.997	236.876
216	0	0.823893	148.676	236.876
217	0	0.834498	149.373	236.876
218	0	0.848786	150.093	236.876
219	0	0.863249	150.838	236.876
220	0	0.874218	151.602	236.876
221	0	0.889006	152.393	236.876
222	0	0.903992	153.21	236.876
223	0	0.915365	154.048	236.876
224	0	0.930718	154.914	236.876
225	0	0.946291	155.81	236.876
226	0	0.958125	156.728	236.876
227	0	0.974114	157.676	236.876
228	0	0.990356	158.657	236.876
229	0	1.00271	159.663	236.876
230	0	1.01943	160.702	236.876
231	0	1.03643	161.776	236.876
232	0	1.04939	162.877	236.876
233	0.530628	1.06694	164.016	237.443
234	0.530628	1.08482	165.193	238.018
235	0.693147	1.09847	166.399	238.78
236	0.693147	1.11699	167.647	239.554
237	0.916291	1.1359	168.937	240.595

238	1.09861	1.15035	170.26	241.858
239	1.09861	1.17	171.629	243.144
240	1.09861	1.19012	173.046	244.451
241	1.09861	1.21073	174.512	245.781
242	1.09861	1.22653	176.016	247.129
243	1.09861	1.24809	177.574	248.5
244	1.09861	1.27024	179.187	249.896
245	1.09861	1.28727	180.844	251.31
246	1.09861	1.31058	182.562	252.75
247	1.38629	1.33462	184.343	254.6
248	1.38629	1.35317	186.174	256.476
249	1.60944	1.37866	188.075	258.695
250	2.07944	1.40507	190.049	261.616
251	2.19722	1.42554	192.081	264.749
252	2.3979	1.4538	194.195	268.235
253	2.56495	1.48328	196.395	272.039
254	2.63906	1.50626	198.664	276.014
255	2.77259	1.5382	201.03	280.279
256	2.77259	1.57179	203.5	284.637
257	2.83321	1.59819	206.054	289.165
258	2.89037	1.63524	208.728	293.891
259	2.89037	1.67466	211.533	298.732
260	2.94444	1.70604	214.444	303.755
261	3.04452	1.75069	217.508	309.085
262	3.09104	1.79912	220.745	314.646
263	3.21888	1.83843	224.125	320.564
264	3.29584	1.8957	227.719	326.812
265	3.55535	1.95996	231.56	333.78
266	3.78419	2.01409	235.617	341.402
267	3.82864	2.09693	240.014	349.43
268	3.89182	2.19728	244.842	357.982
269	3.91202	2.29036	250.088	366.942
270	3.95124	2.45727	256.126	376.651
271	4.86753	2.74777	263.676	390.026

Data Set Standard Deviation = 1.58256
Numerator = 152120
Denominator = 178302
W Statistic = 0.85316 = 152120 / 178302

5% Critical value of 0.976 exceeds 0.85316
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.85316
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 = 0.92408
0.92408 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.21888	0.00367647	-2.74777	85.4335	348.683
2	-3.21888	0.00735294	-2.45727	85.4335	334.497
3	-3.21888	0.0110294	-2.29036	85.4335	326.346
4	-3.21888	0.0147059	-2.19728	85.4335	321.801
5	-3.21888	0.0183824	-2.09693	85.4335	316.9
6	-3.21888	0.0220588	-2.01409	85.4335	312.855
7	-3.21888	0.0257353	-1.95996	85.4335	310.211
8	-3.21888	0.0294118	-1.8957	85.4335	307.073
9	-3.21888	0.0330882	-1.83843	85.4335	304.276
10	-3.21888	0.0367647	-1.79912	85.4335	302.357
11	-3.21888	0.0404412	-1.75069	85.4335	299.992
12	-3.21888	0.0441176	-1.70604	85.4335	297.812
13	-3.21888	0.0477941	-1.67466	85.4335	296.279
14	-3.21888	0.0514706	-1.63524	85.4335	294.354
15	-3.21888	0.0551471	-1.59819	85.4335	292.545
16	-3.21888	0.0588235	-1.57179	85.4335	291.256
17	-3.21888	0.0625	-1.5382	85.4335	289.615
18	-3.21888	0.0661765	-1.50626	85.4335	288.056
19	-3.21888	0.0698529	-1.48328	85.4335	286.934
20	-3.21888	0.0735294	-1.4538	85.4335	285.494
21	-3.21888	0.0772059	-1.42554	85.4335	284.114
22	-3.21888	0.0808824	-1.40507	85.4335	283.114
23	-3.21888	0.0845588	-1.37866	85.4335	281.824
24	-3.21888	0.0882353	-1.35317	85.4335	280.58
25	-3.21888	0.0919118	-1.33462	85.4335	279.674
26	-3.21888	0.0955882	-1.31058	85.4335	278.5
27	-3.21888	0.0992647	-1.28727	85.4335	277.362
28	-3.21888	0.102941	-1.27024	85.4335	276.53
29	-3.21888	0.106618	-1.24809	85.4335	275.448
30	-3.21888	0.110294	-1.22653	85.4335	274.395
31	-3.21888	0.113971	-1.21073	85.4335	273.624
32	-3.21888	0.117647	-1.19012	85.4335	272.617
33	-3.21888	0.121324	-1.17	85.4335	271.635
34	-3.21888	0.125	-1.15035	85.4335	270.675
35	-3.21888	0.128676	-1.1359	85.4335	269.97
36	-2.52573	0.132353	-1.11699	126.637	269.046
37	-2.47694	0.136029	-1.09847	129.538	268.142
38	-2.37516	0.139706	-1.08482	135.588	267.476
39	-2.33304	0.143382	-1.06694	138.091	266.602
40	-2.31264	0.147059	-1.04939	139.304	265.745
41	-2.31264	0.150735	-1.03643	139.304	265.112
42	-2.30259	0.154412	-1.01943	139.902	264.282
43	-2.20727	0.158088	-1.00271	145.568	263.466
44	-2.20727	0.161765	-0.990356	145.568	262.862
45	-2.20727	0.165441	-0.974114	145.568	262.069
46	-2.12026	0.169118	-0.958125	150.74	261.288
47	-2.12026	0.172794	-0.946291	150.74	260.711
48	-2.12026	0.176471	-0.930718	150.74	259.95

49	-2.04022	0.180147	-0.915365	155.498	259.2
50	-2.04022	0.183824	-0.903992	155.498	258.645
51	-1.96611	0.1875	-0.889006	159.903	257.913
52	-1.96611	0.191176	-0.874218	159.903	257.191
53	-1.89712	0.194853	-0.863249	164.005	256.655
54	-1.83258	0.198529	-0.848786	167.841	255.949
55	-1.83258	0.202206	-0.834498	167.841	255.251
56	-1.83258	0.205882	-0.823893	167.841	254.733
57	-1.83258	0.209559	-0.809896	167.841	254.05
58	-1.77196	0.213235	-0.796056	171.445	253.374
59	-1.77196	0.216912	-0.785774	171.445	252.872
60	-1.77196	0.220588	-0.772193	171.445	252.209
61	-1.66073	0.224265	-0.758753	178.057	251.552
62	-1.56065	0.227941	-0.748762	184.006	251.065
63	-1.51413	0.231618	-0.735557	186.771	250.42
64	-1.46968	0.235294	-0.722479	189.414	249.781
65	-1.38629	0.238971	-0.712751	194.37	249.306
66	-1.34707	0.242647	-0.699883	196.702	248.678
67	-1.34707	0.246324	-0.687131	196.702	248.055
68	-1.20397	0.25	-0.67449	205.208	247.438
69	-1.20397	0.253676	-0.665079	205.208	246.978
70	-1.20397	0.257353	-0.652622	205.208	246.37
71	-1.17118	0.261029	-0.640266	207.157	245.766
72	-1.02165	0.264706	-0.631062	216.046	245.317
73	-0.994252	0.268382	-0.618872	217.675	244.722
74	-0.916291	0.272059	-0.606775	222.309	244.131
75	-0.820981	0.275735	-0.597761	227.975	243.691
76	-0.776529	0.279412	-0.585815	230.617	243.107
77	-0.733969	0.283088	-0.573953	233.147	242.528
78	-0.71335	0.286765	-0.565108	234.373	242.096
79	-0.693147	0.290441	-0.553384	235.574	241.524
80	-0.693147	0.294118	-0.541736	235.574	240.955
81	-0.693147	0.297794	-0.533048	235.574	240.531
82	-0.693147	0.301471	-0.521527	235.574	239.968
83	-0.693147	0.305147	-0.510074	235.574	239.409
84	-0.693147	0.308824	-0.501527	235.574	238.991
85	-0.693147	0.3125	-0.490189	235.574	238.438
86	-0.693147	0.316176	-0.478914	235.574	237.887
87	-0.693147	0.319853	-0.470498	235.574	237.476
88	-0.693147	0.323529	-0.459327	235.574	236.93
89	-0.693147	0.327206	-0.448213	235.574	236.388
90	-0.693147	0.330882	-0.439913	235.574	235.982
91	-0.693147	0.334559	-0.428895	235.574	235.444
92	-0.693147	0.338235	-0.417928	235.574	234.909
93	-0.693147	0.341912	-0.409735	235.574	234.509
94	-0.693147	0.345588	-0.398855	235.574	233.977
95	-0.693147	0.349265	-0.388022	235.574	233.448
96	-0.693147	0.352941	-0.379927	235.574	233.053
97	-0.693147	0.356618	-0.369171	235.574	232.528
98	-0.693147	0.360294	-0.358459	235.574	232.005
99	-0.693147	0.363971	-0.350451	235.574	231.614
100	-0.693147	0.367647	-0.33981	235.574	231.094
101	-0.693147	0.371324	-0.329206	235.574	230.576
102	-0.693147	0.375	-0.318639	235.574	230.06
103	-0.693147	0.378676	-0.310738	235.574	229.674
104	-0.693147	0.382353	-0.300232	235.574	229.161
105	-0.693147	0.386029	-0.28976	235.574	228.65
106	-0.693147	0.389706	-0.281926	235.574	228.267
107	-0.693147	0.393382	-0.271509	235.574	227.759
108	-0.693147	0.397059	-0.26112	235.574	227.251
109	-0.693147	0.400735	-0.253347	235.574	226.872
110	-0.693147	0.404412	-0.243007	235.574	226.367

111	-0.693147	0.408088	-0.232693	235.574	225.863
112	-0.693147	0.411765	-0.224974	235.574	225.486
113	-0.693147	0.415441	-0.214702	235.574	224.985
114	-0.693147	0.419118	-0.204452	235.574	224.484
115	-0.693147	0.422794	-0.196779	235.574	224.109
116	-0.693147	0.426471	-0.186567	235.574	223.611
117	-0.693147	0.430147	-0.176374	235.574	223.113
118	-0.693147	0.433824	-0.168741	235.574	222.74
119	-0.693147	0.4375	-0.158579	235.574	222.244
120	-0.693147	0.441176	-0.148434	235.574	221.749
121	-0.693147	0.444853	-0.140835	235.574	221.377
122	-0.693147	0.448529	-0.130716	235.574	220.883
123	-0.693147	0.452206	-0.12061	235.574	220.39
124	-0.693147	0.455882	-0.113039	235.574	220.02
125	-0.693147	0.459559	-0.102953	235.574	219.528
126	-0.693147	0.463235	-0.0928787	235.574	219.036
127	-0.693147	0.466912	-0.0853288	235.574	218.667
128	-0.693147	0.470588	-0.0752698	235.574	218.176
129	-0.693147	0.474265	-0.0652187	235.574	217.685
130	-0.693147	0.477941	-0.0576847	235.574	217.317
131	-0.693147	0.481618	-0.0476439	235.574	216.827
132	-0.693147	0.485294	-0.0376076	235.574	216.337
133	-0.693147	0.488971	-0.0300838	235.574	215.969
134	-0.693147	0.492647	-0.0200544	235.574	215.479
135	-0.693147	0.496324	-0.0100272	235.574	214.99
136	-0.693147	0.5	0	235.574	214.5
137	-0.693147	0.503676	0.0100272	235.574	214.01
138	-0.693147	0.507353	0.0200544	235.574	213.521
139	-0.693147	0.511029	0.0300838	235.574	213.031
140	-0.693147	0.514706	0.0376076	235.574	212.663
141	-0.693147	0.518382	0.0476439	235.574	212.173
142	-0.693147	0.522059	0.0576847	235.574	211.683
143	-0.693147	0.525735	0.0652187	235.574	211.315
144	-0.693147	0.529412	0.0752698	235.574	210.824
145	-0.693147	0.533088	0.0853288	235.574	210.333
146	-0.693147	0.536765	0.0928787	235.574	209.964
147	-0.693147	0.540441	0.102953	235.574	209.472
148	-0.693147	0.544118	0.113039	235.574	208.98
149	-0.693147	0.547794	0.12061	235.574	208.61
150	-0.693147	0.551471	0.130716	235.574	208.117
151	-0.693147	0.555147	0.140835	235.574	207.623
152	-0.693147	0.558824	0.148434	235.574	207.251
153	-0.693147	0.5625	0.158579	235.574	206.756
154	-0.693147	0.566176	0.168741	235.574	206.26
155	-0.693147	0.569853	0.176374	235.574	205.887
156	-0.693147	0.573529	0.186567	235.574	205.389
157	-0.693147	0.577206	0.196779	235.574	204.891
158	-0.693147	0.580882	0.204452	235.574	204.516
159	-0.693147	0.584559	0.214702	235.574	204.015
160	-0.693147	0.588235	0.224974	235.574	203.514
161	-0.693147	0.591912	0.232693	235.574	203.137
162	-0.693147	0.595588	0.243007	235.574	202.633
163	-0.693147	0.599265	0.253347	235.574	202.128
164	-0.693147	0.602941	0.26112	235.574	201.749
165	-0.693147	0.606618	0.271509	235.574	201.241
166	-0.693147	0.610294	0.281926	235.574	200.733
167	-0.693147	0.613971	0.28976	235.574	200.35
168	-0.693147	0.617647	0.300232	235.574	199.839
169	-0.693147	0.621324	0.310738	235.574	199.326
170	-0.693147	0.625	0.318639	235.574	198.94
171	-0.693147	0.628676	0.329206	235.574	198.424
172	-0.693147	0.632353	0.33981	235.574	197.906

173	-0.693147	0.636029	0.350451	235.574	197.386
174	-0.693147	0.639706	0.358459	235.574	196.995
175	-0.693147	0.643382	0.369171	235.574	196.472
176	-0.693147	0.647059	0.379927	235.574	195.947
177	-0.693147	0.650735	0.388022	235.574	195.552
178	-0.693147	0.654412	0.398855	235.574	195.023
179	-0.693147	0.658088	0.409735	235.574	194.491
180	-0.693147	0.661765	0.417928	235.574	194.091
181	-0.693147	0.665441	0.428895	235.574	193.556
182	-0.693147	0.669118	0.439913	235.574	193.018
183	-0.693147	0.672794	0.448213	235.574	192.612
184	-0.693147	0.676471	0.459327	235.574	192.07
185	-0.693147	0.680147	0.470498	235.574	191.524
186	-0.693147	0.683824	0.478914	235.574	191.113
187	-0.693147	0.6875	0.490189	235.574	190.562
188	-0.693147	0.691176	0.501527	235.574	190.009
189	-0.693147	0.694853	0.510074	235.574	189.591
190	-0.693147	0.698529	0.521527	235.574	189.032
191	-0.693147	0.702206	0.533048	235.574	188.469
192	-0.693147	0.705882	0.541736	235.574	188.045
193	-0.693147	0.709559	0.553384	235.574	187.476
194	-0.693147	0.713235	0.565108	235.574	186.904
195	-0.693147	0.716912	0.573953	235.574	186.472
196	-0.693147	0.720588	0.585815	235.574	185.893
197	-0.693147	0.724265	0.597761	235.574	185.309
198	-0.693147	0.727941	0.606775	235.574	184.869
199	-0.693147	0.731618	0.618872	235.574	184.278
200	-0.693147	0.735294	0.631062	235.574	183.683
201	-0.693147	0.738971	0.640266	235.574	183.234
202	-0.693147	0.742647	0.652622	235.574	182.63
203	-0.693147	0.746324	0.665079	235.574	182.022
204	-0.693147	0.75	0.67449	235.574	181.562
205	-0.693147	0.753676	0.687131	235.574	180.945
206	-0.693147	0.757353	0.699883	235.574	180.322
207	-0.673345	0.761029	0.712751	236.751	179.694
208	-0.597837	0.764706	0.722479	241.24	179.219
209	-0.562119	0.768382	0.735557	243.363	178.58
210	-0.544727	0.772059	0.748762	244.397	177.935
211	-0.342490	0.775735	0.758753	256.419	177.448
212	-0.150823	0.779412	0.772193	267.812	176.791
213	-0.127833	0.783088	0.785774	269.179	176.128
214	-0.116534	0.786765	0.796056	269.85	175.626
215	0	0.790441	0.809896	276.778	174.95
216	0	0.794118	0.823893	276.778	174.267
217	0	0.797794	0.834498	276.778	173.749
218	0	0.801471	0.848786	276.778	173.051
219	0	0.805147	0.863249	276.778	172.345
220	0	0.808824	0.874218	276.778	171.809
221	0	0.8125	0.889006	276.778	171.087
222	0	0.816176	0.903992	276.778	170.355
223	0	0.819853	0.915365	276.778	169.8
224	0	0.823529	0.930718	276.778	169.05
225	0	0.827206	0.946291	276.778	168.289
226	0	0.830882	0.958125	276.778	167.712
227	0	0.834559	0.974114	276.778	166.931
228	0	0.838235	0.990356	276.778	166.138
229	0	0.841912	1.00271	276.778	165.534
230	0	0.845588	1.01943	276.778	164.718
231	0	0.849265	1.03643	276.778	163.888
232	0	0.852941	1.04939	276.778	163.255
233	0.530628	0.856618	1.06694	308.321	162.398
234	0.530628	0.860294	1.08482	308.321	161.524

235	0.693147		0.863971		1.09847	317.982	160.858
236	0.693147		0.867647		1.11699	317.982	159.954
237	0.916291		0.871324		1.1359	331.246	159.03
238	1.09861	0.875	1.15035	342.084	158.325	
239	1.09861	0.878676		1.17	342.084	157.365
240	1.09861	0.882353		1.19012	342.084	156.383
241	1.09861	0.886029		1.21073	342.084	155.376
242	1.09861	0.889706		1.22653	342.084	154.605
243	1.09861	0.893382		1.24809	342.084	153.552
244	1.09861	0.897059		1.27024	342.084	152.47
245	1.09861	0.900735		1.28727	342.084	151.638
246	1.09861	0.904412		1.31058	342.084	150.5
247	1.38629	0.908088		1.33462	359.185	149.326
248	1.38629	0.911765		1.35317	359.185	148.42
249	1.60944	0.915441		1.37866	372.45	147.176
250	2.07944	0.919118		1.40507	400.389	145.886
251	2.19722	0.922794		1.42554	407.391	144.886
252	2.3979	0.926471		1.4538	419.319	143.506
253	2.56495	0.930147		1.48328	429.25	142.066
254	2.63906	0.933824		1.50626	433.655	140.944
255	2.77259	0.9375	1.5382	441.593	139.385	
256	2.77259	0.941176		1.57179	441.593	137.744
257	2.83321	0.944853		1.59819	445.197	136.455
258	2.89037	0.948529		1.63524	448.594	134.646
259	2.89037	0.952206		1.67466	448.594	132.721
260	2.94444	0.955882		1.70604	451.808	131.188
261	3.04452	0.959559		1.75069	457.758	129.008
262	3.09104	0.963235		1.79912	460.523	126.643
263	3.21888	0.966912		1.83843	468.122	124.724
264	3.29584	0.970588		1.8957	472.697	121.927
265	3.55535	0.974265		1.95996	488.123	118.789
266	3.78419	0.977941		2.01409	501.727	116.145
267	3.82864	0.981618		2.09693	504.369	112.1
268	3.89182	0.985294		2.19728	508.125	107.199
269	3.91202	0.988971		2.29036	509.326	102.654
270	3.95124	0.992647		2.45727	511.657	94.5032
271	4.86753	0.996324		2.74777	566.126	80.3175

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
LMW-4	1/16/1998	2.83321	257
	3/16/1999	ND<-0.693147	87.5
	9/23/1999	2.19722	251
	3/14/2000	ND<-0.693147	87.5
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	3.21888	263
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<-0.693147	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<-0.693147	87.5
	11/18/2006	ND<0 J	87.5
	6/2/2007	1.09861	238
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<-0.693147	87.5
	6/11/2009	-2.04022 J	188
	11/16/2009	-1.20397 J	207
	6/30/2010	-1.66073 J	200
	11/17/2010	-1.83258 J	193
	7/6/2011	-1.34707 J	205
	11/22/2011	-2.04022 J	189
	5/16/2012	-1.20397	208

Rank Sum = 3361.5
Rank Mean = 152.795

Background Rank Sum = 3361.5
Background Rank Mean = 152.795

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-6	1/16/1998	ND<-0.693147	87.5
	3/16/1999	ND<-0.693147	87.5
	9/23/1999	2.77259	255
	3/14/2000	ND<-0.693147	87.5
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	ND<-0.693147	87.5
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<-0.693147	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<-0.693147	87.5
	11/18/2006	ND<-0.693147	87.5
	6/2/2007	ND<0 J	87.5
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<-0.693147	87.5
	6/11/2009	-2.47694 J	176
	11/16/2009	ND<-3.21888 U	87.5
	6/30/2010	-1.96611 J	190

	11/17/2010	-1.77196	J	197
	7/6/2011	-2.31264	J	179
	11/22/2011	ND<-3.21888	U	87.5
	5/16/2012	ND<-3.21888	U	87.5

Rank Sum = 2484.5
Rank Mean = 112.932

LMW-14R	6/2/2007	1.38629		247
	11/15/2007	ND<-0.693147		87.5
	5/20/2008	ND<-0.693147		87.5
	11/20/2008	ND<-0.693147		87.5
	6/11/2009	-1.51413	J	202
	6/30/2010	-2.30259	J	181
	11/17/2010	-2.20727	J	182
	7/6/2011	-1.20397		209
	11/22/2011	ND<-3.21888	U	87.5
	5/16/2012	-2.12026	J	185

Rank Sum = 1556
Rank Mean = 155.6

LMW-15R	11/18/2006	ND<0	J	87.5
	6/2/2007	ND<-0.693147		87.5
	11/15/2007	ND<-0.693147		87.5
	11/15/2007	ND<-0.693147		87.5
	5/20/2008	ND<-0.693147		87.5
	5/20/2008	ND<-0.693147		87.5
	11/20/2008	ND<-0.693147		87.5
	11/20/2008	0		226
	6/11/2009	-0.116534		225
	11/16/2009	ND<-3.21888	U	87.5
	11/16/2009	-1.56065	J	201
	11/16/2009	-1.96611	J	191
	6/30/2010	-2.52573	J	175
	11/17/2010	-1.83258	J	194
	7/6/2011	-0.733969		216
	11/22/2011	ND<-3.21888	U	87.5
	5/16/2012	-1.89712	J	192

Rank Sum = 2407.5
Rank Mean = 141.618

LMW-16	11/18/2006	ND<0	J	87.5
	6/2/2007	1.60944		249
	11/15/2007	0.693147		235
	5/20/2008	ND<-0.693147		87.5
	11/20/2008	ND<-0.693147		87.5
	6/11/2009	ND<-3.21888	U	87.5
	11/16/2009	-2.31264	J	180
	6/30/2010	-1.34707	J	206
	11/17/2010	ND<-3.21888	U	87.5
	7/6/2011	-1.83258	J	195
	11/22/2011	ND<-3.21888	U	87.5
	5/16/2012	ND<-3.21888	U	87.5

Rank Sum = 1677.5
Rank Mean = 139.792

LMW-3	11/19/1996	ND<-0.693147		87.5
	3/24/1997	2.3979		252
	1/16/1998	ND<-0.693147		87.5
	3/16/1999	ND<-0.693147		87.5
	9/23/1999	2.07944		250
	3/14/2000	ND<-0.693147		87.5
	9/23/2003	ND<-0.693147		87.5

	3/10/2004	ND<-0.693147	87.5
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<-0.693147	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<-0.693147	87.5
	11/18/2006	ND<-0.693147	87.5
	6/2/2007	ND<-0.693147	87.5
	11/15/2007	0	227
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<-0.693147	87.5
	6/11/2009	ND<-3.21888 U	87.5
	11/16/2009	-0.994252	212
	6/30/2010	-1.77196 J	198
	11/17/2010	-0.673345	218
	7/6/2011	-2.12026 J	186
	11/22/2011	ND<-3.21888 U	87.5
	5/16/2012	ND<-3.21888 U	87.5

Rank Sum = 3030.5
Rank Mean = 126.271

LMW-10	3/14/2000	3.91202	269
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	4.86753	271
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<-0.693147	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<0 J	87.5
	11/18/2006	ND<-0.693147	87.5
	6/2/2007	1.38629	248
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<0 J	87.5
	6/11/2009	ND<-3.21888 U	87.5
	11/16/2009	ND<-3.21888 U	87.5
	6/30/2010	-2.20727 J	183
	11/17/2010	ND<-3.21888 U	87.5
	7/6/2011	ND<-3.21888 U	87.5
	11/22/2011	ND<-3.21888 U	87.5
	5/16/2012	-1.38629 J	204

Rank Sum = 2400
Rank Mean = 126.316

LMW-7	1/16/1998	ND<-0.693147	87.5
	3/16/1999	ND<-0.693147	87.5
	9/23/1999	2.89037	258
	3/14/2000	2.77259	256
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	ND<-0.693147	87.5
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	1.09861	239
	10/26/2005	1.09861	240
	6/19/2006	1.09861	241
	11/18/2006	0	228
	6/2/2007	1.09861	242
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<-0.693147	87.5
	6/11/2009	-0.127833	224
	11/17/2010	-0.150823	223
	7/6/2011	0.916291	237
	11/22/2011	-1.02165	211
	5/16/2012	-0.916291	213

Rank Sum = 3512
Rank Mean = 175.6

LMW-8	1/16/1998	ND<-0.693147	87.5
	3/16/1999	ND<-0.693147	87.5
	9/23/1999	3.04452	261
	3/14/2000	ND<-0.693147	87.5
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	ND<-0.693147	87.5
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<-0.693147	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<-0.693147	87.5
	11/18/2006	ND<-0.693147	87.5
	6/2/2007	ND<-0.693147	87.5
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<-0.693147	87.5
	6/11/2009	ND<-3.21888 U	87.5
	11/16/2009	ND<-3.21888 U	87.5
	6/30/2010	ND<-3.21888 U	87.5
	11/17/2010	ND<-3.21888 U	87.5
	7/6/2011	ND<-3.21888 U	87.5
	11/22/2011	ND<-3.21888 U	87.5
	5/16/2012	ND<-3.21888 U	87.5

Rank Sum = 2098.5
Rank Mean = 95.3864

LMW-9	1/16/1998	ND<-0.693147	87.5
	3/16/1999	ND<-0.693147	87.5
	9/23/1999	3.29584	264
	3/14/2000	ND<-0.693147	87.5
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	2.56495	253
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<0 J	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<0 J	87.5
	11/18/2006	ND<0 J	87.5
	6/2/2007	0	229
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	0	230
	11/20/2008	ND<-0.693147	87.5
	6/11/2009	-1.77196 J	199
	11/16/2009	ND<-3.21888 U	87.5
	6/30/2010	-1.83258 J	196
	11/17/2010	-0.562119	220
	7/6/2011	ND<-3.21888 U	87.5
	11/22/2011	ND<-3.21888 U	87.5
	5/16/2012	-2.33304 J	178

Rank Sum = 2994
Rank Mean = 136.091

LMW-9D	11/18/2006	1.09861	243
	6/2/2007	1.09861	244
	11/15/2007	ND<0 J	87.5
	5/20/2008	1.09861	245
	11/20/2008	ND<-0.693147	87.5
	6/11/2009	-0.34249	222
	11/16/2009	-1.17118	210
	6/30/2010	-1.46968 J	203
	11/17/2010	-0.820981	214

	7/6/2011	-0.776529	215
	11/22/2011	-2.12026 J	187
	5/16/2012	-0.71335	217

Rank Sum = 2375
Rank Mean = 197.917

LMW-9S	11/18/2006	ND<-0.693147	87.5
	6/2/2007	0.693147	236
	11/15/2007	0	231
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<0 J	87.5
	6/11/2009	ND<-3.21888 U	87.5
	6/30/2010	-2.20727 J	184
	11/17/2010	-0.597837	219
	7/6/2011	ND<-3.21888 U	87.5
	11/22/2011	ND<-3.21888 U	87.5
	5/16/2012	ND<-3.21888 U	87.5

Rank Sum = 1482.5
Rank Mean = 134.773

LMW-3s	5/16/2012	ND<-3.21888 U	87.5

Rank Sum = 87.5
Rank Mean = 87.5

LMW-3S	11/18/2006	ND<-0.693147	87.5
	6/2/2007	1.09861	246
	11/15/2007	0	232
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<-0.693147	87.5
	6/11/2009	-0.544727	221
	11/16/2009	ND<-3.21888 U	87.5
	6/30/2010	-2.37516 J	177
	11/17/2010	0.530628	233
	7/6/2011	0.530628	234
	11/22/2011	ND<-3.21888 U	87.5

Rank Sum = 1780.5
Rank Mean = 161.864

LMW-12	3/14/2000	3.89182	268
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	2.89037	259
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<-0.693147	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<-0.693147	87.5
	6/2/2007	ND<-0.693147	87.5
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<-0.693147	87.5

Rank Sum = 1314.5
Rank Mean = 119.5

LMW-13	3/14/2000	3.78419	266
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	3.55535	265
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<-0.693147	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<-0.693147	87.5
	6/2/2007	ND<-0.693147	87.5
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	ND<-0.693147	87.5

	11/20/2008	ND<-0.693147	87.5

Rank Sum = 1318.5
Rank Mean = 119.864

LMW-11	3/14/2000	2.94444	260
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	3.82864	267
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<-0.693147	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<-0.693147	87.5
	6/2/2007	ND<-0.693147	87.5
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<-0.693147	87.5

Rank Sum = 1314.5
Rank Mean = 119.5

MW-5	1/16/1998	ND<-0.693147	87.5
	3/16/1999	ND<-0.693147	87.5
	9/23/1999	2.63906	254
	3/14/2000	3.09104	262
	9/23/2003	ND<-0.693147	87.5
	3/10/2004	3.95124	270
	10/12/2004	ND<-0.693147	87.5
	4/1/2005	ND<-0.693147	87.5
	10/26/2005	ND<-0.693147	87.5
	6/19/2006	ND<-0.693147	87.5
	11/15/2007	ND<-0.693147	87.5
	5/20/2008	ND<-0.693147	87.5
	11/20/2008	ND<-0.693147	87.5

Rank Sum = 1661
Rank Mean = 127.769

Calculation Results:

Kruskal-Wallis H Statistic = 25.9878
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 35.3425
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
25.9878 < 27.5871 indicating no significant group difference at 5% significance level
35.3425 > 27.5871 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 152.795

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-6	**112.932**	**-39.863**	**54.9738**
LMW-14R	**155.6**	**2.80455**	**69.537**
LMW-15R	**141.618**	**-11.177**	**58.8774**
LMW-16	**139.792**	**-13.003**	**65.4319**
LMW-3	**126.271**	**-26.524**	**53.8163**
LMW-10	**126.316**	**-26.479**	**57.1026**
LMW-7	**175.6**	**22.8045**	**56.3314**
LMW-8	**95.3864**	**-57.409**	**54.9738**
LMW-9	**136.091**	**-16.704**	**54.9738**
LMW-9D	**197.917**	**45.1212**	**65.4319**
LMW-9S	**134.773**	**-18.022**	**67.3289**
LMW-3s	**87.5**	**-65.2955**	**186.425**
LMW-3S	**161.864**	**9.06818**	**67.3289**
LMW-12	**119.5**	**-33.295**	**67.3289**

LMW-13	**119.864**	**-32.9318**	**67.3289**
LMW-11	**119.5**	**-33.2955**	**67.3289**
MW-5	**127.769**	**-25.0262**	**63.7827**

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 152.795

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-6	**112.932**	**-39.8636**	**68.0136**
LMW-14R	**155.6**	**2.80455**	**86.0311**
LMW-15R	**141.618**	**-11.1778**	**72.8431**
LMW-16	**139.792**	**-13.0038**	**80.9524**
LMW-3	**126.271**	**-26.5246**	**66.5816**
LMW-10	**126.316**	**-26.4797**	**70.6473**
LMW-7	**175.6**	**22.8045**	**69.6932**
LMW-8	**95.3864**	**-57.4091**	**68.0136**
LMW-9	**136.091**	**-16.7045**	**68.0136**
LMW-9D	**197.917**	**45.1212**	**80.9524**
LMW-9S	**134.773**	**-18.0227**	**83.2993**
LMW-3s	**87.5**	**-65.2955**	**230.645**
LMW-3S	**161.864**	**9.06818**	**83.2993**
LMW-12	**119.5**	**-33.2955**	**83.2993**
LMW-13	**119.864**	**-32.9318**	**83.2993**
LMW-11	**119.5**	**-33.2955**	**83.2993**
MW-5	**127.769**	**-25.0262**	**78.912**

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Lead
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 64.2066%
Number of comparisons = 17
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 3.21888
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-6	5/16/2012	1	-3.21888	FALSE
LMW-14R	5/16/2012	1	-2.12026	FALSE
LMW-15R	5/16/2012	1	-1.89712	FALSE
LMW-16	5/16/2012	1	-3.21888	FALSE
LMW-3	5/16/2012	1	-3.21888	FALSE
LMW-10	5/16/2012	1	-1.38629	FALSE
LMW-7	5/16/2012	1	-0.916291	FALSE
LMW-8	5/16/2012	1	-3.21888	FALSE
LMW-9	5/16/2012	1	-2.33304	FALSE
LMW-9D	5/16/2012	1	-0.71335	FALSE
LMW-9S	5/16/2012	1	-3.21888	FALSE
LMW-3s	5/16/2012	1	-3.21888	FALSE
LMW-3S	11/22/2011	1	-3.21888	FALSE
LMW-12	11/20/2008	1	-0.693147	FALSE
LMW-13	11/20/2008	1	-0.693147	FALSE
LMW-11	11/20/2008	1	-0.693147	FALSE
MW-5	11/20/2008	1	-0.693147	FALSE

Concentrations (ppb)

Parameter: Methylene Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 261
Percent Non-Detects: 96.31%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	21 (95.4545%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<1 U	ND<1 U
			11/16/2009	ND<1 U	ND<1 U
			6/30/2010	ND<1 U	ND<1 U
			11/17/2010	ND<1 U	ND<1 U
			7/6/2011	3.7 J B	3.7 J B
			11/22/2011	ND<1 U	ND<1 U
			5/16/2012	ND<1 U	ND<1 U

There are 16 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-9	22	22 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<1 U	ND<1 U
			11/16/2009	ND<1 U	ND<1 U
			6/30/2010	ND<1 U	ND<1 U
			11/17/2010	ND<1 U	ND<1 U
			7/6/2011	ND<1 U	ND<1 U
			11/22/2011	ND<1 U	ND<1 U

			5/16/2012	ND<1 U	ND<1 U
LMW-9D	12	11 (91.6667%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<1 U	ND<1 U
			11/16/2009	ND<1 U	ND<1 U
			6/30/2010	ND<1 U	ND<1 U
			11/17/2010	ND<1 U	ND<1 U
			7/6/2011	3.4 J B	3.4 J B
			11/22/2011	ND<1 U	ND<1 U
			5/16/2012	ND<1 U	ND<1 U
LMW-8	22	22 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<1 U	ND<1 U
			11/16/2009	ND<1 U	ND<1 U
			6/30/2010	ND<1 U	ND<1 U
			11/17/2010	ND<1 U	ND<1 U
			7/6/2011	ND<1 U	ND<1 U
			11/22/2011	ND<1 U	ND<1 U
			5/16/2012	ND<1 U	ND<1 U
LMW-7	20	19 (95%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<1 U	ND<1 U
			11/17/2010	ND<1 U	ND<1 U
			7/6/2011	3 J B	3 J B
			11/22/2011	ND<1 U	ND<1 U
			5/16/2012	ND<1 U	ND<1 U
LMW-6	22	22 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1

			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<1 U	ND<1 U	
			11/16/2009	ND<1 U	ND<1 U	
			6/30/2010	ND<1 U	ND<1 U	
			11/17/2010	ND<1 U	ND<1 U	
			7/6/2011	ND<1 U	ND<1 U	
			11/22/2011	ND<1 U	ND<1 U	
			5/16/2012	ND<1 U	ND<1 U	
LMW-3S	12	11 (91.6667%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<1 U	ND<1 U	
			11/16/2009	ND<1 U	ND<1 U	
			6/30/2010	ND<1 U	ND<1 U	
			11/17/2010	ND<1 U	ND<1 U	
			7/6/2011	3.2 J B	3.2 J B	
			11/22/2011	ND<1 U	ND<1 U	
			5/16/2012	ND<1 U	ND<1 U	
LMW-3	24	23 (95.8333%)	11/19/1996	ND<1	ND<1	
			3/24/1997	ND<1	ND<1	
			1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<1 U	ND<1 U	
			11/16/2009	ND<1 U	ND<1 U	
			6/30/2010	ND<1 U	ND<1 U	
			11/17/2010	ND<1 U	ND<1 U	
			7/6/2011	3.1 J B	3.1 J B	
			11/22/2011	ND<1 U	ND<1 U	
			5/16/2012	ND<1 U	ND<1 U	
LMW-16	12	12 (100%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	

			11/20/2008	ND<1	ND<1
			6/11/2009	ND<1 U	ND<1 U
			11/16/2009	ND<1 U	ND<1 U
			6/30/2010	ND<1 U	ND<1 U
			11/17/2010	ND<1 U	ND<1 U
			7/6/2011	ND<1 U	ND<1 U
			11/22/2011	ND<1 U	ND<1 U
			5/16/2012	ND<1 U	ND<1 U
LMW-15R	14	13 (92.8571%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<1 U	ND<1 U
			6/30/2010	ND<1 U	ND<1 U
			11/17/2010	ND<1 U	ND<1 U
			7/6/2011	3.1 J B	3.1 J B
			11/22/2011	ND<1 U	ND<1 U
			5/16/2012	ND<1 U	ND<1 U
LMW-14R	10	9 (90%)	6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<1 U	ND<1 U
			6/30/2010	ND<1 U	ND<1 U
			11/17/2010	ND<1 U	ND<1 U
			7/6/2011	3.1 J B	3.1 J B
			11/22/2011	ND<1 U	ND<1 U
			5/16/2012	ND<1 U	ND<1 U
LMW-10	19	16 (84.2105%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<0 J	ND<0 J
			11/20/2008	ND<0 J	ND<0 J
			6/11/2009	ND<1 U	ND<1 U
			11/16/2009	ND<1 U	ND<1 U
			6/30/2010	ND<1 U	ND<1 U
			11/17/2010	ND<1 U	ND<1 U
			7/6/2011	2.4 J	2.4 J
			11/22/2011	2.2 J	2.2 J
			5/16/2012	1.8 J	1.8 J
LMW-9S	14	14 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<1 U	ND<1 U
			11/16/2009	ND<1 U	ND<1 U

			11/16/2009	ND<1 U	ND<1 U	
			11/16/2009	ND<1 U	ND<1 U	
			6/30/2010	ND<1 U	ND<1 U	
			11/17/2010	ND<1 U	ND<1 U	
			7/6/2011	ND<1 U	ND<1 U	
			11/22/2011	ND<1 U	ND<1 U	
			5/16/2012	ND<1 U	ND<1 U	
MW-5	13	13 (100%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/15/2007	ND<0 J	ND<0 J	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-12	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-13	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
LMW-11	11	11 (100%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality
Parameter: Methylene Chloride
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.74777	7.55021	0
2	0	-2.45727	13.5884	0
3	0	-2.29036	18.8342	0
4	0.5	-2.19728	23.6622	-1.09864
5	0.5	-2.09693	28.0593	-2.14711
6	0.5	-2.01409	32.1159	-3.15415
7	0.5	-1.95996	35.9574	-4.13414
8	0.5	-1.8957	39.551	-5.08198
9	0.5	-1.83843	42.9308	-6.0012
10	0.5	-1.79912	46.1677	-6.90075
11	0.5	-1.75069	49.2326	-7.7761
12	0.5	-1.70604	52.1431	-8.62912
13	0.5	-1.67466	54.9476	-9.46645
14	0.5	-1.63524	57.6216	-10.2841
15	0.5	-1.59819	60.1758	-11.0832
16	0.5	-1.57179	62.6464	-11.8691
17	0.5	-1.5382	65.0124	-12.6382
18	0.5	-1.50626	67.2812	-13.3913
19	0.5	-1.48328	69.4814	-14.1329
20	0.5	-1.4538	71.5949	-14.8598
21	0.5	-1.42554	73.6271	-15.5726
22	0.5	-1.40507	75.6013	-16.2751
23	0.5	-1.37866	77.502	-16.9645
24	0.5	-1.35317	79.3331	-17.6411
25	0.5	-1.33462	81.1143	-18.3084
26	0.5	-1.31058	82.8319	-18.9637
27	0.5	-1.28727	84.489	-19.6073
28	0.5	-1.27024	86.1025	-20.2424
29	0.5	-1.24809	87.6602	-20.8665
30	0.5	-1.22653	89.1646	-21.4797
31	0.5	-1.21073	90.6305	-22.0851
32	0.5	-1.19012	92.0469	-22.6801
33	0.5	-1.17	93.4158	-23.2651
34	0.5	-1.15035	94.7391	-23.8403
35	0.5	-1.1359	96.0293	-24.4083
36	0.5	-1.11699	97.277	-24.9668
37	0.5	-1.09847	98.4836	-25.516
38	0.5	-1.08482	99.6605	-26.0584
39	0.5	-1.06694	100.799	-26.5919
40	0.5	-1.04939	101.9	-27.1166
41	0.5	-1.03643	102.974	-27.6348
42	0.5	-1.01943	104.013	-28.1445
43	0.5	-1.00271	105.019	-28.6459
44	0.5	-0.990356	106	-29.141
45	0.5	-0.974114	106.949	-29.6281
46	0.5	-0.958125	107.867	-30.1072
47	0.5	-0.946291	108.762	-30.5803
48	0.5	-0.930718	109.628	-31.0457
49	0.5	-0.915365	110.466	-31.5033
50	0.5	-0.903992	111.283	-31.9553
51	0.5	-0.889006	112.074	-32.3998

52	0.5	-0.874218	112.838	-32.8369
53	0.5	-0.863249	113.583	-33.2686
54	0.5	-0.848786	114.304	-33.693
55	0.5	-0.834498	115	-34.1102
56	0.5	-0.823893	115.679	-34.5222
57	0.5	-0.809896	116.335	-34.9271
58	0.5	-0.796056	116.968	-35.3251
59	0.5	-0.785774	117.586	-35.718
60	0.5	-0.772193	118.182	-36.1041
61	0.5	-0.758753	118.758	-36.4835
62	0.5	-0.748762	119.318	-36.8579
63	0.5	-0.735557	119.86	-37.2257
64	0.5	-0.722479	120.382	-37.5869
65	0.5	-0.712751	120.89	-37.9433
66	0.5	-0.699883	121.379	-38.2932
67	0.5	-0.687131	121.852	-38.6368
68	0.5	-0.67449	122.306	-38.974
69	0.5	-0.665079	122.749	-39.3066
70	0.5	-0.652622	123.175	-39.6329
71	0.5	-0.640266	123.585	-39.953
72	0.5	-0.631062	123.983	-40.2685
73	0.5	-0.618872	124.366	-40.578
74	0.5	-0.606775	124.734	-40.8814
75	0.5	-0.597761	125.091	-41.1802
76	0.5	-0.585815	125.435	-41.4731
77	0.5	-0.573953	125.764	-41.7601
78	0.5	-0.565108	126.083	-42.0427
79	0.5	-0.553384	126.39	-42.3194
80	0.5	-0.541736	126.683	-42.5902
81	0.5	-0.533048	126.967	-42.8568
82	0.5	-0.521527	127.239	-43.1175
83	0.5	-0.510074	127.499	-43.3726
84	0.5	-0.501527	127.751	-43.6233
85	0.5	-0.490189	127.991	-43.8684
86	0.5	-0.478914	128.221	-44.1079
87	0.5	-0.470498	128.442	-44.3431
88	0.5	-0.459327	128.653	-44.5728
89	0.5	-0.448213	128.854	-44.7969
90	0.5	-0.439913	129.047	-45.0169
91	0.5	-0.428895	129.231	-45.2313
92	0.5	-0.417928	129.406	-45.4403
93	0.5	-0.409735	129.574	-45.6451
94	0.5	-0.398855	129.733	-45.8446
95	0.5	-0.388022	129.883	-46.0386
96	0.5	-0.379927	130.028	-46.2285
97	0.5	-0.369171	130.164	-46.4131
98	0.5	-0.358459	130.293	-46.5923
99	0.5	-0.350451	130.415	-46.7676
100	0.5	-0.33981	130.531	-46.9375
101	0.5	-0.329206	130.639	-47.1021
102	0.5	-0.318639	130.741	-47.2614
103	0.5	-0.310738	130.837	-47.4168
104	0.5	-0.300232	130.927	-47.5669
105	0.5	-0.28976	131.011	-47.7118
106	0.5	-0.281926	131.091	-47.8527
107	0.5	-0.271509	131.165	-47.9885
108	0.5	-0.26112	131.233	-48.119
109	0.5	-0.253347	131.297	-48.2457
110	0.5	-0.243007	131.356	-48.3672
111	0.5	-0.232693	131.41	-48.4836
112	0.5	-0.224974	131.461	-48.5961
113	0.5	-0.214702	131.507	-48.7034

114	0.5	-0.204452	131.549	-48.8056
115	0.5	-0.196779	131.587	-48.904
116	0.5	-0.186567	131.622	-48.9973
117	0.5	-0.176374	131.653	-49.0855
118	0.5	-0.168741	131.682	-49.1699
119	0.5	-0.158579	131.707	-49.2492
120	0.5	-0.148434	131.729	-49.3234
121	0.5	-0.140835	131.749	-49.3938
122	0.5	-0.130716	131.766	-49.4591
123	0.5	-0.12061	131.78	-49.5195
124	0.5	-0.113039	131.793	-49.576
125	0.5	-0.102953	131.804	-49.6274
126	0.5	-0.0928787	131.812	-49.6739
127	0.5	-0.0853288	131.82	-49.7165
128	0.5	-0.0752698	131.825	-49.7542
129	0.5	-0.0652187	131.83	-49.7868
130	0.5	-0.0576847	131.833	-49.8156
131	0.5	-0.0476439	131.835	-49.8395
132	0.5	-0.0376076	131.837	-49.8583
133	0.5	-0.0300838	131.838	-49.8733
134	0.5	-0.0200544	131.838	-49.8833
135	0.5	-0.0100272	131.838	-49.8883
136	0.5	0	131.838	-49.8883
137	0.5	0.0100272	131.838	-49.8833
138	0.5	0.0200544	131.839	-49.8733
139	0.5	0.0300838	131.839	-49.8583
140	0.5	0.0376076	131.841	-49.8395
141	0.5	0.0476439	131.843	-49.8156
142	0.5	0.0576847	131.846	-49.7868
143	0.5	0.0652187	131.851	-49.7542
144	0.5	0.0752698	131.856	-49.7165
145	0.5	0.0853288	131.864	-49.6739
146	0.5	0.0928787	131.872	-49.6274
147	0.5	0.102953	131.883	-49.576
148	0.5	0.113039	131.896	-49.5195
149	0.5	0.12061	131.91	-49.4591
150	0.5	0.130716	131.927	-49.3938
151	0.5	0.140835	131.947	-49.3234
152	0.5	0.148434	131.969	-49.2492
153	0.5	0.158579	131.994	-49.1699
154	0.5	0.168741	132.023	-49.0855
155	0.5	0.176374	132.054	-48.9973
156	0.5	0.186567	132.089	-48.904
157	0.5	0.196779	132.127	-48.8056
158	0.5	0.204452	132.169	-48.7034
159	0.5	0.214702	132.215	-48.5961
160	0.5	0.224974	132.266	-48.4836
161	0.5	0.232693	132.32	-48.3672
162	0.5	0.243007	132.379	-48.2457
163	0.5	0.253347	132.443	-48.119
164	0.5	0.26112	132.512	-47.9885
165	0.5	0.271509	132.585	-47.8527
166	0.5	0.281926	132.665	-47.7118
167	0.5	0.28976	132.749	-47.5669
168	0.5	0.300232	132.839	-47.4168
169	0.5	0.310738	132.935	-47.2614
170	0.5	0.318639	133.037	-47.1021
171	0.5	0.329206	133.145	-46.9375
172	0.5	0.33981	133.261	-46.7676
173	0.5	0.350451	133.384	-46.5923
174	0.5	0.358459	133.512	-46.4131
175	0.5	0.369171	133.648	-46.2285

176	0.5	0.379927	133.793	-46.0386
177	0.5	0.388022	133.943	-45.8446
178	0.5	0.398855	134.102	-45.6451
179	0.5	0.409735	134.27	-45.4403
180	0.5	0.417928	134.445	-45.2313
181	0.5	0.428895	134.629	-45.0169
182	0.5	0.439913	134.822	-44.7969
183	0.5	0.448213	135.023	-44.5728
184	0.5	0.459327	135.234	-44.3431
185	0.5	0.470498	135.456	-44.1079
186	0.5	0.478914	135.685	-43.8684
187	0.5	0.490189	135.925	-43.6233
188	0.5	0.501527	136.177	-43.3726
189	0.5	0.510074	136.437	-43.1175
190	0.5	0.521527	136.709	-42.8568
191	0.5	0.533048	136.993	-42.5902
192	0.5	0.541736	137.287	-42.3194
193	0.5	0.553384	137.593	-42.0427
194	0.5	0.565108	137.912	-41.7601
195	0.5	0.573953	138.242	-41.4731
196	0.5	0.585815	138.585	-41.1802
197	0.5	0.597761	138.942	-40.8814
198	0.5	0.606775	139.31	-40.578
199	0.5	0.618872	139.693	-40.2685
200	0.5	0.631062	140.091	-39.953
201	0.5	0.640266	140.501	-39.6329
202	0.5	0.652622	140.927	-39.3066
203	0.5	0.665079	141.37	-38.974
204	0.5	0.67449	141.825	-38.6368
205	0.5	0.687131	142.297	-38.2932
206	0.5	0.699883	142.787	-37.9433
207	0.5	0.712751	143.295	-37.5869
208	0.5	0.722479	143.817	-37.2257
209	0.5	0.735557	144.358	-36.8579
210	0.5	0.748762	144.918	-36.4835
211	0.5	0.758753	145.494	-36.1041
212	0.5	0.772193	146.09	-35.718
213	0.5	0.785774	146.708	-35.3251
214	0.5	0.796056	147.341	-34.9271
215	0.5	0.809896	147.997	-34.5222
216	0.5	0.823893	148.676	-34.1102
217	0.5	0.834498	149.373	-33.693
218	0.5	0.848786	150.093	-33.2686
219	0.5	0.863249	150.838	-32.8369
220	0.5	0.874218	151.602	-32.3998
221	0.5	0.889006	152.393	-31.9553
222	0.5	0.903992	153.21	-31.5033
223	0.5	0.915365	154.048	-31.0457
224	0.5	0.930718	154.914	-30.5803
225	0.5	0.946291	155.81	-30.1072
226	0.5	0.958125	156.728	-29.6281
227	0.5	0.974114	157.676	-29.141
228	0.5	0.990356	158.657	-28.6459
229	0.5	1.00271	159.663	-28.1445
230	0.5	1.01943	160.702	-27.6348
231	0.5	1.03643	161.776	-27.1166
232	0.5	1.04939	162.877	-26.5919
233	0.5	1.06694	164.016	-26.0584
234	0.5	1.08482	165.193	-25.516
235	0.5	1.09847	166.399	-24.9668
236	0.5	1.11699	167.647	-24.4083
237	0.5	1.1359	168.937	-23.8403

238	0.5	1.15035	170.26	-23.2651
239	0.5	1.17	171.629	-22.6801
240	0.5	1.19012	173.046	-22.0851
241	0.5	1.21073	174.512	-21.4797
242	0.5	1.22653	176.016	-20.8665
243	0.5	1.24809	177.574	-20.2424
244	0.5	1.27024	179.187	-19.6073
245	0.5	1.28727	180.844	-18.9637
246	0.5	1.31058	182.562	-18.3084
247	0.5	1.33462	184.343	-17.6411
248	0.5	1.35317	186.174	-16.9645
249	0.5	1.37866	188.075	-16.2751
250	0.5	1.40507	190.049	-15.5726
251	0.5	1.42554	192.081	-14.8598
252	0.5	1.4538	194.195	-14.1329
253	0.5	1.48328	196.395	-13.3913
254	0.5	1.50626	198.664	-12.6382
255	0.5	1.5382	201.03	-11.8691
256	0.5	1.57179	203.5	-11.0832
257	0.5	1.59819	206.054	-10.2841
258	0.5	1.63524	208.728	-9.46645
259	0.5	1.67466	211.533	-8.62912
260	0.5	1.70604	214.444	-7.7761
261	0.5	1.75069	217.508	-6.90075
262	1.8	1.79912	220.745	-3.66234
263	2.2	1.83843	224.125	0.382192
264	2.4	1.8957	227.719	4.93186
265	3	1.95996	231.56	10.8117
266	3.1	2.01409	235.617	17.0554
267	3.1	2.09693	240.014	23.5559
268	3.1	2.19728	244.842	30.3675
269	3.2	2.29036	250.088	37.6967
270	3.4	2.45727	256.126	46.0514
271	3.7	2.74777	263.676	56.2181

Data Set Standard Deviation = 0.469602
Numerator = 3160.48
Denominator = 15699.8
W Statistic = 0.201307 = 3160.48 / 15699.8

5% Critical value of 0.976 exceeds 0.201307
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.201307
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Methylene Chloride

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.454239
0.454239 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00367647		-2.747773	9	348.683
2	0	0.00735294		-2.457273	9	334.497
3	0	0.0110294		-2.290363	9	326.346
4	0.5	0.0147059		-2.19728	105.875	321.801
5	0.5	0.0183824		-2.09693	105.875	316.9
6	0.5	0.0220588		-2.01409	105.875	312.855
7	0.5	0.0257353		-1.95996	105.875	310.211
8	0.5	0.0294118		-1.8957	105.875	307.073
9	0.5	0.0330882		-1.83843	105.875	304.276
10	0.5	0.0367647		-1.79912	105.875	302.357
11	0.5	0.0404412		-1.75069	105.875	299.992
12	0.5	0.0441176		-1.70604	105.875	297.812
13	0.5	0.0477941		-1.67466	105.875	296.279
14	0.5	0.0514706		-1.63524	105.875	294.354
15	0.5	0.0551471		-1.59819	105.875	292.545
16	0.5	0.0588235		-1.57179	105.875	291.256
17	0.5	0.0625	-1.5382	105.875	289.615	
18	0.5	0.0661765		-1.50626	105.875	288.056
19	0.5	0.0698529		-1.48328	105.875	286.934
20	0.5	0.0735294		-1.4538	105.875	285.494
21	0.5	0.0772059		-1.42554	105.875	284.114
22	0.5	0.0808824		-1.40507	105.875	283.114
23	0.5	0.0845588		-1.37866	105.875	281.824
24	0.5	0.0882353		-1.35317	105.875	280.58
25	0.5	0.0919118		-1.33462	105.875	279.674
26	0.5	0.0955882		-1.31058	105.875	278.5
27	0.5	0.0992647		-1.28727	105.875	277.362
28	0.5	0.102941		-1.27024	105.875	276.53
29	0.5	0.106618		-1.24809	105.875	275.448
30	0.5	0.110294		-1.22653	105.875	274.395
31	0.5	0.113971		-1.21073	105.875	273.624
32	0.5	0.117647		-1.19012	105.875	272.617
33	0.5	0.121324		-1.17	105.875	271.635
34	0.5	0.125	-1.15035	105.875	270.675	
35	0.5	0.128676		-1.1359	105.875	269.97
36	0.5	0.132353		-1.11699	105.875	269.046
37	0.5	0.136029		-1.09847	105.875	268.142
38	0.5	0.139706		-1.08482	105.875	267.476
39	0.5	0.143382		-1.06694	105.875	266.602
40	0.5	0.147059		-1.04939	105.875	265.745
41	0.5	0.150735		-1.03643	105.875	265.112
42	0.5	0.154412		-1.01943	105.875	264.282
43	0.5	0.158088		-1.00271	105.875	263.466
44	0.5	0.161765		-0.990356	105.875	262.862
45	0.5	0.165441		-0.974114	105.875	262.069
46	0.5	0.169118		-0.958125	105.875	261.288
47	0.5	0.172794		-0.946291	105.875	260.711
48	0.5	0.176471		-0.930718	105.875	259.95

49	0.5	0.180147	-0.915365	105.875	259.2
50	0.5	0.183824	-0.903992	105.875	258.645
51	0.5	0.1875	-0.889006	105.875	257.913
52	0.5	0.191176	-0.874218	105.875	257.191
53	0.5	0.194853	-0.863249	105.875	256.655
54	0.5	0.198529	-0.848786	105.875	255.949
55	0.5	0.202206	-0.834498	105.875	255.251
56	0.5	0.205882	-0.823893	105.875	254.733
57	0.5	0.209559	-0.809896	105.875	254.05
58	0.5	0.213235	-0.796056	105.875	253.374
59	0.5	0.216912	-0.785774	105.875	252.872
60	0.5	0.220588	-0.772193	105.875	252.209
61	0.5	0.224265	-0.758753	105.875	251.552
62	0.5	0.227941	-0.748762	105.875	251.065
63	0.5	0.231618	-0.735557	105.875	250.42
64	0.5	0.235294	-0.722479	105.875	249.781
65	0.5	0.238971	-0.712751	105.875	249.306
66	0.5	0.242647	-0.699883	105.875	248.678
67	0.5	0.246324	-0.687131	105.875	248.055
68	0.5	0.25	-0.67449	105.875	247.438
69	0.5	0.253676	-0.665079	105.875	246.978
70	0.5	0.257353	-0.652622	105.875	246.37
71	0.5	0.261029	-0.640266	105.875	245.766
72	0.5	0.264706	-0.631062	105.875	245.317
73	0.5	0.268382	-0.618872	105.875	244.722
74	0.5	0.272059	-0.606775	105.875	244.131
75	0.5	0.275735	-0.597761	105.875	243.691
76	0.5	0.279412	-0.585815	105.875	243.107
77	0.5	0.283088	-0.573953	105.875	242.528
78	0.5	0.286765	-0.565108	105.875	242.096
79	0.5	0.290441	-0.553384	105.875	241.524
80	0.5	0.294118	-0.541736	105.875	240.955
81	0.5	0.297794	-0.533048	105.875	240.531
82	0.5	0.301471	-0.521527	105.875	239.968
83	0.5	0.305147	-0.510074	105.875	239.409
84	0.5	0.308824	-0.501527	105.875	238.991
85	0.5	0.3125	-0.490189	105.875	238.438
86	0.5	0.316176	-0.478914	105.875	237.887
87	0.5	0.319853	-0.470498	105.875	237.476
88	0.5	0.323529	-0.459327	105.875	236.93
89	0.5	0.327206	-0.448213	105.875	236.388
90	0.5	0.330882	-0.439913	105.875	235.982
91	0.5	0.334559	-0.428895	105.875	235.444
92	0.5	0.338235	-0.417928	105.875	234.909
93	0.5	0.341912	-0.409735	105.875	234.509
94	0.5	0.345588	-0.398855	105.875	233.977
95	0.5	0.349265	-0.388022	105.875	233.448
96	0.5	0.352941	-0.379927	105.875	233.053
97	0.5	0.356618	-0.369171	105.875	232.528
98	0.5	0.360294	-0.358459	105.875	232.005
99	0.5	0.363971	-0.350451	105.875	231.614
100	0.5	0.367647	-0.33981	105.875	231.094
101	0.5	0.371324	-0.329206	105.875	230.576
102	0.5	0.375	-0.318639	105.875	230.06
103	0.5	0.378676	-0.310738	105.875	229.674
104	0.5	0.382353	-0.300232	105.875	229.161
105	0.5	0.386029	-0.28976	105.875	228.65
106	0.5	0.389706	-0.281926	105.875	228.267
107	0.5	0.393382	-0.271509	105.875	227.759
108	0.5	0.397059	-0.26112	105.875	227.251
109	0.5	0.400735	-0.253347	105.875	226.872
110	0.5	0.404412	-0.243007	105.875	226.367

111	0.5	0.408088	-0.232693	105.875	225.863
112	0.5	0.411765	-0.224974	105.875	225.486
113	0.5	0.415441	-0.214702	105.875	224.985
114	0.5	0.419118	-0.204452	105.875	224.484
115	0.5	0.422794	-0.196779	105.875	224.109
116	0.5	0.426471	-0.186567	105.875	223.611
117	0.5	0.430147	-0.176374	105.875	223.113
118	0.5	0.433824	-0.168741	105.875	222.74
119	0.5	0.4375	-0.158579	105.875	222.244
120	0.5	0.441176	-0.148434	105.875	221.749
121	0.5	0.444853	-0.140835	105.875	221.377
122	0.5	0.448529	-0.130716	105.875	220.883
123	0.5	0.452206	-0.12061	105.875	220.39
124	0.5	0.455882	-0.113039	105.875	220.02
125	0.5	0.459559	-0.102953	105.875	219.528
126	0.5	0.463235	-0.0928787	105.875	219.036
127	0.5	0.466912	-0.0853288	105.875	218.667
128	0.5	0.470588	-0.0752698	105.875	218.176
129	0.5	0.474265	-0.0652187	105.875	217.685
130	0.5	0.477941	-0.0576847	105.875	217.317
131	0.5	0.481618	-0.0476439	105.875	216.827
132	0.5	0.485294	-0.0376076	105.875	216.337
133	0.5	0.488971	-0.0300838	105.875	215.969
134	0.5	0.492647	-0.0200544	105.875	215.479
135	0.5	0.496324	-0.0100272	105.875	214.99
136	0.5	0.5	0	105.875	214.5
137	0.5	0.503676	0.0100272	105.875	214.01
138	0.5	0.507353	0.0200544	105.875	213.521
139	0.5	0.511029	0.0300838	105.875	213.031
140	0.5	0.514706	0.0376076	105.875	212.663
141	0.5	0.518382	0.0476439	105.875	212.173
142	0.5	0.522059	0.0576847	105.875	211.683
143	0.5	0.525735	0.0652187	105.875	211.315
144	0.5	0.529412	0.0752698	105.875	210.824
145	0.5	0.533088	0.0853288	105.875	210.333
146	0.5	0.536765	0.0928787	105.875	209.964
147	0.5	0.540441	0.102953	105.875	209.472
148	0.5	0.544118	0.113039	105.875	208.98
149	0.5	0.547794	0.12061	105.875	208.61
150	0.5	0.551471	0.130716	105.875	208.117
151	0.5	0.555147	0.140835	105.875	207.623
152	0.5	0.558824	0.148434	105.875	207.251
153	0.5	0.5625	0.158579	105.875	206.756
154	0.5	0.566176	0.168741	105.875	206.26
155	0.5	0.569853	0.176374	105.875	205.887
156	0.5	0.573529	0.186567	105.875	205.389
157	0.5	0.577206	0.196779	105.875	204.891
158	0.5	0.580882	0.204452	105.875	204.516
159	0.5	0.584559	0.214702	105.875	204.015
160	0.5	0.588235	0.224974	105.875	203.514
161	0.5	0.591912	0.232693	105.875	203.137
162	0.5	0.595588	0.243007	105.875	202.633
163	0.5	0.599265	0.253347	105.875	202.128
164	0.5	0.602941	0.26112	105.875	201.749
165	0.5	0.606618	0.271509	105.875	201.241
166	0.5	0.610294	0.281926	105.875	200.733
167	0.5	0.613971	0.28976	105.875	200.35
168	0.5	0.617647	0.300232	105.875	199.839
169	0.5	0.621324	0.310738	105.875	199.326
170	0.5	0.625	0.318639	105.875	198.94
171	0.5	0.628676	0.329206	105.875	198.424
172	0.5	0.632353	0.33981	105.875	197.906

173	0.5	0.636029	0.350451	105.875	197.386
174	0.5	0.639706	0.358459	105.875	196.995
175	0.5	0.643382	0.369171	105.875	196.472
176	0.5	0.647059	0.379927	105.875	195.947
177	0.5	0.650735	0.388022	105.875	195.552
178	0.5	0.654412	0.398855	105.875	195.023
179	0.5	0.658088	0.409735	105.875	194.491
180	0.5	0.661765	0.417928	105.875	194.091
181	0.5	0.665441	0.428895	105.875	193.556
182	0.5	0.669118	0.439913	105.875	193.018
183	0.5	0.672794	0.448213	105.875	192.612
184	0.5	0.676471	0.459327	105.875	192.07
185	0.5	0.680147	0.470498	105.875	191.524
186	0.5	0.683824	0.478914	105.875	191.113
187	0.5	0.6875	0.490189	105.875	190.562
188	0.5	0.691176	0.501527	105.875	190.009
189	0.5	0.694853	0.510074	105.875	189.591
190	0.5	0.698529	0.521527	105.875	189.032
191	0.5	0.702206	0.533048	105.875	188.469
192	0.5	0.705882	0.541736	105.875	188.045
193	0.5	0.709559	0.553384	105.875	187.476
194	0.5	0.713235	0.565108	105.875	186.904
195	0.5	0.716912	0.573953	105.875	186.472
196	0.5	0.720588	0.585815	105.875	185.893
197	0.5	0.724265	0.597761	105.875	185.309
198	0.5	0.727941	0.606775	105.875	184.869
199	0.5	0.731618	0.618872	105.875	184.278
200	0.5	0.735294	0.631062	105.875	183.683
201	0.5	0.738971	0.640266	105.875	183.234
202	0.5	0.742647	0.652622	105.875	182.63
203	0.5	0.746324	0.665079	105.875	182.022
204	0.5	0.75	0.67449	105.875	181.562
205	0.5	0.753676	0.687131	105.875	180.945
206	0.5	0.757353	0.699883	105.875	180.322
207	0.5	0.761029	0.712751	105.875	179.694
208	0.5	0.764706	0.722479	105.875	179.219
209	0.5	0.768382	0.735557	105.875	178.58
210	0.5	0.772059	0.748762	105.875	177.935
211	0.5	0.775735	0.758753	105.875	177.448
212	0.5	0.779412	0.772193	105.875	176.791
213	0.5	0.783088	0.785774	105.875	176.128
214	0.5	0.786765	0.796056	105.875	175.626
215	0.5	0.790441	0.809896	105.875	174.95
216	0.5	0.794118	0.823893	105.875	174.267
217	0.5	0.797794	0.834498	105.875	173.749
218	0.5	0.801471	0.848786	105.875	173.051
219	0.5	0.805147	0.863249	105.875	172.345
220	0.5	0.808824	0.874218	105.875	171.809
221	0.5	0.8125	0.889006	105.875	171.087
222	0.5	0.816176	0.903992	105.875	170.355
223	0.5	0.819853	0.915365	105.875	169.8
224	0.5	0.823529	0.930718	105.875	169.05
225	0.5	0.827206	0.946291	105.875	168.289
226	0.5	0.830882	0.958125	105.875	167.712
227	0.5	0.834559	0.974114	105.875	166.931
228	0.5	0.838235	0.990356	105.875	166.138
229	0.5	0.841912	1.00271	105.875	165.534
230	0.5	0.845588	1.01943	105.875	164.718
231	0.5	0.849265	1.03643	105.875	163.888
232	0.5	0.852941	1.04939	105.875	163.255
233	0.5	0.856618	1.06694	105.875	162.398
234	0.5	0.860294	1.08482	105.875	161.524

235	0.5	0.863971		1.09847	105.875	160.858
236	0.5	0.867647		1.11699	105.875	159.954
237	0.5	0.871324		1.1359	105.875	159.03
238	0.5	0.875	1.15035	105.875	158.325	
239	0.5	0.878676		1.17	105.875	157.365
240	0.5	0.882353		1.19012	105.875	156.383
241	0.5	0.886029		1.21073	105.875	155.376
242	0.5	0.889706		1.22653	105.875	154.605
243	0.5	0.893382		1.24809	105.875	153.552
244	0.5	0.897059		1.27024	105.875	152.47
245	0.5	0.900735		1.28727	105.875	151.638
246	0.5	0.904412		1.31058	105.875	150.5
247	0.5	0.908088		1.33462	105.875	149.326
248	0.5	0.911765		1.35317	105.875	148.42
249	0.5	0.915441		1.37866	105.875	147.176
250	0.5	0.919118		1.40507	105.875	145.886
251	0.5	0.922794		1.42554	105.875	144.886
252	0.5	0.926471		1.4538	105.875	143.506
253	0.5	0.930147		1.48328	105.875	142.066
254	0.5	0.933824		1.50626	105.875	140.944
255	0.5	0.9375	1.5382	105.875	139.385	
256	0.5	0.941176		1.57179	105.875	137.744
257	0.5	0.944853		1.59819	105.875	136.455
258	0.5	0.948529		1.63524	105.875	134.646
259	0.5	0.952206		1.67466	105.875	132.721
260	0.5	0.955882		1.70604	105.875	131.188
261	0.5	0.959559		1.75069	105.875	129.008
262	1.8	0.963235		1.79912	279.75	126.643
263	2.2	0.966912		1.83843	333.25	124.724
264	2.4	0.970588		1.8957	360	121.927
265	3	0.974265		1.95996	440.25	118.789
266	3.1	0.977941		2.01409	453.625	116.145
267	3.1	0.981618		2.09693	453.625	112.1
268	3.1	0.985294		2.19728	453.625	107.199
269	3.2	0.988971		2.29036	467	102.654
270	3.4	0.992647		2.45727	493.75	94.5032
271	3.7	0.996324		2.74777	533.875	80.3175

Shapiro-Francia Test of Normality

Parameter: Methylene Chloride

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-0.693147	-2.747777.55021	1.90461	
2	-0.693147	-2.4572713.5884	3.60786	
3	-0.693147	-2.2903618.8342	5.19542	
4	-0.693147	-2.1972823.6622	6.71846	
5	-0.693147	-2.0969328.0593	8.17194	
6	-0.693147	-2.0140932.1159	9.568	
7	-0.693147	-1.9599635.9574	10.9265	
8	-0.693147	-1.8957 39.551	12.2405	
9	-0.693147	-1.8384342.9308	13.5148	
10	-0.693147	-1.7991246.1677	14.7619	
11	-0.693147	-1.7506949.2326	15.9754	
12	-0.693147	-1.7060452.1431	17.1579	
13	-0.693147	-1.6746654.9476	18.3187	
14	-0.693147	-1.6352457.6216	19.4522	
15	-0.693147	-1.5981960.1758	20.5599	
16	-0.693147	-1.5717962.6464	21.6494	
17	-0.693147	-1.5382 65.0124	22.7156	
18	-0.693147	-1.5062667.2812	23.7597	
19	-0.693147	-1.4832869.4814	24.7878	
20	-0.693147	-1.4538 71.5949	25.7955	
21	-0.693147	-1.4255473.6271	26.7836	
22	-0.693147	-1.4050775.6013	27.7576	
23	-0.693147	-1.3786677.502	28.7132	
24	-0.693147	-1.3531779.3331	29.6511	
25	-0.693147	-1.3346281.1143	30.5762	
26	-0.693147	-1.3105882.8319	31.4846	
27	-0.693147	-1.2872784.489	32.3769	
28	-0.693147	-1.2702486.1025	33.2574	
29	-0.693147	-1.2480987.6602	34.1225	
30	-0.693147	-1.2265389.1646	34.9726	
31	-0.693147	-1.2107390.6305	35.8118	
32	-0.693147	-1.1901292.0469	36.6368	
33	-0.693147	-1.17 93.4158	37.4478	
34	-0.693147	-1.1503594.7391	38.2451	
35	-0.693147	-1.1359 96.0293	39.0325	
36	-0.693147	-1.1169997.277	39.8067	
37	-0.693147	-1.0984798.4836	40.5681	
38	-0.693147	-1.0848299.6605	41.32	
39	-0.693147	-1.06694100.799	42.0596	
40	-0.693147	-1.04939101.9	42.787	
41	-0.693147	-1.03643102.974	43.5054	
42	-0.693147	-1.01943104.013	44.212	
43	-0.693147	-1.00271105.019	44.907	
44	-0.693147	-0.990356	106	45.5935
45	-0.693147	-0.974114	106.949	46.2687
46	-0.693147	-0.958125	107.867	46.9328
47	-0.693147	-0.946291	108.762	47.5887
48	-0.693147	-0.930718	109.628	48.2338
49	-0.693147	-0.915365	110.466	48.8683
50	-0.693147	-0.903992	111.283	49.4949
51	-0.693147	-0.889006	112.074	50.1111

52	-0.693147	-0.874218	112.838	50.7171
53	-0.693147	-0.863249	113.583	51.3154
54	-0.693147	-0.848786	114.304	51.9038
55	-0.693147	-0.834498	115	52.4822
56	-0.693147	-0.823893	115.679	53.0533
57	-0.693147	-0.809896	116.335	53.6147
58	-0.693147	-0.796056	116.968	54.1665
59	-0.693147	-0.785774	117.586	54.7111
60	-0.693147	-0.772193	118.182	55.2464
61	-0.693147	-0.758753	118.758	55.7723
62	-0.693147	-0.748762	119.318	56.2913
63	-0.693147	-0.735557	119.86	56.8011
64	-0.693147	-0.722479	120.382	57.3019
65	-0.693147	-0.712751	120.89	57.796
66	-0.693147	-0.699883	121.379	58.2811
67	-0.693147	-0.687131	121.852	58.7574
68	-0.693147	-0.67449	122.306	59.2249
69	-0.693147	-0.665079	122.749	59.6859
70	-0.693147	-0.652622	123.175	60.1382
71	-0.693147	-0.640266	123.585	60.582
72	-0.693147	-0.631062	123.983	61.0195
73	-0.693147	-0.618872	124.366	61.4484
74	-0.693147	-0.606775	124.734	61.869
75	-0.693147	-0.597761	125.091	62.2833
76	-0.693147	-0.585815	125.435	62.6894
77	-0.693147	-0.573953	125.764	63.0872
78	-0.693147	-0.565108	126.083	63.4789
79	-0.693147	-0.553384	126.39	63.8625
80	-0.693147	-0.541736	126.683	64.238
81	-0.693147	-0.533048	126.967	64.6075
82	-0.693147	-0.521527	127.239	64.969
83	-0.693147	-0.510074	127.499	65.3226
84	-0.693147	-0.501527	127.751	65.6702
85	-0.693147	-0.490189	127.991	66.01
86	-0.693147	-0.478914	128.221	66.3419
87	-0.693147	-0.470498	128.442	66.668
88	-0.693147	-0.459327	128.653	66.9864
89	-0.693147	-0.448213	128.854	67.2971
90	-0.693147	-0.439913	129.047	67.602
91	-0.693147	-0.428895	129.231	67.8993
92	-0.693147	-0.417928	129.406	68.189
93	-0.693147	-0.409735	129.574	68.473
94	-0.693147	-0.398855	129.733	68.7495
95	-0.693147	-0.388022	129.883	69.0184
96	-0.693147	-0.379927	130.028	69.2818
97	-0.693147	-0.369171	130.164	69.5377
98	-0.693147	-0.358459	130.293	69.7861
99	-0.693147	-0.350451	130.415	70.029
100	-0.693147	-0.33981	130.531	70.2646
101	-0.693147	-0.329206	130.639	70.4928
102	-0.693147	-0.318639	130.741	70.7136
103	-0.693147	-0.310738	130.837	70.929
104	-0.693147	-0.300232	130.927	71.1371
105	-0.693147	-0.28976	131.011	71.338
106	-0.693147	-0.281926	131.091	71.5334
107	-0.693147	-0.271509	131.165	71.7216
108	-0.693147	-0.26112	131.233	71.9026
109	-0.693147	-0.253347	131.297	72.0782
110	-0.693147	-0.243007	131.356	72.2466
111	-0.693147	-0.232693	131.41	72.4079
112	-0.693147	-0.224974	131.461	72.5639
113	-0.693147	-0.214702	131.507	72.7127

114	-0.693147	-0.204452	131.549	72.8544
115	-0.693147	-0.196779	131.587	72.9908
116	-0.693147	-0.186567	131.622	73.1201
117	-0.693147	-0.176374	131.653	73.2424
118	-0.693147	-0.168741	131.682	73.3593
119	-0.693147	-0.158579	131.707	73.4692
120	-0.693147	-0.148434	131.729	73.5721
121	-0.693147	-0.140835	131.749	73.6697
122	-0.693147	-0.130716	131.766	73.7603
123	-0.693147	-0.12061	131.78	73.844
124	-0.693147	-0.113039	131.793	73.9223
125	-0.693147	-0.102953	131.804	73.9937
126	-0.693147	-0.0928787	131.812	74.058
127	-0.693147	-0.0853288	131.82	74.1172
128	-0.693147	-0.0752698	131.825	74.1694
129	-0.693147	-0.0652187	131.83	74.2146
130	-0.693147	-0.0576847	131.833	74.2546
131	-0.693147	-0.0476439	131.835	74.2876
132	-0.693147	-0.0376076	131.837	74.3136
133	-0.693147	-0.0300838	131.838	74.3345
134	-0.693147	-0.0200544	131.838	74.3484
135	-0.693147	-0.0100272	131.838	74.3553
136	-0.693147	0	131.838	74.3553
137	-0.693147	0.0100272	131.838	74.3484
138	-0.693147	0.0200544	131.839	74.3345
139	-0.693147	0.0300838	131.839	74.3136
140	-0.693147	0.0376076	131.841	74.2876
141	-0.693147	0.0476439	131.843	74.2546
142	-0.693147	0.0576847	131.846	74.2146
143	-0.693147	0.0652187	131.851	74.1694
144	-0.693147	0.0752698	131.856	74.1172
145	-0.693147	0.0853288	131.864	74.058
146	-0.693147	0.0928787	131.872	73.9937
147	-0.693147	0.102953	131.883	73.9223
148	-0.693147	0.113039	131.896	73.844
149	-0.693147	0.12061	131.91	73.7603
150	-0.693147	0.130716	131.927	73.6697
151	-0.693147	0.140835	131.947	73.5721
152	-0.693147	0.148434	131.969	73.4692
153	-0.693147	0.158579	131.994	73.3593
154	-0.693147	0.168741	132.023	73.2424
155	-0.693147	0.176374	132.054	73.1201
156	-0.693147	0.186567	132.089	72.9908
157	-0.693147	0.196779	132.127	72.8544
158	-0.693147	0.204452	132.169	72.7127
159	-0.693147	0.214702	132.215	72.5639
160	-0.693147	0.224974	132.266	72.4079
161	-0.693147	0.232693	132.32	72.2466
162	-0.693147	0.243007	132.379	72.0782
163	-0.693147	0.253347	132.443	71.9026
164	-0.693147	0.26112	132.512	71.7216
165	-0.693147	0.271509	132.585	71.5334
166	-0.693147	0.281926	132.665	71.338
167	-0.693147	0.28976	132.749	71.1371
168	-0.693147	0.300232	132.839	70.929
169	-0.693147	0.310738	132.935	70.7136
170	-0.693147	0.318639	133.037	70.4928
171	-0.693147	0.329206	133.145	70.2646
172	-0.693147	0.33981	133.261	70.029
173	-0.693147	0.350451	133.384	69.7861
174	-0.693147	0.358459	133.512	69.5377
175	-0.693147	0.369171	133.648	69.2818

176	-0.693147	0.379927	133.793	69.0184
177	-0.693147	0.388022	133.943	68.7495
178	-0.693147	0.398855	134.102	68.473
179	-0.693147	0.409735	134.27	68.189
180	-0.693147	0.417928	134.445	67.8993
181	-0.693147	0.428895	134.629	67.602
182	-0.693147	0.439913	134.822	67.2971
183	-0.693147	0.448213	135.023	66.9864
184	-0.693147	0.459327	135.234	66.668
185	-0.693147	0.470498	135.456	66.3419
186	-0.693147	0.478914	135.685	66.01
187	-0.693147	0.490189	135.925	65.6702
188	-0.693147	0.501527	136.177	65.3226
189	-0.693147	0.510074	136.437	64.969
190	-0.693147	0.521527	136.709	64.6075
191	-0.693147	0.533048	136.993	64.238
192	-0.693147	0.541736	137.287	63.8625
193	-0.693147	0.553384	137.593	63.4789
194	-0.693147	0.565108	137.912	63.0872
195	-0.693147	0.573953	138.242	62.6894
196	-0.693147	0.585815	138.585	62.2833
197	-0.693147	0.597761	138.942	61.869
198	-0.693147	0.606775	139.31	61.4484
199	-0.693147	0.618872	139.693	61.0195
200	-0.693147	0.631062	140.091	60.582
201	-0.693147	0.640266	140.501	60.1382
202	-0.693147	0.652622	140.927	59.6859
203	-0.693147	0.665079	141.37	59.2249
204	-0.693147	0.67449	141.825	58.7574
205	-0.693147	0.687131	142.297	58.2811
206	-0.693147	0.699883	142.787	57.796
207	-0.693147	0.712751	143.295	57.3019
208	-0.693147	0.722479	143.817	56.8011
209	-0.693147	0.735557	144.358	56.2913
210	-0.693147	0.748762	144.918	55.7723
211	-0.693147	0.758753	145.494	55.2464
212	-0.693147	0.772193	146.09	54.7111
213	-0.693147	0.785774	146.708	54.1665
214	-0.693147	0.796056	147.341	53.6147
215	-0.693147	0.809896	147.997	53.0533
216	-0.693147	0.823893	148.676	52.4822
217	-0.693147	0.834498	149.373	51.9038
218	-0.693147	0.848786	150.093	51.3154
219	-0.693147	0.863249	150.838	50.7171
220	-0.693147	0.874218	151.602	50.1111
221	-0.693147	0.889006	152.393	49.4949
222	-0.693147	0.903992	153.21	48.8683
223	-0.693147	0.915365	154.048	48.2338
224	-0.693147	0.930718	154.914	47.5887
225	-0.693147	0.946291	155.81	46.9328
226	-0.693147	0.958125	156.728	46.2687
227	-0.693147	0.974114	157.676	45.5935
228	-0.693147	0.990356	158.657	44.907
229	-0.693147	1.00271	159.663	44.212
230	-0.693147	1.01943	160.702	43.5054
231	-0.693147	1.03643	161.776	42.787
232	-0.693147	1.04939	162.877	42.0596
233	-0.693147	1.06694	164.016	41.32
234	-0.693147	1.08482	165.193	40.5681
235	-0.693147	1.09847	166.399	39.8067
236	-0.693147	1.11699	167.647	39.0325
237	-0.693147	1.1359	168.937	38.2451

238	-0.693147		1.15035	170.26	37.4478
239	-0.693147		1.17	171.629	36.6368
240	-0.693147		1.19012	173.046	35.8118
241	-0.693147		1.21073	174.512	34.9726
242	-0.693147		1.22653	176.016	34.1225
243	-0.693147		1.24809	177.574	33.2574
244	-0.693147		1.27024	179.187	32.3769
245	-0.693147		1.28727	180.844	31.4846
246	-0.693147		1.31058	182.562	30.5762
247	-0.693147		1.33462	184.343	29.6511
248	-0.693147		1.35317	186.174	28.7132
249	-0.693147		1.37866	188.075	27.7576
250	-0.693147		1.40507	190.049	26.7836
251	-0.693147		1.42554	192.081	25.7955
252	-0.693147		1.4538	194.195	24.7878
253	-0.693147		1.48328	196.395	23.7597
254	-0.693147		1.50626	198.664	22.7156
255	-0.693147		1.5382	201.03	21.6494
256	-0.693147		1.57179	203.5	20.5599
257	-0.693147		1.59819	206.054	19.4522
258	-0.693147		1.63524	208.728	18.3187
259	0	1.67466	211.533	18.3187	
260	0	1.70604	214.444	18.3187	
261	0	1.75069	217.508	18.3187	
262	0.587787		1.79912	220.745	19.3762
263	0.788457		1.83843	224.125	20.8257
264	0.875469		1.8957	227.719	22.4853
265	1.09861	1.95996	231.56	24.6386	
266	1.1314	2.01409	235.617	26.9173	
267	1.1314	2.09693	240.014	29.2898	
268	1.1314	2.19728	244.842	31.7758	
269	1.16315	2.29036	250.088	34.4399	
270	1.22378	2.45727	256.126	37.447	
271	1.30833	2.74777	263.676	41.042	

Data Set Standard Deviation = 0.33701
Numerator = 1684.45
Denominator = 8085.76
W Statistic = 0.208322 = 1684.45 / 8085.76

5% Critical value of 0.976 exceeds 0.208322
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.208322
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Methylene Chloride

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.460664
0.460664 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-0.693147	0.00367647	-2.74777	93.7221	348.683
2	-0.693147	0.00735294	-2.45727	93.7221	334.497
3	-0.693147	0.0110294	-2.29036	93.7221	326.346
4	-0.693147	0.0147059	-2.19728	93.7221	321.801
5	-0.693147	0.0183824	-2.09693	93.7221	316.9
6	-0.693147	0.0220588	-2.01409	93.7221	312.855
7	-0.693147	0.0257353	-1.95996	93.7221	310.211
8	-0.693147	0.0294118	-1.8957	93.7221	307.073
9	-0.693147	0.0330882	-1.83843	93.7221	304.276
10	-0.693147	0.0367647	-1.79912	93.7221	302.357
11	-0.693147	0.0404412	-1.75069	93.7221	299.992
12	-0.693147	0.0441176	-1.70604	93.7221	297.812
13	-0.693147	0.0477941	-1.67466	93.7221	296.279
14	-0.693147	0.0514706	-1.63524	93.7221	294.354
15	-0.693147	0.0551471	-1.59819	93.7221	292.545
16	-0.693147	0.0588235	-1.57179	93.7221	291.256
17	-0.693147	0.0625	-1.5382	93.7221	289.615
18	-0.693147	0.0661765	-1.50626	93.7221	288.056
19	-0.693147	0.0698529	-1.48328	93.7221	286.934
20	-0.693147	0.0735294	-1.4538	93.7221	285.494
21	-0.693147	0.0772059	-1.42554	93.7221	284.114
22	-0.693147	0.0808824	-1.40507	93.7221	283.114
23	-0.693147	0.0845588	-1.37866	93.7221	281.824
24	-0.693147	0.0882353	-1.35317	93.7221	280.58
25	-0.693147	0.0919118	-1.33462	93.7221	279.674
26	-0.693147	0.0955882	-1.31058	93.7221	278.5
27	-0.693147	0.0992647	-1.28727	93.7221	277.362
28	-0.693147	0.102941	-1.27024	93.7221	276.53
29	-0.693147	0.106618	-1.24809	93.7221	275.448
30	-0.693147	0.110294	-1.22653	93.7221	274.395
31	-0.693147	0.113971	-1.21073	93.7221	273.624
32	-0.693147	0.117647	-1.19012	93.7221	272.617
33	-0.693147	0.121324	-1.17	93.7221	271.635
34	-0.693147	0.125	-1.15035	93.7221	270.675
35	-0.693147	0.128676	-1.1359	93.7221	269.97
36	-0.693147	0.132353	-1.11699	93.7221	269.046
37	-0.693147	0.136029	-1.09847	93.7221	268.142
38	-0.693147	0.139706	-1.08482	93.7221	267.476
39	-0.693147	0.143382	-1.06694	93.7221	266.602
40	-0.693147	0.147059	-1.04939	93.7221	265.745
41	-0.693147	0.150735	-1.03643	93.7221	265.112
42	-0.693147	0.154412	-1.01943	93.7221	264.282
43	-0.693147	0.158088	-1.00271	93.7221	263.466
44	-0.693147	0.161765	-0.990356	93.7221	262.862
45	-0.693147	0.165441	-0.974114	93.7221	262.069
46	-0.693147	0.169118	-0.958125	93.7221	261.288
47	-0.693147	0.172794	-0.946291	93.7221	260.711
48	-0.693147	0.176471	-0.930718	93.7221	259.95

49	-0.693147	0.180147	-0.915365	93.7221	259.2
50	-0.693147	0.183824	-0.903992	93.7221	258.645
51	-0.693147	0.1875	-0.889006	93.7221	257.913
52	-0.693147	0.191176	-0.874218	93.7221	257.191
53	-0.693147	0.194853	-0.863249	93.7221	256.655
54	-0.693147	0.198529	-0.848786	93.7221	255.949
55	-0.693147	0.202206	-0.834498	93.7221	255.251
56	-0.693147	0.205882	-0.823893	93.7221	254.733
57	-0.693147	0.209559	-0.809896	93.7221	254.05
58	-0.693147	0.213235	-0.796056	93.7221	253.374
59	-0.693147	0.216912	-0.785774	93.7221	252.872
60	-0.693147	0.220588	-0.772193	93.7221	252.209
61	-0.693147	0.224265	-0.758753	93.7221	251.552
62	-0.693147	0.227941	-0.748762	93.7221	251.065
63	-0.693147	0.231618	-0.735557	93.7221	250.42
64	-0.693147	0.235294	-0.722479	93.7221	249.781
65	-0.693147	0.238971	-0.712751	93.7221	249.306
66	-0.693147	0.242647	-0.699883	93.7221	248.678
67	-0.693147	0.246324	-0.687131	93.7221	248.055
68	-0.693147	0.25	-0.674499	93.7221	247.438
69	-0.693147	0.253676	-0.665079	93.7221	246.978
70	-0.693147	0.257353	-0.652622	93.7221	246.37
71	-0.693147	0.261029	-0.640266	93.7221	245.766
72	-0.693147	0.264706	-0.631062	93.7221	245.317
73	-0.693147	0.268382	-0.618872	93.7221	244.722
74	-0.693147	0.272059	-0.606775	93.7221	244.131
75	-0.693147	0.275735	-0.597761	93.7221	243.691
76	-0.693147	0.279412	-0.585815	93.7221	243.107
77	-0.693147	0.283088	-0.573953	93.7221	242.528
78	-0.693147	0.286765	-0.565108	93.7221	242.096
79	-0.693147	0.290441	-0.553384	93.7221	241.524
80	-0.693147	0.294118	-0.541736	93.7221	240.955
81	-0.693147	0.297794	-0.533048	93.7221	240.531
82	-0.693147	0.301471	-0.521527	93.7221	239.968
83	-0.693147	0.305147	-0.510074	93.7221	239.409
84	-0.693147	0.308824	-0.501527	93.7221	238.991
85	-0.693147	0.3125	-0.490189	93.7221	238.438
86	-0.693147	0.316176	-0.478914	93.7221	237.887
87	-0.693147	0.319853	-0.470498	93.7221	237.476
88	-0.693147	0.323529	-0.459327	93.7221	236.93
89	-0.693147	0.327206	-0.448213	93.7221	236.388
90	-0.693147	0.330882	-0.439913	93.7221	235.982
91	-0.693147	0.334559	-0.428895	93.7221	235.444
92	-0.693147	0.338235	-0.417928	93.7221	234.909
93	-0.693147	0.341912	-0.409735	93.7221	234.509
94	-0.693147	0.345588	-0.398855	93.7221	233.977
95	-0.693147	0.349265	-0.388022	93.7221	233.448
96	-0.693147	0.352941	-0.379927	93.7221	233.053
97	-0.693147	0.356618	-0.369171	93.7221	232.528
98	-0.693147	0.360294	-0.358459	93.7221	232.005
99	-0.693147	0.363971	-0.350451	93.7221	231.614
100	-0.693147	0.367647	-0.339819	93.7221	231.094
101	-0.693147	0.371324	-0.329206	93.7221	230.576
102	-0.693147	0.375	-0.318639	93.7221	230.06
103	-0.693147	0.378676	-0.310738	93.7221	229.674
104	-0.693147	0.382353	-0.300232	93.7221	229.161
105	-0.693147	0.386029	-0.289769	93.7221	228.65
106	-0.693147	0.389706	-0.281926	93.7221	228.267
107	-0.693147	0.393382	-0.271509	93.7221	227.759
108	-0.693147	0.397059	-0.261129	93.7221	227.251
109	-0.693147	0.400735	-0.253347	93.7221	226.872
110	-0.693147	0.404412	-0.243007	93.7221	226.367

111	-0.693147	0.408088	-0.232693	93.7221	225.863
112	-0.693147	0.411765	-0.224974	93.7221	225.486
113	-0.693147	0.415441	-0.214702	93.7221	224.985
114	-0.693147	0.419118	-0.204452	93.7221	224.484
115	-0.693147	0.422794	-0.196779	93.7221	224.109
116	-0.693147	0.426471	-0.186567	93.7221	223.611
117	-0.693147	0.430147	-0.176374	93.7221	223.113
118	-0.693147	0.433824	-0.168741	93.7221	222.74
119	-0.693147	0.4375	-0.158579	93.7221	222.244
120	-0.693147	0.441176	-0.148434	93.7221	221.749
121	-0.693147	0.444853	-0.140835	93.7221	221.377
122	-0.693147	0.448529	-0.130716	93.7221	220.883
123	-0.693147	0.452206	-0.12061	93.7221	220.39
124	-0.693147	0.455882	-0.113039	93.7221	220.02
125	-0.693147	0.459559	-0.102953	93.7221	219.528
126	-0.693147	0.463235	-0.0928787	93.7221	219.036
127	-0.693147	0.466912	-0.0853288	93.7221	218.667
128	-0.693147	0.470588	-0.0752698	93.7221	218.176
129	-0.693147	0.474265	-0.0652187	93.7221	217.685
130	-0.693147	0.477941	-0.0576847	93.7221	217.317
131	-0.693147	0.481618	-0.0476439	93.7221	216.827
132	-0.693147	0.485294	-0.0376076	93.7221	216.337
133	-0.693147	0.488971	-0.0300838	93.7221	215.969
134	-0.693147	0.492647	-0.0200544	93.7221	215.479
135	-0.693147	0.496324	-0.0100272	93.7221	214.99
136	-0.693147	0.5	0	93.7221	214.5
137	-0.693147	0.503676	0.0100272	93.7221	214.01
138	-0.693147	0.507353	0.0200544	93.7221	213.521
139	-0.693147	0.511029	0.0300838	93.7221	213.031
140	-0.693147	0.514706	0.0376076	93.7221	212.663
141	-0.693147	0.518382	0.0476439	93.7221	212.173
142	-0.693147	0.522059	0.0576847	93.7221	211.683
143	-0.693147	0.525735	0.0652187	93.7221	211.315
144	-0.693147	0.529412	0.0752698	93.7221	210.824
145	-0.693147	0.533088	0.0853288	93.7221	210.333
146	-0.693147	0.536765	0.0928787	93.7221	209.964
147	-0.693147	0.540441	0.102953	93.7221	209.472
148	-0.693147	0.544118	0.113039	93.7221	208.98
149	-0.693147	0.547794	0.12061	93.7221	208.61
150	-0.693147	0.551471	0.130716	93.7221	208.117
151	-0.693147	0.555147	0.140835	93.7221	207.623
152	-0.693147	0.558824	0.148434	93.7221	207.251
153	-0.693147	0.5625	0.158579	93.7221	206.756
154	-0.693147	0.566176	0.168741	93.7221	206.26
155	-0.693147	0.569853	0.176374	93.7221	205.887
156	-0.693147	0.573529	0.186567	93.7221	205.389
157	-0.693147	0.577206	0.196779	93.7221	204.891
158	-0.693147	0.580882	0.204452	93.7221	204.516
159	-0.693147	0.584559	0.214702	93.7221	204.015
160	-0.693147	0.588235	0.224974	93.7221	203.514
161	-0.693147	0.591912	0.232693	93.7221	203.137
162	-0.693147	0.595588	0.243007	93.7221	202.633
163	-0.693147	0.599265	0.253347	93.7221	202.128
164	-0.693147	0.602941	0.26112	93.7221	201.749
165	-0.693147	0.606618	0.271509	93.7221	201.241
166	-0.693147	0.610294	0.281926	93.7221	200.733
167	-0.693147	0.613971	0.28976	93.7221	200.35
168	-0.693147	0.617647	0.300232	93.7221	199.839
169	-0.693147	0.621324	0.310738	93.7221	199.326
170	-0.693147	0.625	0.318639	93.7221	198.94
171	-0.693147	0.628676	0.329206	93.7221	198.424
172	-0.693147	0.632353	0.33981	93.7221	197.906

173	-0.693147	0.636029	0.350451	93.7221	197.386
174	-0.693147	0.639706	0.358459	93.7221	196.995
175	-0.693147	0.643382	0.369171	93.7221	196.472
176	-0.693147	0.647059	0.379927	93.7221	195.947
177	-0.693147	0.650735	0.388022	93.7221	195.552
178	-0.693147	0.654412	0.398855	93.7221	195.023
179	-0.693147	0.658088	0.409735	93.7221	194.491
180	-0.693147	0.661765	0.417928	93.7221	194.091
181	-0.693147	0.665441	0.428895	93.7221	193.556
182	-0.693147	0.669118	0.439913	93.7221	193.018
183	-0.693147	0.672794	0.448213	93.7221	192.612
184	-0.693147	0.676471	0.459327	93.7221	192.07
185	-0.693147	0.680147	0.470498	93.7221	191.524
186	-0.693147	0.683824	0.478914	93.7221	191.113
187	-0.693147	0.6875	0.490189	93.7221	190.562
188	-0.693147	0.691176	0.501527	93.7221	190.009
189	-0.693147	0.694853	0.510074	93.7221	189.591
190	-0.693147	0.698529	0.521527	93.7221	189.032
191	-0.693147	0.702206	0.533048	93.7221	188.469
192	-0.693147	0.705882	0.541736	93.7221	188.045
193	-0.693147	0.709559	0.553384	93.7221	187.476
194	-0.693147	0.713235	0.565108	93.7221	186.904
195	-0.693147	0.716912	0.573953	93.7221	186.472
196	-0.693147	0.720588	0.585815	93.7221	185.893
197	-0.693147	0.724265	0.597761	93.7221	185.309
198	-0.693147	0.727941	0.606775	93.7221	184.869
199	-0.693147	0.731618	0.618872	93.7221	184.278
200	-0.693147	0.735294	0.631062	93.7221	183.683
201	-0.693147	0.738971	0.640266	93.7221	183.234
202	-0.693147	0.742647	0.652622	93.7221	182.63
203	-0.693147	0.746324	0.665079	93.7221	182.022
204	-0.693147	0.75	0.67449	93.7221	181.562
205	-0.693147	0.753676	0.687131	93.7221	180.945
206	-0.693147	0.757353	0.699883	93.7221	180.322
207	-0.693147	0.761029	0.712751	93.7221	179.694
208	-0.693147	0.764706	0.722479	93.7221	179.219
209	-0.693147	0.768382	0.735557	93.7221	178.58
210	-0.693147	0.772059	0.748762	93.7221	177.935
211	-0.693147	0.775735	0.758753	93.7221	177.448
212	-0.693147	0.779412	0.772193	93.7221	176.791
213	-0.693147	0.783088	0.785774	93.7221	176.128
214	-0.693147	0.786765	0.796056	93.7221	175.626
215	-0.693147	0.790441	0.809896	93.7221	174.95
216	-0.693147	0.794118	0.823893	93.7221	174.267
217	-0.693147	0.797794	0.834498	93.7221	173.749
218	-0.693147	0.801471	0.848786	93.7221	173.051
219	-0.693147	0.805147	0.863249	93.7221	172.345
220	-0.693147	0.808824	0.874218	93.7221	171.809
221	-0.693147	0.8125	0.889006	93.7221	171.087
222	-0.693147	0.816176	0.903992	93.7221	170.355
223	-0.693147	0.819853	0.915365	93.7221	169.8
224	-0.693147	0.823529	0.930718	93.7221	169.05
225	-0.693147	0.827206	0.946291	93.7221	168.289
226	-0.693147	0.830882	0.958125	93.7221	167.712
227	-0.693147	0.834559	0.974114	93.7221	166.931
228	-0.693147	0.838235	0.990356	93.7221	166.138
229	-0.693147	0.841912	1.00271	93.7221	165.534
230	-0.693147	0.845588	1.01943	93.7221	164.718
231	-0.693147	0.849265	1.03643	93.7221	163.888
232	-0.693147	0.852941	1.04939	93.7221	163.255
233	-0.693147	0.856618	1.06694	93.7221	162.398
234	-0.693147	0.860294	1.08482	93.7221	161.524

235	-0.693147	0.863971	1.09847	93.7221	160.858
236	-0.693147	0.867647	1.11699	93.7221	159.954
237	-0.693147	0.871324	1.1359	93.7221	159.03
238	-0.693147	0.875	1.15035	93.7221	158.325
239	-0.693147	0.878676	1.17	93.7221	157.365
240	-0.693147	0.882353	1.19012	93.7221	156.383
241	-0.693147	0.886029	1.21073	93.7221	155.376
242	-0.693147	0.889706	1.22653	93.7221	154.605
243	-0.693147	0.893382	1.24809	93.7221	153.552
244	-0.693147	0.897059	1.27024	93.7221	152.47
245	-0.693147	0.900735	1.28727	93.7221	151.638
246	-0.693147	0.904412	1.31058	93.7221	150.5
247	-0.693147	0.908088	1.33462	93.7221	149.326
248	-0.693147	0.911765	1.35317	93.7221	148.42
249	-0.693147	0.915441	1.37866	93.7221	147.176
250	-0.693147	0.919118	1.40507	93.7221	145.886
251	-0.693147	0.922794	1.42554	93.7221	144.886
252	-0.693147	0.926471	1.4538	93.7221	143.506
253	-0.693147	0.930147	1.48328	93.7221	142.066
254	-0.693147	0.933824	1.50626	93.7221	140.944
255	-0.693147	0.9375	1.5382	93.7221	139.385
256	-0.693147	0.941176	1.57179	93.7221	137.744
257	-0.693147	0.944853	1.59819	93.7221	136.455
258	-0.693147	0.948529	1.63524	93.7221	134.646
259	0	0.952206	1.67466	217.333	132.721
260	0	0.955882	1.70604	217.333	131.188
261	0	0.959559	1.75069	217.333	129.008
262	0.587787	0.963235	1.79912	322.155	126.643
263	0.788457	0.966912	1.83843	357.942	124.724
264	0.875469	0.970588	1.8957	373.459	121.927
265	1.09861	0.974265	1.95996	413.253	118.789
266	1.1314	0.977941	2.01409	419.1	116.145
267	1.1314	0.981618	2.09693	419.1	112.1
268	1.1314	0.985294	2.19728	419.1	107.199
269	1.16315	0.988971	2.29036	424.762	102.654
270	1.22378	0.992647	2.45727	435.573	94.5032
271	1.30833	0.996324	2.74777	450.653	80.3175

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Methylene Chloride
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 96.31%
Number of comparisons = 16
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 1.30833
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-9	5/16/2012	1	-0.693147	FALSE
LMW-9D	5/16/2012	1	-0.693147	FALSE
LMW-8	5/16/2012	1	-0.693147	FALSE
LMW-7	5/16/2012	1	-0.693147	FALSE
LMW-6	5/16/2012	1	-0.693147	FALSE
LMW-3S	5/16/2012	1	-0.693147	FALSE
LMW-3	5/16/2012	1	-0.693147	FALSE
LMW-16	5/16/2012	1	-0.693147	FALSE
LMW-15R	5/16/2012	1	-0.693147	FALSE
LMW-14R	5/16/2012	1	-0.693147	FALSE
LMW-10	5/16/2012	1	0.587787	FALSE
LMW-9S	5/16/2012	1	-0.693147	FALSE
MW-5	11/20/2008	1	-0.693147	FALSE
LMW-12	11/20/2008	1	-0.693147	FALSE
LMW-13	11/20/2008	1	-0.693147	FALSE
LMW-11	11/20/2008	1	-0.693147	FALSE

Concentrations (ppb)

Parameter: Nickel

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 152
Percent Non-Detects: 56.0886%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	11 (50%)	1/16/1998	ND<30	ND<30
			3/16/1999	ND<30	ND<30
			9/23/1999	ND<30	ND<30
			3/14/2000	ND<30	ND<30
			9/23/2003	ND<30	ND<30
			3/10/2004	ND<30	ND<30
			10/12/2004	ND<30	ND<30
			4/1/2005	ND<30	ND<30
			10/26/2005	ND<30	ND<30
			6/19/2006	ND<30	ND<30
			11/18/2006	1 J	1 J
			6/2/2007	6	6
			11/15/2007	3 J	3 J
			5/20/2008	5 J	5 J
			11/20/2008	ND<30	ND<30
			6/11/2009	0.79	0.79
			11/16/2009	1.2	1.2
			6/30/2010	0.76 J	0.76 J
			11/17/2010	1.1	1.1
			7/6/2011	1.2	1.2
			11/22/2011	1.1	1.1
			5/16/2012	0.62 J	0.62 J

