FINAL
SECOND 2008 GROUNDWATER AND METHANE MONITORING REPORT

FOR

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

FORT BRAGG, NORTH CAROLINA

Prepared by:

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

April 2009

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SIGNATURE OF CERTIFIED PROFESSIONAL GEOLOGIST	
Robert V. O'Kelley, P. G. Professional License Numbers: North Carolina # 0320	Date

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TABLE OF CONTENTS

SECTION **PAGE**

1.0 INTRODUCTION 1

1.1 Project Background 1

1.2 Project Scope 1

2.0 PROJECT HISTORY 3

2.1 Site Description and History 3

2.2 General Site Geology and Hydrology 3

2.3 Previous Investigation and Results 4

3.0 METHODS 5

3.1 Methane Monitoring 5

3.2 Water-Level Gauging 5

3.3 Groundwater Sampling 5

3.4 Investigation Derived Wastes Handling 7

4.0 ANALYTICAL RESULTS AND STATISTICAL ANALYSIS 8

4.1 Analytical Data Summary 8

4.2 Statistical Analysis Results 9

5.0 CONCLUSIONS AND RECOMMENATIONS 10

6.0 REFERENCES 11

In Order
Following
Page 11

FIGURES

Figure 1 Site Map – Ft. Bragg, NC

Figure 2 Location Map – Lamont Street Landfill, Ft. Bragg, NC

Figure 3 Methane Monitoring Results

Figure 4 Potentiometric Map

Figure 5 Groundwater Analytical Results

TABLES

Table 1 Methane Monitoring Results

Table 2 Groundwater Elevation Data

Table 3 Field Parameter Measurements

Table 4 Summary of Groundwater Detections

APPENDICES

Appendix A – Groundwater Sampling Logs

Appendix B – Data-Validation Reports

Appendix C – Chains of Custody and Laboratory Analytical Reports – Electronic Only

Appendix D – Statistical Reports – Electronic Only

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
USACE	US Army Corps of Engineers
VOCs	Volatile Organic Compounds

FINAL
SECOND 2008 GROUNDWATER AND METHANE MONITORING REPORT FOR THE LAMONT ROAD LCID AND C&D LANDFILLS NCDENR LANDFILL PERMIT #26G AND #26-08 FORT BRAGG, NORTH CAROLINA

1.0 INTRODUCTION

This is the Second 2008 Report for the groundwater and methane monitoring at the Lamont Road Landfills (Figure 1) performed by the United States Army Corps of Engineers (USACE), Savannah District in November, 2008. The monitoring is required by the North Carolina Department of Environmental and Natural Resources (NCDENR) Solid Waste Management Division. 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. Also, an additional two wells have 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 and nitrate/nitrite, sampling for methane at 13 selected methane monitoring wells and 2 buildings on site, evaluating the analytical results, and reporting the results of the investigation. The groundwater sampling and data analyses included obtaining field parameter measurements (i.e. pH, temperature, etc.), measuring water levels at the monitoring well locations, determining groundwater flow directions, validating laboratory analytical data, performing statistical 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 May and June 2008 for Lamont Landfill, was conducted by the USACE, Savannah District. There were low level concentrations of Appendix I VOCs and metals. However, the detections were below the respective NC2L standard.

3.0 METHODS

3.1 Methane Monitoring

Methane monitoring was performed at 13 wells and 2 buildings. The monitoring included measuring levels of methane, carbon dioxide, and oxygen at each of the locations. The results of the monitoring are summarized in Table 1 and are also presented on Figure 3.

3.2 Water-Level Gauging

During this sampling event, USACE personnel measured the water levels in 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.

EPA method 8270C was not performed for any sample from Lamont Landfill. This oversight was a deviation from the approved Sampling and Analysis Plan (SAP). This problem did not affect the Longstreet Landfill sampling. Only one SVOC compound has been detected at the Lamont landfill in the past three years of monitoring and the compound was not detected over the NC2L limit. Therefore, this deviation is considered minor and will be corrected in the next round of sampling.

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 Novembere 2008 were analyzed for VOCs, Appendix I metals, and nitrate/nitrite. 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 2008 sampling event indicated that some VOCs and inorganics were detected at low levels, and most detections were below NC2L standards (Table 4). Three wells had detections exceeding the NC2L standards: wells LMW-7, LMW-9D, and LMW-15R. The analytical results for each of those wells are discussed as follows:

- <u>Well LMW-7</u>
  Arsenic was detected at a concentration of 10.8 µg/L. This exceeds the NC2L standard of 10 µg/L.

- <u>Well LMW-9D</u>
  Silver was detected at a concentration of 33 µg/L. This exceeds the NC2L standard of 17.5 µg/L.
- <u>Well LMW-15R</u>
  Arsenic was detected at a concentration of 10.4 µg/L. This exceeds the NC2L standard of 10µg/L.

Though other wells had constituent detections above reporting limits, all are below the respective NC2L standard and most are estimated values (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 either normally or lognormally distributed the ANOVA Test was applied. If the data were non-normally distributed, or the fraction of non-detects exceeds 15%, then the Kruskal-Wallis Test was applied. The Kruskal-Wallis Test performs post-hoc comparisons between background and compliance well data to determine which wells, if any, show evidence of contamination. 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 significant increases in the concentrations of the detected constituents.

5.0 CONCLUSIONS AND RECOMMENATIONS

The annual monitoring program consists of two sampling events (this was the first) conducted six months apart. This was the second 2008 sampling event for groundwater and methane monitoring performed by the USACE, Savannah District at this site. It was the 17th sampling event at the Lamont Road Landfills. Low levels of Appendix I VOCs and metals were detected, but most of the detections were at estimated levels. Arsenic in two wells and silver in a third well exceeded the respective NC2L standard.

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 downward or variable results with no indications of upward trending. Long-term monitoring should continue at the Lamont Road Landfill because it is still an active site and NC Solid Waste Regulations require it.

6.0 REFERENCES

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

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

FIGURES

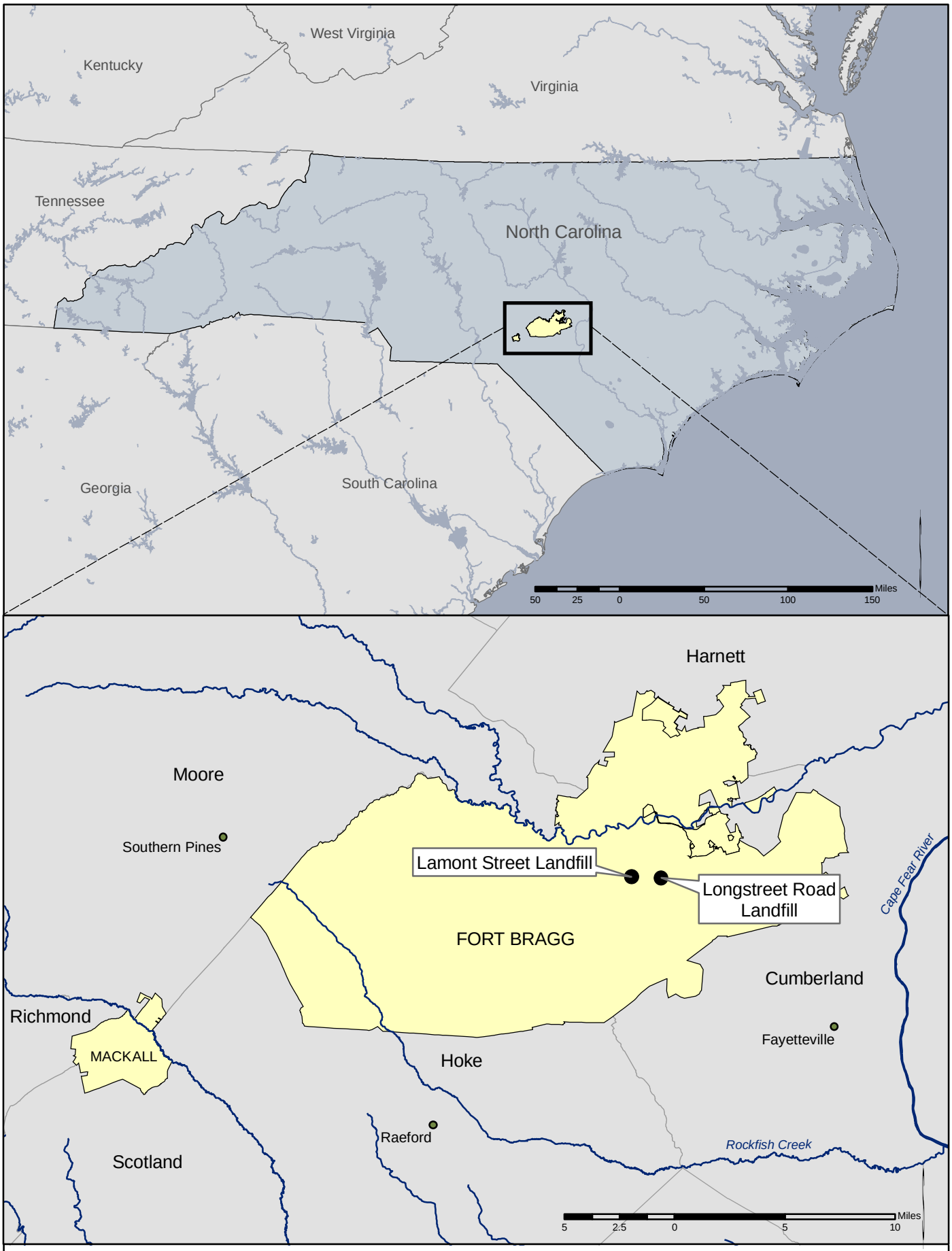

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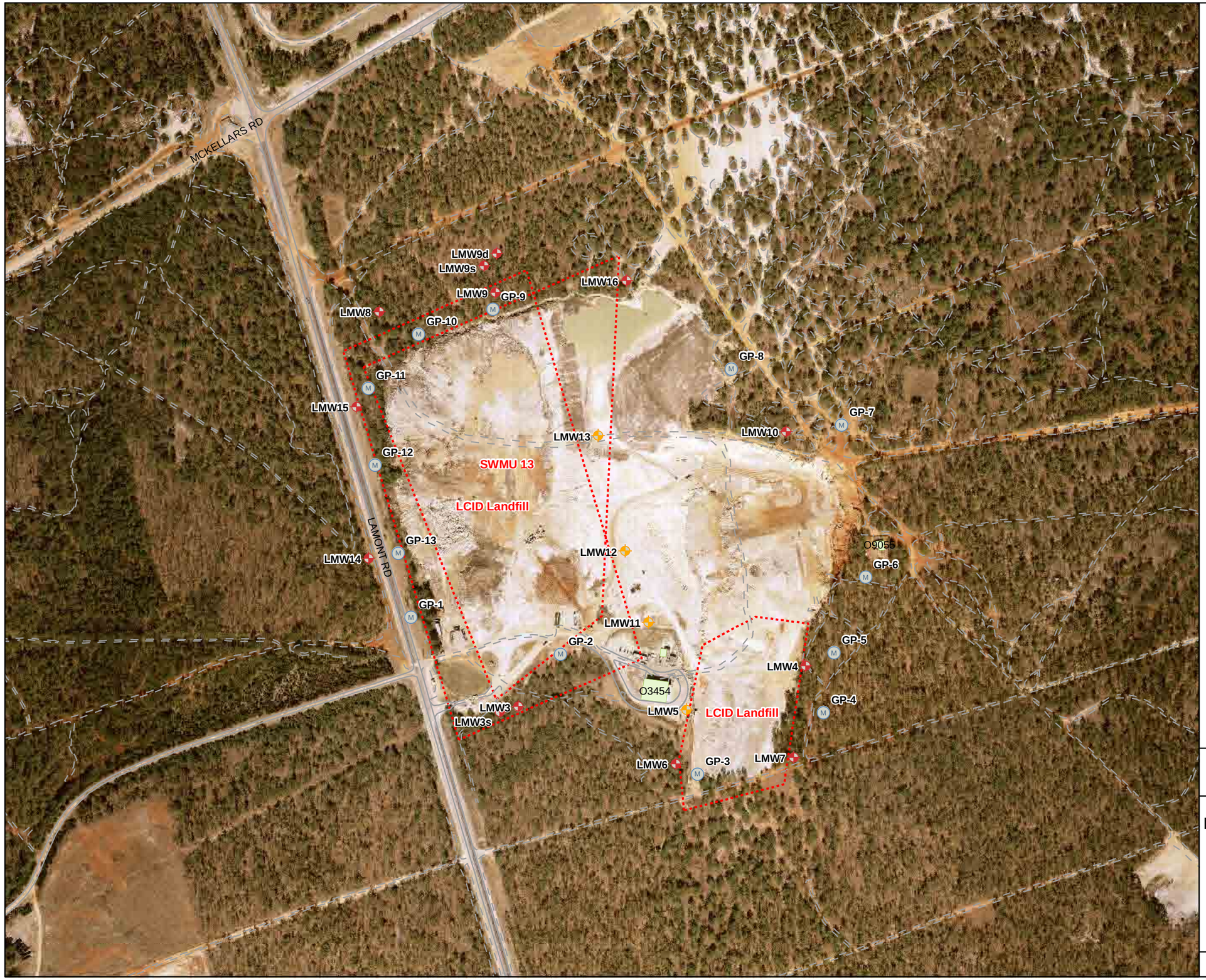
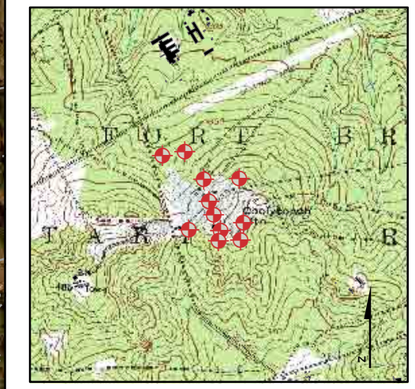
Figure 1

Site Map -- Ft. Bragg, NC





LEGEND

- METHANE SAMPLE
- MONITORING WELL
- MONITORING WELL (REMOVED)
- STREAM
- PAVED ROAD
- DIRT ROAD
- BUILDING
- SWMU AREA

1 inch = 401 feet

0 200 400 800'

N

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LOCATION MAP- LAMONT STREET LANDFILL

FT. BRAGG, NC

DATE: APR 2009

FIGURE 2

McKELLAR ROAD

LAMONT STREET

SWMU 13

LCID LANDFILL

LCID LANDFILL

GP-9 — 0.0% Methane, 3.9% Oxygen

GP-10 — 3.7% Methane, 0.2% Oxygen*

GP-11 — 0.0% Methane, 19.2% Oxygen

GP-12 — 0.0% Methane, 18.7% Oxygen

GP-13 — 17.1% Methane, 1.4% Oxygen

GP-1 — 0.1% Methane, 19.6% Oxygen

GP-2 — 0.5% Methane, 19.7% Oxygen

GP-3 — 0.0% Methane, 19.2% Oxygen

GP-4 — 0.0% Methane, 20.0% Oxygen

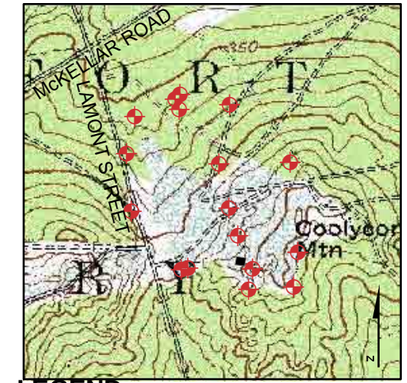
GP-5 — 0.0% Methane, 18.2% Oxygen

GP-6 — 0.0% Methane, 18.9% Oxygen

GP-7 — 0.0% Methane, 17.8% Oxygen

GP-8 — 0.0% Methane, 18.4% Oxygen

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



LEGEND

- METHANE SAMPLE
- STREAM
- BUILDING
- SWMU AREA
- ROAD
- TRAIL

braggNew.sid

RGB

- Red: Band_1
- Green: Band_2
- Blue: Band_3

1 inch = 400 feet

0 200 400 800'

N

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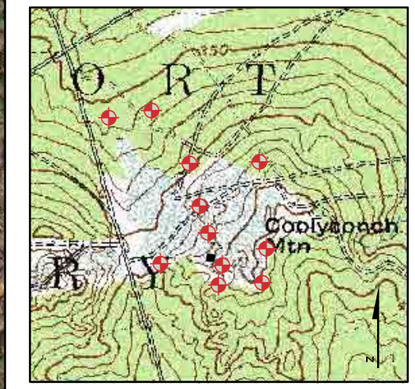
METHANE MONITORING RESULTS

LAMONT STREET LANDFILL
FT. BRAGG, NC

DATE: APR 2009 | FIGURE 3



LEGEND

- MONITORING WELL (REMOVED)
- MONITORING WELL
- GROUND-WATER CONTOUR
- WASH RACK AREA
- SWMU AREA
- GROUND-WATER FLOW

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

1 inch = 300 feet

0 150 300 600'

N

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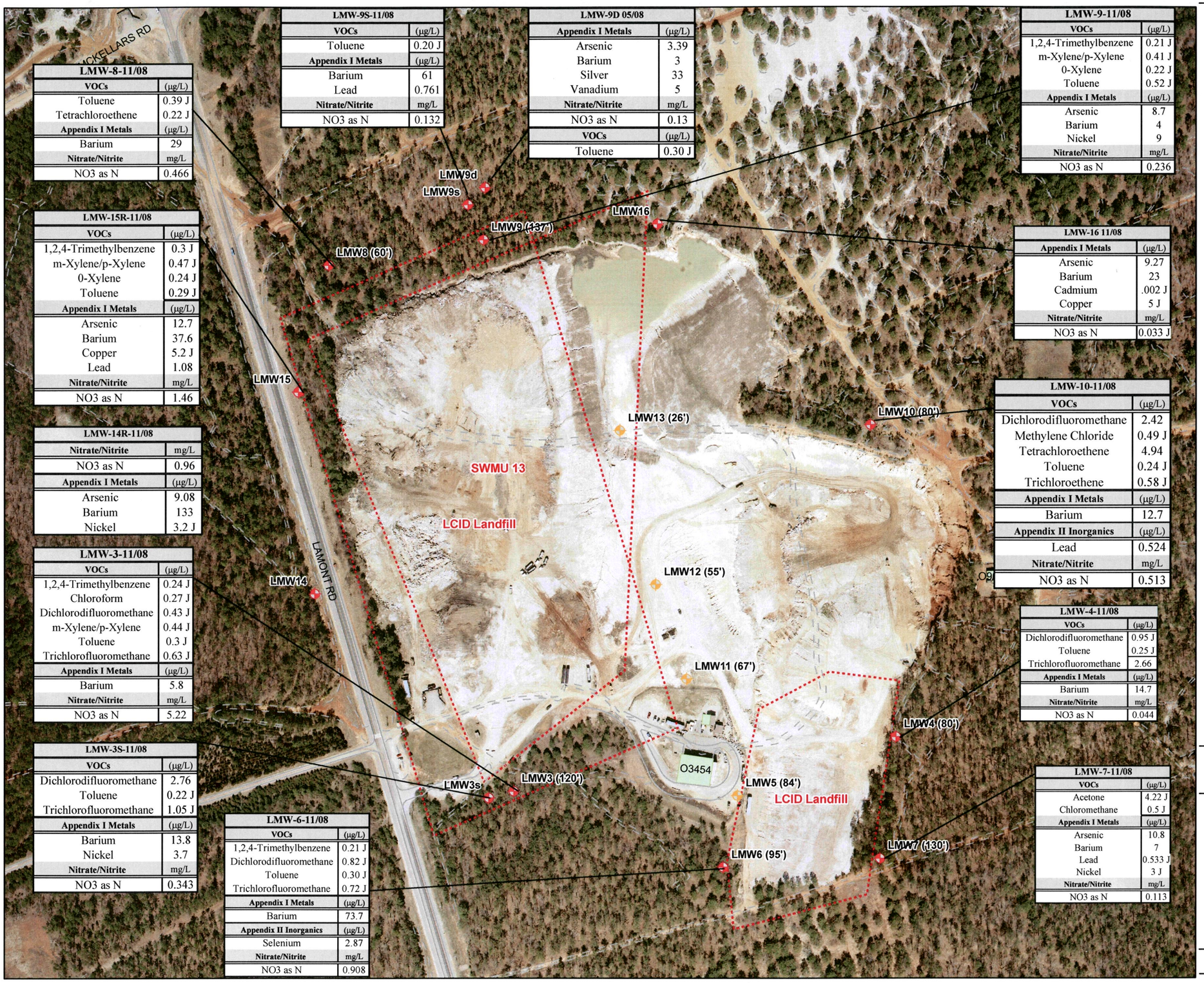
LAMONT ST LANDFILL, FORT BRAGG, NC

POTENTIOMETRIC MAP

DATE: APR 2009

FIGURE 4



LMW-8-11/08	
VOCs	**(µg/L)**
Toluene	0.39 J
Tetrachloroethene	0.22 J
Appendix I Metals	**(µg/L)**
Barium	29
Nitrate/Nitrite	**mg/L**
NO3 as N	0.466

LMW-15R-11/08	
VOCs	**(µg/L)**
1,2,4-Trimethylbenzene	0.3 J
m-Xylene/p-Xylene	0.47 J
0-Xylene	0.24 J
Toluene	0.29 J
Appendix I Metals	**(µg/L)**
Arsenic	12.7
Barium	37.6
Copper	5.2 J
Lead	1.08
Nitrate/Nitrite	**mg/L**
NO3 as N	1.46

LMW-14R-11/08	
Nitrate/Nitrite	**mg/L**
NO3 as N	0.96
Appendix I Metals	**(µg/L)**
Arsenic	9.08
Barium	133
Nickel	3.2 J

LMW-3-11/08	
VOCs	**(µg/L)**
1,2,4-Trimethylbenzene	0.24 J
Chloroform	0.27 J
Dichlorodifluoromethane	0.43 J
m-Xylene/p-Xylene	0.44 J
Toluene	0.3 J
Trichlorofluoromethane	0.63 J
Appendix I Metals	**(µg/L)**
Barium	5.8
Nitrate/Nitrite	**mg/L**
NO3 as N	5.22

LMW-3S-11/08	
VOCs	**(µg/L)**
Dichlorodifluoromethane	2.76
Toluene	0.22 J
Trichlorofluoromethane	1.05 J
Appendix I Metals	**(µg/L)**
Barium	13.8
Nickel	3.7
Nitrate/Nitrite	**mg/L**
NO3 as N	0.343

LMW-6-11/08	
VOCs	**(µg/L)**
1,2,4-Trimethylbenzene	0.21 J
Dichlorodifluoromethane	0.82 J
Toluene	0.30 J
Trichlorofluoromethane	0.72 J
Appendix I Metals	**(µg/L)**
Barium	73.7
Appendix II Inorganics	**(µg/L)**
Selenium	2.87
Nitrate/Nitrite	**mg/L**
NO3 as N	0.908

LMW-9S-11/08	
VOCs	**(µg/L)**
Toluene	0.20 J
Appendix I Metals	**(µg/L)**
Barium	61
Lead	0.761
Nitrate/Nitrite	**mg/L**
NO3 as N	0.132

LMW-9D 05/08	
Appendix I Metals	**(µg/L)**
Arsenic	3.39
Barium	3
Silver	33
Vanadium	5
Nitrate/Nitrite	**mg/L**
NO3 as N	0.13
VOCs	**(µg/L)**
Toluene	0.30 J

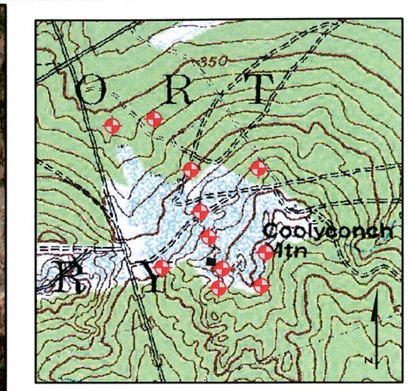
LMW-9-11/08	
VOCs	**(µg/L)**
1,2,4-Trimethylbenzene	0.21 J
m-Xylene/p-Xylene	0.41 J
0-Xylene	0.22 J
Toluene	0.52 J
Appendix I Metals	**(µg/L)**
Arsenic	8.7
Barium	4
Nickel	9
Nitrate/Nitrite	**mg/L**
NO3 as N	0.236

LMW-16 11/08	
Appendix I Metals	**(µg/L)**
Arsenic	9.27
Barium	23
Cadmium	.002 J
Copper	5 J
Nitrate/Nitrite	**mg/L**
NO3 as N	0.033 J

LMW-10-11/08	
VOCs	**(µg/L)**
Dichlorodifluoromethane	2.42
Methylene Chloride	0.49 J
Tetrachloroethene	4.94
Toluene	0.24 J
Trichloroethene	0.58 J
Appendix I Metals	**(µg/L)**
Barium	12.7
Appendix II Inorganics	**(µg/L)**
Lead	0.524
Nitrate/Nitrite	**mg/L**
NO3 as N	0.513

LMW-4-11/08	
VOCs	**(µg/L)**
Dichlorodifluoromethane	0.95 J
Toluene	0.25 J
Trichlorofluoromethane	2.66
Appendix I Metals	**(µg/L)**
Barium	14.7
Nitrate/Nitrite	**mg/L**
NO3 as N	0.044

LMW-7-11/08	
VOCs	**(µg/L)**
Acetone	4.22 J
Chloromethane	0.5 J
Appendix I Metals	**(µg/L)**
Arsenic	10.8
Barium	7
Lead	0.533 J
Nickel	3 J
Nitrate/Nitrite	**mg/L**
NO3 as N	0.113



LEGEND

- MONITORING WELL
- MONITORING WELL (REMOVED)
- PAVED ROAD
- DIRT ROAD
- WASH RACK AREA
- BUILDING
- SWMU AREA

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

1 inch = 300 feet

0 150 300 600'

N

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LAMONT ST LANDFILL, FORT BRAGG, NC

GROUNDWATER ANALYTICAL RESULTS

DATE: APR 2009 | 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-MW-1	11-22-08	13:28	0.1	19.6	0.6
Gas-MW-2	11-22-08	13:01	0.5	19.7	0.3
Gas-MW-3	11-22-08	13:25	0.0	19.2	1.1
Gas-MW-4	11-22-08	14:32	0.0	20.0	0.9
Gas-MW-5	11-22-08	14:26	0.0	18.2	1.9
Gas-MW-6	11-22-08	14:21	0.0	18.9	1.9
Gas-MW-7	11-22-08	14:13	0.0	17.8	0.0
Gas-MW-8	11-22-08	14:09	0.0	18.4	1.5
Gas-MW-9	11-22-08	13:57	0.0	3.9	18.6
Gas-MW-10	11-22-08	13:48	3.7	0.2	24.3
Gas-MW-11	11-22-08	13:43	0.0	19.2	1.3
Gas-MW-12	11-22-08	13:40	0.0	18.7	0.7
Gas-MW-13	11-22-08	13:36	17.1	1.4	20.8
Bldg 0-3533	11-22-08	12:58	0.0	9.9	0.0
Office Trailer	11-22-08	13:04	0.0	20.4	0.0

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

Table 2. Groundwater Elevation Data
Lamont Landfills, Fort Bragg, NC

Well ID	TOC Elev. (ft. amsl)	Water Level (ft. btoc) 4/06	Water Elev. (ft. amsl) 4/06	Water Level (ft. btoc) 11/06	Water Elev. (ft. amsl) 11/06	Water Level (ft. btoc) 5/07to 6/07	Water Elev. (ft. amsl) 5/07to 6/07	Water Level (ft. btoc) 11/07	Water Elev. (ft. amsl) 11/07	Water Level (ft. btoc) 11/08	Water Elev. (ft. amsl) 11/08
LMW-3	408.32	103.51	304.81	102.95	305.37	101.3	307.02	102.18	306.14	103.2	305.12
LMW-3s	*	NA	NA	NA	NA	58.1	NA	59.19	NA	60.4	NA
LMW-4	441.79	75.54	366.25	75.12	366.67	74.71	367.08	75.42	366.37	74.65	367.14
LMW-6	431.45	80.62	350.83	81.25	350.2	79.12	352.33	80.3	351.15	81.65	349.8
LMW-7	436.62	126.0	310.62	125.86	310.76	125.42	311.2	125.87	310.75	125.63	310.99
LMW-8	354.07	49.81	304.26	47.08	306.99	45.48	308.59	48.68	305.39	76.66	277.41
LMW-9	364.79	83.78	281.01	83.15	281.64	84.71	280.08	82.16	282.63	80.0	284.79
LMW-9s	*	NA	NA	NA	NA	49.46	NA	52.46	NA	49.01	NA
LMW-9d	*	NA	NA	NA	NA	74.51	NA	76.95	NA	76.66	NA
LMW-10	428.68	77.24	351.44	76.22	352.46	75.13	353.55	76.81	351.87	76.48	352.2
LMW-14R	*	NA	NA	NA	NA	48.82	NA	50.07	NA	49.0	NA
LMW-15R	*	NA	NA	NA	NA	37.85	NA	40.89	NA	37.0	NA
LMW-16	*	NA	NA	NA	NA	37.2	NA	86.02	NA	36.48	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 Monitoring *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-3-11-08	3.96	0.02	13.23	2.35	NA	NA
LMW-3s	GW-LMW-3s-11-08	3.87	0.03	13.61	408	2.72	462
LMW-4	GW-LMW-4-11-08	3.67	0.03	14.86	17.2	3.98	368
LMW-6	GW-LMW-6-11-08	3.68	0.25	11.31	6.69	0.0	338
LMW-7	GW-LMW-7-11-08	5.84	0.0	11.24	67.2	10.59	373
LMW-8	GW-LMW-8-11-08	5.04	0.16	15.21	8.58	2.13	206
LMW-9	GW-LMW-9-11-08	5.66	0.0	14.69	19.5	9.94	427
LMW-9s	GW-LMW-9s-11-08	6.09	0.06	14.71	72.9	7.31	340
LMW-9d	GW-LMW-9d-11-08	3.86	0.17	15.68	9.93	0.0	365
LMW-10	GW-LMW-10-11-08	6.09	0.06	14.71	72.9	7.31	340
LMW-14R	GW-LMW-14R-11-08	3.59	0.02	16.52	8.48	5.34	334
LMW-15R	GW-LMW-15R-11-08	3.23	0.04	17.86	7.79	6.84	341
LMW-16	GW-LMW-16-11-08	5.98	0.0	16.86	8.86	9.62	389

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Note: N.T.U. --- Nephelometric Turbidity Unit; ORP --- Oxidation Reduction Potential
#Monitoring Wells Permanently Abandoned
*High turbidity has been a continuing problem with this well.