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-9D	12	4 (33.3333%)	11/18/2006	2 J	2 J
			6/2/2007	ND<30	ND<30
			11/15/2007	ND<30	ND<30
			5/20/2008	1 J	1 J
			11/20/2008	ND<30	ND<30
			6/11/2009	0.55 J	0.55 J
			11/16/2009	0.69	0.69
			6/30/2010	0.53 J	0.53 J
			11/17/2010	0.6 J	0.6 J
			7/6/2011	2.5	2.5
			11/22/2011	0.75 J	0.75 J
			5/16/2012	ND<0.4 U	ND<0.4 U
LMW-16	12	5 (41.6667%)	11/18/2006	1 J	1 J
			6/2/2007	ND<30	ND<30
			11/15/2007	ND<30	ND<30
			5/20/2008	ND<30	ND<30
			11/20/2008	ND<30	ND<30
			6/11/2009	0.72	0.72
			11/16/2009	0.66	0.66
			6/30/2010	0.97 J	0.97 J

			11/17/2010	ND<0.4 U	ND<0.4 U	
			7/6/2011	0.65 J	0.65 J	
			11/22/2011	0.9 J	0.9 J	
			5/16/2012	0.55 J	0.55 J	
LMW-15R	14	6 (42.8571%)	11/18/2006	1 J	1 J	
			6/2/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			5/20/2008	1 J	1 J	
			5/20/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
			6/11/2009	3	3	
			6/30/2010	1	1	
			11/17/2010	0.98 J	0.98 J	
			7/6/2011	0.93 J	0.93 J	
			11/22/2011	0.9 J	0.9 J	
			5/16/2012	0.6 J	0.6 J	
LMW-14R	10	2 (20%)	6/2/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			5/20/2008	2 J	2 J	
			11/20/2008	3 J	3 J	
			6/11/2009	2.2	2.2	
			6/30/2010	0.84 J	0.84 J	
			11/17/2010	1.9	1.9	
			7/6/2011	1.8	1.8	
			11/22/2011	1.6	1.6	
			5/16/2012	0.65 J	0.65 J	
LMW-10	19	14 (73.6842%)	3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<30	ND<30	
			10/26/2005	ND<30	ND<30	
			6/19/2006	ND<30	ND<30	
			11/18/2006	ND<30	ND<30	
			6/2/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			5/20/2008	1 J	1 J	
			11/20/2008	ND<30	ND<30	
			6/11/2009	0.38 J	0.38 J	
			11/16/2009	0.5 J	0.5 J	
			6/30/2010	ND<0.4 U	ND<0.4 U	
			11/17/2010	ND<0.4 U	ND<0.4 U	
			7/6/2011	0.7 J	0.7 J	
			11/22/2011	0.89 J	0.89 J	
			5/16/2012	ND<0.4 U	ND<0.4 U	
LMW-3s	1	0 (0%)	5/16/2012	2.8	2.8	
LMW-6	22	12 (54.5455%)	1/16/1998	ND<30	ND<30	
			3/16/1999	ND<30	ND<30	
			9/23/1999	ND<30	ND<30	
			3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<30	ND<30	
			10/26/2005	ND<30	ND<30	

			6/19/2006	ND<30	ND<30	
			11/18/2006	1 J	1 J	
			6/2/2007	5	5	
			11/15/2007	ND<30	ND<30	
			5/20/2008	2 J	2 J	
			11/20/2008	ND<30	ND<30	
			6/11/2009	2.2	2.2	
			11/16/2009	1.8 J	1.8 J	
			6/30/2010	1.9	1.9	
			11/17/2010	1.9	1.9	
			7/6/2011	1.1	1.1	
			11/22/2011	0.99 J	0.99 J	
			5/16/2012	0.64 J	0.64 J	
LMW-7	20	9 (45%)	1/16/1998	ND<30	ND<30	
			3/16/1999	ND<30	ND<30	
			9/23/1999	ND<30	ND<30	
			3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	18 J	18 J	
			10/26/2005	ND<30	ND<30	
			6/19/2006	ND<30	ND<30	
			11/18/2006	4 J	4 J	
			6/2/2007	7	7	
			11/15/2007	5 J	5 J	
			5/20/2008	2 J	2 J	
			11/20/2008	3 J	3 J	
			6/11/2009	5.5	5.5	
			11/17/2010	1.7	1.7	
			7/6/2011	7.5	7.5	
			11/22/2011	1.5	1.5	
			5/16/2012	4.2	4.2	
LMW-3	24	16 (66.6667%)	11/19/1996	ND<30	ND<30	
			3/24/1997	ND<30	ND<30	
			1/16/1998	ND<30	ND<30	
			3/16/1999	ND<30	ND<30	
			9/23/1999	ND<30	ND<30	
			3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<30	ND<30	
			10/26/2005	ND<30	ND<30	
			6/19/2006	ND<30	ND<30	
			11/18/2006	ND<30	ND<30	
			6/2/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			5/20/2008	1 J	1 J	
			11/20/2008	ND<30	ND<30	
			6/11/2009	0.54 J	0.54 J	
			11/16/2009	1.1	1.1	
			6/30/2010	1.3	1.3	
			11/17/2010	3	3	
			7/6/2011	0.85 J	0.85 J	
			11/22/2011	3	3	
			5/16/2012	0.51 J	0.51 J	
LMW-9	22	12 (54.5455%)	1/16/1998	ND<30	ND<30	
			3/16/1999	6 J	6 J	

			9/23/1999	ND<30	ND<30	
			3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<30	ND<30	
			10/26/2005	ND<30	ND<30	
			6/19/2006	ND<30	ND<30	
			11/18/2006	ND<30	ND<30	
			6/2/2007	3 J	3 J	
			11/15/2007	ND<30	ND<30	
			5/20/2008	1 J	1 J	
			11/20/2008	9 J	9 J	
			6/11/2009	0.33 J	0.33 J	
			11/16/2009	0.46 J	0.46 J	
			6/30/2010	ND<0.4 U		ND<0.4 U
			11/17/2010	0.63 J	0.63 J	
			7/6/2011	0.98 J	0.98 J	
			11/22/2011	0.55 J	0.55 J	
			5/16/2012	2.4	2.4	
LMW-9S	14	5 (35.7143%)	11/18/2006	1 J	1 J	
			6/2/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			5/20/2008	1 J	1 J	
			11/20/2008	ND<30	ND<30	
			6/11/2009	1.2	1.2	
			11/16/2009	0.97 J B	0.97 J B	
			11/16/2009	0.8 J B	0.8 J B	
			11/16/2009	1.6 J B	1.6 J B	
			6/30/2010	ND<0.4 U		ND<0.4 U
			11/17/2010	0.44 J	0.44 J	
			7/6/2011	0.67 J	0.67 J	
			11/22/2011	0.72 J	0.72 J	
			5/16/2012	ND<0.4 U		ND<0.4 U
LMW-8	22	12 (54.5455%)	1/16/1998	ND<30	ND<30	
			3/16/1999	6 J	6 J	
			9/23/1999	ND<30	ND<30	
			3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<30	ND<30	
			10/26/2005	ND<30	ND<30	
			6/19/2006	ND<30	ND<30	
			11/18/2006	1 J	1 J	
			6/2/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			5/20/2008	1 J	1 J	
			11/20/2008	ND<30	ND<30	
			6/11/2009	0.61	0.61	
			11/16/2009	0.64	0.64	
			6/30/2010	0.69 J	0.69 J	
			11/17/2010	0.65 J	0.65 J	
			7/6/2011	0.95 J	0.95 J	
			11/22/2011	1.3	1.3	
			5/16/2012	0.55 J	0.55 J	
LMW-3S	11	0 (0%)	11/18/2006	2 J	2 J	
			6/2/2007	4 J	4 J	
			11/15/2007	5 J	5 J	

			5/20/2008	3 J	3 J	
			11/20/2008	3 J	3 J	
			6/11/2009	2.6	2.6	
			11/16/2009	2.8	2.8	
			6/30/2010	4.1	4.1	
			11/17/2010	3.1	3.1	
			7/6/2011	3.1	3.1	
			11/22/2011	0.95 J	0.95 J	
MW-5	13	11 (84.6154%)	1/16/1998	ND<30	ND<30	
			3/16/1999	6 J	6 J	
			9/23/1999	ND<30	ND<30	
			3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<30	ND<30	
			10/26/2005	ND<30	ND<30	
			6/19/2006	ND<30	ND<30	
			11/15/2007	3 J	3 J	
			5/20/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
LMW-13	11	11 (100%)	3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<30	ND<30	
			10/26/2005	ND<30	ND<30	
			6/19/2006	ND<30	ND<30	
			6/2/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			5/20/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
LMW-11	11	11 (100%)	3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<30	ND<30	
			10/26/2005	ND<30	ND<30	
			6/19/2006	ND<30	ND<30	
			6/2/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			5/20/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	
LMW-12	11	11 (100%)	3/14/2000	ND<30	ND<30	
			9/23/2003	ND<30	ND<30	
			3/10/2004	ND<30	ND<30	
			10/12/2004	ND<30	ND<30	
			4/1/2005	ND<30	ND<30	
			10/26/2005	ND<30	ND<30	
			6/19/2006	ND<30	ND<30	
			6/2/2007	ND<30	ND<30	
			11/15/2007	ND<30	ND<30	
			5/20/2008	ND<30	ND<30	
			11/20/2008	ND<30	ND<30	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.2	-2.74777	7.55021	-0.549553
2	0.2	-2.45727	13.5884	-1.04101
3	0.2	-2.29036	18.8342	-1.49908
4	0.2	-2.19728	23.6622	-1.93854
5	0.2	-2.09693	28.0593	-2.35792
6	0.2	-2.01409	32.1159	-2.76074
7	0.2	-1.95996	35.9574	-3.15273
8	0.2	-1.8957	39.551	-3.53187
9	0.33	-1.83843	42.9308	-4.13855
10	0.38	-1.79912	46.1677	-4.82222
11	0.44	-1.75069	49.2326	-5.59252
12	0.46	-1.70604	52.1431	-6.3773
13	0.5	-1.67466	54.9476	-7.21463
14	0.51	-1.63524	57.6216	-8.0486
15	0.53	-1.59819	60.1758	-8.89564
16	0.54	-1.57179	62.6464	-9.74441
17	0.55	-1.5382	65.0124	-10.5904
18	0.55	-1.50626	67.2812	-11.4189
19	0.55	-1.48328	69.4814	-12.2347
20	0.55	-1.4538	71.5949	-13.0343
21	0.6	-1.42554	73.6271	-13.8896
22	0.6	-1.40507	75.6013	-14.7326
23	0.61	-1.37866	77.502	-15.5736
24	0.62	-1.35317	79.3331	-16.4126
25	0.63	-1.33462	81.1143	-17.2534
26	0.64	-1.31058	82.8319	-18.0922
27	0.64	-1.28727	84.489	-18.916
28	0.65	-1.27024	86.1025	-19.7417
29	0.65	-1.24809	87.6602	-20.5529
30	0.65	-1.22653	89.1646	-21.3502
31	0.66	-1.21073	90.6305	-22.1493
32	0.67	-1.19012	92.0469	-22.9466
33	0.69	-1.17	93.4158	-23.7539
34	0.69	-1.15035	94.7391	-24.5477
35	0.7	-1.1359	96.0293	-25.3428
36	0.72	-1.11699	97.277	-26.147
37	0.72	-1.09847	98.4836	-26.9379
38	0.75	-1.08482	99.6605	-27.7515
39	0.76	-1.06694	100.799	-28.5624
40	0.79	-1.04939	101.9	-29.3914
41	0.8	-1.03643	102.974	-30.2206
42	0.84	-1.01943	104.013	-31.0769
43	0.85	-1.00271	105.019	-31.9292
44	0.89	-0.990356	106	-32.8106
45	0.9	-0.974114	106.949	-33.6873
46	0.9	-0.958125	107.867	-34.5496
47	0.93	-0.946291	108.762	-35.4297
48	0.95	-0.930718	109.628	-36.3139
49	0.95	-0.915365	110.466	-37.1835
50	0.97	-0.903992	111.283	-38.0603
51	0.97	-0.889006	112.074	-38.9227

52	0.98	-0.874218	112.838	-39.7794
53	0.98	-0.863249	113.583	-40.6254
54	0.99	-0.848786	114.304	-41.4657
55	1	-0.834498	115	-42.3002
56	1	-0.823893	115.679	-43.1241
57	1	-0.809896	116.335	-43.934
58	1	-0.796056	116.968	-44.73
59	1	-0.785774	117.586	-45.5158
60	1	-0.772193	118.182	-46.288
61	1	-0.758753	118.758	-47.0467
62	1	-0.748762	119.318	-47.7955
63	1	-0.735557	119.86	-48.5311
64	1	-0.722479	120.382	-49.2535
65	1	-0.712751	120.89	-49.9663
66	1	-0.699883	121.379	-50.6662
67	1	-0.687131	121.852	-51.3533
68	1	-0.67449	122.306	-52.0278
69	1.1	-0.665079	122.749	-52.7594
70	1.1	-0.652622	123.175	-53.4773
71	1.1	-0.640266	123.585	-54.1816
72	1.1	-0.631062	123.983	-54.8757
73	1.2	-0.618872	124.366	-55.6184
74	1.2	-0.606775	124.734	-56.3465
75	1.2	-0.597761	125.091	-57.0638
76	1.3	-0.585815	125.435	-57.8254
77	1.3	-0.573953	125.764	-58.5715
78	1.5	-0.565108	126.083	-59.4192
79	1.6	-0.553384	126.39	-60.3046
80	1.6	-0.541736	126.683	-61.1714
81	1.7	-0.533048	126.967	-62.0776
82	1.8	-0.521527	127.239	-63.0163
83	1.8	-0.510074	127.499	-63.9344
84	1.9	-0.501527	127.751	-64.8873
85	1.9	-0.490189	127.991	-65.8187
86	1.9	-0.478914	128.221	-66.7286
87	2	-0.470498	128.442	-67.6696
88	2	-0.459327	128.653	-68.5883
89	2	-0.448213	128.854	-69.4847
90	2	-0.439913	129.047	-70.3645
91	2	-0.428895	129.231	-71.2223
92	2.2	-0.417928	129.406	-72.1418
93	2.2	-0.409735	129.574	-73.0432
94	2.4	-0.398855	129.733	-74.0004
95	2.5	-0.388022	129.883	-74.9705
96	2.6	-0.379927	130.028	-75.9583
97	2.8	-0.369171	130.164	-76.992
98	2.8	-0.358459	130.293	-77.9957
99	3	-0.350451	130.415	-79.047
100	3	-0.33981	130.531	-80.0665
101	3	-0.329206	130.639	-81.0541
102	3	-0.318639	130.741	-82.01
103	3	-0.310738	130.837	-82.9422
104	3	-0.300232	130.927	-83.8429
105	3	-0.28976	131.011	-84.7122
106	3	-0.281926	131.091	-85.558
107	3	-0.271509	131.165	-86.3725
108	3	-0.26112	131.233	-87.1558
109	3.1	-0.253347	131.297	-87.9412
110	3.1	-0.243007	131.356	-88.6945
111	4	-0.232693	131.41	-89.6253
112	4	-0.224974	131.461	-90.5252
113	4.1	-0.214702	131.507	-91.4055

114	4.2	-0.204452	131.549	-92.2642
115	5	-0.196779	131.587	-93.2481
116	5	-0.186567	131.622	-94.1809
117	5	-0.176374	131.653	-95.0628
118	5	-0.168741	131.682	-95.9065
119	5.5	-0.158579	131.707	-96.7787
120	6	-0.148434	131.729	-97.6693
121	6	-0.140835	131.749	-98.5143
122	6	-0.130716	131.766	-99.2986
123	6	-0.12061	131.78	-100.022
124	7	-0.113039	131.793	-100.814
125	7.5	-0.102953	131.804	-101.586
126	9	-0.0928787	131.812	-102.422
127	15	-0.0853288	131.82	-103.702
128	15	-0.0752698	131.825	-104.831
129	15	-0.0652187	131.83	-105.809
130	15	-0.0576847	131.833	-106.674
131	15	-0.0476439	131.835	-107.389
132	15	-0.0376076	131.837	-107.953
133	15	-0.0300838	131.838	-108.404
134	15	-0.0200544	131.838	-108.705
135	15	-0.0100272	131.838	-108.855
136	15	0	131.838	-108.855
137	15	0.0100272	131.838	-108.705
138	15	0.0200544	131.839	-108.404
139	15	0.0300838	131.839	-107.953
140	15	0.0376076	131.841	-107.389
141	15	0.0476439	131.843	-106.674
142	15	0.0576847	131.846	-105.809
143	15	0.0652187	131.851	-104.831
144	15	0.0752698	131.856	-103.702
145	15	0.0853288	131.864	-102.422
146	15	0.0928787	131.872	-101.028
147	15	0.102953	131.883	-99.4841
148	15	0.113039	131.896	-97.7885
149	15	0.12061	131.91	-95.9794
150	15	0.130716	131.927	-94.0186
151	15	0.140835	131.947	-91.9061
152	15	0.148434	131.969	-89.6796
153	15	0.158579	131.994	-87.3009
154	15	0.168741	132.023	-84.7698
155	15	0.176374	132.054	-82.1242
156	15	0.186567	132.089	-79.3257
157	15	0.196779	132.127	-76.374
158	15	0.204452	132.169	-73.3072
159	15	0.214702	132.215	-70.0867
160	15	0.224974	132.266	-66.7121
161	15	0.232693	132.32	-63.2217
162	15	0.243007	132.379	-59.5766
163	15	0.253347	132.443	-55.7764
164	15	0.26112	132.512	-51.8596
165	15	0.271509	132.585	-47.7869
166	15	0.281926	132.665	-43.558
167	15	0.28976	132.749	-39.2116
168	15	0.300232	132.839	-34.7081
169	15	0.310738	132.935	-30.0471
170	15	0.318639	133.037	-25.2675
171	15	0.329206	133.145	-20.3294
172	15	0.33981	133.261	-15.2322
173	15	0.350451	133.384	-9.97547
174	15	0.358459	133.512	-4.59859
175	15	0.369171	133.648	0.938976

176	15	0.379927		133.793	6.63788
177	15	0.388022		133.943	12.4582
178	15	0.398855		134.102	18.441
179	15	0.409735		134.27	24.5871
180	15	0.417928		134.445	30.856
181	15	0.428895		134.629	37.2894
182	15	0.439913		134.822	43.8881
183	15	0.448213		135.023	50.6113
184	15	0.459327		135.234	57.5012
185	15	0.470498		135.456	64.5587
186	15	0.478914		135.685	71.7424
187	15	0.490189		135.925	79.0952
188	15	0.501527		136.177	86.6181
189	15	0.510074		136.437	94.2692
190	15	0.521527		136.709	102.092
191	15	0.533048		136.993	110.088
192	15	0.541736		137.287	118.214
193	15	0.553384		137.593	126.515
194	15	0.565108		137.912	134.991
195	15	0.573953		138.242	143.601
196	15	0.585815		138.585	152.388
197	15	0.597761		138.942	161.354
198	15	0.606775		139.31	170.456
199	15	0.618872		139.693	179.739
200	15	0.631062		140.091	189.205
201	15	0.640266		140.501	198.809
202	15	0.652622		140.927	208.598
203	15	0.665079		141.37	218.574
204	15	0.67449	141.825	228.692	
205	15	0.687131		142.297	238.999
206	15	0.699883		142.787	249.497
207	15	0.712751		143.295	260.188
208	15	0.722479		143.817	271.025
209	15	0.735557		144.358	282.059
210	15	0.748762		144.918	293.29
211	15	0.758753		145.494	304.671
212	15	0.772193		146.09	316.254
213	15	0.785774		146.708	328.041
214	15	0.796056		147.341	339.982
215	15	0.809896		147.997	352.13
216	15	0.823893		148.676	364.489
217	15	0.834498		149.373	377.006
218	15	0.848786		150.093	389.738
219	15	0.863249		150.838	402.687
220	15	0.874218		151.602	415.8
221	15	0.889006		152.393	429.135
222	15	0.903992		153.21	442.695
223	15	0.915365		154.048	456.425
224	15	0.930718		154.914	470.386
225	15	0.946291		155.81	484.58
226	15	0.958125		156.728	498.952
227	15	0.974114		157.676	513.564
228	15	0.990356		158.657	528.419
229	15	1.00271	159.663	543.46	
230	15	1.01943	160.702	558.751	
231	15	1.03643	161.776	574.298	
232	15	1.04939	162.877	590.039	
233	15	1.06694	164.016	606.043	
234	15	1.08482	165.193	622.315	
235	15	1.09847	166.399	638.792	
236	15	1.11699	167.647	655.547	
237	15	1.1359	168.937	672.585	

238	15	1.15035	170.26	689.841
239	15	1.17	171.629	707.391
240	15	1.19012	173.046	725.242
241	15	1.21073	174.512	743.403
242	15	1.22653	176.016	761.801
243	15	1.24809	177.574	780.523
244	15	1.27024	179.187	799.576
245	15	1.28727	180.844	818.885
246	15	1.31058	182.562	838.544
247	15	1.33462	184.343	858.563
248	15	1.35317	186.174	878.861
249	15	1.37866	188.075	899.541
250	15	1.40507	190.049	920.617
251	15	1.42554	192.081	942
252	15	1.4538	194.195	963.807
253	15	1.48328	196.395	986.056
254	15	1.50626	198.664	1008.65
255	15	1.5382	201.03	1031.72
256	15	1.57179	203.5	1055.3
257	15	1.59819	206.054	1079.27
258	15	1.63524	208.728	1103.8
259	15	1.67466	211.533	1128.92
260	15	1.70604	214.444	1154.51
261	15	1.75069	217.508	1180.77
262	15	1.79912	220.745	1207.76
263	15	1.83843	224.125	1235.34
264	15	1.8957	227.719	1263.77
265	15	1.95996	231.56	1293.17
266	15	2.01409	235.617	1323.38
267	15	2.09693	240.014	1354.84
268	15	2.19728	244.842	1387.79
269	15	2.29036	250.088	1422.15
270	15	2.45727	256.126	1459.01
271	18	2.74777	263.676	1508.47

Data Set Standard Deviation = 6.71017
Numerator = 2.27548e+006
Denominator = 3.20554e+006
W Statistic = 0.709857 = 2.27548e+006 / 3.20554e+006

5% Critical value of 0.976 exceeds 0.709857
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.709857
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 = 0.840089
0.840089 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.2	0.00367647		-2.747774	4.35	348.683
2	0.2	0.00735294		-2.457274	4.35	334.497
3	0.2	0.0110294		-2.290364	4.35	326.346
4	0.2	0.0147059		-2.197284	4.35	321.801
5	0.2	0.0183824		-2.096934	4.35	316.9
6	0.2	0.0220588		-2.014094	4.35	312.855
7	0.2	0.0257353		-1.959964	4.35	310.211
8	0.2	0.0294118		-1.8957	4.35	307.073
9	0.33	0.0330882		-1.838434	7.8275	304.276
10	0.38	0.0367647		-1.799124	9.165	302.357
11	0.44	0.0404412		-1.750695	0.77	299.992
12	0.46	0.0441176		-1.706045	1.305	297.812
13	0.5	0.0477941		-1.674665	2.375	296.279
14	0.51	0.0514706		-1.635245	2.6425	294.354
15	0.53	0.0551471		-1.598195	3.1775	292.545
16	0.54	0.0588235		-1.571795	3.445	291.256
17	0.55	0.0625	-1.5382	5	3.7125	289.615
18	0.55	0.0661765		-1.506265	3.7125	288.056
19	0.55	0.0698529		-1.483285	3.7125	286.934
20	0.55	0.0735294		-1.4538	5	3.7125	285.494
21	0.6	0.0772059		-1.425545	5.05	284.114
22	0.6	0.0808824		-1.405075	5.05	283.114
23	0.61	0.0845588		-1.378665	5.3175	281.824
24	0.62	0.0882353		-1.353175	5.585	280.58
25	0.63	0.0919118		-1.334625	5.8525	279.674
26	0.64	0.0955882		-1.310585	6.12	278.5
27	0.64	0.0992647		-1.287275	6.12	277.362
28	0.65	0.102941		-1.270245	6.3875	276.53
29	0.65	0.106618		-1.248095	6.3875	275.448
30	0.65	0.110294		-1.226535	6.3875	274.395
31	0.66	0.113971		-1.210735	6.655	273.624
32	0.67	0.117647		-1.190125	6.9225	272.617
33	0.69	0.121324		-1.17	7.4575	271.635
34	0.69	0.125	-1.150357	7.4575	270.675	
35	0.7	0.128676		-1.1359	7.725	269.97
36	0.72	0.132353		-1.116995	8.26	269.046
37	0.72	0.136029		-1.098475	8.26	268.142
38	0.75	0.139706		-1.084825	9.0625	267.476
39	0.76	0.143382		-1.066945	9.33	266.602
40	0.79	0.147059		-1.049396	0.1325	265.745
41	0.8	0.150735		-1.036436	0.4	265.112
42	0.84	0.154412		-1.019436	1.47	264.282
43	0.85	0.158088		-1.002716	1.7375	263.466
44	0.89	0.161765		-0.990356	62.8075	262.862
45	0.9	0.165441		-0.974114	63.075	262.069
46	0.9	0.169118		-0.958125	63.075	261.288
47	0.93	0.172794		-0.946291	63.8775	260.711
48	0.95	0.176471		-0.930718	64.4125	259.95

49	0.95	0.180147	-0.915365	64.4125	259.2
50	0.97	0.183824	-0.903992	64.9475	258.645
51	0.97	0.1875	-0.889006	64.9475	257.913
52	0.98	0.191176	-0.874218	65.215	257.191
53	0.98	0.194853	-0.863249	65.215	256.655
54	0.99	0.198529	-0.848786	65.4825	255.949
55	1	0.202206	-0.834498	65.75	255.251
56	1	0.205882	-0.823893	65.75	254.733
57	1	0.209559	-0.809896	65.75	254.05
58	1	0.213235	-0.796056	65.75	253.374
59	1	0.216912	-0.785774	65.75	252.872
60	1	0.220588	-0.772193	65.75	252.209
61	1	0.224265	-0.758753	65.75	251.552
62	1	0.227941	-0.748762	65.75	251.065
63	1	0.231618	-0.735557	65.75	250.42
64	1	0.235294	-0.722479	65.75	249.781
65	1	0.238971	-0.712751	65.75	249.306
66	1	0.242647	-0.699883	65.75	248.678
67	1	0.246324	-0.687131	65.75	248.055
68	1	0.25	-0.674496	65.75	247.438
69	1.1	0.253676	-0.665079	68.425	246.978
70	1.1	0.257353	-0.652622	68.425	246.37
71	1.1	0.261029	-0.640266	68.425	245.766
72	1.1	0.264706	-0.631062	68.425	245.317
73	1.2	0.268382	-0.618872	71.1	244.722
74	1.2	0.272059	-0.606775	71.1	244.131
75	1.2	0.275735	-0.597761	71.1	243.691
76	1.3	0.279412	-0.585815	73.775	243.107
77	1.3	0.283088	-0.573953	73.775	242.528
78	1.5	0.286765	-0.565108	79.125	242.096
79	1.6	0.290441	-0.553384	81.8	241.524
80	1.6	0.294118	-0.541736	81.8	240.955
81	1.7	0.297794	-0.533048	84.475	240.531
82	1.8	0.301471	-0.521527	87.15	239.968
83	1.8	0.305147	-0.510074	87.15	239.409
84	1.9	0.308824	-0.501527	89.825	238.991
85	1.9	0.3125	-0.490189	89.825	238.438
86	1.9	0.316176	-0.478914	89.825	237.887
87	2	0.319853	-0.470498	92.5	237.476
88	2	0.323529	-0.459327	92.5	236.93
89	2	0.327206	-0.448213	92.5	236.388
90	2	0.330882	-0.439913	92.5	235.982
91	2	0.334559	-0.428895	92.5	235.444
92	2.2	0.338235	-0.417928	97.85	234.909
93	2.2	0.341912	-0.409735	97.85	234.509
94	2.4	0.345588	-0.398855	103.2	233.977
95	2.5	0.349265	-0.388022	105.875	233.448
96	2.6	0.352941	-0.379927	108.55	233.053
97	2.8	0.356618	-0.369171	113.9	232.528
98	2.8	0.360294	-0.358459	113.9	232.005
99	3	0.363971	-0.350451	119.25	231.614
100	3	0.367647	-0.33981	119.25	231.094
101	3	0.371324	-0.329206	119.25	230.576
102	3	0.375	-0.318639	119.25	230.06
103	3	0.378676	-0.310738	119.25	229.674
104	3	0.382353	-0.300232	119.25	229.161
105	3	0.386029	-0.28976	119.25	228.65
106	3	0.389706	-0.281926	119.25	228.267
107	3	0.393382	-0.271509	119.25	227.759
108	3	0.397059	-0.26112	119.25	227.251
109	3.1	0.400735	-0.253347	121.925	226.872
110	3.1	0.404412	-0.243007	121.925	226.367

111	4	0.408088	-0.232693	146	225.863
112	4	0.411765	-0.224974	146	225.486
113	4.1	0.415441	-0.214702	148.675	224.985
114	4.2	0.419118	-0.204452	151.35	224.484
115	5	0.422794	-0.196779	172.75	224.109
116	5	0.426471	-0.186567	172.75	223.611
117	5	0.430147	-0.176374	172.75	223.113
118	5	0.433824	-0.168741	172.75	222.74
119	5.5	0.4375	-0.158579	186.125	222.244
120	6	0.441176	-0.148434	199.5	221.749
121	6	0.444853	-0.140835	199.5	221.377
122	6	0.448529	-0.130716	199.5	220.883
123	6	0.452206	-0.12061	199.5	220.39
124	7	0.455882	-0.113039	226.25	220.02
125	7.5	0.459559	-0.102953	239.625	219.528
126	9	0.463235	-0.0928787	279.75	219.036
127	15	0.466912	-0.0853288	440.25	218.667
128	15	0.470588	-0.0752698	440.25	218.176
129	15	0.474265	-0.0652187	440.25	217.685
130	15	0.477941	-0.0576847	440.25	217.317
131	15	0.481618	-0.0476439	440.25	216.827
132	15	0.485294	-0.0376076	440.25	216.337
133	15	0.488971	-0.0300838	440.25	215.969
134	15	0.492647	-0.0200544	440.25	215.479
135	15	0.496324	-0.0100272	440.25	214.99
136	15	0.5	0	440.25	214.5
137	15	0.503676	0.0100272	440.25	214.01
138	15	0.507353	0.0200544	440.25	213.521
139	15	0.511029	0.0300838	440.25	213.031
140	15	0.514706	0.0376076	440.25	212.663
141	15	0.518382	0.0476439	440.25	212.173
142	15	0.522059	0.0576847	440.25	211.683
143	15	0.525735	0.0652187	440.25	211.315
144	15	0.529412	0.0752698	440.25	210.824
145	15	0.533088	0.0853288	440.25	210.333
146	15	0.536765	0.0928787	440.25	209.964
147	15	0.540441	0.102953	440.25	209.472
148	15	0.544118	0.113039	440.25	208.98
149	15	0.547794	0.12061	440.25	208.61
150	15	0.551471	0.130716	440.25	208.117
151	15	0.555147	0.140835	440.25	207.623
152	15	0.558824	0.148434	440.25	207.251
153	15	0.5625	0.158579	440.25	206.756
154	15	0.566176	0.168741	440.25	206.26
155	15	0.569853	0.176374	440.25	205.887
156	15	0.573529	0.186567	440.25	205.389
157	15	0.577206	0.196779	440.25	204.891
158	15	0.580882	0.204452	440.25	204.516
159	15	0.584559	0.214702	440.25	204.015
160	15	0.588235	0.224974	440.25	203.514
161	15	0.591912	0.232693	440.25	203.137
162	15	0.595588	0.243007	440.25	202.633
163	15	0.599265	0.253347	440.25	202.128
164	15	0.602941	0.26112	440.25	201.749
165	15	0.606618	0.271509	440.25	201.241
166	15	0.610294	0.281926	440.25	200.733
167	15	0.613971	0.28976	440.25	200.35
168	15	0.617647	0.300232	440.25	199.839
169	15	0.621324	0.310738	440.25	199.326
170	15	0.625	0.318639	440.25	198.94
171	15	0.628676	0.329206	440.25	198.424
172	15	0.632353	0.33981	440.25	197.906

173	15	0.636029	0.350451	440.25	197.386
174	15	0.639706	0.358459	440.25	196.995
175	15	0.643382	0.369171	440.25	196.472
176	15	0.647059	0.379927	440.25	195.947
177	15	0.650735	0.388022	440.25	195.552
178	15	0.654412	0.398855	440.25	195.023
179	15	0.658088	0.409735	440.25	194.491
180	15	0.661765	0.417928	440.25	194.091
181	15	0.665441	0.428895	440.25	193.556
182	15	0.669118	0.439913	440.25	193.018
183	15	0.672794	0.448213	440.25	192.612
184	15	0.676471	0.459327	440.25	192.07
185	15	0.680147	0.470498	440.25	191.524
186	15	0.683824	0.478914	440.25	191.113
187	15	0.6875	0.490189	440.25	190.562
188	15	0.691176	0.501527	440.25	190.009
189	15	0.694853	0.510074	440.25	189.591
190	15	0.698529	0.521527	440.25	189.032
191	15	0.702206	0.533048	440.25	188.469
192	15	0.705882	0.541736	440.25	188.045
193	15	0.709559	0.553384	440.25	187.476
194	15	0.713235	0.565108	440.25	186.904
195	15	0.716912	0.573953	440.25	186.472
196	15	0.720588	0.585815	440.25	185.893
197	15	0.724265	0.597761	440.25	185.309
198	15	0.727941	0.606775	440.25	184.869
199	15	0.731618	0.618872	440.25	184.278
200	15	0.735294	0.631062	440.25	183.683
201	15	0.738971	0.640266	440.25	183.234
202	15	0.742647	0.652622	440.25	182.63
203	15	0.746324	0.665079	440.25	182.022
204	15	0.75	0.67449	440.25	181.562
205	15	0.753676	0.687131	440.25	180.945
206	15	0.757353	0.699883	440.25	180.322
207	15	0.761029	0.712751	440.25	179.694
208	15	0.764706	0.722479	440.25	179.219
209	15	0.768382	0.735557	440.25	178.58
210	15	0.772059	0.748762	440.25	177.935
211	15	0.775735	0.758753	440.25	177.448
212	15	0.779412	0.772193	440.25	176.791
213	15	0.783088	0.785774	440.25	176.128
214	15	0.786765	0.796056	440.25	175.626
215	15	0.790441	0.809896	440.25	174.95
216	15	0.794118	0.823893	440.25	174.267
217	15	0.797794	0.834498	440.25	173.749
218	15	0.801471	0.848786	440.25	173.051
219	15	0.805147	0.863249	440.25	172.345
220	15	0.808824	0.874218	440.25	171.809
221	15	0.8125	0.889006	440.25	171.087
222	15	0.816176	0.903992	440.25	170.355
223	15	0.819853	0.915365	440.25	169.8
224	15	0.823529	0.930718	440.25	169.05
225	15	0.827206	0.946291	440.25	168.289
226	15	0.830882	0.958125	440.25	167.712
227	15	0.834559	0.974114	440.25	166.931
228	15	0.838235	0.990356	440.25	166.138
229	15	0.841912	1.00271	440.25	165.534
230	15	0.845588	1.01943	440.25	164.718
231	15	0.849265	1.03643	440.25	163.888
232	15	0.852941	1.04939	440.25	163.255
233	15	0.856618	1.06694	440.25	162.398
234	15	0.860294	1.08482	440.25	161.524

235	15	0.863971	1.09847	440.25	160.858
236	15	0.867647	1.11699	440.25	159.954
237	15	0.871324	1.1359	440.25	159.03
238	15	0.875	1.15035	440.25	158.325
239	15	0.878676	1.17	440.25	157.365
240	15	0.882353	1.19012	440.25	156.383
241	15	0.886029	1.21073	440.25	155.376
242	15	0.889706	1.22653	440.25	154.605
243	15	0.893382	1.24809	440.25	153.552
244	15	0.897059	1.27024	440.25	152.47
245	15	0.900735	1.28727	440.25	151.638
246	15	0.904412	1.31058	440.25	150.5
247	15	0.908088	1.33462	440.25	149.326
248	15	0.911765	1.35317	440.25	148.42
249	15	0.915441	1.37866	440.25	147.176
250	15	0.919118	1.40507	440.25	145.886
251	15	0.922794	1.42554	440.25	144.886
252	15	0.926471	1.4538	440.25	143.506
253	15	0.930147	1.48328	440.25	142.066
254	15	0.933824	1.50626	440.25	140.944
255	15	0.9375	1.5382	440.25	139.385
256	15	0.941176	1.57179	440.25	137.744
257	15	0.944853	1.59819	440.25	136.455
258	15	0.948529	1.63524	440.25	134.646
259	15	0.952206	1.67466	440.25	132.721
260	15	0.955882	1.70604	440.25	131.188
261	15	0.959559	1.75069	440.25	129.008
262	15	0.963235	1.79912	440.25	126.643
263	15	0.966912	1.83843	440.25	124.724
264	15	0.970588	1.8957	440.25	121.927
265	15	0.974265	1.95996	440.25	118.789
266	15	0.977941	2.01409	440.25	116.145
267	15	0.981618	2.09693	440.25	112.1
268	15	0.985294	2.19728	440.25	107.199
269	15	0.988971	2.29036	440.25	102.654
270	15	0.992647	2.45727	440.25	94.5032
271	18	0.996324	2.74777	520.5	80.3175

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-1.60944	-2.74777	7.55021	4.42236
2	-1.60944	-2.45727	13.5884	8.37719
3	-1.60944	-2.29036	18.8342	12.0634
4	-1.60944	-2.19728	23.6622	15.5998
5	-1.60944	-2.09693	28.0593	18.9747
6	-1.60944	-2.01409	32.1159	22.2162
7	-1.60944	-1.95996	35.9574	25.3707
8	-1.60944	-1.8957	39.551	28.4217
9	-1.10866	-1.83843	42.9308	30.4598
10	-0.967584	-1.79912	46.1677	32.2006
11	-0.820981	-1.75069	49.2326	33.6379
12	-0.776529	-1.70604	52.1431	34.9627
13	-0.693147	-1.67466	54.9476	36.1235
14	-0.673345	-1.63524	57.6216	37.2246
15	-0.634878	-1.59819	60.1758	38.2392
16	-0.616186	-1.57179	62.6464	39.2078
17	-0.597837	-1.5382	65.0124	40.1273
18	-0.597837	-1.50626	67.2812	41.0278
19	-0.597837	-1.48328	69.4814	41.9146
20	-0.597837	-1.4538	71.5949	42.7837
21	-0.510826	-1.42554	73.6271	43.5119
22	-0.510826	-1.40507	75.6013	44.2297
23	-0.494296	-1.37866	77.502	44.9112
24	-0.478036	-1.35317	79.3331	45.558
25	-0.462035	-1.33462	81.1143	46.1747
26	-0.446287	-1.31058	82.8319	46.7596
27	-0.446287	-1.28727	84.489	47.3341
28	-0.430783	-1.27024	86.1025	47.8813
29	-0.430783	-1.24809	87.6602	48.4189
30	-0.430783	-1.22653	89.1646	48.9473
31	-0.415515	-1.21073	90.6305	49.4504
32	-0.400478	-1.19012	92.0469	49.927
33	-0.371064	-1.17	93.4158	50.3611
34	-0.371064	-1.15035	94.7391	50.788
35	-0.356675	-1.1359	96.0293	51.1931
36	-0.328504	-1.11699	97.277	51.56
37	-0.328504	-1.09847	98.4836	51.9209
38	-0.287682	-1.08482	99.6605	52.233
39	-0.274437	-1.06694	100.799	52.5258
40	-0.235722	-1.04939	101.9	52.7732
41	-0.223144	-1.03643	102.974	53.0044
42	-0.174353	-1.01943	104.013	53.1822
43	-0.162519	-1.00271	105.019	53.3451
44	-0.116534	-0.990356	106	53.4605
45	-0.105361	-0.974114	106.949	53.5632
46	-0.105361	-0.958125	107.867	53.6641
47	-0.0725707	-0.946291	108.762	53.7328
48	-0.0512933	-0.930718	109.628	53.7805
49	-0.0512933	-0.915365	110.466	53.8275
50	-0.0304592	-0.903992	111.283	53.855
51	-0.0304592	-0.889006	112.074	53.8821

52	-0.0202027	-0.874218	112.838	53.8998
53	-0.0202027	-0.863249	113.583	53.9172
54	-0.0100503	-0.848786	114.304	53.9257
55	0	-0.834498	115	53.9257
56	0	-0.823893	115.679	53.9257
57	0	-0.809896	116.335	53.9257
58	0	-0.796056	116.968	53.9257
59	0	-0.785774	117.586	53.9257
60	0	-0.772193	118.182	53.9257
61	0	-0.758753	118.758	53.9257
62	0	-0.748762	119.318	53.9257
63	0	-0.735557	119.86	53.9257
64	0	-0.722479	120.382	53.9257
65	0	-0.712751	120.89	53.9257
66	0	-0.699883	121.379	53.9257
67	0	-0.687131	121.852	53.9257
68	0	-0.67449	122.306	53.9257
69	0.0953102	-0.665079	122.749	53.8623
70	0.0953102	-0.652622	123.175	53.8001
71	0.0953102	-0.640266	123.585	53.7391
72	0.0953102	-0.631062	123.983	53.679
73	0.182322	-0.618872	124.366	53.5661
74	0.182322	-0.606775	124.734	53.4555
75	0.182322	-0.597761	125.091	53.3465
76	0.262364	-0.585815	125.435	53.1928
77	0.262364	-0.573953	125.764	53.0422
78	0.405465	-0.565108	126.083	52.8131
79	0.470004	-0.553384	126.39	52.553
80	0.470004	-0.541736	126.683	52.2984
81	0.530628	-0.533048	126.967	52.0155
82	0.587787	-0.521527	127.239	51.709
83	0.587787	-0.510074	127.499	51.4092
84	0.641854	-0.501527	127.751	51.0873
85	0.641854	-0.490189	127.991	50.7726
86	0.641854	-0.478914	128.221	50.4653
87	0.693147	-0.470498	128.442	50.1391
88	0.693147	-0.459327	128.653	49.8207
89	0.693147	-0.448213	128.854	49.5101
90	0.693147	-0.439913	129.047	49.2051
91	0.693147	-0.428895	129.231	48.9079
92	0.788457	-0.417928	129.406	48.5783
93	0.788457	-0.409735	129.574	48.2553
94	0.875469	-0.398855	129.733	47.9061
95	0.916291	-0.388022	129.883	47.5506
96	0.955511	-0.379927	130.028	47.1875
97	1.02962	-0.369171	130.164	46.8074
98	1.02962	-0.358459	130.293	46.4384
99	1.09861	-0.350451	130.415	46.0533
100	1.09861	-0.33981	130.531	45.68
101	1.09861	-0.329206	130.639	45.3184
102	1.09861	-0.318639	130.741	44.9683
103	1.09861	-0.310738	130.837	44.6269
104	1.09861	-0.300232	130.927	44.2971
105	1.09861	-0.28976	131.011	43.9787
106	1.09861	-0.281926	131.091	43.669
107	1.09861	-0.271509	131.165	43.3707
108	1.09861	-0.26112	131.233	43.0839
109	1.1314	-0.253347	131.297	42.7972
110	1.1314	-0.243007	131.356	42.5223
111	1.38629	-0.232693	131.41	42.1997
112	1.38629	-0.224974	131.461	41.8878
113	1.41099	-0.214702	131.507	41.5849

114	1.43508	-0.204452	131.549	41.2915
115	1.60944	-0.196779	131.587	40.9748
116	1.60944	-0.186567	131.622	40.6745
117	1.60944	-0.176374	131.653	40.3906
118	1.60944	-0.168741	131.682	40.1191
119	1.70475	-0.158579	131.707	39.8487
120	1.79176	-0.148434	131.729	39.5828
121	1.79176	-0.140835	131.749	39.3304
122	1.79176	-0.130716	131.766	39.0962
123	1.79176	-0.12061	131.78	38.8801
124	1.94591	-0.113039	131.793	38.6601
125	2.0149	-0.102953	131.804	38.4527
126	2.19722	-0.0928787	131.812	38.2486
127	2.70805	-0.0853288	131.82	38.0175
128	2.70805	-0.0752698	131.825	37.8137
129	2.70805	-0.0652187	131.83	37.6371
130	2.70805	-0.0576847	131.833	37.4809
131	2.70805	-0.0476439	131.835	37.3519
132	2.70805	-0.0376076	131.837	37.25
133	2.70805	-0.0300838	131.838	37.1686
134	2.70805	-0.0200544	131.838	37.1142
135	2.70805	-0.0100272	131.838	37.0871
136	2.70805	0	131.838	37.0871
137	2.70805	0.0100272	131.838	37.1142
138	2.70805	0.0200544	131.839	37.1686
139	2.70805	0.0300838	131.839	37.25
140	2.70805	0.0376076	131.841	37.3519
141	2.70805	0.0476439	131.843	37.4809
142	2.70805	0.0576847	131.846	37.6371
143	2.70805	0.0652187	131.851	37.8137
144	2.70805	0.0752698	131.856	38.0175
145	2.70805	0.0853288	131.864	38.2486
146	2.70805	0.0928787	131.872	38.5001
147	2.70805	0.102953	131.883	38.7789
148	2.70805	0.113039	131.896	39.0851
149	2.70805	0.12061	131.91	39.4117
150	2.70805	0.130716	131.927	39.7657
151	2.70805	0.140835	131.947	40.1471
152	2.70805	0.148434	131.969	40.549
153	2.70805	0.158579	131.994	40.9785
154	2.70805	0.168741	132.023	41.4354
155	2.70805	0.176374	132.054	41.913
156	2.70805	0.186567	132.089	42.4183
157	2.70805	0.196779	132.127	42.9512
158	2.70805	0.204452	132.169	43.5048
159	2.70805	0.214702	132.215	44.0863
160	2.70805	0.224974	132.266	44.6955
161	2.70805	0.232693	132.32	45.3256
162	2.70805	0.243007	132.379	45.9837
163	2.70805	0.253347	132.443	46.6698
164	2.70805	0.26112	132.512	47.3769
165	2.70805	0.271509	132.585	48.1122
166	2.70805	0.281926	132.665	48.8757
167	2.70805	0.28976	132.749	49.6603
168	2.70805	0.300232	132.839	50.4734
169	2.70805	0.310738	132.935	51.3149
170	2.70805	0.318639	133.037	52.1778
171	2.70805	0.329206	133.145	53.0693
172	2.70805	0.33981	133.261	53.9895
173	2.70805	0.350451	133.384	54.9385
174	2.70805	0.358459	133.512	55.9093
175	2.70805	0.369171	133.648	56.909

176	2.70805	0.379927		133.793	57.9379
177	2.70805	0.388022		133.943	58.9886
178	2.70805	0.398855		134.102	60.0688
179	2.70805	0.409735		134.27	61.1783
180	2.70805	0.417928		134.445	62.3101
181	2.70805	0.428895		134.629	63.4716
182	2.70805	0.439913		134.822	64.6629
183	2.70805	0.448213		135.023	65.8767
184	2.70805	0.459327		135.234	67.1206
185	2.70805	0.470498		135.456	68.3947
186	2.70805	0.478914		135.685	69.6916
187	2.70805	0.490189		135.925	71.0191
188	2.70805	0.501527		136.177	72.3772
189	2.70805	0.510074		136.437	73.7585
190	2.70805	0.521527		136.709	75.1709
191	2.70805	0.533048		136.993	76.6144
192	2.70805	0.541736		137.287	78.0814
193	2.70805	0.553384		137.593	79.58
194	2.70805	0.565108		137.912	81.1104
195	2.70805	0.573953		138.242	82.6646
196	2.70805	0.585815		138.585	84.2511
197	2.70805	0.597761		138.942	85.8698
198	2.70805	0.606775		139.31	87.513
199	2.70805	0.618872		139.693	89.1889
200	2.70805	0.631062		140.091	90.8979
201	2.70805	0.640266		140.501	92.6318
202	2.70805	0.652622		140.927	94.3991
203	2.70805	0.665079		141.37	96.2002
204	2.70805	0.67449	141.825	98.0267	
205	2.70805	0.687131		142.297	99.8875
206	2.70805	0.699883		142.787	101.783
207	2.70805	0.712751		143.295	103.713
208	2.70805	0.722479		143.817	105.669
209	2.70805	0.735557		144.358	107.661
210	2.70805	0.748762		144.918	109.689
211	2.70805	0.758753		145.494	111.744
212	2.70805	0.772193		146.09	113.835
213	2.70805	0.785774		146.708	115.963
214	2.70805	0.796056		147.341	118.119
215	2.70805	0.809896		147.997	120.312
216	2.70805	0.823893		148.676	122.543
217	2.70805	0.834498		149.373	124.803
218	2.70805	0.848786		150.093	127.101
219	2.70805	0.863249		150.838	129.439
220	2.70805	0.874218		151.602	131.807
221	2.70805	0.889006		152.393	134.214
222	2.70805	0.903992		153.21	136.662
223	2.70805	0.915365		154.048	139.141
224	2.70805	0.930718		154.914	141.661
225	2.70805	0.946291		155.81	144.224
226	2.70805	0.958125		156.728	146.819
227	2.70805	0.974114		157.676	149.457
228	2.70805	0.990356		158.657	152.139
229	2.70805	1.00271	159.663	154.854	
230	2.70805	1.01943	160.702	157.615	
231	2.70805	1.03643	161.776	160.421	
232	2.70805	1.04939	162.877	163.263	
233	2.70805	1.06694	164.016	166.152	
234	2.70805	1.08482	165.193	169.09	
235	2.70805	1.09847	166.399	172.065	
236	2.70805	1.11699	167.647	175.09	
237	2.70805	1.1359	168.937	178.166	

238	2.70805	1.15035	170.26	181.281
239	2.70805	1.17	171.629	184.449
240	2.70805	1.19012	173.046	187.672
241	2.70805	1.21073	174.512	190.951
242	2.70805	1.22653	176.016	194.273
243	2.70805	1.24809	177.574	197.652
244	2.70805	1.27024	179.187	201.092
245	2.70805	1.28727	180.844	204.578
246	2.70805	1.31058	182.562	208.127
247	2.70805	1.33462	184.343	211.742
248	2.70805	1.35317	186.174	215.406
249	2.70805	1.37866	188.075	219.14
250	2.70805	1.40507	190.049	222.945
251	2.70805	1.42554	192.081	226.805
252	2.70805	1.4538	194.195	230.742
253	2.70805	1.48328	196.395	234.759
254	2.70805	1.50626	198.664	238.838
255	2.70805	1.5382	201.03	243.003
256	2.70805	1.57179	203.5	247.26
257	2.70805	1.59819	206.054	251.588
258	2.70805	1.63524	208.728	256.016
259	2.70805	1.67466	211.533	260.551
260	2.70805	1.70604	214.444	265.171
261	2.70805	1.75069	217.508	269.912
262	2.70805	1.79912	220.745	274.784
263	2.70805	1.83843	224.125	279.763
264	2.70805	1.8957	227.719	284.896
265	2.70805	1.95996	231.56	290.204
266	2.70805	2.01409	235.617	295.658
267	2.70805	2.09693	240.014	301.337
268	2.70805	2.19728	244.842	307.287
269	2.70805	2.29036	250.088	313.49
270	2.70805	2.45727	256.126	320.144
271	2.89037	2.74777	263.676	328.086

Data Set Standard Deviation = 1.38897
Numerator = 107641
Denominator = 137347
W Statistic = 0.783713 = 107641 / 137347

5% Critical value of 0.976 exceeds 0.783713
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.783713
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 = 0.883624
0.883624 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-1.60944	0.00367647	-2.74777	80.7901	348.683
2	-1.60944	0.00735294	-2.45727	80.7901	334.497
3	-1.60944	0.0110294	-2.29036	80.7901	326.346
4	-1.60944	0.0147059	-2.19728	80.7901	321.801
5	-1.60944	0.0183824	-2.09693	80.7901	316.9
6	-1.60944	0.0220588	-2.01409	80.7901	312.855
7	-1.60944	0.0257353	-1.95996	80.7901	310.211
8	-1.60944	0.0294118	-1.8957	80.7901	307.073
9	-1.10866	0.0330882	-1.83843	134.373	304.276
10	-0.967584	0.0367647	-1.79912	149.469	302.357
11	-0.820981	0.0404412	-1.75069	165.155	299.992
12	-0.776529	0.0441176	-1.70604	169.911	297.812
13	-0.693147	0.0477941	-1.67466	178.833	296.279
14	-0.673345	0.0514706	-1.63524	180.952	294.354
15	-0.634878	0.0551471	-1.59819	185.068	292.545
16	-0.616186	0.0588235	-1.57179	187.068	291.256
17	-0.597837	0.0625	-1.5382	189.031	289.615
18	-0.597837	0.0661765	-1.50626	189.031	288.056
19	-0.597837	0.0698529	-1.48328	189.031	286.934
20	-0.597837	0.0735294	-1.4538	189.031	285.494
21	-0.510826	0.0772059	-1.42554	198.342	284.114
22	-0.510826	0.0808824	-1.40507	198.342	283.114
23	-0.494296	0.0845588	-1.37866	200.11	281.824
24	-0.478036	0.0882353	-1.35317	201.85	280.58
25	-0.462035	0.0919118	-1.33462	203.562	279.674
26	-0.446287	0.0955882	-1.31058	205.247	278.5
27	-0.446287	0.0992647	-1.28727	205.247	277.362
28	-0.430783	0.102941	-1.27024	206.906	276.53
29	-0.430783	0.106618	-1.24809	206.906	275.448
30	-0.430783	0.110294	-1.22653	206.906	274.395
31	-0.415515	0.113971	-1.21073	208.54	273.624
32	-0.400478	0.117647	-1.19012	210.149	272.617
33	-0.371064	0.121324	-1.17	213.296	271.635
34	-0.371064	0.125	-1.15035	213.296	270.675
35	-0.356675	0.128676	-1.1359	214.836	269.97
36	-0.328504	0.132353	-1.11699	217.85	269.046
37	-0.328504	0.136029	-1.09847	217.85	268.142
38	-0.287682	0.139706	-1.08482	222.218	267.476
39	-0.274437	0.143382	-1.06694	223.635	266.602
40	-0.235722	0.147059	-1.04939	227.778	265.745
41	-0.223144	0.150735	-1.03643	229.124	265.112
42	-0.174353	0.154412	-1.01943	234.344	264.282
43	-0.162519	0.158088	-1.00271	235.61	263.466
44	-0.116534	0.161765	-0.990356	240.531	262.862
45	-0.105361	0.165441	-0.974114	241.726	262.069
46	-0.105361	0.169118	-0.958125	241.726	261.288
47	-0.0725707	0.172794	-0.946291	245.235	260.711
48	-0.0512933	0.176471	-0.930718	247.512	259.95

49	-0.0512933	0.180147	-0.915365	247.512	259.2
50	-0.0304592	0.183824	-0.903992	249.741	258.645
51	-0.0304592	0.1875	-0.889006	249.741	257.913
52	-0.0202027	0.191176	-0.874218	250.838	257.191
53	-0.0202027	0.194853	-0.863249	250.838	256.655
54	-0.0100503	0.198529	-0.848786	251.925	255.949
55	0	0.202206	-0.834498	253	255.251
56	0	0.205882	-0.823893	253	254.733
57	0	0.209559	-0.809896	253	254.05
58	0	0.213235	-0.796056	253	253.374
59	0	0.216912	-0.785774	253	252.872
60	0	0.220588	-0.772193	253	252.209
61	0	0.224265	-0.758753	253	251.552
62	0	0.227941	-0.748762	253	251.065
63	0	0.231618	-0.735557	253	250.42
64	0	0.235294	-0.722479	253	249.781
65	0	0.238971	-0.712751	253	249.306
66	0	0.242647	-0.699883	253	248.678
67	0	0.246324	-0.687131	253	248.055
68	0	0.25	-0.67449	253	247.438
69	0.0953102	0.253676	-0.665079	263.198	246.978
70	0.0953102	0.257353	-0.652622	263.198	246.37
71	0.0953102	0.261029	-0.640266	263.198	245.766
72	0.0953102	0.264706	-0.631062	263.198	245.317
73	0.182322	0.268382	-0.618872	272.508	244.722
74	0.182322	0.272059	-0.606775	272.508	244.131
75	0.182322	0.275735	-0.597761	272.508	243.691
76	0.262364	0.279412	-0.585815	281.073	243.107
77	0.262364	0.283088	-0.573953	281.073	242.528
78	0.405465	0.286765	-0.565108	296.385	242.096
79	0.470004	0.290441	-0.553384	303.29	241.524
80	0.470004	0.294118	-0.541736	303.29	240.955
81	0.530628	0.297794	-0.533048	309.777	240.531
82	0.587787	0.301471	-0.521527	315.893	239.968
83	0.587787	0.305147	-0.510074	315.893	239.409
84	0.641854	0.308824	-0.501527	321.678	238.991
85	0.641854	0.3125	-0.490189	321.678	238.438
86	0.641854	0.316176	-0.478914	321.678	237.887
87	0.693147	0.319853	-0.470498	327.167	237.476
88	0.693147	0.323529	-0.459327	327.167	236.93
89	0.693147	0.327206	-0.448213	327.167	236.388
90	0.693147	0.330882	-0.439913	327.167	235.982
91	0.693147	0.334559	-0.428895	327.167	235.444
92	0.788457	0.338235	-0.417928	337.365	234.909
93	0.788457	0.341912	-0.409735	337.365	234.509
94	0.875469	0.345588	-0.398855	346.675	233.977
95	0.916291	0.349265	-0.388022	351.043	233.448
96	0.955511	0.352941	-0.379927	355.24	233.053
97	1.02962	0.356618	-0.369171	363.169	232.528
98	1.02962	0.360294	-0.358459	363.169	232.005
99	1.09861	0.363971	-0.350451	370.552	231.614
100	1.09861	0.367647	-0.33981	370.552	231.094
101	1.09861	0.371324	-0.329206	370.552	230.576
102	1.09861	0.375	-0.318639	370.552	230.06
103	1.09861	0.378676	-0.310738	370.552	229.674
104	1.09861	0.382353	-0.300232	370.552	229.161
105	1.09861	0.386029	-0.28976	370.552	228.65
106	1.09861	0.389706	-0.281926	370.552	228.267
107	1.09861	0.393382	-0.271509	370.552	227.759
108	1.09861	0.397059	-0.26112	370.552	227.251
109	1.1314	0.400735	-0.253347	374.06	226.872
110	1.1314	0.404412	-0.243007	374.06	226.367

111	1.38629	0.408088	-0.232693	401.333	225.863
112	1.38629	0.411765	-0.224974	401.333	225.486
113	1.41099	0.415441	-0.214702	403.976	224.985
114	1.43508	0.419118	-0.204452	406.554	224.484
115	1.60944	0.422794	-0.196779	425.21	224.109
116	1.60944	0.426471	-0.186567	425.21	223.611
117	1.60944	0.430147	-0.176374	425.21	223.113
118	1.60944	0.433824	-0.168741	425.21	222.74
119	1.70475	0.4375	-0.158579	435.408	222.244
120	1.79176	0.441176	-0.148434	444.718	221.749
121	1.79176	0.444853	-0.140835	444.718	221.377
122	1.79176	0.448529	-0.130716	444.718	220.883
123	1.79176	0.452206	-0.12061	444.718	220.39
124	1.94591	0.455882	-0.113039	461.212	220.02
125	2.0149	0.459559	-0.102953	468.595	219.528
126	2.19722	0.463235	-0.0928787	488.103	219.036
127	2.70805	0.466912	-0.0853288	542.761	218.667
128	2.70805	0.470588	-0.0752698	542.761	218.176
129	2.70805	0.474265	-0.0652187	542.761	217.685
130	2.70805	0.477941	-0.0576847	542.761	217.317
131	2.70805	0.481618	-0.0476439	542.761	216.827
132	2.70805	0.485294	-0.0376076	542.761	216.337
133	2.70805	0.488971	-0.0300838	542.761	215.969
134	2.70805	0.492647	-0.0200544	542.761	215.479
135	2.70805	0.496324	-0.0100272	542.761	214.99
136	2.70805	0.5	0	542.761	214.5
137	2.70805	0.503676	0.0100272	542.761	214.01
138	2.70805	0.507353	0.0200544	542.761	213.521
139	2.70805	0.511029	0.0300838	542.761	213.031
140	2.70805	0.514706	0.0376076	542.761	212.663
141	2.70805	0.518382	0.0476439	542.761	212.173
142	2.70805	0.522059	0.0576847	542.761	211.683
143	2.70805	0.525735	0.0652187	542.761	211.315
144	2.70805	0.529412	0.0752698	542.761	210.824
145	2.70805	0.533088	0.0853288	542.761	210.333
146	2.70805	0.536765	0.0928787	542.761	209.964
147	2.70805	0.540441	0.102953	542.761	209.472
148	2.70805	0.544118	0.113039	542.761	208.98
149	2.70805	0.547794	0.12061	542.761	208.61
150	2.70805	0.551471	0.130716	542.761	208.117
151	2.70805	0.555147	0.140835	542.761	207.623
152	2.70805	0.558824	0.148434	542.761	207.251
153	2.70805	0.5625	0.158579	542.761	206.756
154	2.70805	0.566176	0.168741	542.761	206.26
155	2.70805	0.569853	0.176374	542.761	205.887
156	2.70805	0.573529	0.186567	542.761	205.389
157	2.70805	0.577206	0.196779	542.761	204.891
158	2.70805	0.580882	0.204452	542.761	204.516
159	2.70805	0.584559	0.214702	542.761	204.015
160	2.70805	0.588235	0.224974	542.761	203.514
161	2.70805	0.591912	0.232693	542.761	203.137
162	2.70805	0.595588	0.243007	542.761	202.633
163	2.70805	0.599265	0.253347	542.761	202.128
164	2.70805	0.602941	0.26112	542.761	201.749
165	2.70805	0.606618	0.271509	542.761	201.241
166	2.70805	0.610294	0.281926	542.761	200.733
167	2.70805	0.613971	0.28976	542.761	200.35
168	2.70805	0.617647	0.300232	542.761	199.839
169	2.70805	0.621324	0.310738	542.761	199.326
170	2.70805	0.625	0.318639	542.761	198.94
171	2.70805	0.628676	0.329206	542.761	198.424
172	2.70805	0.632353	0.33981	542.761	197.906

173	2.70805	0.636029	0.350451	542.761	197.386
174	2.70805	0.639706	0.358459	542.761	196.995
175	2.70805	0.643382	0.369171	542.761	196.472
176	2.70805	0.647059	0.379927	542.761	195.947
177	2.70805	0.650735	0.388022	542.761	195.552
178	2.70805	0.654412	0.398855	542.761	195.023
179	2.70805	0.658088	0.409735	542.761	194.491
180	2.70805	0.661765	0.417928	542.761	194.091
181	2.70805	0.665441	0.428895	542.761	193.556
182	2.70805	0.669118	0.439913	542.761	193.018
183	2.70805	0.672794	0.448213	542.761	192.612
184	2.70805	0.676471	0.459327	542.761	192.07
185	2.70805	0.680147	0.470498	542.761	191.524
186	2.70805	0.683824	0.478914	542.761	191.113
187	2.70805	0.6875	0.490189	542.761	190.562
188	2.70805	0.691176	0.501527	542.761	190.009
189	2.70805	0.694853	0.510074	542.761	189.591
190	2.70805	0.698529	0.521527	542.761	189.032
191	2.70805	0.702206	0.533048	542.761	188.469
192	2.70805	0.705882	0.541736	542.761	188.045
193	2.70805	0.709559	0.553384	542.761	187.476
194	2.70805	0.713235	0.565108	542.761	186.904
195	2.70805	0.716912	0.573953	542.761	186.472
196	2.70805	0.720588	0.585815	542.761	185.893
197	2.70805	0.724265	0.597761	542.761	185.309
198	2.70805	0.727941	0.606775	542.761	184.869
199	2.70805	0.731618	0.618872	542.761	184.278
200	2.70805	0.735294	0.631062	542.761	183.683
201	2.70805	0.738971	0.640266	542.761	183.234
202	2.70805	0.742647	0.652622	542.761	182.63
203	2.70805	0.746324	0.665079	542.761	182.022
204	2.70805	0.75	0.67449	542.761	181.562
205	2.70805	0.753676	0.687131	542.761	180.945
206	2.70805	0.757353	0.699883	542.761	180.322
207	2.70805	0.761029	0.712751	542.761	179.694
208	2.70805	0.764706	0.722479	542.761	179.219
209	2.70805	0.768382	0.735557	542.761	178.58
210	2.70805	0.772059	0.748762	542.761	177.935
211	2.70805	0.775735	0.758753	542.761	177.448
212	2.70805	0.779412	0.772193	542.761	176.791
213	2.70805	0.783088	0.785774	542.761	176.128
214	2.70805	0.786765	0.796056	542.761	175.626
215	2.70805	0.790441	0.809896	542.761	174.95
216	2.70805	0.794118	0.823893	542.761	174.267
217	2.70805	0.797794	0.834498	542.761	173.749
218	2.70805	0.801471	0.848786	542.761	173.051
219	2.70805	0.805147	0.863249	542.761	172.345
220	2.70805	0.808824	0.874218	542.761	171.809
221	2.70805	0.8125	0.889006	542.761	171.087
222	2.70805	0.816176	0.903992	542.761	170.355
223	2.70805	0.819853	0.915365	542.761	169.8
224	2.70805	0.823529	0.930718	542.761	169.05
225	2.70805	0.827206	0.946291	542.761	168.289
226	2.70805	0.830882	0.958125	542.761	167.712
227	2.70805	0.834559	0.974114	542.761	166.931
228	2.70805	0.838235	0.990356	542.761	166.138
229	2.70805	0.841912	1.00271	542.761	165.534
230	2.70805	0.845588	1.01943	542.761	164.718
231	2.70805	0.849265	1.03643	542.761	163.888
232	2.70805	0.852941	1.04939	542.761	163.255
233	2.70805	0.856618	1.06694	542.761	162.398
234	2.70805	0.860294	1.08482	542.761	161.524

235	2.70805	0.863971	1.09847	542.761	160.858
236	2.70805	0.867647	1.11699	542.761	159.954
237	2.70805	0.871324	1.1359	542.761	159.03
238	2.70805	0.875	1.15035	542.761	158.325
239	2.70805	0.878676	1.17	542.761	157.365
240	2.70805	0.882353	1.19012	542.761	156.383
241	2.70805	0.886029	1.21073	542.761	155.376
242	2.70805	0.889706	1.22653	542.761	154.605
243	2.70805	0.893382	1.24809	542.761	153.552
244	2.70805	0.897059	1.27024	542.761	152.47
245	2.70805	0.900735	1.28727	542.761	151.638
246	2.70805	0.904412	1.31058	542.761	150.5
247	2.70805	0.908088	1.33462	542.761	149.326
248	2.70805	0.911765	1.35317	542.761	148.42
249	2.70805	0.915441	1.37866	542.761	147.176
250	2.70805	0.919118	1.40507	542.761	145.886
251	2.70805	0.922794	1.42554	542.761	144.886
252	2.70805	0.926471	1.4538	542.761	143.506
253	2.70805	0.930147	1.48328	542.761	142.066
254	2.70805	0.933824	1.50626	542.761	140.944
255	2.70805	0.9375	1.5382	542.761	139.385
256	2.70805	0.941176	1.57179	542.761	137.744
257	2.70805	0.944853	1.59819	542.761	136.455
258	2.70805	0.948529	1.63524	542.761	134.646
259	2.70805	0.952206	1.67466	542.761	132.721
260	2.70805	0.955882	1.70604	542.761	131.188
261	2.70805	0.959559	1.75069	542.761	129.008
262	2.70805	0.963235	1.79912	542.761	126.643
263	2.70805	0.966912	1.83843	542.761	124.724
264	2.70805	0.970588	1.8957	542.761	121.927
265	2.70805	0.974265	1.95996	542.761	118.789
266	2.70805	0.977941	2.01409	542.761	116.145
267	2.70805	0.981618	2.09693	542.761	112.1
268	2.70805	0.985294	2.19728	542.761	107.199
269	2.70805	0.988971	2.29036	542.761	102.654
270	2.70805	0.992647	2.45727	542.761	94.5032
271	2.89037	0.996324	2.74777	562.27	80.3175

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
LMW-4	1/16/1998	ND<2.70805	76.5
	3/16/1999	ND<2.70805	76.5
	9/23/1999	ND<2.70805	76.5
	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	11/18/2006	0 J	199
	6/2/2007	1.79176	264
	11/15/2007	1.09861 J	243
	5/20/2008	1.60944 J	259
	11/20/2008	ND<2.70805	76.5
	6/11/2009	-0.235722	184
	11/16/2009	0.182322	217
	6/30/2010	-0.274437 J	183
	11/17/2010	0.0953102	213
	7/6/2011	0.182322	218
	11/22/2011	0.0953102	214
	5/16/2012	-0.478036 J	168

Rank Sum = 3203.5
Rank Mean = 145.614

Background Rank Sum = 3203.5
Background Rank Mean = 145.614

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-9D	11/18/2006	0.693147 J	231
	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	5/20/2008	0 J	200
	11/20/2008	ND<2.70805	76.5
	6/11/2009	-0.597837 J	161
	11/16/2009	-0.371064	177
	6/30/2010	-0.634878 J	159
	11/17/2010	-0.510826 J	165
	7/6/2011	0.916291	239
	11/22/2011	-0.287682 J	182
	5/16/2012	ND<-1.60944 U	76.5

Rank Sum = 1820
Rank Mean = 151.667

LMW-16	11/18/2006	0 J	201
	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5

	5/20/2008	ND<2.70805	76.5
	11/20/2008	ND<2.70805	76.5
	6/11/2009	-0.328504	180
	11/16/2009	-0.415515	175
	6/30/2010	-0.0304592 J	194
	11/17/2010	ND<-1.60944 U	76.5
	7/6/2011	-0.430783 J	172
	11/22/2011	-0.105361 J	189
	5/16/2012	-0.597837 J	162

Rank Sum = 1655.5
Rank Mean = 137.958

LMW-15R	11/18/2006	0 J	202
	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	5/20/2008	0 J	203
	5/20/2008	ND<2.70805	76.5
	11/20/2008	ND<2.70805	76.5
	11/20/2008	ND<2.70805	76.5
	6/11/2009	1.09861	244
	6/30/2010	0	204
	11/17/2010	-0.0202027 J	196
	7/6/2011	-0.0725707 J	191
	11/22/2011	-0.105361 J	190
	5/16/2012	-0.510826 J	166

Rank Sum = 2055
Rank Mean = 146.786

LMW-14R	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	5/20/2008	0.693147 J	232
	11/20/2008	1.09861 J	245
	6/11/2009	0.788457	236
	6/30/2010	-0.174353 J	186
	11/17/2010	0.641854	228
	7/6/2011	0.587787	226
	11/22/2011	0.470004	223
	5/16/2012	-0.430783 J	173

Rank Sum = 1902
Rank Mean = 190.2

LMW-10	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	11/18/2006	ND<2.70805	76.5
	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	5/20/2008	0 J	205
	11/20/2008	ND<2.70805	76.5
	6/11/2009	-0.967584 J	154
	11/16/2009	-0.693147 J	157
	6/30/2010	ND<-1.60944 U	76.5
	11/17/2010	ND<-1.60944 U	76.5
	7/6/2011	-0.356675 J	179
	11/22/2011	-0.116534 J	188
	5/16/2012	ND<-1.60944 U	76.5

Rank Sum = 1954

Rank Mean = 102.842

LMW-3s	5/16/2012	1.02962	241

Rank Sum = 241
Rank Mean = 241

LMW-6	1/16/1998	ND<2.70805	76.5
	3/16/1999	ND<2.70805	76.5
	9/23/1999	ND<2.70805	76.5
	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	11/18/2006	0 J	206
	6/2/2007	1.60944	260
	11/15/2007	ND<2.70805	76.5
	5/20/2008	0.693147 J	233
	11/20/2008	ND<2.70805	76.5
	6/11/2009	0.788457	237
	11/16/2009	0.587787 J	227
	6/30/2010	0.641854	229
	11/17/2010	0.641854	230
	7/6/2011	0.0953102	215
	11/22/2011	-0.0100503 J	198
	5/16/2012	-0.446287 J	170

Rank Sum = 3123
Rank Mean = 141.955

LMW-7	1/16/1998	ND<2.70805	76.5
	3/16/1999	ND<2.70805	76.5
	9/23/1999	ND<2.70805	76.5
	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	2.89037 J	271
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	11/18/2006	1.38629 J	255
	6/2/2007	1.94591	268
	11/15/2007	1.60944 J	261
	5/20/2008	0.693147 J	234
	11/20/2008	1.09861 J	246
	6/11/2009	1.70475	263
	11/17/2010	0.530628	225
	7/6/2011	2.0149	269
	11/22/2011	0.405465	222
	5/16/2012	1.43508	258

Rank Sum = 3460.5
Rank Mean = 173.025

LMW-3	11/19/1996	ND<2.70805	76.5
	3/24/1997	ND<2.70805	76.5
	1/16/1998	ND<2.70805	76.5
	3/16/1999	ND<2.70805	76.5
	9/23/1999	ND<2.70805	76.5
	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5

	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	11/18/2006	ND<2.70805	76.5
	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	5/20/2008	0 J	207
	11/20/2008	ND<2.70805	76.5
	6/11/2009	-0.616186 J	160
	11/16/2009	0.0953102	216
	6/30/2010	0.262364	220
	11/17/2010	1.09861	247
	7/6/2011	-0.162519 J	187
	11/22/2011	1.09861	248
	5/16/2012	-0.673345 J	158

Rank Sum = 2867
Rank Mean = 119.458

LMW-9	1/16/1998	ND<2.70805	76.5
	3/16/1999	1.79176 J	265
	9/23/1999	ND<2.70805	76.5
	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	11/18/2006	ND<2.70805	76.5
	6/2/2007	1.09861 J	249
	11/15/2007	ND<2.70805	76.5
	5/20/2008	0 J	208
	11/20/2008	2.19722 J	270
	6/11/2009	-1.10866 J	153
	11/16/2009	-0.776529 J	156
	6/30/2010	ND<-1.60944 U	76.5
	11/17/2010	-0.462035 J	169
	7/6/2011	-0.0202027 J	197
	11/22/2011	-0.597837 J	163
	5/16/2012	0.875469	238

Rank Sum = 2986
Rank Mean = 135.727

LMW-9S	11/18/2006	0 J	209
	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	5/20/2008	0 J	210
	11/20/2008	ND<2.70805	76.5
	6/11/2009	0.182322	219
	11/16/2009	-0.0304592 J B	195
	11/16/2009	-0.223144 J B	185
	11/16/2009	0.470004 J B	224
	6/30/2010	ND<-1.60944 U	76.5
	11/17/2010	-0.820981 J	155
	7/6/2011	-0.400478 J	176
	11/22/2011	-0.328504 J	181
	5/16/2012	ND<-1.60944 U	76.5

Rank Sum = 2136.5
Rank Mean = 152.607

LMW-8	1/16/1998	ND<2.70805	76.5

	3/16/1999	1.79176 J	266
	9/23/1999	ND<2.70805	76.5
	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	11/18/2006	0 J	211
	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	5/20/2008	0 J	212
	11/20/2008	ND<2.70805	76.5
	6/11/2009	-0.494296	167
	11/16/2009	-0.446287	171
	6/30/2010	-0.371064 J	178
	11/17/2010	-0.430783 J	174
	7/6/2011	-0.0512933 J	192
	11/22/2011	0.262364	221
	5/16/2012	-0.597837 J	164

Rank Sum = 2874
Rank Mean = 130.636

LMW-3S	11/18/2006	0.693147 J	235
	6/2/2007	1.38629 J	256
	11/15/2007	1.60944 J	262
	5/20/2008	1.09861 J	250
	11/20/2008	1.09861 J	251
	6/11/2009	0.955511	240
	11/16/2009	1.02962	242
	6/30/2010	1.41099	257
	11/17/2010	1.1314	253
	7/6/2011	1.1314	254
	11/22/2011	-0.0512933 J	193

Rank Sum = 2693
Rank Mean = 244.818

MW-5	1/16/1998	ND<2.70805	76.5
	3/16/1999	1.79176 J	267
	9/23/1999	ND<2.70805	76.5
	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	11/15/2007	1.09861 J	252
	5/20/2008	ND<2.70805	76.5
	11/20/2008	ND<2.70805	76.5

Rank Sum = 1360.5
Rank Mean = 104.654

LMW-13	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	6/2/2007	ND<2.70805	76.5

	11/15/2007	ND<2.70805	76.5
	5/20/2008	ND<2.70805	76.5
	11/20/2008	ND<2.70805	76.5

Rank Sum = 841.5
Rank Mean = 76.5

LMW-11	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	5/20/2008	ND<2.70805	76.5
	11/20/2008	ND<2.70805	76.5

Rank Sum = 841.5
Rank Mean = 76.5

LMW-12	3/14/2000	ND<2.70805	76.5
	9/23/2003	ND<2.70805	76.5
	3/10/2004	ND<2.70805	76.5
	10/12/2004	ND<2.70805	76.5
	4/1/2005	ND<2.70805	76.5
	10/26/2005	ND<2.70805	76.5
	6/19/2006	ND<2.70805	76.5
	6/2/2007	ND<2.70805	76.5
	11/15/2007	ND<2.70805	76.5
	5/20/2008	ND<2.70805	76.5
	11/20/2008	ND<2.70805	76.5

Rank Sum = 841.5
Rank Mean = 76.5

Calculation Results:

Kruskal-Wallis H Statistic = 59.756
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 72.5586
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
59.756 > 27.5871 indicating a significant group difference at 5% significance level
72.5586 > 27.5871 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 145.614

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-9D	**151.667**	**6.05303**	**65.4319**
LMW-16	**137.958**	**-7.6553**	**65.4319**
LMW-15R	**146.786**	**1.17208**	**62.3344**
LMW-14R	**190.2**	**44.5864**	**69.537**
LMW-10	**102.842**	**-42.7715**	**57.1026**
LMW-3s	**241**	**95.3864**	**186.425**
LMW-6	**141.955**	**-3.65909**	**54.9738**
LMW-7	**173.025**	**27.4114**	**56.3314**
LMW-3	**119.458**	**-26.1553**	**53.8163**
LMW-9	**135.727**	**-9.88636**	**54.9738**
LMW-9S	**152.607**	**6.99351**	**62.3344**
LMW-8	**130.636**	**-14.9773**	**54.9738**
LMW-3S	**244.818**	**99.2045**	**67.3289**
MW-5	**104.654**	**-40.9598**	**63.7827**

LMW-13	76.5	-69.1136	67.3289
LMW-11	76.5	-69.1136	67.3289
LMW-12	76.5	-69.1136	67.3289

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 145.614

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-9D	151.667	6.05303	80.9524
LMW-16	137.958	-7.6553	80.9524
LMW-15R	146.786	1.17208	77.1202
LMW-14R	190.2	44.5864	86.0311
LMW-10	102.842	-42.7715	70.6473
LMW-3s	241	95.3864	230.645
LMW-6	141.955	-3.65909	68.0136
LMW-7	173.025	27.4114	69.6932
LMW-3	119.458	-26.1553	66.5816
LMW-9	135.727	-9.88636	68.0136
LMW-9S	152.607	6.99351	77.1202
LMW-8	130.636	-14.9773	68.0136
LMW-3S	244.818	99.2045	83.2993
MW-5	104.654	-40.9598	78.912
LMW-13	76.5	-69.1136	83.2993
LMW-11	76.5	-69.1136	83.2993
LMW-12	76.5	-69.1136	83.2993

Shewhart-CUSUM Control Chart

Parameter: Nickel

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = 1.53888
Baseline Std Dev = 1.30969
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
11/18/2006	0.693147	0	-0.645753	
11/18/2006	0.693147	0	-0.645753	
6/2/2007	1.38629	0	-0.116508	
6/2/2007	1.38629	0	-0.116508	
11/15/2007	1.60944	0	0.0538713	
11/15/2007	1.60944	0	0.0538713	
5/20/2008	1.09861	0	-0.336164	
5/20/2008	1.09861	0	-0.336164	
11/20/2008	1.09861	0	-0.336164	
11/20/2008	1.09861	0	-0.336164	
6/11/2009	0.955511	0	-0.445427	
6/11/2009	0.955511	0	-0.445427	
11/16/2009	1.02962	0	-0.388843	
11/16/2009	1.02962	0	-0.388843	
6/30/2010	1.41099	0	-0.0976538	
6/30/2010	1.41099	0	-0.0976538	
11/17/2010	1.1314	0	-0.311128	
11/17/2010	1.1314	0	-0.311128	
7/6/2011	1.1314	0	-0.311128	
7/6/2011	1.1314	0	-0.311128	
11/22/2011	-0.0512933	0	-1.21416	
11/22/2011	-0.0512933	0	-1.21416	

Mann-Kendall Trend Analysis
Parameter: Nickel
Location: LMW-3S
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
1.38629 J	0.693147 J	0.693147	1	0
1.60944 J	0.693147 J	0.916291	2	0
1.09861 J	0.693147 J	0.405465	3	0
1.09861 J	0.693147 J	0.405465	4	0
0.955511	0.693147 J	0.262364	5	0
1.02962	0.693147 J	0.336472	6	0
1.41099	0.693147 J	0.71784	7	0
1.1314	0.693147 J	0.438255	8	0
1.1314	0.693147 J	0.438255	9	0
-0.0512933 J	0.693147 J	-0.744449	1	
1.60944 J	1.38629 J	0.223144	10	1
1.09861 J	1.38629 J	-0.287682	10	2
1.09861 J	1.38629 J	-0.287682	10	3
0.955511	1.38629 J	-0.430783	10	4
1.02962	1.38629 J	-0.356675	10	5
1.41099	1.38629 J	0.0246926	11	5
1.1314	1.38629 J	-0.254892	11	6
1.1314	1.38629 J	-0.254892	11	7
-0.0512933 J	1.38629 J	-1.4375911	11	8
1.09861 J	1.60944 J	-0.510826	11	9
1.09861 J	1.60944 J	-0.510826	11	10
0.955511	1.60944 J	-0.653926	11	11
1.02962	1.60944 J	-0.579818	11	12
1.41099	1.60944 J	-0.198451	11	13
1.1314	1.60944 J	-0.478036	11	14
1.1314	1.60944 J	-0.478036	11	15
-0.0512933 J	1.60944 J	-1.6607311	11	16
1.09861 J	1.09861 J	0	11	16
0.955511	1.09861 J	-0.143101	11	17
1.02962	1.09861 J	-0.0689929	11	18
1.41099	1.09861 J	0.312375	12	18
1.1314	1.09861 J	0.0327898	13	18
1.1314	1.09861 J	0.0327898	14	18
-0.0512933 J	1.09861 J	-1.1499114	14	19
0.955511	1.09861 J	-0.143101	14	20
1.02962	1.09861 J	-0.0689929	14	21
1.41099	1.09861 J	0.312375	15	21
1.1314	1.09861 J	0.0327898	16	21
1.1314	1.09861 J	0.0327898	17	21
-0.0512933 J	1.09861 J	-1.1499117	17	22
1.02962	0.955511	0.074108	18	22
1.41099	0.955511	0.455476	19	22
1.1314	0.955511	0.175891	20	22
1.1314	0.955511	0.175891	21	22
-0.0512933 J	0.955511	-1.0068	21	23

1.41099	1.02962	0.381368	22	23	
1.1314	1.02962	0.101783	23	23	
1.1314	1.02962	0.101783	24	23	
-0.0512933 J	1.02962	-1.08091	24	24	
1.1314	1.41099	-0.279585	24	25	
1.1314	1.41099	-0.279585	24	26	
-0.0512933 J	1.41099	-1.46228	24	27	
1.1314	1.1314	0	24	27	
-0.0512933 J	1.1314	-1.1827	24	28	
-0.0512933 J	1.1314	-1.1827	24	29	

S Statistic = 24 - 29 = -5

Tied Group	Value	Members
1	1.09861	2
2	1.1314	2

Time Period		Observations
11/18/2006		1
6/2/2007	1	
11/15/2007		1
5/20/2008		1
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/17/2010		1
7/6/2011	1	
11/22/2011		1

There are 0 time periods with multiple data

A = 36
B = 0
C = 0
D = 0
E = 4
F = 0
a = 2970
b = 8910
c = 220
Group Variance = 163
Z-Score = -0.313304
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-0.313304| <= 1.97737 indicating no evidence of a trend

Concentrations (ppb)

Parameter: Nitrate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 158
Total Non-Detect: 66
Percent Non-Detects: 41.7722%
Total Background Measurements: 11
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	11	7 (63.6364%)	11/18/2006	50	50
			6/2/2007	643000	643000
			11/15/2007	ND<10	ND<10
			5/20/2008	369	369
			11/20/2008	ND<10	ND<10
			11/16/2009	ND<360 U	ND<360 U
			6/30/2010	84 J	84 J
			11/17/2010	ND<0.072 U	ND<0.072 U
			7/6/2011	ND<0.075 U	ND<0.075 U
			11/22/2011	ND<75 U	ND<75 U
			5/16/2012	ND<0.36 U	ND<0.36 U

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-16	11	6 (54.5455%)	11/18/2006	52	52
			6/2/2007	166	166
			11/15/2007	ND<10	ND<10
			5/20/2008	377	377
			11/20/2008	ND<10	ND<10
			11/16/2009	ND<360 U	ND<360 U
			6/30/2010	ND<36 U	ND<36 U
			11/17/2010	ND<0.072 U	ND<0.072 U
			7/6/2011	180 J	180 J
			11/22/2011	240 J	240 J
			5/16/2012	ND<0.36 U	ND<0.36 U
LMW-9D	11	3 (27.2727%)	11/18/2006	107	107
			6/2/2007	461	461
			11/15/2007	ND<10	ND<10
			5/20/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
			11/16/2009	430 J M H	430 J M H
			6/30/2010	58 J	58 J
			11/17/2010	0.097 J	0.097 J
			7/6/2011	130 J	130 J
			11/22/2011	330	330
			5/16/2012	85 J	85 J
LMW-3s	1	0 (0%)	5/16/2012	820 J	820 J
LMW-8	11	4 (36.3636%)	11/18/2006	216	216
			6/2/2007	398	398
			11/15/2007	ND<10	ND<10
			5/20/2008	570	570
			11/20/2008	ND<10	ND<10
			11/16/2009	740 J	740 J

			6/30/2010	45 J	45 J	
			11/17/2010	0.61	0.61	
			7/6/2011	260	260	
			11/22/2011	ND<75 U		ND<75 U
			5/16/2012	ND<0.36 U		ND<0.36 U
LMW-15R	13	6 (46.1538%)	11/18/2006		4780	4780
			6/2/2007	1400	1400	
			11/15/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			6/30/2010	2100	2100	
			11/17/2010	1.6	1.6	
			7/6/2011	68000 J	68000 J	
			11/22/2011	1800	1800	
			5/16/2012	1600	1600	
LMW-9S	13	6 (46.1538%)	11/18/2006		109	109
			6/2/2007	1000	1000	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
			11/16/2009	ND<360 U		ND<360 U
			11/16/2009	770 J M H		770 J M H
			11/16/2009	7300 H	7300 H	
			6/30/2010	60 J	60 J	
			11/17/2010	0.21 J	0.21 J	
			7/6/2011	ND<0.075 U	ND<0.075 U	
			11/22/2011	2300 J	2300 J	
			5/16/2012	ND<0.075 U		ND<0.075 U
LMW-10	11	2 (18.1818%)	11/18/2006		551	551
			6/2/2007	1020	1020	
			11/15/2007	ND<10	ND<10	
			5/20/2008	406	406	
			11/20/2008	ND<10	ND<10	
			11/16/2009	2400	2400	
			6/30/2010	370	370	
			11/17/2010	0.52	0.52	
			7/6/2011	580	580	
			11/22/2011	510	510	
			5/16/2012	1300	1300	
LMW-3	11	2 (18.1818%)	11/18/2006		333	333
			6/2/2007	209	209	
			11/15/2007	ND<10	ND<10	
			5/20/2008	515	515	
			11/20/2008	ND<10	ND<10	
			11/16/2009	870 J H	870 J H	
			6/30/2010	78 J M	78 J M	
			11/17/2010	0.19 J	0.19 J	
			7/6/2011	730	730	
			11/22/2011	200 J	200 J	
			5/16/2012	660 J	660 J	
LMW-9	11	3 (27.2727%)	11/18/2006		99	99
			6/2/2007	17200	17200	
			11/15/2007	ND<10	ND<10	
			5/20/2008	455	455	

			11/20/2008	ND<10	ND<10	
			11/16/2009	450 J M H		450 J M H
			6/30/2010	45 J	45 J	
			11/17/2010	0.094 J	0.094 J	
			7/6/2011	110 J	110 J	
			11/22/2011	98 J	98 J	
			5/16/2012	ND<360 U		ND<360 U
LMW-6	11	3 (27.2727%)	11/18/2006	1150	1150	
			6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	1410	1410	
			11/20/2008	ND<10	ND<10	
			11/16/2009	5000	5000	
			6/30/2010	880	880	
			11/17/2010	1.4	1.4	
			7/6/2011	1700	1700	
			11/22/2011	1200	1200	
			5/16/2012	5500	5500	
LMW-7	9	2 (22.2222%)	11/18/2006	119	119	
			6/2/2007	295	295	
			11/15/2007	ND<10	ND<10	
			5/20/2008	128	128	
			11/20/2008	ND<10	ND<10	
			11/17/2010	0.56 J	0.56 J	
			7/6/2011	86 J	86 J	
			11/22/2011	120 J	120 J	
			5/16/2012	360 J	360 J	
LMW-14R		9	4 (44.4444%)	6/2/2007	326	326
			11/15/2007	ND<10	ND<10	
			5/20/2008	371	371	
			11/20/2008	ND<10	ND<10	
			6/30/2010	ND<36 U		ND<36 U
			11/17/2010	ND<0.072 U		ND<0.072 U
			7/6/2011	350	350	
			11/22/2011	120 J	120 J	
			5/16/2012	360	360	
LMW-3S	10	3 (30%)	11/18/2006	321	321	
			6/2/2007	196	196	
			11/15/2007	ND<10	ND<10	
			5/20/2008	546	546	
			11/20/2008	ND<10	ND<10	
			11/16/2009	710 J M	710 J M	
			6/30/2010	ND<36 U		ND<36 U
			11/17/2010	0.088 J	0.088 J	
			7/6/2011	150 J	150 J	
			11/22/2011	240 J	240 J	
MW-5	3	3 (100%)	11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
LMW-11	4	4 (100%)	6/2/2007	ND<10	ND<10	
			11/15/2007	ND<10	ND<10	
			5/20/2008	ND<10	ND<10	
			11/20/2008	ND<10	ND<10	
LMW-13	4	4 (100%)	6/2/2007	ND<10	ND<10	

			11/15/2007	ND<10	ND<10
			5/20/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10
LMW-12	4	4 (100%)	6/2/2007	ND<10	ND<10
			11/15/2007	ND<10	ND<10
			5/20/2008	ND<10	ND<10
			11/20/2008	ND<10	ND<10

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Nitrate

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 158

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.036	-2.51213	6.31081	-0.0904368
2	0.036	-2.25713	11.4054	-0.171693
3	0.036	-2.09693	15.8026	-0.247183
4	0.0375	-1.95996	19.644	-0.320682
5	0.0375	-1.86629	23.1271	-0.390667
6	0.0375	-1.78661	26.319	-0.457665
7	0.088	-1.70604	29.2296	-0.607797
8	0.094	-1.64485	31.9352	-0.762413
9	0.097	-1.58927	34.4609	-0.916573
10	0.18	-1.5382	36.827	-1.19345
11	0.18	-1.48328	39.0271	-1.46044
12	0.18	-1.43953	41.0994	-1.71955
13	0.19	-1.39838	43.0548	-1.98525
14	0.21	-1.35317	44.8859	-2.26941
15	0.52	-1.31652	46.6191	-2.954
16	0.56	-1.28155	48.2615	-3.67167
17	0.61	-1.24809	49.8192	-4.433
18	1.4	-1.21073	51.2851	-6.12802
19	1.6	-1.18	52.6775	-8.01603
20	5	-1.15035	54.0008	-13.7678
21	5	-1.11699	55.2485	-19.3527
22	5	-1.08935	56.4351	-24.7995
23	5	-1.06252	57.5641	-30.1121
24	5	-1.03643	58.6383	-35.2942
25	5	-1.00687	59.6521	-40.3285
26	5	-0.982202	60.6168	-45.2396
27	5	-0.958125	61.5348	-50.0302
28	5	-0.930718	62.401	-54.6838
29	5	-0.907769	63.2251	-59.2226
30	5	-0.885291	64.0088	-63.6491
31	5	-0.863249	64.754	-67.9653
32	5	-0.838054	65.4563	-72.1556
33	5	-0.816874	66.1236	-76.24
34	5	-0.796056	66.7573	-80.2202
35	5	-0.772193	67.3536	-84.0812
36	5	-0.752084	67.9192	-87.8416
37	5	-0.732275	68.4555	-91.503
38	5	-0.712751	68.9635	-95.0667
39	5	-0.690309	69.44	-98.5183
40	5	-0.671346	69.8907	-101.875
41	5	-0.652622	70.3166	-105.138
42	5	-0.631062	70.7149	-108.293
43	5	-0.612813	71.0904	-111.357
44	5	-0.594766	71.4441	-114.331
45	5	-0.573953	71.7736	-117.201
46	5	-0.556308	72.083	-119.983
47	5	-0.538836	72.3734	-122.677
48	5	-0.521527	72.6454	-125.284
49	5	-0.501527	72.8969	-127.792
50	5	-0.484544	73.1317	-130.215
51	5	-0.467699	73.3504	-132.553

52	5	-0.448213	73.5513	-134.794
53	5	-0.431644	73.7376	-136.953
54	5	-0.415193	73.91	-139.029
55	5	-0.398855	74.0691	-141.023
56	5	-0.379927	74.2135	-142.922
57	5	-0.363809	74.3458	-144.742
58	5	-0.347787	74.4668	-146.48
59	5	-0.329206	74.5752	-148.126
60	5	-0.3133774.6734	-149.693	
61	5	-0.297612	74.7619	-151.181
62	5	-0.281926	74.8414	-152.591
63	5	-0.263715	74.911	-153.91
64	5	-0.248174	74.9725	-155.15
65	5	-0.232693	75.0267	-156.314
66	5	-0.214702	75.0728	-157.387
67	5	-0.199336	75.1125	-158.384
68	18	-0.184017	75.1464	-161.696
69	18	-0.168741	75.1749	-164.734
70	18	-0.150969	75.1977	-167.451
71	37.5	-0.135774	75.2161	-172.543
72	37.5	-0.1206175.2306	-177.066	
73	45	-0.102953	75.2412	-181.698
74	45	-0.0878447	75.2489	-185.651
75	50	-0.0727562	75.2542	-189.289
76	52	-0.0576847	75.2576	-192.289
77	58	-0.0401167	75.2592	-194.616
78	60	-0.0250691	75.2598	-196.12
79	78	-0.0100272	75.2599	-196.902
80	84	0.0100272	75.26	-196.06
81	85	0.0250691	75.2606	-193.929
82	86	0.0401167	75.2622	-190.479
83	98	0.0576847	75.2656	-184.826
84	99	0.0727562	75.2709	-177.623
85	107	0.0878447	75.2786	-168.223
86	109	0.102953	75.2892	-157.002
87	110	0.12061 75.3037	-143.734	
88	119	0.135774	75.3222	-127.577
89	120	0.150969	75.345	-109.461
90	120	0.168741	75.3734	-89.2121
91	128	0.184017	75.4073	-65.658
92	130	0.199336	75.447	-39.7442
93	150	0.214702	75.4931	-7.53892
94	166	0.232693	75.5473	31.0881
95	180	0.248174	75.6089	75.7594
96	180	0.263715	75.6784	123.228
97	180	0.281926	75.7579	173.975
98	180	0.297612	75.8465	227.545
99	180	0.31337 75.9447	283.951	
100	196	0.329206	76.053	348.476
101	200	0.347787	76.174	418.033
102	209	0.363809	76.3064	494.07
103	216	0.379927	76.4507	576.134
104	240	0.398855	76.6098	671.859
105	240	0.415193	76.7822	771.505
106	260	0.431644	76.9685	883.733
107	295	0.448213	77.1694	1015.96
108	321	0.467699	77.3881	1166.09
109	326	0.484544	77.6229	1324.05
110	330	0.501527	77.8744	1489.55
111	333	0.521527	78.1464	1663.22
112	350	0.538836	78.4368	1851.81
113	360	0.556308	78.7462	2052.08

114	360	0.573953		79.0757	2258.71
115	369	0.594766		79.4294	2478.18
116	370	0.612813		79.805	2704.92
117	371	0.631062		80.2032	2939.04
118	377	0.652622		80.6291	3185.08
119	398	0.671346		81.0798	3452.27
120	406	0.690309		81.5563	3732.54
121	430	0.712751		82.0644	4039.02
122	450	0.732275		82.6006	4368.55
123	455	0.752084		83.1662	4710.74
124	461	0.772193		83.7625	5066.73
125	510	0.796056		84.3962	5472.71
126	515	0.816874		85.0635	5893.4
127	546	0.838054		85.7658	6350.98
128	551	0.863249		86.511	6826.63
129	570	0.885291		87.2948	7331.25
130	580	0.907769		88.1188	7857.75
131	660	0.930718		88.985	8472.03
132	710	0.958125		89.903	9152.3
133	730	0.982202		90.8678	9869.3
134	740	1.00687	91.8815	10614.4	
135	770	1.03643	92.9557	11412.4	
136	820	1.06252	94.0847	12283.7	
137	870	1.08935	95.2714	13231.4	
138	880	1.11699	96.519	14214.4	
139	1000	1.15035	97.8423	15364.7	
140	1020	1.18	99.2347	16568.3	
141	1150	1.21073	100.701	17960.7	
142	1200	1.24809	102.258	19458.4	
143	1300	1.28155	103.901	21124.4	
144	1400	1.31652	105.634	22967.5	
145	1410	1.35317	107.465	24875.5	
146	1600	1.39838	109.42	27112.9	
147	1700	1.43953	111.493	29560.1	
148	1800	1.48328	113.693	32230	
149	2100	1.5382	116.059	35460.2	
150	2300	1.58927	118.585	39115.5	
151	2400	1.64485	121.29	43063.2	
152	4780	1.70604	124.201	51218.1	
153	5000	1.78661	127.393	60151.1	
154	5500	1.86629	130.876	70415.7	
155	7300	1.95996	134.717	84723.5	
156	17200	2.09693	139.114	120791	
157	68000	2.25713	144.209	274275	
158	643000	2.51213	150.52	1.88958e+006	

Data Set Standard Deviation = 51386.6
Numerator = 3.5705e+012
Denominator = 6.24012e+013
W Statistic = 0.0572184 = 3.5705e+012 / 6.24012e+013

5% Critical value of 0.976 exceeds 0.0572184
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.0572184
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Nitrate

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.247682
0.247682 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.036	0.00628931	-2.5121339		337.176	
2	0.036	0.0125786	-2.2571339		324.723	
3	0.036	0.0188679	-2.0969339		316.9	
4	0.0375	0.0251572	-1.9599639		310.211	
5	0.0375	0.0314465	-1.8662939		305.637	
6	0.0375	0.0377358	-1.7866139		301.746	
7	0.088	0.0440252	-1.7060439.0001		297.812	
8	0.094	0.0503145	-1.6448539.0001		294.824	
9	0.097	0.0566038	-1.5892739.0001		292.109	
10	0.18	0.0628931	-1.5382 39.0001		289.615	
11	0.18	0.0691824	-1.4832839.0001		286.934	
12	0.18	0.0754717	-1.4395339.0001		284.797	
13	0.19	0.081761	-1.3983839.0001		282.787	
14	0.21	0.0880503	-1.3531739.0002		280.58	
15	0.52	0.0943396	-1.3165239.0004		278.79	
16	0.56	0.100629	-1.2815539.0004		277.082	
17	0.61	0.106918	-1.2480939.0005		275.448	
18	1.4	0.113208	-1.2107339.0011		273.624	
19	1.6	0.119497	-1.18 39.0012		272.123	
20	5	0.125786	-1.1503539.0038		270.675	
21	5	0.132075	-1.1169939.0038		269.046	
22	5	0.138365	-1.0893539.0038		267.697	
23	5	0.144654	-1.0625239.0038		266.386	
24	5	0.150943	-1.0364339.0038		265.112	
25	5	0.157233	-1.0068739.0038		263.669	
26	5	0.163522	-0.982202		39.0038	262.464
27	5	0.169811	-0.958125		39.0038	261.288
28	5	0.176101	-0.930718		39.0038	259.95
29	5	0.18239	-0.907769		39.0038	258.829
30	5	0.188679	-0.885291		39.0038	257.732
31	5	0.194969	-0.863249		39.0038	256.655
32	5	0.201258	-0.838054		39.0038	255.425
33	5	0.207547	-0.816874		39.0038	254.391
34	5	0.213836	-0.796056		39.0038	253.374
35	5	0.220126	-0.772193		39.0038	252.209
36	5	0.226415	-0.752084		39.0038	251.227
37	5	0.232704	-0.732275		39.0038	250.259
38	5	0.238994	-0.712751		39.0038	249.306
39	5	0.245283	-0.690309		39.0038	248.21
40	5	0.251572	-0.671346		39.0038	247.284
41	5	0.257862	-0.652622		39.0038	246.37
42	5	0.264151	-0.631062		39.0038	245.317
43	5	0.27044	-0.612813		39.0038	244.426
44	5	0.27673	-0.594766		39.0038	243.544
45	5	0.283019	-0.573953		39.0038	242.528
46	5	0.289308	-0.556308		39.0038	241.666
47	5	0.295597	-0.538836		39.0038	240.813
48	5	0.301887	-0.521527		39.0038	239.968

49	5	0.308176	-0.501527	39.0038	238.991
50	5	0.314465	-0.484544	39.0038	238.162
51	5	0.320755	-0.467699	39.0038	237.339
52	5	0.327044	-0.448213	39.0038	236.388
53	5	0.333333	-0.431644	39.0038	235.579
54	5	0.339623	-0.415193	39.0038	234.775
55	5	0.345912	-0.398855	39.0038	233.977
56	5	0.352201	-0.379927	39.0038	233.053
57	5	0.358491	-0.363809	39.0038	232.266
58	5	0.36478	-0.347787	39.0038	231.484
59	5	0.371069	-0.329206	39.0038	230.576
60	5	0.377358	-0.31337	39.0038	229.803
61	5	0.383648	-0.297612	39.0038	229.033
62	5	0.389937	-0.281926	39.0038	228.267
63	5	0.396226	-0.263715	39.0038	227.378
64	5	0.402516	-0.248174	39.0038	226.619
65	5	0.408805	-0.232693	39.0038	225.863
66	5	0.415094	-0.214702	39.0038	224.985
67	5	0.421384	-0.199336	39.0038	224.234
68	18	0.427673	-0.184017	39.0138	223.486
69	18	0.433962	-0.168741	39.0138	222.74
70	18	0.440252	-0.150969	39.0138	221.872
71	37.5	0.446541	-0.135774	39.0287	221.13
72	37.5	0.45283	-0.12061	39.0287	220.39
73	45	0.459119	-0.102953	39.0344	219.528
74	45	0.465409	-0.0878447	39.0344	218.79
75	50	0.471698	-0.0727562	39.0382	218.053
76	52	0.477987	-0.0576847	39.0397	217.317
77	58	0.484277	-0.0401167	39.0443	216.459
78	60	0.490566	-0.0250691	39.0459	215.724
79	78	0.496855	-0.0100272	39.0596	214.99
80	84	0.503145	0.0100272	39.0642	214.01
81	85	0.509434	0.0250691	39.065	213.276
82	86	0.515723	0.0401167	39.0657	212.541
83	98	0.522013	0.0576847	39.0749	211.683
84	99	0.528302	0.0727562	39.0757	210.947
85	107	0.534591	0.0878447	39.0818	210.21
86	109	0.540881	0.102953	39.0833	209.472
87	110	0.54717	0.12061	39.0841	208.61
88	119	0.553459	0.135774	39.0909	207.87
89	120	0.559748	0.150969	39.0917	207.128
90	120	0.566038	0.168741	39.0917	206.26
91	128	0.572327	0.184017	39.0978	205.514
92	130	0.578616	0.199336	39.0994	204.766
93	150	0.584906	0.214702	39.1146	204.015
94	166	0.591195	0.232693	39.1269	203.137
95	180	0.597484	0.248174	39.1376	202.381
96	180	0.603774	0.263715	39.1376	201.622
97	180	0.610063	0.281926	39.1376	200.733
98	180	0.616352	0.297612	39.1376	199.967
99	180	0.622642	0.31337	39.1376	199.197
100	196	0.628931	0.329206	39.1498	198.424
101	200	0.63522	0.347787	39.1529	197.516
102	209	0.641509	0.363809	39.1597	196.734
103	216	0.647799	0.379927	39.1651	195.947
104	240	0.654088	0.398855	39.1834	195.023
105	240	0.660377	0.415193	39.1834	194.225
106	260	0.666667	0.431644	39.1987	193.421
107	295	0.672956	0.448213	39.2255	192.612
108	321	0.679245	0.467699	39.2453	191.661
109	326	0.685535	0.484544	39.2492	190.838
110	330	0.691824	0.501527	39.2522	190.009