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-3 04/05	LMW-3 10/05	LMW-3 06/06	LMW-3 11/06	GW-LMW-3 06/07	GW-LMW-3 11/07	GW-LMW-3 05/08	GW-LMW-3 11/08	LMW-4 04/05	LMW-4 10/05	LMW-4 10/05 Dup	LMW-4 06/06	LMW-4 11/06	GW-LMW-4 06/07	GW-LMW-4 11/07	GW-LMW-4 05/08	GW-LMW-4 11/08	LMW-6 04/05	LMW-6 10/05	LMW-6 6/06	LMW-6 11/06	LMW-6 Dup 11/06	GW-LMW-6 06/07	GW-LMW-6 Dup 06/07	GW-LMW-6 11/07	GW-LMW-6 05/08	GW-LMW-6 11/08	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	LMW-8 04/05
VOCs (EPA 8260B)																																								
1,1,2,2-tetrachloroethane	0.17	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-dichloroethane	700	810*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2,3-trichloropropane	0.005	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2,4-trimethylbenzene	350	15 *	<2	<2	<2	<2	<2	<2	<3	0.24 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.21 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dibromo-3-chloropropane	0.025	0.2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dibromoethane	0.0004	0.05	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichloroethane	0.38	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichloropropane	0.56	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,4-dichlorobenzene	75	75	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-butanone	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
acetone	700	NA	NA	<2	<2	<2	<2	<2	<2	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	NA	<2	<2	<2	<2	<2	<2	<2	4.69 J	<2	NA	<2	<2	<2	<2	<2	<2	282	4.22 J	NA
acrolein	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
benzene	1	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
carbon disulfide	700	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chlorobenzene	50	100	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroethane	2800	4.6*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroform	0.19	80	<2	<2	<2	<2	<2	<2	0.27 J	0.27 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloromethane (methyl chloride)	2.6	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.5 J	<2
cis-1,2-dichloroethene	70	70	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
dibromochloromethane	0.41	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
dichlorodifluoromethane	1400	390*	<2	<2	<2	<2	<2	<2	0.45 J	0.43 J	<2	<2	<2	0.57J	0.92J	<2	<2	0.71 J	0.95 J	<2	<2	0.93J	2.67	2.80	<2	<2	<2	0.83 J	0.82 J	<2	<2	<2	<2	<2	<2	0.71 J	<2	<2	<2
diisopropyl ether	70	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
isopropylbenzene	70	660*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
m&p xylene	530#	10000#	<2	<2	<2	<2	<2	<2	<2	0.44 J	<2	0.25J	<2	<2	0.23J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.230J	<2	<2	<2	<2
methylene chloride (dichloromethane)	4.6	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MTBE	200	13*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
o-xylene	530#	10000#	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
sec-butylbenzene	70	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
tetrachloroethene	0.7	5	<2	<2	<2	<2	<2	.025 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
toluene	1000	1000	<2	<2	<2	<2	<2	<2	<2	0.3 J	0.33 J	<2	<2	<2	0.47J	<2	<2	<2	0.25 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.30 J	1.07 J	<2	<2	<2	<2	0.850J	<2	<2	<2	<2
trans-1,2-dichloroethene	70	100	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
trichloroethene	2.8	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
trichlorofluoromethane	2100	1300*	0.25 J	0.34J	0.52J	<2	<2	<2	0.74 J	0.63 J	2.37	0.68J	0.47J	2.53	2.37	<2	<2	3.79	2.66	0.63 J	1.54J	1.13J	<2	0.860J	<2	<2	<2	1.22 J	0.72 J	<2	<2	<2	<2	<2	2.5	4.79	<2	<2	<2
vinyl chloride	0.015	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Appendix I Metals (EPA 6010B/6020A)																																								
Arsenic	10	10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.13 J	<2	<2	<2	<2	<2	<2	<2	<2	1.1 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.05 J	<2	<2	**10.8**	<2
Barium	2000	2000	<10	7.2J	5.0J	7.4	5.33	<10	5.47	5.8	14.2	12.5	11.8	10	13.6	24.7	1.14J	11.20	14.7	9.5 J	12.3	20	33.9	33.7	52.4	46.4	42	49.2	73.7	31.7	30	20	10	11.6	27.4	6.28	5.48 J	7	48.5
Cadmium	5	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.701J	0.57J	<1	<1	<1	<1	<1	<1	<1
Cobalt	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.734J	0.733J	<2	<2	<2	0.93 J	<2	<2	<2	<2	<2	1.03	<2	<2	<2	<4	<2
Chromium	50	100	<20	<20	<20	<20	<20	<20	<20	<20	10.8 J	<20	<20	<20	<20	21.7	<20	<20	<20	<20	<20	<20	<20	<20	4.74 J	3.75 J	<20	7.82	<20	19.0 J	23.2	<20	<20	5.28	24.7	<20	7.18	<10	<20
Copper	1000	1000	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	8.06 J	5.45 J	8.80	<20	<20	<20	<20	<20	<20	7.78 J	<20	<20	2.70 J	<20	10.8 J	11.1	10J	<20	6.64	6.05 J	7.53 J	<20	<20	<20
Lead	15	15	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.534J	<1	0.644J	3.52	<1	0.644J	<1	<1	<1	<1	<1	<1	0.839 J	0.873 J	<1	<1	<1	3.11	3.07	3.37	2.31	1.81	3.51	<1	<1	0.533 J	<1
Nickel	100	730*	<50	<50	<50	<50	<50	<50	1.12 J	<50	<50	<50	<50	<50	1.6J	6.98	3.46	5.38	<50	<50	<50	<50	1.13J	1.12J	5.53 J	<50	<50	2.06	<50	18.9 J	<50	<50	<50	4.23	7.73	4.71 J	2.42	3 J	<50
Selenium	50	50	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.8J	2.12	2.83	2.91	2.93	2.46	4.3	2.99 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	3.28
Silver	17.5	180	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vanadium	NA	260*	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	15.8	<20	<20	<20	<20	<20	<20	<20	<20	3.7 J	4.21	<20	<20	<20	12.6 J	18.5J	8.0J	<20	3.56J	14.8	<20	<20	<8	<20
Zinc	2100	5000	<60	<60	<60	6.46J	<60	<60	12	<60	<60	<60	<60	<60	11.1	47.0	<60	15.30	<60	<60	<60	20J	7.63J	7.85J	17.3 J	15.2 J	27 J	10.1	<60	27.5 J	31.4J	40J	20J	21.6	51.0	<60	10.9	<50	<60
Other Analyses																																								
Nitrate/Nitrite as N (SM 4500)	10,000	10,000	NA	<40	NA	0.333	209	139	510	5220	NA	<40	<40	NA	0.050	**643,000**	107	370	44	NA	<40	NA	1.15	1.14	1,220	1,290	950	1410	908	NA	<40	NA	NA	0.119	295	528	130	113	NA

Note: 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-8 10/05	LMW-8 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	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-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-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-9D 11/06	GW-LMW-9D 06/07	GW-LMW-9D 11/07	GW-LMW-9D 05/08	GW-LMW-9D 11/08	LMW-9S 11/06
VOCs (EPA 8260B)																																								
1,1,2,2-tetrachloroethane	0.17	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-dichloroethane	700	810*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.43J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2,3-trichloropropane	0.005	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2,4-trimethylbenzene	350	15 *	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.21 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dibromo-3-chloropropane	0.025	0.2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dibromoethane	0.0004	0.05	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichloroethane	0.38	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichloropropane	0.56	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,4-dichlorobenzene	75	75	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-butanone	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
acetone	700	NA	<2	<2	<2	<2	<2	<2	<2	NA	NA	<2	<2	<2	<2	<2	<2	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2	1.60J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
acrolein	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
benzene	1	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	**1.3**	<3	<2	<2	<2	<2
carbon disulfide	700	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chlorobenzene	50	100	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroethane	2800	4.6*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroform	0.19	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloromethane (methyl chloride)	2.6	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
cis-1,2-dichloroethene	70	70	0.27J	0.43J	0.300J	<2	0.35 J	0.35 J	<2	<2	0.44 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
dibromochloromethane	0.41	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	**2.08**	<2	<2	<2	<2	<2	<2	<2	<2	<2
dichlorodifluoromethane	1400	390*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.02	9.35	2.5	<2	3.4	4.66	2.42	<2	12.6	<2	<2	0.62 J	2.76	<2	<2	<2	<2	<2	<2
diisopropyl ether	70	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
isopropylbenzene	70	660*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
m&p xylene	530#	10000#	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.41 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
methylene chloride (dichloromethane)	4.6	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.69 J	0.63 J	0.49 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MTBE	200	13*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
o-xylene	530#	10000#	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.22 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
sec-butylbenzene	70	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
tetrachloroethene	0.7	5	0.6J	<2	0.370J	<2	0.22 J	0.22 J	0.22 J	<2	1.87 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	4.94	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
toluene	1000	1000	<2	<2	<2	<2	<2	<2	0.39 J	<2	<2	<2	<2	<2	<2	<2	<2	0.52 J	0.26 J	<2	<2	<2	<2	0.57J	<2	<2	0.24 J	<2	<2	1.4	1.4	<2	0.22 J	<2	<2	<2	<2	<2	0.30 J	<2
trans-1,2-dichloroethene	70	100	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
trichloroethene	2.8	5	0.24J	0.23J	<2	<2	<2	<2	<2	<2	0.83 J	<2	<2	<2	<2	<2	<2	<2	0.39 J	0.56J	0.91J	0.440J	<2	<2	0.48 J	<2	0.58 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
trichlorofluoromethane	2100	1300*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.26J	2.07	7.01	3.3	<2	7.73	10.6	<2	<2	0.330J	<2	1.03 J	0.52 J	1.05 J	<2	<2	<2	<2	<2	<2	<2
vinyl chloride	0.015	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Appendix I Metals (EPA 6010B/6020A)																																								
Arsenic	10	10	<2	<2	<2	<2	<2	<2	<2	1.04 J	<2	<2	1.52J	<2	1.12 J	<2	<2	8.7	<2	<2	<2	<2	1.15 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	7.67	7.66	<2	3.84	3.39	<2
Barium	2000	2000	38.1	40	32.0	34.0	41.0	34.9	29	<10	<10	<10	10	3.84	6.29	3 J	2.71	4	13.5	<10	20	11.9	21.3	<10	16.7	12	12.7	<10	5.95	18.7	13	8.86	13.8	13.9	5.57	120	10.1	3	77.3
Cadmium	5	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.94J	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt	NA	NA	<2	<2	<2	<2	<2	0.83 J	<4	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.53 J	<2	<2	<2	3	<2	<4	1.27
Chromium	50	100	<20	<20	<20	<20	<20	<20	<10	<20	<20	<20	10J	<20	7.14	<20	<20	<10	<20	<20	<20	<20	2.72 J	<20	<20	<20	<20	<20	<20	11.6	<20	<20	<20	6.51	<20	<20	3.32 J	<10	<20
Copper	1000	1000	<20	<20	<20	<20	6 J	<20	<20	<20	<20	<20	10J	<20	5.28 J	7 J	<20	<20	<20	<20	<20	<20	<20	<20	5.41 J	2.79 J	<20	8.51	2.54J	<20	6	<20	<20	6.37	<20	9	2.63 J	<20	<20
Lead	15	15	<1	<1	<1	<1	<1	<1	<1	0.525 J	<1	<1	0.87J	0.989J	1.40	<1	1.41	<1	<1	<1	0.78J	<1	4.15	<1	<1	<1	0.524 J	<1	<1	3.71	1.47	<1	<1	3.60	3.97	0.68	3.94	<1	<1
Nickel	100	730*	<50	<50	1.72J	<50	<50	1.76 J	<6	<50	<50	<50	<50	<50	3.26 J	<50	1.49 J	9	<50	<50	<50	<50	<50	<50	3.24 J	1.53 J	<50	<50	2.41	4.92 J	5	3.72	3.7 J	2.16	<50	<50	1.45 J	<6	1.15J
Selenium	50	50	1.67J	1.87J	1.67J	1.04 J	3.73 J	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	1.15J	<2	<2	<2	<2	<2	<2	<2	4.95 J	<2	<4	4.56
Silver	17.5	180	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	**33**	<10
Vanadium	NA	260*	<20	<20	<20	<20	<20	<20	<8	8.4 J	8.4 J	<20	30	<20	7.06	<20	2.78 J	<8	<20	<20	8.0J	<20	3.12 J	<20	<20	<20	<20	<20	<20	9.91	<20	<20	<20	10.0	5.73	<20	5.5	5	<20
Zinc	2100	5000	<60	<60	<60	<60	<60	5.20 J	<50	<60	<60	<60	20J	<60	17.1 J	<60	7.93 J	<50	<60	<60	<60	<60	<60	<60	<60	40.8	<60	<60	10.1	16.6 J	48	15.2	<60	7.91	<60	<60	18	<50	<60
Other Analyses																																								
Nitrate/Nitrite as N (SM 4500)	10,000	10,000	<40	NA	0.216	398	527	570	466	NA	NA	<40	NA	0.10	**17,200**	222	460	236	NA	<40	NA	0.551	1,020	<40	964	410	513	<40	0.321	196	228	550	343	0.107	461	39	<40	130	0.190

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																										
			GW-LMW-9S 06/07	GW-LMW-9S 11/07	GW-LMW-9S 05/08	GW-LMW-9S 11/08	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	GW-LMW-16-DUP 11/07	GW-LMW-16-DUP 11/08	GW-LMW-14R 06/07	GW-LMW-14R 11/07	GW-LMW-14R 05/08	GW-LMW-14R 11/08	GW-LMW-14R DUP 11/08	GW-LMW-15R 06/07	GW-LMW-15R 11/07	GW-LMW-15R 05/08	GW-LMW-15R 11/08	GW-LMW-15R DUP '11/08	GW-BLK 06/07	GW-BLK 11/07	GW-BLK 11/08	Trip Blank 11/07	Trip Blank 11/08
VOCs (EPA 8260B)																													
1,1,2,2-tetrachloroethane	0.17	NA	<2	**0.66 J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-dichloroethane	700	810*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2,3-trichloropropane	0.005	NA	<2	**0.76 J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2,4-trimethylbenzene	350	15 *	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	0.3 J	<2	<2	<2	<2	<2	<2
1,2-dibromo-3-chloropropane	0.025	0.2	<2	**0.82 J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dibromoethane	0.0004	0.05	<2	**0.43 J**	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichloroethane	0.38	5	<2	0.24 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,2-dichloropropane	0.56	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,4-dichlorobenzene	75	75	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-butanone	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
acetone	700	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.19 J
acrolein	NA	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
benzene	1	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
carbon disulfide	700	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chlorobenzene	50	100	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroethane	2800	4.6*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroform	0.19	80	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloromethane (methyl chloride)	2.6	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	0.40 J
cis-1,2-dichloroethene	70	70	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
dibromochloromethane	0.41	80	<2	0.20 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
dichlorodifluoromethane	1400	390*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
diisopropyl ether	70	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
isopropylbenzene	70	660*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
m&p xylene	530#	10000#	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	0.47 J	<2	<2	<2	<2	<2	<2
methylene chloride (dichloromethane)	4.6	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MTBE	200	13*	<2	0.33 J	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
o-xylene	530#	10000#	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	0.24 J	<2	<2	<2	<2	<2	<2
sec-butylbenzene	70	NA	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
tetrachloroethene	0.7	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
toluene	1000	1000	<2	<2	<2	0.20 J	<2	0.240J	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	0.29 J	<2	<2	<2	<2	<2	<2
trans-1,2-dichloroethene	70	100	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
trichloroethene	2.8	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
trichlorofluoromethane	2100	1300*	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
vinyl chloride	0.015	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Appendix I Metals (EPA 6010B/6020A)																													
Arsenic	10	10	1.68 J	4.54	<2	<2	<2	<2	2.13	<2	<2	9.27	<2	11	1.11 J	<2	<2	9.08	NS	<2	<2	<2	**12.7**	9.47	<2	NS	**10.4**	<2	<2
Barium	2000	2000	80.9	2	75.3	61	37.4	23.1	41.3	35	22.9	23	29	4 J	14.6	12	9.72	133	NS	38.5	27	24.3	37.6	38.3	<10	NS	<4	<10	<4
Cadmium	5	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.002 J	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1	<1	<1	<1	NS	<1	<1	<1
Cobalt	NA	NA	1.04 J	<2	1.13	<4	<2	<2	<2	<2	<2	<4	<2	<4	<2	<2	0.51 J	<4	NS	<2	<2	0.65 J	<4	<4	<2	NS	<4	<2	<4
Chromium	50	100	5.73	<20	<20	<10	<20	<20	20.7	<20	<20	<10	<20	<10	<20	<20	<20	<10	NS	<20	<20	<20	<10	<10	<20	NS	<10	<20	<10
Copper	1000	1000	<20	7	<20	<20	3.66J	<20	7.37 J	6	<20	5 J	6	<20	<20	<20	<20	<20	NS	5.33 J	5 J	<20	5.2 J	<20	<20	NS	<20	<20	<20
Lead	15	15	2.16	1.19	<1	0.761	0.559J	0.643J	5.28	2.62	<1	<1	4.21	<1	4.42	<1	<1	<1	NS	<1	<1	<1	1.08	<1	<1	NS	<1	<1	<1
Nickel	100	730*	<50	<50	1.51 J	<6	1.80J	1.03J	<50	<50	<50	<6	<50	<6	<50	<50	2.39	3.2 J	NS	<50	<50	1.12 J	<6	<6	<50	NS	<6	<50	<6
Selenium	50	50	4.53	<2	<2	<4	<2	<2	<2	2.20 J	<2	<4	2.50 J	<4	<2	<2	<2	<4	NS	<2	<2	<2	<4	<4	<2	NS	<4	<2	<4
Silver	17.5	180	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vanadium	NA	260*	5.99	<20	<20	<8	<20	<20	41.9	69	<20	<8	26	<8	2.30 J	<20	<20	<8	NS	<20	<20	<20	<8	<8	<20	NS	<8	<20	<8
Zinc	2100	5000	<60	<60	32.2	<50	14.0	<60	16.5 J	<60	15.8	<50	<60	<50	15.4 J	<60	18.2	<50	NS	<60	<60	39.3	<50	<50	<60	NS	<50	<60	<50
Other Analyses																													
Nitrate/Nitrite as N (SM 4500)	10,000	10,000	1,000	147	<40	132	4.78	0.0520	166	1020	380	33 J	1010	< 40	326	143	370	960	2260	1,400	1620	<40	1460	1400	<40	NS	106	<40	139

APPENDICES

APPENDIX A

GROUNDWATER SAMPLING LOGS

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

1. CLIENT: Ft Bragg, NC
DATE:11/19/08 TIME:0848
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-3-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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):	122.90	(ft)	Diameter (d):	2.00	(in)	
Depth to Water (dw):	103.20	(ft)	Diameter (d):	0.167	(ft)	
Well Volume = (5.904 × d^2 (wd-dw)) =				3.2	(gallons)	
Flow Rate :	500	(ml/min)	Purge vol:	N/A	(gallons)	
Length of Time Purged:	38	(minutes)	Purge time:	810		
Amount Purged=	5.0	(gallons)				

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	0840	0845	0848			
pH	3.97	3.98	3.96			
Sp. Cond	0.02	0.02	0.02			
Temp. °C	12.77	13.10	13.23			
Turbidity	20.1	7.81	2.35			
DO						
ORP						

5. COMMENTS: Replaced batteries in air control box. LCD in this instrument is operating erratically. Box also sounds as if it is leaking N_2 internally.

1. CLIENT: Ft Bragg, NC
DATE:11/19/08 TIME:0956
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-3s-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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):	67.00	(ft)	Diameter (d):	2.00	(in)	
Depth to Water (dw):	60.40	(ft)	Diameter (d):	0.167	(ft)	
Well Volume = (5.904 × d^2 (wd-dw)) =				1.1	(gallons)	
Flow Rate :	500	(ml/min)	Purge vol:	N/A	(gallons)	
Length of Time Purged:	41	(minutes)	Purge time:	915		
Amount Purged=	5.4	(gallons)				

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	0925	0945	0950	0956		
pH	4.02	3.87	3.85	3.87		
Sp. Cond	0.03	0.03	0.03	0.03		
Temp. °C	14.00	13.46	13.54	13.61		
Turbidity	22.2	412	411	408		
DO	2.76	2.66	2.71	2.72		
ORP	491	465	464	462		

5. COMMENTS: Purged > 5x volume, turbidity not within limits.

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

1. CLIENT: Ft Bragg, NC
DATE:11/19/08 TIME: 1445
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-4-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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):	82.35	(ft)	Diameter (d):	2.00	(in)	
Depth to Water (dw):	74.65	(ft)	Diameter (d):	0.167	(ft)	
Well Volume = ($5.904 \times d^2$ (wd-dw)) =				1.3	(gallons)	
Flow Rate :	500	(ml/min)	Purge vol:	N/A	(gallons)	
Length of Time Purged:	63	(minutes)	Purge time:	1445		
Amount Purged=	8.3	(gallons)				

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1455	1535	1540	1543	1548	
pH	5.38	3.63	3.65	3.66	3.67	
Sp. Cond	0.03	0.03	0.03	0.03	0.03	
Temp. °C	16.26	14.51	14.80	14.87	14.86	
Turbidity	12.9	23.0	20.2	19.7	17.2	
DO	4.89	4.06	4.01	4.02	3.98	
ORP	373	368	369	369	368	

5. COMMENTS: Purged > 5x volume, turbidity not within limits.

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

1. CLIENT: Ft Bragg, NC
DATE:11/19/08 TIME:1105
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-6-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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):	94.45	(ft)	Diameter (d):	2.00	(in)	
Depth to Water (dw):	81.65	(ft)	Diameter (d):	0.167	(ft)	
Well Volume = (5.904 × d^2 (wd-dw)) =				2.1	(gallons)	
Flow Rate :	500	(ml/min)	Purge vol:	N/A	(gallons)	
Length of Time Purged:	25	(minutes)	Purge time:	1040		
Amount Purged=	3.3	(gallons)				

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1055	1100	1105			
pH	3.74	3.70	3.68			
Sp. Cond	0.25	0.25	0.25			
Temp. °C	11.28	11.42	11.31			
Turbidity	9.39	7.89	6.69			
DO	0.00	0.00	0.00			
ORP	338	339	338			

5. COMMENTS: None

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

1. CLIENT: Ft Bragg, NC
DATE:11/18/08 TIME: 1605
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-7-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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):	130.06	(ft)	Diameter (d):	2.00	(in)	
Depth to Water (dw):	125.63	(ft)	Diameter (d):	0.167	(ft)	
Well Volume = ($5.904 \times d^2$ (wd-dw)) =				0.7	(gallons)	
Flow Rate :	500	(ml/min)	Purge vol:	N/A	(gallons)	
Length of Time Purged:	30	(minutes)	Purge time:	1535		
Amount Purged=	4.0	(gallons)				

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22y	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1550	1600	1605			
pH	6.00	5.89	5.84			
Sp. Cond	0.00	0.00	0.00			
Temp. °C	12.23	11.40	11.24			
Turbidity	59.5	57.1	67.2			
DO	10.91	10.73	10.59			
ORP	367	371	373			

5. COMMENTS: Purged > 5x volume, pH not stabilized, turbidity not within limits.

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

1. CLIENT: Ft Bragg, NC
DATE:11/20/08 TIME: 1050
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-8-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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):	85.00	(ft)	Diameter (d):	2.00	(in)	
Depth to Water (dw):	76.66	(ft)	Diameter (d):	0.167	(ft)	
Well Volume = ($5.904 \times d^2$ (wd-dw)) =				1.4	(gallons)	
Flow Rate :	500	(ml/min)	Purge vol:	N/A	(gallons)	
Length of Time Purged:	55	(minutes)	Purge time:	915		
Amount Purged=	7.3	(gallons)				

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1040	1045	1050			
pH	5.05	5.04	5.04			
Sp. Cond	0.16	0.16	0.16			
Temp. °C	15.20	15.16	15.21			
Turbidity	11.0	8.57	8.58			
DO	2.30	2.18	2.13			
ORP	204	206	206			

5. COMMENTS: None

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

1. CLIENT: Ft Bragg, NC
DATE:11/18/08 TIME: 1420
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-9-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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):	137.90	(ft)	Diameter (d):	2.00	(in)	
Depth to Water (dw):	80.00	(ft)	Diameter (d):	0.167	(ft)	
Well Volume = ($5.904 \times d^2$ (wd-dw)) =				9.5	(gallons)	
Flow Rate :	500	(ml/min)	Purge vol:	N/A	(gallons)	
Length of Time Purged:	360	(minutes)	Purge time:	820		
Amount Purged=	47.6	(gallons)				

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1350	1400	1420			
pH	5.75	5.68	5.66			
Sp. Cond	0.00	0.00	0.00			
Temp. °C	14.93	14.63	14.69			
Turbidity	12.1	19.5	19.5			
DO	10.28	9.97	9.94			
ORP	426	427	427			

5. COMMENTS: Purged 5x volume, turbidity not within limits.
No interface probe, used highest historical water level to determine volume.

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

1. CLIENT: Ft Bragg, NC
DATE:11/20/08 TIME: 1010
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-9d-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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):	85.00	(ft)	Diameter (d):	2.00	(in)	
Depth to Water (dw):	76.66	(ft)	Diameter (d):	0.167	(ft)	
Well Volume = (5.904 × d^2 (wd-dw)) =				1.4	(gallons)	
Flow Rate :	500	(ml/min)	Purge vol:	N/A	(gallons)	
Length of Time Purged:	55	(minutes)	Purge time:	915		
Amount Purged=	7.3	(gallons)				

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	0950	1000	1005	1010		
pH	6.25	6.13	6.08	6.09		
Sp. Cond	0.06	0.06	0.06	0.06		
Temp. °C	16.71	14.87	14.81	14.71		
Turbidity	77.2	76.2	73.1	72.9		
DO	7.68	7.35	7.34	7.31		
ORP	335	339	339	340		

5. COMMENTS: Purged >5x volume, turbidity not within limits.

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

1. CLIENT: Ft Bragg, NC
DATE:11/20/08 TIME: 0900
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-9s-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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):	60.00	(ft)	Diameter (d):	2.00	(in)	
Depth to Water (dw):	49.01	(ft)	Diameter (d):	0.167	(ft)	
Well Volume = (5.904 × d^2 (wd-dw)) =				1.8	(gallons)	
Flow Rate :	500	(ml/min)	Purge vol:	N/A	(gallons)	
Length of Time Purged:	40	(minutes)	Purge time:	820		
Amount Purged=	5.3	(gallons)				

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	0845	0850	0855	0900		
pH	3.83	3.84	3.84	3.86		
Sp. Cond	0.16	0.16	0.17	0.17		
Temp. °C	15.63	15.63	15.63	15.68		
Turbidity	31.6	19.8	14.9	9.93		
DO	0.00	0.00	0.00	0.00		
ORP	344	354	360	365		

5. COMMENTS: None

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

1. CLIENT: Ft Bragg, NC
DATE:11/19/08 TIME: 1416
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID:GW-LMW-10-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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): 82.75 (ft) Diameter (d): 2.00 (in)
Depth to Water (dw): 76.48 (ft) Diameter (d): 0.167 (ft)
Well Volume = (5.904 × d^2 (wd-dw)) = 1.0 (gallons)
Flow Rate : 500 (ml/min) Purge vol: N/A (gallons)
Length of Time Purged: 41 (minutes) Purge time: 1335
Amount Purged= 5.4 (gallons)

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1345	1405	1410	1413		
pH	2.72	3.07	3.23	3.50		
Sp. Cond	0.05	0.04	0.04	0.04		
Temp. °C	15.24	14.05	13.58	13.69		
Turbidity	200	19.6	13.6	10.2		
DO	7.38	6.90	6.83	6.94		
ORP	388	370	370	359		

5. COMMENTS: Purged > 5x volume, pH not stabilized, turbidity not within limits.

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

1. CLIENT: Ft Bragg, NC
DATE:11/17/08 TIME: 1638
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Partly Cloudy, Cool

Location: Lamont Landfill	**Sample ID:GW-LMW-14r-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☒ 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): 54.00 (ft) Diameter (d): 2.00 (in)
Depth to Water (dw): 49.00 (ft) Diameter (d): 0.167 (ft)
Well Volume = (5.904 × d^2 (wd-dw)) = 0.8 (gallons)
Flow Rate : 500 (ml/min) Purge vol: N/A (gallons)
Length of Time Purged: 38 (minutes) Purge time: 1600
Amount Purged= 5.0 (gallons)

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1630	1635	1638			
pH	3.68	3.66	3.59			
Sp. Cond	0.02	0.02	0.02			
Temp. °C	16.54	16.54	16.52			
Turbidity	14.5	10.0	8.48			
DO	5.12	5.20	5.34			
ORP	332	336	334			

5. COMMENTS: Dup taken, GW-LMW-Dup2: 1638
No interface probe, used highest historical water level to determine volume.

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

1. CLIENT: Ft Bragg, NC
DATE:11/17/08 TIME: 1518
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Partly Cloudy, Cool

Location: Lamont Landfill	**Sample ID:GW-LMW-15r-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 15
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☒ 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): 46.55 (ft) Diameter (d): 2.00 (in)
Depth to Water (dw): 37.00 (ft) Diameter (d): 0.167 (ft)
Well Volume = (5.904 × d^2 (wd-dw)) = 1.6 (gallons)
Flow Rate : 500 (ml/min) Purge vol: N/A (gallons)
Length of Time Purged: 33 (minutes) Purge time: 1445
Amount Purged= 4.4 (gallons)

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1510	1515	1518			
pH	3.31	3.25	3.23			
Sp. Cond	0.04	0.04	0.04			
Temp. °C	17.35	17.83	17.86			
Turbidity	16.6	10.5	7.79			
DO	7.54	7.40	6.84			
ORP	333	339	341			

5. COMMENTS: Dup taken, GW-LMW-Dup: 1518
MS taken, MSD taken.
No interface probe, used highest historical water level to determine volume.

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

1. CLIENT: Ft Bragg, NC
DATE:11/18/08 TIME: 1505
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Cloudy/Partly Cloudy, Cool

Location: Lamont Landfill	**Sample ID:GW-LMW-16-11-08**

PRESERVATIVE: HCl, HNO_3, H_2SO_4, Ice.
ANALYSES REQUESTED: VOC 8260, Appendix I Metals, Nitrate.
OF CONTAINERS: 5
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☐ 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): 42.00 (ft) Diameter (d): 2.00 (in)
Depth to Water (dw): 36.48 (ft) Diameter (d): 0.167 (ft)
Well Volume = ($5.904 \times d^2$ (wd-dw)) = 0.9 (gallons)
Flow Rate : 500 (ml/min) Purge vol: N/A (gallons)
Length of Time Purged: 30 (minutes) Purge time: 1435
Amount Purged= 4.0 (gallons)

4. FIELD PARAMETERS

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1555	1600	1605			
pH	6.08	6.07	5.98			
Sp. Cond	0.00	0.00	0.00			
Temp. °C	17.21	16.96	16.86			
Turbidity	26.9	12.3	8.86			
DO	9.60	9.62	9.62			
ORP	383	385	389			

5. COMMENTS: None

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

1. CLIENT: Ft Bragg, NC
DATE: 11/22/08 TIME: 1010
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID: GW-LMW-14r-11-08**

PRESERVATIVE: HCl, Ice
ANALYSES REQUESTED: VOC 8260
OF CONTAINERS: 3
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☒ 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): 54.00 (ft) Diameter (d): 2.00 (in)
Depth to Water (dw): 49.80 (ft) Diameter (d): 0.167 (ft)
Well Volume = (5.904 × d^2 (wd-dw)) = 0.7 (gallons)
Flow Rate : 500 (ml/min) Purge vol: N/A (gallons)
Length of Time Purged: 30 (minutes) Purge time: 940
Amount Purged= 4.0 (gallons) Pump depth:

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	1000	1005	1010			
pH	3.61	3.63	3.71			
Sp. Cond	0.02	0.02	0.02			
Temp. °C	15.30	15.44	15.55			
Turbidity	11.4	9.75	6.83			
DO	7.80	7.79	7.88			
ORP	414	415	414			

5. COMMENTS: Resample VOCs (Orignal samples sent without trip blank)
Dup taken, GW-LMW-Dup-2:0911

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

1. CLIENT: Ft Bragg, NC
DATE: 11/22/08 TIME: 0911
SAMPLED BY: Jon Coombs
WEATHER CONDITIONS: Sunny, chilly, windy

Location: Lamont Landfill	**Sample ID: GW-LMW-15r-11-08**

PRESERVATIVE: HCl, Ice
ANALYSES REQUESTED: VOC 8260
OF CONTAINERS: 9
SAMPLING METHOD: ☐ Peristaltic Pump
☒ Bladder Pump LOW FLOW: ☒ YES ☐ NO
SAMPLES FILTERED: ☐ YES ☒ NO DUPLICATE SAMPLE: ☒ 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): 46.55 (ft) Diameter (d): 2.00 (in)
Depth to Water (dw): 37.30 (ft) Diameter (d): 0.167 (ft)
Well Volume = (5.904 × d^2 (wd-dw)) = 1.5 (gallons)
Flow Rate : 500 (ml/min) Purge vol: N/A (gallons)
Length of Time Purged: 26 (minutes) Purge time: 845
Amount Purged= 3.4 (gallons) Pump depth:

4. **FIELD PARAMETERS**

INSTRUMENT	CALIBRATED
pH Meter –Horiba U-22	☒
Conductivity Meter - Horiba U-22	☒
Temperature – Horiba U-22	☒
Turbidity Meter – Hach 2100 P	☒
DO Meter – Horiba U-22	☒
ORP Meter – Horiba U-22	☒
CO_2– Hach Digital Titrator	☐

Time	0905	0908	0911			
pH	3.62	3.58	3.60			
Sp. Cond	0.05	0.05	0.05			
Temp. °C	16.18	16.06	16.11			
Turbidity	17.5	9.15	7.98			
DO	7.18	7.14	7.05			
ORP	483	466	456			

5. COMMENTS: Resample VOCs (Orignal samples sent without trip blank)
Dup taken, GW-LMW-Dup-1: 0911. MS taken, MSD taken.

APPENDIX B

DATA VALIDATION REPORTS

CESAS-EN-GG 03 April 2009

MEMORANDUM THRU

EN-GG
EN-G

FOR: EN-GH (Haborak)

SUBJECT: Chemical Data Assessment for Fort Bragg Lamont Landfill Ground-Water Monitoring Wells

SUMMARY: Ground-water samples were collected at the Fort Bragg Lamont Landfill on November 19, 2008 and analyzed for metals by EPA 6010B/6020A and Nitrate/Nitrite by EPA 353.3. The narratives below describe any problems with the sample data as well as the quality control data. Table 1 lists the sample results for quick review.