111	333	0.698113	0.521527	39.2545	189.032
112	350	0.704403	0.538836	39.2675	188.187
113	360	0.710692	0.556308	39.2751	187.334
114	360	0.716981	0.573953	39.2751	186.472
115	369	0.72327	0.594766	39.282	185.456
116	370	0.72956	0.612813	39.2828	184.574
117	371	0.735849	0.631062	39.2835	183.683
118	377	0.742138	0.652622	39.2881	182.63
119	398	0.748428	0.671346	39.3042	181.716
120	406	0.754717	0.690309	39.3103	180.79
121	430	0.761006	0.712751	39.3286	179.694
122	450	0.767296	0.732275	39.3439	178.741
123	455	0.773585	0.752084	39.3477	177.773
124	461	0.779874	0.772193	39.3523	176.791
125	510	0.786164	0.796056	39.3898	175.626
126	515	0.792453	0.816874	39.3936	174.609
127	546	0.798742	0.838054	39.4173	173.575
128	551	0.805031	0.863249	39.4211	172.345
129	570	0.811321	0.885291	39.4356	171.268
130	580	0.81761	0.907769	39.4433	170.171
131	660	0.823899	0.930718	39.5044	169.05
132	710	0.830189	0.958125	39.5426	167.712
133	730	0.836478	0.982202	39.5579	166.536
134	740	0.842767	1.00687	39.5656	165.331
135	770	0.849057	1.03643	39.5885	163.888
136	820	0.855346	1.06252	39.6267	162.614
137	870	0.861635	1.08935	39.6649	161.303
138	880	0.867925	1.11699	39.6726	159.954
139	1000	0.874214	1.15035	39.7643	158.325
140	1020	0.880503	1.18	39.7796	156.877
141	1150	0.886792	1.21073	39.8789	155.376
142	1200	0.893082	1.24809	39.9171	153.552
143	1300	0.899371	1.28155	39.9936	151.918
144	1400	0.90566	1.31652	40.07	150.21
145	1410	0.91195	1.35317	40.0776	148.42
146	1600	0.918239	1.39838	40.2229	146.213
147	1700	0.924528	1.43953	40.2993	144.203
148	1800	0.930818	1.48328	40.3757	142.066
149	2100	0.937107	1.5382	40.605	139.385
150	2300	0.943396	1.58927	40.7579	136.891
151	2400	0.949686	1.64485	40.8343	134.176
152	4780	0.955975	1.70604	42.6533	131.188
153	5000	0.962264	1.78661	42.8214	127.254
154	5500	0.968553	1.86629	43.2036	123.363
155	7300	0.974843	1.95996	44.5793	118.789
156	17200	0.981132	2.09693	52.1457	112.1
157	68000	0.987421	2.25713	90.9714	104.277
158	643000	0.993711	2.51213	530.436	91.8241

Shapiro-Francia Test of Normality

Parameter: Nitrate

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 158

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-3.32424	-2.51213	6.31081	8.35093
2	-3.32424	-2.25713	11.4054	15.8542
3	-3.32424	-2.09693	15.8026	22.8249
4	-3.28341	-1.95996	19.644	29.2602
5	-3.28341	-1.86629	23.1271	35.388
6	-3.28341	-1.78661	26.319	41.2542
7	-2.43042	-1.70604	29.2296	45.4006
8	-2.36446	-1.64485	31.9352	49.2898
9	-2.33304	-1.58927	34.4609	52.9976
10	-1.7148	-1.5382	36.827	55.6353
11	-1.7148	-1.48328	39.0271	58.1789
12	-1.7148	-1.43953	41.0994	60.6474
13	-1.66073	-1.39838	43.0548	62.9697
14	-1.56065	-1.35317	44.8859	65.0815
15	-0.653926	-1.31652	46.6191	65.9424
16	-0.579818	-1.28155	48.2615	66.6855
17	-0.494296	-1.24809	49.8192	67.3024
18	0.336472	-1.21073	51.2851	66.895
19	0.470004	-1.18	52.6775	66.3404
20	1.60944	-1.15035	54.0008	64.489
21	1.60944	-1.11699	55.2485	62.6913
22	1.60944	-1.08935	56.4351	60.9381
23	1.60944	-1.06252	57.5641	59.228
24	1.60944	-1.03643	58.6383	57.5599
25	1.60944	-1.00687	59.6521	55.9394
26	1.60944	-0.982202	60.6168	54.3587
27	1.60944	-0.958125	61.5348	52.8166
28	1.60944	-0.930718	62.401	51.3187
29	1.60944	-0.907769	63.2251	49.8577
30	1.60944	-0.885291	64.0088	48.4329
31	1.60944	-0.863249	64.754	47.0435
32	1.60944	-0.838054	65.4563	45.6947
33	1.60944	-0.816874	66.1236	44.38
34	1.60944	-0.796056	66.7573	43.0988
35	1.60944	-0.772193	67.3536	41.856
36	1.60944	-0.752084	67.9192	40.6456
37	1.60944	-0.732275	68.4555	39.467
38	1.60944	-0.712751	68.9635	38.3199
39	1.60944	-0.690309	69.44	37.2089
40	1.60944	-0.671346	69.8907	36.1284
41	1.60944	-0.652622	70.3166	35.078
42	1.60944	-0.631062	70.7149	34.0624
43	1.60944	-0.612813	71.0904	33.0761
44	1.60944	-0.594766	71.4441	32.1189
45	1.60944	-0.573953	71.7736	31.1951
46	1.60944	-0.556308	72.083	30.2998
47	1.60944	-0.538836	72.3734	29.4326
48	1.60944	-0.521527	72.6454	28.5932
49	1.60944	-0.501527	72.8969	27.786
50	1.60944	-0.484544	73.1317	27.0062
51	1.60944	-0.467699	73.3504	26.2534

52	1.60944	-0.448213	73.5513	25.5321
53	1.60944	-0.431644	73.7376	24.8374
54	1.60944	-0.415193	73.91	24.1691
55	1.60944	-0.398855	74.0691	23.5272
56	1.60944	-0.379927	74.2135	22.9157
57	1.60944	-0.363809	74.3458	22.3302
58	1.60944	-0.347787	74.4668	21.7705
59	1.60944	-0.329206	74.5752	21.2406
60	1.60944	-0.3133774.6734	20.7363	
61	1.60944	-0.297612	74.7619	20.2573
62	1.60944	-0.281926	74.8414	19.8036
63	1.60944	-0.263715	74.911	19.3791
64	1.60944	-0.248174	74.9725	18.9797
65	1.60944	-0.232693	75.0267	18.6052
66	1.60944	-0.214702	75.0728	18.2596
67	1.60944	-0.199336	75.1125	17.9388
68	2.89037	-0.184017	75.1464	17.4069
69	2.89037	-0.168741	75.1749	16.9192
70	2.89037	-0.150969	75.1977	16.4829
71	3.62434	-0.135774	75.2161	15.9908
72	3.62434	-0.1206175.2306	15.5536	
73	3.80666	-0.102953	75.2412	15.1617
74	3.80666	-0.0878447	75.2489	14.8273
75	3.91202	-0.0727562	75.2542	14.5427
76	3.95124	-0.0576847	75.2576	14.3148
77	4.06044	-0.0401167	75.2592	14.1519
78	4.09434	-0.0250691	75.2598	14.0493
79	4.35671	-0.0100272	75.2599	14.0056
80	4.43082	0.0100272	75.26	14.05
81	4.44265	0.0250691	75.2606	14.1614
82	4.45435	0.0401167	75.2622	14.3401
83	4.58497	0.0576847	75.2656	14.6046
84	4.59512	0.0727562	75.2709	14.9389
85	4.67283	0.0878447	75.2786	15.3494
86	4.69135	0.102953	75.2892	15.8323
87	4.70048	0.12061 75.3037	16.3993	
88	4.77912	0.135774	75.3222	17.0482
89	4.78749	0.150969	75.345	17.7709
90	4.78749	0.168741	75.3734	18.5788
91	4.85203	0.184017	75.4073	19.4716
92	4.86753	0.199336	75.447	20.4419
93	5.01064	0.214702	75.4931	21.5177
94	5.11199	0.232693	75.5473	22.7072
95	5.19296	0.248174	75.6089	23.996
96	5.19296	0.263715	75.6784	25.3654
97	5.19296	0.281926	75.7579	26.8295
98	5.19296	0.297612	75.8465	28.3749
99	5.19296	0.31337 75.9447	30.0023	
100	5.27811	0.329206	76.053	31.7398
101	5.29832	0.347787	76.174	33.5825
102	5.34233	0.363809	76.3064	35.5261
103	5.37528	0.379927	76.4507	37.5683
104	5.48064	0.398855	76.6098	39.7543
105	5.48064	0.415193	76.7822	42.0298
106	5.56068	0.431644	76.9685	44.4301
107	5.68698	0.448213	77.1694	46.9791
108	5.77144	0.467699	77.3881	49.6783
109	5.7869	0.484544	77.6229	52.4824
110	5.79909	0.501527	77.8744	55.3908
111	5.80814	0.521527	78.1464	58.4199
112	5.85793	0.538836	78.4368	61.5763
113	5.8861	0.556308	78.7462	64.8508

114	5.8861	0.573953		79.0757	68.2292
115	5.9108	0.594766		79.4294	71.7447
116	5.9135	0.612813		79.805	75.3686
117	5.9162	0.631062		80.2032	79.1021
118	5.93225	0.652622		80.6291	82.9736
119	5.98645	0.671346		81.0798	86.9926
120	6.00635	0.690309		81.5563	91.1388
121	6.06379	0.712751		82.0644	95.4608
122	6.10925	0.732275		82.6006	99.9344
123	6.1203	0.752084		83.1662	104.537
124	6.1334	0.772193		83.7625	109.274
125	6.23441	0.796056		84.3962	114.236
126	6.24417	0.816874		85.0635	119.337
127	6.30262	0.838054		85.7658	124.619
128	6.31173	0.863249		86.511	130.068
129	6.34564	0.885291		87.2948	135.685
130	6.36303	0.907769		88.1188	141.462
131	6.49224	0.930718		88.985	147.504
132	6.56526	0.958125		89.903	153.794
133	6.59304	0.982202		90.8678	160.27
134	6.60665	1.00687	91.8815	166.922	
135	6.64639	1.03643	92.9557	173.811	
136	6.7093	1.06252	94.0847	180.939	
137	6.76849	1.08935	95.2714	188.313	
138	6.77992	1.11699	96.519	195.886	
139	6.90776	1.15035	97.8423	203.832	
140	6.92756	1.18	99.2347	212.007	
141	7.04752	1.21073	100.701	220.539	
142	7.09008	1.24809	102.258	229.388	
143	7.17012	1.28155	103.901	238.577	
144	7.24423	1.31652	105.634	248.114	
145	7.25134	1.35317	107.465	257.927	
146	7.37776	1.39838	109.42	268.244	
147	7.43838	1.43953	111.493	278.951	
148	7.49554	1.48328	113.693	290.069	
149	7.64969	1.5382	116.059	301.836	
150	7.74066	1.58927	118.585	314.138	
151	7.78322	1.64485	121.29	326.94	
152	8.4722	1.70604	124.201	341.394	
153	8.51719	1.78661	127.393	356.611	
154	8.6125	1.86629	130.876	372.685	
155	8.89563	1.95996	134.717	390.12	
156	9.75266	2.09693	139.114	410.57	
157	11.1273	2.25713	144.209	435.686	
158	13.3739	2.51213	150.52	469.283	

Data Set Standard Deviation = 3.13081
Numerator = 220227
Denominator = 231636
W Statistic = 0.950746 = 220227 / 231636

5% Critical value of 0.976 exceeds 0.950746
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.950746
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Nitrate

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.97526
0.97526 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-3.32424	0.00628931	-2.51213	158.051	337.176
2	-3.32424	0.0125786	-2.25713	158.051	324.723
3	-3.32424	0.0188679	-2.09693	158.051	316.9
4	-3.28341	0.0251572	-1.95996	158.779	310.211
5	-3.28341	0.0314465	-1.86629	158.779	305.637
6	-3.28341	0.0377358	-1.78661	158.779	301.746
7	-2.43042	0.0440252	-1.70604	173.991	297.812
8	-2.36446	0.0503145	-1.64485	175.167	294.824
9	-2.33304	0.0566038	-1.58927	175.727	292.109
10	-1.7148	0.0628931	-1.5382	186.753	289.615
11	-1.7148	0.0691824	-1.48328	186.753	286.934
12	-1.7148	0.0754717	-1.43953	186.753	284.797
13	-1.66073	0.081761	-1.39838	187.717	282.787
14	-1.56065	0.0880503	-1.35317	189.502	280.58
15	-0.653926	0.0943396	-1.31652	205.672	278.79
16	-0.579818	0.100629	-1.28155	206.993	277.082
17	-0.494296	0.106918	-1.24809	208.518	275.448
18	0.336472	0.113208	-1.21073	223.334	273.624
19	0.470004	0.119497	-1.18	225.715	272.123
20	1.60944	0.125786	-1.15035	246.035	270.675
21	1.60944	0.132075	-1.11699	246.035	269.046
22	1.60944	0.138365	-1.08935	246.035	267.697
23	1.60944	0.144654	-1.06252	246.035	266.386
24	1.60944	0.150943	-1.03643	246.035	265.112
25	1.60944	0.157233	-1.00687	246.035	263.669
26	1.60944	0.163522	-0.982202	246.035	262.464
27	1.60944	0.169811	-0.958125	246.035	261.288
28	1.60944	0.176101	-0.930718	246.035	259.95
29	1.60944	0.18239	-0.907769	246.035	258.829
30	1.60944	0.188679	-0.885291	246.035	257.732
31	1.60944	0.194969	-0.863249	246.035	256.655
32	1.60944	0.201258	-0.838054	246.035	255.425
33	1.60944	0.207547	-0.816874	246.035	254.391
34	1.60944	0.213836	-0.796056	246.035	253.374
35	1.60944	0.220126	-0.772193	246.035	252.209
36	1.60944	0.226415	-0.752084	246.035	251.227
37	1.60944	0.232704	-0.732275	246.035	250.259
38	1.60944	0.238994	-0.712751	246.035	249.306
39	1.60944	0.245283	-0.690309	246.035	248.21
40	1.60944	0.251572	-0.671346	246.035	247.284
41	1.60944	0.257862	-0.652622	246.035	246.37
42	1.60944	0.264151	-0.631062	246.035	245.317
43	1.60944	0.27044	-0.612813	246.035	244.426
44	1.60944	0.27673	-0.594766	246.035	243.544
45	1.60944	0.283019	-0.573953	246.035	242.528
46	1.60944	0.289308	-0.556308	246.035	241.666
47	1.60944	0.295597	-0.538836	246.035	240.813
48	1.60944	0.301887	-0.521527	246.035	239.968

49	1.60944	0.308176	-0.501527	246.035	238.991
50	1.60944	0.314465	-0.484544	246.035	238.162
51	1.60944	0.320755	-0.467699	246.035	237.339
52	1.60944	0.327044	-0.448213	246.035	236.388
53	1.60944	0.333333	-0.431644	246.035	235.579
54	1.60944	0.339623	-0.415193	246.035	234.775
55	1.60944	0.345912	-0.398855	246.035	233.977
56	1.60944	0.352201	-0.379927	246.035	233.053
57	1.60944	0.358491	-0.363809	246.035	232.266
58	1.60944	0.36478	-0.347787	246.035	231.484
59	1.60944	0.371069	-0.329206	246.035	230.576
60	1.60944	0.377358	-0.31337	246.035	229.803
61	1.60944	0.383648	-0.297612	246.035	229.033
62	1.60944	0.389937	-0.281926	246.035	228.267
63	1.60944	0.396226	-0.263715	246.035	227.378
64	1.60944	0.402516	-0.248174	246.035	226.619
65	1.60944	0.408805	-0.232693	246.035	225.863
66	1.60944	0.415094	-0.214702	246.035	224.985
67	1.60944	0.421384	-0.199336	246.035	224.234
68	2.89037	0.427673	-0.184017	268.878	223.486
69	2.89037	0.433962	-0.168741	268.878	222.74
70	2.89037	0.440252	-0.150969	268.878	221.872
71	3.62434	0.446541	-0.135774	281.967	221.13
72	3.62434	0.45283	-0.12061	281.967	220.39
73	3.80666	0.459119	-0.102953	285.219	219.528
74	3.80666	0.465409	-0.0878447	285.219	218.79
75	3.91202	0.471698	-0.0727562	287.098	218.053
76	3.95124	0.477987	-0.0576847	287.797	217.317
77	4.06044	0.484277	-0.0401167	289.745	216.459
78	4.09434	0.490566	-0.0250691	290.349	215.724
79	4.35671	0.496855	-0.0100272	295.028	214.99
80	4.43082	0.503145	0.0100272	296.35	214.01
81	4.44265	0.509434	0.0250691	296.561	213.276
82	4.45435	0.515723	0.0401167	296.769	212.541
83	4.58497	0.522013	0.0576847	299.099	211.683
84	4.59512	0.528302	0.0727562	299.28	210.947
85	4.67283	0.534591	0.0878447	300.665	210.21
86	4.69135	0.540881	0.102953	300.996	209.472
87	4.70048	0.54717	0.12061	301.159	208.61
88	4.77912	0.553459	0.135774	302.561	207.87
89	4.78749	0.559748	0.150969	302.71	207.128
90	4.78749	0.566038	0.168741	302.71	206.26
91	4.85203	0.572327	0.184017	303.861	205.514
92	4.86753	0.578616	0.199336	304.138	204.766
93	5.01064	0.584906	0.214702	306.69	204.015
94	5.11199	0.591195	0.232693	308.497	203.137
95	5.19296	0.597484	0.248174	309.941	202.381
96	5.19296	0.603774	0.263715	309.941	201.622
97	5.19296	0.610063	0.281926	309.941	200.733
98	5.19296	0.616352	0.297612	309.941	199.967
99	5.19296	0.622642	0.31337	309.941	199.197
100	5.27811	0.628931	0.329206	311.46	198.424
101	5.29832	0.63522	0.347787	311.82	197.516
102	5.34233	0.641509	0.363809	312.605	196.734
103	5.37528	0.647799	0.379927	313.192	195.947
104	5.48064	0.654088	0.398855	315.071	195.023
105	5.48064	0.660377	0.415193	315.071	194.225
106	5.56068	0.666667	0.431644	316.499	193.421
107	5.68698	0.672956	0.448213	318.751	192.612
108	5.77144	0.679245	0.467699	320.257	191.661
109	5.7869	0.685535	0.484544	320.533	190.838
110	5.79909	0.691824	0.501527	320.75	190.009

111	5.80814	0.698113	0.521527	320.912	189.032
112	5.85793	0.704403	0.538836	321.8	188.187
113	5.8861	0.710692	0.556308	322.302	187.334
114	5.8861	0.716981	0.573953	322.302	186.472
115	5.9108	0.72327	0.594766	322.743	185.456
116	5.9135	0.72956	0.612813	322.791	184.574
117	5.9162	0.735849	0.631062	322.839	183.683
118	5.93225	0.742138	0.652622	323.125	182.63
119	5.98645	0.748428	0.671346	324.092	181.716
120	6.00635	0.754717	0.690309	324.447	180.79
121	6.06379	0.761006	0.712751	325.471	179.694
122	6.10925	0.767296	0.732275	326.282	178.741
123	6.1203	0.773585	0.752084	326.479	177.773
124	6.1334	0.779874	0.772193	326.712	176.791
125	6.23441	0.786164	0.796056	328.514	175.626
126	6.24417	0.792453	0.816874	328.688	174.609
127	6.30262	0.798742	0.838054	329.73	173.575
128	6.31173	0.805031	0.863249	329.893	172.345
129	6.34564	0.811321	0.885291	330.497	171.268
130	6.36303	0.81761	0.907769	330.807	170.171
131	6.49224	0.823899	0.930718	333.112	169.05
132	6.56526	0.830189	0.958125	334.414	167.712
133	6.59304	0.836478	0.982202	334.909	166.536
134	6.60665	0.842767	1.00687	335.152	165.331
135	6.64639	0.849057	1.03643	335.861	163.888
136	6.7093	0.855346	1.06252	336.983	162.614
137	6.76849	0.861635	1.08935	338.038	161.303
138	6.77992	0.867925	1.11699	338.242	159.954
139	6.90776	0.874214	1.15035	340.522	158.325
140	6.92756	0.880503	1.18	340.875	156.877
141	7.04752	0.886792	1.21073	343.014	155.376
142	7.09008	0.893082	1.24809	343.773	153.552
143	7.17012	0.899371	1.28155	345.2	151.918
144	7.24423	0.90566	1.31652	346.522	150.21
145	7.25134	0.91195	1.35317	346.649	148.42
146	7.37776	0.918239	1.39838	348.903	146.213
147	7.43838	0.924528	1.43953	349.985	144.203
148	7.49554	0.930818	1.48328	351.004	142.066
149	7.64969	0.937107	1.5382	353.753	139.385
150	7.74066	0.943396	1.58927	355.375	136.891
151	7.78322	0.949686	1.64485	356.134	134.176
152	8.4722	0.955975	1.70604	368.421	131.188
153	8.51719	0.962264	1.78661	369.223	127.254
154	8.6125	0.968553	1.86629	370.923	123.363
155	8.89563	0.974843	1.95996	375.972	118.789
156	9.75266	0.981132	2.09693	391.256	112.1
157	11.1273	0.987421	2.25713	415.77	104.277
158	13.3739	0.993711	2.51213	455.835	91.8241

Kruskal-Wallis Non-Parametric Test

Parameter: Nitrate

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
LMW-4	11/18/2006	3.91202	79
	6/2/2007	13.3739	158
	11/15/2007	ND<1.60944	33.5
	5/20/2008	5.9108	115
	11/20/2008	ND<1.60944	33.5
	11/16/2009	ND<5.19296 U	33.5
	6/30/2010	4.43082 J	84
	11/17/2010	ND<-3.32424 U	33.5
	7/6/2011	ND<-3.28341 U	33.5
	11/22/2011	ND<3.62434 U	33.5
	5/16/2012	ND<-1.7148 U	33.5

Rank Sum = 670.5
Rank Mean = 60.9545

Background Rank Sum = 670.5
Background Rank Mean = 60.9545

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-16	11/18/2006	3.95124	80
	6/2/2007	5.11199	98
	11/15/2007	ND<1.60944	33.5
	5/20/2008	5.93225	118
	11/20/2008	ND<1.60944	33.5
	11/16/2009	ND<5.19296 U	33.5
	6/30/2010	ND<2.89037 U	33.5
	11/17/2010	ND<-3.32424 U	33.5
	7/6/2011	5.19296 J	99
	11/22/2011	5.48064 J	104
	5/16/2012	ND<-1.7148 U	33.5

Rank Sum = 700
Rank Mean = 63.6364

LMW-9D	11/18/2006	4.67283	89
	6/2/2007	6.1334	124
	11/15/2007	ND<1.60944	33.5
	5/20/2008	ND<1.60944	33.5
	11/20/2008	ND<1.60944	33.5
	11/16/2009	6.06379 J M H	121
	6/30/2010	4.06044 J	81
	11/17/2010	-2.33304 J	69
	7/6/2011	4.86753 J	96
	11/22/2011	5.79909	110
	5/16/2012	4.44265 J	85

Rank Sum = 875.5
Rank Mean = 79.5909

LMW-3s	5/16/2012	6.7093 J	136

Rank Sum = 136
Rank Mean = 136

LMW-8	11/18/2006	5.37528	103
	6/2/2007	5.98645	119
	11/15/2007	ND<1.60944	33.5
	5/20/2008	6.34564	129
	11/20/2008	ND<1.60944	33.5
	11/16/2009	6.60665 J	134
	6/30/2010	3.80666 J	77
	11/17/2010	-0.494296	74
	7/6/2011	5.56068	106
	11/22/2011	ND<3.62434 U	33.5
	5/16/2012	ND<-1.7148 U	33.5

Rank Sum = 876
Rank Mean = 79.6364

LMW-15R	11/18/2006	8.4722	152
	6/2/2007	7.24423	144
	11/15/2007	ND<1.60944	33.5
	11/15/2007	ND<1.60944	33.5
	5/20/2008	ND<1.60944	33.5
	5/20/2008	ND<1.60944	33.5
	11/20/2008	ND<1.60944	33.5
	11/20/2008	ND<1.60944	33.5
	6/30/2010	7.64969	149
	11/17/2010	0.470004	76
	7/6/2011	11.1273 J	157
	11/22/2011	7.49554	148
	5/16/2012	7.37776	146

Rank Sum = 1173
Rank Mean = 90.2308

LMW-9S	11/18/2006	4.69135	90
	6/2/2007	6.90776	139
	11/15/2007	ND<1.60944	33.5
	5/20/2008	ND<1.60944	33.5
	11/20/2008	ND<1.60944	33.5
	11/16/2009	ND<5.19296 U	33.5
	11/16/2009	6.64639 J M H	135
	11/16/2009	8.89563 H	155
	6/30/2010	4.09434 J	82
	11/17/2010	-1.56065 J	71
	7/6/2011	ND<-3.28341 U	33.5
	11/22/2011	7.74066 J	150
	5/16/2012	ND<-3.28341 U	33.5

Rank Sum = 1023
Rank Mean = 78.6923

LMW-10	11/18/2006	6.31173	128
	6/2/2007	6.92756	140
	11/15/2007	ND<1.60944	33.5
	5/20/2008	6.00635	120
	11/20/2008	ND<1.60944	33.5
	11/16/2009	7.78322	151
	6/30/2010	5.9135	116
	11/17/2010	-0.653926	72
	7/6/2011	6.36303	130
	11/22/2011	6.23441	125
	5/16/2012	7.17012	143

Rank Sum = 1192
Rank Mean = 108.364

LMW-3	11/18/2006	5.80814	111
	6/2/2007	5.34233	102
	11/15/2007	ND<1.60944	33.5
	5/20/2008	6.24417	126
	11/20/2008	ND<1.60944	33.5
	11/16/2009	6.76849 J H	137
	6/30/2010	4.35671 J M	83
	11/17/2010	-1.66073 J	70
	7/6/2011	6.59304	133
	11/22/2011	5.29832 J	101
	5/16/2012	6.49224 J	131

Rank Sum = 1061
Rank Mean = 96.4545

LMW-9	11/18/2006	4.59512	88
	6/2/2007	9.75266	156
	11/15/2007	ND<1.60944	33.5
	5/20/2008	6.1203	123
	11/20/2008	ND<1.60944	33.5
	11/16/2009	6.10925 J M H	122
	6/30/2010	3.80666 J	78
	11/17/2010	-2.36446 J	68
	7/6/2011	4.70048 J	91
	11/22/2011	4.58497 J	87
	5/16/2012	ND<5.19296 U	33.5

Rank Sum = 913.5
Rank Mean = 83.0455

LMW-6	11/18/2006	7.04752	141
	6/2/2007	ND<1.60944	33.5
	11/15/2007	ND<1.60944	33.5
	5/20/2008	7.25134	145
	11/20/2008	ND<1.60944	33.5
	11/16/2009	8.51719	153
	6/30/2010	6.77992	138
	11/17/2010	0.336472	75
	7/6/2011	7.43838	147
	11/22/2011	7.09008	142
	5/16/2012	8.6125	154

Rank Sum = 1195.5
Rank Mean = 108.682

LMW-7	11/18/2006	4.77912	92
	6/2/2007	5.68698	107
	11/15/2007	ND<1.60944	33.5
	5/20/2008	4.85203	95
	11/20/2008	ND<1.60944	33.5
	11/17/2010	-0.579818 J	73
	7/6/2011	4.45435 J	86
	11/22/2011	4.78749 J	93
	5/16/2012	5.8861 J	113

Rank Sum = 726
Rank Mean = 80.6667

LMW-14R	6/2/2007	5.7869	109
	11/15/2007	ND<1.60944	33.5
	5/20/2008	5.9162	117
	11/20/2008	ND<1.60944	33.5
	6/30/2010	ND<2.89037 U	33.5
	11/17/2010	ND<-3.32424 U	33.5
	7/6/2011	5.85793	112

	11/22/2011	4.78749 J	94
	5/16/2012	5.8861	114

Rank Sum = 680
Rank Mean = 75.5556

LMW-3S	11/18/2006	5.77144	108
	6/2/2007	5.27811	100
	11/15/2007	ND<1.60944	33.5
	5/20/2008	6.30262	127
	11/20/2008	ND<1.60944	33.5
	11/16/2009	6.56526 J M	132
	6/30/2010	ND<2.89037 U	33.5
	11/17/2010	-2.43042 J	67
	7/6/2011	5.01064 J	97
	11/22/2011	5.48064 J	105

Rank Sum = 836.5
Rank Mean = 83.65

MW-5	11/15/2007	ND<1.60944	33.5
	5/20/2008	ND<1.60944	33.5
	11/20/2008	ND<1.60944	33.5

Rank Sum = 100.5
Rank Mean = 33.5

LMW-11	6/2/2007	ND<1.60944	33.5
	11/15/2007	ND<1.60944	33.5
	5/20/2008	ND<1.60944	33.5
	11/20/2008	ND<1.60944	33.5

Rank Sum = 134
Rank Mean = 33.5

LMW-13	6/2/2007	ND<1.60944	33.5
	11/15/2007	ND<1.60944	33.5
	5/20/2008	ND<1.60944	33.5
	11/20/2008	ND<1.60944	33.5

Rank Sum = 134
Rank Mean = 33.5

LMW-12	6/2/2007	ND<1.60944	33.5
	11/15/2007	ND<1.60944	33.5
	5/20/2008	ND<1.60944	33.5
	11/20/2008	ND<1.60944	33.5

Rank Sum = 134
Rank Mean = 33.5

Calculation Results:

Kruskal-Wallis H Statistic = 31.1181
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 33.5641
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
31.1181 > 27.5871 indicating a significant group difference at 5% significance level
33.5641 > 27.5871 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 60.9545

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-16	**63.6364**	**2.68182**	**45.3867**
LMW-9D	**79.5909**	**18.6364**	**45.3867**

LMW-3s	136	75.0455	111.174	
LMW-8	79.6364	18.6818	45.3867	
LMW-15R		90.2308	29.2762	43.6061
LMW-9S	78.6923	17.7378	43.6061	
LMW-10	108.364	47.4091	45.3867	
LMW-3	96.4545	35.5	45.3867	
LMW-9	83.0455	22.0909	45.3867	
LMW-6	108.682	47.7273	45.3867	
LMW-7	80.6667	19.7121	47.8418	
LMW-14R		75.5556	14.601	47.8418
LMW-3S	83.65	22.6955	46.5075	
MW-5	33.5	-27.4545	69.3293	
LMW-11	33.5	-27.4545	62.1483	
LMW-13	33.5	-27.4545	62.1483	
LMW-12	33.5	-27.4545	62.1483	

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 60.9545

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-16	63.6364	2.68182	56.1524
LMW-9D	79.5909	18.6364	56.1524
LMW-3s	136	75.0455	137.545
LMW-8	79.6364	18.6818	56.1524
LMW-15R		90.2308	29.2762	53.9495
LMW-9S	78.6923	17.7378	53.9495
LMW-10	108.364	47.4091	56.1524
LMW-3	96.4545	35.5	56.1524
LMW-9	83.0455	22.0909	56.1524
LMW-6	108.682	47.7273	56.1524
LMW-7	80.6667	19.7121	59.1899
LMW-14R		75.5556	14.601	59.1899
LMW-3S	83.65	22.6955	57.5391
MW-5	33.5	-27.4545	85.7743
LMW-11	33.5	-27.4545	76.8899
LMW-13	33.5	-27.4545	76.8899
LMW-12	33.5	-27.4545	76.8899

Mann-Kendall Trend Analysis

Parameter: Nitrate

Location: LMW-6

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<1.60944	7.04752	-5.438080	1	
ND<1.60944	7.04752	-5.438080	2	
7.25134	7.04752	0.203828	1	2
ND<1.60944	7.04752	-5.438081	3	
8.51719	7.04752	1.46968 2	3	
6.77992	7.04752	-0.267595	2	4
0.336472	7.04752	-6.711042	5	
7.43838	7.04752	0.390866	3	5
7.09008	7.04752	0.0425596	4	5
8.6125	7.04752	1.56499 5	5	
ND<1.60944	ND<1.60944	0	5	5
7.25134	ND<1.60944	5.64191 6	5	
ND<1.60944	ND<1.60944	0	6	5
8.51719	ND<1.60944	6.90776 7	5	
6.77992	ND<1.60944	5.17048 8	5	
0.336472	ND<1.60944	-1.272978	6	
7.43838	ND<1.60944	5.82895 9	6	
7.09008	ND<1.60944	5.48064 10	6	
8.6125	ND<1.60944	7.00307 11	6	
7.25134	ND<1.60944	5.64191 12	6	
ND<1.60944	ND<1.60944	0	12	6
8.51719	ND<1.60944	6.90776 13	6	
6.77992	ND<1.60944	5.17048 14	6	
0.336472	ND<1.60944	-1.272971	14	7
7.43838	ND<1.60944	5.82895 15	7	
7.09008	ND<1.60944	5.48064 16	7	
8.6125	ND<1.60944	7.00307 17	7	
ND<1.60944	7.25134	-5.641911	17	8
8.51719	7.25134	1.26585 18	8	
6.77992	7.25134	-0.471423	18	9
0.336472	7.25134	-6.914871	8	10
7.43838	7.25134	0.187039	19	10
7.09008	7.25134	-0.161268	19	11
8.6125	7.25134	1.36116 20	11	
8.51719	ND<1.60944	6.90776 21	11	
6.77992	ND<1.60944	5.17048 22	11	
0.336472	ND<1.60944	-1.272972	2	12
7.43838	ND<1.60944	5.82895 23	12	
7.09008	ND<1.60944	5.48064 24	12	
8.6125	ND<1.60944	7.00307 25	12	
6.77992	8.51719	-1.737272	5	13
0.336472	8.51719	-8.180722	5	14
7.43838	8.51719	-1.078812	5	15
7.09008	8.51719	-1.427122	5	16
8.6125	8.51719	0.0953102	26	16

0.336472	6.77992	-6.4434526	17		
7.43838	6.77992	0.658462	27	17	
7.09008	6.77992	0.310155	28	17	
8.6125	6.77992	1.83258	29	17	
7.43838	0.336472	7.10191	30	17	
7.09008	0.336472	6.7536	31	17	
8.6125	0.336472	8.27603	32	17	
7.09008	7.43838	-0.348307	32	18	
8.6125	7.43838	1.17412	33	18	
8.6125	7.09008	1.52243	34	18	

S Statistic = 34 - 18 = 16

Tied Group	Value	Members
1	1.60944	3

Time Period	Observations
11/18/2006	1
6/2/2007	1
11/15/2007	1
5/20/2008	1
11/20/2008	1
11/16/2009	1
6/30/2010	1
11/17/2010	1
7/6/2011	1
11/22/2011	1
5/16/2012	1

There are 0 time periods with multiple data

A = 66
B = 0
C = 6
D = 0
E = 6
F = 0
a = 2970
b = 8910
c = 220
Group Variance = 161.333
Z-Score = 1.18094
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|1.18094| <= 1.97737 indicating no evidence of a trend

Mann-Kendall Trend Analysis
Parameter: Nitrate
Location: LMW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
6.92756	6.31173	0.615823	1	0
ND<1.60944	6.31173	-4.7023	1	1
6.00635	6.31173	-0.305382	1	2
ND<1.60944	6.31173	-4.7023	1	3
7.78322	6.31173	1.47149	2	3
5.9135	6.31173	-0.398232	2	4
-0.653926	6.31173	-6.965662	2	5
6.36303	6.31173	0.0512933	3	5
6.23441	6.31173	-0.0773241	3	6
7.17012	6.31173	0.858385	4	6
ND<1.60944	6.92756	-5.318124	7	
6.00635	6.92756	-0.921205	4	8
ND<1.60944	6.92756	-5.318124	9	
7.78322	6.92756	0.855666	5	9
5.9135	6.92756	-1.014055	10	
-0.653926	6.92756	-7.581485	11	
6.36303	6.92756	-0.564535	12	
6.23441	6.92756	-0.693147	5	13
7.17012	6.92756	0.242562	6	13
6.00635	ND<1.60944	4.39692	7	13
ND<1.60944	ND<1.60944	0	7	13
7.78322	ND<1.60944	6.17379	8	13
5.9135	ND<1.60944	4.30407	9	13
-0.653926	ND<1.60944	-2.263369	9	14
6.36303	ND<1.60944	4.75359	10	14
6.23441	ND<1.60944	4.62497	11	14
7.17012	ND<1.60944	5.56068	12	14
ND<1.60944	6.00635	-4.396912	12	15
7.78322	6.00635	1.77687	13	15
5.9135	6.00635	-0.092850	2	13	16
-0.653926	6.00635	-6.660281	3	17
6.36303	6.00635	0.356675	14	17
6.23441	6.00635	0.228058	15	17
7.17012	6.00635	1.16377	16	17
7.78322	ND<1.60944	6.17379	17	17
5.9135	ND<1.60944	4.30407	18	17
-0.653926	ND<1.60944	-2.263361	8	18
6.36303	ND<1.60944	4.75359	19	18
6.23441	ND<1.60944	4.62497	20	18
7.17012	ND<1.60944	5.56068	21	18
5.9135	7.78322	-1.869722	1	19
-0.653926	7.78322	-8.437152	1	20
6.36303	7.78322	-1.4202	21	21
6.23441	7.78322	-1.548812	1	22
7.17012	7.78322	-0.613104	21	23

-0.653926	5.9135	-6.5674321	24	
6.36303	5.9135	0.449525	22	24
6.23441	5.9135	0.320908	23	24
7.17012	5.9135	1.25662 24	24	
6.36303	-0.653926	7.01695	25	24
6.23441	-0.653926	6.88834	26	24
7.17012	-0.653926	7.82405	27	24
6.23441	6.36303	-0.128617	27	25
7.17012	6.36303	0.807091	28	25
7.17012	6.23441	0.935709	29	25

S Statistic = 29 - 25 = 4

Tied Group	Value	Members
1	1.60944	2

Time Period		Observations
11/18/2006		1
6/2/2007	1	
11/15/2007		1
5/20/2008		1
11/20/2008		1
11/16/2009		1
6/30/2010		1
11/17/2010		1
7/6/2011	1	
11/22/2011		1
5/16/2012		1

There are 0 time periods with multiple data

A = 18
B = 0
C = 0
D = 0
E = 2
F = 0
a = 2970
b = 8910
c = 220
Group Variance = 164
Z-Score = 0.234261
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|0.234261| <= 1.97737 indicating no evidence of a trend

Shewhart-CUSUM Control Chart

Parameter: Nitrate

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = 2.84921
Baseline Std Dev = 4.79053
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
11/18/2006	6.31173	0	0.722786
11/18/2006	6.31173	0	0.722786
6/2/2007	6.92756	0	0.851336
6/2/2007	6.92756	0	0.851336
11/15/2007	1.60944	0	-0.258795
11/15/2007	1.60944	0	-0.258795
5/20/2008	6.00635	0	0.659039
5/20/2008	6.00635	0	0.659039
11/20/2008	1.60944	0	-0.258795
11/20/2008	1.60944	0	-0.258795
11/16/2009	7.78322	0.0299516	1.02995
11/16/2009	7.78322	0.0299516	1.02995
6/30/2010	5.9135	0	0.639657
6/30/2010	5.9135	0	0.639657
11/17/2010	-0.653926	0	-0.731261
11/17/2010	-0.653926	0	-0.731261
7/6/2011	6.36303	0	0.733493
7/6/2011	6.36303	0	0.733493
11/22/2011	6.23441	0	0.706645
11/22/2011	6.23441	0	0.706645
5/16/2012	7.17012	0	0.901969
5/16/2012	7.17012	0	0.901969

Shewhart-CUSUM Control Chart

Parameter: Nitrate

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = 2.84921
Baseline Std Dev = 4.79053
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
11/18/2006	7.04752	0	0.876376
11/18/2006	7.04752	0	0.876376
6/2/2007	1.60944	0	-0.258795
6/2/2007	1.60944	0	-0.258795
11/15/2007	1.60944	0	-0.258795
11/15/2007	1.60944	0	-0.258795
5/20/2008	7.25134	0	0.918924
5/20/2008	7.25134	0	0.918924
11/20/2008	1.60944	0	-0.258795
11/20/2008	1.60944	0	-0.258795
11/16/2009	8.51719	0.183164	1.18316
11/16/2009	8.51719	0.183164	1.18316
6/30/2010	6.77992	0.00368123	0.820517
6/30/2010	6.77992	0.00368123	0.820517
11/17/2010	0.336472	0	-0.52452
11/17/2010	0.336472	0	-0.52452
7/6/2011	7.43838	0	0.957968
7/6/2011	7.43838	0	0.957968
11/22/2011	7.09008	0	0.885261
11/22/2011	7.09008	0	0.885261
5/16/2012	8.6125	0.203059	1.20306
5/16/2012	8.6125	0.203059	1.20306

Concentrations (ppb)

Parameter: Selenium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 228
Percent Non-Detects: 84.1328%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	22 (100%)	1/16/1998	ND<2	ND<2
			3/16/1999	ND<2	ND<2
			9/23/1999	ND<2	ND<2
			3/14/2000	ND<2	ND<2
			9/23/2003	ND<2	ND<2
			3/10/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/26/2005	ND<2	ND<2
			6/19/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			6/2/2007	ND<2	ND<2
			11/15/2007	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.21 U	ND<0.21 U
			11/16/2009	ND<0.21 U	ND<0.21 U
			6/30/2010	ND<0.21 U	ND<0.21 U
			11/17/2010	ND<0.21 U	ND<0.21 U
			7/6/2011	ND<0.21 U	ND<0.21 U
			11/22/2011	ND<0.21 U	ND<0.21 U
			5/16/2012	ND<0.21 U	ND<0.21 U

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-10	19	16 (84.2105%)	3/14/2000	ND<2	ND<2
			9/23/2003	ND<2	ND<2
			3/10/2004	ND<2	ND<2
			10/12/2004	ND<2	ND<2
			4/1/2005	ND<2	ND<2
			10/26/2005	ND<2	ND<2
			6/19/2006	ND<2	ND<2
			11/18/2006	ND<2	ND<2
			6/2/2007	ND<2	ND<2
			11/15/2007	ND<2	ND<2
			5/20/2008	ND<2	ND<2
			11/20/2008	ND<2	ND<2
			6/11/2009	ND<0.21 U	ND<0.21 U
			11/16/2009	ND<0.21 U	ND<0.21 U
			6/30/2010	ND<0.21 U	ND<0.21 U
			11/17/2010	ND<0.21 U	ND<0.21 U
			7/6/2011	2.8	2.8
			11/22/2011	3.1	3.1
			5/16/2012	4.3	4.3
LMW-6	22	8 (36.3636%)	1/16/1998	ND<2	ND<2

			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/14/2000	ND<2	ND<2	
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	1 J	1 J	
			6/19/2006	2	2	
			11/18/2006	2	2	
			6/2/2007	2	2	
			11/15/2007	4	4	
			5/20/2008	2	2	
			11/20/2008	2	2	
			6/11/2009	3.2	3.2	
			11/16/2009	2.6	2.6	
			6/30/2010	3.2	3.2	
			11/17/2010	6	6	
			7/6/2011	5.6	5.6	
			11/22/2011	3	3	
			5/16/2012	3.2	3.2	
LMW-3s	1	1 (100%)	5/16/2012	ND<0.21 U	ND<0.21 U	
LMW-3	24	24 (100%)	11/19/1996	ND<2	ND<2	
			3/24/1997	ND<2	ND<2	
			1/16/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/14/2000	ND<2	ND<2	
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21 U	ND<0.21 U	
			11/16/2009	ND<0.21 U	ND<0.21 U	
			6/30/2010	ND<0.21 U	ND<0.21 U	
			11/17/2010	ND<0.21 U	ND<0.21 U	
			7/6/2011	ND<0.21 U	ND<0.21 U	
			11/22/2011	ND<0.21 U	ND<0.21 U	
			5/16/2012	ND<0.21 U	ND<0.21 U	
LMW-16	12	9 (75%)	11/18/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	2	2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21 U	ND<0.21 U	
			11/16/2009	ND<0.21 U	ND<0.21 U	
			6/30/2010	ND<0.21 U	ND<0.21 U	
			11/17/2010	0.31 J	0.31 J	
			7/6/2011	ND<0.21 U	ND<0.21 U	
			11/22/2011	0.25 J	0.25 J	
			5/16/2012	ND<0.21 U	ND<0.21 U	

LMW-15R	14	11 (78.5714%)	11/18/2006	ND<2	ND<2
		6/2/2007	ND<2	ND<2	
		11/15/2007	ND<2	ND<2	
		11/15/2007	ND<2	ND<2	
		5/20/2008	ND<2	ND<2	
		5/20/2008	ND<2	ND<2	
		11/20/2008	ND<2	ND<2	
		11/20/2008	ND<2	ND<2	
		6/11/2009	0.24 J	0.24 J	
		6/30/2010	ND<0.21 U	ND<0.21 U	
		11/17/2010	ND<0.21 U	ND<0.21 U	
		7/6/2011	0.32 J	0.32 J	
		11/22/2011	ND<0.21 U	ND<0.21 U	
		5/16/2012	0.24 J	0.24 J	
LMW-14R	10	10 (100%)	6/2/2007	ND<2	ND<2
		11/15/2007	ND<2	ND<2	
		5/20/2008	ND<2	ND<2	
		11/20/2008	ND<2	ND<2	
		6/11/2009	ND<0.21 U	ND<0.21 U	
		6/30/2010	ND<0.21 U	ND<0.21 U	
		11/17/2010	ND<0.21 U	ND<0.21 U	
		7/6/2011	ND<0.21 U	ND<0.21 U	
		11/22/2011	ND<0.21 U	ND<0.21 U	
		5/16/2012	ND<0.21 U	ND<0.21 U	
LMW-9	22	21 (95.4545%)	1/16/1998	ND<2	ND<2
		3/16/1999	ND<2	ND<2	
		9/23/1999	ND<2	ND<2	
		3/14/2000	ND<2	ND<2	
		9/23/2003	ND<2	ND<2	
		3/10/2004	ND<2	ND<2	
		10/12/2004	ND<2	ND<2	
		4/1/2005	ND<2	ND<2	
		10/26/2005	ND<2	ND<2	
		6/19/2006	ND<2	ND<2	
		11/18/2006	ND<2	ND<2	
		6/2/2007	ND<2	ND<2	
		11/15/2007	ND<2	ND<2	
		5/20/2008	ND<2	ND<2	
		11/20/2008	ND<2	ND<2	
		6/11/2009	0.28 J	0.28 J	
		11/16/2009	ND<0.21 U	ND<0.21 U	
		6/30/2010	ND<0.21 U	ND<0.21 U	
		11/17/2010	ND<0.21 U	ND<0.21 U	
		7/6/2011	ND<0.21 U	ND<0.21 U	
		11/22/2011	ND<0.21 U	ND<0.21 U	
		5/16/2012	ND<0.21 U	ND<0.21 U	
LMW-9D	12	10 (83.3333%)	11/18/2006	ND<2	ND<2
		6/2/2007	ND<2	ND<2	
		11/15/2007	4	4	
		5/20/2008	ND<2	ND<2	
		11/20/2008	ND<2	ND<2	
		6/11/2009	ND<0.21 U	ND<0.21 U	
		11/16/2009	ND<0.21 U	ND<0.21 U	
		6/30/2010	ND<0.21 U	ND<0.21 U	
		11/17/2010	ND<0.21 U	ND<0.21 U	
		7/6/2011	0.49 J	0.49 J	
		11/22/2011	ND<0.21 U	ND<0.21 U	
		5/16/2012	ND<0.21 U	ND<0.21 U	

LMW-9S	14	10 (71.4286%)	11/18/2006	4	4	
			6/2/2007	4	4	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21 U		ND<0.21 U
			11/16/2009	ND<0.21 U		ND<0.21 U
			11/16/2009	ND<0.21 U		ND<0.21 U
			11/16/2009	ND<0.21 U		ND<0.21 U
			6/30/2010	ND<0.21 U		ND<0.21 U
			11/17/2010	0.26 J	0.26 J	
			7/6/2011	0.38 J	0.38 J	
			11/22/2011	ND<0.21 U		ND<0.21 U
			5/16/2012	ND<0.21 U		ND<0.21 U
LMW-8	22	11 (50%)	1/16/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/14/2000	ND<2	ND<2	
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	3	3	
			10/26/2005	1 J	1 J	
			6/19/2006	1 J	1 J	
			11/18/2006	1 J	1 J	
			6/2/2007	1 J	1 J	
			11/15/2007	3	3	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	0.64	0.64	
			11/16/2009	0.59	0.59	
			6/30/2010	0.33 J	0.33 J	
			11/17/2010	0.66	0.66	
			7/6/2011	ND<0.21 U	ND<0.21 U	
			11/22/2011	0.22 J	0.22 J	
			5/16/2012	ND<0.21 U		ND<0.21 U
LMW-7	20	18 (90%)	1/16/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/14/2000	ND<2	ND<2	
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			11/18/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21 U		ND<0.21 U
			11/17/2010	ND<0.21 U		ND<0.21 U
			7/6/2011	0.3 J	0.3 J	
			11/22/2011	0.86	0.86	
			5/16/2012	ND<0.21 U		ND<0.21 U
LMW-3S	11	11 (100%)	11/18/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	

			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
			6/11/2009	ND<0.21 U		ND<0.21 U
			11/16/2009	ND<0.21 U		ND<0.21 U
			6/30/2010	ND<0.21 U		ND<0.21 U
			11/17/2010	ND<0.21 U		ND<0.21 U
			7/6/2011	ND<0.21 U	ND<0.21 U	
			11/22/2011	ND<0.21 U		ND<0.21 U
LMW-13	11	11 (100%)	3/14/2000	ND<2	ND<2	
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
LMW-11	11	11 (100%)	3/14/2000	ND<2	ND<2	
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
MW-5	13	13 (100%)	1/16/1998	ND<2	ND<2	
			3/16/1999	ND<2	ND<2	
			9/23/1999	ND<2	ND<2	
			3/14/2000	ND<2	ND<2	
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	
LMW-12	11	11 (100%)	3/14/2000	ND<2	ND<2	
			9/23/2003	ND<2	ND<2	
			3/10/2004	ND<2	ND<2	
			10/12/2004	ND<2	ND<2	
			4/1/2005	ND<2	ND<2	
			10/26/2005	ND<2	ND<2	
			6/19/2006	ND<2	ND<2	
			6/2/2007	ND<2	ND<2	
			11/15/2007	ND<2	ND<2	
			5/20/2008	ND<2	ND<2	
			11/20/2008	ND<2	ND<2	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.105	-2.747777	.55021	-0.288515
2	0.105	-2.457271	3.5884	-0.546529
3	0.105	-2.290361	8.8342	-0.787017
4	0.105	-2.197282	3.6622	-1.01773
5	0.105	-2.096932	8.0593	-1.23791
6	0.105	-2.014093	2.1159	-1.44939
7	0.105	-1.959963	5.9574	-1.65519
8	0.105	-1.8957	39.551	-1.85423
9	0.105	-1.838434	2.9308	-2.04727
10	0.105	-1.799124	6.1677	-2.23618
11	0.105	-1.750694	9.2326	-2.42
12	0.105	-1.706045	2.1431	-2.59913
13	0.105	-1.674665	4.9476	-2.77497
14	0.105	-1.635245	7.6216	-2.94667
15	0.105	-1.598196	0.1758	-3.11448
16	0.105	-1.571796	2.6464	-3.27952
17	0.105	-1.5382	65.0124	-3.44103
18	0.105	-1.506267	7.2812	-3.59919
19	0.105	-1.483286	9.4814	-3.75493
20	0.105	-1.4538	71.5949	-3.90758
21	0.105	-1.425547	3.6271	-4.05726
22	0.105	-1.405077	5.6013	-4.2048
23	0.105	-1.378677	7.502	-4.34956
24	0.105	-1.353177	9.3331	-4.49164
25	0.105	-1.334628	1.1143	-4.63177
26	0.105	-1.310588	2.8319	-4.76939
27	0.105	-1.287278	4.489	-4.90455
28	0.105	-1.270248	6.1025	-5.03792
29	0.105	-1.248098	7.6602	-5.16897
30	0.105	-1.226538	9.1646	-5.29776
31	0.105	-1.210739	0.6305	-5.42488
32	0.105	-1.190129	2.0469	-5.54985
33	0.105	-1.17	93.4158	-5.6727
34	0.105	-1.150359	4.7391	-5.79348
35	0.105	-1.1359	96.0293	-5.91275
36	0.105	-1.116999	7.277	-6.03004
37	0.105	-1.098479	8.4836	-6.14538
38	0.105	-1.084829	9.6605	-6.25928
39	0.105	-1.066941	00.799	-6.37131
40	0.105	-1.049391	01.9	-6.4815
41	0.105	-1.036431	02.974	-6.59032
42	0.105	-1.019431	04.013	-6.69736
43	0.105	-1.002711	05.019	-6.80265
44	0.105	-0.990356	106	-6.90663
45	0.105	-0.974114	106.949	-7.00892
46	0.105	-0.958125	107.867	-7.10952
47	0.105	-0.946291	108.762	-7.20888
48	0.105	-0.930718	109.628	-7.3066
49	0.105	-0.915365	110.466	-7.40272
50	0.105	-0.903992	111.283	-7.49764
51	0.105	-0.889006	112.074	-7.59098

52	0.105	-0.874218	112.838	-7.68278
53	0.105	-0.863249	113.583	-7.77342
54	0.105	-0.848786	114.304	-7.86254
55	0.105	-0.834498	115	-7.95016
56	0.105	-0.823893	115.679	-8.03667
57	0.105	-0.809896	116.335	-8.12171
58	0.105	-0.796056	116.968	-8.2053
59	0.105	-0.785774	117.586	-8.2878
60	0.105	-0.772193	118.182	-8.36888
61	0.105	-0.758753	118.758	-8.44855
62	0.105	-0.748762	119.318	-8.52717
63	0.105	-0.735557	119.86	-8.6044
64	0.22	-0.722479	120.382	-8.76335
65	0.24	-0.712751	120.89	-8.93441
66	0.24	-0.699883	121.379	-9.10238
67	0.25	-0.687131	121.852	-9.27416
68	0.26	-0.67449	122.306	-9.44953
69	0.28	-0.665079	122.749	-9.63575
70	0.3	-0.652622	123.175	-9.83154
71	0.31	-0.640266	123.585	-10.03
72	0.32	-0.631062	123.983	-10.232
73	0.33	-0.618872	124.366	-10.4362
74	0.38	-0.606775	124.734	-10.6668
75	0.49	-0.597761	125.091	-10.9597
76	0.59	-0.585815	125.435	-11.3053
77	0.64	-0.573953	125.764	-11.6726
78	0.66	-0.565108	126.083	-12.0456
79	0.86	-0.553384	126.39	-12.5215
80	1	-0.541736	126.683	-13.0632
81	1	-0.533048	126.967	-13.5963
82	1	-0.521527	127.239	-14.1178
83	1	-0.510074	127.499	-14.6279
84	1	-0.501527	127.751	-15.1294
85	1	-0.490189	127.991	-15.6196
86	1	-0.478914	128.221	-16.0985
87	1	-0.470498	128.442	-16.569
88	1	-0.459327	128.653	-17.0283
89	1	-0.448213	128.854	-17.4766
90	1	-0.439913	129.047	-17.9165
91	1	-0.428895	129.231	-18.3454
92	1	-0.417928	129.406	-18.7633
93	1	-0.409735	129.574	-19.173
94	1	-0.398855	129.733	-19.5719
95	1	-0.388022	129.883	-19.9599
96	1	-0.379927	130.028	-20.3398
97	1	-0.369171	130.164	-20.709
98	1	-0.358459	130.293	-21.0675
99	1	-0.350451	130.415	-21.4179
100	1	-0.33981	130.531	-21.7577
101	1	-0.329206	130.639	-22.0869
102	1	-0.318639	130.741	-22.4056
103	1	-0.310738	130.837	-22.7163
104	1	-0.300232	130.927	-23.0165
105	1	-0.28976	131.011	-23.3063
106	1	-0.281926	131.091	-23.5882
107	1	-0.271509	131.165	-23.8597
108	1	-0.26112	131.233	-24.1209
109	1	-0.253347	131.297	-24.3742
110	1	-0.243007	131.356	-24.6172
111	1	-0.232693	131.41	-24.8499
112	1	-0.224974	131.461	-25.0749
113	1	-0.214702	131.507	-25.2896

114	1	-0.204452	131.549	-25.494
115	1	-0.196779	131.587	-25.6908
116	1	-0.186567	131.622	-25.8774
117	1	-0.176374	131.653	-26.0538
118	1	-0.168741	131.682	-26.2225
119	1	-0.158579	131.707	-26.3811
120	1	-0.148434	131.729	-26.5295
121	1	-0.140835	131.749	-26.6703
122	1	-0.130716	131.766	-26.8011
123	1	-0.12061	131.78	-26.9217
124	1	-0.113039	131.793	-27.0347
125	1	-0.102953	131.804	-27.1377
126	1	-0.0928787	131.812	-27.2305
127	1	-0.0853288	131.82	-27.3159
128	1	-0.0752698	131.825	-27.3911
129	1	-0.0652187	131.83	-27.4564
130	1	-0.0576847	131.833	-27.514
131	1	-0.0476439	131.835	-27.5617
132	1	-0.0376076	131.837	-27.5993
133	1	-0.0300838	131.838	-27.6294
134	1	-0.0200544	131.838	-27.6494
135	1	-0.0100272	131.838	-27.6595
136	1	0	131.838	-27.6595
137	1	0.0100272	131.838	-27.6494
138	1	0.0200544	131.839	-27.6294
139	1	0.0300838	131.839	-27.5993
140	1	0.0376076	131.841	-27.5617
141	1	0.0476439	131.843	-27.514
142	1	0.0576847	131.846	-27.4564
143	1	0.0652187	131.851	-27.3911
144	1	0.0752698	131.856	-27.3159
145	1	0.0853288	131.864	-27.2305
146	1	0.0928787	131.872	-27.1377
147	1	0.102953	131.883	-27.0347
148	1	0.113039	131.896	-26.9217
149	1	0.12061	131.91	-26.8011
150	1	0.130716	131.927	-26.6703
151	1	0.140835	131.947	-26.5295
152	1	0.148434	131.969	-26.3811
153	1	0.158579	131.994	-26.2225
154	1	0.168741	132.023	-26.0538
155	1	0.176374	132.054	-25.8774
156	1	0.186567	132.089	-25.6908
157	1	0.196779	132.127	-25.494
158	1	0.204452	132.169	-25.2896
159	1	0.214702	132.215	-25.0749
160	1	0.224974	132.266	-24.8499
161	1	0.232693	132.32	-24.6172
162	1	0.243007	132.379	-24.3742
163	1	0.253347	132.443	-24.1209
164	1	0.26112	132.512	-23.8597
165	1	0.271509	132.585	-23.5882
166	1	0.281926	132.665	-23.3063
167	1	0.28976	132.749	-23.0165
168	1	0.300232	132.839	-22.7163
169	1	0.310738	132.935	-22.4056
170	1	0.318639	133.037	-22.0869
171	1	0.329206	133.145	-21.7577
172	1	0.33981	133.261	-21.4179
173	1	0.350451	133.384	-21.0675
174	1	0.358459	133.512	-20.709
175	1	0.369171	133.648	-20.3398

176	1	0.379927		133.793	-19.9599
177	1	0.388022		133.943	-19.5719
178	1	0.398855		134.102	-19.173
179	1	0.409735		134.27	-18.7633
180	1	0.417928		134.445	-18.3454
181	1	0.428895		134.629	-17.9165
182	1	0.439913		134.822	-17.4766
183	1	0.448213		135.023	-17.0283
184	1	0.459327		135.234	-16.569
185	1	0.470498		135.456	-16.0985
186	1	0.478914		135.685	-15.6196
187	1	0.490189		135.925	-15.1294
188	1	0.501527		136.177	-14.6279
189	1	0.510074		136.437	-14.1178
190	1	0.521527		136.709	-13.5963
191	1	0.533048		136.993	-13.0632
192	1	0.541736		137.287	-12.5215
193	1	0.553384		137.593	-11.9681
194	1	0.565108		137.912	-11.403
195	1	0.573953		138.242	-10.8291
196	1	0.585815		138.585	-10.2433
197	1	0.597761		138.942	-9.64549
198	1	0.606775		139.31	-9.03872
199	1	0.618872		139.693	-8.41984
200	1	0.631062		140.091	-7.78878
201	1	0.640266		140.501	-7.14851
202	1	0.652622		140.927	-6.49589
203	1	0.665079		141.37	-5.83081
204	1	0.67449	141.825	-5.15632	
205	1	0.687131		142.297	-4.46919
206	1	0.699883		142.787	-3.76931
207	1	0.712751		143.295	-3.05656
208	1	0.722479		143.817	-2.33408
209	1	0.735557		144.358	-1.59852
210	1	0.748762		144.918	-0.84976
211	1	0.758753		145.494	-0.0910074
212	1	0.772193		146.09	0.681185
213	1	0.785774		146.708	1.46696
214	1	0.796056		147.341	2.26302
215	1	0.809896		147.997	3.07291
216	1	0.823893		148.676	3.8968
217	1	0.834498		149.373	4.7313
218	1	0.848786		150.093	5.58009
219	1	0.863249		150.838	6.44334
220	1	0.874218		151.602	7.31755
221	1	0.889006		152.393	8.20656
222	1	0.903992		153.21	9.11055
223	1	0.915365		154.048	10.0259
224	1	0.930718		154.914	10.9566
225	1	0.946291		155.81	11.9029
226	1	0.958125		156.728	12.8611
227	1	0.974114		157.676	13.8352
228	1	0.990356		158.657	14.8255
229	1	1.00271	159.663	15.8282	
230	1	1.01943	160.702	16.8477	
231	1	1.03643	161.776	17.8841	
232	1	1.04939	162.877	18.9335	
233	1	1.06694	164.016	20.0004	
234	1	1.08482	165.193	21.0852	
235	1	1.09847	166.399	22.1837	
236	1	1.11699	167.647	23.3007	
237	1	1.1359	168.937	24.4366	

238	1	1.15035	170.26	25.5869
239	1	1.17	171.629	26.7569
240	1	1.19012	173.046	27.9471
241	1	1.21073	174.512	29.1578
242	1	1.22653	176.016	30.3843
243	1	1.24809	177.574	31.6324
244	1	1.27024	179.187	32.9026
245	1	1.28727	180.844	34.1899
246	1	1.31058	182.562	35.5005
247	1	1.33462	184.343	36.8351
248	1	1.35317	186.174	38.1883
249	1	1.37866	188.075	39.5669
250	2	1.40507	190.049	42.3771
251	2	1.42554	192.081	45.2282
252	2	1.4538	194.195	48.1358
253	2	1.48328	196.395	51.1024
254	2	1.50626	198.664	54.1149
255	2	1.5382	201.03	57.1913
256	2.6	1.57179	203.5	61.2779
257	2.8	1.59819	206.054	65.7529
258	3	1.63524	208.728	70.6586
259	3	1.67466	211.533	75.6826
260	3	1.70604	214.444	80.8007
261	3.1	1.75069	217.508	86.2278
262	3.2	1.79912	220.745	91.985
263	3.2	1.83843	224.125	97.8679
264	3.2	1.8957	227.719	103.934
265	4	1.95996	231.56	111.774
266	4	2.01409	235.617	119.83
267	4	2.09693	240.014	128.218
268	4	2.19728	244.842	137.007
269	4.3	2.29036	250.088	146.856
270	5.6	2.45727	256.126	160.617
271	6	2.74777	263.676	177.103

Data Set Standard Deviation = 0.842226
Numerator = 31365.5
Denominator = 50500.1
W Statistic = 0.621098 = 31365.5 / 50500.1

5% Critical value of 0.976 exceeds 0.621098
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.621098
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 = 0.79057
0.79057 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.105	0.00367647		-2.74777	48.3625	348.683
2	0.105	0.00735294		-2.45727	48.3625	334.497
3	0.105	0.0110294		-2.29036	48.3625	326.346
4	0.105	0.0147059		-2.19728	48.3625	321.801
5	0.105	0.0183824		-2.09693	48.3625	316.9
6	0.105	0.0220588		-2.01409	48.3625	312.855
7	0.105	0.0257353		-1.95996	48.3625	310.211
8	0.105	0.0294118		-1.8957	48.3625	307.073
9	0.105	0.0330882		-1.83843	48.3625	304.276
10	0.105	0.0367647		-1.79912	48.3625	302.357
11	0.105	0.0404412		-1.75069	48.3625	299.992
12	0.105	0.0441176		-1.70604	48.3625	297.812
13	0.105	0.0477941		-1.67466	48.3625	296.279
14	0.105	0.0514706		-1.63524	48.3625	294.354
15	0.105	0.0551471		-1.59819	48.3625	292.545
16	0.105	0.0588235		-1.57179	48.3625	291.256
17	0.105	0.0625	-1.5382	48.3625	289.615	
18	0.105	0.0661765		-1.50626	48.3625	288.056
19	0.105	0.0698529		-1.48328	48.3625	286.934
20	0.105	0.0735294		-1.4538	48.3625	285.494
21	0.105	0.0772059		-1.42554	48.3625	284.114
22	0.105	0.0808824		-1.40507	48.3625	283.114
23	0.105	0.0845588		-1.37866	48.3625	281.824
24	0.105	0.0882353		-1.35317	48.3625	280.58
25	0.105	0.0919118		-1.33462	48.3625	279.674
26	0.105	0.0955882		-1.31058	48.3625	278.5
27	0.105	0.0992647		-1.28727	48.3625	277.362
28	0.105	0.102941		-1.27024	48.3625	276.53
29	0.105	0.106618		-1.24809	48.3625	275.448
30	0.105	0.110294		-1.22653	48.3625	274.395
31	0.105	0.113971		-1.21073	48.3625	273.624
32	0.105	0.117647		-1.19012	48.3625	272.617
33	0.105	0.121324		-1.17	48.3625	271.635
34	0.105	0.125	-1.15035	48.3625	270.675	
35	0.105	0.128676		-1.1359	48.3625	269.97
36	0.105	0.132353		-1.11699	48.3625	269.046
37	0.105	0.136029		-1.09847	48.3625	268.142
38	0.105	0.139706		-1.08482	48.3625	267.476
39	0.105	0.143382		-1.06694	48.3625	266.602
40	0.105	0.147059		-1.04939	48.3625	265.745
41	0.105	0.150735		-1.03643	48.3625	265.112
42	0.105	0.154412		-1.01943	48.3625	264.282
43	0.105	0.158088		-1.00271	48.3625	263.466
44	0.105	0.161765		-0.990356	48.3625	262.862
45	0.105	0.165441		-0.974114	48.3625	262.069
46	0.105	0.169118		-0.958125	48.3625	261.288
47	0.105	0.172794		-0.946291	48.3625	260.711
48	0.105	0.176471		-0.930718	48.3625	259.95

49	0.105	0.180147	-0.915365	48.3625	259.2
50	0.105	0.183824	-0.903992	48.3625	258.645
51	0.105	0.1875	-0.889006	48.3625	257.913
52	0.105	0.191176	-0.874218	48.3625	257.191
53	0.105	0.194853	-0.863249	48.3625	256.655
54	0.105	0.198529	-0.848786	48.3625	255.949
55	0.105	0.202206	-0.834498	48.3625	255.251
56	0.105	0.205882	-0.823893	48.3625	254.733
57	0.105	0.209559	-0.809896	48.3625	254.05
58	0.105	0.213235	-0.796056	48.3625	253.374
59	0.105	0.216912	-0.785774	48.3625	252.872
60	0.105	0.220588	-0.772193	48.3625	252.209
61	0.105	0.224265	-0.758753	48.3625	251.552
62	0.105	0.227941	-0.748762	48.3625	251.065
63	0.105	0.231618	-0.735557	48.3625	250.42
64	0.22	0.235294	-0.722479	58.6167	249.781
65	0.24	0.238971	-0.712751	60.4	249.306
66	0.24	0.242647	-0.699883	60.4	248.678
67	0.25	0.246324	-0.687131	61.2917	248.055
68	0.26	0.25	-0.674496	62.1833	247.438
69	0.28	0.253676	-0.665079	63.9667	246.978
70	0.3	0.257353	-0.652622	65.75	246.37
71	0.31	0.261029	-0.640266	66.6417	245.766
72	0.32	0.264706	-0.631062	67.5333	245.317
73	0.33	0.268382	-0.618872	68.425	244.722
74	0.38	0.272059	-0.606775	72.8833	244.131
75	0.49	0.275735	-0.597761	82.6917	243.691
76	0.59	0.279412	-0.585815	91.6083	243.107
77	0.64	0.283088	-0.573953	96.0667	242.528
78	0.66	0.286765	-0.565108	97.85	242.096
79	0.86	0.290441	-0.553384	115.683	241.524
80	1	0.294118	-0.541736	128.167	240.955
81	1	0.297794	-0.533048	128.167	240.531
82	1	0.301471	-0.521527	128.167	239.968
83	1	0.305147	-0.510074	128.167	239.409
84	1	0.308824	-0.501527	128.167	238.991
85	1	0.3125	-0.490189	128.167	238.438
86	1	0.316176	-0.478914	128.167	237.887
87	1	0.319853	-0.470498	128.167	237.476
88	1	0.323529	-0.459327	128.167	236.93
89	1	0.327206	-0.448213	128.167	236.388
90	1	0.330882	-0.439913	128.167	235.982
91	1	0.334559	-0.428895	128.167	235.444
92	1	0.338235	-0.417928	128.167	234.909
93	1	0.341912	-0.409735	128.167	234.509
94	1	0.345588	-0.398855	128.167	233.977
95	1	0.349265	-0.388022	128.167	233.448
96	1	0.352941	-0.379927	128.167	233.053
97	1	0.356618	-0.369171	128.167	232.528
98	1	0.360294	-0.358459	128.167	232.005
99	1	0.363971	-0.350451	128.167	231.614
100	1	0.367647	-0.33981	128.167	231.094
101	1	0.371324	-0.329206	128.167	230.576
102	1	0.375	-0.318639	128.167	230.06
103	1	0.378676	-0.310738	128.167	229.674
104	1	0.382353	-0.300232	128.167	229.161
105	1	0.386029	-0.28976	128.167	228.65
106	1	0.389706	-0.281926	128.167	228.267
107	1	0.393382	-0.271509	128.167	227.759
108	1	0.397059	-0.26112	128.167	227.251
109	1	0.400735	-0.253347	128.167	226.872
110	1	0.404412	-0.243007	128.167	226.367

111	1	0.408088	-0.232693	128.167	225.863
112	1	0.411765	-0.224974	128.167	225.486
113	1	0.415441	-0.214702	128.167	224.985
114	1	0.419118	-0.204452	128.167	224.484
115	1	0.422794	-0.196779	128.167	224.109
116	1	0.426471	-0.186567	128.167	223.611
117	1	0.430147	-0.176374	128.167	223.113
118	1	0.433824	-0.168741	128.167	222.74
119	1	0.4375	-0.158579	128.167	222.244
120	1	0.441176	-0.148434	128.167	221.749
121	1	0.444853	-0.140835	128.167	221.377
122	1	0.448529	-0.130716	128.167	220.883
123	1	0.452206	-0.12061	128.167	220.39
124	1	0.455882	-0.113039	128.167	220.02
125	1	0.459559	-0.102953	128.167	219.528
126	1	0.463235	-0.0928787	128.167	219.036
127	1	0.466912	-0.0853288	128.167	218.667
128	1	0.470588	-0.0752698	128.167	218.176
129	1	0.474265	-0.0652187	128.167	217.685
130	1	0.477941	-0.0576847	128.167	217.317
131	1	0.481618	-0.0476439	128.167	216.827
132	1	0.485294	-0.0376076	128.167	216.337
133	1	0.488971	-0.0300838	128.167	215.969
134	1	0.492647	-0.0200544	128.167	215.479
135	1	0.496324	-0.0100272	128.167	214.99
136	1	0.5	0	128.167	214.5
137	1	0.503676	0.0100272	128.167	214.01
138	1	0.507353	0.0200544	128.167	213.521
139	1	0.511029	0.0300838	128.167	213.031
140	1	0.514706	0.0376076	128.167	212.663
141	1	0.518382	0.0476439	128.167	212.173
142	1	0.522059	0.0576847	128.167	211.683
143	1	0.525735	0.0652187	128.167	211.315
144	1	0.529412	0.0752698	128.167	210.824
145	1	0.533088	0.0853288	128.167	210.333
146	1	0.536765	0.0928787	128.167	209.964
147	1	0.540441	0.102953	128.167	209.472
148	1	0.544118	0.113039	128.167	208.98
149	1	0.547794	0.12061	128.167	208.61
150	1	0.551471	0.130716	128.167	208.117
151	1	0.555147	0.140835	128.167	207.623
152	1	0.558824	0.148434	128.167	207.251
153	1	0.5625	0.158579	128.167	206.756
154	1	0.566176	0.168741	128.167	206.26
155	1	0.569853	0.176374	128.167	205.887
156	1	0.573529	0.186567	128.167	205.389
157	1	0.577206	0.196779	128.167	204.891
158	1	0.580882	0.204452	128.167	204.516
159	1	0.584559	0.214702	128.167	204.015
160	1	0.588235	0.224974	128.167	203.514
161	1	0.591912	0.232693	128.167	203.137
162	1	0.595588	0.243007	128.167	202.633
163	1	0.599265	0.253347	128.167	202.128
164	1	0.602941	0.26112	128.167	201.749
165	1	0.606618	0.271509	128.167	201.241
166	1	0.610294	0.281926	128.167	200.733
167	1	0.613971	0.28976	128.167	200.35
168	1	0.617647	0.300232	128.167	199.839
169	1	0.621324	0.310738	128.167	199.326
170	1	0.625	0.318639	128.167	198.94
171	1	0.628676	0.329206	128.167	198.424
172	1	0.632353	0.33981	128.167	197.906

173	1	0.636029	0.350451	128.167	197.386
174	1	0.639706	0.358459	128.167	196.995
175	1	0.643382	0.369171	128.167	196.472
176	1	0.647059	0.379927	128.167	195.947
177	1	0.650735	0.388022	128.167	195.552
178	1	0.654412	0.398855	128.167	195.023
179	1	0.658088	0.409735	128.167	194.491
180	1	0.661765	0.417928	128.167	194.091
181	1	0.665441	0.428895	128.167	193.556
182	1	0.669118	0.439913	128.167	193.018
183	1	0.672794	0.448213	128.167	192.612
184	1	0.676471	0.459327	128.167	192.07
185	1	0.680147	0.470498	128.167	191.524
186	1	0.683824	0.478914	128.167	191.113
187	1	0.6875	0.490189	128.167	190.562
188	1	0.691176	0.501527	128.167	190.009
189	1	0.694853	0.510074	128.167	189.591
190	1	0.698529	0.521527	128.167	189.032
191	1	0.702206	0.533048	128.167	188.469
192	1	0.705882	0.541736	128.167	188.045
193	1	0.709559	0.553384	128.167	187.476
194	1	0.713235	0.565108	128.167	186.904
195	1	0.716912	0.573953	128.167	186.472
196	1	0.720588	0.585815	128.167	185.893
197	1	0.724265	0.597761	128.167	185.309
198	1	0.727941	0.606775	128.167	184.869
199	1	0.731618	0.618872	128.167	184.278
200	1	0.735294	0.631062	128.167	183.683
201	1	0.738971	0.640266	128.167	183.234
202	1	0.742647	0.652622	128.167	182.63
203	1	0.746324	0.665079	128.167	182.022
204	1	0.75	0.67449	128.167	181.562
205	1	0.753676	0.687131	128.167	180.945
206	1	0.757353	0.699883	128.167	180.322
207	1	0.761029	0.712751	128.167	179.694
208	1	0.764706	0.722479	128.167	179.219
209	1	0.768382	0.735557	128.167	178.58
210	1	0.772059	0.748762	128.167	177.935
211	1	0.775735	0.758753	128.167	177.448
212	1	0.779412	0.772193	128.167	176.791
213	1	0.783088	0.785774	128.167	176.128
214	1	0.786765	0.796056	128.167	175.626
215	1	0.790441	0.809896	128.167	174.95
216	1	0.794118	0.823893	128.167	174.267
217	1	0.797794	0.834498	128.167	173.749
218	1	0.801471	0.848786	128.167	173.051
219	1	0.805147	0.863249	128.167	172.345
220	1	0.808824	0.874218	128.167	171.809
221	1	0.8125	0.889006	128.167	171.087
222	1	0.816176	0.903992	128.167	170.355
223	1	0.819853	0.915365	128.167	169.8
224	1	0.823529	0.930718	128.167	169.05
225	1	0.827206	0.946291	128.167	168.289
226	1	0.830882	0.958125	128.167	167.712
227	1	0.834559	0.974114	128.167	166.931
228	1	0.838235	0.990356	128.167	166.138
229	1	0.841912	1.00271	128.167	165.534
230	1	0.845588	1.01943	128.167	164.718
231	1	0.849265	1.03643	128.167	163.888
232	1	0.852941	1.04939	128.167	163.255
233	1	0.856618	1.06694	128.167	162.398
234	1	0.860294	1.08482	128.167	161.524

235	1	0.863971	1.09847	128.167	160.858
236	1	0.867647	1.11699	128.167	159.954
237	1	0.871324	1.1359	128.167	159.03
238	1	0.875	1.15035	128.167	158.325
239	1	0.878676	1.17	128.167	157.365
240	1	0.882353	1.19012	128.167	156.383
241	1	0.886029	1.21073	128.167	155.376
242	1	0.889706	1.22653	128.167	154.605
243	1	0.893382	1.24809	128.167	153.552
244	1	0.897059	1.27024	128.167	152.47
245	1	0.900735	1.28727	128.167	151.638
246	1	0.904412	1.31058	128.167	150.5
247	1	0.908088	1.33462	128.167	149.326
248	1	0.911765	1.35317	128.167	148.42
249	1	0.915441	1.37866	128.167	147.176
250	2	0.919118	1.40507	217.333	145.886
251	2	0.922794	1.42554	217.333	144.886
252	2	0.926471	1.4538	217.333	143.506
253	2	0.930147	1.48328	217.333	142.066
254	2	0.933824	1.50626	217.333	140.944
255	2	0.9375	1.5382	217.333	139.385
256	2.6	0.941176	1.57179	270.833	137.744
257	2.8	0.944853	1.59819	288.667	136.455
258	3	0.948529	1.63524	306.5	134.646
259	3	0.952206	1.67466	306.5	132.721
260	3	0.955882	1.70604	306.5	131.188
261	3.1	0.959559	1.75069	315.417	129.008
262	3.2	0.963235	1.79912	324.333	126.643
263	3.2	0.966912	1.83843	324.333	124.724
264	3.2	0.970588	1.8957	324.333	121.927
265	4	0.974265	1.95996	395.667	118.789
266	4	0.977941	2.01409	395.667	116.145
267	4	0.981618	2.09693	395.667	112.1
268	4	0.985294	2.19728	395.667	107.199
269	4.3	0.988971	2.29036	422.417	102.654
270	5.6	0.992647	2.45727	538.333	94.5032
271	6	0.996324	2.74777	574	80.3175

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-2.25379	-2.74777	7.55021	6.1929
2	-2.25379	-2.45727	13.5884	11.7311
3	-2.25379	-2.29036	18.8342	16.8931
4	-2.25379	-2.19728	23.6622	21.8453
5	-2.25379	-2.09693	28.0593	26.5714
6	-2.25379	-2.01409	32.1159	31.1107
7	-2.25379	-1.95996	35.9574	35.5281
8	-2.25379	-1.8957	39.551	39.8006
9	-2.25379	-1.83843	42.9308	43.944
10	-2.25379	-1.79912	46.1677	47.9989
11	-2.25379	-1.75069	49.2326	51.9446
12	-2.25379	-1.70604	52.1431	55.7896
13	-2.25379	-1.67466	54.9476	59.564
14	-2.25379	-1.63524	57.6216	63.2495
15	-2.25379	-1.59819	60.1758	66.8515
16	-2.25379	-1.57179	62.6464	70.3939
17	-2.25379	-1.5382	65.0124	73.8607
18	-2.25379	-1.50626	67.2812	77.2555
19	-2.25379	-1.48328	69.4814	80.5985
20	-2.25379	-1.4538	71.5949	83.8751
21	-2.25379	-1.42554	73.6271	87.088
22	-2.25379	-1.40507	75.6013	90.2548
23	-2.25379	-1.37866	77.502	93.362
24	-2.25379	-1.35317	79.3331	96.4117
25	-2.25379	-1.33462	81.1143	99.4197
26	-2.25379	-1.31058	82.8319	102.373
27	-2.25379	-1.28727	84.489	105.275
28	-2.25379	-1.27024	86.1025	108.138
29	-2.25379	-1.24809	87.6602	110.951
30	-2.25379	-1.22653	89.1646	113.715
31	-2.25379	-1.21073	90.6305	116.444
32	-2.25379	-1.19012	92.0469	119.126
33	-2.25379	-1.17	93.4158	121.763
34	-2.25379	-1.15035	94.7391	124.355
35	-2.25379	-1.1359	96.0293	126.916
36	-2.25379	-1.11699	97.277	129.433
37	-2.25379	-1.09847	98.4836	131.909
38	-2.25379	-1.08482	99.6605	134.354
39	-2.25379	-1.06694	100.799	136.758
40	-2.25379	-1.04939	101.9	139.123
41	-2.25379	-1.03643	102.974	141.459
42	-2.25379	-1.01943	104.013	143.757
43	-2.25379	-1.00271	105.019	146.017
44	-2.25379	-0.990356	106	148.249
45	-2.25379	-0.974114	106.949	150.444
46	-2.25379	-0.958125	107.867	152.604
47	-2.25379	-0.946291	108.762	154.737
48	-2.25379	-0.930718	109.628	156.834
49	-2.25379	-0.915365	110.466	158.897
50	-2.25379	-0.903992	111.283	160.935
51	-2.25379	-0.889006	112.074	162.938

52	-2.25379	-0.874218	112.838	164.909
53	-2.25379	-0.863249	113.583	166.854
54	-2.25379	-0.848786	114.304	168.767
55	-2.25379	-0.834498	115	170.648
56	-2.25379	-0.823893	115.679	172.505
57	-2.25379	-0.809896	116.335	174.33
58	-2.25379	-0.796056	116.968	176.124
59	-2.25379	-0.785774	117.586	177.895
60	-2.25379	-0.772193	118.182	179.636
61	-2.25379	-0.758753	118.758	181.346
62	-2.25379	-0.748762	119.318	183.033
63	-2.25379	-0.735557	119.86	184.691
64	-1.51413	-0.722479	120.382	185.785
65	-1.42712	-0.712751	120.89	186.802
66	-1.42712	-0.699883	121.379	187.801
67	-1.38629	-0.687131	121.852	188.754
68	-1.34707	-0.67449	122.306	189.662
69	-1.27297	-0.665079	122.749	190.509
70	-1.20397	-0.652622	123.175	191.295
71	-1.17118	-0.640266	123.585	192.044
72	-1.13943	-0.631062	123.983	192.763
73	-1.10866	-0.618872	124.366	193.45
74	-0.967584	-0.606775	124.734	194.037
75	-0.71335	-0.597761	125.091	194.463
76	-0.527633	-0.585815	125.435	194.772
77	-0.446287	-0.573953	125.764	195.028
78	-0.415515	-0.565108	126.083	195.263
79	-0.150823	-0.553384	126.39	195.347
80	0	-0.541736	126.683	195.347
81	0	-0.533048	126.967	195.347
82	0	-0.521527	127.239	195.347
83	0	-0.510074	127.499	195.347
84	0	-0.501527	127.751	195.347
85	0	-0.490189	127.991	195.347
86	0	-0.478914	128.221	195.347
87	0	-0.470498	128.442	195.347
88	0	-0.459327	128.653	195.347
89	0	-0.448213	128.854	195.347
90	0	-0.439913	129.047	195.347
91	0	-0.428895	129.231	195.347
92	0	-0.417928	129.406	195.347
93	0	-0.409735	129.574	195.347
94	0	-0.398855	129.733	195.347
95	0	-0.388022	129.883	195.347
96	0	-0.379927	130.028	195.347
97	0	-0.369171	130.164	195.347
98	0	-0.358459	130.293	195.347
99	0	-0.350451	130.415	195.347
100	0	-0.33981	130.531	195.347
101	0	-0.329206	130.639	195.347
102	0	-0.318639	130.741	195.347
103	0	-0.310738	130.837	195.347
104	0	-0.300232	130.927	195.347
105	0	-0.28976	131.011	195.347
106	0	-0.281926	131.091	195.347
107	0	-0.271509	131.165	195.347
108	0	-0.26112	131.233	195.347
109	0	-0.253347	131.297	195.347
110	0	-0.243007	131.356	195.347
111	0	-0.232693	131.41	195.347
112	0	-0.224974	131.461	195.347
113	0	-0.214702	131.507	195.347

114	0	-0.204452	131.549	195.347
115	0	-0.196779	131.587	195.347
116	0	-0.186567	131.622	195.347
117	0	-0.176374	131.653	195.347
118	0	-0.168741	131.682	195.347
119	0	-0.158579	131.707	195.347
120	0	-0.148434	131.729	195.347
121	0	-0.140835	131.749	195.347
122	0	-0.130716	131.766	195.347
123	0	-0.12061	131.78	195.347
124	0	-0.113039	131.793	195.347
125	0	-0.102953	131.804	195.347
126	0	-0.0928787	131.812	195.347
127	0	-0.0853288	131.82	195.347
128	0	-0.0752698	131.825	195.347
129	0	-0.0652187	131.83	195.347
130	0	-0.0576847	131.833	195.347
131	0	-0.0476439	131.835	195.347
132	0	-0.0376076	131.837	195.347
133	0	-0.0300838	131.838	195.347
134	0	-0.0200544	131.838	195.347
135	0	-0.0100272	131.838	195.347
136	0	0	131.838	195.347
137	0	0.0100272	131.838	195.347
138	0	0.0200544	131.839	195.347
139	0	0.0300838	131.839	195.347
140	0	0.0376076	131.841	195.347
141	0	0.0476439	131.843	195.347
142	0	0.0576847	131.846	195.347
143	0	0.0652187	131.851	195.347
144	0	0.0752698	131.856	195.347
145	0	0.0853288	131.864	195.347
146	0	0.0928787	131.872	195.347
147	0	0.102953	131.883	195.347
148	0	0.113039	131.896	195.347
149	0	0.12061	131.91	195.347
150	0	0.130716	131.927	195.347
151	0	0.140835	131.947	195.347
152	0	0.148434	131.969	195.347
153	0	0.158579	131.994	195.347
154	0	0.168741	132.023	195.347
155	0	0.176374	132.054	195.347
156	0	0.186567	132.089	195.347
157	0	0.196779	132.127	195.347
158	0	0.204452	132.169	195.347
159	0	0.214702	132.215	195.347
160	0	0.224974	132.266	195.347
161	0	0.232693	132.32	195.347
162	0	0.243007	132.379	195.347
163	0	0.253347	132.443	195.347
164	0	0.26112	132.512	195.347
165	0	0.271509	132.585	195.347
166	0	0.281926	132.665	195.347
167	0	0.28976	132.749	195.347
168	0	0.300232	132.839	195.347
169	0	0.310738	132.935	195.347
170	0	0.318639	133.037	195.347
171	0	0.329206	133.145	195.347
172	0	0.33981	133.261	195.347
173	0	0.350451	133.384	195.347
174	0	0.358459	133.512	195.347
175	0	0.369171	133.648	195.347

176	0	0.379927	133.793	195.347
177	0	0.388022	133.943	195.347
178	0	0.398855	134.102	195.347
179	0	0.409735	134.27	195.347
180	0	0.417928	134.445	195.347
181	0	0.428895	134.629	195.347
182	0	0.439913	134.822	195.347
183	0	0.448213	135.023	195.347
184	0	0.459327	135.234	195.347
185	0	0.470498	135.456	195.347
186	0	0.478914	135.685	195.347
187	0	0.490189	135.925	195.347
188	0	0.501527	136.177	195.347
189	0	0.510074	136.437	195.347
190	0	0.521527	136.709	195.347
191	0	0.533048	136.993	195.347
192	0	0.541736	137.287	195.347
193	0	0.553384	137.593	195.347
194	0	0.565108	137.912	195.347
195	0	0.573953	138.242	195.347
196	0	0.585815	138.585	195.347
197	0	0.597761	138.942	195.347
198	0	0.606775	139.31	195.347
199	0	0.618872	139.693	195.347
200	0	0.631062	140.091	195.347
201	0	0.640266	140.501	195.347
202	0	0.652622	140.927	195.347
203	0	0.665079	141.37	195.347
204	0	0.67449	141.825	195.347
205	0	0.687131	142.297	195.347
206	0	0.699883	142.787	195.347
207	0	0.712751	143.295	195.347
208	0	0.722479	143.817	195.347
209	0	0.735557	144.358	195.347
210	0	0.748762	144.918	195.347
211	0	0.758753	145.494	195.347
212	0	0.772193	146.09	195.347
213	0	0.785774	146.708	195.347
214	0	0.796056	147.341	195.347
215	0	0.809896	147.997	195.347
216	0	0.823893	148.676	195.347
217	0	0.834498	149.373	195.347
218	0	0.848786	150.093	195.347
219	0	0.863249	150.838	195.347
220	0	0.874218	151.602	195.347
221	0	0.889006	152.393	195.347
222	0	0.903992	153.21	195.347
223	0	0.915365	154.048	195.347
224	0	0.930718	154.914	195.347
225	0	0.946291	155.81	195.347
226	0	0.958125	156.728	195.347
227	0	0.974114	157.676	195.347
228	0	0.990356	158.657	195.347
229	0	1.00271	159.663	195.347
230	0	1.01943	160.702	195.347
231	0	1.03643	161.776	195.347
232	0	1.04939	162.877	195.347
233	0	1.06694	164.016	195.347
234	0	1.08482	165.193	195.347
235	0	1.09847	166.399	195.347
236	0	1.11699	167.647	195.347
237	0	1.1359	168.937	195.347

238	0	1.15035	170.26	195.347	
239	0	1.17	171.629	195.347	
240	0	1.19012	173.046	195.347	
241	0	1.21073	174.512	195.347	
242	0	1.22653	176.016	195.347	
243	0	1.24809	177.574	195.347	
244	0	1.27024	179.187	195.347	
245	0	1.28727	180.844	195.347	
246	0	1.31058	182.562	195.347	
247	0	1.33462	184.343	195.347	
248	0	1.35317	186.174	195.347	
249	0	1.37866	188.075	195.347	
250	0.693147		1.40507	190.049	196.321
251	0.693147		1.42554	192.081	197.309
252	0.693147		1.4538	194.195	198.316
253	0.693147		1.48328	196.395	199.344
254	0.693147		1.50626	198.664	200.389
255	0.693147		1.5382	201.03	201.455
256	0.955511		1.57179	203.5	202.957
257	1.02962	1.59819	206.054	204.602	
258	1.09861	1.63524	208.728	206.399	
259	1.09861	1.67466	211.533	208.238	
260	1.09861	1.70604	214.444	210.113	
261	1.1314	1.75069	217.508	212.093	
262	1.16315	1.79912	220.745	214.186	
263	1.16315	1.83843	224.125	216.324	
264	1.16315	1.8957	227.719	218.529	
265	1.38629	1.95996	231.56	221.246	
266	1.38629	2.01409	235.617	224.039	
267	1.38629	2.09693	240.014	226.946	
268	1.38629	2.19728	244.842	229.992	
269	1.45862	2.29036	250.088	233.332	
270	1.72277	2.45727	256.126	237.566	
271	1.79176	2.74777	263.676	242.489	

Data Set Standard Deviation = 1.05956
Numerator = 58800.9
Denominator = 79925.6
W Statistic = 0.735696 = 58800.9 / 79925.6

5% Critical value of 0.976 exceeds 0.735696
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.735696
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 = 0.857049
0.857049 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.25379	0.00367647	-2.74777	118.844	348.683
2	-2.25379	0.00735294	-2.45727	118.844	334.497
3	-2.25379	0.0110294	-2.29036	118.844	326.346
4	-2.25379	0.0147059	-2.19728	118.844	321.801
5	-2.25379	0.0183824	-2.09693	118.844	316.9
6	-2.25379	0.0220588	-2.01409	118.844	312.855
7	-2.25379	0.0257353	-1.95996	118.844	310.211
8	-2.25379	0.0294118	-1.8957	118.844	307.073
9	-2.25379	0.0330882	-1.83843	118.844	304.276
10	-2.25379	0.0367647	-1.79912	118.844	302.357
11	-2.25379	0.0404412	-1.75069	118.844	299.992
12	-2.25379	0.0441176	-1.70604	118.844	297.812
13	-2.25379	0.0477941	-1.67466	118.844	296.279
14	-2.25379	0.0514706	-1.63524	118.844	294.354
15	-2.25379	0.0551471	-1.59819	118.844	292.545
16	-2.25379	0.0588235	-1.57179	118.844	291.256
17	-2.25379	0.0625	-1.5382	118.844	289.615
18	-2.25379	0.0661765	-1.50626	118.844	288.056
19	-2.25379	0.0698529	-1.48328	118.844	286.934
20	-2.25379	0.0735294	-1.4538	118.844	285.494
21	-2.25379	0.0772059	-1.42554	118.844	284.114
22	-2.25379	0.0808824	-1.40507	118.844	283.114
23	-2.25379	0.0845588	-1.37866	118.844	281.824
24	-2.25379	0.0882353	-1.35317	118.844	280.58
25	-2.25379	0.0919118	-1.33462	118.844	279.674
26	-2.25379	0.0955882	-1.31058	118.844	278.5
27	-2.25379	0.0992647	-1.28727	118.844	277.362
28	-2.25379	0.102941	-1.27024	118.844	276.53
29	-2.25379	0.106618	-1.24809	118.844	275.448
30	-2.25379	0.110294	-1.22653	118.844	274.395
31	-2.25379	0.113971	-1.21073	118.844	273.624
32	-2.25379	0.117647	-1.19012	118.844	272.617
33	-2.25379	0.121324	-1.17	118.844	271.635
34	-2.25379	0.125	-1.15035	118.844	270.675
35	-2.25379	0.128676	-1.1359	118.844	269.97
36	-2.25379	0.132353	-1.11699	118.844	269.046
37	-2.25379	0.136029	-1.09847	118.844	268.142
38	-2.25379	0.139706	-1.08482	118.844	267.476
39	-2.25379	0.143382	-1.06694	118.844	266.602
40	-2.25379	0.147059	-1.04939	118.844	265.745
41	-2.25379	0.150735	-1.03643	118.844	265.112
42	-2.25379	0.154412	-1.01943	118.844	264.282
43	-2.25379	0.158088	-1.00271	118.844	263.466
44	-2.25379	0.161765	-0.990356	118.844	262.862
45	-2.25379	0.165441	-0.974114	118.844	262.069
46	-2.25379	0.169118	-0.958125	118.844	261.288
47	-2.25379	0.172794	-0.946291	118.844	260.711
48	-2.25379	0.176471	-0.930718	118.844	259.95

49	-2.25379	0.180147	-0.915365	118.844	259.2
50	-2.25379	0.183824	-0.903992	118.844	258.645
51	-2.25379	0.1875	-0.889006	118.844	257.913
52	-2.25379	0.191176	-0.874218	118.844	257.191
53	-2.25379	0.194853	-0.863249	118.844	256.655
54	-2.25379	0.198529	-0.848786	118.844	255.949
55	-2.25379	0.202206	-0.834498	118.844	255.251
56	-2.25379	0.205882	-0.823893	118.844	254.733
57	-2.25379	0.209559	-0.809896	118.844	254.05
58	-2.25379	0.213235	-0.796056	118.844	253.374
59	-2.25379	0.216912	-0.785774	118.844	252.872
60	-2.25379	0.220588	-0.772193	118.844	252.209
61	-2.25379	0.224265	-0.758753	118.844	251.552
62	-2.25379	0.227941	-0.748762	118.844	251.065
63	-2.25379	0.231618	-0.735557	118.844	250.42
64	-1.51413	0.235294	-0.722479	197.988	249.781
65	-1.42712	0.238971	-0.712751	207.299	249.306
66	-1.42712	0.242647	-0.699883	207.299	248.678
67	-1.38629	0.246324	-0.687131	211.667	248.055
68	-1.34707	0.25	-0.67449	215.863	247.438
69	-1.27297	0.253676	-0.665079	223.793	246.978
70	-1.20397	0.257353	-0.652622	231.175	246.37
71	-1.17118	0.261029	-0.640266	234.683	245.766
72	-1.13943	0.264706	-0.631062	238.081	245.317
73	-1.10866	0.268382	-0.618872	241.373	244.722
74	-0.967584	0.272059	-0.606775	256.469	244.131
75	-0.71335	0.275735	-0.597761	283.672	243.691
76	-0.527633	0.279412	-0.585815	303.543	243.107
77	-0.446287	0.283088	-0.573953	312.247	242.528
78	-0.415515	0.286765	-0.565108	315.54	242.096
79	-0.150823	0.290441	-0.553384	343.862	241.524
80	0	0.294118	-0.541736	360	240.955
81	0	0.297794	-0.533048	360	240.531
82	0	0.301471	-0.521527	360	239.968
83	0	0.305147	-0.510074	360	239.409
84	0	0.308824	-0.501527	360	238.991
85	0	0.3125	-0.490189	360	238.438
86	0	0.316176	-0.478914	360	237.887
87	0	0.319853	-0.470498	360	237.476
88	0	0.323529	-0.459327	360	236.93
89	0	0.327206	-0.448213	360	236.388
90	0	0.330882	-0.439913	360	235.982
91	0	0.334559	-0.428895	360	235.444
92	0	0.338235	-0.417928	360	234.909
93	0	0.341912	-0.409735	360	234.509
94	0	0.345588	-0.398855	360	233.977
95	0	0.349265	-0.388022	360	233.448
96	0	0.352941	-0.379927	360	233.053
97	0	0.356618	-0.369171	360	232.528
98	0	0.360294	-0.358459	360	232.005
99	0	0.363971	-0.350451	360	231.614
100	0	0.367647	-0.33981	360	231.094
101	0	0.371324	-0.329206	360	230.576
102	0	0.375	-0.318639	360	230.06
103	0	0.378676	-0.310738	360	229.674
104	0	0.382353	-0.300232	360	229.161
105	0	0.386029	-0.28976	360	228.65
106	0	0.389706	-0.281926	360	228.267
107	0	0.393382	-0.271509	360	227.759
108	0	0.397059	-0.26112	360	227.251
109	0	0.400735	-0.253347	360	226.872
110	0	0.404412	-0.243007	360	226.367

111	0	0.408088	-0.232693	360	225.863
112	0	0.411765	-0.224974	360	225.486
113	0	0.415441	-0.214702	360	224.985
114	0	0.419118	-0.204452	360	224.484
115	0	0.422794	-0.196779	360	224.109
116	0	0.426471	-0.186567	360	223.611
117	0	0.430147	-0.176374	360	223.113
118	0	0.433824	-0.168741	360	222.74
119	0	0.4375	-0.158579	360	222.244
120	0	0.441176	-0.148434	360	221.749
121	0	0.444853	-0.140835	360	221.377
122	0	0.448529	-0.130716	360	220.883
123	0	0.452206	-0.12061	360	220.39
124	0	0.455882	-0.113039	360	220.02
125	0	0.459559	-0.102953	360	219.528
126	0	0.463235	-0.0928787	360	219.036
127	0	0.466912	-0.0853288	360	218.667
128	0	0.470588	-0.0752698	360	218.176
129	0	0.474265	-0.0652187	360	217.685
130	0	0.477941	-0.0576847	360	217.317
131	0	0.481618	-0.0476439	360	216.827
132	0	0.485294	-0.0376076	360	216.337
133	0	0.488971	-0.0300838	360	215.969
134	0	0.492647	-0.0200544	360	215.479
135	0	0.496324	-0.0100272	360	214.99
136	0	0.5	0	360	214.5
137	0	0.503676	0.0100272	360	214.01
138	0	0.507353	0.0200544	360	213.521
139	0	0.511029	0.0300838	360	213.031
140	0	0.514706	0.0376076	360	212.663
141	0	0.518382	0.0476439	360	212.173
142	0	0.522059	0.0576847	360	211.683
143	0	0.525735	0.0652187	360	211.315
144	0	0.529412	0.0752698	360	210.824
145	0	0.533088	0.0853288	360	210.333
146	0	0.536765	0.0928787	360	209.964
147	0	0.540441	0.102953	360	209.472
148	0	0.544118	0.113039	360	208.98
149	0	0.547794	0.12061	360	208.61
150	0	0.551471	0.130716	360	208.117
151	0	0.555147	0.140835	360	207.623
152	0	0.558824	0.148434	360	207.251
153	0	0.5625	0.158579	360	206.756
154	0	0.566176	0.168741	360	206.26
155	0	0.569853	0.176374	360	205.887
156	0	0.573529	0.186567	360	205.389
157	0	0.577206	0.196779	360	204.891
158	0	0.580882	0.204452	360	204.516
159	0	0.584559	0.214702	360	204.015
160	0	0.588235	0.224974	360	203.514
161	0	0.591912	0.232693	360	203.137
162	0	0.595588	0.243007	360	202.633
163	0	0.599265	0.253347	360	202.128
164	0	0.602941	0.26112	360	201.749
165	0	0.606618	0.271509	360	201.241
166	0	0.610294	0.281926	360	200.733
167	0	0.613971	0.28976	360	200.35
168	0	0.617647	0.300232	360	199.839
169	0	0.621324	0.310738	360	199.326
170	0	0.625	0.318639	360	198.94
171	0	0.628676	0.329206	360	198.424
172	0	0.632353	0.33981	360	197.906

173	0	0.636029	0.350451	360	197.386
174	0	0.639706	0.358459	360	196.995
175	0	0.643382	0.369171	360	196.472
176	0	0.647059	0.379927	360	195.947
177	0	0.650735	0.388022	360	195.552
178	0	0.654412	0.398855	360	195.023
179	0	0.658088	0.409735	360	194.491
180	0	0.661765	0.417928	360	194.091
181	0	0.665441	0.428895	360	193.556
182	0	0.669118	0.439913	360	193.018
183	0	0.672794	0.448213	360	192.612
184	0	0.676471	0.459327	360	192.07
185	0	0.680147	0.470498	360	191.524
186	0	0.683824	0.478914	360	191.113
187	0	0.6875	0.490189	360	190.562
188	0	0.691176	0.501527	360	190.009
189	0	0.694853	0.510074	360	189.591
190	0	0.698529	0.521527	360	189.032
191	0	0.702206	0.533048	360	188.469
192	0	0.705882	0.541736	360	188.045
193	0	0.709559	0.553384	360	187.476
194	0	0.713235	0.565108	360	186.904
195	0	0.716912	0.573953	360	186.472
196	0	0.720588	0.585815	360	185.893
197	0	0.724265	0.597761	360	185.309
198	0	0.727941	0.606775	360	184.869
199	0	0.731618	0.618872	360	184.278
200	0	0.735294	0.631062	360	183.683
201	0	0.738971	0.640266	360	183.234
202	0	0.742647	0.652622	360	182.63
203	0	0.746324	0.665079	360	182.022
204	0	0.75	0.67449	360	181.562
205	0	0.753676	0.687131	360	180.945
206	0	0.757353	0.699883	360	180.322
207	0	0.761029	0.712751	360	179.694
208	0	0.764706	0.722479	360	179.219
209	0	0.768382	0.735557	360	178.58
210	0	0.772059	0.748762	360	177.935
211	0	0.775735	0.758753	360	177.448
212	0	0.779412	0.772193	360	176.791
213	0	0.783088	0.785774	360	176.128
214	0	0.786765	0.796056	360	175.626
215	0	0.790441	0.809896	360	174.95
216	0	0.794118	0.823893	360	174.267
217	0	0.797794	0.834498	360	173.749
218	0	0.801471	0.848786	360	173.051
219	0	0.805147	0.863249	360	172.345
220	0	0.808824	0.874218	360	171.809
221	0	0.8125	0.889006	360	171.087
222	0	0.816176	0.903992	360	170.355
223	0	0.819853	0.915365	360	169.8
224	0	0.823529	0.930718	360	169.05
225	0	0.827206	0.946291	360	168.289
226	0	0.830882	0.958125	360	167.712
227	0	0.834559	0.974114	360	166.931
228	0	0.838235	0.990356	360	166.138
229	0	0.841912	1.00271	360	165.534
230	0	0.845588	1.01943	360	164.718
231	0	0.849265	1.03643	360	163.888
232	0	0.852941	1.04939	360	163.255
233	0	0.856618	1.06694	360	162.398
234	0	0.860294	1.08482	360	161.524

235	0	0.863971	1.09847	360	160.858	
236	0	0.867647	1.11699	360	159.954	
237	0	0.871324	1.1359	360	159.03	
238	0	0.875	1.15035	360	158.325	
239	0	0.878676	1.17	360	157.365	
240	0	0.882353	1.19012	360	156.383	
241	0	0.886029	1.21073	360	155.376	
242	0	0.889706	1.22653	360	154.605	
243	0	0.893382	1.24809	360	153.552	
244	0	0.897059	1.27024	360	152.47	
245	0	0.900735	1.28727	360	151.638	
246	0	0.904412	1.31058	360	150.5	
247	0	0.908088	1.33462	360	149.326	
248	0	0.911765	1.35317	360	148.42	
249	0	0.915441	1.37866	360	147.176	
250	0.693147	0.919118	1.40507	434.167	145.886	
251	0.693147	0.922794	1.42554	434.167	144.886	
252	0.693147	0.926471	1.4538	434.167	143.506	
253	0.693147	0.930147	1.48328	434.167	142.066	
254	0.693147	0.933824	1.50626	434.167	140.944	
255	0.693147	0.9375	1.5382	434.167	139.385	
256	0.955511	0.941176	1.57179	462.24	137.744	
257	1.02962	0.944853	1.59819	470.169	136.455	
258	1.09861	0.948529	1.63524	477.552	134.646	
259	1.09861	0.952206	1.67466	477.552	132.721	
260	1.09861	0.955882	1.70604	477.552	131.188	
261	1.1314	0.959559	1.75069	481.06	129.008	
262	1.16315	0.963235	1.79912	484.457	126.643	
263	1.16315	0.966912	1.83843	484.457	124.724	
264	1.16315	0.970588	1.8957	484.457	121.927	
265	1.38629	0.974265	1.95996	508.333	118.789	
266	1.38629	0.977941	2.01409	508.333	116.145	
267	1.38629	0.981618	2.09693	508.333	112.1	
268	1.38629	0.985294	2.19728	508.333	107.199	
269	1.45862	0.988971	2.29036	516.072	102.654	
270	1.72277	0.992647	2.45727	544.336	94.5032	
271	1.79176	0.996324	2.74777	551.718	80.3175	