1. Due to ongoing sampling at this site, no field blank or duplicates were submitted with this sample set.

2. Quality Control: The Quality Control samples analyzed with this sample set were within established control limits.

Judson D. Smith.
Chemist,
Geology/Hydrogeology and
HTRW Design Section

CF: EN-SF

TABLE 1:
FORT BRAGG, NORTH CAROLINA
SUMMARY OF THE GROUND-WATER ANALYTICAL RESULTS FOR LAMONT LANDFILL NOVEMBER 19 2008 SAMPLING EVENT

Analytical Method:							**Nitrate/Nitrite as N, SM-4500-NO3 E (mg/L):**
Sample:	Date:	Time:	Barium (mg/L):	Lead (µg/L):	Nickel (mg/L):	Selenium (µg/L):	
GW-LMW-3-11-08	11/19/2008	8:48	0.0058	U	U	U	5.2200
GW-LMW-3s-11-08	11/19/2008	8:56	0.0138	U	0.0037 J	U	0.3430
GW-LMW-4-11-08	11/19/2008	15:48	0.0147	U	U	U	0.0440
GW-LMW-6-11-08	11/19/2008	11:05	0.0737	U	U	2.87 J	0.9080
GW-LMW-10-11-08	11/19/2008	14:16	0.0127	0.524 J	U	U	0.5130
Method Blank			U	U	U	U	U

Notes:
KEY:
NA = Not Applicable
NS = Not Sampled
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
B= Analyte detected in Method Blank
J = Analyte was present, but reported value may not be accurate or precise.
U = Target analyte was not detected above the analytical reporting limits.

CESAS-EN-GG 11 March 2009

MEMORANDUM THRU

EN-GG
EN-G

FOR: EN-GH (Haborak)

SUBJECT: Chemical Data Assessment for Fort Bragg Lamont Landfill Ground-Water Monitoring Wells

SUMMARY: Ground-water samples were collected at the Fort Bragg Lamont Landfill on November 18, 2008 and analyzed for the following: Volatile Organic Compounds (VOCs) by EPA 8260B, Appendix I Metals by EPA 6010B/6020A/7470A and Nitrate/Nitrite by EPA 353.3. The narratives below describe any problems with the sample data as well as the quality control data. Table 1 lists the sample results for quick review.

1. Sample GW-LMW-DUP-2: This is the duplicate to GW-LMW-9-11-08. There was good reproducibility between the sample and duplicate.

3. Quality Control: The Quality Control samples analyzed with this sample set were within established control limits except for the following listed below.

4. Cross contamination is the cause for the arsenic results. Considering that standard practice for the field crew is to changes disposables between wells, it is unlikely their actions caused the cross contamination. Furthermore, no one ground-water sample had a sufficient concentration of arsenic to affect the other samples. Arsenic is not normally a laboratory contaminate except if it is spilled. The arsenic results are likely due to poor laboratory practices. All arsenic results must be treated estimates.

5. Trip Blank (EPA 8260B): Two analytes were detected in the EPA 8260B trip blank. Chloromethane was detected at a concentration of (0.40 ug/L J) above the detection limit, but below the reporting limit (2.0 ug/L). Acetone was detected at a concentration of (2.19 ug/LJ) above the detection limit, but below the reporting limit (10.0 ug/L). The acetone data in this sample set must be treated as estimates due to the trip blank concentration exceeding the 20% reporting limit. No qualifications are require for the chloromethane data.

Judson D. Smith.
Chemist, Geology/Hydrogeology
and HTRW Design Section

CESAS-EN-GG

SUBJECT: Chemical Data Assessment for Fort Bragg Lamont Landfill Ground-Water Monitoring Wells

EN-GG/ DELANO
EN-G/ JONES
EN-G/ O'KELLEY
EN-G/ FILE

CESAS-EN-GG 11 March 2009

MEMORANDUM THRU

EN-GG
EN-G

FOR: EN-GH (Haborak)

SUBJECT: Chemical Data Assessment for Fort Bragg Lamont Landfill Ground-Water Monitoring Wells

SUMMARY: Ground-water samples were collected at the Fort Bragg Lamont Landfill on November 18, 2008 and analyzed for the following: Volatile Organic Compounds (VOCs) by EPA 8260B, Appendix I Metals by EPA 6010B/6020A/7470A and Nitrate/Nitrite by EPA 353.3. The narratives below describe any problems with the sample data as well as the quality control data. Table 1 lists the sample results for quick review.

1. Sample GW-LMW-DUP-2: This is the duplicate to GW-LMW-9-11-08. There was good reproducibility between the sample and duplicate.

3. Quality Control: The Quality Control samples analyzed with this sample set were within established control limits except for the following listed below.

4. Cross contamination is the cause for the arsenic results. Considering that standard practice for the field crew is to changes disposables between wells, it is unlikely their actions caused the cross contamination. Furthermore, no one ground-water sample had a sufficient concentration of arsenic to affect the other samples. Arsenic is not normally a laboratory contaminate except if it is spilled. The arsenic results are likely due to poor laboratory practices. All arsenic results must be treated estimates.

5. Trip Blank (EPA 8260B): Two analytes were detected in the EPA 8260B trip blank. Chloromethane was detected at a concentration of (0.40 ug/L J) above the detection limit, but below the reporting limit (2.0 ug/L). Acetone was detected at a concentration of (2.19 ug/LJ) above the detection limit, but below the reporting limit (10.0 ug/L). The acetone data in this sample set must be treated as estimates due to the trip blank concentration exceeding the 20% reporting limit. No qualifications are require for the chloromethane data.

Judson D. Smith.
Chemist, Geology/Hydrogeology
and HTRW Design Section

TABLE 1:
FORT BRAGG, NORTH CAROLINA
SUMMARY OF THE GROUND-WATER ANALYTICAL RESULTS FOR
LAMONT LANDFILL NOVEMBER 18 2008 SAMPLING EVENT

Analytical Method:			**VOCs, 8260B (µg/L):**						**Appendix I Metals by 6010B/6020A/7470A**						**Nitrate/Nitrite as N, SM-4500-NO3 E (mg/L):**
Sample:	Date:	Time:	1,2,4-Trimethylbenzene	Acetone	Chloromethane	m-Xylene/p-Xylene	o-Xylene	Toluene	Arsenic (µg/L):	Barium (mg/L):	Cadmium (µg/L):	Copper (mg/L):	Lead ((µg/L):	Nickel (mg/L):	
GW-LMW-7-11-08	11/18/08	16:05	U	4.22 J	0.5 J	U	U	U	10.8	0.007	U	U	0.533 J	0.003 J	0.113
GW-LMW-9-11-08	11/18/08	14:20	0.21 J	U	U	0.41 J	0.22 J	0.52 J	8.7	0.0040	U	U	U	0.0090	0.236
GW-LMW-16-11-08	11/18/08	16:05	U	U	U	U	U	U	9.27	0.0230	0.002 J	0.005 J	U	U	0.033 J
GW-LMW-DUP-2	11/18/08	14:20	U	U	U	U	U	U	11.0	0.004 J	U	U	U	U	
GW-LMW-Blank	11/18/08	16:30	U	U	U	U	U	U	10.4	U	U	U	U	U	0.106
Trip Blank			U	2.19 J	0.40 J	U	U	U	NA	NA	NA	NA	NA	NA	NA
Method Blank			U	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
KEY:
NA = Not Applicable
NS = Not Sampled
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
B= Analyte detected in Method Blank
J = Analyte was present, but reported value may not be accurate or precise.
P = RPD value greater than 40% between primary and confirmation column results for dual-column chromatographic method.
U = Target analyte was not detected above the analytical reporting limits.

CESAS-EN-GG 17 March 2009

MEMORANDUM THRU

EN-GG
EN-G

FOR: EN-GH (Haborak)

SUBJECT: Chemical Data Assessment for Fort Bragg Lamont Landfill Ground-Water Monitoring Wells

SUMMARY: Ground-water samples were collected at the Fort Bragg Lamont Landfill on November 19, 2008 and analyzed for Volatile Organic Compounds (VOCs) by EPA 8260B. The narratives below describe any problems with the sample data as well as the quality control data. Table 1 lists the sample results for quick review.

1. Due to ongoing sampling at this site, no field blank or duplicates were submitted with this sample set.

2. Quality Control: The Quality Control samples analyzed with this sample set were within established control limits except for the following listed below.

3. Several compounds exceeded the 20% drift-difference for the continuing calibration verification (CCV). These results for these compounds must be treated as estimates. The VOC compounds exceeding the CCV includes: bromomethane and chloroethane trichlorofluoromethane, 1,1,1-trichloroethane, carbon tetrachloride, and 1,2-dichloroethane.

Judson D. Smith.
Chemist,
Geology/Hydrogeology and
HTRW Design Section

CF: EN-SF

EN-GG/ DELANO
EN-G/ JONES
EN-GG/ O'KELLEY

CESAS-EN-GG 17 March 2009

MEMORANDUM THRU

EN-GG
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FOR: EN-GH (Haborak)

SUBJECT: Chemical Data Assessment for Fort Bragg Lamont Landfill Ground-Water Monitoring Wells

SUMMARY: Ground-water samples were collected at the Fort Bragg Lamont Landfill on November 19, 2008 and analyzed for Volatile Organic Compounds (VOCs) by EPA 8260B. The narratives below describe any problems with the sample data as well as the quality control data. Table 1 lists the sample results for quick review.

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3. Several compounds exceeded the 20% drift-difference for the continuing calibration verification (CCV). These results for these compounds must be treated as estimates. The VOC compounds exceeding the CCV includes: bromomethane and chloroethane trichlorofluoromethane, 1,1,1-trichloroethane, carbon tetrachloride, and 1,2-dichloroethane.

Judson D. Smith.
Chemist,
Geology/Hydrogeology and
HTRW Design Section

CF: EN-SF

TABLE 1:
FORT BRAGG, NORTH CAROLINA
SUMMARY OF THE GROUND-WATER ANALYTICAL RESULTS FOR LAMONT LANDFILL NOVEMBER 20 2009 SAMPLING EVENT

Analytical Method:			**VOCs, 8260 (µg/L):**								
Sample:	Date:	Time:	1,2,4-Trimethylbenzene	Chloroform	Dichlorodifluoromethane	Methylene Chloride	m-Xylene/p-Xylene	Tetrachloroethene	Toluene	Trichloroethene	Trichlorofluoromethane
GW-LMW-3-11-08	11/19/2008	8:48	0.24 J	0.27 J	0.43 J	U	0.44 J	U	0.3 J	U	0.63 J
GW-LMW-3S-11-08	11/19/2008	9:56	U	U	2.76	U	U	U	0.22 J	U	1.05 J
GW-LMW-4-11-08	11/19/2008	15:48	U	U	0.95 J	U	U	U	0.25 J	U	2.66
GW-LMW-6-11-08	11/19/2008	11:05	0.21 J	U	0.82 J	U	U	U	0.30 J	U	0.72 J
GW-LMW-8-11-08	11/20/2008	10:50	U	U	U	U	U	0.22 J	0.39 J	U	U
GW-LMW-9D-11-08	11/20/2008	10:10	U	U	U	U	U	U	0.30 J	U	U
GW-LMW-9S-11-08	11/20/2008	7:00	U	U	U	U	U	U	0.20 J	U	U
GW-LMW-10-11-08	11/19/2008	14:16	U	U	2.420	0.49 J	U	4.94	0.24 J	0.58 J	U
Trip Blank			U	U	U	U	U	U	U	U	U
Method Blank			U	U	U	U	U	U	U	U	U

Notes:
KEY:
NA = Not Applicable
NS = Not Sampled
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
B= Analyte detected in Method Blank
J = Analyte was present, but reported value may not be accurate or precise.
P = RPD value greater than 40% between primary and confirmation column results for dual-column chromatographic method.
U = Target analyte was not detected above the analytical reporting limits.

CESAS-EN-GG 23 March, 2009

MEMORANDUM THRU

EN-GG
EN-G

FOR: EN-GH (Haborak)

SUBJECT: Ground-water samples collected at the Fort Bragg Lamont Landfill November 22, 2008.

SUMMARY: Ground-water samples were collected at the Fort Bragg Lamont Landfill November 22, 2008 and analyzed for Volatile Organic Compounds (VOCs) by EPA8260B. The narratives below describe any problems with the sample data as well as the quality control data. Table 1 lists the sample results for quick review.

1. Sample GW-LMW-DUP-1: This is the duplicate to GW-LMW-15R-11-08. There was poor reproducibility between the duplicates likely due to the low concentrations detected in the samples.

2. Quality Control: The Quality Control samples analyzed with this sample set were within established control limits except for the following listed below.

3. Several compounds exceeded the 20% drift-difference for the continuing calibration verification (CCV). These results for these compounds must be treated as estimates. The VOC compounds exceeding the CCV includes: bromomethane, chloromethane, chloroethane, dichlorodifluoromethane and. hexachlorobutadiene. The corrective action used to resolve this calibration error was to repeat the sample run. The additional run was not initiated until past the holding time of the sample. The VOCs exceeding the CCV must still be treated as estimates.

JUDSON D. SMITH.
Chemist, Geology/Hydrogeology
and HTRW Design Section

CF: EN-SF

EN-GG/ DELANO
EN-G/ JONES
EN-GG/ O'KELLEY

CESAS-EN-GG 23 March, 2009

MEMORANDUM THRU

EN-GG
EN-G

FOR: EN-GH (Haborak)

SUBJECT: Ground-water samples collected at the Fort Bragg Lamont Landfill November 22, 2008.

SUMMARY: Ground-water samples were collected at the Fort Bragg Lamont Landfill November 22, 2008 and analyzed for Volatile Organic Compounds (VOCs) by EPA8260B. The narratives below describe any problems with the sample data as well as the quality control data. Table 1 lists the sample results for quick review.

1. Sample GW-LMW-DUP-1: This is the duplicate to GW-LMW-15R-11-08. There was poor reproducibility between the duplicates likely due to the low concentrations detected in the samples.

2. Quality Control: The Quality Control samples analyzed with this sample set were within established control limits except for the following listed below.

3. Several compounds exceeded the 20% drift-difference for the continuing calibration verification (CCV). These results for these compounds must be treated as estimates. The VOC compounds exceeding the CCV includes: bromomethane, chloromethane, chloroethane, dichlorodifluoromethane and. hexachlorobutadiene. The corrective action used to resolve this calibration error was to repeat the sample run. The additional run was not initiated until past the holding time of the sample. The VOCs exceeding the CCV must still be treated as estimates.