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
LMW-4	1/16/1998	ND<0	114.5
	3/16/1999	ND<0	114.5
	9/23/1999	ND<0	114.5
	3/14/2000	ND<0	114.5
	9/23/2003	ND<0	114.5
	3/10/2004	ND<0	114.5
	10/12/2004	ND<0	114.5
	4/1/2005	ND<0	114.5
	10/26/2005	ND<0	114.5
	6/19/2006	ND<0	114.5
	11/18/2006	ND<0	114.5
	6/2/2007	ND<0	114.5
	11/15/2007	ND<0	114.5
	5/20/2008	ND<0	114.5
	11/20/2008	ND<0	114.5
	6/11/2009	ND<-2.25379 U	114.5
	11/16/2009	ND<-2.25379 U	114.5
	6/30/2010	ND<-2.25379 U	114.5
	11/17/2010	ND<-2.25379 U	114.5
	7/6/2011	ND<-2.25379 U	114.5
	11/22/2011	ND<-2.25379 U	114.5
	5/16/2012	ND<-2.25379 U	114.5

Rank Sum = 2519
Rank Mean = 114.5

Background Rank Sum = 2519
Background Rank Mean = 114.5

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-10	3/14/2000	ND<0	114.5
	9/23/2003	ND<0	114.5
	3/10/2004	ND<0	114.5
	10/12/2004	ND<0	114.5
	4/1/2005	ND<0	114.5
	10/26/2005	ND<0	114.5
	6/19/2006	ND<0	114.5
	11/18/2006	ND<0	114.5
	6/2/2007	ND<0	114.5
	11/15/2007	ND<0	114.5
	5/20/2008	ND<0	114.5
	11/20/2008	ND<0	114.5
	6/11/2009	ND<-2.25379 U	114.5
	11/16/2009	ND<-2.25379 U	114.5
	6/30/2010	ND<-2.25379 U	114.5
	11/17/2010	ND<-2.25379 U	114.5
	7/6/2011	1.02962	257
	11/22/2011	1.1314	261

	5/16/2012	1.45862		269

Rank Sum = 2619
Rank Mean = 137.842

LMW-6	1/16/1998	ND<0	114.5	
	3/16/1999	ND<0	114.5	
	9/23/1999	ND<0	114.5	
	3/14/2000	ND<0	114.5	
	9/23/2003	ND<0	114.5	
	3/10/2004	ND<0	114.5	
	10/12/2004	ND<0	114.5	
	4/1/2005	ND<0	114.5	
	10/26/2005	0 J	245	
	6/19/2006	0.693147		250
	11/18/2006	0.693147		251
	6/2/2007	0.693147	252	
	11/15/2007	1.38629		265
	5/20/2008	0.693147		253
	11/20/2008	0.693147		254
	6/11/2009	1.16315		262
	11/16/2009	0.955511		256
	6/30/2010	1.16315		263
	11/17/2010	1.79176		271
	7/6/2011	1.72277	270	
	11/22/2011	1.09861		258
	5/16/2012	1.16315		264

Rank Sum = 4530
Rank Mean = 205.909

LMW-3s	5/16/2012	ND<-2.25379 U		114.5

Rank Sum = 114.5
Rank Mean = 114.5

LMW-3	11/19/1996	ND<0	114.5	
	3/24/1997	ND<0	114.5	
	1/16/1998	ND<0	114.5	
	3/16/1999	ND<0	114.5	
	9/23/1999	ND<0	114.5	
	3/14/2000	ND<0	114.5	
	9/23/2003	ND<0	114.5	
	3/10/2004	ND<0	114.5	
	10/12/2004	ND<0	114.5	
	4/1/2005	ND<0	114.5	
	10/26/2005	ND<0	114.5	
	6/19/2006	ND<0	114.5	
	11/18/2006	ND<0	114.5	
	6/2/2007	ND<0	114.5	
	11/15/2007	ND<0	114.5	
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	ND<-2.25379 U		114.5
	11/16/2009	ND<-2.25379 U		114.5
	6/30/2010	ND<-2.25379 U		114.5
	11/17/2010	ND<-2.25379 U		114.5
	7/6/2011	ND<-2.25379 U	114.5	
	11/22/2011	ND<-2.25379 U		114.5
	5/16/2012	ND<-2.25379 U		114.5

Rank Sum = 2748
Rank Mean = 114.5

LMW-16	11/18/2006	ND<0	114.5	
	6/2/2007	ND<0	114.5	

	11/15/2007	0.693147		255
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	ND<-2.25379	U	114.5
	11/16/2009	ND<-2.25379	U	114.5
	6/30/2010	ND<-2.25379	U	114.5
	11/17/2010	-1.17118	J	236
	7/6/2011	ND<-2.25379	U	114.5
	11/22/2011	-1.38629	J	232
	5/16/2012	ND<-2.25379	U	114.5

Rank Sum = 1753.5
Rank Mean = 146.125

LMW-15R	11/18/2006	ND<0		114.5
	6/2/2007	ND<0	114.5	
	11/15/2007	ND<0	114.5	
	11/15/2007	ND<0	114.5	
	5/20/2008	ND<0	114.5	
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	-1.42712	J	230
	6/30/2010	ND<-2.25379	U	114.5
	11/17/2010	ND<-2.25379	U	114.5
	7/6/2011	-1.13943	J	237
	11/22/2011	ND<-2.25379	U	114.5
	5/16/2012	-1.42712	J	231

Rank Sum = 1957.5
Rank Mean = 139.821

LMW-14R	6/2/2007	ND<0	114.5	
	11/15/2007	ND<0	114.5	
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	ND<-2.25379	U	114.5
	6/30/2010	ND<-2.25379	U	114.5
	11/17/2010	ND<-2.25379	U	114.5
	7/6/2011	ND<-2.25379	U	114.5
	11/22/2011	ND<-2.25379	U	114.5
	5/16/2012	ND<-2.25379	U	114.5

Rank Sum = 1145
Rank Mean = 114.5

LMW-9	1/16/1998	ND<0	114.5	
	3/16/1999	ND<0	114.5	
	9/23/1999	ND<0	114.5	
	3/14/2000	ND<0	114.5	
	9/23/2003	ND<0	114.5	
	3/10/2004	ND<0	114.5	
	10/12/2004	ND<0	114.5	
	4/1/2005	ND<0	114.5	
	10/26/2005	ND<0	114.5	
	6/19/2006	ND<0	114.5	
	11/18/2006	ND<0	114.5	
	6/2/2007	ND<0	114.5	
	11/15/2007	ND<0	114.5	
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	-1.27297	J	234
	11/16/2009	ND<-2.25379	U	114.5
	6/30/2010	ND<-2.25379	U	114.5
	11/17/2010	ND<-2.25379	U	114.5

	7/6/2011	ND<-2.25379 U	114.5	
	11/22/2011	ND<-2.25379 U	114.5	
	5/16/2012	ND<-2.25379 U	114.5	

Rank Sum = 2638.5
Rank Mean = 119.932

LMW-9D	11/18/2006	ND<0	114.5	
	6/2/2007	ND<0	114.5	
	11/15/2007	1.38629		266
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	ND<-2.25379 U	114.5	
	11/16/2009	ND<-2.25379 U	114.5	
	6/30/2010	ND<-2.25379 U	114.5	
	11/17/2010	ND<-2.25379 U	114.5	
	7/6/2011	-0.71335 J	240	
	11/22/2011	ND<-2.25379 U	114.5	
	5/16/2012	ND<-2.25379 U	114.5	

Rank Sum = 1651
Rank Mean = 137.583

LMW-9S	11/18/2006	1.38629		267
	6/2/2007	1.38629	268	
	11/15/2007	ND<0	114.5	
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	ND<-2.25379 U	114.5	
	11/16/2009	ND<-2.25379 U	114.5	
	11/16/2009	ND<-2.25379 U	114.5	
	11/16/2009	ND<-2.25379 U	114.5	
	6/30/2010	ND<-2.25379 U	114.5	
	11/17/2010	-1.34707 J		233
	7/6/2011	-0.967584 J	239	
	11/22/2011	ND<-2.25379 U	114.5	
	5/16/2012	ND<-2.25379 U	114.5	

Rank Sum = 2152
Rank Mean = 153.714

LMW-8	1/16/1998	ND<0	114.5	
	3/16/1999	ND<0	114.5	
	9/23/1999	ND<0	114.5	
	3/14/2000	ND<0	114.5	
	9/23/2003	ND<0	114.5	
	3/10/2004	ND<0	114.5	
	10/12/2004	ND<0	114.5	
	4/1/2005	1.09861	259	
	10/26/2005	0 J	246	
	6/19/2006	0 J	247	
	11/18/2006	0 J	248	
	6/2/2007	0 J	249	
	11/15/2007	1.09861		260
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	-0.446287		242
	11/16/2009	-0.527633		241
	6/30/2010	-1.10866 J		238
	11/17/2010	-0.415515		243
	7/6/2011	ND<-2.25379 U	114.5	
	11/22/2011	-1.51413 J		229
	5/16/2012	ND<-2.25379 U	114.5	

Rank Sum = 3961.5
Rank Mean = 180.068

LMW-7	1/16/1998	ND<0	114.5	
	3/16/1999	ND<0	114.5	
	9/23/1999	ND<0	114.5	
	3/14/2000	ND<0	114.5	
	9/23/2003	ND<0	114.5	
	3/10/2004	ND<0	114.5	
	10/12/2004	ND<0	114.5	
	4/1/2005	ND<0	114.5	
	10/26/2005	ND<0	114.5	
	6/19/2006	ND<0	114.5	
	11/18/2006	ND<0	114.5	
	6/2/2007	ND<0	114.5	
	11/15/2007	ND<0	114.5	
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	ND<-2.25379 U		114.5
	11/17/2010	ND<-2.25379 U		114.5
	7/6/2011	-1.20397 J	235	
	11/22/2011	-0.150823		244
	5/16/2012	ND<-2.25379 U		114.5

Rank Sum = 2540
Rank Mean = 127

LMW-3S	11/18/2006	ND<0	114.5	
	6/2/2007	ND<0	114.5	
	11/15/2007	ND<0	114.5	
	5/20/2008	ND<0	114.5	
	11/20/2008	ND<0	114.5	
	6/11/2009	ND<-2.25379 U		114.5
	11/16/2009	ND<-2.25379 U		114.5
	6/30/2010	ND<-2.25379 U		114.5
	11/17/2010	ND<-2.25379 U		114.5
	7/6/2011	ND<-2.25379 U	114.5	
	11/22/2011	ND<-2.25379 U		114.5

Rank Sum = 1259.5
Rank Mean = 114.5

LMW-13	3/14/2000	ND<0	114.5
	9/23/2003	ND<0	114.5
	3/10/2004	ND<0	114.5
	10/12/2004	ND<0	114.5
	4/1/2005	ND<0	114.5
	10/26/2005	ND<0	114.5
	6/19/2006	ND<0	114.5
	6/2/2007	ND<0	114.5
	11/15/2007	ND<0	114.5
	5/20/2008	ND<0	114.5
	11/20/2008	ND<0	114.5

Rank Sum = 1259.5
Rank Mean = 114.5

LMW-11	3/14/2000	ND<0	114.5
	9/23/2003	ND<0	114.5
	3/10/2004	ND<0	114.5
	10/12/2004	ND<0	114.5
	4/1/2005	ND<0	114.5
	10/26/2005	ND<0	114.5
	6/19/2006	ND<0	114.5
	6/2/2007	ND<0	114.5
	11/15/2007	ND<0	114.5
	5/20/2008	ND<0	114.5

	11/20/2008	ND<0	114.5

Rank Sum = 1259.5
Rank Mean = 114.5

MW-5	1/16/1998	ND<0	114.5
	3/16/1999	ND<0	114.5
	9/23/1999	ND<0	114.5
	3/14/2000	ND<0	114.5
	9/23/2003	ND<0	114.5
	3/10/2004	ND<0	114.5
	10/12/2004	ND<0	114.5
	4/1/2005	ND<0	114.5
	10/26/2005	ND<0	114.5
	6/19/2006	ND<0	114.5
	11/15/2007	ND<0	114.5
	5/20/2008	ND<0	114.5
	11/20/2008	ND<0	114.5

Rank Sum = 1488.5
Rank Mean = 114.5

LMW-12	3/14/2000	ND<0	114.5
	9/23/2003	ND<0	114.5
	3/10/2004	ND<0	114.5
	10/12/2004	ND<0	114.5
	4/1/2005	ND<0	114.5
	10/26/2005	ND<0	114.5
	6/19/2006	ND<0	114.5
	6/2/2007	ND<0	114.5
	11/15/2007	ND<0	114.5
	5/20/2008	ND<0	114.5
	11/20/2008	ND<0	114.5

Rank Sum = 1259.5
Rank Mean = 114.5

Calculation Results:

Kruskal-Wallis H Statistic = 35.1905
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 87.0011
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
35.1905 > 27.5871 indicating a significant group difference at 5% significance level
87.0011 > 27.5871 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 114.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-10	**137.842**	**23.3421**	**57.1026**
LMW-6	**205.909**	**91.4091**	**54.9738**
LMW-3s	**114.5**	**0**	**186.425**
LMW-3	**114.5**	**0**	**53.8163**
LMW-16	**146.125**	**31.625**	**65.4319**
LMW-15R	**139.821**	**25.3214**	**62.3344**
LMW-14R	**114.5**	**0**	**69.537**
LMW-9	**119.932**	**5.43182**	**54.9738**
LMW-9D	**137.583**	**23.0833**	**65.4319**
LMW-9S	**153.714**	**39.2143**	**62.3344**
LMW-8	**180.068**	**65.5682**	**54.9738**
LMW-7	**127**	**12.5**	**56.3314**
LMW-3S	**114.5**	**0**	**67.3289**
LMW-13	**114.5**	**0**	**67.3289**

LMW-11	114.5	0	67.3289
MW-5	114.5	0	63.7827
LMW-12	114.5	0	67.3289

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 114.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-10	137.842	23.3421	70.6473
LMW-6	205.909	91.4091	68.0136
LMW-3s	114.5	0	230.645
LMW-3	114.5	0	66.5816
LMW-16	146.125	31.625	80.9524
LMW-15R	139.821	25.3214	77.1202
LMW-14R	114.5	0	86.0311
LMW-9	119.932	5.43182	68.0136
LMW-9D	137.583	23.0833	80.9524
LMW-9S	153.714	39.2143	77.1202
LMW-8	180.068	65.5682	68.0136
LMW-7	127	12.5	69.6932
LMW-3S	114.5	0	83.2993
LMW-13	114.5	0	83.2993
LMW-11	114.5	0	83.2993
MW-5	114.5	0	78.912
LMW-12	114.5	0	83.2993

Mann-Kendall Trend Analysis
Parameter: Selenium
Location: LMW-6
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk		Positives	Negatives
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
0 J	ND<0	0	0	0	
0.693147		ND<0	0.693147	1	0
0.693147		ND<0	0.693147	2	0
0.693147		ND<0	0.693147	3	0
1.38629		ND<0	1.38629	4	0
0.693147		ND<0	0.693147	5	0
0.693147		ND<0	0.693147	6	0
1.16315		ND<0	1.16315	7	0
0.955511		ND<0	0.955511	8	0
1.16315		ND<0	1.16315	9	0
1.79176		ND<0	1.79176	10	0
1.72277		ND<0	1.72277	11	0
1.09861		ND<0	1.09861	12	0
1.16315		ND<0	1.16315	13	0
ND<0	ND<0	0	13	0	
ND<0	ND<0	0	13	0	
ND<0	ND<0	0	13	0	
ND<0	ND<0	0	13	0	
ND<0	ND<0	0	13	0	
ND<0	ND<0	0	13	0	
0 J	ND<0	0	13	0	
0.693147		ND<0	0.693147	14	0
0.693147		ND<0	0.693147	15	0
0.693147		ND<0	0.693147	16	0
1.38629		ND<0	1.38629	17	0
0.693147		ND<0	0.693147	18	0
0.693147		ND<0	0.693147	19	0
1.16315		ND<0	1.16315	20	0
0.955511		ND<0	0.955511	21	0
1.16315		ND<0	1.16315	22	0
1.79176		ND<0	1.79176	23	0
1.72277		ND<0	1.72277	24	0
1.09861		ND<0	1.09861	25	0
1.16315		ND<0	1.16315	26	0
ND<0	ND<0	0	26	0	
ND<0	ND<0	0	26	0	
ND<0	ND<0	0	26	0	
ND<0	ND<0	0	26	0	
ND<0	ND<0	0	26	0	
0 J	ND<0	0	26	0	
0.693147		ND<0	0.693147	27	0

0.693147	ND<0	0.693147	28	0
0.693147	ND<0	0.693147	29	0
1.38629	ND<0	1.38629	30	0
0.693147	ND<0	0.693147	31	0
0.693147	ND<0	0.693147	32	0
1.16315	ND<0	1.16315	33	0
0.955511	ND<0	0.955511	34	0
1.16315	ND<0	1.16315	35	0
1.79176	ND<0	1.79176	36	0
1.72277	ND<0	1.72277	37	0
1.09861	ND<0	1.09861	38	0
1.16315	ND<0	1.16315	39	0

ND<0	ND<0	0	39	0
ND<0	ND<0	0	39	0
ND<0	ND<0	0	39	0
ND<0	ND<0	0	39	0
0 J	ND<0	0	39	0
0.693147	ND<0	0.693147	40	0
0.693147	ND<0	0.693147	41	0
0.693147	ND<0	0.693147	42	0
1.38629	ND<0	1.38629	43	0
0.693147	ND<0	0.693147	44	0
0.693147	ND<0	0.693147	45	0
1.16315	ND<0	1.16315	46	0
0.955511	ND<0	0.955511	47	0
1.16315	ND<0	1.16315	48	0
1.79176	ND<0	1.79176	49	0
1.72277	ND<0	1.72277	50	0
1.09861	ND<0	1.09861	51	0
1.16315	ND<0	1.16315	52	0

ND<0	ND<0	0	52	0
ND<0	ND<0	0	52	0
ND<0	ND<0	0	52	0
0 J	ND<0	0	52	0
0.693147	ND<0	0.693147	53	0
0.693147	ND<0	0.693147	54	0
0.693147	ND<0	0.693147	55	0
1.38629	ND<0	1.38629	56	0
0.693147	ND<0	0.693147	57	0
0.693147	ND<0	0.693147	58	0
1.16315	ND<0	1.16315	59	0
0.955511	ND<0	0.955511	60	0
1.16315	ND<0	1.16315	61	0
1.79176	ND<0	1.79176	62	0
1.72277	ND<0	1.72277	63	0
1.09861	ND<0	1.09861	64	0
1.16315	ND<0	1.16315	65	0

ND<0	ND<0	0	65	0
ND<0	ND<0	0	65	0
0 J	ND<0	0	65	0
0.693147	ND<0	0.693147	66	0
0.693147	ND<0	0.693147	67	0
0.693147	ND<0	0.693147	68	0
1.38629	ND<0	1.38629	69	0
0.693147	ND<0	0.693147	70	0
0.693147	ND<0	0.693147	71	0
1.16315	ND<0	1.16315	72	0
0.955511	ND<0	0.955511	73	0
1.16315	ND<0	1.16315	74	0

1.79176	ND<0	1.79176	75	0
1.72277	ND<0	1.72277	76	0
1.09861	ND<0	1.09861	77	0
1.16315	ND<0	1.16315	78	0

ND<0	ND<0	0	78	0
0 J	ND<0	0	78	0
0.693147	ND<0	0.693147	79	0
0.693147	ND<0	0.693147	80	0
0.693147	ND<0	0.693147	81	0
1.38629	ND<0	1.38629	82	0
0.693147	ND<0	0.693147	83	0
0.693147	ND<0	0.693147	84	0
1.16315	ND<0	1.16315	85	0
0.955511	ND<0	0.955511	86	0
1.16315	ND<0	1.16315	87	0
1.79176	ND<0	1.79176	88	0
1.72277	ND<0	1.72277	89	0
1.09861	ND<0	1.09861	90	0
1.16315	ND<0	1.16315	91	0

0 J	ND<0	0	91	0
0.693147	ND<0	0.693147	92	0
0.693147	ND<0	0.693147	93	0
0.693147	ND<0	0.693147	94	0
1.38629	ND<0	1.38629	95	0
0.693147	ND<0	0.693147	96	0
0.693147	ND<0	0.693147	97	0
1.16315	ND<0	1.16315	98	0
0.955511	ND<0	0.955511	99	0
1.16315	ND<0	1.16315	100	0
1.79176	ND<0	1.79176	101	0
1.72277	ND<0	1.72277	102	0
1.09861	ND<0	1.09861	103	0
1.16315	ND<0	1.16315	104	0

0.693147	0 J	0.693147	105	0
0.693147	0 J	0.693147	106	0
0.693147	0 J	0.693147	107	0
1.38629	0 J	1.38629	108	0
0.693147	0 J	0.693147	109	0
0.693147	0 J	0.693147	110	0
1.16315	0 J	1.16315	111	0
0.955511	0 J	0.955511	112	0
1.16315	0 J	1.16315	113	0
1.79176	0 J	1.79176	114	0
1.72277	0 J	1.72277	115	0
1.09861	0 J	1.09861	116	0
1.16315	0 J	1.16315	117	0

0.693147	0.693147	0	117	0	
0.693147	0.693147	0	117	0	
1.38629	0.693147	0.693147	118	0	
0.693147	0.693147	0	118	0	
0.693147	0.693147	0	118	0	
1.16315	0.693147	0.470004	119	0	
0.955511	0.693147	0.262364	120	0	
1.16315	0.693147	0.470004	121	0	
1.79176	0.693147	1.09861	122	0	
1.72277	0.693147	1.02962	123	0	
1.09861	0.693147	0.405465	124	0	
1.16315	0.693147	0.470004	125	0	

0.693147	0.693147	0	125	0
1.38629	0.693147	0.693147	126	0
0.693147	0.693147	0	126	0
0.693147	0.693147	0	126	0
1.16315	0.693147	0.470004	127	0
0.955511	0.693147	0.262364	128	0
1.16315	0.693147	0.470004	129	0
1.79176	0.693147	1.09861	130	0
1.72277	0.693147	1.02962	131	0
1.09861	0.693147	0.405465	132	0
1.16315	0.693147	0.470004	133	0
1.38629	0.693147	0.693147	134	0
0.693147	0.693147	0	134	0
0.693147	0.693147	0	134	0
1.16315	0.693147	0.470004	135	0
0.955511	0.693147	0.262364	136	0
1.16315	0.693147	0.470004	137	0
1.79176	0.693147	1.09861	138	0
1.72277	0.693147	1.02962	139	0
1.09861	0.693147	0.405465	140	0
1.16315	0.693147	0.470004	141	0
0.693147	1.38629	-0.693147	141	1
0.693147	1.38629	-0.693147	141	2
1.16315	1.38629	-0.223144	141	3
0.955511	1.38629	-0.430783	141	4
1.16315	1.38629	-0.223144	141	5
1.79176	1.38629	0.405465	142	5
1.72277	1.38629	0.336472	143	5
1.09861	1.38629	-0.287682	143	6
1.16315	1.38629	-0.223144	143	7
0.693147	0.693147	0	143	7
1.16315	0.693147	0.470004	144	7
0.955511	0.693147	0.262364	145	7
1.16315	0.693147	0.470004	146	7
1.79176	0.693147	1.09861	147	7
1.72277	0.693147	1.02962	148	7
1.09861	0.693147	0.405465	149	7
1.16315	0.693147	0.470004	150	7
1.16315	0.693147	0.470004	151	7
0.955511	0.693147	0.262364	152	7
1.16315	0.693147	0.470004	153	7
1.79176	0.693147	1.09861	154	7
1.72277	0.693147	1.02962	155	7
1.09861	0.693147	0.405465	156	7
1.16315	0.693147	0.470004	157	7
0.955511	1.16315	-0.207639	157	8
1.16315	1.16315	0	157	8
1.79176	1.16315	0.628609	158	8
1.72277	1.16315	0.559616	159	8
1.09861	1.16315	-0.0645385	159	9
1.16315	1.16315	0	159	9
1.16315	0.955511	0.207639	160	9
1.79176	0.955511	0.836248	161	9
1.72277	0.955511	0.767255	162	9

1.09861	0.955511	0.143101	163	9
1.16315	0.955511	0.207639	164	9
1.79176	1.16315	0.628609	165	9
1.72277	1.16315	0.559616	166	9
1.09861	1.16315	-0.0645385	166	10
1.16315	1.16315	0	166	10
1.72277	1.79176	-0.0689929	166	11
1.09861	1.79176	-0.693147	166	12
1.16315	1.79176	-0.628609	166	13
1.09861	1.72277	-0.624154	166	14
1.16315	1.72277	-0.559616	166	15
1.16315	1.09861	0.0645385	167	15

S Statistic = 167 - 15 = 152

Tied Group	Value	Members
1	0	9
2	0.693147	5
3	1.16315	3

Time Period	Observations
1/16/1998	1
3/16/1999	1
9/23/1999	1
3/14/2000	1
9/23/2003	1
3/10/2004	1
10/12/2004	1
4/1/2005	1
10/26/2005	1
6/19/2006	1
11/18/2006	1
6/2/2007	1
11/15/2007	1
5/20/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/17/2010	1
7/6/2011	1
11/22/2011	1
5/16/2012	1

There are 0 time periods with multiple data

A = 2022
B = 0
C = 570
D = 0
E = 98
F = 0
a = 22638
b = 83160
c = 924
Group Variance = 1145.33

Z-Score = 4.46181
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|4.46181| > 1.97737 indicating a trend

Mann-Kendall Trend Analysis
Parameter: Selenium
Location: LMW-8
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk		Positives	Negatives
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
ND<0	ND<0	0	0	0	
1.09861		ND<0	1.09861	1	0
0 J	ND<0	0	1	0	
0 J	ND<0	0	1	0	
0 J	ND<0	0	1	0	
0 J	ND<0	0	1	0	
1.09861		ND<0	1.09861	2	0
ND<0	ND<0	0	2	0	
ND<0	ND<0	0	2	0	
-0.446287		ND<0	-0.446287	2	1
-0.527633		ND<0	-0.527633	2	2
-1.10866 J		ND<0	-1.108662	3	
-0.415515		ND<0	-0.415515	2	4
ND<-2.25379 U		ND<0	-2.253792	5	
-1.51413 J		ND<0	-1.514132	6	
ND<-2.25379 U		ND<0	-2.253792	7	
ND<0	ND<0	0	2	7	
ND<0	ND<0	0	2	7	
ND<0	ND<0	0	2	7	
ND<0	ND<0	0	2	7	
ND<0	ND<0	0	2	7	
1.09861		ND<0	1.09861	3	7
0 J	ND<0	0	3	7	
0 J	ND<0	0	3	7	
0 J	ND<0	0	3	7	
0 J	ND<0	0	3	7	
1.09861		ND<0	1.09861	4	7
ND<0	ND<0	0	4	7	
ND<0	ND<0	0	4	7	
-0.446287		ND<0	-0.446287	4	8
-0.527633		ND<0	-0.527633	4	9
-1.10866 J		ND<0	-1.108664	10	
-0.415515		ND<0	-0.415515	4	11
ND<-2.25379 U		ND<0	-2.253794	12	
-1.51413 J		ND<0	-1.514134	13	
ND<-2.25379 U		ND<0	-2.253794	14	
ND<0	ND<0	0	4	14	
ND<0	ND<0	0	4	14	
ND<0	ND<0	0	4	14	
ND<0	ND<0	0	4	14	
1.09861		ND<0	1.09861	5	14
0 J	ND<0	0	5	14	
0 J	ND<0	0	5	14	

0 J	ND<0	0	5	14		
0 J	ND<0	0	5	14		
1.09861		ND<0	1.09861	6	14	
ND<0	ND<0	0	6	14		
ND<0	ND<0	0	6	14		
-0.446287		ND<0	-0.446287	6		15
-0.527633		ND<0	-0.527633	6		16
-1.10866 J		ND<0	-1.108666	17		
-0.415515		ND<0	-0.415515	6		18
ND<-2.25379 U		ND<0	-2.253796	19		
-1.51413 J		ND<0	-1.514136	20		
ND<-2.25379 U		ND<0	-2.253796	21		
ND<0	ND<0	0	6	21		
ND<0	ND<0	0	6	21		
ND<0	ND<0	0	6	21		
1.09861		ND<0	1.09861	7	21	
0 J	ND<0	0	7	21		
0 J	ND<0	0	7	21		
0 J	ND<0	0	7	21		
0 J	ND<0	0	7	21		
1.09861		ND<0	1.09861	8	21	
ND<0	ND<0	0	8	21		
ND<0	ND<0	0	8	21		
-0.446287		ND<0	-0.446287	8		22
-0.527633		ND<0	-0.527633	8		23
-1.10866 J		ND<0	-1.108668	24		
-0.415515		ND<0	-0.415515	8		25
ND<-2.25379 U		ND<0	-2.253798	26		
-1.51413 J		ND<0	-1.514138	27		
ND<-2.25379 U		ND<0	-2.253798	28		
ND<0	ND<0	0	8	28		
ND<0	ND<0	0	8	28		
1.09861		ND<0	1.09861	9	28	
0 J	ND<0	0	9	28		
0 J	ND<0	0	9	28		
0 J	ND<0	0	9	28		
0 J	ND<0	0	9	28		
1.09861		ND<0	1.09861	10	28	
ND<0	ND<0	0	10	28		
ND<0	ND<0	0	10	28		
-0.446287		ND<0	-0.446287	10		29
-0.527633		ND<0	-0.527633	10		30
-1.10866 J		ND<0	-1.108610	31		
-0.415515		ND<0	-0.415515	10		32
ND<-2.25379 U		ND<0	-2.253710	33		
-1.51413 J		ND<0	-1.514110	34		
ND<-2.25379 U		ND<0	-2.253710	35		
ND<0	ND<0	0	10	35		
1.09861		ND<0	1.09861	11	35	
0 J	ND<0	0	11	35		
0 J	ND<0	0	11	35		
0 J	ND<0	0	11	35		
0 J	ND<0	0	11	35		
1.09861		ND<0	1.09861	12	35	
ND<0	ND<0	0	12	35		
ND<0	ND<0	0	12	35		
-0.446287		ND<0	-0.446287	12		36
-0.527633		ND<0	-0.527633	12		37
-1.10866 J		ND<0	-1.108612	38		

-0.415515		ND<0	-0.415515	12	39
ND<-2.25379 U		ND<0	-2.2537	12	40
-1.51413 J		ND<0	-1.51413	12	41
ND<-2.25379 U		ND<0	-2.2537	12	42
1.09861		ND<0	1.09861	13	42
0 J	ND<0	0	13	42	
0 J	ND<0	0	13	42	
0 J	ND<0	0	13	42	
0 J	ND<0	0	13	42	
1.09861		ND<0	1.09861	14	42
ND<0	ND<0	0	14	42	
ND<0	ND<0	0	14	42	
-0.446287		ND<0	-0.446287	14	43
-0.527633		ND<0	-0.527633	14	44
-1.10866 J		ND<0	-1.10866	14	45
-0.415515		ND<0	-0.415515	14	46
ND<-2.25379 U		ND<0	-2.2537	14	47
-1.51413 J		ND<0	-1.51413	14	48
ND<-2.25379 U		ND<0	-2.2537	14	49
0 J	1.09861		-1.09861	14	50
0 J	1.09861		-1.09861	14	51
0 J	1.09861		-1.09861	14	52
0 J	1.09861		-1.09861	14	53
1.09861		1.09861	0	14	53
ND<0	1.09861		-1.09861	14	54
ND<0	1.09861		-1.09861	14	55
-0.446287		1.09861	-1.5449	14	56
-0.527633		1.09861	-1.62625	14	57
-1.10866 J		1.09861	-2.20727	14	58
-0.415515		1.09861	-1.51413	14	59
ND<-2.25379 U		1.09861	-3.35241	14	60
-1.51413 J		1.09861	-2.61274	14	61
ND<-2.25379 U		1.09861	-3.35241	14	62
0 J	0 J	0	14	62	
0 J	0 J	0	14	62	
0 J	0 J	0	14	62	
1.09861		0 J	1.09861	15	62
ND<0	0 J	0	15	62	
ND<0	0 J	0	15	62	
-0.446287		0 J	-0.446287	15	63
-0.527633		0 J	-0.527633	15	64
-1.10866 J		0 J	-1.10866	15	65
-0.415515		0 J	-0.415515	15	66
ND<-2.25379 U		0 J	-2.2537	15	67
-1.51413 J		0 J	-1.51413	15	68
ND<-2.25379 U		0 J	-2.2537	15	69
0 J	0 J	0	15	69	
0 J	0 J	0	15	69	
1.09861		0 J	1.09861	16	69
ND<0	0 J	0	16	69	
ND<0	0 J	0	16	69	
-0.446287		0 J	-0.446287	16	70
-0.527633		0 J	-0.527633	16	71
-1.10866 J		0 J	-1.10866	16	72
-0.415515		0 J	-0.415515	16	73
ND<-2.25379 U		0 J	-2.2537	16	74
-1.51413 J		0 J	-1.51413	16	75
ND<-2.25379 U		0 J	-2.2537	16	76

0 J	0 J	0	16	76		
1.09861		0 J	1.09861	17	76	
ND<0	0 J	0	17	76		
ND<0	0 J	0	17	76		
-0.446287		0 J	-0.446287	17	77	
-0.527633		0 J	-0.527633	17	78	
-1.10866 J		0 J	-1.108661	7	79	
-0.415515		0 J	-0.415515	17	80	
ND<-2.25379 U		0 J	-2.253791	7	81	
-1.51413 J		0 J	-1.514131	7	82	
ND<-2.25379 U		0 J	-2.253791	7	83	
1.09861		0 J	1.09861	18	83	
ND<0	0 J	0	18	83		
ND<0	0 J	0	18	83		
-0.446287		0 J	-0.446287	18	84	
-0.527633		0 J	-0.527633	18	85	
-1.10866 J		0 J	-1.108661	8	86	
-0.415515		0 J	-0.415515	18	87	
ND<-2.25379 U		0 J	-2.253791	8	88	
-1.51413 J		0 J	-1.514131	8	89	
ND<-2.25379 U		0 J	-2.253791	8	90	
ND<0	1.09861		-1.098611	8	91	
ND<0	1.09861		-1.098611	8	92	
-0.446287		1.09861	-1.5449	18	93	
-0.527633		1.09861	-1.626251	8	94	
-1.10866 J		1.09861	-2.207271	8	95	
-0.415515		1.09861	-1.514131	8	96	
ND<-2.25379 U		1.09861	-3.352411	8	97	
-1.51413 J		1.09861	-2.612741	8	98	
ND<-2.25379 U		1.09861	-3.352411	8	99	
ND<0	ND<0	0	18	99		
-0.446287		ND<0	-0.446287	18	100	
-0.527633		ND<0	-0.527633	18	101	
-1.10866 J		ND<0	-1.108661	8	102	
-0.415515		ND<0	-0.415515	18	103	
ND<-2.25379 U		ND<0	-2.253791	8	104	
-1.51413 J		ND<0	-1.514131	8	105	
ND<-2.25379 U		ND<0	-2.253791	8	106	
-0.446287		ND<0	-0.446287	18	107	
-0.527633		ND<0	-0.527633	18	108	
-1.10866 J		ND<0	-1.108661	8	109	
-0.415515		ND<0	-0.415515	18	110	
ND<-2.25379 U		ND<0	-2.253791	8	111	
-1.51413 J		ND<0	-1.514131	8	112	
ND<-2.25379 U		ND<0	-2.253791	8	113	
-0.527633		-0.446287	-0.0813456	18	114	
-1.10866 J		-0.446287	-0.662376	18	115	
-0.415515		-0.446287	0.0307717	19	115	
ND<-2.25379 U		-0.446287	-1.807511	9	116	
-1.51413 J		-0.446287	-1.067841	9	117	
ND<-2.25379 U		-0.446287	-1.807511	9	118	
-1.10866 J		-0.527633	-0.581031	9	119	
-0.415515		-0.527633	0.112117	20	119	
ND<-2.25379 U		-0.527633	-1.726162	0	120	

-1.51413 J	-0.527633	-0.986495	20	121
ND<-2.25379 U	-0.527633	-1.7261620	122	
-0.415515	-1.10866 J	0.693147	21	122
ND<-2.25379 U	-1.10866 J	-1.1451321	123	
-1.51413 J	-1.10866 J	-0.405465	21	124
ND<-2.25379 U	-1.10866 J	-1.1451321	125	
ND<-2.25379 U	-0.415515	-1.8382821	126	
-1.51413 J	-0.415515	-1.0986121	127	
ND<-2.25379 U	-0.415515	-1.8382821	128	
-1.51413 J	ND<-2.25379 U	0.739667	22	128
ND<-2.25379 U	ND<-2.25379 U	0 22	128	
ND<-2.25379 U	-1.51413 J	-0.739667	22	129

S Statistic = 22 - 129 = -107

Tied Group	Value	Members
1	0	13
2	1.09861	2
3	-2.25379	2

Time Period	Observations
1/16/1998	1
3/16/1999	1
9/23/1999	1
3/14/2000	1
9/23/2003	1
3/10/2004	1
10/12/2004	1
4/1/2005	1
10/26/2005	1
6/19/2006	1
11/18/2006	1
6/2/2007	1
11/15/2007	1
5/20/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/17/2010	1
7/6/2011	1
11/22/2011	1
5/16/2012	1

There are 0 time periods with multiple data

A = 4872
B = 0
C = 1716
D = 0
E = 160
F = 0
a = 22638
b = 83160
c = 924
Group Variance = 987

Z-Score = -3.37402
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-3.37402| > 1.97737 indicating a trend

Shewhart-CUSUM Control Chart

Parameter: Selenium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = -0.717117
Baseline Std Dev = 1.07445
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
1/16/1998	0	0	0.667424	
1/16/1998	0	0	0.667424	
3/16/1999	0	0	0.667424	
3/16/1999	0	0	0.667424	
9/23/1999	0	0	0.667424	
9/23/1999	0	0	0.667424	
3/14/2000	0	0	0.667424	
3/14/2000	0	0	0.667424	
9/23/2003	0	0	0.667424	
9/23/2003	0	0	0.667424	
3/10/2004	0	0	0.667424	
3/10/2004	0	0	0.667424	
10/12/2004	0	0	0.667424	
10/12/2004	0	0	0.667424	
4/1/2005	0	0	0.667424	
4/1/2005	0	0	0.667424	
10/26/2005	0	0	0.667424	
10/26/2005	0	0	0.667424	
6/19/2006	0.693147	0.312539	1.31254	
6/19/2006	0.693147	0.312539	1.31254	
11/18/2006	0.693147	0.625078	1.31254	
11/18/2006	0.693147	0.625078	1.31254	
6/2/2007	0.693147	0.937618	1.31254	
6/2/2007	0.693147	0.937618	1.31254	
11/15/2007	1.38629	1.89527	1.95765	
11/15/2007	1.38629	1.89527	1.95765	
5/20/2008	0.693147	2.20781	1.31254	
5/20/2008	0.693147	2.20781	1.31254	
11/20/2008	0.693147	2.52035	1.31254	
11/20/2008	0.693147	2.52035	1.31254	
6/11/2009	1.16315	3.27032	1.74997	
6/11/2009	1.16315	3.27032	1.74997	
11/16/2009	0.955511	3.82705	1.55672	
11/16/2009	0.955511	3.82705	1.55672	
6/30/2010	1.16315	4.57702	1.74997	
6/30/2010	1.16315	4.57702	1.74997	
11/17/2010	1.79176	5.91204	2.33502	
11/17/2010	1.79176	5.91204	2.33502	
7/6/2011	1.72277	7.18285	2.27081	
7/6/2011	1.72277	7.18285	2.27081	
11/22/2011	1.09861	7.87276	1.68991	
11/22/2011	1.09861	7.87276	1.68991	
5/16/2012	1.16315	8.62274	1.74997	
5/16/2012	1.16315	8.62274	1.74997	

Shewhart-CUSUM Control Chart

Parameter: Selenium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = -0.717117
Baseline Std Dev = 1.07445
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
1/16/1998	0	0	0.667424
1/16/1998	0	0	0.667424
3/16/1999	0	0	0.667424
3/16/1999	0	0	0.667424
9/23/1999	0	0	0.667424
9/23/1999	0	0	0.667424
3/14/2000	0	0	0.667424
3/14/2000	0	0	0.667424
9/23/2003	0	0	0.667424
9/23/2003	0	0	0.667424
3/10/2004	0	0	0.667424
3/10/2004	0	0	0.667424
10/12/2004	0	0	0.667424
10/12/2004	0	0	0.667424
4/1/2005	1.09861	0.689908	1.68991
4/1/2005	1.09861	0.689908	1.68991
10/26/2005	0	0.357331	0.667424
10/26/2005	0	0.357331	0.667424
6/19/2006	0	0.0247551	0.667424
6/19/2006	0	0.0247551	0.667424
11/18/2006	0	0	0.667424
11/18/2006	0	0	0.667424
6/2/2007	0	0	0.667424
6/2/2007	0	0	0.667424
11/15/2007	1.09861	0.689908	1.68991
11/15/2007	1.09861	0.689908	1.68991
5/20/2008	0	0.357331	0.667424
5/20/2008	0	0.357331	0.667424
11/20/2008	0	0.0247551	0.667424
11/20/2008	0	0.0247551	0.667424
6/11/2009	-0.446287	0	0.252062
6/11/2009	-0.446287	0	0.252062
11/16/2009	-0.527633	0	0.176354
11/16/2009	-0.527633	0	0.176354
6/30/2010	-1.10866	0	-0.364414
6/30/2010	-1.10866	0	-0.364414
11/17/2010	-0.415515	0	0.280702
11/17/2010	-0.415515	0	0.280702
7/6/2011	-2.25379	0	-1.43019
7/6/2011	-2.25379	0	-1.43019
11/22/2011	-1.51413	0	-0.741782
11/22/2011	-1.51413	0	-0.741782
5/16/2012	-2.25379	0	-1.43019
5/16/2012	-2.25379	0	-1.43019

Concentrations (ppb)
Parameter: Tetrachloroethylene
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Measurements: 271
Total Non-Detect: 261
Percent Non-Detects: 96.31%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	22 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			11/16/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U

There are 16 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-9S	14	14 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			11/16/2009	ND<0.15 U	ND<0.15 U
			11/16/2009	ND<0.15 U	ND<0.15 U
			11/16/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U
LMW-3	24	24 (100%)	11/19/1996	ND<1	ND<1
			3/24/1997	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1

		9/23/2003	ND<1	ND<1	
		3/10/2004	ND<1	ND<1	
		10/12/2004	ND<1	ND<1	
		4/1/2005	ND<1	ND<1	
		10/26/2005	ND<1	ND<1	
		6/19/2006	ND<1	ND<1	
		11/18/2006	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.15 U		ND<0.15 U
		11/16/2009	ND<0.15 U		ND<0.15 U
		6/30/2010	ND<0.15 U		ND<0.15 U
		11/17/2010	ND<0.15 U		ND<0.15 U
		7/6/2011	ND<0.15 U	ND<0.15 U	
		11/22/2011	ND<0.15 U		ND<0.15 U
		5/16/2012	ND<0.15 U		ND<0.15 U
LMW-10	19	15 (78.9474%)	3/14/2000	ND<1	ND<1
		9/23/2003	ND<1	ND<1	
		3/10/2004	ND<1	ND<1	
		10/12/2004	ND<1	ND<1	
		4/1/2005	ND<1	ND<1	
		10/26/2005	ND<1	ND<1	
		6/19/2006	ND<1	ND<1	
		11/18/2006	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.15 U		ND<0.15 U
		11/16/2009	0.24 J	0.24 J	
		6/30/2010	ND<0.15 U		ND<0.15 U
		11/17/2010	0.27 J	0.27 J	
		7/6/2011	ND<0.15 U	ND<0.15 U	
		11/22/2011	0.35 J	0.35 J	
		5/16/2012	0.28 J	0.28 J	
LMW-14R	10	10 (100%)	6/2/2007	ND<1	ND<1
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.15 U		ND<0.15 U
		6/30/2010	ND<0.15 U		ND<0.15 U
		11/17/2010	ND<0.15 U		ND<0.15 U
		7/6/2011	ND<0.15 U	ND<0.15 U	
		11/22/2011	ND<0.15 U		ND<0.15 U
		5/16/2012	ND<0.15 U		ND<0.15 U
LMW-16	12	12 (100%)	11/18/2006	ND<1	ND<1
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.15 U		ND<0.15 U
		11/16/2009	ND<0.15 U		ND<0.15 U
		6/30/2010	ND<0.15 U		ND<0.15 U
		11/17/2010	ND<0.15 U		ND<0.15 U
		7/6/2011	ND<0.15 U	ND<0.15 U	
		11/22/2011	ND<0.15 U		ND<0.15 U
		5/16/2012	ND<0.15 U		ND<0.15 U

LMW-3S	12	12 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			11/16/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U
LMW-6	22	20 (90.9091%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			11/16/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	0.22 J	0.22 J
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	0.16 J	0.16 J
LMW-7	20	20 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U
LMW-9	22	22 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1

			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.15 U	ND<0.15 U	
			11/16/2009	ND<0.15 U	ND<0.15 U	
			6/30/2010	ND<0.15 U	ND<0.15 U	
			11/17/2010	ND<0.15 U	ND<0.15 U	
			7/6/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
			5/16/2012	ND<0.15 U	ND<0.15 U	
LMW-9D	12	12 (100%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.15 U	ND<0.15 U	
			11/16/2009	ND<0.15 U	ND<0.15 U	
			6/30/2010	ND<0.15 U	ND<0.15 U	
			11/17/2010	ND<0.15 U	ND<0.15 U	
			7/6/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
			5/16/2012	ND<0.15 U	ND<0.15 U	
LMW-8	22	18 (81.8182%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<0 J	ND<0 J	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<0 J	ND<0 J	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<0 J	ND<0 J	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<0 J	ND<0 J	
			6/11/2009	0.31 J	0.31 J	
			11/16/2009	0.26 J	0.26 J	
			6/30/2010	0.25 J	0.25 J	
			11/17/2010	0.19 J	0.19 J	
			7/6/2011	ND<0.15 U	ND<0.15 U	
			11/22/2011	ND<0.15 U	ND<0.15 U	
			5/16/2012	ND<0.15 U	ND<0.15 U	
LMW-15R	14	14 (100%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	

			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.15 U	ND<0.15 U
			6/30/2010	ND<0.15 U	ND<0.15 U
			11/17/2010	ND<0.15 U	ND<0.15 U
			7/6/2011	ND<0.15 U	ND<0.15 U
			11/22/2011	ND<0.15 U	ND<0.15 U
			5/16/2012	ND<0.15 U	ND<0.15 U
MW-5	13	13 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
LMW-12	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
LMW-11	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
LMW-13	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality
Parameter: Tetrachloroethylene
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.747777.55021	0	
2	0	-2.4572713.5884	0	
3	0	-2.2903618.8342	0	
4	0	-2.1972823.6622	0	
5	0.075	-2.0969328.0593	-0.15727	
6	0.075	-2.0140932.1159	-0.308327	
7	0.075	-1.9599635.9574	-0.455324	
8	0.075	-1.8957 39.551	-0.597501	
9	0.075	-1.8384342.9308	-0.735383	
10	0.075	-1.7991246.1677	-0.870317	
11	0.075	-1.7506949.2326	-1.00162	
12	0.075	-1.7060452.1431	-1.12957	
13	0.075	-1.6746654.9476	-1.25517	
14	0.075	-1.6352457.6216	-1.37781	
15	0.075	-1.5981960.1758	-1.49768	
16	0.075	-1.5717962.6464	-1.61556	
17	0.075	-1.5382 65.0124	-1.73093	
18	0.075	-1.5062667.2812	-1.8439	
19	0.075	-1.4832869.4814	-1.95514	
20	0.075	-1.4538 71.5949	-2.06418	
21	0.075	-1.4255473.6271	-2.17109	
22	0.075	-1.4050775.6013	-2.27647	
23	0.075	-1.3786677.502	-2.37987	
24	0.075	-1.3531779.3331	-2.48136	
25	0.075	-1.3346281.1143	-2.58146	
26	0.075	-1.3105882.8319	-2.67975	
27	0.075	-1.2872784.489	-2.7763	
28	0.075	-1.2702486.1025	-2.87157	
29	0.075	-1.2480987.6602	-2.96517	
30	0.075	-1.2265389.1646	-3.05716	
31	0.075	-1.2107390.6305	-3.14797	
32	0.075	-1.1901292.0469	-3.23723	
33	0.075	-1.17 93.4158	-3.32498	
34	0.075	-1.1503594.7391	-3.41125	
35	0.075	-1.1359 96.0293	-3.49644	
36	0.075	-1.1169997.277	-3.58022	
37	0.075	-1.0984798.4836	-3.6626	
38	0.075	-1.0848299.6605	-3.74396	
39	0.075	-1.06694100.799	-3.82398	
40	0.075	-1.04939101.9	-3.90269	
41	0.075	-1.03643102.974	-3.98042	
42	0.075	-1.01943104.013	-4.05688	
43	0.075	-1.00271105.019	-4.13208	
44	0.075	-0.990356	106	-4.20636
45	0.075	-0.974114	106.949	-4.27942
46	0.075	-0.958125	107.867	-4.35128
47	0.075	-0.946291	108.762	-4.42225
48	0.075	-0.930718	109.628	-4.49205
49	0.075	-0.915365	110.466	-4.5607
50	0.075	-0.903992	111.283	-4.6285
51	0.075	-0.889006	112.074	-4.69518

52	0.075	-0.874218	112.838	-4.76075
53	0.075	-0.863249	113.583	-4.82549
54	0.075	-0.848786	114.304	-4.88915
55	0.075	-0.834498	115	-4.95174
56	0.075	-0.823893	115.679	-5.01353
57	0.075	-0.809896	116.335	-5.07427
58	0.075	-0.796056	116.968	-5.13397
59	0.075	-0.785774	117.586	-5.19291
60	0.075	-0.772193	118.182	-5.25082
61	0.075	-0.758753	118.758	-5.30773
62	0.075	-0.748762	119.318	-5.36388
63	0.075	-0.735557	119.86	-5.41905
64	0.075	-0.722479	120.382	-5.47324
65	0.075	-0.712751	120.89	-5.52669
66	0.075	-0.699883	121.379	-5.57919
67	0.075	-0.687131	121.852	-5.63072
68	0.075	-0.67449	122.306	-5.68131
69	0.075	-0.665079	122.749	-5.73119
70	0.075	-0.652622	123.175	-5.78013
71	0.075	-0.640266	123.585	-5.82815
72	0.075	-0.631062	123.983	-5.87548
73	0.075	-0.618872	124.366	-5.9219
74	0.075	-0.606775	124.734	-5.96741
75	0.075	-0.597761	125.091	-6.01224
76	0.075	-0.585815	125.435	-6.05618
77	0.075	-0.573953	125.764	-6.09922
78	0.075	-0.565108	126.083	-6.14161
79	0.075	-0.553384	126.39	-6.18311
80	0.075	-0.541736	126.683	-6.22374
81	0.075	-0.533048	126.967	-6.26372
82	0.075	-0.521527	127.239	-6.30283
83	0.075	-0.510074	127.499	-6.34109
84	0.16	-0.501527	127.751	-6.42133
85	0.19	-0.490189	127.991	-6.51447
86	0.22	-0.478914	128.221	-6.61983
87	0.24	-0.470498	128.442	-6.73275
88	0.25	-0.459327	128.653	-6.84758
89	0.26	-0.448213	128.854	-6.96412
90	0.27	-0.439913	129.047	-7.08289
91	0.28	-0.428895	129.231	-7.20298
92	0.31	-0.417928	129.406	-7.33254
93	0.35	-0.409735	129.574	-7.47595
94	0.5	-0.398855	129.733	-7.67538
95	0.5	-0.388022	129.883	-7.86939
96	0.5	-0.379927	130.028	-8.05935
97	0.5	-0.369171	130.164	-8.24394
98	0.5	-0.358459	130.293	-8.42316
99	0.5	-0.350451	130.415	-8.59839
100	0.5	-0.33981	130.531	-8.7683
101	0.5	-0.329206	130.639	-8.9329
102	0.5	-0.318639	130.741	-9.09222
103	0.5	-0.310738	130.837	-9.24759
104	0.5	-0.300232	130.927	-9.3977
105	0.5	-0.28976	131.011	-9.54258
106	0.5	-0.281926	131.091	-9.68355
107	0.5	-0.271509	131.165	-9.8193
108	0.5	-0.26112	131.233	-9.94986
109	0.5	-0.253347	131.297	-10.0765
110	0.5	-0.243007	131.356	-10.198
111	0.5	-0.232693	131.41	-10.3144
112	0.5	-0.224974	131.461	-10.4269
113	0.5	-0.214702	131.507	-10.5342

114	0.5	-0.204452	131.549	-10.6364
115	0.5	-0.196779	131.587	-10.7348
116	0.5	-0.186567	131.622	-10.8281
117	0.5	-0.176374	131.653	-10.9163
118	0.5	-0.168741	131.682	-11.0007
119	0.5	-0.158579	131.707	-11.08
120	0.5	-0.148434	131.729	-11.1542
121	0.5	-0.140835	131.749	-11.2246
122	0.5	-0.130716	131.766	-11.29
123	0.5	-0.12061	131.78	-11.3503
124	0.5	-0.113039	131.793	-11.4068
125	0.5	-0.102953	131.804	-11.4583
126	0.5	-0.0928787	131.812	-11.5047
127	0.5	-0.0853288	131.82	-11.5474
128	0.5	-0.0752698	131.825	-11.585
129	0.5	-0.0652187	131.83	-11.6176
130	0.5	-0.0576847	131.833	-11.6465
131	0.5	-0.0476439	131.835	-11.6703
132	0.5	-0.0376076	131.837	-11.6891
133	0.5	-0.0300838	131.838	-11.7041
134	0.5	-0.0200544	131.838	-11.7141
135	0.5	-0.0100272	131.838	-11.7192
136	0.5	0	131.838	-11.7192
137	0.5	0.0100272	131.838	-11.7141
138	0.5	0.0200544	131.839	-11.7041
139	0.5	0.0300838	131.839	-11.6891
140	0.5	0.0376076	131.841	-11.6703
141	0.5	0.0476439	131.843	-11.6465
142	0.5	0.0576847	131.846	-11.6176
143	0.5	0.0652187	131.851	-11.585
144	0.5	0.0752698	131.856	-11.5474
145	0.5	0.0853288	131.864	-11.5047
146	0.5	0.0928787	131.872	-11.4583
147	0.5	0.102953	131.883	-11.4068
148	0.5	0.113039	131.896	-11.3503
149	0.5	0.12061	131.91	-11.29
150	0.5	0.130716	131.927	-11.2246
151	0.5	0.140835	131.947	-11.1542
152	0.5	0.148434	131.969	-11.08
153	0.5	0.158579	131.994	-11.0007
154	0.5	0.168741	132.023	-10.9163
155	0.5	0.176374	132.054	-10.8281
156	0.5	0.186567	132.089	-10.7348
157	0.5	0.196779	132.127	-10.6364
158	0.5	0.204452	132.169	-10.5342
159	0.5	0.214702	132.215	-10.4269
160	0.5	0.224974	132.266	-10.3144
161	0.5	0.232693	132.32	-10.198
162	0.5	0.243007	132.379	-10.0765
163	0.5	0.253347	132.443	-9.94986
164	0.5	0.26112	132.512	-9.8193
165	0.5	0.271509	132.585	-9.68355
166	0.5	0.281926	132.665	-9.54258
167	0.5	0.28976	132.749	-9.3977
168	0.5	0.300232	132.839	-9.24759
169	0.5	0.310738	132.935	-9.09222
170	0.5	0.318639	133.037	-8.9329
171	0.5	0.329206	133.145	-8.7683
172	0.5	0.33981	133.261	-8.59839
173	0.5	0.350451	133.384	-8.42316
174	0.5	0.358459	133.512	-8.24394
175	0.5	0.369171	133.648	-8.05935

176	0.5	0.379927		133.793	-7.86939
177	0.5	0.388022		133.943	-7.67538
178	0.5	0.398855		134.102	-7.47595
179	0.5	0.409735		134.27	-7.27108
180	0.5	0.417928		134.445	-7.06212
181	0.5	0.428895		134.629	-6.84767
182	0.5	0.439913		134.822	-6.62771
183	0.5	0.448213		135.023	-6.40361
184	0.5	0.459327		135.234	-6.17394
185	0.5	0.470498		135.456	-5.93869
186	0.5	0.478914		135.685	-5.69924
187	0.5	0.490189		135.925	-5.45414
188	0.5	0.501527		136.177	-5.20338
189	0.5	0.510074		136.437	-4.94834
190	0.5	0.521527		136.709	-4.68758
191	0.5	0.533048		136.993	-4.42105
192	0.5	0.541736		137.287	-4.15019
193	0.5	0.553384		137.593	-3.87349
194	0.5	0.565108		137.912	-3.59094
195	0.5	0.573953		138.242	-3.30396
196	0.5	0.585815		138.585	-3.01106
197	0.5	0.597761		138.942	-2.71218
198	0.5	0.606775		139.31	-2.40879
199	0.5	0.618872		139.693	-2.09935
200	0.5	0.631062		140.091	-1.78382
201	0.5	0.640266		140.501	-1.46369
202	0.5	0.652622		140.927	-1.13738
203	0.5	0.665079		141.37	-0.804838
204	0.5	0.67449	141.825	-0.467593	
205	0.5	0.687131		142.297	-0.124027
206	0.5	0.699883		142.787	0.225915
207	0.5	0.712751		143.295	0.58229
208	0.5	0.722479		143.817	0.943529
209	0.5	0.735557		144.358	1.31131
210	0.5	0.748762		144.918	1.68569
211	0.5	0.758753		145.494	2.06507
212	0.5	0.772193		146.09	2.45116
213	0.5	0.785774		146.708	2.84405
214	0.5	0.796056		147.341	3.24208
215	0.5	0.809896		147.997	3.64702
216	0.5	0.823893		148.676	4.05897
217	0.5	0.834498		149.373	4.47622
218	0.5	0.848786		150.093	4.90061
219	0.5	0.863249		150.838	5.33224
220	0.5	0.874218		151.602	5.76935
221	0.5	0.889006		152.393	6.21385
222	0.5	0.903992		153.21	6.66585
223	0.5	0.915365		154.048	7.12353
224	0.5	0.930718		154.914	7.58889
225	0.5	0.946291		155.81	8.06203
226	0.5	0.958125		156.728	8.5411
227	0.5	0.974114		157.676	9.02815
228	0.5	0.990356		158.657	9.52333
229	0.5	1.00271	159.663	10.0247	
230	0.5	1.01943	160.702	10.5344	
231	0.5	1.03643	161.776	11.0526	
232	0.5	1.04939	162.877	11.5773	
233	0.5	1.06694	164.016	12.1108	
234	0.5	1.08482	165.193	12.6532	
235	0.5	1.09847	166.399	13.2024	
236	0.5	1.11699	167.647	13.7609	
237	0.5	1.1359	168.937	14.3289	

238	0.5	1.15035	170.26	14.904
239	0.5	1.17	171.629	15.489
240	0.5	1.19012	173.046	16.0841
241	0.5	1.21073	174.512	16.6895
242	0.5	1.22653	176.016	17.3027
243	0.5	1.24809	177.574	17.9268
244	0.5	1.27024	179.187	18.5619
245	0.5	1.28727	180.844	19.2055
246	0.5	1.31058	182.562	19.8608
247	0.5	1.33462	184.343	20.5281
248	0.5	1.35317	186.174	21.2047
249	0.5	1.37866	188.075	21.894
250	0.5	1.40507	190.049	22.5966
251	0.5	1.42554	192.081	23.3094
252	0.5	1.4538	194.195	24.0363
253	0.5	1.48328	196.395	24.7779
254	0.5	1.50626	198.664	25.531
255	0.5	1.5382	201.03	26.3001
256	0.5	1.57179	203.5	27.086
257	0.5	1.59819	206.054	27.8851
258	0.5	1.63524	208.728	28.7027
259	0.5	1.67466	211.533	29.5401
260	0.5	1.70604	214.444	30.3931
261	0.5	1.75069	217.508	31.2684
262	0.5	1.79912	220.745	32.168
263	0.5	1.83843	224.125	33.0872
264	0.5	1.8957	227.719	34.035
265	0.5	1.95996	231.56	35.015
266	0.5	2.01409	235.617	36.0221
267	0.5	2.09693	240.014	37.0705
268	0.5	2.19728	244.842	38.1692
269	0.5	2.29036	250.088	39.3144
270	0.5	2.45727	256.126	40.543
271	0.5	2.74777	263.676	41.9169

Data Set Standard Deviation = 0.197822
Numerator = 1757.03
Denominator = 2786.01
W Statistic = 0.63066 = 1757.03 / 2786.01

5% Critical value of 0.976 exceeds 0.63066
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.63066
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Tetrachloroethylene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.792168
0.792168 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00367647	-2.747773	9	348.683	
2	0	0.00735294	-2.457273	9	334.497	
3	0	0.0110294	-2.290363	9	326.346	
4	0	0.0147059	-2.197283	9	321.801	
5	0.075	0.0183824	-2.09693	119.25	316.9	
6	0.075	0.0220588	-2.01409	119.25	312.855	
7	0.075	0.0257353	-1.95996	119.25	310.211	
8	0.075	0.0294118	-1.8957	119.25	307.073	
9	0.075	0.0330882	-1.83843	119.25	304.276	
10	0.075	0.0367647	-1.79912	119.25	302.357	
11	0.075	0.0404412	-1.75069	119.25	299.992	
12	0.075	0.0441176	-1.70604	119.25	297.812	
13	0.075	0.0477941	-1.67466	119.25	296.279	
14	0.075	0.0514706	-1.63524	119.25	294.354	
15	0.075	0.0551471	-1.59819	119.25	292.545	
16	0.075	0.0588235	-1.57179	119.25	291.256	
17	0.075	0.0625	-1.5382	119.25	289.615	
18	0.075	0.0661765	-1.50626	119.25	288.056	
19	0.075	0.0698529	-1.48328	119.25	286.934	
20	0.075	0.0735294	-1.4538	119.25	285.494	
21	0.075	0.0772059	-1.42554	119.25	284.114	
22	0.075	0.0808824	-1.40507	119.25	283.114	
23	0.075	0.0845588	-1.37866	119.25	281.824	
24	0.075	0.0882353	-1.35317	119.25	280.58	
25	0.075	0.0919118	-1.33462	119.25	279.674	
26	0.075	0.0955882	-1.31058	119.25	278.5	
27	0.075	0.0992647	-1.28727	119.25	277.362	
28	0.075	0.102941	-1.27024	119.25	276.53	
29	0.075	0.106618	-1.24809	119.25	275.448	
30	0.075	0.110294	-1.22653	119.25	274.395	
31	0.075	0.113971	-1.21073	119.25	273.624	
32	0.075	0.117647	-1.19012	119.25	272.617	
33	0.075	0.121324	-1.17	119.25	271.635	
34	0.075	0.125	-1.15035	119.25	270.675	
35	0.075	0.128676	-1.1359	119.25	269.97	
36	0.075	0.132353	-1.11699	119.25	269.046	
37	0.075	0.136029	-1.09847	119.25	268.142	
38	0.075	0.139706	-1.08482	119.25	267.476	
39	0.075	0.143382	-1.06694	119.25	266.602	
40	0.075	0.147059	-1.04939	119.25	265.745	
41	0.075	0.150735	-1.03643	119.25	265.112	
42	0.075	0.154412	-1.01943	119.25	264.282	
43	0.075	0.158088	-1.00271	119.25	263.466	
44	0.075	0.161765	-0.990356	119.25	262.862	
45	0.075	0.165441	-0.974114	119.25	262.069	
46	0.075	0.169118	-0.958125	119.25	261.288	
47	0.075	0.172794	-0.946291	119.25	260.711	
48	0.075	0.176471	-0.930718	119.25	259.95	

49	0.075	0.180147	-0.915365	119.25	259.2
50	0.075	0.183824	-0.903992	119.25	258.645
51	0.075	0.1875	-0.889006	119.25	257.913
52	0.075	0.191176	-0.874218	119.25	257.191
53	0.075	0.194853	-0.863249	119.25	256.655
54	0.075	0.198529	-0.848786	119.25	255.949
55	0.075	0.202206	-0.834498	119.25	255.251
56	0.075	0.205882	-0.823893	119.25	254.733
57	0.075	0.209559	-0.809896	119.25	254.05
58	0.075	0.213235	-0.796056	119.25	253.374
59	0.075	0.216912	-0.785774	119.25	252.872
60	0.075	0.220588	-0.772193	119.25	252.209
61	0.075	0.224265	-0.758753	119.25	251.552
62	0.075	0.227941	-0.748762	119.25	251.065
63	0.075	0.231618	-0.735557	119.25	250.42
64	0.075	0.235294	-0.722479	119.25	249.781
65	0.075	0.238971	-0.712751	119.25	249.306
66	0.075	0.242647	-0.699883	119.25	248.678
67	0.075	0.246324	-0.687131	119.25	248.055
68	0.075	0.25	-0.67449	119.25	247.438
69	0.075	0.253676	-0.665079	119.25	246.978
70	0.075	0.257353	-0.652622	119.25	246.37
71	0.075	0.261029	-0.640266	119.25	245.766
72	0.075	0.264706	-0.631062	119.25	245.317
73	0.075	0.268382	-0.618872	119.25	244.722
74	0.075	0.272059	-0.606775	119.25	244.131
75	0.075	0.275735	-0.597761	119.25	243.691
76	0.075	0.279412	-0.585815	119.25	243.107
77	0.075	0.283088	-0.573953	119.25	242.528
78	0.075	0.286765	-0.565108	119.25	242.096
79	0.075	0.290441	-0.553384	119.25	241.524
80	0.075	0.294118	-0.541736	119.25	240.955
81	0.075	0.297794	-0.533048	119.25	240.531
82	0.075	0.301471	-0.521527	119.25	239.968
83	0.075	0.305147	-0.510074	119.25	239.409
84	0.16	0.308824	-0.501527	210.2	238.991
85	0.19	0.3125	-0.490189	242.3	238.438
86	0.22	0.316176	-0.478914	274.4	237.887
87	0.24	0.319853	-0.470498	295.8	237.476
88	0.25	0.323529	-0.459327	306.5	236.93
89	0.26	0.327206	-0.448213	317.2	236.388
90	0.27	0.330882	-0.439913	327.9	235.982
91	0.28	0.334559	-0.428895	338.6	235.444
92	0.31	0.338235	-0.417928	370.7	234.909
93	0.35	0.341912	-0.409735	413.5	234.509
94	0.5	0.345588	-0.398855	574	233.977
95	0.5	0.349265	-0.388022	574	233.448
96	0.5	0.352941	-0.379927	574	233.053
97	0.5	0.356618	-0.369171	574	232.528
98	0.5	0.360294	-0.358459	574	232.005
99	0.5	0.363971	-0.350451	574	231.614
100	0.5	0.367647	-0.33981	574	231.094
101	0.5	0.371324	-0.329206	574	230.576
102	0.5	0.375	-0.318639	574	230.06
103	0.5	0.378676	-0.310738	574	229.674
104	0.5	0.382353	-0.300232	574	229.161
105	0.5	0.386029	-0.28976	574	228.65
106	0.5	0.389706	-0.281926	574	228.267
107	0.5	0.393382	-0.271509	574	227.759
108	0.5	0.397059	-0.26112	574	227.251
109	0.5	0.400735	-0.253347	574	226.872
110	0.5	0.404412	-0.243007	574	226.367

111	0.5	0.408088	-0.232693	574	225.863
112	0.5	0.411765	-0.224974	574	225.486
113	0.5	0.415441	-0.214702	574	224.985
114	0.5	0.419118	-0.204452	574	224.484
115	0.5	0.422794	-0.196779	574	224.109
116	0.5	0.426471	-0.186567	574	223.611
117	0.5	0.430147	-0.176374	574	223.113
118	0.5	0.433824	-0.168741	574	222.74
119	0.5	0.4375	-0.158579	574	222.244
120	0.5	0.441176	-0.148434	574	221.749
121	0.5	0.444853	-0.140835	574	221.377
122	0.5	0.448529	-0.130716	574	220.883
123	0.5	0.452206	-0.12061	574	220.39
124	0.5	0.455882	-0.113039	574	220.02
125	0.5	0.459559	-0.102953	574	219.528
126	0.5	0.463235	-0.0928787	574	219.036
127	0.5	0.466912	-0.0853288	574	218.667
128	0.5	0.470588	-0.0752698	574	218.176
129	0.5	0.474265	-0.0652187	574	217.685
130	0.5	0.477941	-0.0576847	574	217.317
131	0.5	0.481618	-0.0476439	574	216.827
132	0.5	0.485294	-0.0376076	574	216.337
133	0.5	0.488971	-0.0300838	574	215.969
134	0.5	0.492647	-0.0200544	574	215.479
135	0.5	0.496324	-0.0100272	574	214.99
136	0.5	0.5	0	574	214.5
137	0.5	0.503676	0.0100272	574	214.01
138	0.5	0.507353	0.0200544	574	213.521
139	0.5	0.511029	0.0300838	574	213.031
140	0.5	0.514706	0.0376076	574	212.663
141	0.5	0.518382	0.0476439	574	212.173
142	0.5	0.522059	0.0576847	574	211.683
143	0.5	0.525735	0.0652187	574	211.315
144	0.5	0.529412	0.0752698	574	210.824
145	0.5	0.533088	0.0853288	574	210.333
146	0.5	0.536765	0.0928787	574	209.964
147	0.5	0.540441	0.102953	574	209.472
148	0.5	0.544118	0.113039	574	208.98
149	0.5	0.547794	0.12061	574	208.61
150	0.5	0.551471	0.130716	574	208.117
151	0.5	0.555147	0.140835	574	207.623
152	0.5	0.558824	0.148434	574	207.251
153	0.5	0.5625	0.158579	574	206.756
154	0.5	0.566176	0.168741	574	206.26
155	0.5	0.569853	0.176374	574	205.887
156	0.5	0.573529	0.186567	574	205.389
157	0.5	0.577206	0.196779	574	204.891
158	0.5	0.580882	0.204452	574	204.516
159	0.5	0.584559	0.214702	574	204.015
160	0.5	0.588235	0.224974	574	203.514
161	0.5	0.591912	0.232693	574	203.137
162	0.5	0.595588	0.243007	574	202.633
163	0.5	0.599265	0.253347	574	202.128
164	0.5	0.602941	0.26112	574	201.749
165	0.5	0.606618	0.271509	574	201.241
166	0.5	0.610294	0.281926	574	200.733
167	0.5	0.613971	0.28976	574	200.35
168	0.5	0.617647	0.300232	574	199.839
169	0.5	0.621324	0.310738	574	199.326
170	0.5	0.625	0.318639	574	198.94
171	0.5	0.628676	0.329206	574	198.424
172	0.5	0.632353	0.33981	574	197.906

173	0.5	0.636029	0.350451	574	197.386
174	0.5	0.639706	0.358459	574	196.995
175	0.5	0.643382	0.369171	574	196.472
176	0.5	0.647059	0.379927	574	195.947
177	0.5	0.650735	0.388022	574	195.552
178	0.5	0.654412	0.398855	574	195.023
179	0.5	0.658088	0.409735	574	194.491
180	0.5	0.661765	0.417928	574	194.091
181	0.5	0.665441	0.428895	574	193.556
182	0.5	0.669118	0.439913	574	193.018
183	0.5	0.672794	0.448213	574	192.612
184	0.5	0.676471	0.459327	574	192.07
185	0.5	0.680147	0.470498	574	191.524
186	0.5	0.683824	0.478914	574	191.113
187	0.5	0.6875	0.490189	574	190.562
188	0.5	0.691176	0.501527	574	190.009
189	0.5	0.694853	0.510074	574	189.591
190	0.5	0.698529	0.521527	574	189.032
191	0.5	0.702206	0.533048	574	188.469
192	0.5	0.705882	0.541736	574	188.045
193	0.5	0.709559	0.553384	574	187.476
194	0.5	0.713235	0.565108	574	186.904
195	0.5	0.716912	0.573953	574	186.472
196	0.5	0.720588	0.585815	574	185.893
197	0.5	0.724265	0.597761	574	185.309
198	0.5	0.727941	0.606775	574	184.869
199	0.5	0.731618	0.618872	574	184.278
200	0.5	0.735294	0.631062	574	183.683
201	0.5	0.738971	0.640266	574	183.234
202	0.5	0.742647	0.652622	574	182.63
203	0.5	0.746324	0.665079	574	182.022
204	0.5	0.75	0.67449	574	181.562
205	0.5	0.753676	0.687131	574	180.945
206	0.5	0.757353	0.699883	574	180.322
207	0.5	0.761029	0.712751	574	179.694
208	0.5	0.764706	0.722479	574	179.219
209	0.5	0.768382	0.735557	574	178.58
210	0.5	0.772059	0.748762	574	177.935
211	0.5	0.775735	0.758753	574	177.448
212	0.5	0.779412	0.772193	574	176.791
213	0.5	0.783088	0.785774	574	176.128
214	0.5	0.786765	0.796056	574	175.626
215	0.5	0.790441	0.809896	574	174.95
216	0.5	0.794118	0.823893	574	174.267
217	0.5	0.797794	0.834498	574	173.749
218	0.5	0.801471	0.848786	574	173.051
219	0.5	0.805147	0.863249	574	172.345
220	0.5	0.808824	0.874218	574	171.809
221	0.5	0.8125	0.889006	574	171.087
222	0.5	0.816176	0.903992	574	170.355
223	0.5	0.819853	0.915365	574	169.8
224	0.5	0.823529	0.930718	574	169.05
225	0.5	0.827206	0.946291	574	168.289
226	0.5	0.830882	0.958125	574	167.712
227	0.5	0.834559	0.974114	574	166.931
228	0.5	0.838235	0.990356	574	166.138
229	0.5	0.841912	1.00271	574	165.534
230	0.5	0.845588	1.01943	574	164.718
231	0.5	0.849265	1.03643	574	163.888
232	0.5	0.852941	1.04939	574	163.255
233	0.5	0.856618	1.06694	574	162.398
234	0.5	0.860294	1.08482	574	161.524

235	0.5	0.863971	1.09847	574	160.858
236	0.5	0.867647	1.11699	574	159.954
237	0.5	0.871324	1.1359	574	159.03
238	0.5	0.875	1.15035	574	158.325
239	0.5	0.878676	1.17	574	157.365
240	0.5	0.882353	1.19012	574	156.383
241	0.5	0.886029	1.21073	574	155.376
242	0.5	0.889706	1.22653	574	154.605
243	0.5	0.893382	1.24809	574	153.552
244	0.5	0.897059	1.27024	574	152.47
245	0.5	0.900735	1.28727	574	151.638
246	0.5	0.904412	1.31058	574	150.5
247	0.5	0.908088	1.33462	574	149.326
248	0.5	0.911765	1.35317	574	148.42
249	0.5	0.915441	1.37866	574	147.176
250	0.5	0.919118	1.40507	574	145.886
251	0.5	0.922794	1.42554	574	144.886
252	0.5	0.926471	1.4538	574	143.506
253	0.5	0.930147	1.48328	574	142.066
254	0.5	0.933824	1.50626	574	140.944
255	0.5	0.9375	1.5382	574	139.385
256	0.5	0.941176	1.57179	574	137.744
257	0.5	0.944853	1.59819	574	136.455
258	0.5	0.948529	1.63524	574	134.646
259	0.5	0.952206	1.67466	574	132.721
260	0.5	0.955882	1.70604	574	131.188
261	0.5	0.959559	1.75069	574	129.008
262	0.5	0.963235	1.79912	574	126.643
263	0.5	0.966912	1.83843	574	124.724
264	0.5	0.970588	1.8957	574	121.927
265	0.5	0.974265	1.95996	574	118.789
266	0.5	0.977941	2.01409	574	116.145
267	0.5	0.981618	2.09693	574	112.1
268	0.5	0.985294	2.19728	574	107.199
269	0.5	0.988971	2.29036	574	102.654
270	0.5	0.992647	2.45727	574	94.5032
271	0.5	0.996324	2.74777	574	80.3175

Shapiro-Francia Test of Normality

Parameter: Tetrachloroethylene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 271

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	-2.19728	23.6622	25.1066
5	-2.59027	-2.09693	28.0593	30.5383
6	-2.59027	-2.01409	32.1159	35.7553
7	-2.59027	-1.95996	35.9574	40.8321
8	-2.59027	-1.8957	39.551	45.7425
9	-2.59027	-1.83843	42.9308	50.5045
10	-2.59027	-1.79912	46.1677	55.1647
11	-2.59027	-1.75069	49.2326	59.6994
12	-2.59027	-1.70604	52.1431	64.1185
13	-2.59027	-1.67466	54.9476	68.4564
14	-2.59027	-1.63524	57.6216	72.6921
15	-2.59027	-1.59819	60.1758	76.8318
16	-2.59027	-1.57179	62.6464	80.9032
17	-2.59027	-1.5382	65.0124	84.8875
18	-2.59027	-1.50626	67.2812	88.7891
19	-2.59027	-1.48328	69.4814	92.6312
20	-2.59027	-1.4538	71.5949	96.397
21	-2.59027	-1.42554	73.6271	100.089
22	-2.59027	-1.40507	75.6013	103.729
23	-2.59027	-1.37866	77.502	107.3
24	-2.59027	-1.35317	79.3331	110.805
25	-2.59027	-1.33462	81.1143	114.262
26	-2.59027	-1.31058	82.8319	117.657
27	-2.59027	-1.28727	84.489	120.991
28	-2.59027	-1.27024	86.1025	124.282
29	-2.59027	-1.24809	87.6602	127.514
30	-2.59027	-1.22653	89.1646	130.692
31	-2.59027	-1.21073	90.6305	133.828
32	-2.59027	-1.19012	92.0469	136.91
33	-2.59027	-1.17	93.4158	139.941
34	-2.59027	-1.15035	94.7391	142.921
35	-2.59027	-1.1359	96.0293	145.863
36	-2.59027	-1.11699	97.277	148.756
37	-2.59027	-1.09847	98.4836	151.602
38	-2.59027	-1.08482	99.6605	154.412
39	-2.59027	-1.06694	100.799	157.175
40	-2.59027	-1.04939	101.9	159.893
41	-2.59027	-1.03643	102.974	162.578
42	-2.59027	-1.01943	104.013	165.219
43	-2.59027	-1.00271	105.019	167.816
44	-2.59027	-0.990356	106	170.381
45	-2.59027	-0.974114	106.949	172.904
46	-2.59027	-0.958125	107.867	175.386
47	-2.59027	-0.946291	108.762	177.837
48	-2.59027	-0.930718	109.628	180.248
49	-2.59027	-0.915365	110.466	182.619
50	-2.59027	-0.903992	111.283	184.961
51	-2.59027	-0.889006	112.074	187.264

52	-2.59027	-0.874218	112.838	189.528
53	-2.59027	-0.863249	113.583	191.764
54	-2.59027	-0.848786	114.304	193.963
55	-2.59027	-0.834498	115	196.124
56	-2.59027	-0.823893	115.679	198.258
57	-2.59027	-0.809896	116.335	200.356
58	-2.59027	-0.796056	116.968	202.418
59	-2.59027	-0.785774	117.586	204.454
60	-2.59027	-0.772193	118.182	206.454
61	-2.59027	-0.758753	118.758	208.419
62	-2.59027	-0.748762	119.318	210.359
63	-2.59027	-0.735557	119.86	212.264
64	-2.59027	-0.722479	120.382	214.135
65	-2.59027	-0.712751	120.89	215.981
66	-2.59027	-0.699883	121.379	217.794
67	-2.59027	-0.687131	121.852	219.574
68	-2.59027	-0.67449	122.306	221.321
69	-2.59027	-0.665079	122.749	223.044
70	-2.59027	-0.652622	123.175	224.735
71	-2.59027	-0.640266	123.585	226.393
72	-2.59027	-0.631062	123.983	228.028
73	-2.59027	-0.618872	124.366	229.631
74	-2.59027	-0.606775	124.734	231.202
75	-2.59027	-0.597761	125.091	232.751
76	-2.59027	-0.585815	125.435	234.268
77	-2.59027	-0.573953	125.764	235.755
78	-2.59027	-0.565108	126.083	237.219
79	-2.59027	-0.553384	126.39	238.652
80	-1.83258	-0.541736	126.683	239.645
81	-1.66073	-0.533048	126.967	240.53
82	-1.51413	-0.521527	127.239	241.32
83	-1.42712	-0.510074	127.499	242.048
84	-1.38629	-0.501527	127.751	242.743
85	-1.34707	-0.490189	127.991	243.403
86	-1.30933	-0.478914	128.221	244.03
87	-1.27297	-0.470498	128.442	244.629
88	-1.17118	-0.459327	128.653	245.167
89	-1.04982	-0.448213	128.854	245.638
90	-0.693147	-0.439913	129.047	245.943
91	-0.693147	-0.428895	129.231	246.24
92	-0.693147	-0.417928	129.406	246.53
93	-0.693147	-0.409735	129.574	246.814
94	-0.693147	-0.398855	129.733	247.09
95	-0.693147	-0.388022	129.883	247.359
96	-0.693147	-0.379927	130.028	247.622
97	-0.693147	-0.369171	130.164	247.878
98	-0.693147	-0.358459	130.293	248.127
99	-0.693147	-0.350451	130.415	248.37
100	-0.693147	-0.33981	130.531	248.605
101	-0.693147	-0.329206	130.639	248.833
102	-0.693147	-0.318639	130.741	249.054
103	-0.693147	-0.310738	130.837	249.27
104	-0.693147	-0.300232	130.927	249.478
105	-0.693147	-0.28976	131.011	249.679
106	-0.693147	-0.281926	131.091	249.874
107	-0.693147	-0.271509	131.165	250.062
108	-0.693147	-0.26112	131.233	250.243
109	-0.693147	-0.253347	131.297	250.419
110	-0.693147	-0.243007	131.356	250.587
111	-0.693147	-0.232693	131.41	250.749
112	-0.693147	-0.224974	131.461	250.904
113	-0.693147	-0.214702	131.507	251.053

114	-0.693147	-0.204452	131.549	251.195
115	-0.693147	-0.196779	131.587	251.331
116	-0.693147	-0.186567	131.622	251.461
117	-0.693147	-0.176374	131.653	251.583
118	-0.693147	-0.168741	131.682	251.7
119	-0.693147	-0.158579	131.707	251.81
120	-0.693147	-0.148434	131.729	251.913
121	-0.693147	-0.140835	131.749	252.01
122	-0.693147	-0.130716	131.766	252.101
123	-0.693147	-0.12061	131.78	252.185
124	-0.693147	-0.113039	131.793	252.263
125	-0.693147	-0.102953	131.804	252.334
126	-0.693147	-0.0928787	131.812	252.399
127	-0.693147	-0.0853288	131.82	252.458
128	-0.693147	-0.0752698	131.825	252.51
129	-0.693147	-0.0652187	131.83	252.555
130	-0.693147	-0.0576847	131.833	252.595
131	-0.693147	-0.0476439	131.835	252.628
132	-0.693147	-0.0376076	131.837	252.654
133	-0.693147	-0.0300838	131.838	252.675
134	-0.693147	-0.0200544	131.838	252.689
135	-0.693147	-0.0100272	131.838	252.696
136	-0.693147	0	131.838	252.696
137	-0.693147	0.0100272	131.838	252.689
138	-0.693147	0.0200544	131.839	252.675
139	-0.693147	0.0300838	131.839	252.654
140	-0.693147	0.0376076	131.841	252.628
141	-0.693147	0.0476439	131.843	252.595
142	-0.693147	0.0576847	131.846	252.555
143	-0.693147	0.0652187	131.851	252.51
144	-0.693147	0.0752698	131.856	252.458
145	-0.693147	0.0853288	131.864	252.399
146	-0.693147	0.0928787	131.872	252.334
147	-0.693147	0.102953	131.883	252.263
148	-0.693147	0.113039	131.896	252.185
149	-0.693147	0.12061	131.91	252.101
150	-0.693147	0.130716	131.927	252.01
151	-0.693147	0.140835	131.947	251.913
152	-0.693147	0.148434	131.969	251.81
153	-0.693147	0.158579	131.994	251.7
154	-0.693147	0.168741	132.023	251.583
155	-0.693147	0.176374	132.054	251.461
156	-0.693147	0.186567	132.089	251.331
157	-0.693147	0.196779	132.127	251.195
158	-0.693147	0.204452	132.169	251.053
159	-0.693147	0.214702	132.215	250.904
160	-0.693147	0.224974	132.266	250.749
161	-0.693147	0.232693	132.32	250.587
162	-0.693147	0.243007	132.379	250.419
163	-0.693147	0.253347	132.443	250.243
164	-0.693147	0.26112	132.512	250.062
165	-0.693147	0.271509	132.585	249.874
166	-0.693147	0.281926	132.665	249.679
167	-0.693147	0.28976	132.749	249.478
168	-0.693147	0.300232	132.839	249.27
169	-0.693147	0.310738	132.935	249.054
170	-0.693147	0.318639	133.037	248.833
171	-0.693147	0.329206	133.145	248.605
172	-0.693147	0.33981	133.261	248.37
173	-0.693147	0.350451	133.384	248.127
174	-0.693147	0.358459	133.512	247.878
175	-0.693147	0.369171	133.648	247.622

176	-0.693147	0.379927	133.793	247.359
177	-0.693147	0.388022	133.943	247.09
178	-0.693147	0.398855	134.102	246.814
179	-0.693147	0.409735	134.27	246.53
180	-0.693147	0.417928	134.445	246.24
181	-0.693147	0.428895	134.629	245.943
182	-0.693147	0.439913	134.822	245.638
183	-0.693147	0.448213	135.023	245.327
184	-0.693147	0.459327	135.234	245.009
185	-0.693147	0.470498	135.456	244.683
186	-0.693147	0.478914	135.685	244.351
187	-0.693147	0.490189	135.925	244.011
188	-0.693147	0.501527	136.177	243.663
189	-0.693147	0.510074	136.437	243.31
190	-0.693147	0.521527	136.709	242.948
191	-0.693147	0.533048	136.993	242.579
192	-0.693147	0.541736	137.287	242.203
193	-0.693147	0.553384	137.593	241.82
194	-0.693147	0.565108	137.912	241.428
195	-0.693147	0.573953	138.242	241.03
196	-0.693147	0.585815	138.585	240.624
197	-0.693147	0.597761	138.942	240.21
198	-0.693147	0.606775	139.31	239.789
199	-0.693147	0.618872	139.693	239.36
200	-0.693147	0.631062	140.091	238.923
201	-0.693147	0.640266	140.501	238.479
202	-0.693147	0.652622	140.927	238.027
203	-0.693147	0.665079	141.37	237.566
204	-0.693147	0.67449	141.825	237.098
205	-0.693147	0.687131	142.297	236.622
206	-0.693147	0.699883	142.787	236.137
207	-0.693147	0.712751	143.295	235.643
208	-0.693147	0.722479	143.817	235.142
209	-0.693147	0.735557	144.358	234.632
210	-0.693147	0.748762	144.918	234.113
211	-0.693147	0.758753	145.494	233.587
212	-0.693147	0.772193	146.09	233.052
213	-0.693147	0.785774	146.708	232.507
214	-0.693147	0.796056	147.341	231.955
215	-0.693147	0.809896	147.997	231.394
216	-0.693147	0.823893	148.676	230.823
217	-0.693147	0.834498	149.373	230.244
218	-0.693147	0.848786	150.093	229.656
219	-0.693147	0.863249	150.838	229.058
220	-0.693147	0.874218	151.602	228.452
221	-0.693147	0.889006	152.393	227.836
222	-0.693147	0.903992	153.21	227.209
223	-0.693147	0.915365	154.048	226.574
224	-0.693147	0.930718	154.914	225.929
225	-0.693147	0.946291	155.81	225.273
226	-0.693147	0.958125	156.728	224.609
227	-0.693147	0.974114	157.676	223.934
228	-0.693147	0.990356	158.657	223.248
229	-0.693147	1.00271	159.663	222.553
230	-0.693147	1.01943	160.702	221.846
231	-0.693147	1.03643	161.776	221.128
232	-0.693147	1.04939	162.877	220.4
233	-0.693147	1.06694	164.016	219.661
234	-0.693147	1.08482	165.193	218.909
235	-0.693147	1.09847	166.399	218.147
236	-0.693147	1.11699	167.647	217.373
237	-0.693147	1.1359	168.937	216.586

238	-0.693147		1.15035	170.26	215.788
239	-0.693147		1.17	171.629	214.977
240	-0.693147		1.19012	173.046	214.152
241	-0.693147		1.21073	174.512	213.313
242	-0.693147		1.22653	176.016	212.463
243	-0.693147		1.24809	177.574	211.598
244	-0.693147		1.27024	179.187	210.718
245	-0.693147		1.28727	180.844	209.825
246	-0.693147		1.31058	182.562	208.917
247	-0.693147		1.33462	184.343	207.992
248	-0.693147		1.35317	186.174	207.054
249	-0.693147		1.37866	188.075	206.098
250	-0.693147		1.40507	190.049	205.124
251	-0.693147		1.42554	192.081	204.136
252	-0.693147		1.4538	194.195	203.128
253	-0.693147		1.48328	196.395	202.1
254	-0.693147		1.50626	198.664	201.056
255	-0.693147		1.5382	201.03	199.99
256	-0.693147		1.57179	203.5	198.901
257	-0.693147		1.59819	206.054	197.793
258	-0.693147		1.63524	208.728	196.659
259	-0.693147		1.67466	211.533	195.499
260	-0.693147		1.70604	214.444	194.316
261	-0.693147		1.75069	217.508	193.103
262	-0.693147		1.79912	220.745	191.855
263	-0.693147		1.83843	224.125	190.581
264	-0.693147		1.8957	227.719	189.267
265	-0.693147		1.95996	231.56	187.909
266	-0.693147		2.01409	235.617	186.513
267	-0.693147		2.09693	240.014	185.059
268	0	2.19728	244.842	185.059	
269	0	2.29036	250.088	185.059	
270	0	2.45727	256.126	185.059	
271	0	2.74777	263.676	185.059	

Data Set Standard Deviation = 0.869234
Numerator = 34246.9
Denominator = 53790.8
W Statistic = 0.636668 = 34246.9 / 53790.8

5% Critical value of 0.976 exceeds 0.636668
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.636668
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Tetrachloroethylene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.796394
0.796394 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.59027	0.00367647	-2.74777	112.069	348.683
2	-2.59027	0.00735294	-2.45727	112.069	334.497
3	-2.59027	0.0110294	-2.29036	112.069	326.346
4	-2.59027	0.0147059	-2.19728	112.069	321.801
5	-2.59027	0.0183824	-2.09693	112.069	316.9
6	-2.59027	0.0220588	-2.01409	112.069	312.855
7	-2.59027	0.0257353	-1.95996	112.069	310.211
8	-2.59027	0.0294118	-1.8957	112.069	307.073
9	-2.59027	0.0330882	-1.83843	112.069	304.276
10	-2.59027	0.0367647	-1.79912	112.069	302.357
11	-2.59027	0.0404412	-1.75069	112.069	299.992
12	-2.59027	0.0441176	-1.70604	112.069	297.812
13	-2.59027	0.0477941	-1.67466	112.069	296.279
14	-2.59027	0.0514706	-1.63524	112.069	294.354
15	-2.59027	0.0551471	-1.59819	112.069	292.545
16	-2.59027	0.0588235	-1.57179	112.069	291.256
17	-2.59027	0.0625	-1.5382	112.069	289.615
18	-2.59027	0.0661765	-1.50626	112.069	288.056
19	-2.59027	0.0698529	-1.48328	112.069	286.934
20	-2.59027	0.0735294	-1.4538	112.069	285.494
21	-2.59027	0.0772059	-1.42554	112.069	284.114
22	-2.59027	0.0808824	-1.40507	112.069	283.114
23	-2.59027	0.0845588	-1.37866	112.069	281.824
24	-2.59027	0.0882353	-1.35317	112.069	280.58
25	-2.59027	0.0919118	-1.33462	112.069	279.674
26	-2.59027	0.0955882	-1.31058	112.069	278.5
27	-2.59027	0.0992647	-1.28727	112.069	277.362
28	-2.59027	0.102941	-1.27024	112.069	276.53
29	-2.59027	0.106618	-1.24809	112.069	275.448
30	-2.59027	0.110294	-1.22653	112.069	274.395
31	-2.59027	0.113971	-1.21073	112.069	273.624
32	-2.59027	0.117647	-1.19012	112.069	272.617
33	-2.59027	0.121324	-1.17	112.069	271.635
34	-2.59027	0.125	-1.15035	112.069	270.675
35	-2.59027	0.128676	-1.1359	112.069	269.97
36	-2.59027	0.132353	-1.11699	112.069	269.046
37	-2.59027	0.136029	-1.09847	112.069	268.142
38	-2.59027	0.139706	-1.08482	112.069	267.476
39	-2.59027	0.143382	-1.06694	112.069	266.602
40	-2.59027	0.147059	-1.04939	112.069	265.745
41	-2.59027	0.150735	-1.03643	112.069	265.112
42	-2.59027	0.154412	-1.01943	112.069	264.282
43	-2.59027	0.158088	-1.00271	112.069	263.466
44	-2.59027	0.161765	-0.990356	112.069	262.862
45	-2.59027	0.165441	-0.974114	112.069	262.069
46	-2.59027	0.169118	-0.958125	112.069	261.288
47	-2.59027	0.172794	-0.946291	112.069	260.711
48	-2.59027	0.176471	-0.930718	112.069	259.95

49	-2.59027	0.180147	-0.915365	112.069	259.2
50	-2.59027	0.183824	-0.903992	112.069	258.645
51	-2.59027	0.1875	-0.889006	112.069	257.913
52	-2.59027	0.191176	-0.874218	112.069	257.191
53	-2.59027	0.194853	-0.863249	112.069	256.655
54	-2.59027	0.198529	-0.848786	112.069	255.949
55	-2.59027	0.202206	-0.834498	112.069	255.251
56	-2.59027	0.205882	-0.823893	112.069	254.733
57	-2.59027	0.209559	-0.809896	112.069	254.05
58	-2.59027	0.213235	-0.796056	112.069	253.374
59	-2.59027	0.216912	-0.785774	112.069	252.872
60	-2.59027	0.220588	-0.772193	112.069	252.209
61	-2.59027	0.224265	-0.758753	112.069	251.552
62	-2.59027	0.227941	-0.748762	112.069	251.065
63	-2.59027	0.231618	-0.735557	112.069	250.42
64	-2.59027	0.235294	-0.722479	112.069	249.781
65	-2.59027	0.238971	-0.712751	112.069	249.306
66	-2.59027	0.242647	-0.699883	112.069	248.678
67	-2.59027	0.246324	-0.687131	112.069	248.055
68	-2.59027	0.25	-0.67449	112.069	247.438
69	-2.59027	0.253676	-0.665079	112.069	246.978
70	-2.59027	0.257353	-0.652622	112.069	246.37
71	-2.59027	0.261029	-0.640266	112.069	245.766
72	-2.59027	0.264706	-0.631062	112.069	245.317
73	-2.59027	0.268382	-0.618872	112.069	244.722
74	-2.59027	0.272059	-0.606775	112.069	244.131
75	-2.59027	0.275735	-0.597761	112.069	243.691
76	-2.59027	0.279412	-0.585815	112.069	243.107
77	-2.59027	0.283088	-0.573953	112.069	242.528
78	-2.59027	0.286765	-0.565108	112.069	242.096
79	-2.59027	0.290441	-0.553384	112.069	241.524
80	-1.83258	0.294118	-0.541736	247.19	240.955
81	-1.66073	0.297794	-0.533048	277.836	240.531
82	-1.51413	0.301471	-0.521527	303.981	239.968
83	-1.42712	0.305147	-0.510074	319.498	239.409
84	-1.38629	0.308824	-0.501527	326.778	238.991
85	-1.34707	0.3125	-0.490189	333.772	238.438
86	-1.30933	0.316176	-0.478914	340.502	237.887
87	-1.27297	0.319853	-0.470498	346.988	237.476
88	-1.17118	0.323529	-0.459327	365.139	236.93
89	-1.04982	0.327206	-0.448213	386.782	236.388
90	-0.693147	0.330882	-0.439913	450.389	235.982
91	-0.693147	0.334559	-0.428895	450.389	235.444
92	-0.693147	0.338235	-0.417928	450.389	234.909
93	-0.693147	0.341912	-0.409735	450.389	234.509
94	-0.693147	0.345588	-0.398855	450.389	233.977
95	-0.693147	0.349265	-0.388022	450.389	233.448
96	-0.693147	0.352941	-0.379927	450.389	233.053
97	-0.693147	0.356618	-0.369171	450.389	232.528
98	-0.693147	0.360294	-0.358459	450.389	232.005
99	-0.693147	0.363971	-0.350451	450.389	231.614
100	-0.693147	0.367647	-0.33981	450.389	231.094
101	-0.693147	0.371324	-0.329206	450.389	230.576
102	-0.693147	0.375	-0.318639	450.389	230.06
103	-0.693147	0.378676	-0.310738	450.389	229.674
104	-0.693147	0.382353	-0.300232	450.389	229.161
105	-0.693147	0.386029	-0.28976	450.389	228.65
106	-0.693147	0.389706	-0.281926	450.389	228.267
107	-0.693147	0.393382	-0.271509	450.389	227.759
108	-0.693147	0.397059	-0.26112	450.389	227.251
109	-0.693147	0.400735	-0.253347	450.389	226.872
110	-0.693147	0.404412	-0.243007	450.389	226.367

111	-0.693147	0.408088	-0.232693	450.389	225.863
112	-0.693147	0.411765	-0.224974	450.389	225.486
113	-0.693147	0.415441	-0.214702	450.389	224.985
114	-0.693147	0.419118	-0.204452	450.389	224.484
115	-0.693147	0.422794	-0.196779	450.389	224.109
116	-0.693147	0.426471	-0.186567	450.389	223.611
117	-0.693147	0.430147	-0.176374	450.389	223.113
118	-0.693147	0.433824	-0.168741	450.389	222.74
119	-0.693147	0.4375	-0.158579	450.389	222.244
120	-0.693147	0.441176	-0.148434	450.389	221.749
121	-0.693147	0.444853	-0.140835	450.389	221.377
122	-0.693147	0.448529	-0.130716	450.389	220.883
123	-0.693147	0.452206	-0.12061	450.389	220.39
124	-0.693147	0.455882	-0.113039	450.389	220.02
125	-0.693147	0.459559	-0.102953	450.389	219.528
126	-0.693147	0.463235	-0.0928787	450.389	219.036
127	-0.693147	0.466912	-0.0853288	450.389	218.667
128	-0.693147	0.470588	-0.0752698	450.389	218.176
129	-0.693147	0.474265	-0.0652187	450.389	217.685
130	-0.693147	0.477941	-0.0576847	450.389	217.317
131	-0.693147	0.481618	-0.0476439	450.389	216.827
132	-0.693147	0.485294	-0.0376076	450.389	216.337
133	-0.693147	0.488971	-0.0300838	450.389	215.969
134	-0.693147	0.492647	-0.0200544	450.389	215.479
135	-0.693147	0.496324	-0.0100272	450.389	214.99
136	-0.693147	0.5	0	450.389	214.5
137	-0.693147	0.503676	0.0100272	450.389	214.01
138	-0.693147	0.507353	0.0200544	450.389	213.521
139	-0.693147	0.511029	0.0300838	450.389	213.031
140	-0.693147	0.514706	0.0376076	450.389	212.663
141	-0.693147	0.518382	0.0476439	450.389	212.173
142	-0.693147	0.522059	0.0576847	450.389	211.683
143	-0.693147	0.525735	0.0652187	450.389	211.315
144	-0.693147	0.529412	0.0752698	450.389	210.824
145	-0.693147	0.533088	0.0853288	450.389	210.333
146	-0.693147	0.536765	0.0928787	450.389	209.964
147	-0.693147	0.540441	0.102953	450.389	209.472
148	-0.693147	0.544118	0.113039	450.389	208.98
149	-0.693147	0.547794	0.12061	450.389	208.61
150	-0.693147	0.551471	0.130716	450.389	208.117
151	-0.693147	0.555147	0.140835	450.389	207.623
152	-0.693147	0.558824	0.148434	450.389	207.251
153	-0.693147	0.5625	0.158579	450.389	206.756
154	-0.693147	0.566176	0.168741	450.389	206.26
155	-0.693147	0.569853	0.176374	450.389	205.887
156	-0.693147	0.573529	0.186567	450.389	205.389
157	-0.693147	0.577206	0.196779	450.389	204.891
158	-0.693147	0.580882	0.204452	450.389	204.516
159	-0.693147	0.584559	0.214702	450.389	204.015
160	-0.693147	0.588235	0.224974	450.389	203.514
161	-0.693147	0.591912	0.232693	450.389	203.137
162	-0.693147	0.595588	0.243007	450.389	202.633
163	-0.693147	0.599265	0.253347	450.389	202.128
164	-0.693147	0.602941	0.26112	450.389	201.749
165	-0.693147	0.606618	0.271509	450.389	201.241
166	-0.693147	0.610294	0.281926	450.389	200.733
167	-0.693147	0.613971	0.28976	450.389	200.35
168	-0.693147	0.617647	0.300232	450.389	199.839
169	-0.693147	0.621324	0.310738	450.389	199.326
170	-0.693147	0.625	0.318639	450.389	198.94
171	-0.693147	0.628676	0.329206	450.389	198.424
172	-0.693147	0.632353	0.33981	450.389	197.906

173	-0.693147	0.636029	0.350451	450.389	197.386
174	-0.693147	0.639706	0.358459	450.389	196.995
175	-0.693147	0.643382	0.369171	450.389	196.472
176	-0.693147	0.647059	0.379927	450.389	195.947
177	-0.693147	0.650735	0.388022	450.389	195.552
178	-0.693147	0.654412	0.398855	450.389	195.023
179	-0.693147	0.658088	0.409735	450.389	194.491
180	-0.693147	0.661765	0.417928	450.389	194.091
181	-0.693147	0.665441	0.428895	450.389	193.556
182	-0.693147	0.669118	0.439913	450.389	193.018
183	-0.693147	0.672794	0.448213	450.389	192.612
184	-0.693147	0.676471	0.459327	450.389	192.07
185	-0.693147	0.680147	0.470498	450.389	191.524
186	-0.693147	0.683824	0.478914	450.389	191.113
187	-0.693147	0.6875	0.490189	450.389	190.562
188	-0.693147	0.691176	0.501527	450.389	190.009
189	-0.693147	0.694853	0.510074	450.389	189.591
190	-0.693147	0.698529	0.521527	450.389	189.032
191	-0.693147	0.702206	0.533048	450.389	188.469
192	-0.693147	0.705882	0.541736	450.389	188.045
193	-0.693147	0.709559	0.553384	450.389	187.476
194	-0.693147	0.713235	0.565108	450.389	186.904
195	-0.693147	0.716912	0.573953	450.389	186.472
196	-0.693147	0.720588	0.585815	450.389	185.893
197	-0.693147	0.724265	0.597761	450.389	185.309
198	-0.693147	0.727941	0.606775	450.389	184.869
199	-0.693147	0.731618	0.618872	450.389	184.278
200	-0.693147	0.735294	0.631062	450.389	183.683
201	-0.693147	0.738971	0.640266	450.389	183.234
202	-0.693147	0.742647	0.652622	450.389	182.63
203	-0.693147	0.746324	0.665079	450.389	182.022
204	-0.693147	0.75	0.67449	450.389	181.562
205	-0.693147	0.753676	0.687131	450.389	180.945
206	-0.693147	0.757353	0.699883	450.389	180.322
207	-0.693147	0.761029	0.712751	450.389	179.694
208	-0.693147	0.764706	0.722479	450.389	179.219
209	-0.693147	0.768382	0.735557	450.389	178.58
210	-0.693147	0.772059	0.748762	450.389	177.935
211	-0.693147	0.775735	0.758753	450.389	177.448
212	-0.693147	0.779412	0.772193	450.389	176.791
213	-0.693147	0.783088	0.785774	450.389	176.128
214	-0.693147	0.786765	0.796056	450.389	175.626
215	-0.693147	0.790441	0.809896	450.389	174.95
216	-0.693147	0.794118	0.823893	450.389	174.267
217	-0.693147	0.797794	0.834498	450.389	173.749
218	-0.693147	0.801471	0.848786	450.389	173.051
219	-0.693147	0.805147	0.863249	450.389	172.345
220	-0.693147	0.808824	0.874218	450.389	171.809
221	-0.693147	0.8125	0.889006	450.389	171.087
222	-0.693147	0.816176	0.903992	450.389	170.355
223	-0.693147	0.819853	0.915365	450.389	169.8
224	-0.693147	0.823529	0.930718	450.389	169.05
225	-0.693147	0.827206	0.946291	450.389	168.289
226	-0.693147	0.830882	0.958125	450.389	167.712
227	-0.693147	0.834559	0.974114	450.389	166.931
228	-0.693147	0.838235	0.990356	450.389	166.138
229	-0.693147	0.841912	1.00271	450.389	165.534
230	-0.693147	0.845588	1.01943	450.389	164.718
231	-0.693147	0.849265	1.03643	450.389	163.888
232	-0.693147	0.852941	1.04939	450.389	163.255
233	-0.693147	0.856618	1.06694	450.389	162.398
234	-0.693147	0.860294	1.08482	450.389	161.524