JUDSON D. SMITH.
Chemist, Geology/Hydrogeology
and HTRW Design Section

CF: EN-SF

TABLE 1:
FORT BRAGG, NORTH CAROLINA
SUMMARY OF THE GROUND-WATER ANALYTICAL RESULTS FOR
LAMONT LANDFILL NOVEMBER 22, 2008

Analytical Method:			**VOCs, 8260 (µg/L):**				
Sample:	Date:	Time:	1,2,4-Trimethylbenzene	Hexachlorobutadiene	m-Xylene/p-Xylene	o-Xylene	Toluene
GW-LMW-14R-11-08	11/22/08	10:10	U	U	U	U	U
GW-LMW-DUP-2	11/22/08	10:10	U	U	U	U	U
GW-LMW-15R-11-08	11/22/08	9:11	0.3 J	U	0.47 J	0.24 J	0.29 J
GW-LMW-DUP-1	11/22/08	9:11	U	U	U	U	U
Trip Blank	11/22/08	10:10	U	U	U	U	U
Method Blank			U	0.23 J	U	U	U

Notes:
KEY:
NA = Not Applicable
NS = Not Sampled
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
B= Analyte detected in Method Blank
J = Analyte was present, but reported value may not be accurate or precise.
P = RPD value greater than 40% between primary and confirmation column results for dual-column chromatographic method.
U = Target analyte was not detected above the analytical reporting limits.

CESAS-EN-GG 11 March 2009

MEMORANDUM THRU

EN-GG
EN-G

FOR: EN-GH (Haborak)

SUBJECT: Chemical Data Assessment for Fort Bragg Lamont Landfill Ground-Water Monitoring Wells

SUMMARY: Ground-water samples were collected at the Fort Bragg Lamont Landfill on November 17, 2008 and analyzed for the following: Appendix I Metals by EPA 6010B/6020A/7470A and Nitrate/Nitrite by EPA 353.3. The narratives below describe any problems with the sample data as well as the quality control data. Table 1 lists the sample results for quick review.

1. Two duplicates were taken at this site. The first duplicate sampled was LMW-DUP-1, which was the duplicate to LMW-14r-11-08. This duplicate was analyzed for metals and nitrate/nitrite. There was poor reproducibility between the sample and duplicate. The second duplicate, LMW-DUP-2 was the duplicate to LMW-14r-11-08. This duplicate was only analyzed for nitrate/nitrite. There was good reproducibility between the sample and duplicate.

2. Due to ongoing sampling at this site, no field blank was submitted with this sample set.

3. Quality Control: The Quality Control samples analyzed with this sample set were within established control limits.

Judson D. Smith.
Chemist, Geology/Hydrogeology
and HTRW Design Section

EN-GG/ DELANO
EN-G/ JONES
EN-G/ O'KELLEY
EN-G/ FILE

CESAS-EN-GG 11 March 2009

MEMORANDUM THRU

EN-GG
EN-G

FOR: EN-GH (Haborak)

SUBJECT: Chemical Data Assessment for Fort Bragg Lamont Landfill Ground-Water Monitoring Wells

SUMMARY: Ground-water samples were collected at the Fort Bragg Lamont Landfill on November 17, 2008 and analyzed for the following: Appendix I Metals by EPA 6010B/6020A/7470A and Nitrate/Nitrite by EPA 353.3. The narratives below describe any problems with the sample data as well as the quality control data. Table 1 lists the sample results for quick review.

1. Two duplicates were taken at this site. The first duplicate sampled was LMW-DUP-1, which was the duplicate to LMW-14r-11-08. This duplicate was analyzed for metals and nitrate/nitrite. There was poor reproducibility between the sample and duplicate. The second duplicate, LMW-DUP-2 was the duplicate to LMW-14r-11-08. This duplicate was only analyzed for nitrate/nitrite. There was good reproducibility between the sample and duplicate.

2. Due to ongoing sampling at this site, no field blank was submitted with this sample set.

3. Quality Control: The Quality Control samples analyzed with this sample set were within established control limits.

Judson D. Smith.
Chemist, Geology/Hydrogeology
and HTRW Design Section

TABLE 1:
FORT BRAGG, NORTH CAROLINA
SUMMARY OF THE GROUND-WATER ANALYTICAL RESULTS FOR
LAMONT LANDFILL NOVEMBER 17 2008 SAMPLING EVENT

Analytical Method:			**Nitrate/Nitrite as N, SM-4500-NO3 E (mg/L):**	**Appendix II Metals by 6010B/6020A/7470A**				
Sample:	Date:	Time:		Arsenic (µg/L):	Barium (mg/L):	Copper (mg/L):	Lead ((µg/L):	Nickel (mg/L):
LMW-14r-11-08	11/17/2009	14:42	0.96	9.08	0.133	U	U	0.0032J
LMW-15r-11-08	11/17/2009	14:42	1.460	12.7	0.0376	0.0052 J	1.08	U
LMW-DUP-1	11/17/2009	15:18	1.400	9.47	0.0383	U	U	U
LMW-DUP-2	11/17/2009	16:38	2.260	NS	NS	NS	NS	NS
Method Blank			U	U	U	U	U	U

Notes:
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NA = Not Applicable
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VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
B= Analyte detected in Method Blank
J = Analyte was present, but reported value may not be accurate or precise.
P = RPD value greater than 40% between primary and confirmation column results for dual-column chromatographic method.
U = Target analyte was not detected above the analytical reporting limits.

APPENDIX C

CHAIN OF CUSTODY AND LABORATORY ANALYTICAL REPORTS

(Electronic Only)

Analytical Management Laboratories, Inc.
est. 1993

Results of Laboratory Analysis

December 31, 2008

Mr. Judson Smith
Project Chemist, CESAS-EN-GG
U.S. Army Corps of Engineers, Savannah District
100 W. Oglethorpe Ave.
P. O. Box 889
Savannah, GA 31401-0360
Phone: 912-652-5673
Fax: 912-652-5311

Dear Mr. Smith:

RE: Fort Bragg, Lamont LF, DO# 122
W912HN-05-D-0013
AML Work Order Number: **0811037**

Attached, please find the hardcopy analytical report (94 total pages) for environmental samples collected by CESAS for the project described above. The analytical results included in this report relate only to the samples received by Analytical Management Laboratories (AML). Problems encountered in the analysis of these samples are documented in the laboratory case narrative observations and non-conformances and/or data qualifiers. The case narrative is an integral part of this report. This report has been paginated and may not be reproduced for distribution, except in full, without the written approval of AML. The electronic data deliverables (EDDs) for this report will be e-mailed within a few days of this report. Please feel free to contact me by phone (913-829-0101-ext. 26), fax (913-829-1181) or email (alester@amlabinc.com) if you have any questions.

Respectfully Submitted,
Analytical Management Laboratories, Inc.

Aime Lester
Project Manager

15130 South Keeler, Olathe, Kansas 66062
Phone: (913) 829-0101 Fax: (913) 829-1181

Case Narrative

Project and Sample Information

Task order information, completed copies of the chain of custody form(s), and Analytical Management Laboratories (AML) sample condition upon receipt form (s) are included in the Project and Sample Information section. The AML laboratory information management system (LIMS)-generated sample status and receipt report, showing field sample identifiers and corresponding laboratory identifiers is also included.

Reports

The hardcopy laboratory reports and electronic data deliverables (EDDs) were prepared using the Promium Element Data System (LIMS). Under the procedure used by the laboratory, the hardcopy reports are generated using information contained in a database, which is also used to generate electronic deliverables to assure data integrity between the two media. The attached report is organized as follows:

Cover Letter
Laboratory Case Narrative
Sample Information
Sample Result Forms, organized in the following order: by test and by sample.

Quality Control (QC) Summary Reports, organized in the following order: by test, by matrix, and by QC batch number. The QC Summary for each analytical batch contains the following, when applicable:

1. QC Association Form
2. Surrogate Recovery Summary, when applicable
3. Method Blank (MB) Results
4. Laboratory Control Sample (LCS) Results
5. LCS duplicate (LCSD) Results, when available
6. LCS Recoveries Summary
7. LCSD (when applicable) Recoveries and RPD Summary
8. Matrix Spike (MS) Results
9. MS duplicate (MSD) Results
10. MS Recoveries Summary
11. MSD Recoveries and RPD Summary

Sample Result Forms
Sample results are shown on modified Form 1 equivalents with the following qualifiers:

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U = Not detected or detected below method detection limit (MDL) or the limit of detection (LOD).
J = Detected above MDL or LOD but below the limit of quantitation (LOQ).
P = RPD >40% between primary and confirmation column results for dual column chromatographic methods (e.g. GC and HPLC methods).
E = Detected at levels in excess of the upper calibration limit.
B = Detected in the associated method blank
Q1 = The %D or %Drift for the associated CCV is outside the method QC limit.
Q2 = The %D or %Drift for the associated CCV is outside the method and/or laboratory established QC limit with a low bias.
* = Exceeds QC limits
ME = Marginal exceedence of the 3-sigma QC limits
ME* = Exceedence of the 4-sigma QC limits
X = as defined in the case narrative when utilized

The LODs and LOQs have been adjusted for sample weight or volume, dilution, and percent solids, when applicable. MDLs are statistically defined, instrument-specific quantities, which are used as LODs for some tests. For situations when multiple MDLs exist for a test (e.g several instruments running the same test on a given matrix) or when MDLs are unachievable on a routine basis, LODs, which may be grater than MDL but typically one-half of the applicable LOQs are used to define cut-off points for reporting positive results. The LOQs are typically the lowest point on the initial calibration curve.

Quantitative results for analytes detected in the sample (positive results) are shown under the column labeled "Result". Results coded with the qualifier E should not be used unless additional analyses were unavailable due to other limitations. Data coded as E should not be compared to other data since non-linearity in calibration may be a severe problem for some analytes. Multiple sample result forms may be provided for one or more of the following reasons:
Sample was reanalyzed for surrogate or internal standard recovery outliers;
Sample was reanalyzed at a dilution;
One of the analyses was performed outside holding times;
A replicate analysis was performed for other quality control purposes;
Client requirements

QC Association Forms
The list consisting of MB, LCS, LCSD (if any), MS (whenever available), MSD (whenever available), and field samples from the reported AML work order that are associated with each QC batch are shown on QC Association Forms. Additional items

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such as PDS, SD may be included for some parameters (e.g metals). Separate forms are included for each QC batch, for each matrix and test.

Surrogate Recovery Forms

A summary of the system monitoring compound recoveries for organic analyses is included in this section. The QC limits from the Department of Defense Quality Systems Manual for Environmental Laboratories, Final Version 3, January 2006 is used in the reports, when available. Method-specified limits or in-house limits are used as applicable. Corrective action involving re-extraction and/or reanalysis is performed for samples that exceed the surrogate QC limits.

Method Blank Result Forms

The QC limit for the Method Blank is set at one half of the applicable LOQ for each target analyte with the exception of common laboratory contaminants, which is set at the LOQ.

Laboratory Control Sample (LCS) Report Forms

Laboratory control samples were analyzed with each QC batch as described in the QC Association Form. Laboratory Control sample limits are set as a default to the DOD QSM limits when available. When the 3-sigma control limit is exceeded for any analyte, the LCS report is flagged "ME". The total number of method analytes, and the number of ME analytes are tracked and compared against the number allowed per NELAC and the DOD QSM. This information is summarized at the bottom of the recoveries summary reports. Analytes with LCS recoveries that exceed the 4-sigma limits are flagged ME* and reanalysis may be required for the affected analyte if it is a contaminant of concern. The relative percent differences (RPDs) for the LCS duplicates, a voluntary laboratory QC parameter, are computed to track in-house precision for method duplicates.

Matrix Spike/Matrix Spike Duplicate Recoveries Report Forms

The MS/MSD results are shown in Form-1 equivalents. See section on LCS for additional details. The RPDs for MS duplicates that are outside the applicable QC limits are flagged with an asterisk (*). The effect of matrix is taken into account in determining corrective action procedures based on MS and MSD results, recoveries, and RPD.

Calibration

Instruments were calibrated in accordance with applicable method. Deviations are noted as a non-conformance. Copies of initial calibration and calibration verification summaries and associated raw data will be maintained in laboratory files and made available for detailed client review.

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Test Methods and Holding Times
Analyses were performed within applicable holding times except as noted on sample reports. See parameter specific non-conformances for more information.

Batch-specific Quality Control Procedures
Quality control data from method blanks and laboratory control samples are used as batch QC elements. In accordance with EPA, USACE, and DoD guidelines, QC data from matrix spikes are used as matrix-specific QC elements and QC data from surrogates, internal standard areas, etc. are used as sample-specific QC elements. When the batch QC elements are outside their QC limits, results for associated samples are evaluated and corrective actions that affect the entire sample set are performed.

Matrix-specific or Sample-specific Quality Control Procedures
Sample concentrations exceeding the upper calibration limit, surrogate recoveries outside the QC limits, calibration parameters not within QC limits, etc. are used as sample-specific and/or sample-group specific QC elements for one or more associated samples during instrumental analysis. Serial dilution, standard addition, MS recoveries, etc. are used as matrix-specific QC elements for one or more associated samples. When these QC elements are outside their QC limits, associated individual sample results are evaluated and appropriate corrective actions are performed.

Manual Integration
Manual integration operations that have potential to improve accuracy of analysis are performed, as necessary (shown with an “M” flag on raw data) based on visual inspection of peak shapes for each target analyte. Such operations are technically defensible and they are not aimed at meeting the minimum technical requirements of the analytical procedure.

Statement
To the best of our knowledge, this data package is in compliance with the client terms and conditions, both technically and for completeness. Non-conformances are listed in the case narrative and/or data qualifiers for each parameter tested.

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Phone: (913) 829-0101 Fax: (913) 829-1181

Results of Laboratory Analysis

Project Information

Nine (9) samples were received by AML on November 22, 2008 and logged in according to the Sample Status and Receipt Report included in this report. Reference the chain of custody and Sample Condition upon receipt Report for any non-conformances on receipt condition and temperature upon receipt.

Observations and Non-Conformances

VOCs by 8260B

Batch P812012 - Compounds outside the laboratory established 20% Drift/Difference for the Continuing Calibration Verification have been flagged. "Q1" Flags indicated that the compound(s) were outside QC limits biased high, and "Q2" flags indicate that the compound(s) were outside QC limits biased low. Bromomethane and Chloroethane were outside QC limits biased high. Dichlorodifluoromethane, Chloromethane, Trichlorofluoromethane, 1,1,1-Trichloroethane, Carbon Tetrachloride, and 1,2-Dichloroethane were outside QC limits biased low at 27.8%, 24.8%, 24.7%, 20.7%, 21.4%, and 21.8% respectively. Compounds are flagged to inform the user of the data that compounds fell outside the 20% criteria. All SPCC/CCC compounds were within QC limits indicating a valid CCV. Samples that had Q2 flags and hits for the Q2 compounds were rerun outside of holding time, for those compounds only. Both the initial and reanalysis had similar results.

Batch P812012 - LCS/LCSD recoveries are outside QC limits as flagged on summary reports; the marginal exceedences are within the allowed number of outliers for the number of compounds reported. Additionally, MS/MSD recoveries were outside QC limits for multiple compounds as flagged on the MS/MSD summary reports. LCS/LCSD is acceptable.

Batch P812015 - Compounds outside the laboratory established 20% Drift/Difference for the Continuing Calibration Verification have been flagged. "Q1" Flags indicated that the compound(s) were outside QC limits biased high, and "Q2" flags indicate that the compound(s) were outside QC limits biased low. Bromomethane and Chloroethane were outside QC limits biased high. Dichlorodifluoromethane and Chloromethane were outside QC limits biased low at 22.9% and 32.3% respectively. Compounds are flagged to inform the user of the data that compounds fell outside the 20% criteria. All SPCC/CCC compounds were within QC limits indicating a valid CCV.

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Results of Laboratory Analysis

Batch P812015 – LCS recoveries are outside QC limits as flagged on summary reports; the marginal exceedences are within the allowed number of outliers for the number of compounds reported. Additionally, insufficient sample was received for MS/MSD analysis. LCS/LCSD reported.

Batches P812162 and P812181 - Insufficient sample was received for MS/MSD analysis. LCS/LCSD reported.