235	-0.693147	0.863971	1.09847	450.389	160.858
236	-0.693147	0.867647	1.11699	450.389	159.954
237	-0.693147	0.871324	1.1359	450.389	159.03
238	-0.693147	0.875	1.15035	450.389	158.325
239	-0.693147	0.878676	1.17	450.389	157.365
240	-0.693147	0.882353	1.19012	450.389	156.383
241	-0.693147	0.886029	1.21073	450.389	155.376
242	-0.693147	0.889706	1.22653	450.389	154.605
243	-0.693147	0.893382	1.24809	450.389	153.552
244	-0.693147	0.897059	1.27024	450.389	152.47
245	-0.693147	0.900735	1.28727	450.389	151.638
246	-0.693147	0.904412	1.31058	450.389	150.5
247	-0.693147	0.908088	1.33462	450.389	149.326
248	-0.693147	0.911765	1.35317	450.389	148.42
249	-0.693147	0.915441	1.37866	450.389	147.176
250	-0.693147	0.919118	1.40507	450.389	145.886
251	-0.693147	0.922794	1.42554	450.389	144.886
252	-0.693147	0.926471	1.4538	450.389	143.506
253	-0.693147	0.930147	1.48328	450.389	142.066
254	-0.693147	0.933824	1.50626	450.389	140.944
255	-0.693147	0.9375	1.5382	450.389	139.385
256	-0.693147	0.941176	1.57179	450.389	137.744
257	-0.693147	0.944853	1.59819	450.389	136.455
258	-0.693147	0.948529	1.63524	450.389	134.646
259	-0.693147	0.952206	1.67466	450.389	132.721
260	-0.693147	0.955882	1.70604	450.389	131.188
261	-0.693147	0.959559	1.75069	450.389	129.008
262	-0.693147	0.963235	1.79912	450.389	126.643
263	-0.693147	0.966912	1.83843	450.389	124.724
264	-0.693147	0.970588	1.8957	450.389	121.927
265	-0.693147	0.974265	1.95996	450.389	118.789
266	-0.693147	0.977941	2.01409	450.389	116.145
267	-0.693147	0.981618	2.09693	450.389	112.1
268	0	0.985294	2.19728	574	107.199
269	0	0.988971	2.29036	574	102.654
270	0	0.992647	2.45727	574	94.5032
271	0	0.996324	2.74777	574	80.3175

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Tetrachloroethylene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 96.31%
Number of comparisons = 16
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 0
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-9S	5/16/2012	1	-2.59027	FALSE
LMW-3	5/16/2012	1	-2.59027	FALSE
LMW-10	5/16/2012	1	-1.27297	FALSE
LMW-14R	5/16/2012	1	-2.59027	FALSE
LMW-16	5/16/2012	1	-2.59027	FALSE
LMW-3S	5/16/2012	1	-2.59027	FALSE
LMW-6	5/16/2012	1	-1.83258	FALSE
LMW-7	5/16/2012	1	-2.59027	FALSE
LMW-9	5/16/2012	1	-2.59027	FALSE
LMW-9D	5/16/2012	1	-2.59027	FALSE
LMW-8	5/16/2012	1	-2.59027	FALSE
LMW-15R	5/16/2012	1	-2.59027	FALSE
MW-5	11/20/2008	1	-0.693147	FALSE
LMW-12	11/20/2008	1	-0.693147	FALSE
LMW-11	11/20/2008	1	-0.693147	FALSE
LMW-13	11/20/2008	1	-0.693147	FALSE

Concentrations (ppb)

Parameter: Thallium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 263
Percent Non-Detects: 97.048%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	22 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	ND<0.1 U	ND<0.1 U

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-10	19	19 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	ND<0.1 U	ND<0.1 U
LMW-7	20	20 (100%)	1/16/1998	ND<1	ND<1

			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	ND<0.1 U	ND<0.1 U
LMW-6	22	21 (95.4545%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	0.18 J	0.18 J
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	ND<0.1 U	ND<0.1 U
LMW-3s	1	1 (100%)	5/16/2012	ND<0.1 U	ND<0.1 U
LMW-3	24	24 (100%)	11/19/1996	ND<1	ND<1
			3/24/1997	ND<1	ND<1
			1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1

			6/11/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	ND<0.1 U	ND<0.1 U
LMW-16	12	12 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	ND<0.1 U	ND<0.1 U
LMW-14R	10	9 (90%)	6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	0.11 J	0.11 J
LMW-9	22	20 (90.9091%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	0.13 J	0.13 J
			11/16/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	0.13 J	0.13 J
LMW-9D	12	11 (91.6667%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	ND<0.1 U	ND<0.1 U

			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	0.13 J	0.13 J
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	ND<0.1 U	ND<0.1 U
LMW-9S	14	13 (92.8571%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	0.17 J	0.17 J
			11/16/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	ND<0.1 U	ND<0.1 U
LMW-8	22	20 (90.9091%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	0.11 J	0.11 J
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	0.11 J	0.11 J
LMW-15R	14	14 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
			5/16/2012	ND<0.1 U	ND<0.1 U
LMW-3S	11	11 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1

			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.1 U	ND<0.1 U
			11/16/2009	ND<0.1 U	ND<0.1 U
			6/30/2010	ND<0.1 U	ND<0.1 U
			11/17/2010	ND<0.1 U	ND<0.1 U
			7/6/2011	ND<0.1 U	ND<0.1 U
			11/22/2011	ND<0.1 U	ND<0.1 U
LMW-11	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
LMW-13	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
LMW-12	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
MW-5	13	13 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.05	-2.747777	.55021	-0.137388
2	0.05	-2.457271	3.5884	-0.260252
3	0.05	-2.290361	8.8342	-0.37477
4	0.05	-2.197282	3.6622	-0.484634
5	0.05	-2.096932	8.0593	-0.589481
6	0.05	-2.014093	2.1159	-0.690186
7	0.05	-1.959963	5.9574	-0.788184
8	0.05	-1.8957	39.551	-0.882968
9	0.05	-1.838434	2.9308	-0.97489
10	0.05	-1.799124	6.1677	-1.06485
11	0.05	-1.750694	9.2326	-1.15238
12	0.05	-1.706045	2.1431	-1.23768
13	0.05	-1.674665	4.9476	-1.32142
14	0.05	-1.635245	7.6216	-1.40318
15	0.05	-1.598196	0.1758	-1.48309
16	0.05	-1.571796	2.6464	-1.56168
17	0.05	-1.5382	65.0124	-1.63859
18	0.05	-1.506267	7.2812	-1.7139
19	0.05	-1.483286	9.4814	-1.78806
20	0.05	-1.4538	71.5949	-1.86075
21	0.05	-1.425547	3.6271	-1.93203
22	0.05	-1.405077	5.6013	-2.00228
23	0.05	-1.378667	7.502	-2.07122
24	0.05	-1.353177	9.3331	-2.13888
25	0.05	-1.334628	1.1143	-2.20561
26	0.05	-1.310588	2.8319	-2.27114
27	0.05	-1.287278	4.489	-2.3355
28	0.05	-1.270248	6.1025	-2.39901
29	0.05	-1.248098	7.6602	-2.46142
30	0.05	-1.226538	9.1646	-2.52274
31	0.05	-1.210739	0.6305	-2.58328
32	0.05	-1.190129	2.0469	-2.64278
33	0.05	-1.17	93.4158	-2.70128
34	0.05	-1.150359	4.7391	-2.7588
35	0.05	-1.1359	96.0293	-2.8156
36	0.05	-1.116999	7.277	-2.87145
37	0.05	-1.098479	8.4836	-2.92637
38	0.05	-1.084829	9.6605	-2.98061
39	0.05	-1.066941	00.799	-3.03396
40	0.05	-1.049391	01.9	-3.08643
41	0.05	-1.036431	02.974	-3.13825
42	0.05	-1.019431	04.013	-3.18922
43	0.05	-1.002711	05.019	-3.23936
44	0.05	-0.990356	106	-3.28887
45	0.05	-0.974114	106.949	-3.33758
46	0.05	-0.958125	107.867	-3.38549
47	0.05	-0.946291	108.762	-3.4328
48	0.05	-0.930718	109.628	-3.47934
49	0.05	-0.915365	110.466	-3.5251
50	0.05	-0.903992	111.283	-3.5703
51	0.05	-0.889006	112.074	-3.61475

52	0.05	-0.874218	112.838	-3.65846
53	0.05	-0.863249	113.583	-3.70163
54	0.05	-0.848786	114.304	-3.74407
55	0.05	-0.834498	115	-3.78579
56	0.05	-0.823893	115.679	-3.82699
57	0.05	-0.809896	116.335	-3.86748
58	0.05	-0.796056	116.968	-3.90728
59	0.05	-0.785774	117.586	-3.94657
60	0.05	-0.772193	118.182	-3.98518
61	0.05	-0.758753	118.758	-4.02312
62	0.05	-0.748762	119.318	-4.06056
63	0.05	-0.735557	119.86	-4.09734
64	0.05	-0.722479	120.382	-4.13346
65	0.05	-0.712751	120.89	-4.1691
66	0.05	-0.699883	121.379	-4.20409
67	0.05	-0.687131	121.852	-4.23845
68	0.05	-0.67449	122.306	-4.27217
69	0.05	-0.665079	122.749	-4.30543
70	0.05	-0.652622	123.175	-4.33806
71	0.05	-0.640266	123.585	-4.37007
72	0.05	-0.631062	123.983	-4.40162
73	0.05	-0.618872	124.366	-4.43257
74	0.05	-0.606775	124.734	-4.46291
75	0.05	-0.597761	125.091	-4.49279
76	0.05	-0.585815	125.435	-4.52208
77	0.05	-0.573953	125.764	-4.55078
78	0.05	-0.565108	126.083	-4.57904
79	0.05	-0.553384	126.39	-4.60671
80	0.05	-0.541736	126.683	-4.63379
81	0.05	-0.533048	126.967	-4.66045
82	0.11	-0.521527	127.239	-4.71781
83	0.11	-0.510074	127.499	-4.77392
84	0.11	-0.501527	127.751	-4.82909
85	0.13	-0.490189	127.991	-4.89281
86	0.13	-0.478914	128.221	-4.95507
87	0.13	-0.470498	128.442	-5.01624
88	0.17	-0.459327	128.653	-5.09432
89	0.18	-0.448213	128.854	-5.175
90	0.5	-0.439913	129.047	-5.39496
91	0.5	-0.428895	129.231	-5.60941
92	0.5	-0.417928	129.406	-5.81837
93	0.5	-0.409735	129.574	-6.02324
94	0.5	-0.398855	129.733	-6.22267
95	0.5	-0.388022	129.883	-6.41668
96	0.5	-0.379927	130.028	-6.60664
97	0.5	-0.369171	130.164	-6.79123
98	0.5	-0.358459	130.293	-6.97045
99	0.5	-0.350451	130.415	-7.14568
100	0.5	-0.33981	130.531	-7.31559
101	0.5	-0.329206	130.639	-7.48019
102	0.5	-0.318639	130.741	-7.63951
103	0.5	-0.310738	130.837	-7.79488
104	0.5	-0.300232	130.927	-7.94499
105	0.5	-0.28976	131.011	-8.08987
106	0.5	-0.281926	131.091	-8.23084
107	0.5	-0.271509	131.165	-8.36659
108	0.5	-0.26112	131.233	-8.49715
109	0.5	-0.253347	131.297	-8.62382
110	0.5	-0.243007	131.356	-8.74533
111	0.5	-0.232693	131.41	-8.86167
112	0.5	-0.224974	131.461	-8.97416
113	0.5	-0.214702	131.507	-9.08151

114	0.5	-0.204452	131.549	-9.18374
115	0.5	-0.196779	131.587	-9.28213
116	0.5	-0.186567	131.622	-9.37541
117	0.5	-0.176374	131.653	-9.4636
118	0.5	-0.168741	131.682	-9.54797
119	0.5	-0.158579	131.707	-9.62726
120	0.5	-0.148434	131.729	-9.70148
121	0.5	-0.140835	131.749	-9.77189
122	0.5	-0.130716	131.766	-9.83725
123	0.5	-0.12061	131.78	-9.89756
124	0.5	-0.113039	131.793	-9.95408
125	0.5	-0.102953	131.804	-10.0056
126	0.5	-0.0928787	131.812	-10.052
127	0.5	-0.0853288	131.82	-10.0947
128	0.5	-0.0752698	131.825	-10.1323
129	0.5	-0.0652187	131.83	-10.1649
130	0.5	-0.0576847	131.833	-10.1937
131	0.5	-0.0476439	131.835	-10.2176
132	0.5	-0.0376076	131.837	-10.2364
133	0.5	-0.0300838	131.838	-10.2514
134	0.5	-0.0200544	131.838	-10.2614
135	0.5	-0.0100272	131.838	-10.2665
136	0.5	0	131.838	-10.2665
137	0.5	0.0100272	131.838	-10.2614
138	0.5	0.0200544	131.839	-10.2514
139	0.5	0.0300838	131.839	-10.2364
140	0.5	0.0376076	131.841	-10.2176
141	0.5	0.0476439	131.843	-10.1937
142	0.5	0.0576847	131.846	-10.1649
143	0.5	0.0652187	131.851	-10.1323
144	0.5	0.0752698	131.856	-10.0947
145	0.5	0.0853288	131.864	-10.052
146	0.5	0.0928787	131.872	-10.0056
147	0.5	0.102953	131.883	-9.95408
148	0.5	0.113039	131.896	-9.89756
149	0.5	0.12061	131.91	-9.83725
150	0.5	0.130716	131.927	-9.77189
151	0.5	0.140835	131.947	-9.70148
152	0.5	0.148434	131.969	-9.62726
153	0.5	0.158579	131.994	-9.54797
154	0.5	0.168741	132.023	-9.4636
155	0.5	0.176374	132.054	-9.37541
156	0.5	0.186567	132.089	-9.28213
157	0.5	0.196779	132.127	-9.18374
158	0.5	0.204452	132.169	-9.08151
159	0.5	0.214702	132.215	-8.97416
160	0.5	0.224974	132.266	-8.86167
161	0.5	0.232693	132.32	-8.74533
162	0.5	0.243007	132.379	-8.62382
163	0.5	0.253347	132.443	-8.49715
164	0.5	0.26112	132.512	-8.36659
165	0.5	0.271509	132.585	-8.23084
166	0.5	0.281926	132.665	-8.08987
167	0.5	0.28976	132.749	-7.94499
168	0.5	0.300232	132.839	-7.79488
169	0.5	0.310738	132.935	-7.63951
170	0.5	0.318639	133.037	-7.48019
171	0.5	0.329206	133.145	-7.31559
172	0.5	0.33981	133.261	-7.14568
173	0.5	0.350451	133.384	-6.97045
174	0.5	0.358459	133.512	-6.79123
175	0.5	0.369171	133.648	-6.60664

176	0.5	0.379927		133.793	-6.41668
177	0.5	0.388022		133.943	-6.22267
178	0.5	0.398855		134.102	-6.02324
179	0.5	0.409735		134.27	-5.81837
180	0.5	0.417928		134.445	-5.60941
181	0.5	0.428895		134.629	-5.39496
182	0.5	0.439913		134.822	-5.175
183	0.5	0.448213		135.023	-4.9509
184	0.5	0.459327		135.234	-4.72123
185	0.5	0.470498		135.456	-4.48598
186	0.5	0.478914		135.685	-4.24653
187	0.5	0.490189		135.925	-4.00143
188	0.5	0.501527		136.177	-3.75067
189	0.5	0.510074		136.437	-3.49563
190	0.5	0.521527		136.709	-3.23487
191	0.5	0.533048		136.993	-2.96834
192	0.5	0.541736		137.287	-2.69748
193	0.5	0.553384		137.593	-2.42078
194	0.5	0.565108		137.912	-2.13823
195	0.5	0.573953		138.242	-1.85125
196	0.5	0.585815		138.585	-1.55835
197	0.5	0.597761		138.942	-1.25947
198	0.5	0.606775		139.31	-0.956078
199	0.5	0.618872		139.693	-0.646642
200	0.5	0.631062		140.091	-0.331111
201	0.5	0.640266		140.501	-0.0109782
202	0.5	0.652622		140.927	0.315333
203	0.5	0.665079		141.37	0.647872
204	0.5	0.67449	141.825	0.985117	
205	0.5	0.687131		142.297	1.32868
206	0.5	0.699883		142.787	1.67862
207	0.5	0.712751		143.295	2.035
208	0.5	0.722479		143.817	2.39624
209	0.5	0.735557		144.358	2.76402
210	0.5	0.748762		144.918	3.1384
211	0.5	0.758753		145.494	3.51778
212	0.5	0.772193		146.09	3.90387
213	0.5	0.785774		146.708	4.29676
214	0.5	0.796056		147.341	4.69479
215	0.5	0.809896		147.997	5.09973
216	0.5	0.823893		148.676	5.51168
217	0.5	0.834498		149.373	5.92893
218	0.5	0.848786		150.093	6.35332
219	0.5	0.863249		150.838	6.78495
220	0.5	0.874218		151.602	7.22206
221	0.5	0.889006		152.393	7.66656
222	0.5	0.903992		153.21	8.11856
223	0.5	0.915365		154.048	8.57624
224	0.5	0.930718		154.914	9.0416
225	0.5	0.946291		155.81	9.51474
226	0.5	0.958125		156.728	9.99381
227	0.5	0.974114		157.676	10.4809
228	0.5	0.990356		158.657	10.976
229	0.5	1.00271	159.663	11.4774	
230	0.5	1.01943	160.702	11.9871	
231	0.5	1.03643	161.776	12.5053	
232	0.5	1.04939	162.877	13.03	
233	0.5	1.06694	164.016	13.5635	
234	0.5	1.08482	165.193	14.1059	
235	0.5	1.09847	166.399	14.6551	
236	0.5	1.11699	167.647	15.2136	
237	0.5	1.1359	168.937	15.7816	

238	0.5	1.15035	170.26	16.3567
239	0.5	1.17	171.629	16.9418
240	0.5	1.19012	173.046	17.5368
241	0.5	1.21073	174.512	18.1422
242	0.5	1.22653	176.016	18.7554
243	0.5	1.24809	177.574	19.3795
244	0.5	1.27024	179.187	20.0146
245	0.5	1.28727	180.844	20.6582
246	0.5	1.31058	182.562	21.3135
247	0.5	1.33462	184.343	21.9808
248	0.5	1.35317	186.174	22.6574
249	0.5	1.37866	188.075	23.3468
250	0.5	1.40507	190.049	24.0493
251	0.5	1.42554	192.081	24.7621
252	0.5	1.4538	194.195	25.489
253	0.5	1.48328	196.395	26.2306
254	0.5	1.50626	198.664	26.9837
255	0.5	1.5382	201.03	27.7528
256	0.5	1.57179	203.5	28.5387
257	0.5	1.59819	206.054	29.3378
258	0.5	1.63524	208.728	30.1554
259	0.5	1.67466	211.533	30.9928
260	0.5	1.70604	214.444	31.8458
261	0.5	1.75069	217.508	32.7211
262	0.5	1.79912	220.745	33.6207
263	0.5	1.83843	224.125	34.5399
264	0.5	1.8957	227.719	35.4878
265	0.5	1.95996	231.56	36.4677
266	0.5	2.01409	235.617	37.4748
267	0.5	2.09693	240.014	38.5233
268	0.5	2.19728	244.842	39.6219
269	0.5	2.29036	250.088	40.7671
270	0.5	2.45727	256.126	41.9957
271	0.5	2.74777	263.676	43.3696

Data Set Standard Deviation = 0.208685
Numerator = 1880.92
Denominator = 3100.4
W Statistic = 0.606671 = 1880.92 / 3100.4

5% Critical value of 0.976 exceeds 0.606671
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.606671
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 = 0.776682
0.776682 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.05	0.00367647	-2.74	77	92.5	348.683
2	0.05	0.00735294	-2.45	72	92.5	334.497
3	0.05	0.0110294	-2.29	03	92.5	326.346
4	0.05	0.0147059	-2.19	72	92.5	321.801
5	0.05	0.0183824	-2.09	69	92.5	316.9
6	0.05	0.0220588	-2.01	40	92.5	312.855
7	0.05	0.0257353	-1.95	99	92.5	310.211
8	0.05	0.0294118	-1.89	57	92.5	307.073
9	0.05	0.0330882	-1.83	84	92.5	304.276
10	0.05	0.0367647	-1.79	91	92.5	302.357
11	0.05	0.0404412	-1.75	06	92.5	299.992
12	0.05	0.0441176	-1.70	60	92.5	297.812
13	0.05	0.0477941	-1.67	46	92.5	296.279
14	0.05	0.0514706	-1.63	52	92.5	294.354
15	0.05	0.0551471	-1.59	81	92.5	292.545
16	0.05	0.0588235	-1.57	17	92.5	291.256
17	0.05	0.0625	-1.5382	92.5	289.615	
18	0.05	0.0661765	-1.50	62	92.5	288.056
19	0.05	0.0698529	-1.48	32	92.5	286.934
20	0.05	0.0735294	-1.45	38	92.5	285.494
21	0.05	0.0772059	-1.42	55	92.5	284.114
22	0.05	0.0808824	-1.40	50	92.5	283.114
23	0.05	0.0845588	-1.37	86	92.5	281.824
24	0.05	0.0882353	-1.35	31	92.5	280.58
25	0.05	0.0919118	-1.33	46	92.5	279.674
26	0.05	0.0955882	-1.31	05	92.5	278.5
27	0.05	0.0992647	-1.28	72	92.5	277.362
28	0.05	0.102941	-1.27	02	92.5	276.53
29	0.05	0.106618	-1.24	80	92.5	275.448
30	0.05	0.110294	-1.22	65	92.5	274.395
31	0.05	0.113971	-1.21	07	92.5	273.624
32	0.05	0.117647	-1.19	01	92.5	272.617
33	0.05	0.121324	-1.17		92.5	271.635
34	0.05	0.125	-1.1503	5	92.5	270.675
35	0.05	0.128676	-1.13	59	92.5	269.97
36	0.05	0.132353	-1.11	69	92.5	269.046
37	0.05	0.136029	-1.09	84	92.5	268.142
38	0.05	0.139706	-1.08	48	92.5	267.476
39	0.05	0.143382	-1.06	69	92.5	266.602
40	0.05	0.147059	-1.04	93	92.5	265.745
41	0.05	0.150735	-1.03	64	92.5	265.112
42	0.05	0.154412	-1.01	94	92.5	264.282
43	0.05	0.158088	-1.00	27	92.5	263.466
44	0.05	0.161765	-0.990356		92.5	262.862
45	0.05	0.165441	-0.974114		92.5	262.069
46	0.05	0.169118	-0.958125		92.5	261.288
47	0.05	0.172794	-0.946291		92.5	260.711
48	0.05	0.176471	-0.930718		92.5	259.95

49	0.05	0.180147	-0.915365	92.5	259.2
50	0.05	0.183824	-0.903992	92.5	258.645
51	0.05	0.1875	-0.889006	92.5	257.913
52	0.05	0.191176	-0.874218	92.5	257.191
53	0.05	0.194853	-0.863249	92.5	256.655
54	0.05	0.198529	-0.848786	92.5	255.949
55	0.05	0.202206	-0.834498	92.5	255.251
56	0.05	0.205882	-0.823893	92.5	254.733
57	0.05	0.209559	-0.809896	92.5	254.05
58	0.05	0.213235	-0.796056	92.5	253.374
59	0.05	0.216912	-0.785774	92.5	252.872
60	0.05	0.220588	-0.772193	92.5	252.209
61	0.05	0.224265	-0.758753	92.5	251.552
62	0.05	0.227941	-0.748762	92.5	251.065
63	0.05	0.231618	-0.735557	92.5	250.42
64	0.05	0.235294	-0.722479	92.5	249.781
65	0.05	0.238971	-0.712751	92.5	249.306
66	0.05	0.242647	-0.699883	92.5	248.678
67	0.05	0.246324	-0.687131	92.5	248.055
68	0.05	0.25	-0.6744	92.5	247.438
69	0.05	0.253676	-0.665079	92.5	246.978
70	0.05	0.257353	-0.652622	92.5	246.37
71	0.05	0.261029	-0.640266	92.5	245.766
72	0.05	0.264706	-0.631062	92.5	245.317
73	0.05	0.268382	-0.618872	92.5	244.722
74	0.05	0.272059	-0.606775	92.5	244.131
75	0.05	0.275735	-0.597761	92.5	243.691
76	0.05	0.279412	-0.585815	92.5	243.107
77	0.05	0.283088	-0.573953	92.5	242.528
78	0.05	0.286765	-0.565108	92.5	242.096
79	0.05	0.290441	-0.553384	92.5	241.524
80	0.05	0.294118	-0.541736	92.5	240.955
81	0.05	0.297794	-0.533048	92.5	240.531
82	0.11	0.301471	-0.521527	156.7	239.968
83	0.11	0.305147	-0.510074	156.7	239.409
84	0.11	0.308824	-0.501527	156.7	238.991
85	0.13	0.3125	-0.490189	178.1	238.438
86	0.13	0.316176	-0.478914	178.1	237.887
87	0.13	0.319853	-0.470498	178.1	237.476
88	0.17	0.323529	-0.459327	220.9	236.93
89	0.18	0.327206	-0.448213	231.6	236.388
90	0.5	0.330882	-0.439913	574	235.982
91	0.5	0.334559	-0.428895	574	235.444
92	0.5	0.338235	-0.417928	574	234.909
93	0.5	0.341912	-0.409735	574	234.509
94	0.5	0.345588	-0.398855	574	233.977
95	0.5	0.349265	-0.388022	574	233.448
96	0.5	0.352941	-0.379927	574	233.053
97	0.5	0.356618	-0.369171	574	232.528
98	0.5	0.360294	-0.358459	574	232.005
99	0.5	0.363971	-0.350451	574	231.614
100	0.5	0.367647	-0.3398	1574	231.094
101	0.5	0.371324	-0.329206	574	230.576
102	0.5	0.375	-0.318639	574	230.06
103	0.5	0.378676	-0.310738	574	229.674
104	0.5	0.382353	-0.300232	574	229.161
105	0.5	0.386029	-0.2897	6574	228.65
106	0.5	0.389706	-0.281926	574	228.267
107	0.5	0.393382	-0.271509	574	227.759
108	0.5	0.397059	-0.2611	2574	227.251
109	0.5	0.400735	-0.253347	574	226.872
110	0.5	0.404412	-0.243007	574	226.367

111	0.5	0.408088	-0.232693	574	225.863
112	0.5	0.411765	-0.224974	574	225.486
113	0.5	0.415441	-0.214702	574	224.985
114	0.5	0.419118	-0.204452	574	224.484
115	0.5	0.422794	-0.196779	574	224.109
116	0.5	0.426471	-0.186567	574	223.611
117	0.5	0.430147	-0.176374	574	223.113
118	0.5	0.433824	-0.168741	574	222.74
119	0.5	0.4375	-0.158579	574	222.244
120	0.5	0.441176	-0.148434	574	221.749
121	0.5	0.444853	-0.140835	574	221.377
122	0.5	0.448529	-0.130716	574	220.883
123	0.5	0.452206	-0.12061	574	220.39
124	0.5	0.455882	-0.113039	574	220.02
125	0.5	0.459559	-0.102953	574	219.528
126	0.5	0.463235	-0.0928787	574	219.036
127	0.5	0.466912	-0.0853288	574	218.667
128	0.5	0.470588	-0.0752698	574	218.176
129	0.5	0.474265	-0.0652187	574	217.685
130	0.5	0.477941	-0.0576847	574	217.317
131	0.5	0.481618	-0.0476439	574	216.827
132	0.5	0.485294	-0.0376076	574	216.337
133	0.5	0.488971	-0.0300838	574	215.969
134	0.5	0.492647	-0.0200544	574	215.479
135	0.5	0.496324	-0.0100272	574	214.99
136	0.5	0.5	0	574	214.5
137	0.5	0.503676	0.0100272	574	214.01
138	0.5	0.507353	0.0200544	574	213.521
139	0.5	0.511029	0.0300838	574	213.031
140	0.5	0.514706	0.0376076	574	212.663
141	0.5	0.518382	0.0476439	574	212.173
142	0.5	0.522059	0.0576847	574	211.683
143	0.5	0.525735	0.0652187	574	211.315
144	0.5	0.529412	0.0752698	574	210.824
145	0.5	0.533088	0.0853288	574	210.333
146	0.5	0.536765	0.0928787	574	209.964
147	0.5	0.540441	0.102953	574	209.472
148	0.5	0.544118	0.113039	574	208.98
149	0.5	0.547794	0.12061	574	208.61
150	0.5	0.551471	0.130716	574	208.117
151	0.5	0.555147	0.140835	574	207.623
152	0.5	0.558824	0.148434	574	207.251
153	0.5	0.5625	0.158579	574	206.756
154	0.5	0.566176	0.168741	574	206.26
155	0.5	0.569853	0.176374	574	205.887
156	0.5	0.573529	0.186567	574	205.389
157	0.5	0.577206	0.196779	574	204.891
158	0.5	0.580882	0.204452	574	204.516
159	0.5	0.584559	0.214702	574	204.015
160	0.5	0.588235	0.224974	574	203.514
161	0.5	0.591912	0.232693	574	203.137
162	0.5	0.595588	0.243007	574	202.633
163	0.5	0.599265	0.253347	574	202.128
164	0.5	0.602941	0.26112	574	201.749
165	0.5	0.606618	0.271509	574	201.241
166	0.5	0.610294	0.281926	574	200.733
167	0.5	0.613971	0.28976	574	200.35
168	0.5	0.617647	0.300232	574	199.839
169	0.5	0.621324	0.310738	574	199.326
170	0.5	0.625	0.318639	574	198.94
171	0.5	0.628676	0.329206	574	198.424
172	0.5	0.632353	0.33981	574	197.906

173	0.5	0.636029	0.350451	574	197.386
174	0.5	0.639706	0.358459	574	196.995
175	0.5	0.643382	0.369171	574	196.472
176	0.5	0.647059	0.379927	574	195.947
177	0.5	0.650735	0.388022	574	195.552
178	0.5	0.654412	0.398855	574	195.023
179	0.5	0.658088	0.409735	574	194.491
180	0.5	0.661765	0.417928	574	194.091
181	0.5	0.665441	0.428895	574	193.556
182	0.5	0.669118	0.439913	574	193.018
183	0.5	0.672794	0.448213	574	192.612
184	0.5	0.676471	0.459327	574	192.07
185	0.5	0.680147	0.470498	574	191.524
186	0.5	0.683824	0.478914	574	191.113
187	0.5	0.6875	0.490189	574	190.562
188	0.5	0.691176	0.501527	574	190.009
189	0.5	0.694853	0.510074	574	189.591
190	0.5	0.698529	0.521527	574	189.032
191	0.5	0.702206	0.533048	574	188.469
192	0.5	0.705882	0.541736	574	188.045
193	0.5	0.709559	0.553384	574	187.476
194	0.5	0.713235	0.565108	574	186.904
195	0.5	0.716912	0.573953	574	186.472
196	0.5	0.720588	0.585815	574	185.893
197	0.5	0.724265	0.597761	574	185.309
198	0.5	0.727941	0.606775	574	184.869
199	0.5	0.731618	0.618872	574	184.278
200	0.5	0.735294	0.631062	574	183.683
201	0.5	0.738971	0.640266	574	183.234
202	0.5	0.742647	0.652622	574	182.63
203	0.5	0.746324	0.665079	574	182.022
204	0.5	0.75	0.67449	574	181.562
205	0.5	0.753676	0.687131	574	180.945
206	0.5	0.757353	0.699883	574	180.322
207	0.5	0.761029	0.712751	574	179.694
208	0.5	0.764706	0.722479	574	179.219
209	0.5	0.768382	0.735557	574	178.58
210	0.5	0.772059	0.748762	574	177.935
211	0.5	0.775735	0.758753	574	177.448
212	0.5	0.779412	0.772193	574	176.791
213	0.5	0.783088	0.785774	574	176.128
214	0.5	0.786765	0.796056	574	175.626
215	0.5	0.790441	0.809896	574	174.95
216	0.5	0.794118	0.823893	574	174.267
217	0.5	0.797794	0.834498	574	173.749
218	0.5	0.801471	0.848786	574	173.051
219	0.5	0.805147	0.863249	574	172.345
220	0.5	0.808824	0.874218	574	171.809
221	0.5	0.8125	0.889006	574	171.087
222	0.5	0.816176	0.903992	574	170.355
223	0.5	0.819853	0.915365	574	169.8
224	0.5	0.823529	0.930718	574	169.05
225	0.5	0.827206	0.946291	574	168.289
226	0.5	0.830882	0.958125	574	167.712
227	0.5	0.834559	0.974114	574	166.931
228	0.5	0.838235	0.990356	574	166.138
229	0.5	0.841912	1.00271	574	165.534
230	0.5	0.845588	1.01943	574	164.718
231	0.5	0.849265	1.03643	574	163.888
232	0.5	0.852941	1.04939	574	163.255
233	0.5	0.856618	1.06694	574	162.398
234	0.5	0.860294	1.08482	574	161.524

235	0.5	0.863971	1.09847	574	160.858
236	0.5	0.867647	1.11699	574	159.954
237	0.5	0.871324	1.1359	574	159.03
238	0.5	0.875	1.15035	574	158.325
239	0.5	0.878676	1.17	574	157.365
240	0.5	0.882353	1.19012	574	156.383
241	0.5	0.886029	1.21073	574	155.376
242	0.5	0.889706	1.22653	574	154.605
243	0.5	0.893382	1.24809	574	153.552
244	0.5	0.897059	1.27024	574	152.47
245	0.5	0.900735	1.28727	574	151.638
246	0.5	0.904412	1.31058	574	150.5
247	0.5	0.908088	1.33462	574	149.326
248	0.5	0.911765	1.35317	574	148.42
249	0.5	0.915441	1.37866	574	147.176
250	0.5	0.919118	1.40507	574	145.886
251	0.5	0.922794	1.42554	574	144.886
252	0.5	0.926471	1.4538	574	143.506
253	0.5	0.930147	1.48328	574	142.066
254	0.5	0.933824	1.50626	574	140.944
255	0.5	0.9375	1.5382	574	139.385
256	0.5	0.941176	1.57179	574	137.744
257	0.5	0.944853	1.59819	574	136.455
258	0.5	0.948529	1.63524	574	134.646
259	0.5	0.952206	1.67466	574	132.721
260	0.5	0.955882	1.70604	574	131.188
261	0.5	0.959559	1.75069	574	129.008
262	0.5	0.963235	1.79912	574	126.643
263	0.5	0.966912	1.83843	574	124.724
264	0.5	0.970588	1.8957	574	121.927
265	0.5	0.974265	1.95996	574	118.789
266	0.5	0.977941	2.01409	574	116.145
267	0.5	0.981618	2.09693	574	112.1
268	0.5	0.985294	2.19728	574	107.199
269	0.5	0.988971	2.29036	574	102.654
270	0.5	0.992647	2.45727	574	94.5032
271	0.5	0.996324	2.74777	574	80.3175

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 = 271

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	-2.19728	23.6622	29.0367
5	-2.99573	-2.09693	28.0593	35.3185
6	-2.99573	-2.01409	32.1159	41.3522
7	-2.99573	-1.95996	35.9574	47.2237
8	-2.99573	-1.8957	39.551	52.9027
9	-2.99573	-1.83843	42.9308	58.4102
10	-2.99573	-1.79912	46.1677	63.7998
11	-2.99573	-1.75069	49.2326	69.0444
12	-2.99573	-1.70604	52.1431	74.1553
13	-2.99573	-1.67466	54.9476	79.1721
14	-2.99573	-1.63524	57.6216	84.0708
15	-2.99573	-1.59819	60.1758	88.8586
16	-2.99573	-1.57179	62.6464	93.5673
17	-2.99573	-1.5382	65.0124	98.1753
18	-2.99573	-1.50626	67.2812	102.688
19	-2.99573	-1.48328	69.4814	107.131
20	-2.99573	-1.4538	71.5949	111.486
21	-2.99573	-1.42554	73.6271	115.757
22	-2.99573	-1.40507	75.6013	119.966
23	-2.99573	-1.37866	77.502	124.096
24	-2.99573	-1.35317	79.3331	128.15
25	-2.99573	-1.33462	81.1143	132.148
26	-2.99573	-1.31058	82.8319	136.074
27	-2.99573	-1.28727	84.489	139.931
28	-2.99573	-1.27024	86.1025	143.736
29	-2.99573	-1.24809	87.6602	147.475
30	-2.99573	-1.22653	89.1646	151.149
31	-2.99573	-1.21073	90.6305	154.776
32	-2.99573	-1.19012	92.0469	158.341
33	-2.99573	-1.17	93.4158	161.846
34	-2.99573	-1.15035	94.7391	165.293
35	-2.99573	-1.1359	96.0293	168.695
36	-2.99573	-1.11699	97.277	172.042
37	-2.99573	-1.09847	98.4836	175.332
38	-2.99573	-1.08482	99.6605	178.582
39	-2.99573	-1.06694	100.799	181.778
40	-2.99573	-1.04939	101.9	184.922
41	-2.99573	-1.03643	102.974	188.027
42	-2.99573	-1.01943	104.013	191.081
43	-2.99573	-1.00271	105.019	194.085
44	-2.99573	-0.990356	106	197.052
45	-2.99573	-0.974114	106.949	199.97
46	-2.99573	-0.958125	107.867	202.84
47	-2.99573	-0.946291	108.762	205.675
48	-2.99573	-0.930718	109.628	208.463
49	-2.99573	-0.915365	110.466	211.205
50	-2.99573	-0.903992	111.283	213.913
51	-2.99573	-0.889006	112.074	216.577

52	-2.99573	-0.874218	112.838	219.196
53	-2.99573	-0.863249	113.583	221.782
54	-2.99573	-0.848786	114.304	224.324
55	-2.99573	-0.834498	115	226.824
56	-2.99573	-0.823893	115.679	229.293
57	-2.99573	-0.809896	116.335	231.719
58	-2.99573	-0.796056	116.968	234.104
59	-2.99573	-0.785774	117.586	236.457
60	-2.99573	-0.772193	118.182	238.771
61	-2.99573	-0.758753	118.758	241.044
62	-2.99573	-0.748762	119.318	243.287
63	-2.99573	-0.735557	119.86	245.49
64	-2.99573	-0.722479	120.382	247.655
65	-2.99573	-0.712751	120.89	249.79
66	-2.99573	-0.699883	121.379	251.887
67	-2.99573	-0.687131	121.852	253.945
68	-2.99573	-0.67449	122.306	255.966
69	-2.99573	-0.665079	122.749	257.958
70	-2.99573	-0.652622	123.175	259.913
71	-2.99573	-0.640266	123.585	261.831
72	-2.99573	-0.631062	123.983	263.722
73	-2.99573	-0.618872	124.366	265.576
74	-2.99573	-0.606775	124.734	267.393
75	-2.99573	-0.597761	125.091	269.184
76	-2.99573	-0.585815	125.435	270.939
77	-2.99573	-0.573953	125.764	272.659
78	-2.99573	-0.565108	126.083	274.351
79	-2.99573	-0.553384	126.39	276.009
80	-2.99573	-0.541736	126.683	277.632
81	-2.99573	-0.533048	126.967	279.229
82	-2.20727	-0.521527	127.239	280.38
83	-2.20727	-0.510074	127.499	281.506
84	-2.20727	-0.501527	127.751	282.613
85	-2.04022	-0.490189	127.991	283.613
86	-2.04022	-0.478914	128.221	284.59
87	-2.04022	-0.470498	128.442	285.55
88	-1.77196	-0.459327	128.653	286.364
89	-1.7148	-0.448213	128.854	287.133
90	-0.693147	-0.439913	129.047	287.438
91	-0.693147	-0.428895	129.231	287.735
92	-0.693147	-0.417928	129.406	288.025
93	-0.693147	-0.409735	129.574	288.309
94	-0.693147	-0.398855	129.733	288.585
95	-0.693147	-0.388022	129.883	288.854
96	-0.693147	-0.379927	130.028	289.117
97	-0.693147	-0.369171	130.164	289.373
98	-0.693147	-0.358459	130.293	289.622
99	-0.693147	-0.350451	130.415	289.865
100	-0.693147	-0.33981	130.531	290.1
101	-0.693147	-0.329206	130.639	290.328
102	-0.693147	-0.318639	130.741	290.549
103	-0.693147	-0.310738	130.837	290.765
104	-0.693147	-0.300232	130.927	290.973
105	-0.693147	-0.28976	131.011	291.173
106	-0.693147	-0.281926	131.091	291.369
107	-0.693147	-0.271509	131.165	291.557
108	-0.693147	-0.26112	131.233	291.738
109	-0.693147	-0.253347	131.297	291.914
110	-0.693147	-0.243007	131.356	292.082
111	-0.693147	-0.232693	131.41	292.243
112	-0.693147	-0.224974	131.461	292.399
113	-0.693147	-0.214702	131.507	292.548

114	-0.693147	-0.204452	131.549	292.69
115	-0.693147	-0.196779	131.587	292.826
116	-0.693147	-0.186567	131.622	292.956
117	-0.693147	-0.176374	131.653	293.078
118	-0.693147	-0.168741	131.682	293.195
119	-0.693147	-0.158579	131.707	293.305
120	-0.693147	-0.148434	131.729	293.408
121	-0.693147	-0.140835	131.749	293.505
122	-0.693147	-0.130716	131.766	293.596
123	-0.693147	-0.12061	131.78	293.679
124	-0.693147	-0.113039	131.793	293.758
125	-0.693147	-0.102953	131.804	293.829
126	-0.693147	-0.0928787	131.812	293.894
127	-0.693147	-0.0853288	131.82	293.953
128	-0.693147	-0.0752698	131.825	294.005
129	-0.693147	-0.0652187	131.83	294.05
130	-0.693147	-0.0576847	131.833	294.09
131	-0.693147	-0.0476439	131.835	294.123
132	-0.693147	-0.0376076	131.837	294.149
133	-0.693147	-0.0300838	131.838	294.17
134	-0.693147	-0.0200544	131.838	294.184
135	-0.693147	-0.0100272	131.838	294.191
136	-0.693147	0	131.838	294.191
137	-0.693147	0.0100272	131.838	294.184
138	-0.693147	0.0200544	131.839	294.17
139	-0.693147	0.0300838	131.839	294.149
140	-0.693147	0.0376076	131.841	294.123
141	-0.693147	0.0476439	131.843	294.09
142	-0.693147	0.0576847	131.846	294.05
143	-0.693147	0.0652187	131.851	294.005
144	-0.693147	0.0752698	131.856	293.953
145	-0.693147	0.0853288	131.864	293.894
146	-0.693147	0.0928787	131.872	293.829
147	-0.693147	0.102953	131.883	293.758
148	-0.693147	0.113039	131.896	293.679
149	-0.693147	0.12061	131.91	293.596
150	-0.693147	0.130716	131.927	293.505
151	-0.693147	0.140835	131.947	293.408
152	-0.693147	0.148434	131.969	293.305
153	-0.693147	0.158579	131.994	293.195
154	-0.693147	0.168741	132.023	293.078
155	-0.693147	0.176374	132.054	292.956
156	-0.693147	0.186567	132.089	292.826
157	-0.693147	0.196779	132.127	292.69
158	-0.693147	0.204452	132.169	292.548
159	-0.693147	0.214702	132.215	292.399
160	-0.693147	0.224974	132.266	292.243
161	-0.693147	0.232693	132.32	292.082
162	-0.693147	0.243007	132.379	291.914
163	-0.693147	0.253347	132.443	291.738
164	-0.693147	0.26112	132.512	291.557
165	-0.693147	0.271509	132.585	291.369
166	-0.693147	0.281926	132.665	291.173
167	-0.693147	0.28976	132.749	290.973
168	-0.693147	0.300232	132.839	290.765
169	-0.693147	0.310738	132.935	290.549
170	-0.693147	0.318639	133.037	290.328
171	-0.693147	0.329206	133.145	290.1
172	-0.693147	0.33981	133.261	289.865
173	-0.693147	0.350451	133.384	289.622
174	-0.693147	0.358459	133.512	289.373
175	-0.693147	0.369171	133.648	289.117

176	-0.693147	0.379927	133.793	288.854
177	-0.693147	0.388022	133.943	288.585
178	-0.693147	0.398855	134.102	288.309
179	-0.693147	0.409735	134.27	288.025
180	-0.693147	0.417928	134.445	287.735
181	-0.693147	0.428895	134.629	287.438
182	-0.693147	0.439913	134.822	287.133
183	-0.693147	0.448213	135.023	286.822
184	-0.693147	0.459327	135.234	286.504
185	-0.693147	0.470498	135.456	286.177
186	-0.693147	0.478914	135.685	285.845
187	-0.693147	0.490189	135.925	285.506
188	-0.693147	0.501527	136.177	285.158
189	-0.693147	0.510074	136.437	284.805
190	-0.693147	0.521527	136.709	284.443
191	-0.693147	0.533048	136.993	284.074
192	-0.693147	0.541736	137.287	283.698
193	-0.693147	0.553384	137.593	283.314
194	-0.693147	0.565108	137.912	282.923
195	-0.693147	0.573953	138.242	282.525
196	-0.693147	0.585815	138.585	282.119
197	-0.693147	0.597761	138.942	281.705
198	-0.693147	0.606775	139.31	281.284
199	-0.693147	0.618872	139.693	280.855
200	-0.693147	0.631062	140.091	280.418
201	-0.693147	0.640266	140.501	279.974
202	-0.693147	0.652622	140.927	279.521
203	-0.693147	0.665079	141.37	279.06
204	-0.693147	0.67449	141.825	278.593
205	-0.693147	0.687131	142.297	278.117
206	-0.693147	0.699883	142.787	277.631
207	-0.693147	0.712751	143.295	277.137
208	-0.693147	0.722479	143.817	276.637
209	-0.693147	0.735557	144.358	276.127
210	-0.693147	0.748762	144.918	275.608
211	-0.693147	0.758753	145.494	275.082
212	-0.693147	0.772193	146.09	274.547
213	-0.693147	0.785774	146.708	274.002
214	-0.693147	0.796056	147.341	273.45
215	-0.693147	0.809896	147.997	272.889
216	-0.693147	0.823893	148.676	272.318
217	-0.693147	0.834498	149.373	271.739
218	-0.693147	0.848786	150.093	271.151
219	-0.693147	0.863249	150.838	270.553
220	-0.693147	0.874218	151.602	269.947
221	-0.693147	0.889006	152.393	269.33
222	-0.693147	0.903992	153.21	268.704
223	-0.693147	0.915365	154.048	268.069
224	-0.693147	0.930718	154.914	267.424
225	-0.693147	0.946291	155.81	266.768
226	-0.693147	0.958125	156.728	266.104
227	-0.693147	0.974114	157.676	265.429
228	-0.693147	0.990356	158.657	264.743
229	-0.693147	1.00271	159.663	264.047
230	-0.693147	1.01943	160.702	263.341
231	-0.693147	1.03643	161.776	262.622
232	-0.693147	1.04939	162.877	261.895
233	-0.693147	1.06694	164.016	261.156
234	-0.693147	1.08482	165.193	260.404
235	-0.693147	1.09847	166.399	259.642
236	-0.693147	1.11699	167.647	258.868
237	-0.693147	1.1359	168.937	258.081

238	-0.693147	1.15035	170.26	257.283
239	-0.693147	1.17	171.629	256.472
240	-0.693147	1.19012	173.046	255.647
241	-0.693147	1.21073	174.512	254.808
242	-0.693147	1.22653	176.016	253.958
243	-0.693147	1.24809	177.574	253.093
244	-0.693147	1.27024	179.187	252.212
245	-0.693147	1.28727	180.844	251.32
246	-0.693147	1.31058	182.562	250.412
247	-0.693147	1.33462	184.343	249.487
248	-0.693147	1.35317	186.174	248.549
249	-0.693147	1.37866	188.075	247.593
250	-0.693147	1.40507	190.049	246.619
251	-0.693147	1.42554	192.081	245.631
252	-0.693147	1.4538	194.195	244.623
253	-0.693147	1.48328	196.395	243.595
254	-0.693147	1.50626	198.664	242.551
255	-0.693147	1.5382	201.03	241.485
256	-0.693147	1.57179	203.5	240.395
257	-0.693147	1.59819	206.054	239.288
258	-0.693147	1.63524	208.728	238.154
259	-0.693147	1.67466	211.533	236.993
260	-0.693147	1.70604	214.444	235.811
261	-0.693147	1.75069	217.508	234.597
262	-0.693147	1.79912	220.745	233.35
263	-0.693147	1.83843	224.125	232.076
264	-0.693147	1.8957	227.719	230.762
265	-0.693147	1.95996	231.56	229.404
266	-0.693147	2.01409	235.617	228.007
267	-0.693147	2.09693	240.014	226.554
268	-0.693147	2.19728	244.842	225.031
269	-0.693147	2.29036	250.088	223.443
270	-0.693147	2.45727	256.126	221.74
271	-0.693147	2.74777	263.676	219.836

Data Set Standard Deviation = 1.05496
Numerator = 48327.7
Denominator = 79233.3
W Statistic = 0.609941 = 48327.7 / 79233.3

5% Critical value of 0.976 exceeds 0.609941
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.609941
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 = 0.77881
0.77881 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.995730	.00367647	-2.74777	39.7611	348.683
2	-2.995730	.00735294	-2.45727	39.7611	334.497
3	-2.995730	.0110294	-2.29036	39.7611	326.346
4	-2.995730	.0147059	-2.19728	39.7611	321.801
5	-2.995730	.0183824	-2.09693	39.7611	316.9
6	-2.995730	.0220588	-2.01409	39.7611	312.855
7	-2.995730	.0257353	-1.95996	39.7611	310.211
8	-2.995730	.0294118	-1.8957	39.7611	307.073
9	-2.995730	.0330882	-1.83843	39.7611	304.276
10	-2.995730	.0367647	-1.79912	39.7611	302.357
11	-2.995730	.0404412	-1.75069	39.7611	299.992
12	-2.995730	.0441176	-1.70604	39.7611	297.812
13	-2.995730	.0477941	-1.67466	39.7611	296.279
14	-2.995730	.0514706	-1.63524	39.7611	294.354
15	-2.995730	.0551471	-1.59819	39.7611	292.545
16	-2.995730	.0588235	-1.57179	39.7611	291.256
17	-2.995730	.0625	-1.5382	39.7611	289.615
18	-2.995730	.0661765	-1.50626	39.7611	288.056
19	-2.995730	.0698529	-1.48328	39.7611	286.934
20	-2.995730	.0735294	-1.4538	39.7611	285.494
21	-2.995730	.0772059	-1.42554	39.7611	284.114
22	-2.995730	.0808824	-1.40507	39.7611	283.114
23	-2.995730	.0845588	-1.37866	39.7611	281.824
24	-2.995730	.0882353	-1.35317	39.7611	280.58
25	-2.995730	.0919118	-1.33462	39.7611	279.674
26	-2.995730	.0955882	-1.31058	39.7611	278.5
27	-2.995730	.0992647	-1.28727	39.7611	277.362
28	-2.995730	.102941	-1.27024	39.7611	276.53
29	-2.995730	.106618	-1.24809	39.7611	275.448
30	-2.995730	.110294	-1.22653	39.7611	274.395
31	-2.995730	.113971	-1.21073	39.7611	273.624
32	-2.995730	.117647	-1.19012	39.7611	272.617
33	-2.995730	.121324	-1.17	39.7611	271.635
34	-2.995730	.125	-1.15035	39.7611	270.675
35	-2.995730	.128676	-1.1359	39.7611	269.97
36	-2.995730	.132353	-1.11699	39.7611	269.046
37	-2.995730	.136029	-1.09847	39.7611	268.142
38	-2.995730	.139706	-1.08482	39.7611	267.476
39	-2.995730	.143382	-1.06694	39.7611	266.602
40	-2.995730	.147059	-1.04939	39.7611	265.745
41	-2.995730	.150735	-1.03643	39.7611	265.112
42	-2.995730	.154412	-1.01943	39.7611	264.282
43	-2.995730	.158088	-1.00271	39.7611	263.466
44	-2.995730	.161765	-0.990356	39.7611	262.862
45	-2.995730	.165441	-0.974114	39.7611	262.069
46	-2.995730	.169118	-0.958125	39.7611	261.288
47	-2.995730	.172794	-0.946291	39.7611	260.711
48	-2.995730	.176471	-0.930718	39.7611	259.95

49	-2.995730.180147	-0.915365	39.7611	259.2	
50	-2.995730.183824	-0.903992	39.7611	258.645	
51	-2.995730.1875	-0.889006	39.7611	257.913	
52	-2.995730.191176	-0.874218	39.7611	257.191	
53	-2.995730.194853	-0.863249	39.7611	256.655	
54	-2.995730.198529	-0.848786	39.7611	255.949	
55	-2.995730.202206	-0.834498	39.7611	255.251	
56	-2.995730.205882	-0.823893	39.7611	254.733	
57	-2.995730.209559	-0.809896	39.7611	254.05	
58	-2.995730.213235	-0.796056	39.7611	253.374	
59	-2.995730.216912	-0.785774	39.7611	252.872	
60	-2.995730.220588	-0.772193	39.7611	252.209	
61	-2.995730.224265	-0.758753	39.7611	251.552	
62	-2.995730.227941	-0.748762	39.7611	251.065	
63	-2.995730.231618	-0.735557	39.7611	250.42	
64	-2.995730.235294	-0.722479	39.7611	249.781	
65	-2.995730.238971	-0.712751	39.7611	249.306	
66	-2.995730.242647	-0.699883	39.7611	248.678	
67	-2.995730.246324	-0.687131	39.7611	248.055	
68	-2.995730.25	-0.6744939.7611	247.438		
69	-2.995730.253676	-0.665079	39.7611	246.978	
70	-2.995730.257353	-0.652622	39.7611	246.37	
71	-2.995730.261029	-0.640266	39.7611	245.766	
72	-2.995730.264706	-0.631062	39.7611	245.317	
73	-2.995730.268382	-0.618872	39.7611	244.722	
74	-2.995730.272059	-0.606775	39.7611	244.131	
75	-2.995730.275735	-0.597761	39.7611	243.691	
76	-2.995730.279412	-0.585815	39.7611	243.107	
77	-2.995730.283088	-0.573953	39.7611	242.528	
78	-2.995730.286765	-0.565108	39.7611	242.096	
79	-2.995730.290441	-0.553384	39.7611	241.524	
80	-2.995730.294118	-0.541736	39.7611	240.955	
81	-2.995730.297794	-0.533048	39.7611	240.531	
82	-2.207270.301471	-0.521527	180.369	239.968	
83	-2.207270.305147	-0.510074	180.369	239.409	
84	-2.207270.308824	-0.501527	180.369	238.991	
85	-2.040220.3125	-0.490189	210.161	238.438	
86	-2.040220.316176	-0.478914	210.161	237.887	
87	-2.040220.319853	-0.470498	210.161	237.476	
88	-1.771960.323529	-0.459327	258.001	236.93	
89	-1.7148 0.327206	-0.448213	268.194	236.388	
90	-0.693147	0.330882	-0.439913	450.389	235.982
91	-0.693147	0.334559	-0.428895	450.389	235.444
92	-0.693147	0.338235	-0.417928	450.389	234.909
93	-0.693147	0.341912	-0.409735	450.389	234.509
94	-0.693147	0.345588	-0.398855	450.389	233.977
95	-0.693147	0.349265	-0.388022	450.389	233.448
96	-0.693147	0.352941	-0.379927	450.389	233.053
97	-0.693147	0.356618	-0.369171	450.389	232.528
98	-0.693147	0.360294	-0.358459	450.389	232.005
99	-0.693147	0.363971	-0.350451	450.389	231.614
100	-0.693147	0.367647	-0.33981450.389	231.094	
101	-0.693147	0.371324	-0.329206	450.389	230.576
102	-0.693147	0.375	-0.318639	450.389	230.06
103	-0.693147	0.378676	-0.310738	450.389	229.674
104	-0.693147	0.382353	-0.300232	450.389	229.161
105	-0.693147	0.386029	-0.28976450.389	228.65	
106	-0.693147	0.389706	-0.281926	450.389	228.267
107	-0.693147	0.393382	-0.271509	450.389	227.759
108	-0.693147	0.397059	-0.26112450.389	227.251	
109	-0.693147	0.400735	-0.253347	450.389	226.872
110	-0.693147	0.404412	-0.243007	450.389	226.367

111	-0.693147	0.408088	-0.232693	450.389	225.863
112	-0.693147	0.411765	-0.224974	450.389	225.486
113	-0.693147	0.415441	-0.214702	450.389	224.985
114	-0.693147	0.419118	-0.204452	450.389	224.484
115	-0.693147	0.422794	-0.196779	450.389	224.109
116	-0.693147	0.426471	-0.186567	450.389	223.611
117	-0.693147	0.430147	-0.176374	450.389	223.113
118	-0.693147	0.433824	-0.168741	450.389	222.74
119	-0.693147	0.4375	-0.158579	450.389	222.244
120	-0.693147	0.441176	-0.148434	450.389	221.749
121	-0.693147	0.444853	-0.140835	450.389	221.377
122	-0.693147	0.448529	-0.130716	450.389	220.883
123	-0.693147	0.452206	-0.12061	450.389	220.39
124	-0.693147	0.455882	-0.113039	450.389	220.02
125	-0.693147	0.459559	-0.102953	450.389	219.528
126	-0.693147	0.463235	-0.0928787	450.389	219.036
127	-0.693147	0.466912	-0.0853288	450.389	218.667
128	-0.693147	0.470588	-0.0752698	450.389	218.176
129	-0.693147	0.474265	-0.0652187	450.389	217.685
130	-0.693147	0.477941	-0.0576847	450.389	217.317
131	-0.693147	0.481618	-0.0476439	450.389	216.827
132	-0.693147	0.485294	-0.0376076	450.389	216.337
133	-0.693147	0.488971	-0.0300838	450.389	215.969
134	-0.693147	0.492647	-0.0200544	450.389	215.479
135	-0.693147	0.496324	-0.0100272	450.389	214.99
136	-0.693147	0.5	0	450.389	214.5
137	-0.693147	0.503676	0.0100272	450.389	214.01
138	-0.693147	0.507353	0.0200544	450.389	213.521
139	-0.693147	0.511029	0.0300838	450.389	213.031
140	-0.693147	0.514706	0.0376076	450.389	212.663
141	-0.693147	0.518382	0.0476439	450.389	212.173
142	-0.693147	0.522059	0.0576847	450.389	211.683
143	-0.693147	0.525735	0.0652187	450.389	211.315
144	-0.693147	0.529412	0.0752698	450.389	210.824
145	-0.693147	0.533088	0.0853288	450.389	210.333
146	-0.693147	0.536765	0.0928787	450.389	209.964
147	-0.693147	0.540441	0.102953	450.389	209.472
148	-0.693147	0.544118	0.113039	450.389	208.98
149	-0.693147	0.547794	0.12061	450.389	208.61
150	-0.693147	0.551471	0.130716	450.389	208.117
151	-0.693147	0.555147	0.140835	450.389	207.623
152	-0.693147	0.558824	0.148434	450.389	207.251
153	-0.693147	0.5625	0.158579	450.389	206.756
154	-0.693147	0.566176	0.168741	450.389	206.26
155	-0.693147	0.569853	0.176374	450.389	205.887
156	-0.693147	0.573529	0.186567	450.389	205.389
157	-0.693147	0.577206	0.196779	450.389	204.891
158	-0.693147	0.580882	0.204452	450.389	204.516
159	-0.693147	0.584559	0.214702	450.389	204.015
160	-0.693147	0.588235	0.224974	450.389	203.514
161	-0.693147	0.591912	0.232693	450.389	203.137
162	-0.693147	0.595588	0.243007	450.389	202.633
163	-0.693147	0.599265	0.253347	450.389	202.128
164	-0.693147	0.602941	0.26112	450.389	201.749
165	-0.693147	0.606618	0.271509	450.389	201.241
166	-0.693147	0.610294	0.281926	450.389	200.733
167	-0.693147	0.613971	0.28976	450.389	200.35
168	-0.693147	0.617647	0.300232	450.389	199.839
169	-0.693147	0.621324	0.310738	450.389	199.326
170	-0.693147	0.625	0.318639	450.389	198.94
171	-0.693147	0.628676	0.329206	450.389	198.424
172	-0.693147	0.632353	0.33981	450.389	197.906

173	-0.693147	0.636029	0.350451	450.389	197.386
174	-0.693147	0.639706	0.358459	450.389	196.995
175	-0.693147	0.643382	0.369171	450.389	196.472
176	-0.693147	0.647059	0.379927	450.389	195.947
177	-0.693147	0.650735	0.388022	450.389	195.552
178	-0.693147	0.654412	0.398855	450.389	195.023
179	-0.693147	0.658088	0.409735	450.389	194.491
180	-0.693147	0.661765	0.417928	450.389	194.091
181	-0.693147	0.665441	0.428895	450.389	193.556
182	-0.693147	0.669118	0.439913	450.389	193.018
183	-0.693147	0.672794	0.448213	450.389	192.612
184	-0.693147	0.676471	0.459327	450.389	192.07
185	-0.693147	0.680147	0.470498	450.389	191.524
186	-0.693147	0.683824	0.478914	450.389	191.113
187	-0.693147	0.6875	0.490189	450.389	190.562
188	-0.693147	0.691176	0.501527	450.389	190.009
189	-0.693147	0.694853	0.510074	450.389	189.591
190	-0.693147	0.698529	0.521527	450.389	189.032
191	-0.693147	0.702206	0.533048	450.389	188.469
192	-0.693147	0.705882	0.541736	450.389	188.045
193	-0.693147	0.709559	0.553384	450.389	187.476
194	-0.693147	0.713235	0.565108	450.389	186.904
195	-0.693147	0.716912	0.573953	450.389	186.472
196	-0.693147	0.720588	0.585815	450.389	185.893
197	-0.693147	0.724265	0.597761	450.389	185.309
198	-0.693147	0.727941	0.606775	450.389	184.869
199	-0.693147	0.731618	0.618872	450.389	184.278
200	-0.693147	0.735294	0.631062	450.389	183.683
201	-0.693147	0.738971	0.640266	450.389	183.234
202	-0.693147	0.742647	0.652622	450.389	182.63
203	-0.693147	0.746324	0.665079	450.389	182.022
204	-0.693147	0.75	0.67449	450.389	181.562
205	-0.693147	0.753676	0.687131	450.389	180.945
206	-0.693147	0.757353	0.699883	450.389	180.322
207	-0.693147	0.761029	0.712751	450.389	179.694
208	-0.693147	0.764706	0.722479	450.389	179.219
209	-0.693147	0.768382	0.735557	450.389	178.58
210	-0.693147	0.772059	0.748762	450.389	177.935
211	-0.693147	0.775735	0.758753	450.389	177.448
212	-0.693147	0.779412	0.772193	450.389	176.791
213	-0.693147	0.783088	0.785774	450.389	176.128
214	-0.693147	0.786765	0.796056	450.389	175.626
215	-0.693147	0.790441	0.809896	450.389	174.95
216	-0.693147	0.794118	0.823893	450.389	174.267
217	-0.693147	0.797794	0.834498	450.389	173.749
218	-0.693147	0.801471	0.848786	450.389	173.051
219	-0.693147	0.805147	0.863249	450.389	172.345
220	-0.693147	0.808824	0.874218	450.389	171.809
221	-0.693147	0.8125	0.889006	450.389	171.087
222	-0.693147	0.816176	0.903992	450.389	170.355
223	-0.693147	0.819853	0.915365	450.389	169.8
224	-0.693147	0.823529	0.930718	450.389	169.05
225	-0.693147	0.827206	0.946291	450.389	168.289
226	-0.693147	0.830882	0.958125	450.389	167.712
227	-0.693147	0.834559	0.974114	450.389	166.931
228	-0.693147	0.838235	0.990356	450.389	166.138
229	-0.693147	0.841912	1.00271	450.389	165.534
230	-0.693147	0.845588	1.01943	450.389	164.718
231	-0.693147	0.849265	1.03643	450.389	163.888
232	-0.693147	0.852941	1.04939	450.389	163.255
233	-0.693147	0.856618	1.06694	450.389	162.398
234	-0.693147	0.860294	1.08482	450.389	161.524

235	-0.693147	0.863971	1.09847	450.389	160.858
236	-0.693147	0.867647	1.11699	450.389	159.954
237	-0.693147	0.871324	1.1359	450.389	159.03
238	-0.693147	0.875	1.15035	450.389	158.325
239	-0.693147	0.878676	1.17	450.389	157.365
240	-0.693147	0.882353	1.19012	450.389	156.383
241	-0.693147	0.886029	1.21073	450.389	155.376
242	-0.693147	0.889706	1.22653	450.389	154.605
243	-0.693147	0.893382	1.24809	450.389	153.552
244	-0.693147	0.897059	1.27024	450.389	152.47
245	-0.693147	0.900735	1.28727	450.389	151.638
246	-0.693147	0.904412	1.31058	450.389	150.5
247	-0.693147	0.908088	1.33462	450.389	149.326
248	-0.693147	0.911765	1.35317	450.389	148.42
249	-0.693147	0.915441	1.37866	450.389	147.176
250	-0.693147	0.919118	1.40507	450.389	145.886
251	-0.693147	0.922794	1.42554	450.389	144.886
252	-0.693147	0.926471	1.4538	450.389	143.506
253	-0.693147	0.930147	1.48328	450.389	142.066
254	-0.693147	0.933824	1.50626	450.389	140.944
255	-0.693147	0.9375	1.5382	450.389	139.385
256	-0.693147	0.941176	1.57179	450.389	137.744
257	-0.693147	0.944853	1.59819	450.389	136.455
258	-0.693147	0.948529	1.63524	450.389	134.646
259	-0.693147	0.952206	1.67466	450.389	132.721
260	-0.693147	0.955882	1.70604	450.389	131.188
261	-0.693147	0.959559	1.75069	450.389	129.008
262	-0.693147	0.963235	1.79912	450.389	126.643
263	-0.693147	0.966912	1.83843	450.389	124.724
264	-0.693147	0.970588	1.8957	450.389	121.927
265	-0.693147	0.974265	1.95996	450.389	118.789
266	-0.693147	0.977941	2.01409	450.389	116.145
267	-0.693147	0.981618	2.09693	450.389	112.1
268	-0.693147	0.985294	2.19728	450.389	107.199
269	-0.693147	0.988971	2.29036	450.389	102.654
270	-0.693147	0.992647	2.45727	450.389	94.5032
271	-0.693147	0.996324	2.74777	450.389	80.3175

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Thallium
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 97.048%
Number of comparisons = 17
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 0
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-10	5/16/2012	1	-2.99573	FALSE
LMW-7	5/16/2012	1	-2.99573	FALSE
LMW-6	5/16/2012	1	-2.99573	FALSE
LMW-3s	5/16/2012	1	-2.99573	FALSE
LMW-3	5/16/2012	1	-2.99573	FALSE
LMW-16	5/16/2012	1	-2.99573	FALSE
LMW-14R	5/16/2012	1	-2.20727	FALSE
LMW-9	5/16/2012	1	-2.04022	FALSE
LMW-9D	5/16/2012	1	-2.99573	FALSE
LMW-9S	5/16/2012	1	-2.99573	FALSE
LMW-8	5/16/2012	1	-2.20727	FALSE
LMW-15R	5/16/2012	1	-2.99573	FALSE
LMW-3S	11/22/2011	1	-2.99573	FALSE
LMW-11	11/20/2008	1	-0.693147	FALSE
LMW-13	11/20/2008	1	-0.693147	FALSE
LMW-12	11/20/2008	1	-0.693147	FALSE
MW-5	11/20/2008	1	-0.693147	FALSE

Concentrations (ppb)

Parameter: Trichloroethylene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 255
Percent Non-Detects: 94.0959%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	22 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.13 U	ND<0.13 U
			11/16/2009	ND<0.13 U	ND<0.13 U
			6/30/2010	ND<0.13 U	ND<0.13 U
			11/17/2010	ND<0.13 U	ND<0.13 U
			7/6/2011	ND<0.13 U	ND<0.13 U
			11/22/2011	ND<0.13 U	ND<0.13 U
			5/16/2012	ND<0.13 U	ND<0.13 U

There are 16 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-9D	12	11 (91.6667%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.13 U	ND<0.13 U
			11/16/2009	ND<0.13 U	ND<0.13 U
			6/30/2010	ND<0.13 U	ND<0.13 U
			11/17/2010	ND<0.13 U	ND<0.13 U
			7/6/2011	0.13 J	0.13 J
			11/22/2011	ND<0.13 U	ND<0.13 U
			5/16/2012	ND<0.13 U	ND<0.13 U
LMW-8	22	16 (72.7273%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1

			10/26/2005	ND<0 J	ND<0 J
			6/19/2006	ND<0 J	ND<0 J
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	0.41 J	0.41 J
			11/16/2009	0.19 J	0.19 J
			6/30/2010	0.29 J	0.29 J
			11/17/2010	0.14 J	0.14 J
			7/6/2011	ND<0.13 U	ND<0.13 U
			11/22/2011	0.23 J	0.23 J
			5/16/2012	0.23 J	0.23 J
LMW-9	22	20 (90.9091%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.13 U	ND<0.13 U
			11/16/2009	ND<0.13 U	ND<0.13 U
			6/30/2010	ND<0.13 U	ND<0.13 U
			11/17/2010	ND<0.13 U	ND<0.13 U
			7/6/2011	0.16 J	0.16 J
			11/22/2011	0.14 J	0.14 J
			5/16/2012	ND<0.13 U	ND<0.13 U
LMW-14R	10	10 (100%)	6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.13 U	ND<0.13 U
			6/30/2010	ND<0.13 U	ND<0.13 U
			11/17/2010	ND<0.13 U	ND<0.13 U
			7/6/2011	ND<0.13 U	ND<0.13 U
			11/22/2011	ND<0.13 U	ND<0.13 U
			5/16/2012	ND<0.13 U	ND<0.13 U
LMW-15R	14	14 (100%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.13 U	ND<0.13 U
			6/30/2010	ND<0.13 U	ND<0.13 U
			11/17/2010	ND<0.13 U	ND<0.13 U
			7/6/2011	ND<0.13 U	ND<0.13 U
			11/22/2011	ND<0.13 U	ND<0.13 U

			5/16/2012	ND<0.13 U	ND<0.13 U	
LMW-6	22	22 (100%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.13 U	ND<0.13 U	
			11/16/2009	ND<0.13 U	ND<0.13 U	
			6/30/2010	ND<0.13 U	ND<0.13 U	
			11/17/2010	ND<0.13 U	ND<0.13 U	
			7/6/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
			5/16/2012	ND<0.13 U	ND<0.13 U	
LMW-7	20	20 (100%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.13 U	ND<0.13 U	
			11/17/2010	ND<0.13 U	ND<0.13 U	
			7/6/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
			5/16/2012	ND<0.13 U	ND<0.13 U	
LMW-3S	12	12 (100%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.13 U	ND<0.13 U	
			11/16/2009	ND<0.13 U	ND<0.13 U	
			6/30/2010	ND<0.13 U	ND<0.13 U	
			11/17/2010	ND<0.13 U	ND<0.13 U	
			7/6/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
			5/16/2012	ND<0.13 U	ND<0.13 U	
LMW-10	19	12 (63.1579%)	3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	

			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<0 J	ND<0 J	
			10/26/2005	ND<0 J	ND<0 J	
			6/19/2006	ND<0 J	ND<0 J	
			11/18/2006	ND<0 J	ND<0 J	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<0 J	ND<0 J	
			6/11/2009	0.88 J	0.88 J	
			11/16/2009	1.7	1.7	
			6/30/2010	1.1	1.1	
			11/17/2010	0.97 J	0.97 J	
			7/6/2011	1.4	1.4	
			11/22/2011	1.9	1.9	
			5/16/2012	1.4	1.4	
LMW-9S	14	14 (100%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.13 U	ND<0.13 U	
			11/16/2009	ND<0.13 U	ND<0.13 U	
			11/16/2009	ND<0.13 U	ND<0.13 U	
			11/16/2009	ND<0.13 U	ND<0.13 U	
			6/30/2010	ND<0.13 U	ND<0.13 U	
			11/17/2010	ND<0.13 U	ND<0.13 U	
			7/6/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
			5/16/2012	ND<0.13 U	ND<0.13 U	
LMW-3	24	24 (100%)	11/19/1996	ND<1	ND<1	
			3/24/1997	ND<1	ND<1	
			1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.13 U	ND<0.13 U	
			11/16/2009	ND<0.13 U	ND<0.13 U	
			6/30/2010	ND<0.13 U	ND<0.13 U	
			11/17/2010	ND<0.13 U	ND<0.13 U	
			7/6/2011	ND<0.13 U	ND<0.13 U	
			11/22/2011	ND<0.13 U	ND<0.13 U	
			5/16/2012	ND<0.13 U	ND<0.13 U	
LMW-16	12	12 (100%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	

			6/11/2009	ND<0.13 U	ND<0.13 U
			11/16/2009	ND<0.13 U	ND<0.13 U
			6/30/2010	ND<0.13 U	ND<0.13 U
			11/17/2010	ND<0.13 U	ND<0.13 U
			7/6/2011	ND<0.13 U	ND<0.13 U
			11/22/2011	ND<0.13 U	ND<0.13 U
			5/16/2012	ND<0.13 U	ND<0.13 U
LMW-12	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
LMW-11	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
MW-5	13	13 (100%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/15/2007	ND<0 J	ND<0 J
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
LMW-13	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality
Parameter: Trichloroethylene
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.74777	7.55021	0
2	0	-2.45727	13.5884	0
3	0	-2.29036	18.8342	0
4	0	-2.19728	23.6622	0
5	0	-2.09693	28.0593	0
6	0	-2.01409	32.1159	0
7	0	-1.95996	35.9574	0
8	0	-1.8957	39.551	0
9	0.065	-1.83843	42.9308	-0.119498
10	0.065	-1.79912	46.1677	-0.23644
11	0.065	-1.75069	49.2326	-0.350235
12	0.065	-1.70604	52.1431	-0.461128
13	0.065	-1.67466	54.9476	-0.569981
14	0.065	-1.63524	57.6216	-0.676271
15	0.065	-1.59819	60.1758	-0.780153
16	0.065	-1.57179	62.6464	-0.88232
17	0.065	-1.5382	65.0124	-0.982303
18	0.065	-1.50626	67.2812	-1.08021
19	0.065	-1.48328	69.4814	-1.17662
20	0.065	-1.4538	71.5949	-1.27112
21	0.065	-1.42554	73.6271	-1.36378
22	0.065	-1.40507	75.6013	-1.45511
23	0.065	-1.37866	77.502	-1.54472
24	0.065	-1.35317	79.3331	-1.63268
25	0.065	-1.33462	81.1143	-1.71943
26	0.065	-1.31058	82.8319	-1.80462
27	0.065	-1.28727	84.489	-1.88829
28	0.065	-1.27024	86.1025	-1.97086
29	0.065	-1.24809	87.6602	-2.05198
30	0.065	-1.22653	89.1646	-2.13171
31	0.065	-1.21073	90.6305	-2.2104
32	0.065	-1.19012	92.0469	-2.28776
33	0.065	-1.17	93.4158	-2.36381
34	0.065	-1.15035	94.7391	-2.43858
35	0.065	-1.1359	96.0293	-2.51242
36	0.065	-1.11699	97.277	-2.58502
37	0.065	-1.09847	98.4836	-2.65642
38	0.065	-1.08482	99.6605	-2.72693
39	0.065	-1.06694	100.799	-2.79629
40	0.065	-1.04939	101.9	-2.8645
41	0.065	-1.03643	102.974	-2.93186
42	0.065	-1.01943	104.013	-2.99813
43	0.065	-1.00271	105.019	-3.0633
44	0.065	-0.990356	106	-3.12768
45	0.065	-0.974114	106.949	-3.19099
46	0.065	-0.958125	107.867	-3.25327
47	0.065	-0.946291	108.762	-3.31478
48	0.065	-0.930718	109.628	-3.37528
49	0.065	-0.915365	110.466	-3.43478
50	0.065	-0.903992	111.283	-3.49354
51	0.065	-0.889006	112.074	-3.55132

52	0.065	-0.874218	112.838	-3.60815
53	0.065	-0.863249	113.583	-3.66426
54	0.065	-0.848786	114.304	-3.71943
55	0.065	-0.834498	115	-3.77367
56	0.065	-0.823893	115.679	-3.82722
57	0.065	-0.809896	116.335	-3.87987
58	0.065	-0.796056	116.968	-3.93161
59	0.065	-0.785774	117.586	-3.98268
60	0.065	-0.772193	118.182	-4.03288
61	0.065	-0.758753	118.758	-4.0822
62	0.065	-0.748762	119.318	-4.13087
63	0.065	-0.735557	119.86	-4.17868
64	0.065	-0.722479	120.382	-4.22564
65	0.065	-0.712751	120.89	-4.27197
66	0.065	-0.699883	121.379	-4.31746
67	0.065	-0.687131	121.852	-4.36212
68	0.065	-0.67449	122.306	-4.40596
69	0.065	-0.665079	122.749	-4.4492
70	0.065	-0.652622	123.175	-4.49162
71	0.065	-0.640266	123.585	-4.53323
72	0.065	-0.631062	123.983	-4.57425
73	0.065	-0.618872	124.366	-4.61448
74	0.065	-0.606775	124.734	-4.65392
75	0.065	-0.597761	125.091	-4.69277
76	0.065	-0.585815	125.435	-4.73085
77	0.065	-0.573953	125.764	-4.76816
78	0.065	-0.565108	126.083	-4.80489
79	0.065	-0.553384	126.39	-4.84086
80	0.065	-0.541736	126.683	-4.87607
81	0.065	-0.533048	126.967	-4.91072
82	0.13	-0.521527	127.239	-4.97852
83	0.14	-0.510074	127.499	-5.04993
84	0.14	-0.501527	127.751	-5.12014
85	0.16	-0.490189	127.991	-5.19857
86	0.19	-0.478914	128.221	-5.28957
87	0.23	-0.470498	128.442	-5.39778
88	0.23	-0.459327	128.653	-5.50343
89	0.29	-0.448213	128.854	-5.63341
90	0.41	-0.439913	129.047	-5.81377
91	0.5	-0.428895	129.231	-6.02822
92	0.5	-0.417928	129.406	-6.23718
93	0.5	-0.409735	129.574	-6.44205
94	0.5	-0.398855	129.733	-6.64148
95	0.5	-0.388022	129.883	-6.83549
96	0.5	-0.379927	130.028	-7.02545
97	0.5	-0.369171	130.164	-7.21004
98	0.5	-0.358459	130.293	-7.38927
99	0.5	-0.350451	130.415	-7.5645
100	0.5	-0.33981	130.531	-7.7344
101	0.5	-0.329206	130.639	-7.899
102	0.5	-0.318639	130.741	-8.05832
103	0.5	-0.310738	130.837	-8.21369
104	0.5	-0.300232	130.927	-8.36381
105	0.5	-0.28976	131.011	-8.50869
106	0.5	-0.281926	131.091	-8.64965
107	0.5	-0.271509	131.165	-8.78541
108	0.5	-0.26112	131.233	-8.91597
109	0.5	-0.253347	131.297	-9.04264
110	0.5	-0.243007	131.356	-9.16414
111	0.5	-0.232693	131.41	-9.28049
112	0.5	-0.224974	131.461	-9.39298
113	0.5	-0.214702	131.507	-9.50033

114	0.5	-0.204452	131.549	-9.60255
115	0.5	-0.196779	131.587	-9.70094
116	0.5	-0.186567	131.622	-9.79423
117	0.5	-0.176374	131.653	-9.88241
118	0.5	-0.168741	131.682	-9.96678
119	0.5	-0.158579	131.707	-10.0461
120	0.5	-0.148434	131.729	-10.1203
121	0.5	-0.140835	131.749	-10.1907
122	0.5	-0.130716	131.766	-10.2561
123	0.5	-0.12061	131.78	-10.3164
124	0.5	-0.113039	131.793	-10.3729
125	0.5	-0.102953	131.804	-10.4244
126	0.5	-0.0928787	131.812	-10.4708
127	0.5	-0.0853288	131.82	-10.5135
128	0.5	-0.0752698	131.825	-10.5511
129	0.5	-0.0652187	131.83	-10.5837
130	0.5	-0.0576847	131.833	-10.6126
131	0.5	-0.0476439	131.835	-10.6364
132	0.5	-0.0376076	131.837	-10.6552
133	0.5	-0.0300838	131.838	-10.6702
134	0.5	-0.0200544	131.838	-10.6803
135	0.5	-0.0100272	131.838	-10.6853
136	0.5	0	131.838	-10.6853
137	0.5	0.0100272	131.838	-10.6803
138	0.5	0.0200544	131.839	-10.6702
139	0.5	0.0300838	131.839	-10.6552
140	0.5	0.0376076	131.841	-10.6364
141	0.5	0.0476439	131.843	-10.6126
142	0.5	0.0576847	131.846	-10.5837
143	0.5	0.0652187	131.851	-10.5511
144	0.5	0.0752698	131.856	-10.5135
145	0.5	0.0853288	131.864	-10.4708
146	0.5	0.0928787	131.872	-10.4244
147	0.5	0.102953	131.883	-10.3729
148	0.5	0.113039	131.896	-10.3164
149	0.5	0.12061	131.91	-10.2561
150	0.5	0.130716	131.927	-10.1907
151	0.5	0.140835	131.947	-10.1203
152	0.5	0.148434	131.969	-10.0461
153	0.5	0.158579	131.994	-9.96678
154	0.5	0.168741	132.023	-9.88241
155	0.5	0.176374	132.054	-9.79423
156	0.5	0.186567	132.089	-9.70094
157	0.5	0.196779	132.127	-9.60255
158	0.5	0.204452	132.169	-9.50033
159	0.5	0.214702	132.215	-9.39298
160	0.5	0.224974	132.266	-9.28049
161	0.5	0.232693	132.32	-9.16414
162	0.5	0.243007	132.379	-9.04264
163	0.5	0.253347	132.443	-8.91597
164	0.5	0.26112	132.512	-8.78541
165	0.5	0.271509	132.585	-8.64965
166	0.5	0.281926	132.665	-8.50869
167	0.5	0.28976	132.749	-8.36381
168	0.5	0.300232	132.839	-8.21369
169	0.5	0.310738	132.935	-8.05832
170	0.5	0.318639	133.037	-7.899
171	0.5	0.329206	133.145	-7.7344
172	0.5	0.33981	133.261	-7.5645
173	0.5	0.350451	133.384	-7.38927
174	0.5	0.358459	133.512	-7.21004
175	0.5	0.369171	133.648	-7.02545

176	0.5	0.379927		133.793	-6.83549
177	0.5	0.388022		133.943	-6.64148
178	0.5	0.398855		134.102	-6.44205
179	0.5	0.409735		134.27	-6.23718
180	0.5	0.417928		134.445	-6.02822
181	0.5	0.428895		134.629	-5.81377
182	0.5	0.439913		134.822	-5.59382
183	0.5	0.448213		135.023	-5.36971
184	0.5	0.459327		135.234	-5.14005
185	0.5	0.470498		135.456	-4.9048
186	0.5	0.478914		135.685	-4.66534
187	0.5	0.490189		135.925	-4.42025
188	0.5	0.501527		136.177	-4.16948
189	0.5	0.510074		136.437	-3.91445
190	0.5	0.521527		136.709	-3.65368
191	0.5	0.533048		136.993	-3.38716
192	0.5	0.541736		137.287	-3.11629
193	0.5	0.553384		137.593	-2.8396
194	0.5	0.565108		137.912	-2.55704
195	0.5	0.573953		138.242	-2.27007
196	0.5	0.585815		138.585	-1.97716
197	0.5	0.597761		138.942	-1.67828
198	0.5	0.606775		139.31	-1.37489
199	0.5	0.618872		139.693	-1.06546
200	0.5	0.631062		140.091	-0.749926
201	0.5	0.640266		140.501	-0.429793
202	0.5	0.652622		140.927	-0.103482
203	0.5	0.665079		141.37	0.229058
204	0.5	0.67449	141.825	0.566303	
205	0.5	0.687131		142.297	0.909868
206	0.5	0.699883		142.787	1.25981
207	0.5	0.712751		143.295	1.61619
208	0.5	0.722479		143.817	1.97742
209	0.5	0.735557		144.358	2.3452
210	0.5	0.748762		144.918	2.71958
211	0.5	0.758753		145.494	3.09896
212	0.5	0.772193		146.09	3.48506
213	0.5	0.785774		146.708	3.87794
214	0.5	0.796056		147.341	4.27597
215	0.5	0.809896		147.997	4.68092
216	0.5	0.823893		148.676	5.09287
217	0.5	0.834498		149.373	5.51012
218	0.5	0.848786		150.093	5.93451
219	0.5	0.863249		150.838	6.36613
220	0.5	0.874218		151.602	6.80324
221	0.5	0.889006		152.393	7.24774
222	0.5	0.903992		153.21	7.69974
223	0.5	0.915365		154.048	8.15742
224	0.5	0.930718		154.914	8.62278
225	0.5	0.946291		155.81	9.09593
226	0.5	0.958125		156.728	9.57499
227	0.5	0.974114		157.676	10.062
228	0.5	0.990356		158.657	10.5572
229	0.5	1.00271	159.663	11.0586	
230	0.5	1.01943	160.702	11.5683	
231	0.5	1.03643	161.776	12.0865	
232	0.5	1.04939	162.877	12.6112	
233	0.5	1.06694	164.016	13.1447	
234	0.5	1.08482	165.193	13.6871	
235	0.5	1.09847	166.399	14.2363	
236	0.5	1.11699	167.647	14.7948	
237	0.5	1.1359	168.937	15.3628	

238	0.5	1.15035	170.26	15.9379
239	0.5	1.17	171.629	16.5229
240	0.5	1.19012	173.046	17.118
241	0.5	1.21073	174.512	17.7234
242	0.5	1.22653	176.016	18.3366
243	0.5	1.24809	177.574	18.9607
244	0.5	1.27024	179.187	19.5958
245	0.5	1.28727	180.844	20.2394
246	0.5	1.31058	182.562	20.8947
247	0.5	1.33462	184.343	21.562
248	0.5	1.35317	186.174	22.2386
249	0.5	1.37866	188.075	22.9279
250	0.5	1.40507	190.049	23.6305
251	0.5	1.42554	192.081	24.3432
252	0.5	1.4538	194.195	25.0701
253	0.5	1.48328	196.395	25.8118
254	0.5	1.50626	198.664	26.5649
255	0.5	1.5382	201.03	27.334
256	0.5	1.57179	203.5	28.1199
257	0.5	1.59819	206.054	28.919
258	0.5	1.63524	208.728	29.7366
259	0.5	1.67466	211.533	30.574
260	0.5	1.70604	214.444	31.427
261	0.5	1.75069	217.508	32.3023
262	0.5	1.79912	220.745	33.2019
263	0.5	1.83843	224.125	34.1211
264	0.5	1.8957	227.719	35.0689
265	0.88	1.95996	231.56	36.7937
266	0.97	2.01409	235.617	38.7474
267	1.1	2.09693	240.014	41.054
268	1.4	2.19728	244.842	44.1302
269	1.4	2.29036	250.088	47.3367
270	1.7	2.45727	256.126	51.5141
271	1.9	2.74777	263.676	56.7348

Data Set Standard Deviation = 0.261552
Numerator = 3218.84
Denominator = 4870.24
W Statistic = 0.660921 = 3218.84 / 4870.24

5% Critical value of 0.976 exceeds 0.660921
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.660921
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Trichloroethylene

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.814854
0.814854 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00367647		-2.747773	9	348.683
2	0	0.00735294		-2.457273	9	334.497
3	0	0.0110294		-2.290363	9	326.346
4	0	0.0147059		-2.197283	9	321.801
5	0	0.0183824		-2.096933	9	316.9
6	0	0.0220588		-2.014093	9	312.855
7	0	0.0257353		-1.959963	9	310.211
8	0	0.0294118		-1.8957	39	307.073
9	0.065	0.0330882		-1.838456	.3875	304.276
10	0.065	0.0367647		-1.799125	6.3875	302.357
11	0.065	0.0404412		-1.750695	6.3875	299.992
12	0.065	0.0441176		-1.706045	6.3875	297.812
13	0.065	0.0477941		-1.674665	6.3875	296.279
14	0.065	0.0514706		-1.635245	6.3875	294.354
15	0.065	0.0551471		-1.598195	6.3875	292.545
16	0.065	0.0588235		-1.571795	6.3875	291.256
17	0.065	0.0625	-1.5382	56.3875	289.615	
18	0.065	0.0661765		-1.506265	6.3875	288.056
19	0.065	0.0698529		-1.483285	6.3875	286.934
20	0.065	0.0735294		-1.4538	56.3875	285.494
21	0.065	0.0772059		-1.425545	6.3875	284.114
22	0.065	0.0808824		-1.405075	6.3875	283.114
23	0.065	0.0845588		-1.378665	6.3875	281.824
24	0.065	0.0882353		-1.353175	6.3875	280.58
25	0.065	0.0919118		-1.334625	6.3875	279.674
26	0.065	0.0955882		-1.310585	6.3875	278.5
27	0.065	0.0992647		-1.287275	6.3875	277.362
28	0.065	0.102941		-1.270245	6.3875	276.53
29	0.065	0.106618		-1.248095	6.3875	275.448
30	0.065	0.110294		-1.226535	6.3875	274.395
31	0.065	0.113971		-1.210735	6.3875	273.624
32	0.065	0.117647		-1.190125	6.3875	272.617
33	0.065	0.121324		-1.17	56.3875	271.635
34	0.065	0.125	-1.15035	56.3875	270.675	
35	0.065	0.128676		-1.1359	56.3875	269.97
36	0.065	0.132353		-1.116995	6.3875	269.046
37	0.065	0.136029		-1.098475	6.3875	268.142
38	0.065	0.139706		-1.084825	6.3875	267.476
39	0.065	0.143382		-1.066945	6.3875	266.602
40	0.065	0.147059		-1.049395	6.3875	265.745
41	0.065	0.150735		-1.036435	6.3875	265.112
42	0.065	0.154412		-1.019435	6.3875	264.282
43	0.065	0.158088		-1.002715	6.3875	263.466
44	0.065	0.161765		-0.990356	56.3875	262.862
45	0.065	0.165441		-0.974114	56.3875	262.069
46	0.065	0.169118		-0.958125	56.3875	261.288
47	0.065	0.172794		-0.946291	56.3875	260.711
48	0.065	0.176471		-0.930718	56.3875	259.95

49	0.065	0.180147	-0.915365	56.3875	259.2
50	0.065	0.183824	-0.903992	56.3875	258.645
51	0.065	0.1875	-0.889006	56.3875	257.913
52	0.065	0.191176	-0.874218	56.3875	257.191
53	0.065	0.194853	-0.863249	56.3875	256.655
54	0.065	0.198529	-0.848786	56.3875	255.949
55	0.065	0.202206	-0.834498	56.3875	255.251
56	0.065	0.205882	-0.823893	56.3875	254.733
57	0.065	0.209559	-0.809896	56.3875	254.05
58	0.065	0.213235	-0.796056	56.3875	253.374
59	0.065	0.216912	-0.785774	56.3875	252.872
60	0.065	0.220588	-0.772193	56.3875	252.209
61	0.065	0.224265	-0.758753	56.3875	251.552
62	0.065	0.227941	-0.748762	56.3875	251.065
63	0.065	0.231618	-0.735557	56.3875	250.42
64	0.065	0.235294	-0.722479	56.3875	249.781
65	0.065	0.238971	-0.712751	56.3875	249.306
66	0.065	0.242647	-0.699883	56.3875	248.678
67	0.065	0.246324	-0.687131	56.3875	248.055
68	0.065	0.25	-0.674495	56.3875	247.438
69	0.065	0.253676	-0.665079	56.3875	246.978
70	0.065	0.257353	-0.652622	56.3875	246.37
71	0.065	0.261029	-0.640266	56.3875	245.766
72	0.065	0.264706	-0.631062	56.3875	245.317
73	0.065	0.268382	-0.618872	56.3875	244.722
74	0.065	0.272059	-0.606775	56.3875	244.131
75	0.065	0.275735	-0.597761	56.3875	243.691
76	0.065	0.279412	-0.585815	56.3875	243.107
77	0.065	0.283088	-0.573953	56.3875	242.528
78	0.065	0.286765	-0.565108	56.3875	242.096
79	0.065	0.290441	-0.553384	56.3875	241.524
80	0.065	0.294118	-0.541736	56.3875	240.955
81	0.065	0.297794	-0.533048	56.3875	240.531
82	0.13	0.301471	-0.521527	73.775	239.968
83	0.14	0.305147	-0.510074	76.45	239.409
84	0.14	0.308824	-0.501527	76.45	238.991
85	0.16	0.3125	-0.490189	81.8	238.438
86	0.19	0.316176	-0.478914	89.825	237.887
87	0.23	0.319853	-0.470498	100.525	237.476
88	0.23	0.323529	-0.459327	100.525	236.93
89	0.29	0.327206	-0.448213	116.575	236.388
90	0.41	0.330882	-0.439913	148.675	235.982
91	0.5	0.334559	-0.428895	172.75	235.444
92	0.5	0.338235	-0.417928	172.75	234.909
93	0.5	0.341912	-0.409735	172.75	234.509
94	0.5	0.345588	-0.398855	172.75	233.977
95	0.5	0.349265	-0.388022	172.75	233.448
96	0.5	0.352941	-0.379927	172.75	233.053
97	0.5	0.356618	-0.369171	172.75	232.528
98	0.5	0.360294	-0.358459	172.75	232.005
99	0.5	0.363971	-0.350451	172.75	231.614
100	0.5	0.367647	-0.33981	172.75	231.094
101	0.5	0.371324	-0.329206	172.75	230.576
102	0.5	0.375	-0.318639	172.75	230.06
103	0.5	0.378676	-0.310738	172.75	229.674
104	0.5	0.382353	-0.300232	172.75	229.161
105	0.5	0.386029	-0.28976	172.75	228.65
106	0.5	0.389706	-0.281926	172.75	228.267
107	0.5	0.393382	-0.271509	172.75	227.759
108	0.5	0.397059	-0.26112	172.75	227.251
109	0.5	0.400735	-0.253347	172.75	226.872
110	0.5	0.404412	-0.243007	172.75	226.367

111	0.5	0.408088	-0.232693	172.75	225.863
112	0.5	0.411765	-0.224974	172.75	225.486
113	0.5	0.415441	-0.214702	172.75	224.985
114	0.5	0.419118	-0.204452	172.75	224.484
115	0.5	0.422794	-0.196779	172.75	224.109
116	0.5	0.426471	-0.186567	172.75	223.611
117	0.5	0.430147	-0.176374	172.75	223.113
118	0.5	0.433824	-0.168741	172.75	222.74
119	0.5	0.4375	-0.158579	172.75	222.244
120	0.5	0.441176	-0.148434	172.75	221.749
121	0.5	0.444853	-0.140835	172.75	221.377
122	0.5	0.448529	-0.130716	172.75	220.883
123	0.5	0.452206	-0.12061	172.75	220.39
124	0.5	0.455882	-0.113039	172.75	220.02
125	0.5	0.459559	-0.102953	172.75	219.528
126	0.5	0.463235	-0.0928787	172.75	219.036
127	0.5	0.466912	-0.0853288	172.75	218.667
128	0.5	0.470588	-0.0752698	172.75	218.176
129	0.5	0.474265	-0.0652187	172.75	217.685
130	0.5	0.477941	-0.0576847	172.75	217.317
131	0.5	0.481618	-0.0476439	172.75	216.827
132	0.5	0.485294	-0.0376076	172.75	216.337
133	0.5	0.488971	-0.0300838	172.75	215.969
134	0.5	0.492647	-0.0200544	172.75	215.479
135	0.5	0.496324	-0.0100272	172.75	214.99
136	0.5	0.5	0	172.75	214.5
137	0.5	0.503676	0.0100272	172.75	214.01
138	0.5	0.507353	0.0200544	172.75	213.521
139	0.5	0.511029	0.0300838	172.75	213.031
140	0.5	0.514706	0.0376076	172.75	212.663
141	0.5	0.518382	0.0476439	172.75	212.173
142	0.5	0.522059	0.0576847	172.75	211.683
143	0.5	0.525735	0.0652187	172.75	211.315
144	0.5	0.529412	0.0752698	172.75	210.824
145	0.5	0.533088	0.0853288	172.75	210.333
146	0.5	0.536765	0.0928787	172.75	209.964
147	0.5	0.540441	0.102953	172.75	209.472
148	0.5	0.544118	0.113039	172.75	208.98
149	0.5	0.547794	0.12061	172.75	208.61
150	0.5	0.551471	0.130716	172.75	208.117
151	0.5	0.555147	0.140835	172.75	207.623
152	0.5	0.558824	0.148434	172.75	207.251
153	0.5	0.5625	0.158579	172.75	206.756
154	0.5	0.566176	0.168741	172.75	206.26
155	0.5	0.569853	0.176374	172.75	205.887
156	0.5	0.573529	0.186567	172.75	205.389
157	0.5	0.577206	0.196779	172.75	204.891
158	0.5	0.580882	0.204452	172.75	204.516
159	0.5	0.584559	0.214702	172.75	204.015
160	0.5	0.588235	0.224974	172.75	203.514
161	0.5	0.591912	0.232693	172.75	203.137
162	0.5	0.595588	0.243007	172.75	202.633
163	0.5	0.599265	0.253347	172.75	202.128
164	0.5	0.602941	0.26112	172.75	201.749
165	0.5	0.606618	0.271509	172.75	201.241
166	0.5	0.610294	0.281926	172.75	200.733
167	0.5	0.613971	0.28976	172.75	200.35
168	0.5	0.617647	0.300232	172.75	199.839
169	0.5	0.621324	0.310738	172.75	199.326
170	0.5	0.625	0.318639	172.75	198.94
171	0.5	0.628676	0.329206	172.75	198.424
172	0.5	0.632353	0.33981	172.75	197.906

173	0.5	0.636029	0.350451	172.75	197.386
174	0.5	0.639706	0.358459	172.75	196.995
175	0.5	0.643382	0.369171	172.75	196.472
176	0.5	0.647059	0.379927	172.75	195.947
177	0.5	0.650735	0.388022	172.75	195.552
178	0.5	0.654412	0.398855	172.75	195.023
179	0.5	0.658088	0.409735	172.75	194.491
180	0.5	0.661765	0.417928	172.75	194.091
181	0.5	0.665441	0.428895	172.75	193.556
182	0.5	0.669118	0.439913	172.75	193.018
183	0.5	0.672794	0.448213	172.75	192.612
184	0.5	0.676471	0.459327	172.75	192.07
185	0.5	0.680147	0.470498	172.75	191.524
186	0.5	0.683824	0.478914	172.75	191.113
187	0.5	0.6875	0.490189	172.75	190.562
188	0.5	0.691176	0.501527	172.75	190.009
189	0.5	0.694853	0.510074	172.75	189.591
190	0.5	0.698529	0.521527	172.75	189.032
191	0.5	0.702206	0.533048	172.75	188.469
192	0.5	0.705882	0.541736	172.75	188.045
193	0.5	0.709559	0.553384	172.75	187.476
194	0.5	0.713235	0.565108	172.75	186.904
195	0.5	0.716912	0.573953	172.75	186.472
196	0.5	0.720588	0.585815	172.75	185.893
197	0.5	0.724265	0.597761	172.75	185.309
198	0.5	0.727941	0.606775	172.75	184.869
199	0.5	0.731618	0.618872	172.75	184.278
200	0.5	0.735294	0.631062	172.75	183.683
201	0.5	0.738971	0.640266	172.75	183.234
202	0.5	0.742647	0.652622	172.75	182.63
203	0.5	0.746324	0.665079	172.75	182.022
204	0.5	0.75	0.67449	172.75	181.562
205	0.5	0.753676	0.687131	172.75	180.945
206	0.5	0.757353	0.699883	172.75	180.322
207	0.5	0.761029	0.712751	172.75	179.694
208	0.5	0.764706	0.722479	172.75	179.219
209	0.5	0.768382	0.735557	172.75	178.58
210	0.5	0.772059	0.748762	172.75	177.935
211	0.5	0.775735	0.758753	172.75	177.448
212	0.5	0.779412	0.772193	172.75	176.791
213	0.5	0.783088	0.785774	172.75	176.128
214	0.5	0.786765	0.796056	172.75	175.626
215	0.5	0.790441	0.809896	172.75	174.95
216	0.5	0.794118	0.823893	172.75	174.267
217	0.5	0.797794	0.834498	172.75	173.749
218	0.5	0.801471	0.848786	172.75	173.051
219	0.5	0.805147	0.863249	172.75	172.345
220	0.5	0.808824	0.874218	172.75	171.809
221	0.5	0.8125	0.889006	172.75	171.087
222	0.5	0.816176	0.903992	172.75	170.355
223	0.5	0.819853	0.915365	172.75	169.8
224	0.5	0.823529	0.930718	172.75	169.05
225	0.5	0.827206	0.946291	172.75	168.289
226	0.5	0.830882	0.958125	172.75	167.712
227	0.5	0.834559	0.974114	172.75	166.931
228	0.5	0.838235	0.990356	172.75	166.138
229	0.5	0.841912	1.00271	172.75	165.534
230	0.5	0.845588	1.01943	172.75	164.718
231	0.5	0.849265	1.03643	172.75	163.888
232	0.5	0.852941	1.04939	172.75	163.255
233	0.5	0.856618	1.06694	172.75	162.398
234	0.5	0.860294	1.08482	172.75	161.524

235	0.5	0.863971	1.09847	172.75	160.858
236	0.5	0.867647	1.11699	172.75	159.954
237	0.5	0.871324	1.1359	172.75	159.03
238	0.5	0.875	1.15035	172.75	158.325
239	0.5	0.878676	1.17	172.75	157.365
240	0.5	0.882353	1.19012	172.75	156.383
241	0.5	0.886029	1.21073	172.75	155.376
242	0.5	0.889706	1.22653	172.75	154.605
243	0.5	0.893382	1.24809	172.75	153.552
244	0.5	0.897059	1.27024	172.75	152.47
245	0.5	0.900735	1.28727	172.75	151.638
246	0.5	0.904412	1.31058	172.75	150.5
247	0.5	0.908088	1.33462	172.75	149.326
248	0.5	0.911765	1.35317	172.75	148.42
249	0.5	0.915441	1.37866	172.75	147.176
250	0.5	0.919118	1.40507	172.75	145.886
251	0.5	0.922794	1.42554	172.75	144.886
252	0.5	0.926471	1.4538	172.75	143.506
253	0.5	0.930147	1.48328	172.75	142.066
254	0.5	0.933824	1.50626	172.75	140.944
255	0.5	0.9375	1.5382	172.75	139.385
256	0.5	0.941176	1.57179	172.75	137.744
257	0.5	0.944853	1.59819	172.75	136.455
258	0.5	0.948529	1.63524	172.75	134.646
259	0.5	0.952206	1.67466	172.75	132.721
260	0.5	0.955882	1.70604	172.75	131.188
261	0.5	0.959559	1.75069	172.75	129.008
262	0.5	0.963235	1.79912	172.75	126.643
263	0.5	0.966912	1.83843	172.75	124.724
264	0.5	0.970588	1.8957	172.75	121.927
265	0.88	0.974265	1.95996	274.4	118.789
266	0.97	0.977941	2.01409	298.475	116.145
267	1.1	0.981618	2.09693	333.25	112.1
268	1.4	0.985294	2.19728	413.5	107.199
269	1.4	0.988971	2.29036	413.5	102.654
270	1.7	0.992647	2.45727	493.75	94.5032
271	1.9	0.996324	2.74777	547.25	80.3175

Shapiro-Francia Test of Normality

Parameter: Trichloroethylene

All Locations

Normality Test of Parameter Concentrations

Natural Logarithm Transformation

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 271

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	-2.19728	23.6622	26.4937
5	-2.73337	-2.09693	28.0593	32.2254
6	-2.73337	-2.01409	32.1159	37.7306
7	-2.73337	-1.95996	35.9574	43.0879
8	-2.73337	-1.8957	39.551	48.2696
9	-2.73337	-1.83843	42.9308	53.2946
10	-2.73337	-1.79912	46.1677	58.2123
11	-2.73337	-1.75069	49.2326	62.9976
12	-2.73337	-1.70604	52.1431	67.6608
13	-2.73337	-1.67466	54.9476	72.2383
14	-2.73337	-1.63524	57.6216	76.708
15	-2.73337	-1.59819	60.1758	81.0764
16	-2.73337	-1.57179	62.6464	85.3727
17	-2.73337	-1.5382	65.0124	89.5772
18	-2.73337	-1.50626	67.2812	93.6943
19	-2.73337	-1.48328	69.4814	97.7487
20	-2.73337	-1.4538	71.5949	101.722
21	-2.73337	-1.42554	73.6271	105.619
22	-2.73337	-1.40507	75.6013	109.46
23	-2.73337	-1.37866	77.502	113.228
24	-2.73337	-1.35317	79.3331	116.927
25	-2.73337	-1.33462	81.1143	120.575
26	-2.73337	-1.31058	82.8319	124.157
27	-2.73337	-1.28727	84.489	127.676
28	-2.73337	-1.27024	86.1025	131.148
29	-2.73337	-1.24809	87.6602	134.559
30	-2.73337	-1.22653	89.1646	137.912
31	-2.73337	-1.21073	90.6305	141.221
32	-2.73337	-1.19012	92.0469	144.474
33	-2.73337	-1.17	93.4158	147.672
34	-2.73337	-1.15035	94.7391	150.816
35	-2.73337	-1.1359	96.0293	153.921
36	-2.73337	-1.11699	97.277	156.974
37	-2.73337	-1.09847	98.4836	159.977
38	-2.73337	-1.08482	99.6605	162.942
39	-2.73337	-1.06694	100.799	165.858
40	-2.73337	-1.04939	101.9	168.727
41	-2.73337	-1.03643	102.974	171.56
42	-2.73337	-1.01943	104.013	174.346
43	-2.73337	-1.00271	105.019	177.087
44	-2.73337	-0.990356	106	179.794
45	-2.73337	-0.974114	106.949	182.457
46	-2.73337	-0.958125	107.867	185.076
47	-2.73337	-0.946291	108.762	187.662
48	-2.73337	-0.930718	109.628	190.206
49	-2.73337	-0.915365	110.466	192.708
50	-2.73337	-0.903992	111.283	195.179
51	-2.73337	-0.889006	112.074	197.609

52	-2.73337	-0.874218	112.838	199.999
53	-2.73337	-0.863249	113.583	202.358
54	-2.73337	-0.848786	114.304	204.678
55	-2.73337	-0.834498	115	206.959
56	-2.73337	-0.823893	115.679	209.211
57	-2.73337	-0.809896	116.335	211.425
58	-2.73337	-0.796056	116.968	213.601
59	-2.73337	-0.785774	117.586	215.749
60	-2.73337	-0.772193	118.182	217.859
61	-2.73337	-0.758753	118.758	219.933
62	-2.73337	-0.748762	119.318	221.98
63	-2.73337	-0.735557	119.86	223.991
64	-2.73337	-0.722479	120.382	225.965
65	-2.73337	-0.712751	120.89	227.914
66	-2.73337	-0.699883	121.379	229.827
67	-2.73337	-0.687131	121.852	231.705
68	-2.73337	-0.67449	122.306	233.548
69	-2.73337	-0.665079	122.749	235.366
70	-2.73337	-0.652622	123.175	237.15
71	-2.73337	-0.640266	123.585	238.9
72	-2.73337	-0.631062	123.983	240.625
73	-2.73337	-0.618872	124.366	242.317
74	-2.04022	-0.606775	124.734	243.555
75	-1.96611	-0.597761	125.091	244.73
76	-1.96611	-0.585815	125.435	245.882
77	-1.83258	-0.573953	125.764	246.934
78	-1.66073	-0.565108	126.083	247.872
79	-1.46968	-0.553384	126.39	248.685
80	-1.46968	-0.541736	126.683	249.482
81	-1.23787	-0.533048	126.967	250.141
82	-0.891598	-0.521527	127.239	250.606
83	-0.693147	-0.510074	127.499	250.96
84	-0.693147	-0.501527	127.751	251.308
85	-0.693147	-0.490189	127.991	251.647
86	-0.693147	-0.478914	128.221	251.979
87	-0.693147	-0.470498	128.442	252.305
88	-0.693147	-0.459327	128.653	252.624
89	-0.693147	-0.448213	128.854	252.934
90	-0.693147	-0.439913	129.047	253.239
91	-0.693147	-0.428895	129.231	253.537
92	-0.693147	-0.417928	129.406	253.826
93	-0.693147	-0.409735	129.574	254.11
94	-0.693147	-0.398855	129.733	254.387
95	-0.693147	-0.388022	129.883	254.656
96	-0.693147	-0.379927	130.028	254.919
97	-0.693147	-0.369171	130.164	255.175
98	-0.693147	-0.358459	130.293	255.423
99	-0.693147	-0.350451	130.415	255.666
100	-0.693147	-0.33981	130.531	255.902
101	-0.693147	-0.329206	130.639	256.13
102	-0.693147	-0.318639	130.741	256.351
103	-0.693147	-0.310738	130.837	256.566
104	-0.693147	-0.300232	130.927	256.774
105	-0.693147	-0.28976	131.011	256.975
106	-0.693147	-0.281926	131.091	257.171
107	-0.693147	-0.271509	131.165	257.359
108	-0.693147	-0.26112	131.233	257.54
109	-0.693147	-0.253347	131.297	257.716
110	-0.693147	-0.243007	131.356	257.884
111	-0.693147	-0.232693	131.41	258.045
112	-0.693147	-0.224974	131.461	258.201
113	-0.693147	-0.214702	131.507	258.35

114	-0.693147	-0.204452	131.549	258.492
115	-0.693147	-0.196779	131.587	258.628
116	-0.693147	-0.186567	131.622	258.757
117	-0.693147	-0.176374	131.653	258.88
118	-0.693147	-0.168741	131.682	258.997
119	-0.693147	-0.158579	131.707	259.107
120	-0.693147	-0.148434	131.729	259.209
121	-0.693147	-0.140835	131.749	259.307
122	-0.693147	-0.130716	131.766	259.398
123	-0.693147	-0.12061	131.78	259.481
124	-0.693147	-0.113039	131.793	259.56
125	-0.693147	-0.102953	131.804	259.631
126	-0.693147	-0.0928787	131.812	259.695
127	-0.693147	-0.0853288	131.82	259.755
128	-0.693147	-0.0752698	131.825	259.807
129	-0.693147	-0.0652187	131.83	259.852
130	-0.693147	-0.0576847	131.833	259.892
131	-0.693147	-0.0476439	131.835	259.925
132	-0.693147	-0.0376076	131.837	259.951
133	-0.693147	-0.0300838	131.838	259.972
134	-0.693147	-0.0200544	131.838	259.986
135	-0.693147	-0.0100272	131.838	259.993
136	-0.693147	0	131.838	259.993
137	-0.693147	0.0100272	131.838	259.986
138	-0.693147	0.0200544	131.839	259.972
139	-0.693147	0.0300838	131.839	259.951
140	-0.693147	0.0376076	131.841	259.925
141	-0.693147	0.0476439	131.843	259.892
142	-0.693147	0.0576847	131.846	259.852
143	-0.693147	0.0652187	131.851	259.807
144	-0.693147	0.0752698	131.856	259.755
145	-0.693147	0.0853288	131.864	259.695
146	-0.693147	0.0928787	131.872	259.631
147	-0.693147	0.102953	131.883	259.56
148	-0.693147	0.113039	131.896	259.481
149	-0.693147	0.12061	131.91	259.398
150	-0.693147	0.130716	131.927	259.307
151	-0.693147	0.140835	131.947	259.209
152	-0.693147	0.148434	131.969	259.107
153	-0.693147	0.158579	131.994	258.997
154	-0.693147	0.168741	132.023	258.88
155	-0.693147	0.176374	132.054	258.757
156	-0.693147	0.186567	132.089	258.628
157	-0.693147	0.196779	132.127	258.492
158	-0.693147	0.204452	132.169	258.35
159	-0.693147	0.214702	132.215	258.201
160	-0.693147	0.224974	132.266	258.045
161	-0.693147	0.232693	132.32	257.884
162	-0.693147	0.243007	132.379	257.716
163	-0.693147	0.253347	132.443	257.54
164	-0.693147	0.26112	132.512	257.359
165	-0.693147	0.271509	132.585	257.171
166	-0.693147	0.281926	132.665	256.975
167	-0.693147	0.28976	132.749	256.774
168	-0.693147	0.300232	132.839	256.566
169	-0.693147	0.310738	132.935	256.351
170	-0.693147	0.318639	133.037	256.13
171	-0.693147	0.329206	133.145	255.902
172	-0.693147	0.33981	133.261	255.666
173	-0.693147	0.350451	133.384	255.423
174	-0.693147	0.358459	133.512	255.175
175	-0.693147	0.369171	133.648	254.919

176	-0.693147	0.379927		133.793	254.656
177	-0.693147	0.388022		133.943	254.387
178	-0.693147	0.398855		134.102	254.11
179	-0.693147	0.409735		134.27	253.826
180	-0.693147	0.417928		134.445	253.537
181	-0.693147	0.428895		134.629	253.239
182	-0.693147	0.439913		134.822	252.934
183	-0.693147	0.448213		135.023	252.624
184	-0.693147	0.459327		135.234	252.305
185	-0.693147	0.470498		135.456	251.979
186	-0.693147	0.478914		135.685	251.647
187	-0.693147	0.490189		135.925	251.308
188	-0.693147	0.501527		136.177	250.96
189	-0.693147	0.510074		136.437	250.606
190	-0.693147	0.521527		136.709	250.245
191	-0.693147	0.533048		136.993	249.875
192	-0.693147	0.541736		137.287	249.5
193	-0.693147	0.553384		137.593	249.116
194	-0.693147	0.565108		137.912	248.725
195	-0.693147	0.573953		138.242	248.327
196	-0.693147	0.585815		138.585	247.921
197	-0.693147	0.597761		138.942	247.506
198	-0.693147	0.606775		139.31	247.086
199	-0.693147	0.618872		139.693	246.657
200	-0.693147	0.631062		140.091	246.219
201	-0.693147	0.640266		140.501	245.776
202	-0.693147	0.652622		140.927	245.323
203	-0.693147	0.665079		141.37	244.862
204	-0.693147	0.67449	141.825	244.395	
205	-0.693147	0.687131		142.297	243.918
206	-0.693147	0.699883		142.787	243.433
207	-0.693147	0.712751		143.295	242.939
208	-0.693147	0.722479		143.817	242.438
209	-0.693147	0.735557		144.358	241.929
210	-0.693147	0.748762		144.918	241.41
211	-0.693147	0.758753		145.494	240.884
212	-0.693147	0.772193		146.09	240.348
213	-0.693147	0.785774		146.708	239.804
214	-0.693147	0.796056		147.341	239.252
215	-0.693147	0.809896		147.997	238.691
216	-0.693147	0.823893		148.676	238.12
217	-0.693147	0.834498		149.373	237.541
218	-0.693147	0.848786		150.093	236.953
219	-0.693147	0.863249		150.838	236.354
220	-0.693147	0.874218		151.602	235.748
221	-0.693147	0.889006		152.393	235.132
222	-0.693147	0.903992		153.21	234.506
223	-0.693147	0.915365		154.048	233.871
224	-0.693147	0.930718		154.914	233.226
225	-0.693147	0.946291		155.81	232.57
226	-0.693147	0.958125		156.728	231.906
227	-0.693147	0.974114		157.676	231.231
228	-0.693147	0.990356		158.657	230.544
229	-0.693147	1.00271	159.663	229.849	
230	-0.693147	1.01943	160.702	229.143	
231	-0.693147	1.03643	161.776	228.424	
232	-0.693147	1.04939	162.877	227.697	
233	-0.693147	1.06694	164.016	226.957	
234	-0.693147	1.08482	165.193	226.205	
235	-0.693147	1.09847	166.399	225.444	
236	-0.693147	1.11699	167.647	224.67	
237	-0.693147	1.1359	168.937	223.882	

238	-0.693147	1.15035	170.26	223.085
239	-0.693147	1.17	171.629	222.274
240	-0.693147	1.19012	173.046	221.449
241	-0.693147	1.21073	174.512	220.61
242	-0.693147	1.22653	176.016	219.76
243	-0.693147	1.24809	177.574	218.895
244	-0.693147	1.27024	179.187	218.014
245	-0.693147	1.28727	180.844	217.122
246	-0.693147	1.31058	182.562	216.214
247	-0.693147	1.33462	184.343	215.288
248	-0.693147	1.35317	186.174	214.351
249	-0.693147	1.37866	188.075	213.395
250	-0.693147	1.40507	190.049	212.421
251	-0.693147	1.42554	192.081	211.433
252	-0.693147	1.4538	194.195	210.425
253	-0.693147	1.48328	196.395	209.397
254	-0.693147	1.50626	198.664	208.353
255	-0.693147	1.5382	201.03	207.287
256	-0.693147	1.57179	203.5	206.197
257	-0.127833	1.59819	206.054	205.993
258	-0.0304592	1.63524	208.728	205.943
259	0	1.67466	211.533	205.943
260	0	1.70604	214.444	205.943
261	0	1.75069	217.508	205.943
262	0	1.79912	220.745	205.943
263	0	1.83843	224.125	205.943
264	0	1.8957	227.719	205.943
265	0	1.95996	231.56	205.943
266	0	2.01409	235.617	205.943
267	0.0953102	2.09693	240.014	206.143
268	0.336472	2.19728	244.842	206.882
269	0.336472	2.29036	250.088	207.653
270	0.530628	2.45727	256.126	208.957
271	0.641854	2.74777	263.676	210.721

Data Set Standard Deviation = 0.953899
Numerator = 44403.2
Denominator = 64779.8
W Statistic = 0.685448 = 44403.2 / 64779.8

5% Critical value of 0.976 exceeds 0.685448
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.685448
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Trichloroethylene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.826915
0.826915 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.73337	0.00367647	-2.74777	74.662	348.683
2	-2.73337	0.00735294	-2.45727	74.662	334.497
3	-2.73337	0.0110294	-2.29036	74.662	326.346
4	-2.73337	0.0147059	-2.19728	74.662	321.801
5	-2.73337	0.0183824	-2.09693	74.662	316.9
6	-2.73337	0.0220588	-2.01409	74.662	312.855
7	-2.73337	0.0257353	-1.95996	74.662	310.211
8	-2.73337	0.0294118	-1.8957	74.662	307.073
9	-2.73337	0.0330882	-1.83843	74.662	304.276
10	-2.73337	0.0367647	-1.79912	74.662	302.357
11	-2.73337	0.0404412	-1.75069	74.662	299.992
12	-2.73337	0.0441176	-1.70604	74.662	297.812
13	-2.73337	0.0477941	-1.67466	74.662	296.279
14	-2.73337	0.0514706	-1.63524	74.662	294.354
15	-2.73337	0.0551471	-1.59819	74.662	292.545
16	-2.73337	0.0588235	-1.57179	74.662	291.256
17	-2.73337	0.0625	-1.5382	74.662	289.615
18	-2.73337	0.0661765	-1.50626	74.662	288.056
19	-2.73337	0.0698529	-1.48328	74.662	286.934
20	-2.73337	0.0735294	-1.4538	74.662	285.494
21	-2.73337	0.0772059	-1.42554	74.662	284.114
22	-2.73337	0.0808824	-1.40507	74.662	283.114
23	-2.73337	0.0845588	-1.37866	74.662	281.824
24	-2.73337	0.0882353	-1.35317	74.662	280.58
25	-2.73337	0.0919118	-1.33462	74.662	279.674
26	-2.73337	0.0955882	-1.31058	74.662	278.5
27	-2.73337	0.0992647	-1.28727	74.662	277.362
28	-2.73337	0.102941	-1.27024	74.662	276.53
29	-2.73337	0.106618	-1.24809	74.662	275.448
30	-2.73337	0.110294	-1.22653	74.662	274.395
31	-2.73337	0.113971	-1.21073	74.662	273.624
32	-2.73337	0.117647	-1.19012	74.662	272.617
33	-2.73337	0.121324	-1.17	74.662	271.635
34	-2.73337	0.125	-1.15035	74.662	270.675
35	-2.73337	0.128676	-1.1359	74.662	269.97
36	-2.73337	0.132353	-1.11699	74.662	269.046
37	-2.73337	0.136029	-1.09847	74.662	268.142
38	-2.73337	0.139706	-1.08482	74.662	267.476
39	-2.73337	0.143382	-1.06694	74.662	266.602
40	-2.73337	0.147059	-1.04939	74.662	265.745
41	-2.73337	0.150735	-1.03643	74.662	265.112
42	-2.73337	0.154412	-1.01943	74.662	264.282
43	-2.73337	0.158088	-1.00271	74.662	263.466
44	-2.73337	0.161765	-0.990356	74.662	262.862
45	-2.73337	0.165441	-0.974114	74.662	262.069
46	-2.73337	0.169118	-0.958125	74.662	261.288
47	-2.73337	0.172794	-0.946291	74.662	260.711
48	-2.73337	0.176471	-0.930718	74.662	259.95

49	-2.733370.180147	-0.915365	74.662	259.2	
50	-2.733370.183824	-0.903992	74.662	258.645	
51	-2.733370.1875	-0.889006	74.662	257.913	
52	-2.733370.191176	-0.874218	74.662	257.191	
53	-2.733370.194853	-0.863249	74.662	256.655	
54	-2.733370.198529	-0.848786	74.662	255.949	
55	-2.733370.202206	-0.834498	74.662	255.251	
56	-2.733370.205882	-0.823893	74.662	254.733	
57	-2.733370.209559	-0.809896	74.662	254.05	
58	-2.733370.213235	-0.796056	74.662	253.374	
59	-2.733370.216912	-0.785774	74.662	252.872	
60	-2.733370.220588	-0.772193	74.662	252.209	
61	-2.733370.224265	-0.758753	74.662	251.552	
62	-2.733370.227941	-0.748762	74.662	251.065	
63	-2.733370.231618	-0.735557	74.662	250.42	
64	-2.733370.235294	-0.722479	74.662	249.781	
65	-2.733370.238971	-0.712751	74.662	249.306	
66	-2.733370.242647	-0.699883	74.662	248.678	
67	-2.733370.246324	-0.687131	74.662	248.055	
68	-2.733370.25	-0.6744974.662	247.438		
69	-2.733370.253676	-0.665079	74.662	246.978	
70	-2.733370.257353	-0.652622	74.662	246.37	
71	-2.733370.261029	-0.640266	74.662	245.766	
72	-2.733370.264706	-0.631062	74.662	245.317	
73	-2.733370.268382	-0.618872	74.662	244.722	
74	-2.040220.272059	-0.606775	167.37	244.131	
75	-1.966110.275735	-0.597761	177.282	243.691	
76	-1.966110.279412	-0.585815	177.282	243.107	
77	-1.832580.283088	-0.573953	195.142	242.528	
78	-1.660730.286765	-0.565108	218.127	242.096	
79	-1.469680.290441	-0.553384	243.681	241.524	
80	-1.469680.294118	-0.541736	243.681	240.955	
81	-1.237870.297794	-0.533048	274.684	240.531	
82	-0.891598	0.301471	-0.521527	320.999	239.968
83	-0.693147	0.305147	-0.510074	347.542	239.409
84	-0.693147	0.308824	-0.501527	347.542	238.991
85	-0.693147	0.3125	-0.490189	347.542	238.438
86	-0.693147	0.316176	-0.478914	347.542	237.887
87	-0.693147	0.319853	-0.470498	347.542	237.476
88	-0.693147	0.323529	-0.459327	347.542	236.93
89	-0.693147	0.327206	-0.448213	347.542	236.388
90	-0.693147	0.330882	-0.439913	347.542	235.982
91	-0.693147	0.334559	-0.428895	347.542	235.444
92	-0.693147	0.338235	-0.417928	347.542	234.909
93	-0.693147	0.341912	-0.409735	347.542	234.509
94	-0.693147	0.345588	-0.398855	347.542	233.977
95	-0.693147	0.349265	-0.388022	347.542	233.448
96	-0.693147	0.352941	-0.379927	347.542	233.053
97	-0.693147	0.356618	-0.369171	347.542	232.528
98	-0.693147	0.360294	-0.358459	347.542	232.005
99	-0.693147	0.363971	-0.350451	347.542	231.614
100	-0.693147	0.367647	-0.33981347.542	231.094	
101	-0.693147	0.371324	-0.329206	347.542	230.576
102	-0.693147	0.375	-0.318639	347.542	230.06
103	-0.693147	0.378676	-0.310738	347.542	229.674
104	-0.693147	0.382353	-0.300232	347.542	229.161
105	-0.693147	0.386029	-0.28976347.542	228.65	
106	-0.693147	0.389706	-0.281926	347.542	228.267
107	-0.693147	0.393382	-0.271509	347.542	227.759
108	-0.693147	0.397059	-0.26112347.542	227.251	
109	-0.693147	0.400735	-0.253347	347.542	226.872
110	-0.693147	0.404412	-0.243007	347.542	226.367

111	-0.693147	0.408088	-0.232693	347.542	225.863
112	-0.693147	0.411765	-0.224974	347.542	225.486
113	-0.693147	0.415441	-0.214702	347.542	224.985
114	-0.693147	0.419118	-0.204452	347.542	224.484
115	-0.693147	0.422794	-0.196779	347.542	224.109
116	-0.693147	0.426471	-0.186567	347.542	223.611
117	-0.693147	0.430147	-0.176374	347.542	223.113
118	-0.693147	0.433824	-0.168741	347.542	222.74
119	-0.693147	0.4375	-0.158579	347.542	222.244
120	-0.693147	0.441176	-0.148434	347.542	221.749
121	-0.693147	0.444853	-0.140835	347.542	221.377
122	-0.693147	0.448529	-0.130716	347.542	220.883
123	-0.693147	0.452206	-0.12061	347.542	220.39
124	-0.693147	0.455882	-0.113039	347.542	220.02
125	-0.693147	0.459559	-0.102953	347.542	219.528
126	-0.693147	0.463235	-0.0928787	347.542	219.036
127	-0.693147	0.466912	-0.0853288	347.542	218.667
128	-0.693147	0.470588	-0.0752698	347.542	218.176
129	-0.693147	0.474265	-0.0652187	347.542	217.685
130	-0.693147	0.477941	-0.0576847	347.542	217.317
131	-0.693147	0.481618	-0.0476439	347.542	216.827
132	-0.693147	0.485294	-0.0376076	347.542	216.337
133	-0.693147	0.488971	-0.0300838	347.542	215.969
134	-0.693147	0.492647	-0.0200544	347.542	215.479
135	-0.693147	0.496324	-0.0100272	347.542	214.99
136	-0.693147	0.5	0	347.542	214.5
137	-0.693147	0.503676	0.0100272	347.542	214.01
138	-0.693147	0.507353	0.0200544	347.542	213.521
139	-0.693147	0.511029	0.0300838	347.542	213.031
140	-0.693147	0.514706	0.0376076	347.542	212.663
141	-0.693147	0.518382	0.0476439	347.542	212.173
142	-0.693147	0.522059	0.0576847	347.542	211.683
143	-0.693147	0.525735	0.0652187	347.542	211.315
144	-0.693147	0.529412	0.0752698	347.542	210.824
145	-0.693147	0.533088	0.0853288	347.542	210.333
146	-0.693147	0.536765	0.0928787	347.542	209.964
147	-0.693147	0.540441	0.102953	347.542	209.472
148	-0.693147	0.544118	0.113039	347.542	208.98
149	-0.693147	0.547794	0.12061	347.542	208.61
150	-0.693147	0.551471	0.130716	347.542	208.117
151	-0.693147	0.555147	0.140835	347.542	207.623
152	-0.693147	0.558824	0.148434	347.542	207.251
153	-0.693147	0.5625	0.158579	347.542	206.756
154	-0.693147	0.566176	0.168741	347.542	206.26
155	-0.693147	0.569853	0.176374	347.542	205.887
156	-0.693147	0.573529	0.186567	347.542	205.389
157	-0.693147	0.577206	0.196779	347.542	204.891
158	-0.693147	0.580882	0.204452	347.542	204.516
159	-0.693147	0.584559	0.214702	347.542	204.015
160	-0.693147	0.588235	0.224974	347.542	203.514
161	-0.693147	0.591912	0.232693	347.542	203.137
162	-0.693147	0.595588	0.243007	347.542	202.633
163	-0.693147	0.599265	0.253347	347.542	202.128
164	-0.693147	0.602941	0.26112	347.542	201.749
165	-0.693147	0.606618	0.271509	347.542	201.241
166	-0.693147	0.610294	0.281926	347.542	200.733
167	-0.693147	0.613971	0.28976	347.542	200.35
168	-0.693147	0.617647	0.300232	347.542	199.839
169	-0.693147	0.621324	0.310738	347.542	199.326
170	-0.693147	0.625	0.318639	347.542	198.94
171	-0.693147	0.628676	0.329206	347.542	198.424
172	-0.693147	0.632353	0.33981	347.542	197.906

173	-0.693147	0.636029	0.350451	347.542	197.386
174	-0.693147	0.639706	0.358459	347.542	196.995
175	-0.693147	0.643382	0.369171	347.542	196.472
176	-0.693147	0.647059	0.379927	347.542	195.947
177	-0.693147	0.650735	0.388022	347.542	195.552
178	-0.693147	0.654412	0.398855	347.542	195.023
179	-0.693147	0.658088	0.409735	347.542	194.491
180	-0.693147	0.661765	0.417928	347.542	194.091
181	-0.693147	0.665441	0.428895	347.542	193.556
182	-0.693147	0.669118	0.439913	347.542	193.018
183	-0.693147	0.672794	0.448213	347.542	192.612
184	-0.693147	0.676471	0.459327	347.542	192.07
185	-0.693147	0.680147	0.470498	347.542	191.524
186	-0.693147	0.683824	0.478914	347.542	191.113
187	-0.693147	0.6875	0.490189	347.542	190.562
188	-0.693147	0.691176	0.501527	347.542	190.009
189	-0.693147	0.694853	0.510074	347.542	189.591
190	-0.693147	0.698529	0.521527	347.542	189.032
191	-0.693147	0.702206	0.533048	347.542	188.469
192	-0.693147	0.705882	0.541736	347.542	188.045
193	-0.693147	0.709559	0.553384	347.542	187.476
194	-0.693147	0.713235	0.565108	347.542	186.904
195	-0.693147	0.716912	0.573953	347.542	186.472
196	-0.693147	0.720588	0.585815	347.542	185.893
197	-0.693147	0.724265	0.597761	347.542	185.309
198	-0.693147	0.727941	0.606775	347.542	184.869
199	-0.693147	0.731618	0.618872	347.542	184.278
200	-0.693147	0.735294	0.631062	347.542	183.683
201	-0.693147	0.738971	0.640266	347.542	183.234
202	-0.693147	0.742647	0.652622	347.542	182.63
203	-0.693147	0.746324	0.665079	347.542	182.022
204	-0.693147	0.75	0.67449	347.542	181.562
205	-0.693147	0.753676	0.687131	347.542	180.945
206	-0.693147	0.757353	0.699883	347.542	180.322
207	-0.693147	0.761029	0.712751	347.542	179.694
208	-0.693147	0.764706	0.722479	347.542	179.219
209	-0.693147	0.768382	0.735557	347.542	178.58
210	-0.693147	0.772059	0.748762	347.542	177.935
211	-0.693147	0.775735	0.758753	347.542	177.448
212	-0.693147	0.779412	0.772193	347.542	176.791
213	-0.693147	0.783088	0.785774	347.542	176.128
214	-0.693147	0.786765	0.796056	347.542	175.626
215	-0.693147	0.790441	0.809896	347.542	174.95
216	-0.693147	0.794118	0.823893	347.542	174.267
217	-0.693147	0.797794	0.834498	347.542	173.749
218	-0.693147	0.801471	0.848786	347.542	173.051
219	-0.693147	0.805147	0.863249	347.542	172.345
220	-0.693147	0.808824	0.874218	347.542	171.809
221	-0.693147	0.8125	0.889006	347.542	171.087
222	-0.693147	0.816176	0.903992	347.542	170.355
223	-0.693147	0.819853	0.915365	347.542	169.8
224	-0.693147	0.823529	0.930718	347.542	169.05
225	-0.693147	0.827206	0.946291	347.542	168.289
226	-0.693147	0.830882	0.958125	347.542	167.712
227	-0.693147	0.834559	0.974114	347.542	166.931
228	-0.693147	0.838235	0.990356	347.542	166.138
229	-0.693147	0.841912	1.00271	347.542	165.534
230	-0.693147	0.845588	1.01943	347.542	164.718
231	-0.693147	0.849265	1.03643	347.542	163.888
232	-0.693147	0.852941	1.04939	347.542	163.255
233	-0.693147	0.856618	1.06694	347.542	162.398
234	-0.693147	0.860294	1.08482	347.542	161.524

235	-0.693147	0.863971	1.09847	347.542	160.858
236	-0.693147	0.867647	1.11699	347.542	159.954
237	-0.693147	0.871324	1.1359	347.542	159.03
238	-0.693147	0.875	1.15035	347.542	158.325
239	-0.693147	0.878676	1.17	347.542	157.365
240	-0.693147	0.882353	1.19012	347.542	156.383
241	-0.693147	0.886029	1.21073	347.542	155.376
242	-0.693147	0.889706	1.22653	347.542	154.605
243	-0.693147	0.893382	1.24809	347.542	153.552
244	-0.693147	0.897059	1.27024	347.542	152.47
245	-0.693147	0.900735	1.28727	347.542	151.638
246	-0.693147	0.904412	1.31058	347.542	150.5
247	-0.693147	0.908088	1.33462	347.542	149.326
248	-0.693147	0.911765	1.35317	347.542	148.42
249	-0.693147	0.915441	1.37866	347.542	147.176
250	-0.693147	0.919118	1.40507	347.542	145.886
251	-0.693147	0.922794	1.42554	347.542	144.886
252	-0.693147	0.926471	1.4538	347.542	143.506
253	-0.693147	0.930147	1.48328	347.542	142.066
254	-0.693147	0.933824	1.50626	347.542	140.944
255	-0.693147	0.9375	1.5382	347.542	139.385
256	-0.693147	0.941176	1.57179	347.542	137.744
257	-0.127833	0.944853	1.59819	423.152	136.455
258	-0.0304592	0.948529	1.63524	436.176	134.646
259	0	0.952206	1.67466	440.25	132.721
260	0	0.955882	1.70604	440.25	131.188
261	0	0.959559	1.75069	440.25	129.008
262	0	0.963235	1.79912	440.25	126.643
263	0	0.966912	1.83843	440.25	124.724
264	0	0.970588	1.8957	440.25	121.927
265	0	0.974265	1.95996	440.25	118.789
266	0	0.977941	2.01409	440.25	116.145
267	0.0953102	0.981618	2.09693	452.998	112.1
268	0.336472	0.985294	2.19728	485.253	107.199
269	0.336472	0.988971	2.29036	485.253	102.654
270	0.530628	0.992647	2.45727	511.222	94.5032
271	0.641854	0.996324	2.74777	526.098	80.3175

Non-Parametric Prediction Interval

Inter-Well Comparison

Parameter: Trichloroethylene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 94.0959%
Number of comparisons = 16
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 22
Maximum Background Value = 0
Confidence Level = 73.3%
False Positive Rate = 26.7%

Location	Date	Count	Mean	Significant
LMW-9D	5/16/2012	1	-2.73337	FALSE
LMW-8	5/16/2012	1	-1.46968	FALSE
LMW-9	5/16/2012	1	-2.73337	FALSE
LMW-14R	5/16/2012	1	-2.73337	FALSE
LMW-15R	5/16/2012	1	-2.73337	FALSE
LMW-6	5/16/2012	1	-2.73337	FALSE
LMW-7	5/16/2012	1	-2.73337	FALSE
LMW-3S	5/16/2012	1	-2.73337	FALSE
LMW-10	5/16/2012	1	0.336472	TRUE
LMW-9S	5/16/2012	1	-2.73337	FALSE
LMW-3	5/16/2012	1	-2.73337	FALSE
LMW-16	5/16/2012	1	-2.73337	FALSE
LMW-12	11/20/2008	1	-0.693147	FALSE
LMW-11	11/20/2008	1	-0.693147	FALSE
MW-5	11/20/2008	1	-0.693147	FALSE
LMW-13	11/20/2008	1	-0.693147	FALSE

Mann-Kendall Trend Analysis
Parameter: Trichloroethylene
Location: LMW-10
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<-0.693147	ND<-0.693147	0	0	0
ND<-0.693147	ND<-0.693147	0	0	0
ND<-0.693147	ND<-0.693147	0	0	0
ND<0 J	ND<-0.693147	0.693147	1	0
ND<0 J	ND<-0.693147	0.693147	2	0
ND<0 J	ND<-0.693147	0.693147	3	0
ND<0 J	ND<-0.693147	0.693147	4	0
ND<-0.693147	ND<-0.693147	0	4	0
ND<-0.693147	ND<-0.693147	0	4	0
ND<-0.693147	ND<-0.693147	0	4	0
ND<0 J	ND<-0.693147	0.693147	5	0
-0.127833 J	ND<-0.693147	0.565314	6	0
0.530628	ND<-0.693147	1.22378	7	0
0.0953102	ND<-0.693147	0.788457	8	0
-0.0304592 J	ND<-0.693147	0.662688	9	0
0.336472	ND<-0.693147	1.02962	10	0
0.641854	ND<-0.693147	1.335	11	0
0.336472	ND<-0.693147	1.02962	12	0
ND<-0.693147	ND<-0.693147	0	12	0
ND<-0.693147	ND<-0.693147	0	12	0
ND<0 J	ND<-0.693147	0.693147	13	0
ND<0 J	ND<-0.693147	0.693147	14	0
ND<0 J	ND<-0.693147	0.693147	15	0
ND<0 J	ND<-0.693147	0.693147	16	0
ND<-0.693147	ND<-0.693147	0	16	0
ND<-0.693147	ND<-0.693147	0	16	0
ND<-0.693147	ND<-0.693147	0	16	0
ND<0 J	ND<-0.693147	0.693147	17	0
-0.127833 J	ND<-0.693147	0.565314	18	0
0.530628	ND<-0.693147	1.22378	19	0
0.0953102	ND<-0.693147	0.788457	20	0
-0.0304592 J	ND<-0.693147	0.662688	21	0
0.336472	ND<-0.693147	1.02962	22	0
0.641854	ND<-0.693147	1.335	23	0
0.336472	ND<-0.693147	1.02962	24	0
ND<-0.693147	ND<-0.693147	0	24	0
ND<0 J	ND<-0.693147	0.693147	25	0
ND<0 J	ND<-0.693147	0.693147	26	0
ND<0 J	ND<-0.693147	0.693147	27	0
ND<0 J	ND<-0.693147	0.693147	28	0
ND<-0.693147	ND<-0.693147	0	28	0
ND<-0.693147	ND<-0.693147	0	28	0
ND<-0.693147	ND<-0.693147	0	28	0
ND<0 J	ND<-0.693147	0.693147	29	0
-0.127833 J	ND<-0.693147	0.565314	30	0
0.530628	ND<-0.693147	1.22378	31	0
0.0953102	ND<-0.693147	0.788457	32	0
-0.0304592 J	ND<-0.693147	0.662688	33	0

0.336472	ND<-0.693147	1.02962	34	0	
0.641854	ND<-0.693147	1.335	35	0	
0.336472	ND<-0.693147	1.02962	36	0	
ND<0 J	ND<-0.693147	0.693147	37	0	
ND<0 J	ND<-0.693147	0.693147	38	0	
ND<0 J	ND<-0.693147	0.693147	39	0	
ND<0 J	ND<-0.693147	0.693147	40	0	
ND<-0.693147	ND<-0.693147	0	40	0	
ND<-0.693147	ND<-0.693147	0	40	0	
ND<-0.693147	ND<-0.693147	0	40	0	
ND<0 J	ND<-0.693147	0.693147	41	0	
-0.127833 J	ND<-0.693147	0.565314	42	0	
0.530628	ND<-0.693147	1.22378	43	0	
0.0953102	ND<-0.693147	0.788457	44	0	
-0.0304592 J	ND<-0.693147	0.662688	45	0	
0.336472	ND<-0.693147	1.02962	46	0	
0.641854	ND<-0.693147	1.335	47	0	
0.336472	ND<-0.693147	1.02962	48	0	
ND<0 J	ND<0 J	0	48	0	
ND<0 J	ND<0 J	0	48	0	
ND<0 J	ND<0 J	0	48	0	
ND<-0.693147	ND<0 J	-0.693147	48	1	
ND<-0.693147	ND<0 J	-0.693147	48	2	
ND<-0.693147	ND<0 J	-0.693147	48	3	
ND<0 J	ND<0 J	0	48	3	
-0.127833 J	ND<0 J	-0.127833	48	4	
0.530628	ND<0 J	0.530628	49	4	
0.0953102	ND<0 J	0.0953102	50	4	
-0.0304592 J	ND<0 J	-0.0304592	50	5	
0.336472	ND<0 J	0.336472	51	5	
0.641854	ND<0 J	0.641854	52	5	
0.336472	ND<0 J	0.336472	53	5	
ND<0 J	ND<0 J	0	53	5	
ND<0 J	ND<0 J	0	53	5	
ND<-0.693147	ND<0 J	-0.693147	53	6	
ND<-0.693147	ND<0 J	-0.693147	53	7	
ND<-0.693147	ND<0 J	-0.693147	53	8	
ND<0 J	ND<0 J	0	53	8	
-0.127833 J	ND<0 J	-0.127833	53	9	
0.530628	ND<0 J	0.530628	54	9	
0.0953102	ND<0 J	0.0953102	55	9	
-0.0304592 J	ND<0 J	-0.0304592	55	10	
0.336472	ND<0 J	0.336472	56	10	
0.641854	ND<0 J	0.641854	57	10	
0.336472	ND<0 J	0.336472	58	10	
ND<0 J	ND<0 J	0	58	10	
ND<-0.693147	ND<0 J	-0.693147	58	11	
ND<-0.693147	ND<0 J	-0.693147	58	12	
ND<-0.693147	ND<0 J	-0.693147	58	13	
ND<0 J	ND<0 J	0	58	13	
-0.127833 J	ND<0 J	-0.127833	58	14	
0.530628	ND<0 J	0.530628	59	14	
0.0953102	ND<0 J	0.0953102	60	14	
-0.0304592 J	ND<0 J	-0.0304592	60	15	
0.336472	ND<0 J	0.336472	61	15	
0.641854	ND<0 J	0.641854	62	15	
0.336472	ND<0 J	0.336472	63	15	

ND<-0.693147	ND<0 J	-0.693147	63	16
ND<-0.693147	ND<0 J	-0.693147	63	17
ND<-0.693147	ND<0 J	-0.693147	63	18
ND<0 J	ND<0 J	0	63	18
-0.127833 J	ND<0 J	-0.127833	63	19
0.530628	ND<0 J	0.530628	64	19
0.0953102	ND<0 J	0.0953102	65	19
-0.0304592 J	ND<0 J	-0.0304592	65	20
0.336472	ND<0 J	0.336472	66	20
0.641854	ND<0 J	0.641854	67	20
0.336472	ND<0 J	0.336472	68	20

ND<-0.693147	ND<-0.693147	0	68	20	
ND<-0.693147	ND<-0.693147	0	68	20	
ND<0 J	ND<-0.693147	0.693147	69	20	
-0.127833 J	ND<-0.693147	0.565314	70	20	
0.530628	ND<-0.693147	1.22378	71	20	
0.0953102	ND<-0.693147	0.788457	72	20	
-0.0304592 J	ND<-0.693147	0.662688	73	20	
0.336472	ND<-0.693147	1.02962	74	20	
0.641854	ND<-0.693147	1.335	75	20	
0.336472	ND<-0.693147	1.02962	76	20	

ND<-0.693147	ND<-0.693147	0	76	20	
ND<0 J	ND<-0.693147	0.693147	77	20	
-0.127833 J	ND<-0.693147	0.565314	78	20	
0.530628	ND<-0.693147	1.22378	79	20	
0.0953102	ND<-0.693147	0.788457	80	20	
-0.0304592 J	ND<-0.693147	0.662688	81	20	
0.336472	ND<-0.693147	1.02962	82	20	
0.641854	ND<-0.693147	1.335	83	20	
0.336472	ND<-0.693147	1.02962	84	20	

ND<0 J	ND<-0.693147	0.693147	85	20	
-0.127833 J	ND<-0.693147	0.565314	86	20	
0.530628	ND<-0.693147	1.22378	87	20	
0.0953102	ND<-0.693147	0.788457	88	20	
-0.0304592 J	ND<-0.693147	0.662688	89	20	
0.336472	ND<-0.693147	1.02962	90	20	
0.641854	ND<-0.693147	1.335	91	20	
0.336472	ND<-0.693147	1.02962	92	20	

-0.127833 J	ND<0 J	-0.127833	92	21
0.530628	ND<0 J	0.530628	93	21
0.0953102	ND<0 J	0.0953102	94	21
-0.0304592 J	ND<0 J	-0.0304592	94	22
0.336472	ND<0 J	0.336472	95	22
0.641854	ND<0 J	0.641854	96	22
0.336472	ND<0 J	0.336472	97	22

0.530628	-0.127833 J	0.658462	98	22
0.0953102	-0.127833 J	0.223144	99	22
-0.0304592 J	-0.127833 J	0.0973742	100	22
0.336472	-0.127833 J	0.464306	101	22
0.641854	-0.127833 J	0.769687	102	22
0.336472	-0.127833 J	0.464306	103	22

0.0953102	0.530628	-0.435318	103	23
-0.0304592 J	0.530628	-0.561087	103	24
0.336472	0.530628	-0.194156	103	25
0.641854	0.530628	0.111226	104	25

0.336472	0.530628	-0.194156	104	26
-0.0304592 J	0.0953102	-0.125769	104	27
0.336472	0.0953102	0.241162	105	27
0.641854	0.0953102	0.546544	106	27
0.336472	0.0953102	0.241162	107	27
0.336472	-0.0304592 J	0.366931	108	27
0.641854	-0.0304592 J	0.672313	109	27
0.336472	-0.0304592 J	0.366931	110	27
0.641854	0.336472	0.305382	111	27
0.336472	0.336472	0	111	27
0.336472	0.641854	-0.305382	111	28

S Statistic = 111 - 28 = 83

Tied Group	Value	Members
1	-0.693147	7
2	0	5
3	0.336472	2

Time Period	Observations
3/14/2000	1
9/23/2003	1
3/10/2004	1
10/12/2004	1
4/1/2005	1
10/26/2005	1
6/19/2006	1
11/18/2006	1
6/2/2007	1
11/15/2007	1
5/20/2008	1
11/20/2008	1
6/11/2009	1
11/16/2009	1
6/30/2010	1
11/17/2010	1
7/6/2011	1
11/22/2011	1
5/16/2012	1

There are 0 time periods with multiple data

A = 1116
B = 0
C = 270
D = 0
E = 64
F = 0
a = 14706
b = 52326
c = 684
Group Variance = 755
Z-Score = 2.98429
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|2.98429| > 1.97737 indicating a trend

Shewhart-CUSUM Control Chart

Parameter: Trichloroethylene

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = -1.34231
Baseline Std Dev = 0.972637
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std	Mean
3/14/2000	-0.693147	0	0.667424	
3/14/2000	-0.693147	0	0.667424	
9/23/2003	-0.693147	0	0.667424	
9/23/2003	-0.693147	0	0.667424	
3/10/2004	-0.693147	0	0.667424	
3/10/2004	-0.693147	0	0.667424	
10/12/2004	-0.693147	0	0.667424	
10/12/2004	-0.693147	0	0.667424	
4/1/2005	0	0.380071	1.38007	
4/1/2005	0	0.380071	1.38007	
10/26/2005	0	0.760142	1.38007	
10/26/2005	0	0.760142	1.38007	
6/19/2006	0	1.14021	1.38007	
6/19/2006	0	1.14021	1.38007	
11/18/2006	0	1.52028	1.38007	
11/18/2006	0	1.52028	1.38007	
6/2/2007	-0.693147	1.18771	0.667424	
6/2/2007	-0.693147	1.18771	0.667424	
11/15/2007	-0.693147	0.855132	0.667424	
11/15/2007	-0.693147	0.855132	0.667424	
5/20/2008	-0.693147	0.522556	0.667424	
5/20/2008	-0.693147	0.522556	0.667424	
11/20/2008	0	0.902627	1.38007	
11/20/2008	0	0.902627	1.38007	
6/11/2009	-0.127833	1.15127	1.24864	
6/11/2009	-0.127833	1.15127	1.24864	
11/16/2009	0.530628	2.0769	1.92563	
11/16/2009	0.530628	2.0769	1.92563	
6/30/2010	0.0953102	2.55496	1.47806	
6/30/2010	0.0953102	2.55496	1.47806	
11/17/2010	-0.0304592	2.90371	1.34875	
11/17/2010	-0.0304592	2.90371	1.34875	
7/6/2011	0.336472	3.62972	1.72601	
7/6/2011	0.336472	3.62972	1.72601	
11/22/2011	0.641854	4.6697	2.03998	
11/22/2011	0.641854	4.6697	2.03998	
5/16/2012	0.336472	5.39571	1.72601	
5/16/2012	0.336472	5.39571	1.72601	

Concentrations (ppb)

Parameter: Trichlorofluoromethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 283
Total Non-Detect: 218
Percent Non-Detects: 77.0318%
Total Background Measurements: 23
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	23	9 (39.1304%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	2	2
			10/26/2005	ND<0 J	ND<0 J
			6/19/2006	2	2
			11/18/2006	2	2
			6/2/2007	3	3
			11/15/2007	ND<1	ND<1
			5/20/2008	3	3
			11/20/2008	2	2
			6/11/2009	0.82 J	0.82 J
			11/16/2009	16 B	16 B
			11/16/2009	2.4	2.4
			6/30/2010	2	2
			11/17/2010	1.7	1.7
			7/6/2011	0.31 J	0.31 J
			11/22/2011	1.2	1.2
			5/16/2012	1.3	1.3

There are 16 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-10	20	7 (35%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<0 J	ND<0 J
			6/19/2006	2	2
			11/18/2006	7	7
			6/2/2007	3	3
			11/15/2007	ND<1	ND<1
			5/20/2008	10	10
			11/20/2008	3	3
			6/11/2009	6.6	6.6
			11/16/2009	21	21
			11/16/2009	13	13
			6/30/2010	5.8	5.8
			11/17/2010	7.3	7.3
			7/6/2011	3.7	3.7
			11/22/2011	14	14
			5/16/2012	14	14

LMW-3S	13	4 (30.7692%)	11/18/2006	ND<1	ND<1
		6/2/2007	ND<1	ND<1	
		11/15/2007	1	1	
		5/20/2008	ND<0 J	ND<0 J	
		11/20/2008	ND<0 J	ND<0 J	
		6/11/2009	1.1	1.1	
		11/16/2009	0.97 J	0.97 J	
		11/16/2009	13	13	
		6/30/2010	1.4	1.4	
		11/17/2010	1.1	1.1	
		7/6/2011	0.36 J	0.36 J	
		11/22/2011	0.8 J	0.8 J	
		5/16/2012	1.2	1.2	
LMW-15R	14	14 (100%)	11/18/2006	ND<1	ND<1
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.25 U	ND<0.25 U	
		6/30/2010	ND<0.25 U	ND<0.25 U	
		11/17/2010	ND<0.25 U	ND<0.25 U	
		7/6/2011	ND<0.25 U	ND<0.25 U	
		11/22/2011	ND<0.25 U	ND<0.25 U	
		5/16/2012	ND<0.25 U	ND<0.25 U	
LMW-16	13	12 (92.3077%)	11/18/2006	ND<1	ND<1
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<1	ND<1	
		5/20/2008	ND<1	ND<1	
		11/20/2008	ND<1	ND<1	
		6/11/2009	ND<0.25 U	ND<0.25 U	
		11/16/2009	9.3 J B	9.3 J B	
		11/16/2009	ND<0.25 U	ND<0.25 U	
		6/30/2010	ND<0.25 U	ND<0.25 U	
		11/17/2010	ND<0.25 U	ND<0.25 U	
		7/6/2011	ND<0.25 U	ND<0.25 U	
		11/22/2011	ND<0.25 U	ND<0.25 U	
		5/16/2012	ND<0.25 U	ND<0.25 U	
LMW-3	25	17 (68%)	11/19/1996	ND<1	ND<1
		3/24/1997	ND<1	ND<1	
		1/16/1998	ND<1	ND<1	
		3/16/1999	ND<1	ND<1	
		9/23/1999	ND<1	ND<1	
		3/14/2000	ND<1	ND<1	
		9/23/2003	ND<1	ND<1	
		3/10/2004	ND<1	ND<1	
		10/12/2004	ND<1	ND<1	
		4/1/2005	ND<0 J	ND<0 J	
		10/26/2005	ND<0 J	ND<0 J	
		6/19/2006	ND<0 J	ND<0 J	
		11/18/2006	ND<1	ND<1	
		6/2/2007	ND<1	ND<1	
		11/15/2007	ND<0 J	ND<0 J	
		5/20/2008	ND<0 J	ND<0 J	
		11/20/2008	ND<0 J	ND<0 J	
		6/11/2009	0.84 J	0.84 J	

			11/16/2009	0.68 J	0.68 J	
			11/16/2009	32 B	32 B	
			6/30/2010	0.58 J	0.58 J	
			11/17/2010	0.52 J	0.52 J	
			7/6/2011	0.51 J	0.51 J	
			11/22/2011	0.89 J	0.89 J	
			5/16/2012	0.71 J	0.71 J	
LMW-9S	17	14 (82.3529%)	11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.25 U	ND<0.25 U	
			11/16/2009	ND<0.25 U	ND<0.25 U	
			11/16/2009	ND<0.25 U	ND<0.25 U	
			11/16/2009	ND<0.25 U	ND<0.25 U	
			11/16/2009	26 B	26 B	
			11/16/2009	15 B	15 B	
			11/16/2009	9.1 J B	9.1 J B	
			6/30/2010	ND<0.25 U	ND<0.25 U	
			11/17/2010	ND<0.25 U	ND<0.25 U	
			7/6/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			5/16/2012	ND<0.25 U	ND<0.25 U	
LMW-14R	10	10 (100%)	6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.25 U	ND<0.25 U	
			6/30/2010	ND<0.25 U	ND<0.25 U	
			11/17/2010	ND<0.25 U	ND<0.25 U	
			7/6/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U	ND<0.25 U	
			5/16/2012	ND<0.25 U	ND<0.25 U	
LMW-6	23	12 (52.1739%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<0 J	ND<0 J	
			10/26/2005	1	1	
			6/19/2006	1	1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<0 J	ND<0 J	
			5/20/2008	1	1	
			11/20/2008	ND<0 J	ND<0 J	
			6/11/2009	0.95 J	0.95 J	
			11/16/2009	41	41	
			11/16/2009	1.1	1.1	
			6/30/2010	0.72 J	0.72 J	
			11/17/2010	0.48 J	0.48 J	
			7/6/2011	0.7 J	0.7 J	
			11/22/2011	0.35 J	0.35 J	
			5/16/2012	0.67 J	0.67 J	
LMW-7	20	18 (90%)	1/16/1998	ND<1	ND<1	

			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	2	2	
			11/15/2007	4	4	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.25 U		ND<0.25 U
			11/17/2010	ND<0.25 U		ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U
			5/16/2012	ND<0.25 U		ND<0.25 U
LMW-8	23	22 (95.6522%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.25 U		ND<0.25 U
			11/16/2009	19	19	
			11/16/2009	ND<0.25 U		ND<0.25 U
			6/30/2010	ND<0.25 U		ND<0.25 U
			11/17/2010	ND<0.25 U		ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U	
			11/22/2011	ND<0.25 U		ND<0.25 U
			5/16/2012	ND<0.25 U		ND<0.25 U
LMW-9	23	22 (95.6522%)	1/16/1998	ND<1	ND<1	
			3/16/1999	ND<1	ND<1	
			9/23/1999	ND<1	ND<1	
			3/14/2000	ND<1	ND<1	
			9/23/2003	ND<1	ND<1	
			3/10/2004	ND<1	ND<1	
			10/12/2004	ND<1	ND<1	
			4/1/2005	ND<1	ND<1	
			10/26/2005	ND<1	ND<1	
			6/19/2006	ND<1	ND<1	
			11/18/2006	ND<1	ND<1	
			6/2/2007	ND<1	ND<1	
			11/15/2007	ND<1	ND<1	
			5/20/2008	ND<1	ND<1	
			11/20/2008	ND<1	ND<1	
			6/11/2009	ND<0.25 U		ND<0.25 U
			11/16/2009	7 J	7 J	
			11/16/2009	ND<0.25 U		ND<0.25 U

			6/30/2010	ND<0.25 U	ND<0.25 U
			11/17/2010	ND<0.25 U	ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	ND<0.25 U	ND<0.25 U
LMW-9D	13	12 (92.3077%)	11/18/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
			6/11/2009	ND<0.25 U	ND<0.25 U
			11/16/2009	25	25
			11/16/2009	ND<0.25 U	ND<0.25 U
			6/30/2010	ND<0.25 U	ND<0.25 U
			11/17/2010	ND<0.25 U	ND<0.25 U
			7/6/2011	ND<0.25 U	ND<0.25 U
			11/22/2011	ND<0.25 U	ND<0.25 U
			5/16/2012	ND<0.25 U	ND<0.25 U
LMW-13	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
MW-5	13	12 (92.3077%)	1/16/1998	ND<1	ND<1
			3/16/1999	ND<1	ND<1
			9/23/1999	ND<1	ND<1
			3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			11/15/2007	7	7
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
LMW-12	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1
			4/1/2005	ND<1	ND<1
			10/26/2005	ND<1	ND<1
			6/19/2006	ND<1	ND<1
			6/2/2007	ND<1	ND<1
			11/15/2007	ND<1	ND<1
			5/20/2008	ND<1	ND<1
			11/20/2008	ND<1	ND<1
LMW-11	11	11 (100%)	3/14/2000	ND<1	ND<1
			9/23/2003	ND<1	ND<1
			3/10/2004	ND<1	ND<1
			10/12/2004	ND<1	ND<1

4/1/2005	ND<1	ND<1	
10/26/2005		ND<1	ND<1
6/19/2006		ND<1	ND<1
6/2/2007	ND<1	ND<1	
11/15/2007		ND<1	ND<1
5/20/2008		ND<1	ND<1
11/20/2008		ND<1	ND<1

There are 0 unused locations

Loc.	Meas.	ND	Date	Conc.	Original

Shapiro-Francia Test of Normality

Parameter: Trichlorofluoromethane

All Locations

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Total Number of Measurements = 283

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0	-2.74777	7.55021	0
2	0	-2.45727	13.5884	0
3	0	-2.32634	19.0003	0
4	0	-2.19728	23.8283	0
5	0	-2.12007	28.323	0
6	0	-2.03352	32.4582	0
7	0	-1.97737	36.3682	0
8	0	-1.91103	40.0203	0
9	0	-1.86629	43.5033	0
10	0	-1.81191	46.7863	0
11	0	-1.77438	49.9348	0
12	0	-1.72793	52.9205	0
13	0	-1.6954	55.7949	0
14	0.125	-1.65463	58.5327	-0.206828
15	0.125	-1.62576	61.1758	-0.410049
16	0.125	-1.58927	63.7015	-0.608707
17	0.125	-1.56322	66.1452	-0.80411
18	0.125	-1.53007	68.4863	-0.995368
19	0.125	-1.50626	70.7551	-1.18365
20	0.125	-1.47579	72.9331	-1.36812
21	0.125	-1.4538	75.0466	-1.54985
22	0.125	-1.42554	77.0788	-1.72804
23	0.125	-1.40507	79.053	-1.90368
24	0.125	-1.37866	80.9537	-2.07601
25	0.125	-1.35317	82.7848	-2.24516
26	0.125	-1.33462	84.566	-2.41198
27	0.125	-1.31058	86.2837	-2.57581
28	0.125	-1.29303	87.9556	-2.73744
29	0.125	-1.27024	89.5691	-2.89622
30	0.125	-1.25357	91.1405	-3.05291
31	0.125	-1.23187	92.658	-3.20689
32	0.125	-1.21596	94.1366	-3.35889
33	0.125	-1.19522	95.5651	-3.50829
34	0.125	-1.18	96.9575	-3.65579
35	0.125	-1.16012	98.3034	-3.80081
36	0.125	-1.1455	99.6156	-3.944
37	0.125	-1.12639	100.884	-4.08479
38	0.125	-1.11232	102.122	-4.22383
39	0.125	-1.0939	103.318	-4.36057
40	0.125	-1.08032	104.485	-4.49561
41	0.125	-1.06252	105.614	-4.62843
42	0.125	-1.04939	106.715	-4.7596
43	0.125	-1.03215	107.781	-4.88862
44	0.125	-1.01943	108.82	-5.01605
45	0.125	-1.00271	109.825	-5.14139
46	0.125	-0.990356	110.806	-5.26518
47	0.125	-0.974114	111.755	-5.38694
48	0.125	-0.958125	112.673	-5.50671
49	0.125	-0.946291	113.569	-5.625
50	0.125	-0.930718	114.435	-5.74134
51	0.125	-0.919183	115.28	-5.85623

52	0.125	-0.903992	116.097	-5.96923
53	0.125	-0.892733	116.894	-6.08083
54	0.125	-0.877897	117.665	-6.19056
55	0.125	-0.866894	118.416	-6.29892
56	0.125	-0.852385	119.143	-6.40547
57	0.125	-0.841621	119.851	-6.51067
58	0.125	-0.827417	120.536	-6.6141
59	0.125	-0.816874	121.203	-6.71621
60	0.125	-0.802956	121.848	-6.81658
61	0.125	-0.792618	122.476	-6.91566
62	0.125	-0.778966	123.083	-7.01303
63	0.125	-0.768821	123.674	-7.10913
64	0.125	-0.755415	124.244	-7.20356
65	0.125	-0.745449	124.8	-7.29674
66	0.125	-0.732275	125.336	-7.38827
67	0.125	-0.722479	125.858	-7.47858
68	0.31	-0.709522	126.362	-7.69854
69	0.35	-0.699883	126.852	-7.94349
70	0.36	-0.687131	127.324	-8.19086
71	0.48	-0.67449	127.779	-8.51462
72	0.5	-0.665079	128.221	-8.84716
73	0.5	-0.652622	128.647	-9.17347
74	0.5	-0.643345	129.061	-9.49514
75	0.5	-0.631062	129.459	-9.81067
76	0.5	-0.621911	129.846	-10.1216
77	0.5	-0.609791	130.218	-10.4265
78	0.5	-0.60076	130.579	-10.7269
79	0.5	-0.588793	130.925	-11.0213
80	0.5	-0.579873	131.262	-11.3112
81	0.5	-0.568052	131.584	-11.5953
82	0.5	-0.559237	131.897	-11.8749
83	0.5	-0.547551	132.197	-12.1487
84	0.5	-0.538836	132.487	-12.4181
85	0.5	-0.52728	132.765	-12.6817
86	0.5	-0.518658	133.034	-12.941
87	0.5	-0.507221	133.291	-13.1947
88	0.5	-0.498687	133.54	-13.444
89	0.5	-0.487364	133.778	-13.6877
90	0.5	-0.478914	134.007	-13.9271
91	0.5	-0.467699	134.226	-14.161
92	0.5	-0.459327	134.437	-14.3906
93	0.5	-0.448213	134.638	-14.6148
94	0.5	-0.439913	134.831	-14.8347
95	0.5	-0.428895	135.015	-15.0492
96	0.5	-0.417928	135.19	-15.2581
97	0.5	-0.409735	135.358	-15.463
98	0.5	-0.398855	135.517	-15.6624
99	0.5	-0.390726	135.669	-15.8578
100	0.5	-0.379927	135.814	-16.0477
101	0.5	-0.371856	135.952	-16.2337
102	0.5	-0.361133	136.082	-16.4142
103	0.5	-0.353118	136.207	-16.5908
104	0.5	-0.342466	136.324	-16.762
105	0.5	-0.334503	136.436	-16.9293
106	0.5	-0.323919	136.541	-17.0912
107	0.5	-0.316004	136.641	-17.2492
108	0.5	-0.305481	136.734	-17.402
109	0.5	-0.297612	136.823	-17.5508
110	0.5	-0.287147	136.905	-17.6944
111	0.5	-0.279319	136.983	-17.834
112	0.5	-0.268908	137.056	-17.9685
113	0.5	-0.26112	137.124	-18.099

114	0.5	-0.250759	137.187	-18.2244
115	0.5	-0.243007	137.246	-18.3459
116	0.5	-0.232693	137.3	-18.4623
117	0.5	-0.224974	137.351	-18.5748
118	0.5	-0.214702	137.397	-18.6821
119	0.5	-0.204452	137.439	-18.7843
120	0.5	-0.196779	137.477	-18.8827
121	0.5	-0.186567	137.512	-18.976
122	0.5	-0.17892	137.544	-19.0655
123	0.5	-0.168741	137.573	-19.1498
124	0.5	-0.161119	137.598	-19.2304
125	0.5	-0.150969	137.621	-19.3059
126	0.5	-0.143367	137.642	-19.3776
127	0.5	-0.133244	137.66	-19.4442
128	0.5	-0.125661	137.675	-19.507
129	0.5	-0.115562	137.689	-19.5648
130	0.5	-0.107995	137.7	-19.6188
131	0.5	-0.0979139	137.71	-19.6677
132	0.5	-0.0903606	137.718	-19.7129
133	0.5	-0.0802981	137.725	-19.7531
134	0.5	-0.0727562	137.73	-19.7895
135	0.5	-0.0627062	137.734	-19.8208
136	0.5	-0.0551734	137.737	-19.8484
137	0.5	-0.0451348	137.739	-19.871
138	0.5	-0.0376076	137.74	-19.8898
139	0.5	-0.0275759	137.741	-19.9036
140	0.5	-0.0200544	137.741	-19.9136
141	0.5	-0.0100272	137.742	-19.9186
142	0.5	0	137.742	-19.9186
143	0.5	0.0100272	137.742	-19.9136
144	0.5	0.0200544	137.742	-19.9036
145	0.5	0.0275759	137.743	-19.8898
146	0.5	0.0376076	137.744	-19.871
147	0.5	0.0451348	137.746	-19.8484
148	0.5	0.0551734	137.749	-19.8208
149	0.5	0.0627062	137.753	-19.7895
150	0.5	0.0727562	137.759	-19.7531
151	0.5	0.0802981	137.765	-19.7129
152	0.5	0.0903606	137.773	-19.6677
153	0.5	0.0979139	137.783	-19.6188
154	0.5	0.107995	137.794	-19.5648
155	0.5	0.115562	137.808	-19.507
156	0.5	0.125661	137.824	-19.4442
157	0.5	0.133244	137.841	-19.3776
158	0.5	0.143367	137.862	-19.3059
159	0.5	0.150969	137.885	-19.2304
160	0.5	0.161119	137.911	-19.1498
161	0.5	0.168741	137.939	-19.0655
162	0.5	0.17892	137.971	-18.976
163	0.5	0.186567	138.006	-18.8827
164	0.5	0.196779	138.045	-18.7843
165	0.5	0.204452	138.086	-18.6821
166	0.5	0.214702	138.133	-18.5748
167	0.5	0.224974	138.183	-18.4623
168	0.5	0.232693	138.237	-18.3459
169	0.5	0.243007	138.296	-18.2244
170	0.5	0.250759	138.359	-18.099
171	0.5	0.26112	138.427	-17.9685
172	0.5	0.268908	138.5	-17.834
173	0.5	0.279319	138.578	-17.6944
174	0.5	0.287147	138.66	-17.5508
175	0.5	0.297612	138.749	-17.402

176	0.5	0.305481	138.842	-17.2492
177	0.5	0.316004	138.942	-17.0912
178	0.5	0.323919	139.047	-16.9293
179	0.5	0.334503	139.159	-16.762
180	0.5	0.342466	139.276	-16.5908
181	0.5	0.353118	139.401	-16.4142
182	0.5	0.361133	139.531	-16.2337
183	0.5	0.371856	139.669	-16.0477
184	0.5	0.379927	139.814	-15.8578
185	0.5	0.390726	139.966	-15.6624
186	0.5	0.398855	140.126	-15.463
187	0.5	0.409735	140.293	-15.2581
188	0.5	0.417928	140.468	-15.0492
189	0.5	0.428895	140.652	-14.8347
190	0.5	0.439913	140.846	-14.6148
191	0.5	0.448213	141.046	-14.3906
192	0.5	0.459327	141.257	-14.161
193	0.5	0.467699	141.476	-13.9271
194	0.5	0.478914	141.706	-13.6877
195	0.5	0.487364	141.943	-13.444
196	0.5	0.498687	142.192	-13.1947
197	0.5	0.507221	142.449	-12.941
198	0.5	0.518658	142.718	-12.6817
199	0.5	0.52728	142.996	-12.4181
200	0.5	0.538836	143.286	-12.1487
201	0.5	0.547551	143.586	-11.8749
202	0.5	0.559237	143.899	-11.5953
203	0.5	0.568052	144.222	-11.3112
204	0.5	0.579873	144.558	-11.0213
205	0.5	0.588793	144.905	-10.7269
206	0.5	0.60076	145.265	-10.4265
207	0.5	0.609791	145.637	-10.1216
208	0.5	0.621911	146.024	-9.81067
209	0.5	0.631062	146.422	-9.49514
210	0.5	0.643345	146.836	-9.17347
211	0.5	0.652622	147.262	-8.84716
212	0.5	0.665079	147.704	-8.51462
213	0.5	0.67449	148.159	-8.17737
214	0.5	0.687131	148.632	-7.83381
215	0.5	0.699883	149.121	-7.48386
216	0.5	0.709522	149.625	-7.1291
217	0.5	0.722479	150.147	-6.76786
218	0.5	0.732275	150.683	-6.40173
219	0.5	0.745449	151.239	-6.029
220	0.5	0.755415	151.809	-5.65129
221	0.5	0.768821	152.4	-5.26688
222	0.5	0.778966	153.007	-4.8774
223	0.51	0.792618	153.635	-4.47317
224	0.52	0.802956	154.28	-4.05563
225	0.58	0.816874	154.948	-3.58184
226	0.67	0.827417	155.632	-3.02747
227	0.68	0.841621	156.34	-2.45517
228	0.7	0.852385	157.067	-1.8585
229	0.71	0.866894	157.819	-1.24301
230	0.72	0.877897	158.589	-0.61092
231	0.8	0.892733	159.386	0.103267
232	0.82	0.903992	160.203	0.84454
233	0.84	0.919183	161.048	1.61665
234	0.89	0.930718	161.915	2.44499
235	0.95	0.946291	162.81	3.34397
236	0.97	0.958125	163.728	4.27335
237	1	0.974114	164.677	5.24746

238	1	0.990356		165.658	6.23782
239	1	1.00271	166.663	7.24053	
240	1	1.01943	167.702	8.25996	
241	1.1	1.03215	168.768	9.39533	
242	1.1	1.04939	169.869	10.5497	
243	1.1	1.06252	170.998	11.7184	
244	1.2	1.08032	172.165	13.0148	
245	1.2	1.0939	173.362	14.3275	
246	1.3	1.11232	174.599	15.7735	
247	1.4	1.12639	175.868	17.3505	
248	1.7	1.1455	177.18	19.2978	
249	2	1.16012	178.526	21.618	
250	2	1.18	179.918	23.978	
251	2	1.19522	181.347	26.3685	
252	2	1.21596	182.825	28.8004	
253	2	1.23187	184.343	31.2641	
254	2	1.25357	185.914	33.7713	
255	2	1.27024	187.528	36.3117	
256	2.4	1.29303	189.2	39.415	
257	3	1.31058	190.917	43.3468	
258	3	1.33462	192.698	47.3506	
259	3	1.35317	194.529	51.4102	
260	3	1.37866	196.43	55.5461	
261	3.7	1.40507	198.404	60.7449	
262	4	1.42554	200.437	66.4471	
263	5.8	1.4538	202.55	74.8791	
264	6.6	1.47579	204.728	84.6194	
265	7	1.50626	206.997	95.1632	
266	7	1.53007	209.338	105.874	
267	7	1.56322	211.782	116.816	
268	7.3	1.58927	214.307	128.418	
269	9.1	1.62576	216.951	143.212	
270	9.3	1.65463	219.688	158.6	
271	10	1.6954	222.563	175.554	
272	13	1.72793	225.548	198.017	
273	13	1.77438	228.697	221.084	
274	14	1.81191	231.98	246.451	
275	14	1.86629	235.463	272.579	
276	15	1.91103	239.115	301.245	
277	16	1.97737	243.025	332.883	
278	19	2.03352	247.16	371.519	
279	21	2.12007	251.655	416.041	
280	25	2.19728	256.483	470.973	
281	26	2.32634	261.895	531.458	
282	32	2.45727	267.933	610.091	
283	41	2.74777	275.483	722.749	

Data Set Standard Deviation = 4.60259
Numerator = 522366
Denominator = 1.64569e+006
W Statistic = 0.317414 = 522366 / 1.64569e+006

5% Critical value of 0.976 exceeds 0.317414
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.317414
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Trichlorofluoromethane

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.568736
0.568736 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0	0.00352113	-2.747773	9	348.683	
2	0	0.00704225	-2.457273	9	334.497	
3	0	0.0105634	-2.326343	9	328.103	
4	0	0.0140845	-2.197283	9	321.801	
5	0	0.0176056	-2.120073	9	318.03	
6	0	0.0211268	-2.033523	9	313.804	
7	0	0.0246479	-1.977373	9	311.062	
8	0	0.028169	-1.911033	9	307.822	
9	0	0.0316901	-1.866293	9	305.637	
10	0	0.0352113	-1.811913	9	302.982	
11	0	0.0387324	-1.774383	9	301.149	
12	0	0.0422535	-1.727933	9	298.881	
13	0	0.0457746	-1.6954	39	297.292	
14	0.125	0.0492958	-1.654634	0.3375	295.301	
15	0.125	0.0528169	-1.625764	0.3375	293.891	
16	0.125	0.056338	-1.589274	0.3375	292.109	
17	0.125	0.0598592	-1.563224	0.3375	290.837	
18	0.125	0.0633803	-1.530074	0.3375	289.218	
19	0.125	0.0669014	-1.506264	0.3375	288.056	
20	0.125	0.0704225	-1.475794	0.3375	286.568	
21	0.125	0.0739437	-1.4538	40.3375	285.494	
22	0.125	0.0774648	-1.425544	0.3375	284.114	
23	0.125	0.0809859	-1.405074	0.3375	283.114	
24	0.125	0.084507	-1.378664	0.3375	281.824	
25	0.125	0.0880282	-1.353174	0.3375	280.58	
26	0.125	0.0915493	-1.334624	0.3375	279.674	
27	0.125	0.0950704	-1.310584	0.3375	278.5	
28	0.125	0.0985915	-1.293034	0.3375	277.643	
29	0.125	0.102113	-1.270244	0.3375	276.53	
30	0.125	0.105634	-1.253574	0.3375	275.716	
31	0.125	0.109155	-1.231874	0.3375	274.656	
32	0.125	0.112676	-1.215964	0.3375	273.879	
33	0.125	0.116197	-1.195224	0.3375	272.867	
34	0.125	0.119718	-1.18	40.3375	272.123	
35	0.125	0.123239	-1.160124	0.3375	271.153	
36	0.125	0.126761	-1.1455	40.3375	270.439	
37	0.125	0.130282	-1.126394	0.3375	269.505	
38	0.125	0.133803	-1.112324	0.3375	268.818	
39	0.125	0.137324	-1.0939	40.3375	267.919	
40	0.125	0.140845	-1.080324	0.3375	267.256	
41	0.125	0.144366	-1.062524	0.3375	266.386	
42	0.125	0.147887	-1.049394	0.3375	265.745	
43	0.125	0.151408	-1.032154	0.3375	264.904	
44	0.125	0.15493	-1.019434	0.3375	264.282	
45	0.125	0.158451	-1.002714	0.3375	263.466	
46	0.125	0.161972	-0.990356	40.3375	262.862	
47	0.125	0.165493	-0.974114	40.3375	262.069	
48	0.125	0.169014	-0.958125	40.3375	261.288	

49	0.125	0.172535	-0.946291	40.3375	260.711
50	0.125	0.176056	-0.930718	40.3375	259.95
51	0.125	0.179577	-0.919183	40.3375	259.387
52	0.125	0.183099	-0.903992	40.3375	258.645
53	0.125	0.18662	-0.892733	40.3375	258.095
54	0.125	0.190141	-0.877897	40.3375	257.371
55	0.125	0.193662	-0.866894	40.3375	256.833
56	0.125	0.197183	-0.852385	40.3375	256.125
57	0.125	0.200704	-0.841621	40.3375	255.599
58	0.125	0.204225	-0.827417	40.3375	254.906
59	0.125	0.207746	-0.816874	40.3375	254.391
60	0.125	0.211268	-0.802956	40.3375	253.711
61	0.125	0.214789	-0.792618	40.3375	253.206
62	0.125	0.21831	-0.778966	40.3375	252.54
63	0.125	0.221831	-0.768821	40.3375	252.044
64	0.125	0.225352	-0.755415	40.3375	251.389
65	0.125	0.228873	-0.745449	40.3375	250.903
66	0.125	0.232394	-0.732275	40.3375	250.259
67	0.125	0.235915	-0.722479	40.3375	249.781
68	0.31	0.239437	-0.709522	42.317	249.148
69	0.35	0.242958	-0.699883	42.745	248.678
70	0.36	0.246479	-0.687131	42.852	248.055
71	0.48	0.25	-0.674944	44.136	247.438
72	0.5	0.253521	-0.665079	44.35	246.978
73	0.5	0.257042	-0.652622	44.35	246.37
74	0.5	0.260563	-0.643345	44.35	245.917
75	0.5	0.264085	-0.631062	44.35	245.317
76	0.5	0.267606	-0.621911	44.35	244.87
77	0.5	0.271127	-0.609791	44.35	244.278
78	0.5	0.274648	-0.600764	44.35	243.837
79	0.5	0.278169	-0.588793	44.35	243.253
80	0.5	0.28169	-0.579873	44.35	242.817
81	0.5	0.285211	-0.568052	44.35	242.24
82	0.5	0.288732	-0.559237	44.35	241.809
83	0.5	0.292254	-0.547551	44.35	241.239
84	0.5	0.295775	-0.538836	44.35	240.813
85	0.5	0.299296	-0.527284	44.35	240.249
86	0.5	0.302817	-0.518658	44.35	239.828
87	0.5	0.306338	-0.507221	44.35	239.269
88	0.5	0.309859	-0.498687	44.35	238.853
89	0.5	0.31338	-0.487364	44.35	238.3
90	0.5	0.316901	-0.478914	44.35	237.887
91	0.5	0.320423	-0.467699	44.35	237.339
92	0.5	0.323944	-0.459327	44.35	236.93
93	0.5	0.327465	-0.448213	44.35	236.388
94	0.5	0.330986	-0.439913	44.35	235.982
95	0.5	0.334507	-0.428895	44.35	235.444
96	0.5	0.338028	-0.417928	44.35	234.909
97	0.5	0.341549	-0.409735	44.35	234.509
98	0.5	0.34507	-0.398855	44.35	233.977
99	0.5	0.348592	-0.390726	44.35	233.58
100	0.5	0.352113	-0.379927	44.35	233.053
101	0.5	0.355634	-0.371856	44.35	232.659
102	0.5	0.359155	-0.361133	44.35	232.135
103	0.5	0.362676	-0.353118	44.35	231.744
104	0.5	0.366197	-0.342466	44.35	231.224
105	0.5	0.369718	-0.334503	44.35	230.835
106	0.5	0.373239	-0.323919	44.35	230.318
107	0.5	0.376761	-0.316004	44.35	229.932
108	0.5	0.380282	-0.305481	44.35	229.418
109	0.5	0.383803	-0.297612	44.35	229.033
110	0.5	0.387324	-0.287147	44.35	228.522

111	0.5	0.390845	-0.279319	44.35	228.14
112	0.5	0.394366	-0.268908	44.35	227.632
113	0.5	0.397887	-0.261144	44.35	227.251
114	0.5	0.401408	-0.250759	44.35	226.745
115	0.5	0.40493	-0.243007	44.35	226.367
116	0.5	0.408451	-0.232693	44.35	225.863
117	0.5	0.411972	-0.224974	44.35	225.486
118	0.5	0.415493	-0.214702	44.35	224.985
119	0.5	0.419014	-0.204452	44.35	224.484
120	0.5	0.422535	-0.196779	44.35	224.109
121	0.5	0.426056	-0.186567	44.35	223.611
122	0.5	0.429577	-0.178924	44.35	223.237
123	0.5	0.433099	-0.168741	44.35	222.74
124	0.5	0.43662	-0.161119	44.35	222.368
125	0.5	0.440141	-0.150969	44.35	221.872
126	0.5	0.443662	-0.143367	44.35	221.501
127	0.5	0.447183	-0.133244	44.35	221.007
128	0.5	0.450704	-0.125661	44.35	220.636
129	0.5	0.454225	-0.115562	44.35	220.143
130	0.5	0.457746	-0.107995	44.35	219.774
131	0.5	0.461268	-0.0979139	44.35	219.281
132	0.5	0.464789	-0.0903606	44.35	218.913
133	0.5	0.46831	-0.0802981	44.35	218.421
134	0.5	0.471831	-0.0727562	44.35	218.053
135	0.5	0.475352	-0.0627062	44.35	217.562
136	0.5	0.478873	-0.0551734	44.35	217.194
137	0.5	0.482394	-0.0451348	44.35	216.704
138	0.5	0.485915	-0.0376076	44.35	216.337
139	0.5	0.489437	-0.0275759	44.35	215.847
140	0.5	0.492958	-0.0200544	44.35	215.479
141	0.5	0.496479	-0.0100272	44.35	214.99
142	0.5	0.5	0	44.35	214.5
143	0.5	0.503521	0.0100272	44.35	214.01
144	0.5	0.507042	0.0200544	44.35	213.521
145	0.5	0.510563	0.0275759	44.35	213.153
146	0.5	0.514085	0.0376076	44.35	212.663
147	0.5	0.517606	0.0451348	44.35	212.296
148	0.5	0.521127	0.0551734	44.35	211.806
149	0.5	0.524648	0.0627062	44.35	211.438
150	0.5	0.528169	0.0727562	44.35	210.947
151	0.5	0.53169	0.0802981	44.35	210.579
152	0.5	0.535211	0.0903606	44.35	210.087
153	0.5	0.538732	0.0979139	44.35	209.719
154	0.5	0.542254	0.107995	44.35	209.226
155	0.5	0.545775	0.115562	44.35	208.857
156	0.5	0.549296	0.125661	44.35	208.364
157	0.5	0.552817	0.133244	44.35	207.993
158	0.5	0.556338	0.143367	44.35	207.499
159	0.5	0.559859	0.150969	44.35	207.128
160	0.5	0.56338	0.161119	44.35	206.632
161	0.5	0.566901	0.168741	44.35	206.26
162	0.5	0.570423	0.17892	44.35	205.763
163	0.5	0.573944	0.186567	44.35	205.389
164	0.5	0.577465	0.196779	44.35	204.891
165	0.5	0.580986	0.204452	44.35	204.516
166	0.5	0.584507	0.214702	44.35	204.015
167	0.5	0.588028	0.224974	44.35	203.514
168	0.5	0.591549	0.232693	44.35	203.137
169	0.5	0.59507	0.243007	44.35	202.633
170	0.5	0.598592	0.250759	44.35	202.255
171	0.5	0.602113	0.26112	44.35	201.749
172	0.5	0.605634	0.268908	44.35	201.368

173	0.5	0.609155	0.279319	44.35	200.86
174	0.5	0.612676	0.287147	44.35	200.478
175	0.5	0.616197	0.297612	44.35	199.967
176	0.5	0.619718	0.305481	44.35	199.582
177	0.5	0.623239	0.316004	44.35	199.068
178	0.5	0.626761	0.323919	44.35	198.682
179	0.5	0.630282	0.334503	44.35	198.165
180	0.5	0.633803	0.342466	44.35	197.776
181	0.5	0.637324	0.353118	44.35	197.256
182	0.5	0.640845	0.361133	44.35	196.865
183	0.5	0.644366	0.371856	44.35	196.341
184	0.5	0.647887	0.379927	44.35	195.947
185	0.5	0.651408	0.390726	44.35	195.42
186	0.5	0.65493	0.398855	44.35	195.023
187	0.5	0.658451	0.409735	44.35	194.491
188	0.5	0.661972	0.417928	44.35	194.091
189	0.5	0.665493	0.428895	44.35	193.556
190	0.5	0.669014	0.439913	44.35	193.018
191	0.5	0.672535	0.448213	44.35	192.612
192	0.5	0.676056	0.459327	44.35	192.07
193	0.5	0.679577	0.467699	44.35	191.661
194	0.5	0.683099	0.478914	44.35	191.113
195	0.5	0.68662	0.487364	44.35	190.7
196	0.5	0.690141	0.498687	44.35	190.147
197	0.5	0.693662	0.507221	44.35	189.731
198	0.5	0.697183	0.518658	44.35	189.172
199	0.5	0.700704	0.52728	44.35	188.751
200	0.5	0.704225	0.538836	44.35	188.187
201	0.5	0.707746	0.547551	44.35	187.761
202	0.5	0.711268	0.559237	44.35	187.191
203	0.5	0.714789	0.568052	44.35	186.76
204	0.5	0.71831	0.579873	44.35	186.183
205	0.5	0.721831	0.588793	44.35	185.747
206	0.5	0.725352	0.60076	44.35	185.163
207	0.5	0.728873	0.609791	44.35	184.722
208	0.5	0.732394	0.621911	44.35	184.13
209	0.5	0.735915	0.631062	44.35	183.683
210	0.5	0.739437	0.643345	44.35	183.083
211	0.5	0.742958	0.652622	44.35	182.63
212	0.5	0.746479	0.665079	44.35	182.022
213	0.5	0.75	0.67449	44.35	181.562
214	0.5	0.753521	0.687131	44.35	180.945
215	0.5	0.757042	0.699883	44.35	180.322
216	0.5	0.760563	0.709522	44.35	179.852
217	0.5	0.764085	0.722479	44.35	179.219
218	0.5	0.767606	0.732275	44.35	178.741
219	0.5	0.771127	0.745449	44.35	178.097
220	0.5	0.774648	0.755415	44.35	177.611
221	0.5	0.778169	0.768821	44.35	176.956
222	0.5	0.78169	0.778966	44.35	176.46
223	0.51	0.785211	0.792618	44.457	175.794
224	0.52	0.788732	0.802956	44.564	175.289
225	0.58	0.792254	0.816874	45.206	174.609
226	0.67	0.795775	0.827417	46.169	174.094
227	0.68	0.799296	0.841621	46.276	173.401
228	0.7	0.802817	0.852385	46.49	172.875
229	0.71	0.806338	0.866894	46.597	172.167
230	0.72	0.809859	0.877897	46.704	171.629
231	0.8	0.81338	0.892733	47.56	170.905
232	0.82	0.816901	0.903992	47.774	170.355
233	0.84	0.820423	0.919183	47.988	169.613
234	0.89	0.823944	0.930718	48.523	169.05

235	0.95	0.827465		0.946291	49.165	168.289
236	0.97	0.830986		0.958125	49.379	167.712
237	1	0.834507		0.974114	49.7	166.931
238	1	0.838028		0.990356	49.7	166.138
239	1	0.841549		1.00271	49.7	165.534
240	1	0.84507	1.01943	49.7	164.718	
241	1.1	0.848592		1.03215	50.77	164.096
242	1.1	0.852113		1.04939	50.77	163.255
243	1.1	0.855634		1.06252	50.77	162.614
244	1.2	0.859155		1.08032	51.84	161.744
245	1.2	0.862676		1.0939	51.84	161.081
246	1.3	0.866197		1.11232	52.91	160.182
247	1.4	0.869718		1.12639	53.98	159.495
248	1.7	0.873239		1.1455	57.19	158.561
249	2	0.876761		1.16012	60.4	157.847
250	2	0.880282		1.18	60.4	156.877
251	2	0.883803		1.19522	60.4	156.133
252	2	0.887324		1.21596	60.4	155.121
253	2	0.890845		1.23187	60.4	154.344
254	2	0.894366		1.25357	60.4	153.284
255	2	0.897887		1.27024	60.4	152.47
256	2.4	0.901408		1.29303	64.68	151.357
257	3	0.90493	1.31058	71.1	150.5	
258	3	0.908451		1.33462	71.1	149.326
259	3	0.911972		1.35317	71.1	148.42
260	3	0.915493		1.37866	71.1	147.176
261	3.7	0.919014		1.40507	78.59	145.886
262	4	0.922535		1.42554	81.8	144.886
263	5.8	0.926056		1.4538	101.06	143.506
264	6.6	0.929577		1.47579	109.62	142.432
265	7	0.933099		1.50626	113.9	140.944
266	7	0.93662	1.53007	113.9	139.782	
267	7	0.940141		1.56322	113.9	138.163
268	7.3	0.943662		1.58927	117.11	136.891
269	9.1	0.947183		1.62576	136.37	135.109
270	9.3	0.950704		1.65463	138.51	133.699
271	10	0.954225		1.6954	146	131.708
272	13	0.957746		1.72793	178.1	130.119
273	13	0.961268		1.77438	178.1	127.851
274	14	0.964789		1.81191	188.8	126.018
275	14	0.96831	1.86629	188.8	123.363	
276	15	0.971831		1.91103	199.5	121.178
277	16	0.975352		1.97737	210.2	117.938
278	19	0.978873		2.03352	242.3	115.196
279	21	0.982394		2.12007	263.7	110.97
280	25	0.985915		2.19728	306.5	107.199
281	26	0.989437		2.32634	317.2	100.897
282	32	0.992958		2.45727	381.4	94.5032
283	41	0.996479		2.74777	477.7	80.3175

Shapiro-Francia Test of Normality
Parameter: Trichlorofluoromethane
All Locations
Normality Test of Parameter Concentrations
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL
Total Number of Measurements = 283

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	-2.32634	19.0003	15.6611
4	-2.07944	-2.19728	23.8283	20.2302
5	-2.07944	-2.12007	28.323	24.6387
6	-2.07944	-2.03352	32.4582	28.8673
7	-2.07944	-1.97737	36.3682	32.9792
8	-2.07944	-1.91103	40.0203	36.953
9	-2.07944	-1.86629	43.5033	40.8339
10	-2.07944	-1.81191	46.7863	44.6016
11	-2.07944	-1.77438	49.9348	48.2914
12	-2.07944	-1.72793	52.9205	51.8845
13	-2.07944	-1.6954	55.7949	55.41
14	-2.07944	-1.65463	58.5327	58.8507
15	-2.07944	-1.62576	61.1758	62.2314
16	-2.07944	-1.58927	63.7015	65.5361
17	-2.07944	-1.56322	66.1452	68.7868
18	-2.07944	-1.53007	68.4863	71.9685
19	-2.07944	-1.50626	70.7551	75.1006
20	-2.07944	-1.47579	72.9331	78.1695
21	-2.07944	-1.4538	75.0466	81.1926
22	-2.07944	-1.42554	77.0788	84.1569
23	-2.07944	-1.40507	79.053	87.0787
24	-2.07944	-1.37866	80.9537	89.9455
25	-2.07944	-1.35317	82.7848	92.7593
26	-2.07944	-1.33462	84.566	95.5346
27	-2.07944	-1.31058	86.2837	98.2599
28	-2.07944	-1.29303	87.9556	100.949
29	-2.07944	-1.27024	89.5691	103.59
30	-2.07944	-1.25357	91.1405	106.197
31	-2.07944	-1.23187	92.658	108.758
32	-2.07944	-1.21596	94.1366	111.287
33	-2.07944	-1.19522	95.5651	113.772
34	-2.07944	-1.18	96.9575	116.226
35	-2.07944	-1.16012	98.3034	118.638
36	-2.07944	-1.1455	99.6156	121.02
37	-2.07944	-1.12639	100.884	123.363
38	-2.07944	-1.11232	102.122	125.676
39	-2.07944	-1.0939	103.318	127.95
40	-2.07944	-1.08032	104.485	130.197
41	-2.07944	-1.06252	105.614	132.406
42	-2.07944	-1.04939	106.715	134.588
43	-2.07944	-1.03215	107.781	136.735
44	-2.07944	-1.01943	108.82	138.855
45	-2.07944	-1.00271	109.825	140.94
46	-2.07944	-0.990356	110.806	142.999
47	-2.07944	-0.974114	111.755	145.025
48	-2.07944	-0.958125	112.673	147.017
49	-2.07944	-0.946291	113.569	148.985
50	-2.07944	-0.930718	114.435	150.92
51	-2.07944	-0.919183	115.28	152.832

52	-2.07944	-0.903992	116.097	154.711
53	-2.07944	-0.892733	116.894	156.568
54	-2.07944	-0.877897	117.665	158.393
55	-1.17118	-0.866894	118.416	159.409
56	-1.04982	-0.852385	119.143	160.303
57	-1.02165	-0.841621	119.851	161.163
58	-0.733969	-0.827417	120.536	161.771
59	-0.693147	-0.816874	121.203	162.337
60	-0.693147	-0.802956	121.848	162.893
61	-0.693147	-0.792618	122.476	163.443
62	-0.693147	-0.778966	123.083	163.983
63	-0.693147	-0.768821	123.674	164.516
64	-0.693147	-0.755415	124.244	165.039
65	-0.693147	-0.745449	124.8	165.556
66	-0.693147	-0.732275	125.336	166.063
67	-0.693147	-0.722479	125.858	166.564
68	-0.693147	-0.709522	126.362	167.056
69	-0.693147	-0.699883	126.852	167.541
70	-0.693147	-0.687131	127.324	168.017
71	-0.693147	-0.67449	127.779	168.485
72	-0.693147	-0.665079	128.221	168.946
73	-0.693147	-0.652622	128.647	169.398
74	-0.693147	-0.643345	129.061	169.844
75	-0.693147	-0.631062	129.459	170.282
76	-0.693147	-0.621911	129.846	170.713
77	-0.693147	-0.609791	130.218	171.135
78	-0.693147	-0.60076	130.579	171.552
79	-0.693147	-0.588793	130.925	171.96
80	-0.693147	-0.579873	131.262	172.362
81	-0.693147	-0.568052	131.584	172.756
82	-0.693147	-0.559237	131.897	173.143
83	-0.693147	-0.547551	132.197	173.523
84	-0.693147	-0.538836	132.487	173.896
85	-0.693147	-0.52728	132.765	174.262
86	-0.693147	-0.518658	133.034	174.621
87	-0.693147	-0.507221	133.291	174.973
88	-0.693147	-0.498687	133.54	175.319
89	-0.693147	-0.487364	133.778	175.656
90	-0.693147	-0.478914	134.007	175.988
91	-0.693147	-0.467699	134.226	176.313
92	-0.693147	-0.459327	134.437	176.631
93	-0.693147	-0.448213	134.638	176.942
94	-0.693147	-0.439913	134.831	177.247
95	-0.693147	-0.428895	135.015	177.544
96	-0.693147	-0.417928	135.19	177.833
97	-0.693147	-0.409735	135.358	178.117
98	-0.693147	-0.398855	135.517	178.394
99	-0.693147	-0.390726	135.669	178.665
100	-0.693147	-0.379927	135.814	178.928
101	-0.693147	-0.371856	135.952	179.186
102	-0.693147	-0.361133	136.082	179.436
103	-0.693147	-0.353118	136.207	179.681
104	-0.693147	-0.342466	136.324	179.918
105	-0.693147	-0.334503	136.436	180.15
106	-0.693147	-0.323919	136.541	180.375
107	-0.693147	-0.316004	136.641	180.594
108	-0.693147	-0.305481	136.734	180.805
109	-0.693147	-0.297612	136.823	181.012
110	-0.693147	-0.287147	136.905	181.211
111	-0.693147	-0.279319	136.983	181.404
112	-0.693147	-0.268908	137.056	181.591
113	-0.693147	-0.26112	137.124	181.772

114	-0.693147	-0.250759	137.187	181.946
115	-0.693147	-0.243007	137.246	182.114
116	-0.693147	-0.232693	137.3	182.275
117	-0.693147	-0.224974	137.351	182.431
118	-0.693147	-0.214702	137.397	182.58
119	-0.693147	-0.204452	137.439	182.722
120	-0.693147	-0.196779	137.477	182.858
121	-0.693147	-0.186567	137.512	182.988
122	-0.693147	-0.17892	137.544	183.112
123	-0.693147	-0.168741	137.573	183.229
124	-0.693147	-0.161119	137.598	183.34
125	-0.693147	-0.150969	137.621	183.445
126	-0.693147	-0.143367	137.642	183.544
127	-0.693147	-0.133244	137.66	183.637
128	-0.693147	-0.125661	137.675	183.724
129	-0.693147	-0.115562	137.689	183.804
130	-0.693147	-0.107995	137.7	183.879
131	-0.693147	-0.0979139	137.71	183.947
132	-0.693147	-0.0903606	137.718	184.009
133	-0.693147	-0.0802981	137.725	184.065
134	-0.693147	-0.0727562	137.73	184.115
135	-0.693147	-0.0627062	137.734	184.159
136	-0.693147	-0.0551734	137.737	184.197
137	-0.693147	-0.0451348	137.739	184.228
138	-0.693147	-0.0376076	137.74	184.254
139	-0.693147	-0.0275759	137.741	184.273
140	-0.693147	-0.0200544	137.741	184.287
141	-0.693147	-0.0100272	137.742	184.294
142	-0.693147	0	137.742	184.294
143	-0.693147	0.0100272	137.742	184.287
144	-0.693147	0.0200544	137.742	184.273
145	-0.693147	0.0275759	137.743	184.254
146	-0.693147	0.0376076	137.744	184.228
147	-0.693147	0.0451348	137.746	184.197
148	-0.693147	0.0551734	137.749	184.159
149	-0.693147	0.0627062	137.753	184.115
150	-0.693147	0.0727562	137.759	184.065
151	-0.693147	0.0802981	137.765	184.009
152	-0.693147	0.0903606	137.773	183.947
153	-0.693147	0.0979139	137.783	183.879
154	-0.693147	0.107995	137.794	183.804
155	-0.693147	0.115562	137.808	183.724
156	-0.693147	0.125661	137.824	183.637
157	-0.693147	0.133244	137.841	183.544
158	-0.693147	0.143367	137.862	183.445
159	-0.693147	0.150969	137.885	183.34
160	-0.693147	0.161119	137.911	183.229
161	-0.693147	0.168741	137.939	183.112
162	-0.693147	0.17892	137.971	182.988
163	-0.693147	0.186567	138.006	182.858
164	-0.693147	0.196779	138.045	182.722
165	-0.693147	0.204452	138.086	182.58
166	-0.693147	0.214702	138.133	182.431
167	-0.693147	0.224974	138.183	182.275
168	-0.693147	0.232693	138.237	182.114
169	-0.693147	0.243007	138.296	181.946
170	-0.693147	0.250759	138.359	181.772
171	-0.693147	0.26112	138.427	181.591
172	-0.693147	0.268908	138.5	181.404
173	-0.693147	0.279319	138.578	181.211
174	-0.693147	0.287147	138.66	181.012
175	-0.693147	0.297612	138.749	180.805

176	-0.693147	0.305481	138.842	180.594
177	-0.693147	0.316004	138.942	180.375
178	-0.693147	0.323919	139.047	180.15
179	-0.693147	0.334503	139.159	179.918
180	-0.693147	0.342466	139.276	179.681
181	-0.693147	0.353118	139.401	179.436
182	-0.693147	0.361133	139.531	179.186
183	-0.693147	0.371856	139.669	178.928
184	-0.693147	0.379927	139.814	178.665
185	-0.693147	0.390726	139.966	178.394
186	-0.693147	0.398855	140.126	178.117
187	-0.693147	0.409735	140.293	177.833
188	-0.693147	0.417928	140.468	177.544
189	-0.693147	0.428895	140.652	177.247
190	-0.693147	0.439913	140.846	176.942
191	-0.693147	0.448213	141.046	176.631
192	-0.693147	0.459327	141.257	176.313
193	-0.693147	0.467699	141.476	175.988
194	-0.693147	0.478914	141.706	175.656
195	-0.693147	0.487364	141.943	175.319
196	-0.693147	0.498687	142.192	174.973
197	-0.693147	0.507221	142.449	174.621
198	-0.693147	0.518658	142.718	174.262
199	-0.693147	0.52728	142.996	173.896
200	-0.693147	0.538836	143.286	173.523
201	-0.693147	0.547551	143.586	173.143
202	-0.693147	0.559237	143.899	172.756
203	-0.693147	0.568052	144.222	172.362
204	-0.693147	0.579873	144.558	171.96
205	-0.693147	0.588793	144.905	171.552
206	-0.693147	0.60076	145.265	171.135
207	-0.693147	0.609791	145.637	170.713
208	-0.693147	0.621911	146.024	170.282
209	-0.693147	0.631062	146.422	169.844
210	-0.673345	0.643345	146.836	169.411
211	-0.653926	0.652622	147.262	168.984
212	-0.544727	0.665079	147.704	168.622
213	-0.400478	0.67449	148.159	168.352
214	-0.385662	0.687131	148.632	168.087
215	-0.356675	0.699883	149.121	167.837
216	-0.342490	0.709522	149.625	167.594
217	-0.328504	0.722479	150.147	167.357
218	-0.223144	0.732275	150.683	167.194
219	-0.198451	0.745449	151.239	167.046
220	-0.174353	0.755415	151.809	166.914
221	-0.116534	0.768821	152.4	166.824
222	-0.0512933	0.778966	153.007	166.784
223	-0.0304592	0.792618	153.635	166.76
224	0	0.802956	154.28	166.76
225	0	0.816874	154.948	166.76
226	0	0.827417	155.632	166.76
227	0	0.841621	156.34	166.76
228	0	0.852385	157.067	166.76
229	0	0.866894	157.819	166.76
230	0	0.877897	158.589	166.76
231	0	0.892733	159.386	166.76
232	0	0.903992	160.203	166.76
233	0	0.919183	161.048	166.76
234	0	0.930718	161.915	166.76
235	0	0.946291	162.81	166.76
236	0	0.958125	163.728	166.76
237	0	0.974114	164.677	166.76

238	0	0.990356		165.658	166.76
239	0	1.00271	166.663	166.76	
240	0	1.01943	167.702	166.76	
241	0.0953102		1.03215	168.768	166.859
242	0.0953102		1.04939	169.869	166.959
243	0.0953102		1.06252	170.998	167.06
244	0.182322		1.08032	172.165	167.257
245	0.182322		1.0939	173.362	167.456
246	0.262364		1.11232	174.599	167.748
247	0.336472		1.12639	175.868	168.127
248	0.530628		1.1455	177.18	168.735
249	0.693147		1.16012	178.526	169.539
250	0.693147		1.18	179.918	170.357
251	0.693147		1.19522	181.347	171.185
252	0.693147		1.21596	182.825	172.028
253	0.693147		1.23187	184.343	172.882
254	0.693147		1.25357	185.914	173.751
255	0.693147		1.27024	187.528	174.632
256	0.875469		1.29303	189.2	175.764
257	1.09861	1.31058	190.917	177.203	
258	1.09861	1.33462	192.698	178.67	
259	1.09861	1.35317	194.529	180.156	
260	1.09861	1.37866	196.43	181.671	
261	1.30833	1.40507	198.404	183.509	
262	1.38629	1.42554	200.437	185.485	
263	1.75786	1.4538	202.55	188.041	
264	1.88707	1.47579	204.728	190.826	
265	1.94591	1.50626	206.997	193.757	
266	1.94591	1.53007	209.338	196.734	
267	1.94591	1.56322	211.782	199.776	
268	1.98787	1.58927	214.307	202.935	
269	2.20827	1.62576	216.951	206.526	
270	2.23001	1.65463	219.688	210.215	
271	2.30259	1.6954	222.563	214.119	
272	2.56495	1.72793	225.548	218.551	
273	2.56495	1.77438	228.697	223.102	
274	2.63906	1.81191	231.98	227.884	
275	2.63906	1.86629	235.463	232.809	
276	2.70805	1.91103	239.115	237.985	
277	2.77259	1.97737	243.025	243.467	
278	2.94444	2.03352	247.16	249.455	
279	3.04452	2.12007	251.655	255.909	
280	3.21888	2.19728	256.483	262.982	
281	3.2581	2.32634	261.895	270.561	
282	3.46574	2.45727	267.933	279.078	
283	3.71357	2.74777	275.483	289.282	

Data Set Standard Deviation = 1.16386
Numerator = 83683.9
Denominator = 105232
W Statistic = 0.795231 = 83683.9 / 105232

5% Critical value of 0.976 exceeds 0.795231
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.795231
Evidence of non-normality at 99% level of significance

Probability Plot

Parameter: Trichlorofluoromethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Probability Plot
Correlation Coefficient = 0.892336
0.892336 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-2.07944	0.00352113	-2.74777	109.357	348.683
2	-2.07944	0.00704225	-2.45727	109.357	334.497
3	-2.07944	0.0105634	-2.32634	109.357	328.103
4	-2.07944	0.0140845	-2.19728	109.357	321.801
5	-2.07944	0.0176056	-2.12007	109.357	318.03
6	-2.07944	0.0211268	-2.03352	109.357	313.804
7	-2.07944	0.0246479	-1.97737	109.357	311.062
8	-2.07944	0.028169	-1.91103	109.357	307.822
9	-2.07944	0.0316901	-1.86629	109.357	305.637
10	-2.07944	0.0352113	-1.81191	109.357	302.982
11	-2.07944	0.0387324	-1.77438	109.357	301.149
12	-2.07944	0.0422535	-1.72793	109.357	298.881
13	-2.07944	0.0457746	-1.6954	109.357	297.292
14	-2.07944	0.0492958	-1.65463	109.357	295.301
15	-2.07944	0.0528169	-1.62576	109.357	293.891
16	-2.07944	0.056338	-1.58927	109.357	292.109
17	-2.07944	0.0598592	-1.56322	109.357	290.837
18	-2.07944	0.0633803	-1.53007	109.357	289.218
19	-2.07944	0.0669014	-1.50626	109.357	288.056
20	-2.07944	0.0704225	-1.47579	109.357	286.568
21	-2.07944	0.0739437	-1.4538	109.357	285.494
22	-2.07944	0.0774648	-1.42554	109.357	284.114
23	-2.07944	0.0809859	-1.40507	109.357	283.114
24	-2.07944	0.084507	-1.37866	109.357	281.824
25	-2.07944	0.0880282	-1.35317	109.357	280.58
26	-2.07944	0.0915493	-1.33462	109.357	279.674
27	-2.07944	0.0950704	-1.31058	109.357	278.5
28	-2.07944	0.0985915	-1.29303	109.357	277.643
29	-2.07944	0.102113	-1.27024	109.357	276.53
30	-2.07944	0.105634	-1.25357	109.357	275.716
31	-2.07944	0.109155	-1.23187	109.357	274.656
32	-2.07944	0.112676	-1.21596	109.357	273.879
33	-2.07944	0.116197	-1.19522	109.357	272.867
34	-2.07944	0.119718	-1.18	109.357	272.123
35	-2.07944	0.123239	-1.16012	109.357	271.153
36	-2.07944	0.126761	-1.1455	109.357	270.439
37	-2.07944	0.130282	-1.12639	109.357	269.505
38	-2.07944	0.133803	-1.11232	109.357	268.818
39	-2.07944	0.137324	-1.0939	109.357	267.919
40	-2.07944	0.140845	-1.08032	109.357	267.256
41	-2.07944	0.144366	-1.06252	109.357	266.386
42	-2.07944	0.147887	-1.04939	109.357	265.745
43	-2.07944	0.151408	-1.03215	109.357	264.904
44	-2.07944	0.15493	-1.01943	109.357	264.282
45	-2.07944	0.158451	-1.00271	109.357	263.466
46	-2.07944	0.161972	-0.990356	109.357	262.862
47	-2.07944	0.165493	-0.974114	109.357	262.069
48	-2.07944	0.169014	-0.958125	109.357	261.288