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Field Sample Information

(Chain of Custody Record, Sample Receipt Report, Condition Upon Receipt Report)

0811037

(Sample Delivery Group, SDG)

Analytical Management Laboratories, Inc.
15130 South Keeler
Olathe, Kansas 66062
Phone (913) 829-0101
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VOC'S

42437

Chain of Custody Record / Request for Analysis

Client Contact Name: JUD SMITH
Company Name: US ARMY CORPS OF ENGINEERS
Address: 100 W OGLETHORPE AVE
City, State, Zip: SAVANNAH, GA 31401
Phone #: (912) 652-5673 Ext:
Fax #: (912) 652-5311
Email:

Project Name: FT BRAGG LAMONT LP
Project Number:
Purchase Order Number: DO 122
Project Due Date:
Project Comments:
Print Sampler's Name: JON COOMBS

Analysis/Method to be Performed (Check all that apply)

Laboratory Project Number: 0811037

Specify method # ---> 8260

Lab ID	Sample Description	Date	Time	Matrix	Total # Containers	HCl	HNO_3	NaOH	H_2SO_4	Unpreserved	4° C		VOCs	SVOCs	Pesticides	PCBs	Herbicides	Metals (specify)	DRO	GRO	Explosives	Anions (specify)	Comments:
0811037-01	TRIP BLANK	11/19/08		AQ	2	2							2										
0811037-02	GW-LMW-3-11-08	11/19/08	0918	AQ	3	3							3										
0811037-03	GW-LMW-35-11-08	11/19/08	0956	AQ	3	3							3										
0811037-04	GW-LMW-6-11-08	11/19/08	1105	AQ	3	3							3										
0811037-05	GW-LMW-9-11-08	11/19/08	1518	AQ	3	3							3										
0811037-06	GW-LMW-10-11-08	11/19/08	1416	AQ	3	3							3										
0811037-07	GW-LMW-35-11-08	11/20/08	0700	AQ	3	3							3										
0811037-08	GW-LMW-9D-11-08	11/20/08	1010	AQ	3	3							3										
0811037-09	GW-LMW-8-11-08	11/20/08	1050		3	3							3										
10																							

Please include any information that may be useful in the analysis of the sample.
Example: high concentration
List analytes
MS/MSD

CUSTODY						
Relinquished By:		Date/Time:	~~[illegible]~~ 11/21/08 1700	Received By:	SHIPPER	Date/Time: 11/21/08 1700
Relinquished By:		Date/Time:		Received By:		Date/Time: 11/22/08 1015am

By signing the request (chain of custody) you are ordering work from Analytical Management Laboratories, Inc. which constitutes the acceptance of the terms and conditions on the back of this form.

Delivery Method	Custody Seals	Coolant	Cooler Temp.	Receiving Comments:
☒ Delivered in Person ☒ Courier FedEx ☐ Airbill #: See Sample Rept Form	☐ Yes ☐ No ☐ Intact ☐ Broken	☐ Ice ☐ Blue Ice ☐ None	____ °C ☐ Temp. Blank ☐ Cooler	→ Acc 73: 2.0°C (VOC only) ~~0567: 2.0°C~~ NS ~~Acc 71: 1.9°C~~ NS ~~AMI 5: 1.9°C~~ NS

Analytical Management Laboratories - Sample Status and Receipt Report

AML Project Number	0811037	**Client AML ID**	USACE Savannah	**Report Lvl.** 3
Work Order Due Date	12/06/08	**Client Project ID**	Ft Bragg, DO# 122	
Work Order TAT	14			

AML Sample	*Matrix*	Client Sample ID	Date Collected	Projected Analytical Due Date	Analysis	Comments
0811037-01	Water	Trip Blank	11/19/08 00:00	12/04/08	VOCs by 8260B	
0811037-02	Water	GW-LMW-3-11-08	11/19/08 08:48	12/04/08	VOCs by 8260B	
0811037-03	Water	GW-LMW-3s-11-08	11/19/08 09:56	12/04/08	VOCs by 8260B	
0811037-04	Water	GW-LMW-6-11-08	11/19/08 11:05	12/04/08	VOCs by 8260B	
0811037-05	Water	GW-LMW-4-11-08	11/19/08 15:48	12/04/08	VOCs by 8260B	
0811037-06	Water	GW-LMW-10-11-08	11/19/08 14:16	12/04/08	VOCs by 8260B	
0811037-07	Water	GW-LMW-9s-11-08	11/20/08 07:00	12/04/08	VOCs by 8260B	
0811037-08	Water	GW-LMW-9D-11-08	11/20/08 10:10	12/04/08	VOCs by 8260B	
0811037-09	Water	GW-LMW-8-11-08	11/20/08 10:50	12/04/08	VOCs by 8260B	

Analytical Management Laboratories, Inc.

AML - Sample Condition Upon Receipt Report
(See Comments for exceptions)

Client ID: USACE_Sav

Project ID: Ft Bragg, DO# 122

AML Work Order Number: 0811037

Cooler ID: AML73

Delivery Method

Delivery Method: Fed Ex

Name of Person Receiving Samples: Nissa Said

Airbill Number: 795522524020

Custody Seals

Were Custody Seals Present? Yes

Were Custody Seals Intact? Yes

Cooler Opened By: Nissa Said

Date Opened 11/22/2008

Packaging / Coolant / Temperature

Type of Coolant Used: Ice

Temperature of Cooler: 2.00°C

Type of Packing Used: Bubble Wrap

Did all the bottles arrive unbroken? Yes

Were all bottles sealed in separate plastic bags? Yes

Chain of Custody

Was Chain of Custody filled out properly? Yes

Do Chain of Custody and Sample Labels agree? Yes

Comments/ Exceptions

Were all sample labels complete? Yes

Was a sufficient amount of sample sent for analysis? Yes

Were samples received in proper containers? Yes

Were air bubbles absent in VOA samples? Yes

Was sample pH within QC limits? NA
(if no see comments)

Was project manager contacted about any "out of control" issues? Yes

Samples Received by: Nissa Said

Project Manager Review:

Date: 11/24/08

Field Sample Analysis Data Sheets

(Form I equivalents)

0811037

(Sample Delivery Group, SDG)

8260B

(Parameter)

P812012
P812015
P812162
P812181

(Analytical Batch)

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Trip Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-01
% Solids:	NA	Date Collected:	11/19/08 00:00
Analytical Method:	8260B	Date Analyzed:	11/28/08 15:20
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812015	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Trip Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-01
% Solids:	NA	Date Collected:	11/19/08 00:00
Analytical Method:	8260B	Date Analyzed:	11/28/08 15:20
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812015	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-02
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Method:	8260B	Date Analyzed:	11/26/08 18:06
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	0.430	ug/L	Q2, J	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane	0.630	ug/L	Q2, J	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform	0.270	ug/L	J	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	Q2, U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	Q2, U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	Q2, U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.300	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	0.440	ug/L	J	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-02
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Method:	8260B	Date Analyzed:	11/26/08 18:06
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	0.240	ug/L	J	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-02RE1
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Method:	8260B	Date Analyzed:	12/19/08 16:50
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812162	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	0.480	ug/L	J	0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-02RE2
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Method:	8260B	Date Analyzed:	12/29/08 15:33
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812181	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3s-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-03
% Solids:	NA	Date Collected:	11/19/08 09:56
Analytical Method:	8260B	Date Analyzed:	11/26/08 18:39
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	2.76	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane	1.05	ug/L	Q2, J	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	Q2, U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	Q2, U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	Q2, U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.220	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3s-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-03
% Solids:	NA	Date Collected:	11/19/08 09:56
Analytical Method:	8260B	Date Analyzed:	11/26/08 18:39
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3s-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-03RE1
% Solids:	NA	Date Collected:	11/19/08 09:56
Analytical Method:	8260B	Date Analyzed:	12/19/08 17:22
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812162	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	2.89	ug/L		0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3s-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-03RE2
% Solids:	NA	Date Collected:	11/19/08 09:56
Analytical Method:	8260B	Date Analyzed:	12/29/08 16:05
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812181	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-69-4	Trichlorofluoromethane	0.680	ug/L	J	0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-6-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-04
% Solids:	NA	Date Collected:	11/19/08 11:05
Analytical Method:	8260B	Date Analyzed:	11/26/08 19:11
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	0.820	ug/L	Q2, J	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane	0.720	ug/L	Q2, J	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	Q2, U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	Q2, U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	Q2, U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.300	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-6-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-04
% Solids:	NA	Date Collected:	11/19/08 11:05
Analytical Method:	8260B	Date Analyzed:	11/26/08 19:11
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	0.210	ug/L	J	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-6-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-04RE1
% Solids:	NA	Date Collected:	11/19/08 11:05
Analytical Method:	8260B	Date Analyzed:	12/19/08 17:54
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812162	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	0.970	ug/L	J	0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-6-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-04RE2
% Solids:	NA	Date Collected:	11/19/08 11:05
Analytical Method:	8260B	Date Analyzed:	12/29/08 16:38
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812181	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-69-4	Trichlorofluoromethane	0.510	ug/L	J	0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-4-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-05
% Solids:	NA	Date Collected:	11/19/08 15:48
Analytical Method:	8260B	Date Analyzed:	11/26/08 19:44
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	0.950	ug/L	Q2, J	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane	2.66	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	Q2, U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	Q2, U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	Q2, U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.250	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-4-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-05
% Solids:	NA	Date Collected:	11/19/08 15:48
Analytical Method:	8260B	Date Analyzed:	11/26/08 19:44
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-4-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-05RE1
% Solids:	NA	Date Collected:	11/19/08 15:48
Analytical Method:	8260B	Date Analyzed:	12/19/08 18:27
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812162	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	1.20	ug/L	J	0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-4-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-05RE2
% Solids:	NA	Date Collected:	11/19/08 15:48
Analytical Method:	8260B	Date Analyzed:	12/29/08 17:11
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812181	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-69-4	Trichlorofluoromethane	2.14	ug/L		0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-10-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-06
% Solids:	NA	Date Collected:	11/19/08 14:16
Analytical Method:	8260B	Date Analyzed:	11/26/08 20:16
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	2.42	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane	4.94	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride	0.490	ug/L	J	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	Q2, U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	Q2, U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	Q2, U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene	0.580	ug/L	J	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.240	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-10-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-06
% Solids:	NA	Date Collected:	11/19/08 14:16
Analytical Method:	8260B	Date Analyzed:	11/26/08 20:16
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-10-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-06RE1
% Solids:	NA	Date Collected:	11/19/08 14:16
Analytical Method:	8260B	Date Analyzed:	12/19/08 18:59
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812162	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	2.95	ug/L		0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-10-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-06RE2
% Solids:	NA	Date Collected:	11/19/08 14:16
Analytical Method:	8260B	Date Analyzed:	12/29/08 17:43
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812181	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-69-4	Trichlorofluoromethane	3.05	ug/L		0.200	2.00	1

Note:

Sample was analyzed outside the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-9s-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-07
% Solids:	NA	Date Collected:	11/20/08 07:00
Analytical Method:	8260B	Date Analyzed:	11/26/08 20:49
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	Q2, U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	Q2, U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	Q2, U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	Q2, U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.200	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-9s-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-07
% Solids:	NA	Date Collected:	11/20/08 07:00
Analytical Method:	8260B	Date Analyzed:	11/26/08 20:49
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-9D-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-08
% Solids:	NA	Date Collected:	11/20/08 10:10
Analytical Method:	8260B	Date Analyzed:	11/26/08 21:22
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	Q2, U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	Q2, U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	Q2, U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	Q2, U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.300	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-9D-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-08
% Solids:	NA	Date Collected:	11/20/08 10:10
Analytical Method:	8260B	Date Analyzed:	11/26/08 21:22
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812012	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-8-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-09
% Solids:	NA	Date Collected:	11/20/08 10:50
Analytical Method:	8260B	Date Analyzed:	11/28/08 15:52
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812015	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.390	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene	0.220	ug/L	J	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-8-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811037-09
% Solids:	NA	Date Collected:	11/20/08 10:50
Analytical Method:	8260B	Date Analyzed:	11/28/08 15:52
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812015	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811037

(Sample Delivery Group, SDG)

8260B

(Parameter)

P812012

(Analytical Batch)

Quality Control Association Form

Lab Name: Analytical Management Laboratories, Inc. **Fraction:** VOA_GCMS

QC Batch: P812012 **Method:** 8260B

Date Analyzed	Lab Sample ID	Original Sample	Sample Type	Project Number
11/26/08	0811037-02		SAMPLE	0811037
11/26/08	0811037-03		SAMPLE	0811037
11/26/08	0811037-04		SAMPLE	0811037
11/26/08	0811037-05		SAMPLE	0811037
11/26/08	0811037-06		SAMPLE	0811037
11/26/08	0811037-07		SAMPLE	0811037
11/26/08	0811037-08		SAMPLE	0811037
11/26/08	P812012-BLK1		Method Blank	0811037
11/26/08	P812012-BS1		LCS	0811037
11/26/08	P812012-BSD1		LCS Dup	0811037
11/26/08	P812012-MS1	0811029-09	Matrix Spike	0811037
11/26/08	P812012-MSD1	0811029-09	Matrix Spike Dup	0811037

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812012

GW-LMW-3-11-08 (0811037-02)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	94.8	85	115	
1,2-Dichloroethane-d4	85.8	70	120	
Toluene-d8	104	85	120	
4-Bromofluorobenzene	101	75	120	

GW-LMW-3s-11-08 (0811037-03)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	96.1	85	115	
1,2-Dichloroethane-d4	83.3	70	120	
Toluene-d8	103	85	120	
4-Bromofluorobenzene	100	75	120	

GW-LMW-6-11-08 (0811037-04)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	94.2	85	115	
1,2-Dichloroethane-d4	82.7	70	120	
Toluene-d8	102	85	120	
4-Bromofluorobenzene	99.8	75	120	

GW-LMW-4-11-08 (0811037-05)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	95.4	85	115	
1,2-Dichloroethane-d4	82.8	70	120	
Toluene-d8	101	85	120	
4-Bromofluorobenzene	101	75	120	

GW-LMW-10-11-08 (0811037-06)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	95.6	85	115	
1,2-Dichloroethane-d4	85.6	70	120	
Toluene-d8	101	85	120	
4-Bromofluorobenzene	99.6	75	120	

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812012

GW-LMW-9s-11-08 (0811037-07)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	96.3	85	115	
1,2-Dichloroethane-d4	87.4	70	120	
Toluene-d8	103	85	120	
4-Bromofluorobenzene	101	75	120	

GW-LMW-9D-11-08 (0811037-08)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	99.0	85	115	
1,2-Dichloroethane-d4	87.8	70	120	
Toluene-d8	103	85	120	
4-Bromofluorobenzene	103	75	120	

Blank (P812012-BLK1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	94.1	85	115	
1,2-Dichloroethane-d4	83.6	70	120	
Toluene-d8	101	85	120	
4-Bromofluorobenzene	100	75	120	

LCS (P812012-BS1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	94.1	85	115	
1,2-Dichloroethane-d4	81.4	70	120	
Toluene-d8	102	85	120	
4-Bromofluorobenzene	98.8	75	120	

LCS Dup (P812012-BSD1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	96.0	85	115	
1,2-Dichloroethane-d4	84.8	70	120	
Toluene-d8	103	85	120	
4-Bromofluorobenzene	100	75	120	

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812012

Matrix Spike (P812012-MS1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	96.5	85	115	
1,2-Dichloroethane-d4	86.4	70	120	
Toluene-d8	102	85	120	
4-Bromofluorobenzene	101	75	120	

Matrix Spike Dup (P812012-MSD1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	96.0	85	115	
1,2-Dichloroethane-d4	84.0	70	120	
Toluene-d8	103	85	120	
4-Bromofluorobenzene	101	75	120	