49	-2.079440.172535	-0.946291	109.357	260.711	
50	-2.079440.176056	-0.930718	109.357	259.95	
51	-2.079440.179577	-0.919183	109.357	259.387	
52	-2.079440.183099	-0.903992	109.357	258.645	
53	-2.079440.18662	-0.892733	109.357	258.095	
54	-2.079440.190141	-0.877897	109.357	257.371	
55	-1.171180.193662	-0.866894	178.774	256.833	
56	-1.049820.197183	-0.852385	188.049	256.125	
57	-1.021650.200704	-0.841621	190.202	255.599	
58	-0.733969	0.204225	-0.827417	212.189	254.906
59	-0.693147	0.207746	-0.816874	215.309	254.391
60	-0.693147	0.211268	-0.802956	215.309	253.711
61	-0.693147	0.214789	-0.792618	215.309	253.206
62	-0.693147	0.21831	-0.778966	215.309	252.54
63	-0.693147	0.221831	-0.768821	215.309	252.044
64	-0.693147	0.225352	-0.755415	215.309	251.389
65	-0.693147	0.228873	-0.745449	215.309	250.903
66	-0.693147	0.232394	-0.732275	215.309	250.259
67	-0.693147	0.235915	-0.722479	215.309	249.781
68	-0.693147	0.239437	-0.709522	215.309	249.148
69	-0.693147	0.242958	-0.699883	215.309	248.678
70	-0.693147	0.246479	-0.687131	215.309	248.055
71	-0.693147	0.25	-0.67449	215.309	247.438
72	-0.693147	0.253521	-0.665079	215.309	246.978
73	-0.693147	0.257042	-0.652622	215.309	246.37
74	-0.693147	0.260563	-0.643345	215.309	245.917
75	-0.693147	0.264085	-0.631062	215.309	245.317
76	-0.693147	0.267606	-0.621911	215.309	244.87
77	-0.693147	0.271127	-0.609791	215.309	244.278
78	-0.693147	0.274648	-0.60076	215.309	243.837
79	-0.693147	0.278169	-0.588793	215.309	243.253
80	-0.693147	0.28169	-0.579873	215.309	242.817
81	-0.693147	0.285211	-0.568052	215.309	242.24
82	-0.693147	0.288732	-0.559237	215.309	241.809
83	-0.693147	0.292254	-0.547551	215.309	241.239
84	-0.693147	0.295775	-0.538836	215.309	240.813
85	-0.693147	0.299296	-0.52728	215.309	240.249
86	-0.693147	0.302817	-0.518658	215.309	239.828
87	-0.693147	0.306338	-0.507221	215.309	239.269
88	-0.693147	0.309859	-0.498687	215.309	238.853
89	-0.693147	0.31338	-0.487364	215.309	238.3
90	-0.693147	0.316901	-0.478914	215.309	237.887
91	-0.693147	0.320423	-0.467699	215.309	237.339
92	-0.693147	0.323944	-0.459327	215.309	236.93
93	-0.693147	0.327465	-0.448213	215.309	236.388
94	-0.693147	0.330986	-0.439913	215.309	235.982
95	-0.693147	0.334507	-0.428895	215.309	235.444
96	-0.693147	0.338028	-0.417928	215.309	234.909
97	-0.693147	0.341549	-0.409735	215.309	234.509
98	-0.693147	0.34507	-0.398855	215.309	233.977
99	-0.693147	0.348592	-0.390726	215.309	233.58
100	-0.693147	0.352113	-0.379927	215.309	233.053
101	-0.693147	0.355634	-0.371856	215.309	232.659
102	-0.693147	0.359155	-0.361133	215.309	232.135
103	-0.693147	0.362676	-0.353118	215.309	231.744
104	-0.693147	0.366197	-0.342466	215.309	231.224
105	-0.693147	0.369718	-0.334503	215.309	230.835
106	-0.693147	0.373239	-0.323919	215.309	230.318
107	-0.693147	0.376761	-0.316004	215.309	229.932
108	-0.693147	0.380282	-0.305481	215.309	229.418
109	-0.693147	0.383803	-0.297612	215.309	229.033
110	-0.693147	0.387324	-0.287147	215.309	228.522

111	-0.693147	0.390845	-0.279319	215.309	228.14
112	-0.693147	0.394366	-0.268908	215.309	227.632
113	-0.693147	0.397887	-0.26112	215.309	227.251
114	-0.693147	0.401408	-0.250759	215.309	226.745
115	-0.693147	0.40493	-0.243007	215.309	226.367
116	-0.693147	0.408451	-0.232693	215.309	225.863
117	-0.693147	0.411972	-0.224974	215.309	225.486
118	-0.693147	0.415493	-0.214702	215.309	224.985
119	-0.693147	0.419014	-0.204452	215.309	224.484
120	-0.693147	0.422535	-0.196779	215.309	224.109
121	-0.693147	0.426056	-0.186567	215.309	223.611
122	-0.693147	0.429577	-0.17892	215.309	223.237
123	-0.693147	0.433099	-0.168741	215.309	222.74
124	-0.693147	0.43662	-0.161119	215.309	222.368
125	-0.693147	0.440141	-0.150969	215.309	221.872
126	-0.693147	0.443662	-0.143367	215.309	221.501
127	-0.693147	0.447183	-0.133244	215.309	221.007
128	-0.693147	0.450704	-0.125661	215.309	220.636
129	-0.693147	0.454225	-0.115562	215.309	220.143
130	-0.693147	0.457746	-0.107995	215.309	219.774
131	-0.693147	0.461268	-0.0979139	215.309	219.281
132	-0.693147	0.464789	-0.0903606	215.309	218.913
133	-0.693147	0.46831	-0.0802981	215.309	218.421
134	-0.693147	0.471831	-0.0727562	215.309	218.053
135	-0.693147	0.475352	-0.0627062	215.309	217.562
136	-0.693147	0.478873	-0.0551734	215.309	217.194
137	-0.693147	0.482394	-0.0451348	215.309	216.704
138	-0.693147	0.485915	-0.0376076	215.309	216.337
139	-0.693147	0.489437	-0.0275759	215.309	215.847
140	-0.693147	0.492958	-0.0200544	215.309	215.479
141	-0.693147	0.496479	-0.0100272	215.309	214.99
142	-0.693147	0.5	0	215.309	214.5
143	-0.693147	0.503521	0.0100272	215.309	214.01
144	-0.693147	0.507042	0.0200544	215.309	213.521
145	-0.693147	0.510563	0.0275759	215.309	213.153
146	-0.693147	0.514085	0.0376076	215.309	212.663
147	-0.693147	0.517606	0.0451348	215.309	212.296
148	-0.693147	0.521127	0.0551734	215.309	211.806
149	-0.693147	0.524648	0.0627062	215.309	211.438
150	-0.693147	0.528169	0.0727562	215.309	210.947
151	-0.693147	0.53169	0.0802981	215.309	210.579
152	-0.693147	0.535211	0.0903606	215.309	210.087
153	-0.693147	0.538732	0.0979139	215.309	209.719
154	-0.693147	0.542254	0.107995	215.309	209.226
155	-0.693147	0.545775	0.115562	215.309	208.857
156	-0.693147	0.549296	0.125661	215.309	208.364
157	-0.693147	0.552817	0.133244	215.309	207.993
158	-0.693147	0.556338	0.143367	215.309	207.499
159	-0.693147	0.559859	0.150969	215.309	207.128
160	-0.693147	0.56338	0.161119	215.309	206.632
161	-0.693147	0.566901	0.168741	215.309	206.26
162	-0.693147	0.570423	0.17892	215.309	205.763
163	-0.693147	0.573944	0.186567	215.309	205.389
164	-0.693147	0.577465	0.196779	215.309	204.891
165	-0.693147	0.580986	0.204452	215.309	204.516
166	-0.693147	0.584507	0.214702	215.309	204.015
167	-0.693147	0.588028	0.224974	215.309	203.514
168	-0.693147	0.591549	0.232693	215.309	203.137
169	-0.693147	0.59507	0.243007	215.309	202.633
170	-0.693147	0.598592	0.250759	215.309	202.255
171	-0.693147	0.602113	0.26112	215.309	201.749
172	-0.693147	0.605634	0.268908	215.309	201.368

173	-0.693147	0.609155	0.279319	215.309	200.86
174	-0.693147	0.612676	0.287147	215.309	200.478
175	-0.693147	0.616197	0.297612	215.309	199.967
176	-0.693147	0.619718	0.305481	215.309	199.582
177	-0.693147	0.623239	0.316004	215.309	199.068
178	-0.693147	0.626761	0.323919	215.309	198.682
179	-0.693147	0.630282	0.334503	215.309	198.165
180	-0.693147	0.633803	0.342466	215.309	197.776
181	-0.693147	0.637324	0.353118	215.309	197.256
182	-0.693147	0.640845	0.361133	215.309	196.865
183	-0.693147	0.644366	0.371856	215.309	196.341
184	-0.693147	0.647887	0.379927	215.309	195.947
185	-0.693147	0.651408	0.390726	215.309	195.42
186	-0.693147	0.65493	0.398855	215.309	195.023
187	-0.693147	0.658451	0.409735	215.309	194.491
188	-0.693147	0.661972	0.417928	215.309	194.091
189	-0.693147	0.665493	0.428895	215.309	193.556
190	-0.693147	0.669014	0.439913	215.309	193.018
191	-0.693147	0.672535	0.448213	215.309	192.612
192	-0.693147	0.676056	0.459327	215.309	192.07
193	-0.693147	0.679577	0.467699	215.309	191.661
194	-0.693147	0.683099	0.478914	215.309	191.113
195	-0.693147	0.68662	0.487364	215.309	190.7
196	-0.693147	0.690141	0.498687	215.309	190.147
197	-0.693147	0.693662	0.507221	215.309	189.731
198	-0.693147	0.697183	0.518658	215.309	189.172
199	-0.693147	0.700704	0.52728	215.309	188.751
200	-0.693147	0.704225	0.538836	215.309	188.187
201	-0.693147	0.707746	0.547551	215.309	187.761
202	-0.693147	0.711268	0.559237	215.309	187.191
203	-0.693147	0.714789	0.568052	215.309	186.76
204	-0.693147	0.71831	0.579873	215.309	186.183
205	-0.693147	0.721831	0.588793	215.309	185.747
206	-0.693147	0.725352	0.60076	215.309	185.163
207	-0.693147	0.728873	0.609791	215.309	184.722
208	-0.693147	0.732394	0.621911	215.309	184.13
209	-0.693147	0.735915	0.631062	215.309	183.683
210	-0.673345	0.739437	0.643345	216.823	183.083
211	-0.653926	0.742958	0.652622	218.307	182.63
212	-0.544727	0.746479	0.665079	226.653	182.022
213	-0.400478	0.75	0.67449	237.678	181.562
214	-0.385662	0.753521	0.687131	238.81	180.945
215	-0.356675	0.757042	0.699883	241.026	180.322
216	-0.342490	0.760563	0.709522	242.11	179.852
217	-0.328504	0.764085	0.722479	243.179	179.219
218	-0.223144	0.767606	0.732275	251.231	178.741
219	-0.198451	0.771127	0.745449	253.118	178.097
220	-0.174353	0.774648	0.755415	254.96	177.611
221	-0.116534	0.778169	0.768821	259.379	176.956
222	-0.0512933	0.78169	0.778966	264.365	176.46
223	-0.0304592	0.785211	0.792618	265.958	175.794
224	0	0.788732	0.802956	268.286	175.289
225	0	0.792254	0.816874	268.286	174.609
226	0	0.795775	0.827417	268.286	174.094
227	0	0.799296	0.841621	268.286	173.401
228	0	0.802817	0.852385	268.286	172.875
229	0	0.806338	0.866894	268.286	172.167
230	0	0.809859	0.877897	268.286	171.629
231	0	0.81338	0.892733	268.286	170.905
232	0	0.816901	0.903992	268.286	170.355
233	0	0.820423	0.919183	268.286	169.613
234	0	0.823944	0.930718	268.286	169.05

235	0	0.827465	0.946291	268.286	168.289	
236	0	0.830986	0.958125	268.286	167.712	
237	0	0.834507	0.974114	268.286	166.931	
238	0	0.838028	0.990356	268.286	166.138	
239	0	0.841549	1.00271	268.286	165.534	
240	0	0.84507	1.01943	268.286	164.718	
241	0.0953102	0.848592	1.03215	275.57	164.096	
242	0.0953102	0.852113	1.04939	275.57	163.255	
243	0.0953102	0.855634	1.06252	275.57	162.614	
244	0.182322	0.859155	1.08032	282.22	161.744	
245	0.182322	0.862676	1.0939	282.22	161.081	
246	0.262364	0.866197	1.11232	288.338	160.182	
247	0.336472	0.869718	1.12639	294.002	159.495	
248	0.530628	0.873239	1.1455	308.841	158.561	
249	0.693147	0.876761	1.16012	321.262	157.847	
250	0.693147	0.880282	1.18	321.262	156.877	
251	0.693147	0.883803	1.19522	321.262	156.133	
252	0.693147	0.887324	1.21596	321.262	155.121	
253	0.693147	0.890845	1.23187	321.262	154.344	
254	0.693147	0.894366	1.25357	321.262	153.284	
255	0.693147	0.897887	1.27024	321.262	152.47	
256	0.875469	0.901408	1.29303	335.197	151.357	
257	1.09861	0.90493	1.31058	352.251	150.5	
258	1.09861	0.908451	1.33462	352.251	149.326	
259	1.09861	0.911972	1.35317	352.251	148.42	
260	1.09861	0.915493	1.37866	352.251	147.176	
261	1.30833	0.919014	1.40507	368.28	145.886	
262	1.38629	0.922535	1.42554	374.238	144.886	
263	1.75786	0.926056	1.4538	402.636	143.506	
264	1.88707	0.929577	1.47579	412.512	142.432	
265	1.94591	0.933099	1.50626	417.009	140.944	
266	1.94591	0.93662	1.53007	417.009	139.782	
267	1.94591	0.940141	1.56322	417.009	138.163	
268	1.98787	0.943662	1.58927	420.216	136.891	
269	2.20827	0.947183	1.62576	437.061	135.109	
270	2.23001	0.950704	1.65463	438.723	133.699	
271	2.30259	0.954225	1.6954	444.269	131.708	
272	2.56495	0.957746	1.72793	464.321	130.119	
273	2.56495	0.961268	1.77438	464.321	127.851	
274	2.63906	0.964789	1.81191	469.985	126.018	
275	2.63906	0.96831	1.86629	469.985	123.363	
276	2.70805	0.971831	1.91103	475.258	121.178	
277	2.77259	0.975352	1.97737	480.191	117.938	
278	2.94444	0.978873	2.03352	493.325	115.196	
279	3.04452	0.982394	2.12007	500.974	110.97	
280	3.21888	0.985915	2.19728	514.3	107.199	
281	3.2581	0.989437	2.32634	517.297	100.897	
282	3.46574	0.992958	2.45727	533.167	94.5032	
283	3.71357	0.996479	2.74777	552.109	80.3175	

Kruskal-Wallis Non-Parametric Test

Parameter: Trichlorofluoromethane

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
LMW-4	1/16/1998	ND<-0.693147	109.5
	3/16/1999	ND<-0.693147	109.5
	9/23/1999	ND<-0.693147	109.5
	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	0.693147	249
	10/26/2005	ND<0 J	109.5
	6/19/2006	0.693147	250
	11/18/2006	0.693147	251
	6/2/2007	1.09861	257
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	1.09861	258
	11/20/2008	0.693147	252
	6/11/2009	-0.198451 J	232
	11/16/2009	2.77259 B	277
	11/16/2009	0.875469	256
	6/30/2010	0.693147	253
	11/17/2010	0.530628	248
	7/6/2011	-1.17118 J	219
	11/22/2011	0.182322	244
	5/16/2012	0.262364	246

Rank Sum = 4477.5
Rank Mean = 194.674

Background Rank Sum = 4477.5
Background Rank Mean = 194.674

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-10	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<-0.693147	109.5
	10/26/2005	ND<0 J	109.5
	6/19/2006	0.693147	254
	11/18/2006	1.94591	265
	6/2/2007	1.09861	259
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	2.30259	271
	11/20/2008	1.09861	260
	6/11/2009	1.88707	264
	11/16/2009	3.04452	279
	11/16/2009	2.56495	272
	6/30/2010	1.75786	263
	11/17/2010	1.98787	268

	7/6/2011	1.30833	261
	11/22/2011	2.63906	274
	5/16/2012	2.63906	275

Rank Sum = 4231.5
Rank Mean = 211.575

LMW-3S	11/18/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	0	237
	5/20/2008	ND<0 J	109.5
	11/20/2008	ND<0 J	109.5
	6/11/2009	0.0953102	241
	11/16/2009	-0.0304592 J	236
	11/16/2009	2.56495	273
	6/30/2010	0.336472	247
	11/17/2010	0.0953102	242
	7/6/2011	-1.02165 J	221
	11/22/2011	-0.223144 J	231
	5/16/2012	0.182322	245

Rank Sum = 2611
Rank Mean = 200.846

LMW-15R	11/18/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5
	6/11/2009	ND<-2.07944 U	109.5
	6/30/2010	ND<-2.07944 U	109.5
	11/17/2010	ND<-2.07944 U	109.5
	7/6/2011	ND<-2.07944 U	109.5
	11/22/2011	ND<-2.07944 U	109.5
	5/16/2012	ND<-2.07944 U	109.5

Rank Sum = 1533
Rank Mean = 109.5

LMW-16	11/18/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5
	6/11/2009	ND<-2.07944 U	109.5
	11/16/2009	2.23001 J B	270
	11/16/2009	ND<-2.07944 U	109.5
	6/30/2010	ND<-2.07944 U	109.5
	11/17/2010	ND<-2.07944 U	109.5
	7/6/2011	ND<-2.07944 U	109.5
	11/22/2011	ND<-2.07944 U	109.5
	5/16/2012	ND<-2.07944 U	109.5

Rank Sum = 1584
Rank Mean = 121.846

LMW-3	11/19/1996	ND<-0.693147	109.5
	3/24/1997	ND<-0.693147	109.5
	1/16/1998	ND<-0.693147	109.5
	3/16/1999	ND<-0.693147	109.5
	9/23/1999	ND<-0.693147	109.5
	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5

	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<0 J	109.5
	10/26/2005	ND<0 J	109.5
	6/19/2006	ND<0 J	109.5
	11/18/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<0 J	109.5
	5/20/2008	ND<0 J	109.5
	11/20/2008	ND<0 J	109.5
	6/11/2009	-0.174353 J	233
	11/16/2009	-0.385662 J	227
	11/16/2009	3.46574 B	282
	6/30/2010	-0.544727 J	225
	11/17/2010	-0.653926 J	224
	7/6/2011	-0.673345 J	223
	11/22/2011	-0.116534 J	234
	5/16/2012	-0.34249 J	229

Rank Sum = 3738.5
Rank Mean = 149.54

LMW-9S	11/18/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5
	6/11/2009	ND<-2.07944 U	109.5
	11/16/2009	ND<-2.07944 U	109.5
	11/16/2009	ND<-2.07944 U	109.5
	11/16/2009	ND<-2.07944 U	109.5
	11/16/2009	3.2581 B	281
	11/16/2009	2.70805 B	276
	11/16/2009	2.20827 J B	269
	6/30/2010	ND<-2.07944 U	109.5
	11/17/2010	ND<-2.07944 U	109.5
	7/6/2011	ND<-2.07944 U	109.5
	11/22/2011	ND<-2.07944 U	109.5
	5/16/2012	ND<-2.07944 U	109.5

Rank Sum = 2359
Rank Mean = 138.765

LMW-14R	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5
	6/11/2009	ND<-2.07944 U	109.5
	6/30/2010	ND<-2.07944 U	109.5
	11/17/2010	ND<-2.07944 U	109.5
	7/6/2011	ND<-2.07944 U	109.5
	11/22/2011	ND<-2.07944 U	109.5
	5/16/2012	ND<-2.07944 U	109.5

Rank Sum = 1095
Rank Mean = 109.5

LMW-6	1/16/1998	ND<-0.693147	109.5
	3/16/1999	ND<-0.693147	109.5
	9/23/1999	ND<-0.693147	109.5
	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<0 J	109.5

	10/26/2005	0	238
	6/19/2006	0	239
	11/18/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<0 J	109.5
	5/20/2008	0	240
	11/20/2008	ND<0 J	109.5
	6/11/2009	-0.0512933 J	235
	11/16/2009	3.71357	283
	11/16/2009	0.0953102	243
	6/30/2010	-0.328504 J	230
	11/17/2010	-0.733969 J	222
	7/6/2011	-0.356675 J	228
	11/22/2011	-1.04982 J	220
	5/16/2012	-0.400478 J	226

Rank Sum = 3918
Rank Mean = 170.348

LMW-7	1/16/1998	ND<-0.693147	109.5
	3/16/1999	ND<-0.693147	109.5
	9/23/1999	ND<-0.693147	109.5
	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<-0.693147	109.5
	10/26/2005	ND<-0.693147	109.5
	6/19/2006	ND<-0.693147	109.5
	11/18/2006	ND<-0.693147	109.5
	6/2/2007	0.693147	255
	11/15/2007	1.38629	262
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5
	6/11/2009	ND<-2.07944 U	109.5
	11/17/2010	ND<-2.07944 U	109.5
	7/6/2011	ND<-2.07944 U	109.5
	11/22/2011	ND<-2.07944 U	109.5
	5/16/2012	ND<-2.07944 U	109.5

Rank Sum = 2488
Rank Mean = 124.4

LMW-8	1/16/1998	ND<-0.693147	109.5
	3/16/1999	ND<-0.693147	109.5
	9/23/1999	ND<-0.693147	109.5
	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<-0.693147	109.5
	10/26/2005	ND<-0.693147	109.5
	6/19/2006	ND<-0.693147	109.5
	11/18/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5
	6/11/2009	ND<-2.07944 U	109.5
	11/16/2009	2.94444	278
	11/16/2009	ND<-2.07944 U	109.5
	6/30/2010	ND<-2.07944 U	109.5
	11/17/2010	ND<-2.07944 U	109.5
	7/6/2011	ND<-2.07944 U	109.5

	11/22/2011	ND<-2.07944 U	109.5
	5/16/2012	ND<-2.07944 U	109.5

Rank Sum = 2687
Rank Mean = 116.826

LMW-9	1/16/1998	ND<-0.693147	109.5
	3/16/1999	ND<-0.693147	109.5
	9/23/1999	ND<-0.693147	109.5
	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<-0.693147	109.5
	10/26/2005	ND<-0.693147	109.5
	6/19/2006	ND<-0.693147	109.5
	11/18/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5
	6/11/2009	ND<-2.07944 U	109.5
	11/16/2009	1.94591 J	266
	11/16/2009	ND<-2.07944 U	109.5
	6/30/2010	ND<-2.07944 U	109.5
	11/17/2010	ND<-2.07944 U	109.5
	7/6/2011	ND<-2.07944 U	109.5
	11/22/2011	ND<-2.07944 U	109.5
	5/16/2012	ND<-2.07944 U	109.5

Rank Sum = 2675
Rank Mean = 116.304

LMW-9D	11/18/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5
	6/11/2009	ND<-2.07944 U	109.5
	11/16/2009	3.21888	280
	11/16/2009	ND<-2.07944 U	109.5
	6/30/2010	ND<-2.07944 U	109.5
	11/17/2010	ND<-2.07944 U	109.5
	7/6/2011	ND<-2.07944 U	109.5
	11/22/2011	ND<-2.07944 U	109.5
	5/16/2012	ND<-2.07944 U	109.5

Rank Sum = 1594
Rank Mean = 122.615

LMW-13	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<-0.693147	109.5
	10/26/2005	ND<-0.693147	109.5
	6/19/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5

Rank Sum = 1204.5
Rank Mean = 109.5

MW-5	1/16/1998	ND<-0.693147	109.5

	3/16/1999	ND<-0.693147	109.5
	9/23/1999	ND<-0.693147	109.5
	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<-0.693147	109.5
	10/26/2005	ND<-0.693147	109.5
	6/19/2006	ND<-0.693147	109.5
	11/15/2007	1.94591	267
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5

Rank Sum = 1581
Rank Mean = 121.615

LMW-12	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<-0.693147	109.5
	10/26/2005	ND<-0.693147	109.5
	6/19/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5

Rank Sum = 1204.5
Rank Mean = 109.5

LMW-11	3/14/2000	ND<-0.693147	109.5
	9/23/2003	ND<-0.693147	109.5
	3/10/2004	ND<-0.693147	109.5
	10/12/2004	ND<-0.693147	109.5
	4/1/2005	ND<-0.693147	109.5
	10/26/2005	ND<-0.693147	109.5
	6/19/2006	ND<-0.693147	109.5
	6/2/2007	ND<-0.693147	109.5
	11/15/2007	ND<-0.693147	109.5
	5/20/2008	ND<-0.693147	109.5
	11/20/2008	ND<-0.693147	109.5

Rank Sum = 1204.5
Rank Mean = 109.5

Calculation Results:

Kruskal-Wallis H Statistic = 50.3844
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 92.8052
95% Confidence comparison value is 26.2962 at 16 degrees of freedom
50.3844 > 26.2962 indicating a significant group difference at 5% significance level
92.8052 > 26.2962 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 194.674

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-10	**211.575**	**16.9011**	**58.2091**
LMW-3S	**200.846**	**6.17224**	**66.0619**
LMW-15R	**109.5**	**-85.1739**	**64.5369**
LMW-16	**121.846**	**-72.8278**	**66.0619**
LMW-3	**149.54**	**-45.1339**	**55.0075**

LMW-9S	138.765	-55.9092	60.8943
LMW-14R	109.5	-85.1739	72.1155
LMW-6	170.348	-24.3261	56.1418
LMW-7	124.4	-70.2739	58.2091
LMW-8	116.826	-77.8478	56.1418
LMW-9	116.304	-78.3696	56.1418
LMW-9D	122.615	-72.0585	66.0619
LMW-13	109.5	-85.1739	69.7934
MW-5	121.615	-73.0585	66.0619
LMW-12	109.5	-85.1739	69.7934
LMW-11	109.5	-85.1739	69.7934

Individual Well Comparisons at Groupwise 5% Significance Level (0.3125% Significance Level per comparison)

0.3125% Z score is 2.74777

Mean background rank is 194.674

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-10	211.575	16.9011	68.7538
LMW-3S	200.846	6.17224	78.0292
LMW-15R	109.5	-85.1739	76.228
LMW-16	121.846	-72.8278	78.0292
LMW-3	149.54	-45.1339	64.9723
LMW-9S	138.765	-55.9092	71.9255
LMW-14R	109.5	-85.1739	85.1794
LMW-6	170.348	-24.3261	66.3121
LMW-7	124.4	-70.2739	68.7538
LMW-8	116.826	-77.8478	66.3121
LMW-9	116.304	-78.3696	66.3121
LMW-9D	122.615	-72.0585	78.0292
LMW-13	109.5	-85.1739	82.4367
MW-5	121.615	-73.0585	78.0292
LMW-12	109.5	-85.1739	82.4367
LMW-11	109.5	-85.1739	82.4367

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Trichlorofluoromethane
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 77.0318%
Number of comparisons = 16
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 23
Maximum Background Value = 2.77259
Confidence Level = 74.2%
False Positive Rate = 25.8%

Location	Date	Count	Mean	Significant
LMW-10	5/16/2012	1	2.63906	FALSE
LMW-3S	5/16/2012	1	0.182322	FALSE
LMW-15R	5/16/2012	1	-2.07944	FALSE
LMW-16	5/16/2012	1	-2.07944	FALSE
LMW-3	5/16/2012	1	-0.34249	FALSE
LMW-9S	5/16/2012	1	-2.07944	FALSE
LMW-14R	5/16/2012	1	-2.07944	FALSE
LMW-6	5/16/2012	1	-0.400478	FALSE
LMW-7	5/16/2012	1	-2.07944	FALSE
LMW-8	5/16/2012	1	-2.07944	FALSE
LMW-9	5/16/2012	1	-2.07944	FALSE
LMW-9D	5/16/2012	1	-2.07944	FALSE
LMW-13	11/20/2008	1	-0.693147	FALSE
MW-5	11/20/2008	1	-0.693147	FALSE
LMW-12	11/20/2008	1	-0.693147	FALSE
LMW-11	11/20/2008	1	-0.693147	FALSE

Concentrations (ppb)

Parameter: Vanadium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 271
Total Non-Detect: 228
Percent Non-Detects: 84.1328%
Total Background Measurements: 22
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	22	21 (95.4545%)	1/16/1998	ND<20	ND<20
			3/16/1999	ND<20	ND<20
			9/23/1999	ND<20	ND<20
			3/14/2000	ND<20	ND<20
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20
			6/19/2006	ND<20	ND<20
			11/18/2006	ND<20	ND<20
			6/2/2007	15	15
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<1.4 U	ND<1.4 U
			11/16/2009	ND<1.4 U	ND<1.4 U
			6/30/2010	ND<1.4 U	ND<1.4 U
			11/17/2010	ND<1.4 U	ND<1.4 U
			7/6/2011	ND<1.4 U	ND<1.4 U
			11/22/2011	ND<1.4 U	ND<1.4 U
			5/16/2012	ND<1.4 U	ND<1.4 U

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-9S	14	12 (85.7143%)	11/18/2006	ND<20	ND<20
			6/2/2007	5	5
			11/15/2007	ND<20	ND<20
			5/20/2008	ND<20	ND<20
			11/20/2008	ND<20	ND<20
			6/11/2009	ND<1.4 U	ND<1.4 U
			11/16/2009	ND<1.4 U	ND<1.4 U
			11/16/2009	ND<1.4 U	ND<1.4 U
			11/16/2009	ND<1.4 U	ND<1.4 U
			6/30/2010	ND<1.4 U	ND<1.4 U
			11/17/2010	6.2	6.2
			7/6/2011	ND<1.4 U	ND<1.4 U
			11/22/2011	ND<1.4 U	ND<1.4 U
			5/16/2012	ND<1.4 U	ND<1.4 U
LMW-10	19	17 (89.4737%)	3/14/2000	ND<20	ND<20
			9/23/2003	ND<20	ND<20
			3/10/2004	ND<20	ND<20
			10/12/2004	ND<20	ND<20
			4/1/2005	ND<20	ND<20
			10/26/2005	ND<20	ND<20

			6/19/2006	8 J	8 J	
			11/18/2006	ND<20	ND<20	
			6/2/2007	3 J	3 J	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<1.4 U		ND<1.4 U
			11/16/2009	ND<1.4 U		ND<1.4 U
			6/30/2010	ND<1.4 U		ND<1.4 U
			11/17/2010	ND<1.4 U		ND<1.4 U
			7/6/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	ND<1.4 U		ND<1.4 U
			5/16/2012	ND<1.4 U		ND<1.4 U
LMW-14R	10	9 (90%)	6/2/2007	2 J	2 J	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<1.4 U		ND<1.4 U
			6/30/2010	ND<1.4 U		ND<1.4 U
			11/17/2010	ND<1.4 U		ND<1.4 U
			7/6/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	ND<1.4 U		ND<1.4 U
			5/16/2012	ND<1.4 U		ND<1.4 U
LMW-15R	14	13 (92.8571%)	11/18/2006		ND<20	ND<20
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	7.5	7.5	
			6/30/2010	ND<1.4 U		ND<1.4 U
			11/17/2010	ND<1.4 U		ND<1.4 U
			7/6/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	ND<1.4 U		ND<1.4 U
			5/16/2012	ND<1.4 U		ND<1.4 U
LMW-16	12	10 (83.3333%)	11/18/2006		ND<20	ND<20
			6/2/2007	41	41	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<1.4 U		ND<1.4 U
			11/16/2009	ND<1.4 U		ND<1.4 U
			6/30/2010	ND<1.4 U		ND<1.4 U
			11/17/2010	ND<1.4 U		ND<1.4 U
			7/6/2011	2.7 J	2.7 J	
			11/22/2011	ND<1.4 U		ND<1.4 U
			5/16/2012	ND<1.4 U		ND<1.4 U
LMW-3	24	23 (95.8333%)	11/19/1996		ND<20	ND<20
			3/24/1997	ND<20	ND<20	
			1/16/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	

			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<1.4 U	ND<1.4 U	
			11/16/2009	ND<1.4 U	ND<1.4 U	
			6/30/2010	ND<1.4 U	ND<1.4 U	
			11/17/2010	1.8 J	1.8 J	
			7/6/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	ND<1.4 U	ND<1.4 U	
			5/16/2012	ND<1.4 U	ND<1.4 U	
LMW-3s	1	1 (100%)	5/16/2012	ND<1.4 U	ND<1.4 U	
LMW-6	22	21 (95.4545%)	1/16/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	3	3	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<1.4 U	ND<1.4 U	
			11/16/2009	ND<1.4 U	ND<1.4 U	
			6/30/2010	ND<1.4 U	ND<1.4 U	
			11/17/2010	ND<1.4 U	ND<1.4 U	
			7/6/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	ND<1.4 U	ND<1.4 U	
			5/16/2012	ND<1.4 U	ND<1.4 U	
LMW-7	20	11 (55%)	1/16/1998	ND<20	ND<20	
			3/16/1999	7 J	7 J	
			9/23/1999	49	49	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	12 J	12 J	
			10/26/2005	18 J	18 J	
			6/19/2006	8 J	8 J	
			11/18/2006	3 J	3 J	
			6/2/2007	14	14	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	2.9 J	2.9 J	
			11/17/2010	ND<1.4 U	ND<1.4 U	
			7/6/2011	7	7	
			11/22/2011	ND<1.4 U	ND<1.4 U	
			5/16/2012	ND<1.4 U	ND<1.4 U	

LMW-8	22	21 (95.4545%)	1/16/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	7 J	7 J	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/18/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	ND<1.4 U	ND<1.4 U	
			11/16/2009	ND<1.4 U	ND<1.4 U	
			6/30/2010	ND<1.4 U	ND<1.4 U	
			11/17/2010	ND<1.4 U	ND<1.4 U	
			7/6/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	ND<1.4 U	ND<1.4 U	
			5/16/2012	ND<1.4 U	ND<1.4 U	
LMW-9D	12	1 (8.33333%)	11/18/2006	10 J	10 J	
			6/2/2007	5	5	
			11/15/2007	ND<20	ND<20	
			5/20/2008	5 J	5 J	
			11/20/2008	5 J	5 J	
			6/11/2009	2.5 J	2.5 J	
			11/16/2009	2.3 J	2.3 J	
			6/30/2010	1.8 J	1.8 J	
			11/17/2010	2.3 J	2.3 J	
			7/6/2011	2.6 J	2.6 J	
			11/22/2011	2 J	2 J	
			5/16/2012	2.4 J	2.4 J	
LMW-9	22	15 (68.1818%)	1/16/1998	ND<20	ND<20	
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	8 J	8 J	
			10/26/2005	11 J	11 J	
			6/19/2006	30	30	
			11/18/2006	ND<20	ND<20	
			6/2/2007	7	7	
			11/15/2007	ND<20	ND<20	
			5/20/2008	2 J	2 J	
			11/20/2008	ND<20	ND<20	
			6/11/2009	2.6 J	2.6 J	
			11/16/2009	ND<1.4 U	ND<1.4 U	
			6/30/2010	ND<1.4 U	ND<1.4 U	
			11/17/2010	5	5	
			7/6/2011	ND<1.4 U	ND<1.4 U	
			11/22/2011	ND<1.4 U	ND<1.4 U	
			5/16/2012	ND<1.4 U	ND<1.4 U	
LMW-3S	11	7 (63.6364%)	11/18/2006	ND<20	ND<20	
			6/2/2007	9	9	
			11/15/2007	ND<20	ND<20	

			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
			6/11/2009	2.1 J	2.1 J	
			11/16/2009	ND<1.4 U		ND<1.4 U
			6/30/2010	ND<1.4 U		ND<1.4 U
			11/17/2010	4.6 J	4.6 J	
			7/6/2011	3.2 J	3.2 J	
			11/22/2011	ND<1.4 U		ND<1.4 U
LMW-12	11	11 (100%)	3/14/2000		ND<20	ND<20
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
MW-5	13	13 (100%)	1/16/1998		ND<20	ND<20
			3/16/1999	ND<20	ND<20	
			9/23/1999	ND<20	ND<20	
			3/14/2000	ND<20	ND<20	
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
LMW-11	11	11 (100%)	3/14/2000		ND<20	ND<20
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	
LMW-13	11	11 (100%)	3/14/2000		ND<20	ND<20
			9/23/2003	ND<20	ND<20	
			3/10/2004	ND<20	ND<20	
			10/12/2004	ND<20	ND<20	
			4/1/2005	ND<20	ND<20	
			10/26/2005	ND<20	ND<20	
			6/19/2006	ND<20	ND<20	
			6/2/2007	ND<20	ND<20	
			11/15/2007	ND<20	ND<20	
			5/20/2008	ND<20	ND<20	
			11/20/2008	ND<20	ND<20	

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.7	-2.74777	7.55021	-1.92344
2	0.7	-2.45727	13.5884	-3.64353
3	0.7	-2.29036	18.8342	-5.24678
4	0.7	-2.19728	23.6622	-6.78488
5	0.7	-2.09693	28.0593	-8.25273
6	0.7	-2.01409	32.1159	-9.6626
7	0.7	-1.95996	35.9574	-11.0346
8	0.7	-1.8957	39.551	-12.3616
9	0.7	-1.83843	42.9308	-13.6485
10	0.7	-1.79912	46.1677	-14.9078
11	0.7	-1.75069	49.2326	-16.1333
12	0.7	-1.70604	52.1431	-17.3275
13	0.7	-1.67466	54.9476	-18.4998
14	0.7	-1.63524	57.6216	-19.6445
15	0.7	-1.59819	60.1758	-20.7632
16	0.7	-1.57179	62.6464	-21.8635
17	0.7	-1.5382	65.0124	-22.9402
18	0.7	-1.50626	67.2812	-23.9946
19	0.7	-1.48328	69.4814	-25.0329
20	0.7	-1.4538	71.5949	-26.0505
21	0.7	-1.42554	73.6271	-27.0484
22	0.7	-1.40507	75.6013	-28.032
23	0.7	-1.37866	77.502	-28.997
24	0.7	-1.35317	79.3331	-29.9443
25	0.7	-1.33462	81.1143	-30.8785
26	0.7	-1.31058	82.8319	-31.7959
27	0.7	-1.28727	84.489	-32.697
28	0.7	-1.27024	86.1025	-33.5862
29	0.7	-1.24809	87.6602	-34.4598
30	0.7	-1.22653	89.1646	-35.3184
31	0.7	-1.21073	90.6305	-36.1659
32	0.7	-1.19012	92.0469	-36.999
33	0.7	-1.17	93.4158	-37.818
34	0.7	-1.15035	94.7391	-38.6232
35	0.7	-1.1359	96.0293	-39.4184
36	0.7	-1.11699	97.277	-40.2002
37	0.7	-1.09847	98.4836	-40.9692
38	0.7	-1.08482	99.6605	-41.7285
39	0.7	-1.06694	100.799	-42.4754
40	0.7	-1.04939	101.9	-43.21
41	0.7	-1.03643	102.974	-43.9355
42	0.7	-1.01943	104.013	-44.6491
43	0.7	-1.00271	105.019	-45.351
44	0.7	-0.990356	106	-46.0442
45	0.7	-0.974114	106.949	-46.7261
46	0.7	-0.958125	107.867	-47.3968
47	0.7	-0.946291	108.762	-48.0592
48	0.7	-0.930718	109.628	-48.7107
49	0.7	-0.915365	110.466	-49.3515
50	0.7	-0.903992	111.283	-49.9842
51	0.7	-0.889006	112.074	-50.6066

52	0.7	-0.874218	112.838	-51.2185
53	0.7	-0.863249	113.583	-51.8228
54	0.7	-0.848786	114.304	-52.4169
55	0.7	-0.834498	115	-53.0011
56	0.7	-0.823893	115.679	-53.5778
57	0.7	-0.809896	116.335	-54.1447
58	0.7	-0.796056	116.968	-54.702
59	0.7	-0.785774	117.586	-55.252
60	0.7	-0.772193	118.182	-55.7925
61	0.7	-0.758753	118.758	-56.3237
62	0.7	-0.748762	119.318	-56.8478
63	0.7	-0.735557	119.86	-57.3627
64	0.7	-0.722479	120.382	-57.8684
65	0.7	-0.712751	120.89	-58.3674
66	0.7	-0.699883	121.379	-58.8573
67	0.7	-0.687131	121.852	-59.3383
68	0.7	-0.67449	122.306	-59.8104
69	0.7	-0.665079	122.749	-60.276
70	0.7	-0.652622	123.175	-60.7328
71	0.7	-0.640266	123.585	-61.181
72	1.8	-0.631062	123.983	-62.3169
73	1.8	-0.618872	124.366	-63.4309
74	2	-0.606775	124.734	-64.6444
75	2	-0.597761	125.091	-65.8399
76	2	-0.585815	125.435	-67.0116
77	2.1	-0.573953	125.764	-68.2169
78	2.3	-0.565108	126.083	-69.5166
79	2.3	-0.553384	126.39	-70.7894
80	2.4	-0.541736	126.683	-72.0896
81	2.5	-0.533048	126.967	-73.4222
82	2.6	-0.521527	127.239	-74.7782
83	2.6	-0.510074	127.499	-76.1044
84	2.7	-0.501527	127.751	-77.4585
85	2.9	-0.490189	127.991	-78.88
86	3	-0.478914	128.221	-80.3168
87	3	-0.470498	128.442	-81.7283
88	3	-0.459327	128.653	-83.1062
89	3.2	-0.448213	128.854	-84.5405
90	4.6	-0.439913	129.047	-86.5641
91	5	-0.428895	129.231	-88.7086
92	5	-0.417928	129.406	-90.7982
93	5	-0.409735	129.574	-92.8469
94	5	-0.398855	129.733	-94.8412
95	5	-0.388022	129.883	-96.7813
96	6.2	-0.379927	130.028	-99.1368
97	7	-0.369171	130.164	-101.721
98	7	-0.358459	130.293	-104.23
99	7	-0.350451	130.415	-106.683
100	7	-0.33981	130.531	-109.062
101	7.5	-0.329206	130.639	-111.531
102	8	-0.318639	130.741	-114.08
103	8	-0.310738	130.837	-116.566
104	8	-0.300232	130.927	-118.968
105	9	-0.28976	131.011	-121.576
106	10	-0.281926	131.091	-124.395
107	10	-0.271509	131.165	-127.11
108	10	-0.26112	131.233	-129.721
109	10	-0.253347	131.297	-132.255
110	10	-0.243007	131.356	-134.685
111	10	-0.232693	131.41	-137.012
112	10	-0.224974	131.461	-139.262
113	10	-0.214702	131.507	-141.409

114	10	-0.204452	131.549	-143.453
115	10	-0.196779	131.587	-145.421
116	10	-0.186567	131.622	-147.287
117	10	-0.176374	131.653	-149.05
118	10	-0.168741	131.682	-150.738
119	10	-0.158579	131.707	-152.324
120	10	-0.148434	131.729	-153.808
121	10	-0.140835	131.749	-155.216
122	10	-0.130716	131.766	-156.523
123	10	-0.12061	131.78	-157.73
124	10	-0.113039	131.793	-158.86
125	10	-0.102953	131.804	-159.889
126	10	-0.0928787	131.812	-160.818
127	10	-0.0853288	131.82	-161.671
128	10	-0.0752698	131.825	-162.424
129	10	-0.0652187	131.83	-163.076
130	10	-0.0576847	131.833	-163.653
131	10	-0.0476439	131.835	-164.13
132	10	-0.0376076	131.837	-164.506
133	10	-0.0300838	131.838	-164.807
134	10	-0.0200544	131.838	-165.007
135	10	-0.0100272	131.838	-165.107
136	10	0	131.838	-165.107
137	10	0.0100272	131.838	-165.007
138	10	0.0200544	131.839	-164.807
139	10	0.0300838	131.839	-164.506
140	10	0.0376076	131.841	-164.13
141	10	0.0476439	131.843	-163.653
142	10	0.0576847	131.846	-163.076
143	10	0.0652187	131.851	-162.424
144	10	0.0752698	131.856	-161.671
145	10	0.0853288	131.864	-160.818
146	10	0.0928787	131.872	-159.889
147	10	0.102953	131.883	-158.86
148	10	0.113039	131.896	-157.73
149	10	0.12061	131.91	-156.523
150	10	0.130716	131.927	-155.216
151	10	0.140835	131.947	-153.808
152	10	0.148434	131.969	-152.324
153	10	0.158579	131.994	-150.738
154	10	0.168741	132.023	-149.05
155	10	0.176374	132.054	-147.287
156	10	0.186567	132.089	-145.421
157	10	0.196779	132.127	-143.453
158	10	0.204452	132.169	-141.409
159	10	0.214702	132.215	-139.262
160	10	0.224974	132.266	-137.012
161	10	0.232693	132.32	-134.685
162	10	0.243007	132.379	-132.255
163	10	0.253347	132.443	-129.721
164	10	0.26112	132.512	-127.11
165	10	0.271509	132.585	-124.395
166	10	0.281926	132.665	-121.576
167	10	0.28976	132.749	-118.678
168	10	0.300232	132.839	-115.676
169	10	0.310738	132.935	-112.569
170	10	0.318639	133.037	-109.382
171	10	0.329206	133.145	-106.09
172	10	0.33981	133.261	-102.692
173	10	0.350451	133.384	-99.1875
174	10	0.358459	133.512	-95.6029
175	10	0.369171	133.648	-91.9112

176	10	0.379927		133.793	-88.1119
177	10	0.388022		133.943	-84.2317
178	10	0.398855		134.102	-80.2431
179	10	0.409735		134.27	-76.1458
180	10	0.417928		134.445	-71.9665
181	10	0.428895		134.629	-67.6776
182	10	0.439913		134.822	-63.2784
183	10	0.448213		135.023	-58.7963
184	10	0.459327		135.234	-54.203
185	10	0.470498		135.456	-49.498
186	10	0.478914		135.685	-44.7089
187	10	0.490189		135.925	-39.807
188	10	0.501527		136.177	-34.7917
189	10	0.510074		136.437	-29.691
190	10	0.521527		136.709	-24.4757
191	10	0.533048		136.993	-19.1453
192	10	0.541736		137.287	-13.7279
193	10	0.553384		137.593	-8.19405
194	10	0.565108		137.912	-2.54298
195	10	0.573953		138.242	3.19655
196	10	0.585815		138.585	9.0547
197	10	0.597761		138.942	15.0323
198	10	0.606775		139.31	21.1001
199	10	0.618872		139.693	27.2888
200	10	0.631062		140.091	33.5994
201	10	0.640266		140.501	40.0021
202	10	0.652622		140.927	46.5283
203	10	0.665079		141.37	53.1791
204	10	0.67449	141.825	59.924	
205	10	0.687131		142.297	66.7953
206	10	0.699883		142.787	73.7941
207	10	0.712751		143.295	80.9216
208	10	0.722479		143.817	88.1464
209	10	0.735557		144.358	95.502
210	10	0.748762		144.918	102.99
211	10	0.758753		145.494	110.577
212	10	0.772193		146.09	118.299
213	10	0.785774		146.708	126.157
214	10	0.796056		147.341	134.117
215	10	0.809896		147.997	142.216
216	10	0.823893		148.676	150.455
217	10	0.834498		149.373	158.8
218	10	0.848786		150.093	167.288
219	10	0.863249		150.838	175.921
220	10	0.874218		151.602	184.663
221	10	0.889006		152.393	193.553
222	10	0.903992		153.21	202.593
223	10	0.915365		154.048	211.746
224	10	0.930718		154.914	221.054
225	10	0.946291		155.81	230.516
226	10	0.958125		156.728	240.098
227	10	0.974114		157.676	249.839
228	10	0.990356		158.657	259.742
229	10	1.00271	159.663	269.77	
230	10	1.01943	160.702	279.964	
231	10	1.03643	161.776	290.328	
232	10	1.04939	162.877	300.822	
233	10	1.06694	164.016	311.491	
234	10	1.08482	165.193	322.34	
235	10	1.09847	166.399	333.324	
236	10	1.11699	167.647	344.494	
237	10	1.1359	168.937	355.853	

238	10	1.15035	170.26	367.357
239	10	1.17	171.629	379.057
240	10	1.19012	173.046	390.958
241	10	1.21073	174.512	403.065
242	10	1.22653	176.016	415.33
243	10	1.24809	177.574	427.811
244	10	1.27024	179.187	440.514
245	10	1.28727	180.844	453.386
246	10	1.31058	182.562	466.492
247	10	1.33462	184.343	479.838
248	10	1.35317	186.174	493.37
249	10	1.37866	188.075	507.157
250	10	1.40507	190.049	521.207
251	10	1.42554	192.081	535.463
252	10	1.4538	194.195	550.001
253	10	1.48328	196.395	564.834
254	10	1.50626	198.664	579.896
255	10	1.5382	201.03	595.278
256	10	1.57179	203.5	610.996
257	10	1.59819	206.054	626.978
258	10	1.63524	208.728	643.33
259	10	1.67466	211.533	660.077
260	10	1.70604	214.444	677.138
261	10	1.75069	217.508	694.644
262	10	1.79912	220.745	712.636
263	10	1.83843	224.125	731.02
264	11	1.8957	227.719	751.872
265	12	1.95996	231.56	775.392
266	14	2.01409	235.617	803.589
267	15	2.09693	240.014	835.043
268	18	2.19728	244.842	874.594
269	30	2.29036	250.088	943.305
270	41	2.45727	256.126	1044.05
271	49	2.74777	263.676	1178.69

Data Set Standard Deviation = 5.56246
Numerator = 1.38932e+006
Denominator = 2.20277e+006
W Statistic = 0.630715 = 1.38932e+006 / 2.20277e+006

5% Critical value of 0.976 exceeds 0.630715
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.630715
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 = 0.796429
0.796429 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	0.7	0.00367647	-2.74777	46.49	348.683	
2	0.7	0.00735294	-2.45727	46.49	334.497	
3	0.7	0.0110294	-2.29036	46.49	326.346	
4	0.7	0.0147059	-2.19728	46.49	321.801	
5	0.7	0.0183824	-2.09693	46.49	316.9	
6	0.7	0.0220588	-2.01409	46.49	312.855	
7	0.7	0.0257353	-1.95996	46.49	310.211	
8	0.7	0.0294118	-1.8957	46.49	307.073	
9	0.7	0.0330882	-1.83843	46.49	304.276	
10	0.7	0.0367647	-1.79912	46.49	302.357	
11	0.7	0.0404412	-1.75069	46.49	299.992	
12	0.7	0.0441176	-1.70604	46.49	297.812	
13	0.7	0.0477941	-1.67466	46.49	296.279	
14	0.7	0.0514706	-1.63524	46.49	294.354	
15	0.7	0.0551471	-1.59819	46.49	292.545	
16	0.7	0.0588235	-1.57179	46.49	291.256	
17	0.7	0.0625	-1.5382	46.49	289.615	
18	0.7	0.0661765	-1.50626	46.49	288.056	
19	0.7	0.0698529	-1.48328	46.49	286.934	
20	0.7	0.0735294	-1.4538	46.49	285.494	
21	0.7	0.0772059	-1.42554	46.49	284.114	
22	0.7	0.0808824	-1.40507	46.49	283.114	
23	0.7	0.0845588	-1.37866	46.49	281.824	
24	0.7	0.0882353	-1.35317	46.49	280.58	
25	0.7	0.0919118	-1.33462	46.49	279.674	
26	0.7	0.0955882	-1.31058	46.49	278.5	
27	0.7	0.0992647	-1.28727	46.49	277.362	
28	0.7	0.102941	-1.27024	46.49	276.53	
29	0.7	0.106618	-1.24809	46.49	275.448	
30	0.7	0.110294	-1.22653	46.49	274.395	
31	0.7	0.113971	-1.21073	46.49	273.624	
32	0.7	0.117647	-1.19012	46.49	272.617	
33	0.7	0.121324	-1.17	46.49	271.635	
34	0.7	0.125	-1.15035	46.49	270.675	
35	0.7	0.128676	-1.1359	46.49	269.97	
36	0.7	0.132353	-1.11699	46.49	269.046	
37	0.7	0.136029	-1.09847	46.49	268.142	
38	0.7	0.139706	-1.08482	46.49	267.476	
39	0.7	0.143382	-1.06694	46.49	266.602	
40	0.7	0.147059	-1.04939	46.49	265.745	
41	0.7	0.150735	-1.03643	46.49	265.112	
42	0.7	0.154412	-1.01943	46.49	264.282	
43	0.7	0.158088	-1.00271	46.49	263.466	
44	0.7	0.161765	-0.990356	46.49	262.862	
45	0.7	0.165441	-0.974114	46.49	262.069	
46	0.7	0.169118	-0.958125	46.49	261.288	
47	0.7	0.172794	-0.946291	46.49	260.711	
48	0.7	0.176471	-0.930718	46.49	259.95	

49	0.7	0.180147	-0.915365	46.49	259.2
50	0.7	0.183824	-0.903992	46.49	258.645
51	0.7	0.1875	-0.889006	46.49	257.913
52	0.7	0.191176	-0.874218	46.49	257.191
53	0.7	0.194853	-0.863249	46.49	256.655
54	0.7	0.198529	-0.848786	46.49	255.949
55	0.7	0.202206	-0.834498	46.49	255.251
56	0.7	0.205882	-0.823893	46.49	254.733
57	0.7	0.209559	-0.809896	46.49	254.05
58	0.7	0.213235	-0.796056	46.49	253.374
59	0.7	0.216912	-0.785774	46.49	252.872
60	0.7	0.220588	-0.772193	46.49	252.209
61	0.7	0.224265	-0.758753	46.49	251.552
62	0.7	0.227941	-0.748762	46.49	251.065
63	0.7	0.231618	-0.735557	46.49	250.42
64	0.7	0.235294	-0.722479	46.49	249.781
65	0.7	0.238971	-0.712751	46.49	249.306
66	0.7	0.242647	-0.699883	46.49	248.678
67	0.7	0.246324	-0.687131	46.49	248.055
68	0.7	0.25	-0.674946.49	247.438	
69	0.7	0.253676	-0.665079	46.49	246.978
70	0.7	0.257353	-0.652622	46.49	246.37
71	0.7	0.261029	-0.640266	46.49	245.766
72	1.8	0.264706	-0.631062	58.26	245.317
73	1.8	0.268382	-0.618872	58.26	244.722
74	2	0.272059	-0.606775	60.4	244.131
75	2	0.275735	-0.597761	60.4	243.691
76	2	0.279412	-0.585815	60.4	243.107
77	2.1	0.283088	-0.573953	61.47	242.528
78	2.3	0.286765	-0.565108	63.61	242.096
79	2.3	0.290441	-0.553384	63.61	241.524
80	2.4	0.294118	-0.541736	64.68	240.955
81	2.5	0.297794	-0.533048	65.75	240.531
82	2.6	0.301471	-0.521527	66.82	239.968
83	2.6	0.305147	-0.510074	66.82	239.409
84	2.7	0.308824	-0.501527	67.89	238.991
85	2.9	0.3125	-0.490189	70.03	238.438
86	3	0.316176	-0.478914	71.1	237.887
87	3	0.319853	-0.470498	71.1	237.476
88	3	0.323529	-0.459327	71.1	236.93
89	3.2	0.327206	-0.448213	73.24	236.388
90	4.6	0.330882	-0.439913	88.22	235.982
91	5	0.334559	-0.428895	92.5	235.444
92	5	0.338235	-0.417928	92.5	234.909
93	5	0.341912	-0.409735	92.5	234.509
94	5	0.345588	-0.398855	92.5	233.977
95	5	0.349265	-0.388022	92.5	233.448
96	6.2	0.352941	-0.379927	105.34	233.053
97	7	0.356618	-0.369171	113.9	232.528
98	7	0.360294	-0.358459	113.9	232.005
99	7	0.363971	-0.350451	113.9	231.614
100	7	0.367647	-0.33981113.9	231.094	
101	7.5	0.371324	-0.329206	119.25	230.576
102	8	0.375	-0.318639	124.6	230.06
103	8	0.378676	-0.310738	124.6	229.674
104	8	0.382353	-0.300232	124.6	229.161
105	9	0.386029	-0.28976135.3	228.65	
106	10	0.389706	-0.281926	146	228.267
107	10	0.393382	-0.271509	146	227.759
108	10	0.397059	-0.26112146	227.251	
109	10	0.400735	-0.253347	146	226.872
110	10	0.404412	-0.243007	146	226.367

111	10	0.408088	-0.232693	146	225.863
112	10	0.411765	-0.224974	146	225.486
113	10	0.415441	-0.214702	146	224.985
114	10	0.419118	-0.204452	146	224.484
115	10	0.422794	-0.196779	146	224.109
116	10	0.426471	-0.186567	146	223.611
117	10	0.430147	-0.176374	146	223.113
118	10	0.433824	-0.168741	146	222.74
119	10	0.4375	-0.158579	146	222.244
120	10	0.441176	-0.148434	146	221.749
121	10	0.444853	-0.140835	146	221.377
122	10	0.448529	-0.130716	146	220.883
123	10	0.452206	-0.12061	146	220.39
124	10	0.455882	-0.113039	146	220.02
125	10	0.459559	-0.102953	146	219.528
126	10	0.463235	-0.0928787	146	219.036
127	10	0.466912	-0.0853288	146	218.667
128	10	0.470588	-0.0752698	146	218.176
129	10	0.474265	-0.0652187	146	217.685
130	10	0.477941	-0.0576847	146	217.317
131	10	0.481618	-0.0476439	146	216.827
132	10	0.485294	-0.0376076	146	216.337
133	10	0.488971	-0.0300838	146	215.969
134	10	0.492647	-0.0200544	146	215.479
135	10	0.496324	-0.0100272	146	214.99
136	10	0.5	0	146	214.5
137	10	0.503676	0.0100272	146	214.01
138	10	0.507353	0.0200544	146	213.521
139	10	0.511029	0.0300838	146	213.031
140	10	0.514706	0.0376076	146	212.663
141	10	0.518382	0.0476439	146	212.173
142	10	0.522059	0.0576847	146	211.683
143	10	0.525735	0.0652187	146	211.315
144	10	0.529412	0.0752698	146	210.824
145	10	0.533088	0.0853288	146	210.333
146	10	0.536765	0.0928787	146	209.964
147	10	0.540441	0.102953	146	209.472
148	10	0.544118	0.113039	146	208.98
149	10	0.547794	0.12061	146	208.61
150	10	0.551471	0.130716	146	208.117
151	10	0.555147	0.140835	146	207.623
152	10	0.558824	0.148434	146	207.251
153	10	0.5625	0.158579	146	206.756
154	10	0.566176	0.168741	146	206.26
155	10	0.569853	0.176374	146	205.887
156	10	0.573529	0.186567	146	205.389
157	10	0.577206	0.196779	146	204.891
158	10	0.580882	0.204452	146	204.516
159	10	0.584559	0.214702	146	204.015
160	10	0.588235	0.224974	146	203.514
161	10	0.591912	0.232693	146	203.137
162	10	0.595588	0.243007	146	202.633
163	10	0.599265	0.253347	146	202.128
164	10	0.602941	0.26112	146	201.749
165	10	0.606618	0.271509	146	201.241
166	10	0.610294	0.281926	146	200.733
167	10	0.613971	0.28976	146	200.35
168	10	0.617647	0.300232	146	199.839
169	10	0.621324	0.310738	146	199.326
170	10	0.625	0.318639	146	198.94
171	10	0.628676	0.329206	146	198.424
172	10	0.632353	0.33981	146	197.906

173	10	0.636029	0.350451	146	197.386
174	10	0.639706	0.358459	146	196.995
175	10	0.643382	0.369171	146	196.472
176	10	0.647059	0.379927	146	195.947
177	10	0.650735	0.388022	146	195.552
178	10	0.654412	0.398855	146	195.023
179	10	0.658088	0.409735	146	194.491
180	10	0.661765	0.417928	146	194.091
181	10	0.665441	0.428895	146	193.556
182	10	0.669118	0.439913	146	193.018
183	10	0.672794	0.448213	146	192.612
184	10	0.676471	0.459327	146	192.07
185	10	0.680147	0.470498	146	191.524
186	10	0.683824	0.478914	146	191.113
187	10	0.6875	0.490189	146	190.562
188	10	0.691176	0.501527	146	190.009
189	10	0.694853	0.510074	146	189.591
190	10	0.698529	0.521527	146	189.032
191	10	0.702206	0.533048	146	188.469
192	10	0.705882	0.541736	146	188.045
193	10	0.709559	0.553384	146	187.476
194	10	0.713235	0.565108	146	186.904
195	10	0.716912	0.573953	146	186.472
196	10	0.720588	0.585815	146	185.893
197	10	0.724265	0.597761	146	185.309
198	10	0.727941	0.606775	146	184.869
199	10	0.731618	0.618872	146	184.278
200	10	0.735294	0.631062	146	183.683
201	10	0.738971	0.640266	146	183.234
202	10	0.742647	0.652622	146	182.63
203	10	0.746324	0.665079	146	182.022
204	10	0.75	0.67449	146	181.562
205	10	0.753676	0.687131	146	180.945
206	10	0.757353	0.699883	146	180.322
207	10	0.761029	0.712751	146	179.694
208	10	0.764706	0.722479	146	179.219
209	10	0.768382	0.735557	146	178.58
210	10	0.772059	0.748762	146	177.935
211	10	0.775735	0.758753	146	177.448
212	10	0.779412	0.772193	146	176.791
213	10	0.783088	0.785774	146	176.128
214	10	0.786765	0.796056	146	175.626
215	10	0.790441	0.809896	146	174.95
216	10	0.794118	0.823893	146	174.267
217	10	0.797794	0.834498	146	173.749
218	10	0.801471	0.848786	146	173.051
219	10	0.805147	0.863249	146	172.345
220	10	0.808824	0.874218	146	171.809
221	10	0.8125	0.889006	146	171.087
222	10	0.816176	0.903992	146	170.355
223	10	0.819853	0.915365	146	169.8
224	10	0.823529	0.930718	146	169.05
225	10	0.827206	0.946291	146	168.289
226	10	0.830882	0.958125	146	167.712
227	10	0.834559	0.974114	146	166.931
228	10	0.838235	0.990356	146	166.138
229	10	0.841912	1.00271	146	165.534
230	10	0.845588	1.01943	146	164.718
231	10	0.849265	1.03643	146	163.888
232	10	0.852941	1.04939	146	163.255
233	10	0.856618	1.06694	146	162.398
234	10	0.860294	1.08482	146	161.524

235	10	0.863971	1.09847	146	160.858
236	10	0.867647	1.11699	146	159.954
237	10	0.871324	1.1359	146	159.03
238	10	0.875	1.15035	146	158.325
239	10	0.878676	1.17	146	157.365
240	10	0.882353	1.19012	146	156.383
241	10	0.886029	1.21073	146	155.376
242	10	0.889706	1.22653	146	154.605
243	10	0.893382	1.24809	146	153.552
244	10	0.897059	1.27024	146	152.47
245	10	0.900735	1.28727	146	151.638
246	10	0.904412	1.31058	146	150.5
247	10	0.908088	1.33462	146	149.326
248	10	0.911765	1.35317	146	148.42
249	10	0.915441	1.37866	146	147.176
250	10	0.919118	1.40507	146	145.886
251	10	0.922794	1.42554	146	144.886
252	10	0.926471	1.4538	146	143.506
253	10	0.930147	1.48328	146	142.066
254	10	0.933824	1.50626	146	140.944
255	10	0.9375	1.5382	146	139.385
256	10	0.941176	1.57179	146	137.744
257	10	0.944853	1.59819	146	136.455
258	10	0.948529	1.63524	146	134.646
259	10	0.952206	1.67466	146	132.721
260	10	0.955882	1.70604	146	131.188
261	10	0.959559	1.75069	146	129.008
262	10	0.963235	1.79912	146	126.643
263	10	0.966912	1.83843	146	124.724
264	11	0.970588	1.8957	156.7	121.927
265	12	0.974265	1.95996	167.4	118.789
266	14	0.977941	2.01409	188.8	116.145
267	15	0.981618	2.09693	199.5	112.1
268	18	0.985294	2.19728	231.6	107.199
269	30	0.988971	2.29036	360	102.654
270	41	0.992647	2.45727	477.7	94.5032
271	49	0.996324	2.74777	563.3	80.3175

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 = 271

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	-0.356675	-2.74777	7.55021	0.980059
2	-0.356675	-2.45727	13.5884	1.85651
3	-0.356675	-2.29036	18.8342	2.67342
4	-0.356675	-2.19728	23.6622	3.45714
5	-0.356675	-2.09693	28.0593	4.20506
6	-0.356675	-2.01409	32.1159	4.92344
7	-0.356675	-1.95996	35.9574	5.62251
8	-0.356675	-1.8957	39.551	6.29865
9	-0.356675	-1.83843	42.9308	6.95437
10	-0.356675	-1.79912	46.1677	7.59607
11	-0.356675	-1.75069	49.2326	8.2205
12	-0.356675	-1.70604	52.1431	8.829
13	-0.356675	-1.67466	54.9476	9.42631
14	-0.356675	-1.63524	57.6216	10.0096
15	-0.356675	-1.59819	60.1758	10.5796
16	-0.356675	-1.57179	62.6464	11.1402
17	-0.356675	-1.5382	65.0124	11.6889
18	-0.356675	-1.50626	67.2812	12.2261
19	-0.356675	-1.48328	69.4814	12.7551
20	-0.356675	-1.4538	71.5949	13.2737
21	-0.356675	-1.42554	73.6271	13.7821
22	-0.356675	-1.40507	75.6013	14.2833
23	-0.356675	-1.37866	77.502	14.775
24	-0.356675	-1.35317	79.3331	15.2577
25	-0.356675	-1.33462	81.1143	15.7337
26	-0.356675	-1.31058	82.8319	16.2011
27	-0.356675	-1.28727	84.489	16.6603
28	-0.356675	-1.27024	86.1025	17.1133
29	-0.356675	-1.24809	87.6602	17.5585
30	-0.356675	-1.22653	89.1646	17.996
31	-0.356675	-1.21073	90.6305	18.4278
32	-0.356675	-1.19012	92.0469	18.8523
33	-0.356675	-1.17	93.4158	19.2696
34	-0.356675	-1.15035	94.7391	19.6799
35	-0.356675	-1.1359	96.0293	20.0851
36	-0.356675	-1.11699	97.277	20.4835
37	-0.356675	-1.09847	98.4836	20.8753
38	-0.356675	-1.08482	99.6605	21.2622
39	-0.356675	-1.06694	100.799	21.6427
40	-0.356675	-1.04939	101.9	22.017
41	-0.356675	-1.03643	102.974	22.3867
42	-0.356675	-1.01943	104.013	22.7503
43	-0.356675	-1.00271	105.019	23.1079
44	-0.356675	-0.990356	106	23.4612
45	-0.356675	-0.974114	106.949	23.8086
46	-0.356675	-0.958125	107.867	24.1504
47	-0.356675	-0.946291	108.762	24.4879
48	-0.356675	-0.930718	109.628	24.8198
49	-0.356675	-0.915365	110.466	25.1463
50	-0.356675	-0.903992	111.283	25.4688
51	-0.356675	-0.889006	112.074	25.7858

52	-0.356675	-0.874218	112.838	26.0977
53	-0.356675	-0.863249	113.583	26.4056
54	-0.356675	-0.848786	114.304	26.7083
55	-0.356675	-0.834498	115	27.0059
56	-0.356675	-0.823893	115.679	27.2998
57	-0.356675	-0.809896	116.335	27.5887
58	-0.356675	-0.796056	116.968	27.8726
59	-0.356675	-0.785774	117.586	28.1529
60	-0.356675	-0.772193	118.182	28.4283
61	-0.356675	-0.758753	118.758	28.6989
62	-0.356675	-0.748762	119.318	28.966
63	-0.356675	-0.735557	119.86	29.2283
64	-0.356675	-0.722479	120.382	29.486
65	-0.356675	-0.712751	120.89	29.7402
66	-0.356675	-0.699883	121.379	29.9899
67	-0.356675	-0.687131	121.852	30.235
68	-0.356675	-0.67449	122.306	30.4755
69	-0.356675	-0.665079	122.749	30.7128
70	-0.356675	-0.652622	123.175	30.9455
71	-0.356675	-0.640266	123.585	31.1739
72	0.587787	-0.631062	123.983	30.803
73	0.587787	-0.618872	124.366	30.4392
74	0.693147	-0.606775	124.734	30.0186
75	0.693147	-0.597761	125.091	29.6043
76	0.693147	-0.585815	125.435	29.1982
77	0.741937	-0.573953	125.764	28.7724
78	0.832909	-0.565108	126.083	28.3017
79	0.832909	-0.553384	126.39	27.8408
80	0.875469	-0.541736	126.683	27.3665
81	0.916291	-0.533048	126.967	26.8781
82	0.955511	-0.521527	127.239	26.3798
83	0.955511	-0.510074	127.499	25.8924
84	0.993252	-0.501527	127.751	25.3942
85	1.06471	-0.490189	127.991	24.8723
86	1.09861	-0.478914	128.221	24.3462
87	1.09861	-0.470498	128.442	23.8293
88	1.09861	-0.459327	128.653	23.3247
89	1.16315	-0.448213	128.854	22.8033
90	1.52606	-0.439913	129.047	22.132
91	1.60944	-0.428895	129.231	21.4417
92	1.60944	-0.417928	129.406	20.7691
93	1.60944	-0.409735	129.574	20.1096
94	1.60944	-0.398855	129.733	19.4677
95	1.60944	-0.388022	129.883	18.8432
96	1.82455	-0.379927	130.028	18.15
97	1.94591	-0.369171	130.164	17.4316
98	1.94591	-0.358459	130.293	16.7341
99	1.94591	-0.350451	130.415	16.0522
100	1.94591	-0.33981	130.531	15.3909
101	2.0149	-0.329206	130.639	14.7276
102	2.07944	-0.318639	130.741	14.065
103	2.07944	-0.310738	130.837	13.4189
104	2.07944	-0.300232	130.927	12.7945
105	2.19722	-0.28976	131.011	12.1579
106	2.30259	-0.281926	131.091	11.5087
107	2.30259	-0.271509	131.165	10.8835
108	2.30259	-0.26112	131.233	10.2823
109	2.30259	-0.253347	131.297	9.69894
110	2.30259	-0.243007	131.356	9.13939
111	2.30259	-0.232693	131.41	8.6036
112	2.30259	-0.224974	131.461	8.08558
113	2.30259	-0.214702	131.507	7.59121

114	2.30259	-0.204452		131.549	7.12044
115	2.30259	-0.196779		131.587	6.66734
116	2.30259	-0.186567		131.622	6.23775
117	2.30259	-0.176374		131.653	5.83163
118	2.30259	-0.168741		131.682	5.44309
119	2.30259	-0.158579		131.707	5.07795
120	2.30259	-0.148434		131.729	4.73617
121	2.30259	-0.140835		131.749	4.41188
122	2.30259	-0.130716		131.766	4.1109
123	2.30259	-0.12061	131.78	3.83318	
124	2.30259	-0.113039		131.793	3.5729
125	2.30259	-0.102953		131.804	3.33585
126	2.30259	-0.0928787		131.812	3.12198
127	2.30259	-0.0853288		131.82	2.92551
128	2.30259	-0.0752698		131.825	2.75219
129	2.30259	-0.0652187		131.83	2.60202
130	2.30259	-0.0576847		131.833	2.4692
131	2.30259	-0.0476439		131.835	2.35949
132	2.30259	-0.0376076		131.837	2.2729
133	2.30259	-0.0300838		131.838	2.20363
134	2.30259	-0.0200544		131.838	2.15745
135	2.30259	-0.0100272		131.838	2.13436
136	2.30259	0	131.838	2.13436	
137	2.30259	0.0100272		131.838	2.15745
138	2.30259	0.0200544		131.839	2.20363
139	2.30259	0.0300838		131.839	2.2729
140	2.30259	0.0376076		131.841	2.35949
141	2.30259	0.0476439		131.843	2.4692
142	2.30259	0.0576847		131.846	2.60202
143	2.30259	0.0652187		131.851	2.75219
144	2.30259	0.0752698		131.856	2.92551
145	2.30259	0.0853288		131.864	3.12198
146	2.30259	0.0928787		131.872	3.33585
147	2.30259	0.102953		131.883	3.5729
148	2.30259	0.113039		131.896	3.83318
149	2.30259	0.12061	131.91	4.1109	
150	2.30259	0.130716		131.927	4.41188
151	2.30259	0.140835		131.947	4.73617
152	2.30259	0.148434		131.969	5.07795
153	2.30259	0.158579		131.994	5.44309
154	2.30259	0.168741		132.023	5.83163
155	2.30259	0.176374		132.054	6.23775
156	2.30259	0.186567		132.089	6.66734
157	2.30259	0.196779		132.127	7.12044
158	2.30259	0.204452		132.169	7.59121
159	2.30259	0.214702		132.215	8.08558
160	2.30259	0.224974		132.266	8.6036
161	2.30259	0.232693		132.32	9.13939
162	2.30259	0.243007		132.379	9.69894
163	2.30259	0.253347		132.443	10.2823
164	2.30259	0.26112	132.512	10.8835	
165	2.30259	0.271509		132.585	11.5087
166	2.30259	0.281926		132.665	12.1579
167	2.30259	0.28976	132.749	12.8251	
168	2.30259	0.300232		132.839	13.5164
169	2.30259	0.310738		132.935	14.2319
170	2.30259	0.318639		133.037	14.9656
171	2.30259	0.329206		133.145	15.7236
172	2.30259	0.33981	133.261	16.506	
173	2.30259	0.350451		133.384	17.313
174	2.30259	0.358459		133.512	18.1384
175	2.30259	0.369171		133.648	18.9884

176	2.30259	0.379927		133.793	19.8632
177	2.30259	0.388022		133.943	20.7567
178	2.30259	0.398855		134.102	21.6751
179	2.30259	0.409735		134.27	22.6185
180	2.30259	0.417928		134.445	23.5808
181	2.30259	0.428895		134.629	24.5684
182	2.30259	0.439913		134.822	25.5814
183	2.30259	0.448213		135.023	26.6134
184	2.30259	0.459327		135.234	27.671
185	2.30259	0.470498		135.456	28.7544
186	2.30259	0.478914		135.685	29.8571
187	2.30259	0.490189		135.925	30.9858
188	2.30259	0.501527		136.177	32.1407
189	2.30259	0.510074		136.437	33.3151
190	2.30259	0.521527		136.709	34.516
191	2.30259	0.533048		136.993	35.7434
192	2.30259	0.541736		137.287	36.9908
193	2.30259	0.553384		137.593	38.265
194	2.30259	0.565108		137.912	39.5662
195	2.30259	0.573953		138.242	40.8878
196	2.30259	0.585815		138.585	42.2367
197	2.30259	0.597761		138.942	43.6131
198	2.30259	0.606775		139.31	45.0102
199	2.30259	0.618872		139.693	46.4352
200	2.30259	0.631062		140.091	47.8883
201	2.30259	0.640266		140.501	49.3626
202	2.30259	0.652622		140.927	50.8653
203	2.30259	0.665079		141.37	52.3967
204	2.30259	0.67449	141.825	53.9498	
205	2.30259	0.687131		142.297	55.5319
206	2.30259	0.699883		142.787	57.1435
207	2.30259	0.712751		143.295	58.7846
208	2.30259	0.722479		143.817	60.4482
209	2.30259	0.735557		144.358	62.1419
210	2.30259	0.748762		144.918	63.866
211	2.30259	0.758753		145.494	65.6131
212	2.30259	0.772193		146.09	67.3911
213	2.30259	0.785774		146.708	69.2004
214	2.30259	0.796056		147.341	71.0334
215	2.30259	0.809896		147.997	72.8983
216	2.30259	0.823893		148.676	74.7953
217	2.30259	0.834498		149.373	76.7168
218	2.30259	0.848786		150.093	78.6713
219	2.30259	0.863249		150.838	80.659
220	2.30259	0.874218		151.602	82.6719
221	2.30259	0.889006		152.393	84.7189
222	2.30259	0.903992		153.21	86.8004
223	2.30259	0.915365		154.048	88.9082
224	2.30259	0.930718		154.914	91.0512
225	2.30259	0.946291		155.81	93.2301
226	2.30259	0.958125		156.728	95.4363
227	2.30259	0.974114		157.676	97.6793
228	2.30259	0.990356		158.657	99.9597
229	2.30259	1.00271	159.663	102.268	
230	2.30259	1.01943	160.702	104.616	
231	2.30259	1.03643	161.776	107.002	
232	2.30259	1.04939	162.877	109.419	
233	2.30259	1.06694	164.016	111.875	
234	2.30259	1.08482	165.193	114.373	
235	2.30259	1.09847	166.399	116.903	
236	2.30259	1.11699	167.647	119.474	
237	2.30259	1.1359	168.937	122.09	

238	2.30259	1.15035	170.26	124.739
239	2.30259	1.17	171.629	127.433
240	2.30259	1.19012	173.046	130.173
241	2.30259	1.21073	174.512	132.961
242	2.30259	1.22653	176.016	135.785
243	2.30259	1.24809	177.574	138.659
244	2.30259	1.27024	179.187	141.584
245	2.30259	1.28727	180.844	144.548
246	2.30259	1.31058	182.562	147.566
247	2.30259	1.33462	184.343	150.639
248	2.30259	1.35317	186.174	153.754
249	2.30259	1.37866	188.075	156.929
250	2.30259	1.40507	190.049	160.164
251	2.30259	1.42554	192.081	163.447
252	2.30259	1.4538	194.195	166.794
253	2.30259	1.48328	196.395	170.21
254	2.30259	1.50626	198.664	173.678
255	2.30259	1.5382	201.03	177.22
256	2.30259	1.57179	203.5	180.839
257	2.30259	1.59819	206.054	184.519
258	2.30259	1.63524	208.728	188.284
259	2.30259	1.67466	211.533	192.14
260	2.30259	1.70604	214.444	196.068
261	2.30259	1.75069	217.508	200.1
262	2.30259	1.79912	220.745	204.242
263	2.30259	1.83843	224.125	208.475
264	2.3979	1.8957	227.719	213.021
265	2.48491	1.95996	231.56	217.891
266	2.63906	2.01409	235.617	223.207
267	2.70805	2.09693	240.014	228.885
268	2.89037	2.19728	244.842	235.236
269	3.4012	2.29036	250.088	243.026
270	3.71357	2.45727	256.126	252.151
271	3.89182	2.74777	263.676	262.845

Data Set Standard Deviation = 1.18226
Numerator = 69087.6
Denominator = 99508.5
W Statistic = 0.694289 = 69087.6 / 99508.5

5% Critical value of 0.976 exceeds 0.694289
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.694289
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 = 0.831948
0.831948 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	-0.356675	0.00367647	-2.74777	107.836	348.683
2	-0.356675	0.00735294	-2.45727	107.836	334.497
3	-0.356675	0.0110294	-2.29036	107.836	326.346
4	-0.356675	0.0147059	-2.19728	107.836	321.801
5	-0.356675	0.0183824	-2.09693	107.836	316.9
6	-0.356675	0.0220588	-2.01409	107.836	312.855
7	-0.356675	0.0257353	-1.95996	107.836	310.211
8	-0.356675	0.0294118	-1.8957	107.836	307.073
9	-0.356675	0.0330882	-1.83843	107.836	304.276
10	-0.356675	0.0367647	-1.79912	107.836	302.357
11	-0.356675	0.0404412	-1.75069	107.836	299.992
12	-0.356675	0.0441176	-1.70604	107.836	297.812
13	-0.356675	0.0477941	-1.67466	107.836	296.279
14	-0.356675	0.0514706	-1.63524	107.836	294.354
15	-0.356675	0.0551471	-1.59819	107.836	292.545
16	-0.356675	0.0588235	-1.57179	107.836	291.256
17	-0.356675	0.0625	-1.5382	107.836	289.615
18	-0.356675	0.0661765	-1.50626	107.836	288.056
19	-0.356675	0.0698529	-1.48328	107.836	286.934
20	-0.356675	0.0735294	-1.4538	107.836	285.494
21	-0.356675	0.0772059	-1.42554	107.836	284.114
22	-0.356675	0.0808824	-1.40507	107.836	283.114
23	-0.356675	0.0845588	-1.37866	107.836	281.824
24	-0.356675	0.0882353	-1.35317	107.836	280.58
25	-0.356675	0.0919118	-1.33462	107.836	279.674
26	-0.356675	0.0955882	-1.31058	107.836	278.5
27	-0.356675	0.0992647	-1.28727	107.836	277.362
28	-0.356675	0.102941	-1.27024	107.836	276.53
29	-0.356675	0.106618	-1.24809	107.836	275.448
30	-0.356675	0.110294	-1.22653	107.836	274.395
31	-0.356675	0.113971	-1.21073	107.836	273.624
32	-0.356675	0.117647	-1.19012	107.836	272.617
33	-0.356675	0.121324	-1.17	107.836	271.635
34	-0.356675	0.125	-1.15035	107.836	270.675
35	-0.356675	0.128676	-1.1359	107.836	269.97
36	-0.356675	0.132353	-1.11699	107.836	269.046
37	-0.356675	0.136029	-1.09847	107.836	268.142
38	-0.356675	0.139706	-1.08482	107.836	267.476
39	-0.356675	0.143382	-1.06694	107.836	266.602
40	-0.356675	0.147059	-1.04939	107.836	265.745
41	-0.356675	0.150735	-1.03643	107.836	265.112
42	-0.356675	0.154412	-1.01943	107.836	264.282
43	-0.356675	0.158088	-1.00271	107.836	263.466
44	-0.356675	0.161765	-0.990356	107.836	262.862
45	-0.356675	0.165441	-0.974114	107.836	262.069
46	-0.356675	0.169118	-0.958125	107.836	261.288
47	-0.356675	0.172794	-0.946291	107.836	260.711
48	-0.356675	0.176471	-0.930718	107.836	259.95

49	-0.356675	0.180147	-0.915365	107.836	259.2
50	-0.356675	0.183824	-0.903992	107.836	258.645
51	-0.356675	0.1875	-0.889006	107.836	257.913
52	-0.356675	0.191176	-0.874218	107.836	257.191
53	-0.356675	0.194853	-0.863249	107.836	256.655
54	-0.356675	0.198529	-0.848786	107.836	255.949
55	-0.356675	0.202206	-0.834498	107.836	255.251
56	-0.356675	0.205882	-0.823893	107.836	254.733
57	-0.356675	0.209559	-0.809896	107.836	254.05
58	-0.356675	0.213235	-0.796056	107.836	253.374
59	-0.356675	0.216912	-0.785774	107.836	252.872
60	-0.356675	0.220588	-0.772193	107.836	252.209
61	-0.356675	0.224265	-0.758753	107.836	251.552
62	-0.356675	0.227941	-0.748762	107.836	251.065
63	-0.356675	0.231618	-0.735557	107.836	250.42
64	-0.356675	0.235294	-0.722479	107.836	249.781
65	-0.356675	0.238971	-0.712751	107.836	249.306
66	-0.356675	0.242647	-0.699883	107.836	248.678
67	-0.356675	0.246324	-0.687131	107.836	248.055
68	-0.356675	0.25	-0.67449	107.836	247.438
69	-0.356675	0.253676	-0.665079	107.836	246.978
70	-0.356675	0.257353	-0.652622	107.836	246.37
71	-0.356675	0.261029	-0.640266	107.836	245.766
72	0.587787	0.264706	-0.631062	208.893	245.317
73	0.587787	0.268382	-0.618872	208.893	244.722
74	0.693147	0.272059	-0.606775	220.167	244.131
75	0.693147	0.275735	-0.597761	220.167	243.691
76	0.693147	0.279412	-0.585815	220.167	243.107
77	0.741937	0.283088	-0.573953	225.387	242.528
78	0.832909	0.286765	-0.565108	235.121	242.096
79	0.832909	0.290441	-0.553384	235.121	241.524
80	0.875469	0.294118	-0.541736	239.675	240.955
81	0.916291	0.297794	-0.533048	244.043	240.531
82	0.955511	0.301471	-0.521527	248.24	239.968
83	0.955511	0.305147	-0.510074	248.24	239.409
84	0.993252	0.308824	-0.501527	252.278	238.991
85	1.06471	0.3125	-0.490189	259.924	238.438
86	1.09861	0.316176	-0.478914	263.552	237.887
87	1.09861	0.319853	-0.470498	263.552	237.476
88	1.09861	0.323529	-0.459327	263.552	236.93
89	1.16315	0.327206	-0.448213	270.457	236.388
90	1.52606	0.330882	-0.439913	309.288	235.982
91	1.60944	0.334559	-0.428895	318.21	235.444
92	1.60944	0.338235	-0.417928	318.21	234.909
93	1.60944	0.341912	-0.409735	318.21	234.509
94	1.60944	0.345588	-0.398855	318.21	233.977
95	1.60944	0.349265	-0.388022	318.21	233.448
96	1.82455	0.352941	-0.379927	341.227	233.053
97	1.94591	0.356618	-0.369171	354.212	232.528
98	1.94591	0.360294	-0.358459	354.212	232.005
99	1.94591	0.363971	-0.350451	354.212	231.614
100	1.94591	0.367647	-0.33981	354.212	231.094
101	2.0149	0.371324	-0.329206	361.595	230.576
102	2.07944	0.375	-0.318639	368.5	230.06
103	2.07944	0.378676	-0.310738	368.5	229.674
104	2.07944	0.382353	-0.300232	368.5	229.161
105	2.19722	0.386029	-0.28976	381.103	228.65
106	2.30259	0.389706	-0.281926	392.377	228.267
107	2.30259	0.393382	-0.271509	392.377	227.759
108	2.30259	0.397059	-0.26112	392.377	227.251
109	2.30259	0.400735	-0.253347	392.377	226.872
110	2.30259	0.404412	-0.243007	392.377	226.367

111	2.30259	0.408088	-0.232693	392.377	225.863
112	2.30259	0.411765	-0.224974	392.377	225.486
113	2.30259	0.415441	-0.214702	392.377	224.985
114	2.30259	0.419118	-0.204452	392.377	224.484
115	2.30259	0.422794	-0.196779	392.377	224.109
116	2.30259	0.426471	-0.186567	392.377	223.611
117	2.30259	0.430147	-0.176374	392.377	223.113
118	2.30259	0.433824	-0.168741	392.377	222.74
119	2.30259	0.4375	-0.158579	392.377	222.244
120	2.30259	0.441176	-0.148434	392.377	221.749
121	2.30259	0.444853	-0.140835	392.377	221.377
122	2.30259	0.448529	-0.130716	392.377	220.883
123	2.30259	0.452206	-0.12061	392.377	220.39
124	2.30259	0.455882	-0.113039	392.377	220.02
125	2.30259	0.459559	-0.102953	392.377	219.528
126	2.30259	0.463235	-0.0928787	392.377	219.036
127	2.30259	0.466912	-0.0853288	392.377	218.667
128	2.30259	0.470588	-0.0752698	392.377	218.176
129	2.30259	0.474265	-0.0652187	392.377	217.685
130	2.30259	0.477941	-0.0576847	392.377	217.317
131	2.30259	0.481618	-0.0476439	392.377	216.827
132	2.30259	0.485294	-0.0376076	392.377	216.337
133	2.30259	0.488971	-0.0300838	392.377	215.969
134	2.30259	0.492647	-0.0200544	392.377	215.479
135	2.30259	0.496324	-0.0100272	392.377	214.99
136	2.30259	0.5	0	392.377	214.5
137	2.30259	0.503676	0.0100272	392.377	214.01
138	2.30259	0.507353	0.0200544	392.377	213.521
139	2.30259	0.511029	0.0300838	392.377	213.031
140	2.30259	0.514706	0.0376076	392.377	212.663
141	2.30259	0.518382	0.0476439	392.377	212.173
142	2.30259	0.522059	0.0576847	392.377	211.683
143	2.30259	0.525735	0.0652187	392.377	211.315
144	2.30259	0.529412	0.0752698	392.377	210.824
145	2.30259	0.533088	0.0853288	392.377	210.333
146	2.30259	0.536765	0.0928787	392.377	209.964
147	2.30259	0.540441	0.102953	392.377	209.472
148	2.30259	0.544118	0.113039	392.377	208.98
149	2.30259	0.547794	0.12061	392.377	208.61
150	2.30259	0.551471	0.130716	392.377	208.117
151	2.30259	0.555147	0.140835	392.377	207.623
152	2.30259	0.558824	0.148434	392.377	207.251
153	2.30259	0.5625	0.158579	392.377	206.756
154	2.30259	0.566176	0.168741	392.377	206.26
155	2.30259	0.569853	0.176374	392.377	205.887
156	2.30259	0.573529	0.186567	392.377	205.389
157	2.30259	0.577206	0.196779	392.377	204.891
158	2.30259	0.580882	0.204452	392.377	204.516
159	2.30259	0.584559	0.214702	392.377	204.015
160	2.30259	0.588235	0.224974	392.377	203.514
161	2.30259	0.591912	0.232693	392.377	203.137
162	2.30259	0.595588	0.243007	392.377	202.633
163	2.30259	0.599265	0.253347	392.377	202.128
164	2.30259	0.602941	0.26112	392.377	201.749
165	2.30259	0.606618	0.271509	392.377	201.241
166	2.30259	0.610294	0.281926	392.377	200.733
167	2.30259	0.613971	0.28976	392.377	200.35
168	2.30259	0.617647	0.300232	392.377	199.839
169	2.30259	0.621324	0.310738	392.377	199.326
170	2.30259	0.625	0.318639	392.377	198.94
171	2.30259	0.628676	0.329206	392.377	198.424
172	2.30259	0.632353	0.33981	392.377	197.906

173	2.30259	0.636029	0.350451	392.377	197.386
174	2.30259	0.639706	0.358459	392.377	196.995
175	2.30259	0.643382	0.369171	392.377	196.472
176	2.30259	0.647059	0.379927	392.377	195.947
177	2.30259	0.650735	0.388022	392.377	195.552
178	2.30259	0.654412	0.398855	392.377	195.023
179	2.30259	0.658088	0.409735	392.377	194.491
180	2.30259	0.661765	0.417928	392.377	194.091
181	2.30259	0.665441	0.428895	392.377	193.556
182	2.30259	0.669118	0.439913	392.377	193.018
183	2.30259	0.672794	0.448213	392.377	192.612
184	2.30259	0.676471	0.459327	392.377	192.07
185	2.30259	0.680147	0.470498	392.377	191.524
186	2.30259	0.683824	0.478914	392.377	191.113
187	2.30259	0.6875	0.490189	392.377	190.562
188	2.30259	0.691176	0.501527	392.377	190.009
189	2.30259	0.694853	0.510074	392.377	189.591
190	2.30259	0.698529	0.521527	392.377	189.032
191	2.30259	0.702206	0.533048	392.377	188.469
192	2.30259	0.705882	0.541736	392.377	188.045
193	2.30259	0.709559	0.553384	392.377	187.476
194	2.30259	0.713235	0.565108	392.377	186.904
195	2.30259	0.716912	0.573953	392.377	186.472
196	2.30259	0.720588	0.585815	392.377	185.893
197	2.30259	0.724265	0.597761	392.377	185.309
198	2.30259	0.727941	0.606775	392.377	184.869
199	2.30259	0.731618	0.618872	392.377	184.278
200	2.30259	0.735294	0.631062	392.377	183.683
201	2.30259	0.738971	0.640266	392.377	183.234
202	2.30259	0.742647	0.652622	392.377	182.63
203	2.30259	0.746324	0.665079	392.377	182.022
204	2.30259	0.75	0.67449	392.377	181.562
205	2.30259	0.753676	0.687131	392.377	180.945
206	2.30259	0.757353	0.699883	392.377	180.322
207	2.30259	0.761029	0.712751	392.377	179.694
208	2.30259	0.764706	0.722479	392.377	179.219
209	2.30259	0.768382	0.735557	392.377	178.58
210	2.30259	0.772059	0.748762	392.377	177.935
211	2.30259	0.775735	0.758753	392.377	177.448
212	2.30259	0.779412	0.772193	392.377	176.791
213	2.30259	0.783088	0.785774	392.377	176.128
214	2.30259	0.786765	0.796056	392.377	175.626
215	2.30259	0.790441	0.809896	392.377	174.95
216	2.30259	0.794118	0.823893	392.377	174.267
217	2.30259	0.797794	0.834498	392.377	173.749
218	2.30259	0.801471	0.848786	392.377	173.051
219	2.30259	0.805147	0.863249	392.377	172.345
220	2.30259	0.808824	0.874218	392.377	171.809
221	2.30259	0.8125	0.889006	392.377	171.087
222	2.30259	0.816176	0.903992	392.377	170.355
223	2.30259	0.819853	0.915365	392.377	169.8
224	2.30259	0.823529	0.930718	392.377	169.05
225	2.30259	0.827206	0.946291	392.377	168.289
226	2.30259	0.830882	0.958125	392.377	167.712
227	2.30259	0.834559	0.974114	392.377	166.931
228	2.30259	0.838235	0.990356	392.377	166.138
229	2.30259	0.841912	1.00271	392.377	165.534
230	2.30259	0.845588	1.01943	392.377	164.718
231	2.30259	0.849265	1.03643	392.377	163.888
232	2.30259	0.852941	1.04939	392.377	163.255
233	2.30259	0.856618	1.06694	392.377	162.398
234	2.30259	0.860294	1.08482	392.377	161.524

235	2.30259	0.863971		1.09847	392.377	160.858
236	2.30259	0.867647		1.11699	392.377	159.954
237	2.30259	0.871324		1.1359	392.377	159.03
238	2.30259	0.875	1.15035	392.377	158.325	
239	2.30259	0.878676		1.17	392.377	157.365
240	2.30259	0.882353		1.19012	392.377	156.383
241	2.30259	0.886029		1.21073	392.377	155.376
242	2.30259	0.889706		1.22653	392.377	154.605
243	2.30259	0.893382		1.24809	392.377	153.552
244	2.30259	0.897059		1.27024	392.377	152.47
245	2.30259	0.900735		1.28727	392.377	151.638
246	2.30259	0.904412		1.31058	392.377	150.5
247	2.30259	0.908088		1.33462	392.377	149.326
248	2.30259	0.911765		1.35317	392.377	148.42
249	2.30259	0.915441		1.37866	392.377	147.176
250	2.30259	0.919118		1.40507	392.377	145.886
251	2.30259	0.922794		1.42554	392.377	144.886
252	2.30259	0.926471		1.4538	392.377	143.506
253	2.30259	0.930147		1.48328	392.377	142.066
254	2.30259	0.933824		1.50626	392.377	140.944
255	2.30259	0.9375	1.5382	392.377	139.385	
256	2.30259	0.941176		1.57179	392.377	137.744
257	2.30259	0.944853		1.59819	392.377	136.455
258	2.30259	0.948529		1.63524	392.377	134.646
259	2.30259	0.952206		1.67466	392.377	132.721
260	2.30259	0.955882		1.70604	392.377	131.188
261	2.30259	0.959559		1.75069	392.377	129.008
262	2.30259	0.963235		1.79912	392.377	126.643
263	2.30259	0.966912		1.83843	392.377	124.724
264	2.3979	0.970588		1.8957	402.575	121.927
265	2.48491	0.974265		1.95996	411.885	118.789
266	2.63906	0.977941		2.01409	428.379	116.145
267	2.70805	0.981618		2.09693	435.761	112.1
268	2.89037	0.985294		2.19728	455.27	107.199
269	3.4012	0.988971		2.29036	509.928	102.654
270	3.71357	0.992647		2.45727	543.352	94.5032
271	3.89182	0.996324		2.74777	562.425	80.3175

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
LMW-4	1/16/1998	ND<2.30259	114.5
	3/16/1999	ND<2.30259	114.5
	9/23/1999	ND<2.30259	114.5
	3/14/2000	ND<2.30259	114.5
	9/23/2003	ND<2.30259	114.5
	3/10/2004	ND<2.30259	114.5
	10/12/2004	ND<2.30259	114.5
	4/1/2005	ND<2.30259	114.5
	10/26/2005	ND<2.30259	114.5
	6/19/2006	ND<2.30259	114.5
	11/18/2006	ND<2.30259	114.5
	6/2/2007	2.70805	267
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	ND<-0.356675 U	114.5
	11/16/2009	ND<-0.356675 U	114.5
	6/30/2010	ND<-0.356675 U	114.5
	11/17/2010	ND<-0.356675 U	114.5
	7/6/2011	ND<-0.356675 U	114.5
	11/22/2011	ND<-0.356675 U	114.5
	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 2671.5
Rank Mean = 121.432

Background Rank Sum = 2671.5
Background Rank Mean = 121.432

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-9S	11/18/2006	ND<2.30259	114.5
	6/2/2007	1.60944	248
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	ND<-0.356675 U	114.5
	11/16/2009	ND<-0.356675 U	114.5
	11/16/2009	ND<-0.356675 U	114.5
	11/16/2009	ND<-0.356675 U	114.5
	6/30/2010	ND<-0.356675 U	114.5
	11/17/2010	1.82455	253
	7/6/2011	ND<-0.356675 U	114.5
	11/22/2011	ND<-0.356675 U	114.5
	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 1875
Rank Mean = 133.929

LMW-10	3/14/2000	ND<2.30259	114.5

	9/23/2003	ND<2.30259	114.5
	3/10/2004	ND<2.30259	114.5
	10/12/2004	ND<2.30259	114.5
	4/1/2005	ND<2.30259	114.5
	10/26/2005	ND<2.30259	114.5
	6/19/2006	2.07944 J	259
	11/18/2006	ND<2.30259	114.5
	6/2/2007	1.09861 J	243
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	ND<-0.356675 U	114.5
	11/16/2009	ND<-0.356675 U	114.5
	6/30/2010	ND<-0.356675 U	114.5
	11/17/2010	ND<-0.356675 U	114.5
	7/6/2011	ND<-0.356675 U	114.5
	11/22/2011	ND<-0.356675 U	114.5
	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 2448.5
Rank Mean = 128.868

LMW-14R	6/2/2007	0.693147 J	231
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	ND<-0.356675 U	114.5
	6/30/2010	ND<-0.356675 U	114.5
	11/17/2010	ND<-0.356675 U	114.5
	7/6/2011	ND<-0.356675 U	114.5
	11/22/2011	ND<-0.356675 U	114.5
	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 1261.5
Rank Mean = 126.15

LMW-15R	11/18/2006	ND<2.30259	114.5
	6/2/2007	ND<2.30259	114.5
	11/15/2007	ND<2.30259	114.5
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	2.0149	258
	6/30/2010	ND<-0.356675 U	114.5
	11/17/2010	ND<-0.356675 U	114.5
	7/6/2011	ND<-0.356675 U	114.5
	11/22/2011	ND<-0.356675 U	114.5
	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 1746.5
Rank Mean = 124.75

LMW-16	11/18/2006	ND<2.30259	114.5
	6/2/2007	3.71357	270
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	ND<-0.356675 U	114.5
	11/16/2009	ND<-0.356675 U	114.5
	6/30/2010	ND<-0.356675 U	114.5
	11/17/2010	ND<-0.356675 U	114.5
	7/6/2011	0.993252 J	241
	11/22/2011	ND<-0.356675 U	114.5

	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 1656
Rank Mean = 138

LMW-3	11/19/1996	ND<2.30259	114.5
	3/24/1997	ND<2.30259	114.5
	1/16/1998	ND<2.30259	114.5
	3/16/1999	ND<2.30259	114.5
	9/23/1999	ND<2.30259	114.5
	3/14/2000	ND<2.30259	114.5
	9/23/2003	ND<2.30259	114.5
	3/10/2004	ND<2.30259	114.5
	10/12/2004	ND<2.30259	114.5
	4/1/2005	ND<2.30259	114.5
	10/26/2005	ND<2.30259	114.5
	6/19/2006	ND<2.30259	114.5
	11/18/2006	ND<2.30259	114.5
	6/2/2007	ND<2.30259	114.5
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	ND<-0.356675 U	114.5
	11/16/2009	ND<-0.356675 U	114.5
	6/30/2010	ND<-0.356675 U	114.5
	11/17/2010	0.587787 J	229
	7/6/2011	ND<-0.356675 U	114.5
	11/22/2011	ND<-0.356675 U	114.5
	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 2862.5
Rank Mean = 119.271

LMW-3s	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 114.5
Rank Mean = 114.5

LMW-6	1/16/1998	ND<2.30259	114.5
	3/16/1999	ND<2.30259	114.5
	9/23/1999	ND<2.30259	114.5
	3/14/2000	ND<2.30259	114.5
	9/23/2003	ND<2.30259	114.5
	3/10/2004	ND<2.30259	114.5
	10/12/2004	ND<2.30259	114.5
	4/1/2005	ND<2.30259	114.5
	10/26/2005	ND<2.30259	114.5
	6/19/2006	ND<2.30259	114.5
	11/18/2006	ND<2.30259	114.5
	6/2/2007	1.09861	244
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	ND<-0.356675 U	114.5
	11/16/2009	ND<-0.356675 U	114.5
	6/30/2010	ND<-0.356675 U	114.5
	11/17/2010	ND<-0.356675 U	114.5
	7/6/2011	ND<-0.356675 U	114.5
	11/22/2011	ND<-0.356675 U	114.5
	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 2648.5
Rank Mean = 120.386

LMW-7	1/16/1998	ND<2.30259	114.5
	3/16/1999	1.94591 J	254

	9/23/1999	3.89182	271
	3/14/2000	ND<2.30259	114.5
	9/23/2003	ND<2.30259	114.5
	3/10/2004	ND<2.30259	114.5
	10/12/2004	ND<2.30259	114.5
	4/1/2005	2.48491 J	265
	10/26/2005	2.89037 J	268
	6/19/2006	2.07944 J	260
	11/18/2006	1.09861 J	245
	6/2/2007	2.63906	266
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	1.06471 J	242
	11/17/2010	ND<-0.356675 U	114.5
	7/6/2011	1.94591	255
	11/22/2011	ND<-0.356675 U	114.5
	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 3585.5
Rank Mean = 179.275

LMW-8	1/16/1998	ND<2.30259	114.5
	3/16/1999	ND<2.30259	114.5
	9/23/1999	1.94591 J	256
	3/14/2000	ND<2.30259	114.5
	9/23/2003	ND<2.30259	114.5
	3/10/2004	ND<2.30259	114.5
	10/12/2004	ND<2.30259	114.5
	4/1/2005	ND<2.30259	114.5
	10/26/2005	ND<2.30259	114.5
	6/19/2006	ND<2.30259	114.5
	11/18/2006	ND<2.30259	114.5
	6/2/2007	ND<2.30259	114.5
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5
	6/11/2009	ND<-0.356675 U	114.5
	11/16/2009	ND<-0.356675 U	114.5
	6/30/2010	ND<-0.356675 U	114.5
	11/17/2010	ND<-0.356675 U	114.5
	7/6/2011	ND<-0.356675 U	114.5
	11/22/2011	ND<-0.356675 U	114.5
	5/16/2012	ND<-0.356675 U	114.5

Rank Sum = 2660.5
Rank Mean = 120.932

LMW-9D	11/18/2006	2.30259 J	263
	6/2/2007	1.60944	249
	11/15/2007	ND<2.30259	114.5
	5/20/2008	1.60944 J	250
	11/20/2008	1.60944 J	251
	6/11/2009	0.916291 J	238
	11/16/2009	0.832909 J	235
	6/30/2010	0.587787 J	230
	11/17/2010	0.832909 J	236
	7/6/2011	0.955511 J	239
	11/22/2011	0.693147 J	232
	5/16/2012	0.875469 J	237

Rank Sum = 2774.5
Rank Mean = 231.208

LMW-9	1/16/1998	ND<2.30259	114.5

	3/16/1999	ND<2.30259		114.5
	9/23/1999	ND<2.30259		114.5
	3/14/2000	ND<2.30259		114.5
	9/23/2003	ND<2.30259		114.5
	3/10/2004	ND<2.30259		114.5
	10/12/2004	ND<2.30259		114.5
	4/1/2005	2.07944	J	261
	10/26/2005	2.3979	J	264
	6/19/2006	3.4012		269
	11/18/2006	ND<2.30259		114.5
	6/2/2007	1.94591		257
	11/15/2007	ND<2.30259		114.5
	5/20/2008	0.693147	J	233
	11/20/2008	ND<2.30259		114.5
	6/11/2009	0.955511	J	240
	11/16/2009	ND<-0.356675	U	114.5
	6/30/2010	ND<-0.356675	U	114.5
	11/17/2010	1.60944		252
	7/6/2011	ND<-0.356675	U	114.5
	11/22/2011	ND<-0.356675	U	114.5
	5/16/2012	ND<-0.356675	U	114.5

Rank Sum = 3493.5
Rank Mean = 158.795

LMW-3S	11/18/2006	ND<2.30259		114.5
	6/2/2007	2.19722		262
	11/15/2007	ND<2.30259		114.5
	5/20/2008	ND<2.30259		114.5
	11/20/2008	ND<2.30259		114.5
	6/11/2009	0.741937	J	234
	11/16/2009	ND<-0.356675	U	114.5
	6/30/2010	ND<-0.356675	U	114.5
	11/17/2010	1.52606	J	247
	7/6/2011	1.16315	J	246
	11/22/2011	ND<-0.356675	U	114.5

Rank Sum = 1790.5
Rank Mean = 162.773

LMW-12	3/14/2000	ND<2.30259		114.5
	9/23/2003	ND<2.30259		114.5
	3/10/2004	ND<2.30259		114.5
	10/12/2004	ND<2.30259		114.5
	4/1/2005	ND<2.30259		114.5
	10/26/2005	ND<2.30259		114.5
	6/19/2006	ND<2.30259		114.5
	6/2/2007	ND<2.30259		114.5
	11/15/2007	ND<2.30259		114.5
	5/20/2008	ND<2.30259		114.5
	11/20/2008	ND<2.30259		114.5

Rank Sum = 1259.5
Rank Mean = 114.5

MW-5	1/16/1998	ND<2.30259		114.5
	3/16/1999	ND<2.30259		114.5
	9/23/1999	ND<2.30259		114.5
	3/14/2000	ND<2.30259		114.5
	9/23/2003	ND<2.30259		114.5
	3/10/2004	ND<2.30259		114.5
	10/12/2004	ND<2.30259		114.5
	4/1/2005	ND<2.30259		114.5
	10/26/2005	ND<2.30259		114.5
	6/19/2006	ND<2.30259		114.5

	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5

Rank Sum = 1488.5
Rank Mean = 114.5

LMW-11	3/14/2000	ND<2.30259	114.5
	9/23/2003	ND<2.30259	114.5
	3/10/2004	ND<2.30259	114.5
	10/12/2004	ND<2.30259	114.5
	4/1/2005	ND<2.30259	114.5
	10/26/2005	ND<2.30259	114.5
	6/19/2006	ND<2.30259	114.5
	6/2/2007	ND<2.30259	114.5
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5

Rank Sum = 1259.5
Rank Mean = 114.5

LMW-13	3/14/2000	ND<2.30259	114.5
	9/23/2003	ND<2.30259	114.5
	3/10/2004	ND<2.30259	114.5
	10/12/2004	ND<2.30259	114.5
	4/1/2005	ND<2.30259	114.5
	10/26/2005	ND<2.30259	114.5
	6/19/2006	ND<2.30259	114.5
	6/2/2007	ND<2.30259	114.5
	11/15/2007	ND<2.30259	114.5
	5/20/2008	ND<2.30259	114.5
	11/20/2008	ND<2.30259	114.5

Rank Sum = 1259.5
Rank Mean = 114.5

Calculation Results:

Kruskal-Wallis H Statistic = 34.6483
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 85.6608
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
34.6483 > 27.5871 indicating a significant group difference at 5% significance level
85.6608 > 27.5871 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 121.432

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-9S	**133.929**	**12.4968**	**62.3344**
LMW-10	**128.868**	**7.4366**	**57.1026**
LMW-14R	**126.15**	**4.71818**	**69.537**
LMW-15R	**124.75**	**3.31818**	**62.3344**
LMW-16	**138**	**16.5682**	**65.4319**
LMW-3	**119.271**	**-2.16098**	**53.8163**
LMW-3s	**114.5**	**-6.93182**	**186.425**
LMW-6	**120.386**	**-1.04545**	**54.9738**
LMW-7	**179.275**	**57.8432**	**56.3314**
LMW-8	**120.932**	**-0.5**	**54.9738**
LMW-9D	**231.208**	**109.777**	**65.4319**
LMW-9	**158.795**	**37.3636**	**54.9738**
LMW-3S	**162.773**	**41.3409**	**67.3289**
LMW-12	**114.5**	**-6.93182**	**67.3289**

MW-5	**114.5**	**-6.9318**	**63.7827**
LMW-11	**114.5**	**-6.9318**	**67.3289**
LMW-13	**114.5**	**-6.9318**	**67.3289**

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815

Mean background rank is 121.432

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-9S	**133.929**	**12.4968**	**77.1202**
LMW-10	**128.868**	**7.4366**	**70.6473**
LMW-14R	**126.15**	**4.71818**	**86.0311**
LMW-15R	**124.75**	**3.31818**	**77.1202**
LMW-16	**138**	**16.5682**	**80.9524**
LMW-3	**119.271**	**-2.16098**	**66.5816**
LMW-3s	**114.5**	**-6.93182**	**230.645**
LMW-6	**120.386**	**-1.04545**	**68.0136**
LMW-7	**179.275**	**57.8432**	**69.6932**
LMW-8	**120.932**	**-0.5**	**68.0136**
LMW-9D	**231.208**	**109.777**	**80.9524**
LMW-9	**158.795**	**37.3636**	**68.0136**
LMW-3S	**162.773**	**41.3409**	**83.2993**
LMW-12	**114.5**	**-6.9318**	**83.2993**
MW-5	**114.5**	**-6.9318**	**78.912**
LMW-11	**114.5**	**-6.9318**	**83.2993**
LMW-13	**114.5**	**-6.9318**	**83.2993**

Mann-Kendall Trend Analysis
Parameter: Vanadium
Location: LMW-7
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives		Negatives	
1.94591 J		ND<2.30259	-0.356675		0	1
3.89182		ND<2.30259	1.58924	1	1	
ND<2.30259		ND<2.30259	0	1	1	
ND<2.30259		ND<2.30259	0	1	1	
ND<2.30259		ND<2.30259	0	1	1	
ND<2.30259		ND<2.30259	0	1	1	
2.48491 J		ND<2.30259	0.182322		2	1
2.89037 J		ND<2.30259	0.587787		3	1
2.07944 J		ND<2.30259	-0.223144		3	2
1.09861 J		ND<2.30259	-1.203973		3	
2.63906		ND<2.30259	0.336472		4	3
ND<2.30259		ND<2.30259	0	4	3	
ND<2.30259		ND<2.30259	0	4	3	
ND<2.30259		ND<2.30259	0	4	3	
1.06471 J		ND<2.30259	-1.237874		4	
ND<-0.356675 U		ND<2.30259	-2.659264		5	
1.94591		ND<2.30259	-0.356675		4	6
ND<-0.356675 U		ND<2.30259	-2.659264		7	
ND<-0.356675 U		ND<2.30259	-2.659264		8	
3.89182		1.94591 J	1.94591	5	8	
ND<2.30259		1.94591 J	0.356675		6	8
ND<2.30259		1.94591 J	0.356675		7	8
ND<2.30259		1.94591 J	0.356675		8	8
ND<2.30259		1.94591 J	0.356675		9	8
2.48491 J		1.94591 J	0.538997		10	8
2.89037 J		1.94591 J	0.944462		11	8
2.07944 J		1.94591 J	0.133531		12	8
1.09861 J		1.94591 J	-0.847298		12	9
2.63906		1.94591 J	0.693147		13	9
ND<2.30259		1.94591 J	0.356675		14	9
ND<2.30259		1.94591 J	0.356675		15	9
ND<2.30259		1.94591 J	0.356675		16	9
1.06471 J		1.94591 J	-0.881199		16	10
ND<-0.356675 U		1.94591 J	-2.302591	6	11	
1.94591		1.94591 J	0	16	11	
ND<-0.356675 U		1.94591 J	-2.302591	6	12	
ND<-0.356675 U		1.94591 J	-2.302591	6	13	
ND<2.30259		3.89182	-1.589241	6	14	
ND<2.30259		3.89182	-1.589241	6	15	
ND<2.30259		3.89182	-1.589241	6	16	
ND<2.30259		3.89182	-1.589241	6	17	
2.48491 J		3.89182	-1.406911	6	18	
2.89037 J		3.89182	-1.001451	6	19	
2.07944 J		3.89182	-1.812381	6	20	
1.09861 J		3.89182	-2.793211	6	21	
2.63906		3.89182	-1.252761	6	22	
ND<2.30259		3.89182	-1.589241	6	23	
ND<2.30259		3.89182	-1.589241	6	24	

ND<2.30259	3.89182	-1.589241	6	25	
1.06471 J	3.89182	-2.827111	6	26	
ND<-0.356675 U	3.89182	-4.2485	16	27	
1.94591	3.89182	-1.945911	6	28	
ND<-0.356675 U	3.89182	-4.2485	16	29	
ND<-0.356675 U	3.89182	-4.2485	16	30	
ND<2.30259	ND<2.30259	0	16	30	
ND<2.30259	ND<2.30259	0	16	30	
ND<2.30259	ND<2.30259	0	16	30	
2.48491 J	ND<2.30259	0.182322		17	30
2.89037 J	ND<2.30259	0.587787		18	30
2.07944 J	ND<2.30259	-0.223144		18	31
1.09861 J	ND<2.30259	-1.203971	8	32	
2.63906	ND<2.30259	0.336472		19	32
ND<2.30259	ND<2.30259	0	19	32	
ND<2.30259	ND<2.30259	0	19	32	
ND<2.30259	ND<2.30259	0	19	32	
1.06471 J	ND<2.30259	-1.237871	9	33	
ND<-0.356675 U	ND<2.30259	-2.659261	9	34	
1.94591	ND<2.30259	-0.356675		19	35
ND<-0.356675 U	ND<2.30259	-2.659261	9	36	
ND<-0.356675 U	ND<2.30259	-2.659261	9	37	
ND<2.30259	ND<2.30259	0	19	37	
ND<2.30259	ND<2.30259	0	19	37	
2.48491 J	ND<2.30259	0.182322		20	37
2.89037 J	ND<2.30259	0.587787		21	37
2.07944 J	ND<2.30259	-0.223144		21	38
1.09861 J	ND<2.30259	-1.203972	1	39	
2.63906	ND<2.30259	0.336472		22	39
ND<2.30259	ND<2.30259	0	22	39	
ND<2.30259	ND<2.30259	0	22	39	
ND<2.30259	ND<2.30259	0	22	39	
1.06471 J	ND<2.30259	-1.237872	2	40	
ND<-0.356675 U	ND<2.30259	-2.659262	2	41	
1.94591	ND<2.30259	-0.356675		22	42
ND<-0.356675 U	ND<2.30259	-2.659262	2	43	
ND<-0.356675 U	ND<2.30259	-2.659262	2	44	
ND<2.30259	ND<2.30259	0	22	44	
2.48491 J	ND<2.30259	0.182322		23	44
2.89037 J	ND<2.30259	0.587787		24	44
2.07944 J	ND<2.30259	-0.223144		24	45
1.09861 J	ND<2.30259	-1.203972	4	46	
2.63906	ND<2.30259	0.336472		25	46
ND<2.30259	ND<2.30259	0	25	46	
ND<2.30259	ND<2.30259	0	25	46	
ND<2.30259	ND<2.30259	0	25	46	
1.06471 J	ND<2.30259	-1.237872	5	47	
ND<-0.356675 U	ND<2.30259	-2.659262	5	48	
1.94591	ND<2.30259	-0.356675		25	49
ND<-0.356675 U	ND<2.30259	-2.659262	5	50	
ND<-0.356675 U	ND<2.30259	-2.659262	5	51	
2.48491 J	ND<2.30259	0.182322		26	51
2.89037 J	ND<2.30259	0.587787		27	51
2.07944 J	ND<2.30259	-0.223144		27	52
1.09861 J	ND<2.30259	-1.203972	7	53	
2.63906	ND<2.30259	0.336472		28	53
ND<2.30259	ND<2.30259	0	28	53	
ND<2.30259	ND<2.30259	0	28	53	

ND<2.30259	ND<2.30259	0	28	53	
1.06471 J	ND<2.30259	-1.2378	28	54	
ND<-0.356675 U	ND<2.30259	-2.6592	28	55	
1.94591	ND<2.30259	-0.356675		28	56
ND<-0.356675 U	ND<2.30259	-2.6592	28	57	
ND<-0.356675 U	ND<2.30259	-2.6592	28	58	
2.89037 J	2.48491 J	0.405465		29	58
2.07944 J	2.48491 J	-0.405465		29	59
1.09861 J	2.48491 J	-1.3862	29	60	
2.63906	2.48491 J	0.154151		30	60
ND<2.30259	2.48491 J	-0.182322		30	61
ND<2.30259	2.48491 J	-0.182322		30	62
ND<2.30259	2.48491 J	-0.182322		30	63
1.06471 J	2.48491 J	-1.4202	30	64	
ND<-0.356675 U	2.48491 J	-2.8415	30	65	
1.94591	2.48491 J	-0.538997		30	66
ND<-0.356675 U	2.48491 J	-2.8415	30	67	
ND<-0.356675 U	2.48491 J	-2.8415	30	68	
2.07944 J	2.89037 J	-0.8109	30	69	
1.09861 J	2.89037 J	-1.7917	30	70	
2.63906	2.89037 J	-0.251314		30	71
ND<2.30259	2.89037 J	-0.587787		30	72
ND<2.30259	2.89037 J	-0.587787		30	73
ND<2.30259	2.89037 J	-0.587787		30	74
1.06471 J	2.89037 J	-1.8256	30	75	
ND<-0.356675 U	2.89037 J	-3.2470	30	76	
1.94591	2.89037 J	-0.944462		30	77
ND<-0.356675 U	2.89037 J	-3.2470	30	78	
ND<-0.356675 U	2.89037 J	-3.2470	30	79	
1.09861 J	2.07944 J	-0.980829		30	80
2.63906	2.07944 J	0.559616		31	80
ND<2.30259	2.07944 J	0.223144		32	80
ND<2.30259	2.07944 J	0.223144		33	80
ND<2.30259	2.07944 J	0.223144		34	80
1.06471 J	2.07944 J	-1.0147	34	81	
ND<-0.356675 U	2.07944 J	-2.4361	34	82	
1.94591	2.07944 J	-0.133531		34	83
ND<-0.356675 U	2.07944 J	-2.4361	34	84	
ND<-0.356675 U	2.07944 J	-2.4361	34	85	
2.63906	1.09861 J	1.54045	35	85	
ND<2.30259	1.09861 J	1.20397	36	85	
ND<2.30259	1.09861 J	1.20397	37	85	
ND<2.30259	1.09861 J	1.20397	38	85	
1.06471 J	1.09861 J	-0.0339	016	38	86
ND<-0.356675 U	1.09861 J	-1.4552	38	87	
1.94591	1.09861 J	0.847298		39	87
ND<-0.356675 U	1.09861 J	-1.4552	39	88	
ND<-0.356675 U	1.09861 J	-1.4552	39	89	
ND<2.30259	2.63906	-0.336472		39	90
ND<2.30259	2.63906	-0.336472		39	91
ND<2.30259	2.63906	-0.336472		39	92
1.06471 J	2.63906	-1.5743	39	93	
ND<-0.356675 U	2.63906	-2.9957	39	94	
1.94591	2.63906	-0.693147		39	95
ND<-0.356675 U	2.63906	-2.9957	39	96	
ND<-0.356675 U	2.63906	-2.9957	39	97	

ND<2.30259	ND<2.30259	0	39	97	
ND<2.30259	ND<2.30259	0	39	97	
1.06471 J	ND<2.30259	-1.2378	39	98	
ND<-0.356675 U	ND<2.30259	-2.6592	39	99	
1.94591	ND<2.30259	-0.356675		39	100
ND<-0.356675 U	ND<2.30259	-2.6592	39	101	
ND<-0.356675 U	ND<2.30259	-2.6592	39	102	
ND<2.30259	ND<2.30259	0	39	102	
1.06471 J	ND<2.30259	-1.2378	39	103	
ND<-0.356675 U	ND<2.30259	-2.6592	39	104	
1.94591	ND<2.30259	-0.356675		39	105
ND<-0.356675 U	ND<2.30259	-2.6592	39	106	
ND<-0.356675 U	ND<2.30259	-2.6592	39	107	
1.06471 J	ND<2.30259	-1.2378	39	108	
ND<-0.356675 U	ND<2.30259	-2.6592	39	109	
1.94591	ND<2.30259	-0.356675		39	110
ND<-0.356675 U	ND<2.30259	-2.6592	39	111	
ND<-0.356675 U	ND<2.30259	-2.6592	39	112	
ND<-0.356675 U	1.06471 J	-1.4213	39	113	
1.94591	1.06471 J	0.881199		40	113
ND<-0.356675 U	1.06471 J	-1.4213	40	114	
ND<-0.356675 U	1.06471 J	-1.4213	40	115	
1.94591	ND<-0.356675 U	2.30259	41	115	
ND<-0.356675 U	ND<-0.356675 U	0	41	115	
ND<-0.356675 U	ND<-0.356675 U	0	41	115	
ND<-0.356675 U	1.94591	-2.3025	41	116	
ND<-0.356675 U	1.94591	-2.3025	41	117	
ND<-0.356675 U	ND<-0.356675 U	0	41	117	

S Statistic = 41 - 117 = -76

Tied Group	Value	Members
1	2.30259	8
2	1.94591	2
3	-0.356675	3

Time Period		Observations
1/16/1998		1
3/16/1999		1
9/23/1999		1
3/14/2000		1
9/23/2003		1
3/10/2004		1
10/12/2004		1
4/1/2005	1	
10/26/2005		1
6/19/2006		1
11/18/2006		1
6/2/2007	1	
11/15/2007		1
5/20/2008		1
11/20/2008		1

6/11/2009		1
11/17/2010		1
7/6/2011	1	
11/22/2011		1
5/16/2012		1

There are 0 time periods with multiple data

A = 1260
B = 0
C = 342
D = 0
E = 64
F = 0
a = 17100
b = 61560
c = 760
Group Variance = 880
Z-Score = -2.52825
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-2.52825| > 1.97737 indicating a trend

Mann-Kendall Trend Analysis
Parameter: Vanadium
Location: LMW-9D
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives	
1.60944		2.30259 J	-0.693147	0	1
ND<2.30259		2.30259 J	0 0	1	
1.60944 J		2.30259 J	-0.693147	0	2
1.60944 J		2.30259 J	-0.693147	0	3
0.916291 J		2.30259 J	-1.386290	4	
0.832909 J		2.30259 J	-1.469680	5	
0.587787 J		2.30259 J	-1.7148 0	6	
0.832909 J		2.30259 J	-1.469680	7	
0.955511 J		2.30259 J	-1.347070	8	
0.693147 J		2.30259 J	-1.609440	9	
0.875469 J		2.30259 J	-1.427120	10	
ND<2.30259		1.60944	0.693147	1	10
1.60944 J		1.60944	0 1	10	
1.60944 J		1.60944	0 1	10	
0.916291 J		1.60944	-0.693147	1	11
0.832909 J		1.60944	-0.776529	1	12
0.587787 J		1.60944	-1.021651	13	
0.832909 J		1.60944	-0.776529	1	14
0.955511 J		1.60944	-0.653926	1	15
0.693147 J		1.60944	-0.916291	1	16
0.875469 J		1.60944	-0.733969	1	17
1.60944 J		ND<2.30259	-0.693147	1	18
1.60944 J		ND<2.30259	-0.693147	1	19
0.916291 J		ND<2.30259	-1.386291	20	
0.832909 J		ND<2.30259	-1.469681	21	
0.587787 J		ND<2.30259	-1.7148 1	22	
0.832909 J		ND<2.30259	-1.469681	23	
0.955511 J		ND<2.30259	-1.347071	24	
0.693147 J		ND<2.30259	-1.609441	25	
0.875469 J		ND<2.30259	-1.427121	26	
1.60944 J		1.60944 J	0 1	26	
0.916291 J		1.60944 J	-0.693147	1	27
0.832909 J		1.60944 J	-0.776529	1	28
0.587787 J		1.60944 J	-1.021651	29	
0.832909 J		1.60944 J	-0.776529	1	30
0.955511 J		1.60944 J	-0.653926	1	31
0.693147 J		1.60944 J	-0.916291	1	32
0.875469 J		1.60944 J	-0.733969	1	33
0.916291 J		1.60944 J	-0.693147	1	34
0.832909 J		1.60944 J	-0.776529	1	35
0.587787 J		1.60944 J	-1.021651	36	
0.832909 J		1.60944 J	-0.776529	1	37
0.955511 J		1.60944 J	-0.653926	1	38
0.693147 J		1.60944 J	-0.916291	1	39
0.875469 J		1.60944 J	-0.733969	1	40

0.832909 J	0.916291 J	-0.0833816	1	41
0.587787 J	0.916291 J	-0.328504	1	42
0.832909 J	0.916291 J	-0.0833816	1	43
0.955511 J	0.916291 J	0.0392207	2	43
0.693147 J	0.916291 J	-0.223144	2	44
0.875469 J	0.916291 J	-0.040822	2	45
0.587787 J	0.832909 J	-0.245122	2	46
0.832909 J	0.832909 J	0 2	46	
0.955511 J	0.832909 J	0.122602	3	46
0.693147 J	0.832909 J	-0.139762	3	47
0.875469 J	0.832909 J	0.0425596	4	47
0.832909 J	0.587787 J	0.245122	5	47
0.955511 J	0.587787 J	0.367725	6	47
0.693147 J	0.587787 J	0.105361	7	47
0.875469 J	0.587787 J	0.287682	8	47
0.955511 J	0.832909 J	0.122602	9	47
0.693147 J	0.832909 J	-0.139762	9	48
0.875469 J	0.832909 J	0.0425596	10	48
0.693147 J	0.955511 J	-0.262364	10	49
0.875469 J	0.955511 J	-0.0800427	10	50
0.875469 J	0.693147 J	0.182322	11	50

S Statistic = 11 - 50 = -39

Tied Group	Value	Members
1	2.30259	2
2	1.60944	3
3	0.832909	2

Time Period		Observations
11/18/2006		1
6/2/2007	1	
11/15/2007		1
5/20/2008		1
11/20/2008		1
6/11/2009		1
11/16/2009		1
6/30/2010		1
11/17/2010		1
7/6/2011	1	
11/22/2011		1
5/16/2012		1

There are 0 time periods with multiple data

A = 102
B = 0
C = 6
D = 0
E = 10
F = 0
a = 3828
b = 11880
c = 264
Group Variance = 207

Z-Score = -2.64118
Comparison Level at 1.0 - (0.05 / 2) = 97.5% confidence level = 1.97737 (two-tailed)
|-2.64118| > 1.97737 indicating a trend

Shewhart-CUSUM Control Chart

Parameter: Vanadium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = 1.47489
Baseline Std Dev = 1.28349
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
1/16/1998	2.30259	0	0.644881
1/16/1998	2.30259	0	0.644881
3/16/1999	1.94591	0	0.366987
3/16/1999	1.94591	0	0.366987
9/23/1999	3.89182	0.883097	1.8831
9/23/1999	3.89182	0.883097	1.8831
3/14/2000	2.30259	0.527978	0.644881
3/14/2000	2.30259	0.527978	0.644881
9/23/2003	2.30259	0.17286	0.644881
9/23/2003	2.30259	0.17286	0.644881
3/10/2004	2.30259	0	0.644881
3/10/2004	2.30259	0	0.644881
10/12/2004	2.30259	0	0.644881
10/12/2004	2.30259	0	0.644881
4/1/2005	2.48491	0	0.786933
4/1/2005	2.48491	0	0.786933
10/26/2005	2.89037	0.102842	1.10284
10/26/2005	2.89037	0.102842	1.10284
6/19/2006	2.07944	0	0.471024
6/19/2006	2.07944	0	0.471024
11/18/2006	1.09861	0	-0.293166
11/18/2006	1.09861	0	-0.293166
6/2/2007	2.63906	0	0.907036
6/2/2007	2.63906	0	0.907036
11/15/2007	2.30259	0	0.644881
11/15/2007	2.30259	0	0.644881
5/20/2008	2.30259	0	0.644881
5/20/2008	2.30259	0	0.644881
11/20/2008	2.30259	0	0.644881
11/20/2008	2.30259	0	0.644881
6/11/2009	1.06471	0	-0.319579
6/11/2009	1.06471	0	-0.319579
11/17/2010	-0.356675	0	-1.42702
11/17/2010	-0.356675	0	-1.42702
7/6/2011	1.94591	0	0.366987
7/6/2011	1.94591	0	0.366987
11/22/2011	-0.356675	0	-1.42702
11/22/2011	-0.356675	0	-1.42702
5/16/2012	-0.356675	0	-1.42702
5/16/2012	-0.356675	0	-1.42702

Shewhart-CUSUM Control Chart

Parameter: Vanadium

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Baseline mean = 1.47489
Baseline Std Dev = 1.28349
k = 1
h = 5
SCL = 4.5

Date	Value	CuSum	Std Mean
11/18/2006	2.30259	0	0.644881
11/18/2006	2.30259	0	0.644881
6/2/2007	1.60944	0	0.104832
6/2/2007	1.60944	0	0.104832
11/15/2007	2.30259	0	0.644881
11/15/2007	2.30259	0	0.644881
5/20/2008	1.60944	0	0.104832
5/20/2008	1.60944	0	0.104832
11/20/2008	1.60944	0	0.104832
11/20/2008	1.60944	0	0.104832
6/11/2009	0.916291	0	-0.435217
6/11/2009	0.916291	0	-0.435217
11/16/2009	0.832909	0	-0.500182
11/16/2009	0.832909	0	-0.500182
6/30/2010	0.587787	0	-0.691163
6/30/2010	0.587787	0	-0.691163
11/17/2010	0.832909	0	-0.500182
11/17/2010	0.832909	0	-0.500182
7/6/2011	0.955511	0	-0.404659
7/6/2011	0.955511	0	-0.404659
11/22/2011	0.693147	0	-0.609074
11/22/2011	0.693147	0	-0.609074
5/16/2012	0.875469	0	-0.467023
5/16/2012	0.875469	0	-0.467023

Concentrations (ppb)

Parameter: Zinc

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements: 259
Total Non-Detect: 144
Percent Non-Detects: 55.5985%
Total Background Measurements: 21
There is 1 background location

Loc.	Meas.	ND	Date	Conc.	Original
LMW-4	21	11 (52.381%)	1/16/1998	ND<60	ND<60
			3/16/1999	50 J	50 J
			9/23/1999	ND<60	ND<60
			3/14/2000	ND<60	ND<60
			9/23/2003	ND<60	ND<60
			3/10/2004	ND<60	ND<60
			10/12/2004	ND<60	ND<60
			4/1/2005	ND<60	ND<60
			10/26/2005	ND<60	ND<60
			6/19/2006	ND<60	ND<60
			11/18/2006	11 J	11 J
			6/2/2007	47	47
			11/15/2007	ND<60	ND<60
			5/20/2008	15 J	15 J
			11/20/2008	ND<60	ND<60
			6/11/2009	6.7 J	6.7 J
			6/30/2010	6.9 J	6.9 J
			11/17/2010	7.3 J	7.3 J
			7/6/2011	20	20
			11/22/2011	11	11
			5/16/2012	6 J	6 J

There are 17 compliance locations

Loc.	Meas.	ND	Date	Conc.	Original
LMW-3	23	13 (56.5217%)	11/19/1996	ND<60	ND<60
			3/24/1997	ND<60	ND<60
			1/16/1998	ND<60	ND<60
			3/16/1999	20 J	20 J
			9/23/1999	ND<60	ND<60
			3/14/2000	ND<60	ND<60
			9/23/2003	ND<60	ND<60
			3/10/2004	ND<60	ND<60
			10/12/2004	ND<60	ND<60
			4/1/2005	ND<60	ND<60
			10/26/2005	ND<60	ND<60
			6/19/2006	ND<60	ND<60
			11/18/2006	6 J	6 J
			6/2/2007	ND<60	ND<60
			11/15/2007	66	66
			5/20/2008	12 J	12 J
			11/20/2008	ND<60	ND<60
			6/11/2009	7.3 J B	7.3 J B
			6/30/2010	8.5 J	8.5 J
			11/17/2010	11	11
			7/6/2011	7.6 J	7.6 J
			11/22/2011	14	14

			5/16/2012	4 J	4 J	
LMW-15R	14	7 (50%)	11/18/2006	14 J	14 J	
			6/2/2007	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	
			5/20/2008	39 J	39 J	
			5/20/2008	ND<60	ND<60	
			11/20/2008	ND<60	ND<60	
			11/20/2008	ND<60	ND<60	
			6/11/2009	6.5 J	6.5 J	
			6/30/2010	6.6 J	6.6 J	
			11/17/2010	8.3 J	8.3 J	
			7/6/2011	8.6 J	8.6 J	
			11/22/2011	8.5 J	8.5 J	
			5/16/2012	ND<2.6 U	ND<2.6 U	
LMW-14R	10	2 (20%)	6/2/2007	15 J	15 J	
			11/15/2007	ND<60	ND<60	
			5/20/2008	18 J	18 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	6.3 J	6.3 J	
			6/30/2010	4.9 J	4.9 J	
			11/17/2010	4.5 J	4.5 J	
			7/6/2011	10	10	
			11/22/2011	10	10	
			5/16/2012	6.7 J	6.7 J	
LMW-10	18	13 (72.2222%)	3/14/2000	ND<60	ND<60	
			9/23/2003	ND<60	ND<60	
			3/10/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005	ND<60	ND<60	
			10/26/2005	ND<60	ND<60	
			6/19/2006	ND<60	ND<60	
			11/18/2006	ND<60	ND<60	
			6/2/2007	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	
			5/20/2008	40 J	40 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	ND<2.6 U	ND<2.6 U	
			6/30/2010	3.6 J	3.6 J	
			11/17/2010	5.3 J	5.3 J	
			7/6/2011	4.2 J	4.2 J	
			11/22/2011	5.5 J	5.5 J	
			5/16/2012	ND<2.6 U	ND<2.6 U	
LMW-9S	11	6 (54.5455%)	11/18/2006	ND<60	ND<60	
			6/2/2007	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	
			5/20/2008	32 J	32 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	5.2 J	5.2 J	
			6/30/2010	3.5 J	3.5 J	
			11/17/2010	3.6 J	3.6 J	
			7/6/2011	ND<2.6 U	ND<2.6 U	
			11/22/2011	6.3 J	6.3 J	
			5/16/2012	ND<2.6 U	ND<2.6 U	
LMW-9D	11	3 (27.2727%)	11/18/2006	7 J	7 J	
			6/2/2007	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	

			5/20/2008	18 J	18 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	3.5 J	3.5 J	
			6/30/2010	5.6 J	5.6 J	
			11/17/2010	5.1 J	5.1 J	
			7/6/2011	13	13	
			11/22/2011	14	14	
			5/16/2012	2.7 J	2.7 J	
LMW-16	11	3 (27.2727%)	11/18/2006	ND<60	ND<60	
			6/2/2007	16 J	16 J	
			11/15/2007	69	69	
			5/20/2008	15 J	15 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	ND<2.6 U		ND<2.6 U
			6/30/2010	7.9 J	7.9 J	
			11/17/2010	5.4 J	5.4 J	
			7/6/2011	5.1 J	5.1 J	
			11/22/2011	12	12	
			5/16/2012	3.8 J	3.8 J	
LMW-9	21	12 (57.1429%)	1/16/1998	ND<60	ND<60	
			3/16/1999	90	90	
			9/23/1999	ND<60	ND<60	
			3/14/2000	ND<60	ND<60	
			9/23/2003	ND<60	ND<60	
			3/10/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005	ND<60	ND<60	
			10/26/2005	ND<60	ND<60	
			6/19/2006	20 J	20 J	
			11/18/2006	ND<60	ND<60	
			6/2/2007	17 J	17 J	
			11/15/2007	ND<60	ND<60	
			5/20/2008	7 J	7 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	ND<2.6 U		ND<2.6 U
			6/30/2010	4.4 J	4.4 J	
			11/17/2010	4.5 J	4.5 J	
			7/6/2011	3.7 J	3.7 J	
			11/22/2011	6.6 J	6.6 J	
			5/16/2012	7.4 J	7.4 J	
LMW-8	21	14 (66.6667%)	1/16/1998	ND<60	ND<60	
			3/16/1999	90	90	
			9/23/1999	ND<60	ND<60	
			3/14/2000	ND<60	ND<60	
			9/23/2003	ND<60	ND<60	
			3/10/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005	ND<60	ND<60	
			10/26/2005	ND<60	ND<60	
			6/19/2006	ND<60	ND<60	
			11/18/2006	ND<60	ND<60	
			6/2/2007	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	
			5/20/2008	5 J	5 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	8.2 J	8.2 J	
			6/30/2010	4.5 J	4.5 J	
			11/17/2010	3.2 J	3.2 J	
			7/6/2011	11 J	11 J	

			11/22/2011	24	24	
			5/16/2012	ND<2.6 U		ND<2.6 U
LMW-7	20	7 (35%)	1/16/1998	ND<60	ND<60	
			3/16/1999	20 J	20 J	
			9/23/1999	40 J	40 J	
			3/14/2000	ND<60	ND<60	
			9/23/2003	ND<60	ND<60	
			3/10/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005	27 J	27 J	
			10/26/2005	31 J	31 J	
			6/19/2006	40 J	40 J	
			11/18/2006	21 J	21 J	
			6/2/2007	51	51	
			11/15/2007	ND<60	ND<60	
			5/20/2008	10 J	10 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	29 B	29 B	
			11/17/2010	9.5 J	9.5 J	
			7/6/2011	59	59	
			11/22/2011	15	15	
			5/16/2012	11	11	
LMW-6	21	8 (38.0952%)	1/16/1998	ND<60	ND<60	
			3/16/1999	30 J	30 J	
			9/23/1999	53 J	53 J	
			3/14/2000	ND<60	ND<60	
			9/23/2003	ND<60	ND<60	
			3/10/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005	ND<60	ND<60	
			10/26/2005	ND<60	ND<60	
			6/19/2006	20 J	20 J	
			11/18/2006	7 J	7 J	
			6/2/2007	17 J	17 J	
			11/15/2007	27 J	27 J	
			5/20/2008	10 J	10 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	8.2 J B	8.2 J B	
			6/30/2010	11	11	
			11/17/2010	8.6 J	8.6 J	
			7/6/2011	8.7 J	8.7 J	
			11/22/2011	4.9 J	4.9 J	
			5/16/2012	2.9 J	2.9 J	
LMW-3s	1	0 (0%)	5/16/2012	11	11	
LMW-3S	10	1 (10%)	11/18/2006	10 J	10 J	
			6/2/2007	16 J	16 J	
			11/15/2007	48 J	48 J	
			5/20/2008	15 J	15 J	
			11/20/2008	ND<60	ND<60	
			6/11/2009	18 B	18 B	
			6/30/2010	14 Q	14 Q	
			11/17/2010	11	11	
			7/6/2011	7.6 J	7.6 J	
			11/22/2011	5.5 J	5.5 J	
LMW-12	11	11 (100%)	3/14/2000	ND<60	ND<60	
			9/23/2003	ND<60	ND<60	
			3/10/2004	ND<60	ND<60	

			10/12/2004	ND<60	ND<60	
			4/1/2005	ND<60	ND<60	
			10/26/2005	ND<60	ND<60	
			6/19/2006	ND<60	ND<60	
			6/2/2007	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	
			5/20/2008	ND<60	ND<60	
			11/20/2008	ND<60	ND<60	
LMW-13	11	11 (100%)	3/14/2000	ND<60	ND<60	
			9/23/2003	ND<60	ND<60	
			3/10/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005	ND<60	ND<60	
			10/26/2005	ND<60	ND<60	
			6/19/2006	ND<60	ND<60	
			6/2/2007	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	
			5/20/2008	ND<60	ND<60	
			11/20/2008	ND<60	ND<60	
LMW-11	11	11 (100%)	3/14/2000	ND<60	ND<60	
			9/23/2003	ND<60	ND<60	
			3/10/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005	ND<60	ND<60	
			10/26/2005	ND<60	ND<60	
			6/19/2006	ND<60	ND<60	
			6/2/2007	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	
			5/20/2008	ND<60	ND<60	
			11/20/2008	ND<60	ND<60	
MW-5	13	11 (84.6154%)	1/16/1998	ND<60	ND<60	
			3/16/1999	40 J	40 J	
			9/23/1999	36 J	36 J	
			3/14/2000	ND<60	ND<60	
			9/23/2003	ND<60	ND<60	
			3/10/2004	ND<60	ND<60	
			10/12/2004	ND<60	ND<60	
			4/1/2005	ND<60	ND<60	
			10/26/2005	ND<60	ND<60	
			6/19/2006	ND<60	ND<60	
			11/15/2007	ND<60	ND<60	
			5/20/2008	ND<60	ND<60	
			11/20/2008	ND<60	ND<60	

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 = 259

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	1.3	-2.74777	7.55021	-3.5721
2	1.3	-2.45727	13.5884	-6.76655
3	1.3	-2.29036	18.8342	-9.74402
4	1.3	-2.17009	23.5435	-12.5651
5	1.3	-2.07485	27.8485	-15.2624
6	1.3	-1.99539	31.8301	-17.8565
7	1.3	-1.94314	35.6058	-20.3825
8	1.3	-1.88079	39.1432	-22.8276
9	2.7	-1.82501	42.4738	-27.7551
10	2.9	-1.77438	45.6223	-32.9008
11	3.2	-1.72793	48.608	-38.4301
12	3.5	-1.68494	51.447	-44.3274
13	3.5	-1.64485	54.1526	-50.0844
14	3.6	-1.61644	56.7654	-55.9036
15	3.6	-1.58047	59.2633	-61.5933
16	3.7	-1.54643	61.6548	-67.3151
17	3.8	-1.5141	63.9473	-73.0687
18	4	-1.48328	66.1474	-79.0018
19	4.2	-1.4538	68.2609	-85.1078
20	4.4	-1.4325	70.313	-91.4108
21	4.5	-1.40507	72.2872	-97.7336
22	4.5	-1.37866	74.1879	-103.938
23	4.5	-1.35317	76.019	-110.027
24	4.9	-1.32854	77.784	-116.537
25	4.9	-1.30469	79.4862	-122.93
26	5	-1.28155	81.1286	-129.337
27	5.1	-1.26464	82.7279	-135.787
28	5.1	-1.24264	84.2721	-142.125
29	5.2	-1.22123	85.7635	-148.475
30	5.3	-1.20036	87.2044	-154.837
31	5.4	-1.18	88.5968	-161.209
32	5.5	-1.16012	89.9426	-167.59
33	5.5	-1.1455	91.2548	-173.89
34	5.6	-1.12639	92.5236	-180.198
35	6	-1.10768	93.7505	-186.844
36	6	-1.08935	94.9372	-193.38
37	6.3	-1.07138	96.0851	-200.129
38	6.3	-1.05375	97.1954	-206.768
39	6.5	-1.03643	98.2696	-213.505
40	6.6	-1.02365	99.3175	-220.261
41	6.6	-1.00687	100.331	-226.906
42	6.7	-0.990356	101.312	-233.542
43	6.7	-0.974114	102.261	-240.068
44	6.9	-0.958125	103.179	-246.679
45	7	-0.942375	104.067	-253.276
46	7	-0.930718	104.933	-259.791
47	7	-0.915365	105.771	-266.198
48	7.3	-0.900227	106.582	-272.77
49	7.3	-0.885291	107.365	-279.233
50	7.4	-0.87055	108.123	-285.675
51	7.6	-0.855996	108.856	-292.18

52	7.6	-0.841621	109.564	-298.577
53	7.9	-0.830953	110.255	-305.141
54	8.2	-0.816874	110.922	-311.84
55	8.2	-0.802956	111.567	-318.424
56	8.3	-0.789191	112.19	-324.974
57	8.5	-0.775574	112.791	-331.567
58	8.5	-0.7621	113.372	-338.044
59	8.6	-0.752084	113.938	-344.512
60	8.6	-0.738846	114.483	-350.866
61	8.7	-0.725736	115.01	-357.18
62	9.5	-0.712751	115.518	-363.951
63	10	-0.699883	116.008	-370.95
64	10	-0.687131	116.48	-377.822
65	10	-0.67449	116.935	-384.566
66	10	-0.665079	117.377	-391.217
67	10	-0.652622	117.803	-397.743
68	11	-0.640266	118.213	-404.786
69	11	-0.628006	118.608	-411.694
70	11	-0.615839	118.987	-418.469
71	11	-0.603765	119.351	-425.11
72	11	-0.594766	119.705	-431.653
73	11	-0.582841	120.045	-438.064
74	11	-0.570999	120.371	-444.345
75	11	-0.559237	120.684	-450.496
76	12	-0.547551	120.983	-457.067
77	12	-0.53594	121.271	-463.498
78	13	-0.524401	121.546	-470.315
79	14	-0.515791	121.812	-477.537
80	14	-0.504372	122.066	-484.598
81	14	-0.493018	122.309	-491.5
82	14	-0.481728	122.541	-498.244
83	15	-0.470498	122.763	-505.302
84	15	-0.459327	122.974	-512.192
85	15	-0.450985	123.177	-518.956
86	15	-0.439913	123.37	-525.555
87	15	-0.428895	123.554	-531.988
88	16	-0.417928	123.729	-538.675
89	16	-0.40701	123.895	-545.187
90	17	-0.396142	124.052	-551.922
91	17	-0.385321	124.2	-558.472
92	18	-0.377233	124.342	-565.263
93	18	-0.36649	124.477	-571.859
94	18	-0.355788	124.603	-578.264
95	20	-0.345126	124.722	-585.166
96	20	-0.334503	124.834	-591.856
97	20	-0.323919	124.939	-598.335
98	20	-0.316004	125.039	-604.655
99	20	-0.305481	125.132	-610.764
100	21	-0.294992	125.22	-616.959
101	24	-0.284535	125.3	-623.788
102	27	-0.27411	125.376	-631.189
103	27	-0.263715	125.445	-638.309
104	29	-0.253347	125.509	-645.656
105	30	-0.24559	125.57	-653.024
106	30	-0.235269	125.625	-660.082
107	30	-0.224974	125.676	-666.831
108	30	-0.214702	125.722	-673.272
109	30	-0.204452	125.764	-679.406
110	30	-0.194225	125.801	-685.233
111	30	-0.186567	125.836	-690.83
112	30	-0.176374	125.867	-696.121
113	30	-0.166199	125.895	-701.107

114	30	-0.156042	125.919	-705.788
115	30	-0.1459	125.94	-710.165
116	30	-0.135774	125.959	-714.238
117	30	-0.125661	125.975	-718.008
118	30	-0.118085	125.989	-721.551
119	30	-0.107995	126	-724.79
120	30	-0.0979139	126.01	-727.728
121	30	-0.0878447	126.018	-730.363
122	30	-0.0777834	126.024	-732.697
123	30	-0.0677301	126.028	-734.729
124	30	-0.0601949	126.032	-736.534
125	30	-0.0501541	126.034	-738.039
126	30	-0.0401167	126.036	-739.243
127	30	-0.0300838	126.037	-740.145
128	30	-0.0200544	126.037	-740.747
129	30	-0.0100272	126.037	-741.048
130	30	0	126.037	-741.048
131	30	0.0100272	126.037	-740.747
132	30	0.0200544	126.038	-740.145
133	30	0.0300838	126.039	-739.243
134	30	0.0401167	126.04	-738.039
135	30	0.0501541	126.043	-736.534
136	30	0.0601949	126.046	-734.729
137	30	0.0677301	126.051	-732.697
138	30	0.0777834	126.057	-730.363
139	30	0.0878447	126.065	-727.728
140	30	0.0979139	126.074	-724.79
141	30	0.107995	126.086	-721.551
142	30	0.118085	126.1	-718.008
143	30	0.125661	126.116	-714.238
144	30	0.135774	126.134	-710.165
145	30	0.1459	126.156	-705.788
146	30	0.156042	126.18	-701.107
147	30	0.166199	126.208	-696.121
148	30	0.176374	126.239	-690.83
149	30	0.186567	126.273	-685.233
150	30	0.194225	126.311	-679.406
151	30	0.204452	126.353	-673.272
152	30	0.214702	126.399	-666.831
153	30	0.224974	126.45	-660.082
154	30	0.235269	126.505	-653.024
155	30	0.24559	126.565	-645.656
156	30	0.253347	126.63	-638.056
157	30	0.263715	126.699	-630.144
158	30	0.27411	126.774	-621.921
159	30	0.284535	126.855	-613.385
160	30	0.294992	126.942	-604.535
161	30	0.305481	127.035	-595.371
162	30	0.316004	127.135	-585.891
163	30	0.323919	127.24	-576.173
164	30	0.334503	127.352	-566.138
165	30	0.345126	127.471	-555.784
166	30	0.355788	127.598	-545.111
167	30	0.36649	127.732	-534.116
168	30	0.377233	127.874	-522.799
169	30	0.385321	128.023	-511.239
170	30	0.396142	128.18	-499.355
171	30	0.40701	128.346	-487.145
172	30	0.417928	128.52	-474.607
173	30	0.428895	128.704	-461.74
174	30	0.439913	128.898	-448.543
175	30	0.450985	129.101	-435.013

176	30	0.459327		129.312	-421.233
177	30	0.470498		129.533	-407.118
178	30	0.481728		129.765	-392.667
179	30	0.493018		130.009	-377.876
180	30	0.504372		130.263	-362.745
181	30	0.515791		130.529	-347.271
182	30	0.524401		130.804	-331.539
183	30	0.53594	131.091	-315.461	
184	30	0.547551		131.391	-299.034
185	30	0.559237		131.704	-282.257
186	30	0.570999		132.03	-265.127
187	30	0.582841		132.37	-247.642
188	30	0.594766		132.723	-229.799
189	30	0.603765		133.088	-211.686
190	30	0.615839		133.467	-193.211
191	30	0.628006		133.861	-174.371
192	30	0.640266		134.271	-155.163
193	30	0.652622		134.697	-135.584
194	30	0.665079		135.14	-115.632
195	30	0.67449	135.595	-95.397	
196	30	0.687131		136.067	-74.7831
197	30	0.699883		136.557	-53.7866
198	30	0.712751		137.065	-32.4041
199	30	0.725736		137.591	-10.632
200	30	0.738846		138.137	11.5334
201	30	0.752084		138.703	34.0959
202	30	0.7621	139.284	56.9589	
203	30	0.775574		139.885	80.2261
204	30	0.789191		140.508	103.902
205	30	0.802956		141.153	127.991
206	30	0.816874		141.82	152.497
207	30	0.830953		142.51	177.425
208	30	0.841621		143.219	202.674
209	30	0.855996		143.951	228.354
210	30	0.87055	144.709	254.47	
211	30	0.885291		145.493	281.029
212	30	0.900227		146.303	308.036
213	30	0.915365		147.141	335.497
214	30	0.930718		148.008	363.418
215	30	0.942375		148.896	391.69
216	30	0.958125		149.814	420.433
217	30	0.974114		150.763	449.657
218	30	0.990356		151.743	479.368
219	30	1.00687	152.757	509.573	
220	30	1.02365	153.805	540.283	
221	30	1.03643	154.879	571.376	
222	30	1.05375	155.99	602.988	
223	30	1.07138	157.137	635.13	
224	30	1.08935	158.324	667.81	
225	30	1.10768	159.551	701.041	
226	30	1.12639	160.82	734.832	
227	30	1.1455	162.132	769.197	
228	30	1.16012	163.478	804.001	
229	30	1.18	164.87	839.401	
230	30	1.20036	166.311	875.412	
231	30	1.22123	167.803	912.049	
232	30	1.24264	169.347	949.328	
233	30	1.26464	170.946	987.267	
234	30	1.28155	172.588	1025.71	
235	30	1.30469	174.291	1064.85	
236	30	1.32854	176.056	1104.71	
237	30	1.35317	177.887	1145.31	

238	30	1.37866	179.787	1186.67
239	30	1.40507	181.762	1228.82
240	30	1.4325	183.814	1271.79
241	30	1.4538	185.927	1315.41
242	31	1.48328	188.127	1361.39
243	32	1.5141	190.42	1409.84
244	36	1.54643	192.811	1465.51
245	39	1.58047	195.309	1527.15
246	40	1.61644	197.922	1591.81
247	40	1.64485	200.628	1657.6
248	40	1.68494	203.467	1725
249	40	1.72793	206.452	1794.12
250	47	1.77438	209.601	1877.51
251	48	1.82501	212.931	1965.11
252	50	1.88079	216.469	2059.15
253	51	1.94314	220.245	2158.25
254	53	1.99539	224.226	2264.01
255	59	2.07485	228.531	2386.42
256	66	2.17009	233.24	2529.65
257	69	2.29036	238.486	2687.68
258	90	2.45727	244.524	2908.84
259	90	2.74777	252.075	3156.14

Data Set Standard Deviation = 13.8143
Numerator = 9.96121e+006
Denominator = 1.2411e+007
W Statistic = 0.802614 = 9.96121e+006 / 1.2411e+007

5% Critical value of 0.976 exceeds 0.802614
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.802614
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 = 0.896933
0.896933 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum		Value	Prob.	Quantile.	x	y
1	1.3	0.00384615	-2.747	77	46.7278	348.683
2	1.3	0.00769231	-2.457	27	46.7278	334.497
3	1.3	0.0115385	-2.290	36	46.7278	326.346
4	1.3	0.0153846	-2.170	09	46.7278	320.473
5	1.3	0.0192308	-2.074	85	46.7278	315.822
6	1.3	0.0230769	-1.995	39	46.7278	311.942
7	1.3	0.0269231	-1.943	14	46.7278	309.39
8	1.3	0.0307692	-1.880	79	46.7278	306.345
9	2.7	0.0346154	-1.825	01	55.05	303.621
10	2.9	0.0384615	-1.774	38	56.2389	301.149
11	3.2	0.0423077	-1.727	93	58.0222	298.881
12	3.5	0.0461538	-1.684	94	59.8056	296.781
13	3.5	0.05	-1.644	85	59.8056	294.824
14	3.6	0.0538462	-1.616	44	60.4	293.436
15	3.6	0.0576923	-1.580	47	60.4	291.679
16	3.7	0.0615385	-1.546	43	60.9944	290.017
17	3.8	0.0653846	-1.514	1	61.5889	288.439
18	4	0.0692308	-1.483	28	62.7778	286.934
19	4.2	0.0730769	-1.453	8	63.9667	285.494
20	4.4	0.0769231	-1.432	5	65.1556	284.454
21	4.5	0.0807692	-1.405	07	65.75	283.114
22	4.5	0.0846154	-1.378	66	65.75	281.824
23	4.5	0.0884615	-1.353	17	65.75	280.58
24	4.9	0.0923077	-1.328	54	68.1278	279.377
25	4.9	0.0961538	-1.304	69	68.1278	278.212
26	5	0.1	-1.281	55	68.7222	277.082
27	5.1	0.103846	-1.264	64	69.3167	276.257
28	5.1	0.107692	-1.242	64	69.3167	275.182
29	5.2	0.111538	-1.221	23	69.9111	274.137
30	5.3	0.115385	-1.200	36	70.5056	273.118
31	5.4	0.119231	-1.18		71.1	272.123
32	5.5	0.123077	-1.160	12	71.6944	271.153
33	5.5	0.126923	-1.145	5	71.6944	270.439
34	5.6	0.130769	-1.126	39	72.2889	269.505
35	6	0.134615	-1.107	68	74.6667	268.592
36	6	0.138462	-1.089	35	74.6667	267.697
37	6.3	0.142308	-1.071	38	76.45	266.819
38	6.3	0.146154	-1.053	75	76.45	265.958
39	6.5	0.15	-1.036	43	77.6389	265.112
40	6.6	0.153846	-1.023	65	78.2333	264.488
41	6.6	0.157692	-1.006	87	78.2333	263.669
42	6.7	0.161538	-0.990356		78.8278	262.862
43	6.7	0.165385	-0.974114		78.8278	262.069
44	6.9	0.169231	-0.958125		80.0167	261.288
45	7	0.173077	-0.942375		80.6111	260.519
46	7	0.176923	-0.930718		80.6111	259.95
47	7	0.180769	-0.915365		80.6111	259.2
48	7.3	0.184615	-0.900227		82.3944	258.461

49	7.3	0.188462	-0.885291	82.3944	257.732
50	7.4	0.192308	-0.870558	2.9889	257.012
51	7.6	0.196154	-0.855996	84.1778	256.301
52	7.6	0.2	-0.841621	84.1778	255.599
53	7.9	0.203846	-0.830953	85.9611	255.078
54	8.2	0.207692	-0.816874	87.7444	254.391
55	8.2	0.211538	-0.802956	87.7444	253.711
56	8.3	0.215385	-0.789191	88.3389	253.039
57	8.5	0.219231	-0.775574	89.5278	252.374
58	8.5	0.223077	-0.7621	89.5278	251.716
59	8.6	0.226923	-0.752084	90.1222	251.227
60	8.6	0.230769	-0.738846	90.1222	250.58
61	8.7	0.234615	-0.725736	90.7167	249.94
62	9.5	0.238462	-0.712751	95.4722	249.306
63	10	0.242308	-0.699883	98.4444	248.678
64	10	0.246154	-0.687131	98.4444	248.055
65	10	0.25	-0.674499	8.4444	247.438
66	10	0.253846	-0.665079	98.4444	246.978
67	10	0.257692	-0.652622	98.4444	246.37
68	11	0.261538	-0.640266	104.389	245.766
69	11	0.265385	-0.628006	104.389	245.168
70	11	0.269231	-0.615839	104.389	244.573
71	11	0.273077	-0.603765	104.389	243.984
72	11	0.276923	-0.594766	104.389	243.544
73	11	0.280769	-0.582841	104.389	242.962
74	11	0.284615	-0.570999	104.389	242.384
75	11	0.288462	-0.559237	104.389	241.809
76	12	0.292308	-0.547551	110.333	241.239
77	12	0.296154	-0.53594	110.333	240.672
78	13	0.3	-0.524401	116.278	240.108
79	14	0.303846	-0.515791	122.222	239.688
80	14	0.307692	-0.504372	122.222	239.13
81	14	0.311538	-0.493018	122.222	238.576
82	14	0.315385	-0.481728	122.222	238.024
83	15	0.319231	-0.470498	128.167	237.476
84	15	0.323077	-0.459327	128.167	236.93
85	15	0.326923	-0.450985	128.167	236.523
86	15	0.330769	-0.439913	128.167	235.982
87	15	0.334615	-0.428895	128.167	235.444
88	16	0.338462	-0.417928	134.111	234.909
89	16	0.342308	-0.40701	134.111	234.376
90	17	0.346154	-0.396142	140.056	233.845
91	17	0.35	-0.385321	140.056	233.317
92	18	0.353846	-0.377233	146	232.922
93	18	0.357692	-0.36649	146	232.397
94	18	0.361538	-0.355788	146	231.874
95	20	0.365385	-0.345126	157.889	231.354
96	20	0.369231	-0.334503	157.889	230.835
97	20	0.373077	-0.323919	157.889	230.318
98	20	0.376923	-0.316004	157.889	229.932
99	20	0.380769	-0.305481	157.889	229.418
100	21	0.384615	-0.294992	163.833	228.905
101	24	0.388462	-0.284535	181.667	228.395
102	27	0.392308	-0.27411	199.5	227.886
103	27	0.396154	-0.263715	199.5	227.378
104	29	0.4	-0.253347	211.389	226.872
105	30	0.403846	-0.24559	217.333	226.493
106	30	0.407692	-0.235269	217.333	225.989
107	30	0.411538	-0.224974	217.333	225.486
108	30	0.415385	-0.214702	217.333	224.985
109	30	0.419231	-0.204452	217.333	224.484
110	30	0.423077	-0.194225	217.333	223.985

111	30	0.426923	-0.186567	217.333	223.611
112	30	0.430769	-0.176374	217.333	223.113
113	30	0.434615	-0.166199	217.333	222.616
114	30	0.438462	-0.156042	217.333	222.12
115	30	0.442308	-0.1459	217.333	221.625
116	30	0.446154	-0.135774	217.333	221.13
117	30	0.45	-0.125661	217.333	220.636
118	30	0.453846	-0.118085	217.333	220.267
119	30	0.457692	-0.107995	217.333	219.774
120	30	0.461538	-0.0979139	217.333	219.281
121	30	0.465385	-0.0878447	217.333	218.79
122	30	0.469231	-0.0777834	217.333	218.298
123	30	0.473077	-0.0677301	217.333	217.807
124	30	0.476923	-0.0601949	217.333	217.44
125	30	0.480769	-0.0501541	217.333	216.949
126	30	0.484615	-0.0401167	217.333	216.459
127	30	0.488462	-0.0300838	217.333	215.969
128	30	0.492308	-0.0200544	217.333	215.479
129	30	0.496154	-0.0100272	217.333	214.99
130	30	0.5	0	217.333	214.5
131	30	0.503846	0.0100272	217.333	214.01
132	30	0.507692	0.0200544	217.333	213.521
133	30	0.511538	0.0300838	217.333	213.031
134	30	0.515385	0.0401167	217.333	212.541
135	30	0.519231	0.0501541	217.333	212.051
136	30	0.523077	0.0601949	217.333	211.56
137	30	0.526923	0.0677301	217.333	211.193
138	30	0.530769	0.0777834	217.333	210.702
139	30	0.534615	0.0878447	217.333	210.21
140	30	0.538462	0.0979139	217.333	209.719
141	30	0.542308	0.107995	217.333	209.226
142	30	0.546154	0.118085	217.333	208.733
143	30	0.55	0.125661	217.333	208.364
144	30	0.553846	0.135774	217.333	207.87
145	30	0.557692	0.1459	217.333	207.375
146	30	0.561538	0.156042	217.333	206.88
147	30	0.565385	0.166199	217.333	206.384
148	30	0.569231	0.176374	217.333	205.887
149	30	0.573077	0.186567	217.333	205.389
150	30	0.576923	0.194225	217.333	205.015
151	30	0.580769	0.204452	217.333	204.516
152	30	0.584615	0.214702	217.333	204.015
153	30	0.588462	0.224974	217.333	203.514
154	30	0.592308	0.235269	217.333	203.011
155	30	0.596154	0.24559	217.333	202.507
156	30	0.6	0.253347	217.333	202.128
157	30	0.603846	0.263715	217.333	201.622
158	30	0.607692	0.27411	217.333	201.114
159	30	0.611538	0.284535	217.333	200.605
160	30	0.615385	0.294992	217.333	200.095
161	30	0.619231	0.305481	217.333	199.582
162	30	0.623077	0.316004	217.333	199.068
163	30	0.626923	0.323919	217.333	198.682
164	30	0.630769	0.334503	217.333	198.165
165	30	0.634615	0.345126	217.333	197.646
166	30	0.638462	0.355788	217.333	197.126
167	30	0.642308	0.36649	217.333	196.603
168	30	0.646154	0.377233	217.333	196.078
169	30	0.65	0.385321	217.333	195.683
170	30	0.653846	0.396142	217.333	195.155
171	30	0.657692	0.40701	217.333	194.624
172	30	0.661538	0.417928	217.333	194.091

173	30	0.665385	0.428895	217.333	193.556
174	30	0.669231	0.439913	217.333	193.018
175	30	0.673077	0.450985	217.333	192.477
176	30	0.676923	0.459327	217.333	192.07
177	30	0.680769	0.470498	217.333	191.524
178	30	0.684615	0.481728	217.333	190.976
179	30	0.688462	0.493018	217.333	190.424
180	30	0.692308	0.504372	217.333	189.87
181	30	0.696154	0.515791	217.333	189.312
182	30	0.7	0.524401	217.333	188.892
183	30	0.703846	0.53594	217.333	188.328
184	30	0.707692	0.547551	217.333	187.761
185	30	0.711538	0.559237	217.333	187.191
186	30	0.715385	0.570999	217.333	186.616
187	30	0.719231	0.582841	217.333	186.038
188	30	0.723077	0.594766	217.333	185.456
189	30	0.726923	0.603765	217.333	185.016
190	30	0.730769	0.615839	217.333	184.427
191	30	0.734615	0.628006	217.333	183.832
192	30	0.738462	0.640266	217.333	183.234
193	30	0.742308	0.652622	217.333	182.63
194	30	0.746154	0.665079	217.333	182.022
195	30	0.75	0.67449	217.333	181.562
196	30	0.753846	0.687131	217.333	180.945
197	30	0.757692	0.699883	217.333	180.322
198	30	0.761538	0.712751	217.333	179.694
199	30	0.765385	0.725736	217.333	179.06
200	30	0.769231	0.738846	217.333	178.42
201	30	0.773077	0.752084	217.333	177.773
202	30	0.776923	0.7621	217.333	177.284
203	30	0.780769	0.775574	217.333	176.626
204	30	0.784615	0.789191	217.333	175.961
205	30	0.788462	0.802956	217.333	175.289
206	30	0.792308	0.816874	217.333	174.609
207	30	0.796154	0.830953	217.333	173.922
208	30	0.8	0.841621	217.333	173.401
209	30	0.803846	0.855996	217.333	172.699
210	30	0.807692	0.87055	217.333	171.988
211	30	0.811538	0.885291	217.333	171.268
212	30	0.815385	0.900227	217.333	170.539
213	30	0.819231	0.915365	217.333	169.8
214	30	0.823077	0.930718	217.333	169.05
215	30	0.826923	0.942375	217.333	168.481
216	30	0.830769	0.958125	217.333	167.712
217	30	0.834615	0.974114	217.333	166.931
218	30	0.838462	0.990356	217.333	166.138
219	30	0.842308	1.00687	217.333	165.331
220	30	0.846154	1.02365	217.333	164.512
221	30	0.85	1.03643	217.333	163.888
222	30	0.853846	1.05375	217.333	163.042
223	30	0.857692	1.07138	217.333	162.181
224	30	0.861538	1.08935	217.333	161.303
225	30	0.865385	1.10768	217.333	160.408
226	30	0.869231	1.12639	217.333	159.495
227	30	0.873077	1.1455	217.333	158.561
228	30	0.876923	1.16012	217.333	157.847
229	30	0.880769	1.18	217.333	156.877
230	30	0.884615	1.20036	217.333	155.882
231	30	0.888462	1.22123	217.333	154.863
232	30	0.892308	1.24264	217.333	153.818
233	30	0.896154	1.26464	217.333	152.743
234	30	0.9	1.28155	217.333	151.918

235	30	0.903846	1.30469	217.333	150.788
236	30	0.907692	1.32854	217.333	149.623
237	30	0.911538	1.35317	217.333	148.42
238	30	0.915385	1.37866	217.333	147.176
239	30	0.919231	1.40507	217.333	145.886
240	30	0.923077	1.4325	217.333	144.546
241	30	0.926923	1.4538	217.333	143.506
242	31	0.930769	1.48328	223.278	142.066
243	32	0.934615	1.5141	229.222	140.561
244	36	0.938462	1.54643	253	138.983
245	39	0.942308	1.58047	270.833	137.321
246	40	0.946154	1.61644	276.778	135.564
247	40	0.95	1.64485	276.778	134.176
248	40	0.953846	1.68494	276.778	132.219
249	40	0.957692	1.72793	276.778	130.119
250	47	0.961538	1.77438	318.389	127.851
251	48	0.965385	1.82501	324.333	125.379
252	50	0.969231	1.88079	336.222	122.655
253	51	0.973077	1.94314	342.167	119.61
254	53	0.976923	1.99539	354.056	117.058
255	59	0.980769	2.07485	389.722	113.178
256	66	0.984615	2.17009	431.333	108.527
257	69	0.988462	2.29036	449.167	102.654
258	90	0.992308	2.45727	574	94.5032
259	90	0.996154	2.74777	574	80.3175

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 = 259

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.262364	-2.74777	7.55021	-0.720915
2	0.262364	-2.45727	13.5884	-1.36562
3	0.262364	-2.29036	18.8342	-1.96653
4	0.262364	-2.17009	23.5435	-2.53588
5	0.262364	-2.07485	27.8485	-3.08025
6	0.262364	-1.99539	31.8301	-3.60377
7	0.262364	-1.94314	35.6058	-4.11358
8	0.262364	-1.88079	39.1432	-4.60703
9	0.993252	-1.82501	42.4738	-6.41972
10	1.06471	-1.77438	45.6223	-8.30892
11	1.16315	-1.72793	48.608	-10.3188
12	1.25276	-1.68494	51.447	-12.4296
13	1.25276	-1.64485	54.1526	-14.4902
14	1.28093	-1.61644	56.7654	-16.5607
15	1.28093	-1.58047	59.2633	-18.5852
16	1.30833	-1.54643	61.6548	-20.6085
17	1.335	-1.5141	63.9473	-22.6298
18	1.38629	-1.48328	66.1474	-24.6861
19	1.43508	-1.4538	68.2609	-26.7724
20	1.4816	-1.4325	70.313	-28.8948
21	1.50408	-1.40507	72.2872	-31.0081
22	1.50408	-1.37866	74.1879	-33.0817
23	1.50408	-1.35317	76.019	-35.117
24	1.58924	-1.32854	77.784	-37.2284
25	1.58924	-1.30469	79.4862	-39.3018
26	1.60944	-1.28155	81.1286	-41.3644
27	1.62924	-1.26464	82.7279	-43.4248
28	1.62924	-1.24264	84.2721	-45.4494
29	1.64866	-1.22123	85.7635	-47.4628
30	1.66771	-1.20036	87.2044	-49.4646
31	1.6864	-1.18	88.5968	-51.4546
32	1.70475	-1.16012	89.9426	-53.4323
33	1.70475	-1.1455	91.2548	-55.3851
34	1.72277	-1.12639	92.5236	-57.3256
35	1.79176	-1.10768	93.7505	-59.3103
36	1.79176	-1.08935	94.9372	-61.2621
37	1.84055	-1.07138	96.0851	-63.2341
38	1.84055	-1.05375	97.1954	-65.1735
39	1.8718	-1.03643	98.2696	-67.1135
40	1.88707	-1.02365	99.3175	-69.0452
41	1.88707	-1.00687	100.331	-70.9453
42	1.90211	-0.990356	101.312	-72.829
43	1.90211	-0.974114	102.261	-74.6819
44	1.93152	-0.958125	103.179	-76.5325
45	1.94591	-0.942375	104.067	-78.3663
46	1.94591	-0.930718	104.933	-80.1774
47	1.94591	-0.915365	105.771	-81.9586
48	1.98787	-0.900227	106.582	-83.7482
49	1.98787	-0.885291	107.365	-85.508
50	2.00148	-0.87055	108.123	-87.2504
51	2.02815	-0.855996	108.856	-88.9865

52	2.02815	-0.841621	109.564	-90.6934
53	2.06686	-0.830953	110.255	-92.4109
54	2.10413	-0.816874	110.922	-94.1297
55	2.10413	-0.802956	111.567	-95.8192
56	2.11626	-0.789191	112.19	-97.4894
57	2.14007	-0.775574	112.791	-99.1491
58	2.14007	-0.7621	113.372	-100.78
59	2.15176	-0.752084	113.938	-102.398
60	2.15176	-0.738846	114.483	-103.988
61	2.16332	-0.725736	115.01	-105.558
62	2.25129	-0.712751	115.518	-107.163
63	2.30259	-0.699883	116.008	-108.774
64	2.30259	-0.687131	116.48	-110.357
65	2.30259	-0.67449	116.935	-111.91
66	2.30259	-0.665079	117.377	-113.441
67	2.30259	-0.652622	117.803	-114.944
68	2.3979	-0.640266	118.213	-116.479
69	2.3979	-0.628006	118.608	-117.985
70	2.3979	-0.615839	118.987	-119.462
71	2.3979	-0.603765	119.351	-120.909
72	2.3979	-0.594766	119.705	-122.336
73	2.3979	-0.582841	120.045	-123.733
74	2.3979	-0.570999	120.371	-125.102
75	2.3979	-0.559237	120.684	-126.443
76	2.48491	-0.547551	120.983	-127.804
77	2.48491	-0.53594	121.271	-129.136
78	2.56495	-0.524401	121.546	-130.481
79	2.63906	-0.515791	121.812	-131.842
80	2.63906	-0.504372	122.066	-133.173
81	2.63906	-0.493018	122.309	-134.474
82	2.63906	-0.481728	122.541	-135.745
83	2.70805	-0.470498	122.763	-137.02
84	2.70805	-0.459327	122.974	-138.263
85	2.70805	-0.450985	123.177	-139.485
86	2.70805	-0.439913	123.37	-140.676
87	2.70805	-0.428895	123.554	-141.838
88	2.77259	-0.417928	123.729	-142.996
89	2.77259	-0.40701	123.895	-144.125
90	2.83321	-0.396142	124.052	-145.247
91	2.83321	-0.385321	124.2	-146.339
92	2.89037	-0.377233	124.342	-147.429
93	2.89037	-0.36649	124.477	-148.488
94	2.89037	-0.355788	124.603	-149.517
95	2.99573	-0.345126	124.722	-150.551
96	2.99573	-0.334503	124.834	-151.553
97	2.99573	-0.323919	124.939	-152.523
98	2.99573	-0.316004	125.039	-153.47
99	2.99573	-0.305481	125.132	-154.385
100	3.04452	-0.294992	125.22	-155.283
101	3.17805	-0.284535	125.3	-156.187
102	3.29584	-0.27411	125.376	-157.091
103	3.29584	-0.263715	125.445	-157.96
104	3.3673	-0.253347	125.509	-158.813
105	3.4012	-0.24559	125.57	-159.648
106	3.4012	-0.235269	125.625	-160.449
107	3.4012	-0.224974	125.676	-161.214
108	3.4012	-0.214702	125.722	-161.944
109	3.4012	-0.204452	125.764	-162.639
110	3.4012	-0.194225	125.801	-163.3
111	3.4012	-0.186567	125.836	-163.934
112	3.4012	-0.176374	125.867	-164.534
113	3.4012	-0.166199	125.895	-165.1

114	3.4012	-0.156042	125.919	-165.63
115	3.4012	-0.1459	125.94	-166.127
116	3.4012	-0.135774	125.959	-166.588
117	3.4012	-0.125661	125.975	-167.016
118	3.4012	-0.118085	125.989	-167.417
119	3.4012	-0.107995	126	-167.785
120	3.4012	-0.0979139	126.01	-168.118
121	3.4012	-0.0878447	126.018	-168.417
122	3.4012	-0.0777834	126.024	-168.681
123	3.4012	-0.0677301	126.028	-168.911
124	3.4012	-0.0601949	126.032	-169.116
125	3.4012	-0.0501541	126.034	-169.287
126	3.4012	-0.0401167	126.036	-169.423
127	3.4012	-0.0300838	126.037	-169.526
128	3.4012	-0.0200544	126.037	-169.594
129	3.4012	-0.0100272	126.037	-169.628
130	3.4012	0	126.037	-169.628
131	3.4012	0.0100272	126.037	-169.594
132	3.4012	0.0200544	126.038	-169.526
133	3.4012	0.0300838	126.039	-169.423
134	3.4012	0.0401167	126.04	-169.287
135	3.4012	0.0501541	126.043	-169.116
136	3.4012	0.0601949	126.046	-168.911
137	3.4012	0.0677301	126.051	-168.681
138	3.4012	0.0777834	126.057	-168.417
139	3.4012	0.0878447	126.065	-168.118
140	3.4012	0.0979139	126.074	-167.785
141	3.4012	0.107995	126.086	-167.417
142	3.4012	0.118085	126.1	-167.016
143	3.4012	0.125661	126.116	-166.588
144	3.4012	0.135774	126.134	-166.127
145	3.4012	0.1459	126.156	-165.63
146	3.4012	0.156042	126.18	-165.1
147	3.4012	0.166199	126.208	-164.534
148	3.4012	0.176374	126.239	-163.934
149	3.4012	0.186567	126.273	-163.3
150	3.4012	0.194225	126.311	-162.639
151	3.4012	0.204452	126.353	-161.944
152	3.4012	0.214702	126.399	-161.214
153	3.4012	0.224974	126.45	-160.449
154	3.4012	0.235269	126.505	-159.648
155	3.4012	0.24559	126.565	-158.813
156	3.4012	0.253347	126.63	-157.951
157	3.4012	0.263715	126.699	-157.054
158	3.4012	0.27411	126.774	-156.122
159	3.4012	0.284535	126.855	-155.154
160	3.4012	0.294992	126.942	-154.151
161	3.4012	0.305481	127.035	-153.112
162	3.4012	0.316004	127.135	-152.037
163	3.4012	0.323919	127.24	-150.936
164	3.4012	0.334503	127.352	-149.798
165	3.4012	0.345126	127.471	-148.624
166	3.4012	0.355788	127.598	-147.414
167	3.4012	0.36649	127.732	-146.167
168	3.4012	0.377233	127.874	-144.884
169	3.4012	0.385321	128.023	-143.574
170	3.4012	0.396142	128.18	-142.226
171	3.4012	0.40701	128.346	-140.842
172	3.4012	0.417928	128.52	-139.421
173	3.4012	0.428895	128.704	-137.962
174	3.4012	0.439913	128.898	-136.466
175	3.4012	0.450985	129.101	-134.932

176	3.4012	0.459327		129.312	-133.369
177	3.4012	0.470498		129.533	-131.769
178	3.4012	0.481728		129.765	-130.131
179	3.4012	0.493018		130.009	-128.454
180	3.4012	0.504372		130.263	-126.738
181	3.4012	0.515791		130.529	-124.984
182	3.4012	0.524401		130.804	-123.201
183	3.4012	0.53594	131.091	-121.378	
184	3.4012	0.547551		131.391	-119.515
185	3.4012	0.559237		131.704	-117.613
186	3.4012	0.570999		132.03	-115.671
187	3.4012	0.582841		132.37	-113.689
188	3.4012	0.594766		132.723	-111.666
189	3.4012	0.603765		133.088	-109.612
190	3.4012	0.615839		133.467	-107.518
191	3.4012	0.628006		133.861	-105.382
192	3.4012	0.640266		134.271	-103.204
193	3.4012	0.652622		134.697	-100.984
194	3.4012	0.665079		135.14	-98.7224
195	3.4012	0.67449	135.595	-96.4284	
196	3.4012	0.687131		136.067	-94.0913
197	3.4012	0.699883		136.557	-91.7108
198	3.4012	0.712751		137.065	-89.2866
199	3.4012	0.725736		137.591	-86.8183
200	3.4012	0.738846		138.137	-84.3053
201	3.4012	0.752084		138.703	-81.7473
202	3.4012	0.7621	139.284	-79.1553	
203	3.4012	0.775574		139.885	-76.5174
204	3.4012	0.789191		140.508	-73.8332
205	3.4012	0.802956		141.153	-71.1022
206	3.4012	0.816874		141.82	-68.3238
207	3.4012	0.830953		142.51	-65.4976
208	3.4012	0.841621		143.219	-62.6351
209	3.4012	0.855996		143.951	-59.7237
210	3.4012	0.87055	144.709	-56.7628	
211	3.4012	0.885291		145.493	-53.7517
212	3.4012	0.900227		146.303	-50.6899
213	3.4012	0.915365		147.141	-47.5765
214	3.4012	0.930718		148.008	-44.411
215	3.4012	0.942375		148.896	-41.2058
216	3.4012	0.958125		149.814	-37.947
217	3.4012	0.974114		150.763	-34.6338
218	3.4012	0.990356		151.743	-31.2654
219	3.4012	1.00687	152.757	-27.8409	
220	3.4012	1.02365	153.805	-24.3592	
221	3.4012	1.03643	154.879	-20.8341	
222	3.4012	1.05375	155.99	-17.2501	
223	3.4012	1.07138	157.137	-13.6062	
224	3.4012	1.08935	158.324	-9.90107	
225	3.4012	1.10768	159.551	-6.13364	
226	3.4012	1.12639	160.82	-2.30256	
227	3.4012	1.1455	162.132	1.59353	
228	3.4012	1.16012	163.478	5.53932	
229	3.4012	1.18	164.87	9.55274	
230	3.4012	1.20036	166.311	13.6354	
231	3.4012	1.22123	167.803	17.789	
232	3.4012	1.24264	169.347	22.0155	
233	3.4012	1.26464	170.946	26.3168	
234	3.4012	1.28155	172.588	30.6756	
235	3.4012	1.30469	174.291	35.1131	
236	3.4012	1.32854	176.056	39.6317	
237	3.4012	1.35317	177.887	44.2341	

238	3.4012	1.37866	179.787	48.9232
239	3.4012	1.40507	181.762	53.7022
240	3.4012	1.4325	183.814	58.5744
241	3.4012	1.4538	185.927	63.5191
242	3.43399	1.48328	188.127	68.6126
243	3.46574	1.5141	190.42	73.8601
244	3.58352	1.54643	192.811	79.4018
245	3.66356	1.58047	195.309	85.1919
246	3.68888	1.61644	197.922	91.1548
247	3.68888	1.64485	200.628	97.2224
248	3.68888	1.68494	203.467	103.438
249	3.68888	1.72793	206.452	109.812
250	3.85015	1.77438	209.601	116.644
251	3.8712	1.82501	212.931	123.709
252	3.91202	1.88079	216.469	131.066
253	3.93183	1.94314	220.245	138.706
254	3.97029	1.99539	224.226	146.629
255	4.07754	2.07485	228.531	155.089
256	4.18965	2.17009	233.24	164.181
257	4.23411	2.29036	238.486	173.879
258	4.49981	2.45727	244.524	184.936
259	4.49981	2.74777	252.075	197.3

Data Set Standard Deviation = 0.864723
Numerator = 38927.4
Denominator = 48629.8
W Statistic = 0.800484 = 38927.4 / 48629.8

5% Critical value of 0.976 exceeds 0.800484
Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.800484
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 = 0.894916
0.894916 < 0.987 -- Normality test fails at 95% level

Plotted Data Points

Datum	Value	Prob.	Quantile.	x	y
1	0.262364	0.00384615	-2.74777	67.073	348.683
2	0.262364	0.00769231	-2.45727	67.073	334.497
3	0.262364	0.0115385	-2.29036	67.073	326.346
4	0.262364	0.0153846	-2.17009	67.073	320.473
5	0.262364	0.0192308	-2.07485	67.073	315.822
6	0.262364	0.0230769	-1.99539	67.073	311.942
7	0.262364	0.0269231	-1.94314	67.073	309.39
8	0.262364	0.0307692	-1.88079	67.073	306.345
9	0.993252	0.0346154	-1.82501	145.278	303.621
10	1.06471	0.0384615	-1.77438	152.924	301.149
11	1.16315	0.0423077	-1.72793	163.457	298.881
12	1.25276	0.0461538	-1.68494	173.046	296.781
13	1.25276	0.05	-1.64485	173.046	294.824
14	1.28093	0.0538462	-1.61644	176.06	293.436
15	1.28093	0.0576923	-1.58047	176.06	291.679
16	1.30833	0.0615385	-1.54643	178.992	290.017
17	1.335	0.0653846	-1.5141	181.845	288.439
18	1.38629	0.0692308	-1.48328	187.333	286.934
19	1.43508	0.0730769	-1.4538	192.554	285.494
20	1.4816	0.0769231	-1.4325	197.532	284.454
21	1.50408	0.0807692	-1.40507	199.936	283.114
22	1.50408	0.0846154	-1.37866	199.936	281.824
23	1.50408	0.0884615	-1.35317	199.936	280.58
24	1.58924	0.0923077	-1.32854	209.048	279.377
25	1.58924	0.0961538	-1.30469	209.048	278.212
26	1.60944	0.1	-1.28155	211.21	277.082
27	1.62924	0.103846	-1.26464	213.329	276.257
28	1.62924	0.107692	-1.24264	213.329	275.182
29	1.64866	0.111538	-1.22123	215.406	274.137
30	1.66771	0.115385	-1.20036	217.445	273.118
31	1.6864	0.119231	-1.18	219.445	272.123
32	1.70475	0.123077	-1.16012	221.408	271.153
33	1.70475	0.126923	-1.1455	221.408	270.439
34	1.72277	0.130769	-1.12639	223.336	269.505
35	1.79176	0.134615	-1.10768	230.718	268.592
36	1.79176	0.138462	-1.08935	230.718	267.697
37	1.84055	0.142308	-1.07138	235.939	266.819
38	1.84055	0.146154	-1.05375	235.939	265.958
39	1.8718	0.15	-1.03643	239.283	265.112
40	1.88707	0.153846	-1.02365	240.916	264.488
41	1.88707	0.157692	-1.00687	240.916	263.669
42	1.90211	0.161538	-0.990356	242.526	262.862
43	1.90211	0.165385	-0.974114	242.526	262.069
44	1.93152	0.169231	-0.958125	245.673	261.288
45	1.94591	0.173077	-0.942375	247.212	260.519
46	1.94591	0.176923	-0.930718	247.212	259.95
47	1.94591	0.180769	-0.915365	247.212	259.2
48	1.98787	0.184615	-0.900227	251.703	258.461

49	1.98787	0.188462	-0.885291	251.703	257.732
50	2.00148	0.192308	-0.87055	253.158	257.012
51	2.02815	0.196154	-0.855996	256.012	256.301
52	2.02815	0.2	-0.841621	256.012	255.599
53	2.06686	0.203846	-0.830953	260.154	255.078
54	2.10413	0.207692	-0.816874	264.142	254.391
55	2.10413	0.211538	-0.802956	264.142	253.711
56	2.11626	0.215385	-0.789191	265.439	253.039
57	2.14007	0.219231	-0.775574	267.987	252.374
58	2.14007	0.223077	-0.7621	267.987	251.716
59	2.15176	0.226923	-0.752084	269.239	251.227
60	2.15176	0.230769	-0.738846	269.239	250.58
61	2.16332	0.234615	-0.725736	270.476	249.94
62	2.25129	0.238462	-0.712751	279.888	249.306
63	2.30259	0.242308	-0.699883	285.377	248.678
64	2.30259	0.246154	-0.687131	285.377	248.055
65	2.30259	0.25	-0.67449	285.377	247.438
66	2.30259	0.253846	-0.665079	285.377	246.978
67	2.30259	0.257692	-0.652622	285.377	246.37
68	2.3979	0.261538	-0.640266	295.575	245.766
69	2.3979	0.265385	-0.628006	295.575	245.168
70	2.3979	0.269231	-0.615839	295.575	244.573
71	2.3979	0.273077	-0.603765	295.575	243.984
72	2.3979	0.276923	-0.594766	295.575	243.544
73	2.3979	0.280769	-0.582841	295.575	242.962
74	2.3979	0.284615	-0.570999	295.575	242.384
75	2.3979	0.288462	-0.559237	295.575	241.809
76	2.48491	0.292308	-0.547551	304.885	241.239
77	2.48491	0.296154	-0.53594	304.885	240.672
78	2.56495	0.3	-0.524401	313.45	240.108
79	2.63906	0.303846	-0.515791	321.379	239.688
80	2.63906	0.307692	-0.504372	321.379	239.13
81	2.63906	0.311538	-0.493018	321.379	238.576
82	2.63906	0.315385	-0.481728	321.379	238.024
83	2.70805	0.319231	-0.470498	328.761	237.476
84	2.70805	0.323077	-0.459327	328.761	236.93
85	2.70805	0.326923	-0.450985	328.761	236.523
86	2.70805	0.330769	-0.439913	328.761	235.982
87	2.70805	0.334615	-0.428895	328.761	235.444
88	2.77259	0.338462	-0.417928	335.667	234.909
89	2.77259	0.342308	-0.40701	335.667	234.376
90	2.83321	0.346154	-0.396142	342.154	233.845
91	2.83321	0.35	-0.385321	342.154	233.317
92	2.89037	0.353846	-0.377233	348.27	232.922
93	2.89037	0.357692	-0.36649	348.27	232.397
94	2.89037	0.361538	-0.355788	348.27	231.874
95	2.99573	0.365385	-0.345126	359.543	231.354
96	2.99573	0.369231	-0.334503	359.543	230.835
97	2.99573	0.373077	-0.323919	359.543	230.318
98	2.99573	0.376923	-0.316004	359.543	229.932
99	2.99573	0.380769	-0.305481	359.543	229.418
100	3.04452	0.384615	-0.294992	364.764	228.905
101	3.17805	0.388462	-0.284535	379.052	228.395
102	3.29584	0.392308	-0.27411	391.655	227.886
103	3.29584	0.396154	-0.263715	391.655	227.378
104	3.3673	0.4	-0.253347	399.301	226.872
105	3.4012	0.403846	-0.24559	402.928	226.493
106	3.4012	0.407692	-0.235269	402.928	225.989
107	3.4012	0.411538	-0.224974	402.928	225.486
108	3.4012	0.415385	-0.214702	402.928	224.985
109	3.4012	0.419231	-0.204452	402.928	224.484
110	3.4012	0.423077	-0.194225	402.928	223.985

111	3.4012	0.426923	-0.186567	402.928	223.611
112	3.4012	0.430769	-0.176374	402.928	223.113
113	3.4012	0.434615	-0.166199	402.928	222.616
114	3.4012	0.438462	-0.156042	402.928	222.12
115	3.4012	0.442308	-0.1459	402.928	221.625
116	3.4012	0.446154	-0.135774	402.928	221.13
117	3.4012	0.45	-0.125661	402.928	220.636
118	3.4012	0.453846	-0.118085	402.928	220.267
119	3.4012	0.457692	-0.107995	402.928	219.774
120	3.4012	0.461538	-0.0979139	402.928	219.281
121	3.4012	0.465385	-0.0878447	402.928	218.79
122	3.4012	0.469231	-0.0777834	402.928	218.298
123	3.4012	0.473077	-0.0677301	402.928	217.807
124	3.4012	0.476923	-0.0601949	402.928	217.44
125	3.4012	0.480769	-0.0501541	402.928	216.949
126	3.4012	0.484615	-0.0401167	402.928	216.459
127	3.4012	0.488462	-0.0300838	402.928	215.969
128	3.4012	0.492308	-0.0200544	402.928	215.479
129	3.4012	0.496154	-0.0100272	402.928	214.99
130	3.4012	0.5	0	402.928	214.5
131	3.4012	0.503846	0.0100272	402.928	214.01
132	3.4012	0.507692	0.0200544	402.928	213.521
133	3.4012	0.511538	0.0300838	402.928	213.031
134	3.4012	0.515385	0.0401167	402.928	212.541
135	3.4012	0.519231	0.0501541	402.928	212.051
136	3.4012	0.523077	0.0601949	402.928	211.56
137	3.4012	0.526923	0.0677301	402.928	211.193
138	3.4012	0.530769	0.0777834	402.928	210.702
139	3.4012	0.534615	0.0878447	402.928	210.21
140	3.4012	0.538462	0.0979139	402.928	209.719
141	3.4012	0.542308	0.107995	402.928	209.226
142	3.4012	0.546154	0.118085	402.928	208.733
143	3.4012	0.55	0.125661	402.928	208.364
144	3.4012	0.553846	0.135774	402.928	207.87
145	3.4012	0.557692	0.1459	402.928	207.375
146	3.4012	0.561538	0.156042	402.928	206.88
147	3.4012	0.565385	0.166199	402.928	206.384
148	3.4012	0.569231	0.176374	402.928	205.887
149	3.4012	0.573077	0.186567	402.928	205.389
150	3.4012	0.576923	0.194225	402.928	205.015
151	3.4012	0.580769	0.204452	402.928	204.516
152	3.4012	0.584615	0.214702	402.928	204.015
153	3.4012	0.588462	0.224974	402.928	203.514
154	3.4012	0.592308	0.235269	402.928	203.011
155	3.4012	0.596154	0.24559	402.928	202.507
156	3.4012	0.6	0.253347	402.928	202.128
157	3.4012	0.603846	0.263715	402.928	201.622
158	3.4012	0.607692	0.27411	402.928	201.114
159	3.4012	0.611538	0.284535	402.928	200.605
160	3.4012	0.615385	0.294992	402.928	200.095
161	3.4012	0.619231	0.305481	402.928	199.582
162	3.4012	0.623077	0.316004	402.928	199.068
163	3.4012	0.626923	0.323919	402.928	198.682
164	3.4012	0.630769	0.334503	402.928	198.165
165	3.4012	0.634615	0.345126	402.928	197.646
166	3.4012	0.638462	0.355788	402.928	197.126
167	3.4012	0.642308	0.36649	402.928	196.603
168	3.4012	0.646154	0.377233	402.928	196.078
169	3.4012	0.65	0.385321	402.928	195.683
170	3.4012	0.653846	0.396142	402.928	195.155
171	3.4012	0.657692	0.40701	402.928	194.624
172	3.4012	0.661538	0.417928	402.928	194.091

173	3.4012	0.665385	0.428895	402.928	193.556
174	3.4012	0.669231	0.439913	402.928	193.018
175	3.4012	0.673077	0.450985	402.928	192.477
176	3.4012	0.676923	0.459327	402.928	192.07
177	3.4012	0.680769	0.470498	402.928	191.524
178	3.4012	0.684615	0.481728	402.928	190.976
179	3.4012	0.688462	0.493018	402.928	190.424
180	3.4012	0.692308	0.504372	402.928	189.87
181	3.4012	0.696154	0.515791	402.928	189.312
182	3.4012	0.7	0.524401	402.928	188.892
183	3.4012	0.703846	0.53594	402.928	188.328
184	3.4012	0.707692	0.547551	402.928	187.761
185	3.4012	0.711538	0.559237	402.928	187.191
186	3.4012	0.715385	0.570999	402.928	186.616
187	3.4012	0.719231	0.582841	402.928	186.038
188	3.4012	0.723077	0.594766	402.928	185.456
189	3.4012	0.726923	0.603765	402.928	185.016
190	3.4012	0.730769	0.615839	402.928	184.427
191	3.4012	0.734615	0.628006	402.928	183.832
192	3.4012	0.738462	0.640266	402.928	183.234
193	3.4012	0.742308	0.652622	402.928	182.63
194	3.4012	0.746154	0.665079	402.928	182.022
195	3.4012	0.75	0.67449	402.928	181.562
196	3.4012	0.753846	0.687131	402.928	180.945
197	3.4012	0.757692	0.699883	402.928	180.322
198	3.4012	0.761538	0.712751	402.928	179.694
199	3.4012	0.765385	0.725736	402.928	179.06
200	3.4012	0.769231	0.738846	402.928	178.42
201	3.4012	0.773077	0.752084	402.928	177.773
202	3.4012	0.776923	0.7621	402.928	177.284
203	3.4012	0.780769	0.775574	402.928	176.626
204	3.4012	0.784615	0.789191	402.928	175.961
205	3.4012	0.788462	0.802956	402.928	175.289
206	3.4012	0.792308	0.816874	402.928	174.609
207	3.4012	0.796154	0.830953	402.928	173.922
208	3.4012	0.8	0.841621	402.928	173.401
209	3.4012	0.803846	0.855996	402.928	172.699
210	3.4012	0.807692	0.87055	402.928	171.988
211	3.4012	0.811538	0.885291	402.928	171.268
212	3.4012	0.815385	0.900227	402.928	170.539
213	3.4012	0.819231	0.915365	402.928	169.8
214	3.4012	0.823077	0.930718	402.928	169.05
215	3.4012	0.826923	0.942375	402.928	168.481
216	3.4012	0.830769	0.958125	402.928	167.712
217	3.4012	0.834615	0.974114	402.928	166.931
218	3.4012	0.838462	0.990356	402.928	166.138
219	3.4012	0.842308	1.00687	402.928	165.331
220	3.4012	0.846154	1.02365	402.928	164.512
221	3.4012	0.85	1.03643	402.928	163.888
222	3.4012	0.853846	1.05375	402.928	163.042
223	3.4012	0.857692	1.07138	402.928	162.181
224	3.4012	0.861538	1.08935	402.928	161.303
225	3.4012	0.865385	1.10768	402.928	160.408
226	3.4012	0.869231	1.12639	402.928	159.495
227	3.4012	0.873077	1.1455	402.928	158.561
228	3.4012	0.876923	1.16012	402.928	157.847
229	3.4012	0.880769	1.18	402.928	156.877
230	3.4012	0.884615	1.20036	402.928	155.882
231	3.4012	0.888462	1.22123	402.928	154.863
232	3.4012	0.892308	1.24264	402.928	153.818
233	3.4012	0.896154	1.26464	402.928	152.743
234	3.4012	0.9	1.28155	402.928	151.918

235	3.4012	0.903846		1.30469	402.928	150.788
236	3.4012	0.907692		1.32854	402.928	149.623
237	3.4012	0.911538		1.35317	402.928	148.42
238	3.4012	0.915385		1.37866	402.928	147.176
239	3.4012	0.919231		1.40507	402.928	145.886
240	3.4012	0.923077		1.4325	402.928	144.546
241	3.4012	0.926923		1.4538	402.928	143.506
242	3.43399	0.930769		1.48328	406.437	142.066
243	3.46574	0.934615		1.5141	409.834	140.561
244	3.58352	0.938462		1.54643	422.437	138.983
245	3.66356	0.942308		1.58047	431.001	137.321
246	3.68888	0.946154		1.61644	433.71	135.564
247	3.68888	0.95	1.64485	433.71	134.176	
248	3.68888	0.953846		1.68494	433.71	132.219
249	3.68888	0.957692		1.72793	433.71	130.119
250	3.85015	0.961538		1.77438	450.966	127.851
251	3.8712	0.965385		1.82501	453.219	125.379
252	3.91202	0.969231		1.88079	457.586	122.655
253	3.93183	0.973077		1.94314	459.705	119.61
254	3.97029	0.976923		1.99539	463.821	117.058
255	4.07754	0.980769		2.07485	475.297	113.178
256	4.18965	0.984615		2.17009	487.293	108.527
257	4.23411	0.988462		2.29036	492.049	102.654
258	4.49981	0.992308		2.45727	520.48	94.5032
259	4.49981	0.996154		2.74777	520.48	80.3175

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
LMW-4	1/16/1998	ND<3.4012	72.5
	3/16/1999	3.91202 J	252
	9/23/1999	ND<3.4012	72.5
	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	ND<3.4012	72.5
	10/26/2005	ND<3.4012	72.5
	6/19/2006	ND<3.4012	72.5
	11/18/2006	2.3979 J	204
	6/2/2007	3.85015	250
	11/15/2007	ND<3.4012	72.5
	5/20/2008	2.70805 J	219
	11/20/2008	ND<3.4012	72.5
	6/11/2009	1.90211 J	178
	6/30/2010	1.93152 J	180
	11/17/2010	1.98787 J	184
	7/6/2011	2.99573	231
	11/22/2011	2.3979	205
	5/16/2012	1.79176 J	171

Rank Sum = 2871.5
Rank Mean = 136.738

Background Rank Sum = 2871.5
Background Rank Mean = 136.738

Compliance Locations

Loc. ID	Date	Value	Rank
LMW-3	11/19/1996	ND<3.4012	72.5
	3/24/1997	ND<3.4012	72.5
	1/16/1998	ND<3.4012	72.5
	3/16/1999	2.99573 J	232
	9/23/1999	ND<3.4012	72.5
	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	ND<3.4012	72.5
	10/26/2005	ND<3.4012	72.5
	6/19/2006	ND<3.4012	72.5
	11/18/2006	1.79176 J	172
	6/2/2007	ND<3.4012	72.5
	11/15/2007	4.18965	256
	5/20/2008	2.48491 J	212
	11/20/2008	ND<3.4012	72.5
	6/11/2009	1.98787 J B	185
	6/30/2010	2.14007 J	193

	11/17/2010	2.3979		206
	7/6/2011	2.02815	J	187
	11/22/2011	2.63906		215
	5/16/2012	1.38629	J	154

Rank Sum = 2954.5
Rank Mean = 128.457

LMW-15R	11/18/2006	2.63906	J	216
	6/2/2007	ND<3.4012		72.5
	11/15/2007	ND<3.4012		72.5
	11/15/2007	ND<3.4012		72.5
	5/20/2008	3.66356	J	245
	5/20/2008	ND<3.4012		72.5
	11/20/2008	ND<3.4012		72.5
	11/20/2008	ND<3.4012		72.5
	6/11/2009	1.8718	J	175
	6/30/2010	1.88707	J	176
	11/17/2010	2.11626	J	192
	7/6/2011	2.15176	J	195
	11/22/2011	2.14007	J	194
	5/16/2012	ND<0.262364	U	72.5

Rank Sum = 1900.5
Rank Mean = 135.75

LMW-14R	6/2/2007	2.70805	J	220
	11/15/2007	ND<3.4012		72.5
	5/20/2008	2.89037	J	228
	11/20/2008	ND<3.4012		72.5
	6/11/2009	1.84055	J	173
	6/30/2010	1.58924	J	160
	11/17/2010	1.50408	J	157
	7/6/2011	2.30259		199
	11/22/2011	2.30259		200
	5/16/2012	1.90211	J	179

Rank Sum = 1661
Rank Mean = 166.1

LMW-10	3/14/2000	ND<3.4012		72.5
	9/23/2003	ND<3.4012		72.5
	3/10/2004	ND<3.4012		72.5
	10/12/2004	ND<3.4012		72.5
	4/1/2005	ND<3.4012		72.5
	10/26/2005	ND<3.4012		72.5
	6/19/2006	ND<3.4012		72.5
	11/18/2006	ND<3.4012		72.5
	6/2/2007	ND<3.4012		72.5
	11/15/2007	ND<3.4012		72.5
	5/20/2008	3.68888	J	246
	11/20/2008	ND<3.4012		72.5
	6/11/2009	ND<0.262364	U	72.5
	6/30/2010	1.28093	J	150
	11/17/2010	1.66771	J	166
	7/6/2011	1.43508	J	155
	11/22/2011	1.70475	J	168
	5/16/2012	ND<0.262364	U	72.5

Rank Sum = 1827.5
Rank Mean = 101.528

LMW-9S	11/18/2006	ND<3.4012		72.5
	6/2/2007	ND<3.4012		72.5
	11/15/2007	ND<3.4012		72.5
	5/20/2008	3.46574	J	243

	11/20/2008	ND<3.4012	72.5
	6/11/2009	1.64866 J	165
	6/30/2010	1.25276 J	148
	11/17/2010	1.28093 J	151
	7/6/2011	ND<0.262364 U	72.5
	11/22/2011	1.84055 J	174
	5/16/2012	ND<0.262364 U	72.5

Rank Sum = 1316
Rank Mean = 119.636

LMW-9D	11/18/2006	1.94591 J	181
	6/2/2007	ND<3.4012	72.5
	11/15/2007	ND<3.4012	72.5
	5/20/2008	2.89037 J	229
	11/20/2008	ND<3.4012	72.5
	6/11/2009	1.25276 J	149
	6/30/2010	1.72277 J	170
	11/17/2010	1.62924 J	163
	7/6/2011	2.56495	214
	11/22/2011	2.63906	217
	5/16/2012	0.993252 J	145

Rank Sum = 1685.5
Rank Mean = 153.227

LMW-16	11/18/2006	ND<3.4012	72.5
	6/2/2007	2.77259 J	224
	11/15/2007	4.23411	257
	5/20/2008	2.70805 J	221
	11/20/2008	ND<3.4012	72.5
	6/11/2009	ND<0.262364 U	72.5
	6/30/2010	2.06686 J	189
	11/17/2010	1.6864 J	167
	7/6/2011	1.62924 J	164
	11/22/2011	2.48491	213
	5/16/2012	1.335 J	153

Rank Sum = 1805.5
Rank Mean = 164.136

LMW-9	1/16/1998	ND<3.4012	72.5
	3/16/1999	4.49981	258
	9/23/1999	ND<3.4012	72.5
	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	ND<3.4012	72.5
	10/26/2005	ND<3.4012	72.5
	6/19/2006	2.99573 J	233
	11/18/2006	ND<3.4012	72.5
	6/2/2007	2.83321 J	226
	11/15/2007	ND<3.4012	72.5
	5/20/2008	1.94591 J	182
	11/20/2008	ND<3.4012	72.5
	6/11/2009	ND<0.262364 U	72.5
	6/30/2010	1.4816 J	156
	11/17/2010	1.50408 J	158
	7/6/2011	1.30833 J	152
	11/22/2011	1.88707 J	177
	5/16/2012	2.00148 J	186

Rank Sum = 2598
Rank Mean = 123.714

LMW-8	1/16/1998	ND<3.4012	72.5
	3/16/1999	4.49981	259
	9/23/1999	ND<3.4012	72.5
	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	ND<3.4012	72.5
	10/26/2005	ND<3.4012	72.5
	6/19/2006	ND<3.4012	72.5
	11/18/2006	ND<3.4012	72.5
	6/2/2007	ND<3.4012	72.5
	11/15/2007	ND<3.4012	72.5
	5/20/2008	1.60944 J	162
	11/20/2008	ND<3.4012	72.5
	6/11/2009	2.10413 J	190
	6/30/2010	1.50408 J	159
	11/17/2010	1.16315 J	147
	7/6/2011	2.3979 J	207
	11/22/2011	3.17805	237
	5/16/2012	ND<0.262364 U	72.5

Rank Sum = 2376
Rank Mean = 113.143

LMW-7	1/16/1998	ND<3.4012	72.5
	3/16/1999	2.99573 J	234
	9/23/1999	3.68888 J	247
	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	3.29584 J	238
	10/26/2005	3.43399 J	242
	6/19/2006	3.68888 J	248
	11/18/2006	3.04452 J	236
	6/2/2007	3.93183	253
	11/15/2007	ND<3.4012	72.5
	5/20/2008	2.30259 J	201
	11/20/2008	ND<3.4012	72.5
	6/11/2009	3.3673 B	240
	11/17/2010	2.25129 J	198
	7/6/2011	4.07754	255
	11/22/2011	2.70805	222
	5/16/2012	2.3979	208

Rank Sum = 3529.5
Rank Mean = 176.475

LMW-6	1/16/1998	ND<3.4012	72.5
	3/16/1999	3.4012 J	241
	9/23/1999	3.97029 J	254
	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	ND<3.4012	72.5
	10/26/2005	ND<3.4012	72.5
	6/19/2006	2.99573 J	235
	11/18/2006	1.94591 J	183
	6/2/2007	2.83321 J	227
	11/15/2007	3.29584 J	239
	5/20/2008	2.30259 J	202
	11/20/2008	ND<3.4012	72.5

	6/11/2009	2.10413	J B	191
	6/30/2010	2.3979	209	
	11/17/2010	2.15176	J	196
	7/6/2011	2.16332	J	197
	11/22/2011	1.58924	J	161
	5/16/2012	1.06471	J	146

Rank Sum = 3261
Rank Mean = 155.286

LMW-3s	5/16/2012	2.3979	210	

Rank Sum = 210
Rank Mean = 210

LMW-3S	11/18/2006	2.30259	J	203
	6/2/2007	2.77259	J	225
	11/15/2007	3.8712	J	251
	5/20/2008	2.70805	J	223
	11/20/2008	ND<3.4012		72.5
	6/11/2009	2.89037	B	230
	6/30/2010	2.63906	Q	218
	11/17/2010	2.3979	211	
	7/6/2011	2.02815	J	188
	11/22/2011	1.70475	J	169

Rank Sum = 1990.5
Rank Mean = 199.05

LMW-12	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	ND<3.4012	72.5
	10/26/2005	ND<3.4012	72.5
	6/19/2006	ND<3.4012	72.5
	6/2/2007	ND<3.4012	72.5
	11/15/2007	ND<3.4012	72.5
	5/20/2008	ND<3.4012	72.5
	11/20/2008	ND<3.4012	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-13	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	ND<3.4012	72.5
	10/26/2005	ND<3.4012	72.5
	6/19/2006	ND<3.4012	72.5
	6/2/2007	ND<3.4012	72.5
	11/15/2007	ND<3.4012	72.5
	5/20/2008	ND<3.4012	72.5
	11/20/2008	ND<3.4012	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-11	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	ND<3.4012	72.5
	10/26/2005	ND<3.4012	72.5
	6/19/2006	ND<3.4012	72.5
	6/2/2007	ND<3.4012	72.5

	11/15/2007	ND<3.4012	72.5
	5/20/2008	ND<3.4012	72.5
	11/20/2008	ND<3.4012	72.5

Rank Sum = 797.5
Rank Mean = 72.5

MW-5	1/16/1998	ND<3.4012	72.5
	3/16/1999	3.68888 J	249
	9/23/1999	3.58352 J	244
	3/14/2000	ND<3.4012	72.5
	9/23/2003	ND<3.4012	72.5
	3/10/2004	ND<3.4012	72.5
	10/12/2004	ND<3.4012	72.5
	4/1/2005	ND<3.4012	72.5
	10/26/2005	ND<3.4012	72.5
	6/19/2006	ND<3.4012	72.5
	11/15/2007	ND<3.4012	72.5
	5/20/2008	ND<3.4012	72.5
	11/20/2008	ND<3.4012	72.5

Rank Sum = 1290.5
Rank Mean = 99.2692

Calculation Results:

Kruskal-Wallis H Statistic = 51.3063
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 61.9537
95% Confidence comparison value is 27.5871 at 17 degrees of freedom
51.3063 > 27.5871 indicating a significant group difference at 5% significance level
61.9537 > 27.5871 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 136.738

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	**128.457**	**-8.28157**	**52.5984**
LMW-15R	**135.75**	**-0.988095**	**60.1284**
LMW-14R	**166.1**	**29.3619**	**66.9562**
LMW-10	**101.528**	**-35.2103**	**55.9765**
LMW-9S	**119.636**	**-17.1017**	**64.8617**
LMW-9D	**153.227**	**16.4892**	**64.8617**
LMW-16	**164.136**	**27.3983**	**64.8617**
LMW-9	**123.714**	**-13.0238**	**53.7805**
LMW-8	**113.143**	**-23.5952**	**53.7805**
LMW-7	**176.475**	**39.7369**	**54.4486**
LMW-6	**155.286**	**18.5476**	**53.7805**
LMW-3s	**210**	**73.2619**	**178.37**
LMW-3S	**199.05**	**62.3119**	**66.9562**
LMW-12	**72.5**	**-64.2381**	**64.8617**
LMW-13	**72.5**	**-64.2381**	**64.8617**
LMW-11	**72.5**	**-64.2381**	**64.8617**
MW-5	**99.2692**	**-37.4689**	**61.5004**

Individual Well Comparisons at Groupwise 5% Significance Level (0.294118% Significance Level per comparison)

0.294118% Z score is 2.87815
Mean background rank is 136.738

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	**128.457**	**-8.28157**	**65.0747**
LMW-15R	**135.75**	**-0.988095**	**74.3909**

LMW-14R	166.1	29.3619	82.8382
LMW-10	101.528	-35.2103	69.2542
LMW-9S	119.636	-17.1017	80.2469
LMW-9D	153.227	16.4892	80.2469
LMW-16	164.136	27.3983	80.2469
LMW-9	123.714	-13.0238	66.5372
LMW-8	113.143	-23.5952	66.5372
LMW-7	176.475	39.7369	67.3638
LMW-6	155.286	18.5476	66.5372
LMW-3s	210	73.2619	220.679
LMW-3S	199.05	62.3119	82.8382
LMW-12	72.5	-64.2381	80.2469
LMW-13	72.5	-64.2381	80.2469
LMW-11	72.5	-64.2381	80.2469
MW-5	99.2692	-37.4689	76.0882

Non-Parametric Prediction Interval
Inter-Well Comparison
Parameter: Zinc
Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 55.5985%
Number of comparisons = 17
Future Samples (k) = 8
Recent Dates = 1
Background Measurements (n) = 21
Maximum Background Value = 3.91202
Confidence Level = 72.4%
False Positive Rate = 27.6%

Location	Date	Count	Mean	Significant
LMW-3	5/16/2012	1	1.38629	FALSE
LMW-15R	5/16/2012	1	0.262364	FALSE
LMW-14R	5/16/2012	1	1.90211	FALSE
LMW-10	5/16/2012	1	0.262364	FALSE
LMW-9S	5/16/2012	1	0.262364	FALSE
LMW-9D	5/16/2012	1	0.993252	FALSE
LMW-16	5/16/2012	1	1.335	FALSE
LMW-9	5/16/2012	1	2.00148	FALSE
LMW-8	5/16/2012	1	0.262364	FALSE
LMW-7	5/16/2012	1	2.3979	FALSE
LMW-6	5/16/2012	1	1.06471	FALSE
LMW-3s	5/16/2012	1	2.3979	FALSE
LMW-3S	11/22/2011	1	1.70475	FALSE
LMW-12	11/20/2008	1	3.4012	FALSE
LMW-13	11/20/2008	1	3.4012	FALSE
LMW-11	11/20/2008	1	3.4012	FALSE
MW-5	11/20/2008	1	3.4012	FALSE