Form 1 - Equivalent

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 12:21
Preparation:	EPA 5030B	Date Received:	
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	Q2, U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	Q2, U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	Q2, U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	Q2, U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 12:21
Preparation:	EPA 5030B	Date Received:	
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 10:44
Preparation:	EPA 5030B	Date Received:	
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	18.0	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	18.8	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	22.0	ug/L		0.200	2.00	1
74-83-9	Bromomethane	47.6	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	32.6	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	18.8	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.1	ug/L		0.200	2.00	1
107-02-8	Acrolein	138	ug/L		1.00	10.0	1
67-64-1	Acetone	106	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	20.8	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	23.7	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	24.6	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	24.2	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	21.0	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	21.8	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	22.4	ug/L		0.200	2.00	1
78-93-3	2-Butanone	108	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	24.1	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	20.6	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	24.1	ug/L		0.200	2.00	1
67-66-3	Chloroform	21.3	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	19.8	ug/L	Q2	0.200	2.00	1
563-58-6	1,1-Dichloropropene	21.8	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	19.6	ug/L	Q2	0.200	2.00	1
107-06-2	1,2-Dichloroethane	19.6	ug/L	Q2	0.200	2.00	1
71-43-2	Benzene	22.6	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	22.4	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	23.6	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	22.3	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	21.0	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	23.0	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	108	ug/L		2.00	10.0	1
108-88-3	Toluene	22.8	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	21.4	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	24.3	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	23.5	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	21.2	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	106	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	22.2	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	23.7	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	23.7	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	22.4	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.7	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	45.3	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.2	ug/L		0.200	2.00	1
100-42-5	Styrene	23.1	ug/L		0.200	2.00	1
75-25-2	Bromoform	21.7	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.2	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	22.4	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.4	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 10:44
Preparation:	EPA 5030B	Date Received:	
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.8	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	23.6	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	23.4	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	22.8	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	23.0	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	23.4	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	22.7	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.9	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.6	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.9	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.2	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	22.7	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	22.3	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	24.8	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	23.7	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	24.2	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	20.3	ug/L		0.200	2.00	1
91-20-3	Naphthalene	25.5	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 11:16
Preparation:	EPA 5030B	Date Received:	
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	18.1	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	19.4	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	22.3	ug/L		0.200	2.00	1
74-83-9	Bromomethane	50.5	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	33.2	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	18.7	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.0	ug/L		0.200	2.00	1
107-02-8	Acrolein	141	ug/L		1.00	10.0	1
67-64-1	Acetone	118	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	21.0	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	23.7	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.0	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	24.3	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	21.3	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	23.5	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	22.8	ug/L		0.200	2.00	1
78-93-3	2-Butanone	118	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.0	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	20.5	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	26.0	ug/L		0.200	2.00	1
67-66-3	Chloroform	22.1	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	20.2	ug/L	Q2	0.200	2.00	1
563-58-6	1,1-Dichloropropene	22.0	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	19.8	ug/L	Q2	0.200	2.00	1
107-06-2	1,2-Dichloroethane	20.8	ug/L	Q2	0.200	2.00	1
71-43-2	Benzene	23.2	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	22.5	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	24.4	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	23.7	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	21.9	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.2	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	119	ug/L		2.00	10.0	1
108-88-3	Toluene	23.4	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.1	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	25.4	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.4	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	22.7	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	116	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	23.6	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.3	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.2	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.1	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.6	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	45.4	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.5	ug/L		0.200	2.00	1
100-42-5	Styrene	23.7	ug/L		0.200	2.00	1
75-25-2	Bromoform	23.4	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.2	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	23.9	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	26.0	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 11:16
Preparation:	EPA 5030B	Date Received:	
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.8	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.9	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	23.2	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	22.8	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	22.6	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	22.9	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	22.5	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.6	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.9	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	24.2	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.6	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	22.2	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	22.0	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	26.0	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	24.6	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	25.0	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	19.7	ug/L		0.200	2.00	1
91-20-3	Naphthalene	26.7	ug/L		0.400	2.00	1

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812012

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812012-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Dichlorodifluoromethane	25.0	18.0	72.2		30	155
Chloromethane	25.0	18.8	75.2		40	125
Vinyl chloride	25.0	22.0	88.2		50	145
Bromomethane	25.0	47.6	190	ME*	30	145
Chloroethane	25.0	32.6	130		60	135
Trichlorofluoromethane	25.0	18.8	75.3		60	145
1,1-Dichloroethene	25.0	22.1	88.3		70	130
Acrolein	125	138	111		54	142
Acetone	125	106	84.7		40	140
Acrylonitrile	25.0	20.8	83.0		71	129
Carbon disulfide	25.0	23.7	94.9		35	160
Methylene Chloride	25.0	24.6	98.4		55	140
trans-1,2-Dichloroethene	25.0	24.2	97.0		60	140
Vinyl acetate	25.0	21.0	84.1		72	121
Methyl tert-Butyl Ether	25.0	21.8	87.1		65	125
1,1-Dichloroethane	25.0	22.4	89.7		70	135
2-Butanone	125	108	86.1		30	150
cis-1,2-Dichloroethene	25.0	24.1	96.4		70	125
2,2-Dichloropropane	25.0	20.6	82.6		70	135
Bromochloromethane	25.0	24.1	96.4		65	130
Chloroform	25.0	21.3	85.3		65	135
1,1,1-Trichloroethane	25.0	19.8	79.3		65	130
1,1-Dichloropropene	25.0	21.8	87.1		75	130
Carbon Tetrachloride	25.0	19.6	78.6		65	140
1,2-Dichloroethane	25.0	19.6	78.2		70	130
Benzene	25.0	22.6	90.3		80	120
Trichloroethene	25.0	22.4	89.8		70	125
1,2-Dichloropropane	25.0	23.6	94.3		75	125
Dibromomethane	25.0	22.3	89.0		75	125
Bromodichloromethane	25.0	21.0	83.8		75	120
cis-1,3-Dichloropropene	25.0	23.0	91.9		70	130
4-Methyl-2-pentanone	125	108	86.8		60	135
Toluene	25.0	22.8	91.3		75	120
trans-1,3-Dichloropropene	25.0	21.4	85.8		55	140
1,1,2-Trichloroethane	25.0	24.3	97.0		75	125
1,3-Dichloropropane	25.0	23.5	94.0		75	125
Tetrachloroethene	25.0	21.2	84.9		45	150
2-Hexanone	125	106	85.0		55	130
Dibromochloromethane	25.0	22.2	88.8		60	135
1,2-Dibromoethane	25.0	23.7	94.8		80	120
Chlorobenzene	25.0	23.7	94.6		80	120
1,1,1,2-Tetrachloroethane	25.0	22.4	89.5		80	130
Ethylbenzene	25.0	22.7	90.9		75	125
m-Xylene/p-Xylene	50.0	45.3	90.6		75	130
o-Xylene	25.0	23.2	92.8		80	120
Styrene	25.0	23.1	92.3		65	135
Bromoform	25.0	21.7	86.9		70	130
Isopropylbenzene	25.0	22.2	89.0		75	125
1,2,3-Trichloropropane	25.0	22.4	89.8		75	125
1,1,2,2-Tetrachloroethane	25.0	24.4	97.8		65	130
Bromobenzene	25.0	24.8	99.2		75	125
n-Propylbenzene	25.0	23.6	94.3		70	130
2-Chlorotoluene	25.0	23.4	93.6		75	125
4-Chlorotoluene	25.0	22.8	91.2		75	130

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812012

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812012-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
1,3,5-Trimethylbenzene	25.0	23.0	92.2		75	130
tert-Butylbenzene	25.0	23.4	93.7		70	130
1,2,4-Trimethylbenzene	25.0	22.7	90.8		75	130
sec-Butylbenzene	25.0	21.9	87.6		70	125
1,3-Dichlorobenzene	25.0	23.6	94.3		75	125
1,4-Dichlorobenzene	25.0	23.9	95.7		75	125
1,2-Dichlorobenzene	25.0	24.2	96.8		70	120
4-Isopropyltoluene	25.0	22.7	90.8		75	130
n-Butylbenzene	25.0	22.3	89.4		70	135
1,2-Dibromo-3-chloropropane	25.0	24.8	99.2		50	130
1,2,4-Trichlorobenzene	25.0	23.7	94.8		65	135
1,2,3-Trichlorobenzene	25.0	24.2	96.7		55	140
Hexachlorobutadiene	25.0	20.3	81.0		50	140
Naphthalene	25.0	25.5	102		55	140

Actual Number of Marginal Exceedences: 1

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812012

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812012-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Dichlorodifluoromethane	25.0	18.1	72.5		30	155	0.498
Chloromethane	25.0	19.4	77.6		40	125	3.14
Vinyl chloride	25.0	22.3	89.1		50	145	1.04
Bromomethane	25.0	50.5	202	ME*	30	145	5.93
Chloroethane	25.0	33.2	133		60	135	1.73
Trichlorofluoromethane	25.0	18.7	74.7		60	145	0.747
1,1-Dichloroethene	25.0	22.0	88.2		70	130	0.181
Acrolein	125	141	113		54	142	2.29
Acetone	125	118	94.2		40	140	10.7
Acrylonitrile	25.0	21.0	83.8		71	129	1.01
Carbon disulfide	25.0	23.7	94.7		35	160	0.211
Methylene Chloride	25.0	25.0	100		55	140	1.69
trans-1,2-Dichloroethene	25.0	24.3	97.4		60	140	0.412
Vinyl acetate	25.0	21.3	85.2		72	121	1.28
Methyl tert-Butyl Ether	25.0	23.5	94.0		65	125	7.60
1,1-Dichloroethane	25.0	22.8	91.2		70	135	1.64
2-Butanone	125	118	94.7		30	150	9.57
cis-1,2-Dichloroethene	25.0	25.0	99.9		70	125	3.59
2,2-Dichloropropane	25.0	20.5	81.9		70	135	0.827
Bromochloromethane	25.0	26.0	104		65	130	7.35
Chloroform	25.0	22.1	88.5		65	135	3.64
1,1,1-Trichloroethane	25.0	20.2	80.7		65	130	1.75
1,1-Dichloropropene	25.0	22.0	88.1		75	130	1.19
Carbon Tetrachloride	25.0	19.8	79.3		65	140	0.912
1,2-Dichloroethane	25.0	20.8	83.2		70	130	6.24
Benzene	25.0	23.2	92.8		80	120	2.80
Trichloroethene	25.0	22.5	90.0		70	125	0.267
1,2-Dichloropropane	25.0	24.4	97.7		75	125	3.54
Dibromomethane	25.0	23.7	94.9		75	125	6.35
Bromodichloromethane	25.0	21.9	87.7		75	120	4.57
cis-1,3-Dichloropropene	25.0	24.2	96.8		70	130	5.17
4-Methyl-2-pentanone	125	119	95.3		60	135	9.36
Toluene	25.0	23.4	93.5		75	120	2.34
trans-1,3-Dichloropropene	25.0	23.1	92.5		55	140	7.54
1,1,2-Trichloroethane	25.0	25.4	102		75	125	4.59
1,3-Dichloropropane	25.0	24.4	97.7		75	125	3.84
Tetrachloroethene	25.0	22.7	90.8		45	150	6.74
2-Hexanone	125	116	92.9		55	130	8.86
Dibromochloromethane	25.0	23.6	94.3		60	135	6.03
1,2-Dibromoethane	25.0	25.3	101		80	120	6.37
Chlorobenzene	25.0	24.2	96.8		80	120	2.26
1,1,1,2-Tetrachloroethane	25.0	23.1	92.4		80	130	3.25
Ethylbenzene	25.0	22.6	90.4		75	125	0.485
m-Xylene/p-Xylene	50.0	45.4	90.8		75	130	0.154
o-Xylene	25.0	23.5	93.9		80	120	1.20
Styrene	25.0	23.7	94.9		65	135	2.78
Bromoform	25.0	23.4	93.7		70	130	7.53
Isopropylbenzene	25.0	22.2	88.8		75	125	0.225
1,2,3-Trichloropropane	25.0	23.9	95.4		75	125	6.13
1,1,2,2-Tetrachloroethane	25.0	26.0	104		65	130	6.11
Bromobenzene	25.0	24.8	99.4		75	125	0.201
n-Propylbenzene	25.0	22.9	91.6		70	130	2.93
2-Chlorotoluene	25.0	23.2	92.9		75	125	0.772
4-Chlorotoluene	25.0	22.8	91.1		75	130	0.132

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812012

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812012-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
1,3,5-Trimethylbenzene	25.0	22.6	90.6		75	130	1.79
tert-Butylbenzene	25.0	22.9	91.4		70	130	2.42
1,2,4-Trimethylbenzene	25.0	22.5	90.1		75	130	0.752
sec-Butylbenzene	25.0	21.6	86.4		70	125	1.33
1,3-Dichlorobenzene	25.0	23.9	95.5		75	125	1.31
1,4-Dichlorobenzene	25.0	24.2	97.0		75	125	1.33
1,2-Dichlorobenzene	25.0	24.6	98.6		70	120	1.84
4-Isopropyltoluene	25.0	22.2	88.7		75	130	2.41
n-Butylbenzene	25.0	22.0	87.9		70	135	1.67
1,2-Dibromo-3-chloropropane	25.0	26.0	104		50	130	4.88
1,2,4-Trichlorobenzene	25.0	24.6	98.5		65	135	3.81
1,2,3-Trichlorobenzene	25.0	25.0	99.8		55	140	3.17
Hexachlorobutadiene	25.0	19.7	78.8		50	140	2.80
Naphthalene	25.0	26.7	107		55	140	4.67

Actual Number of Marginal Exceedences: 1

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-MS1
% Solids:	NA	Date Collected:	11/18/08 15:55
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 14:22
Preparation:	EPA 5030B	Date Received:	11/20/08 11:38
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	19.0	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	19.2	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	23.8	ug/L		0.200	2.00	1
74-83-9	Bromomethane	47.2	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	30.6	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	19.4	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.9	ug/L		0.200	2.00	1
107-02-8	Acrolein	129	ug/L		1.00	10.0	1
67-64-1	Acetone	112	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	21.8	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.2	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.3	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	24.8	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	23.0	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	27.0	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	23.2	ug/L		0.200	2.00	1
78-93-3	2-Butanone	113	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.1	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	21.4	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	26.4	ug/L		0.200	2.00	1
67-66-3	Chloroform	22.8	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	21.0	ug/L	Q2	0.200	2.00	1
563-58-6	1,1-Dichloropropene	22.6	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	20.6	ug/L	Q2	0.200	2.00	1
107-06-2	1,2-Dichloroethane	21.5	ug/L	Q2	0.200	2.00	1
71-43-2	Benzene	34.4	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.2	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	25.2	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	23.8	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	22.4	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.7	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	119	ug/L		2.00	10.0	1
108-88-3	Toluene	35.5	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.4	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	25.5	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	25.0	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	21.6	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	119	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	24.1	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.3	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.4	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.4	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	126	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	130	ug/L		0.400	4.00	1
95-47-6	o-Xylene	135	ug/L		0.200	2.00	1
100-42-5	Styrene	29.6	ug/L		0.200	2.00	1
75-25-2	Bromoform	23.2	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	45.5	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	23.2	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.9	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-MS1
% Solids:	NA	Date Collected:	11/18/08 15:55
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 14:22
Preparation:	EPA 5030B	Date Received:	11/20/08 11:38
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	25.1	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	58.7	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	28.2	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	24.7	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	43.3	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	18.7	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	95.3	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	24.4	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.5	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	24.2	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.6	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	23.5	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	30.1	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	25.2	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	25.1	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	25.7	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	21.4	ug/L		0.200	2.00	1
91-20-3	Naphthalene	226	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-MSD1
% Solids:	NA	Date Collected:	11/18/08 15:55
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 14:55
Preparation:	EPA 5030B	Date Received:	11/20/08 11:38
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	19.5	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	18.6	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	23.7	ug/L		0.200	2.00	1
74-83-9	Bromomethane	52.0	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	34.6	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	20.0	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene	23.4	ug/L		0.200	2.00	1
107-02-8	Acrolein	122	ug/L		1.00	10.0	1
67-64-1	Acetone	112	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	22.1	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.9	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.0	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	25.5	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	21.3	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	26.0	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	23.3	ug/L		0.200	2.00	1
78-93-3	2-Butanone	98.1	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.0	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	21.9	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	25.8	ug/L		0.200	2.00	1
67-66-3	Chloroform	23.2	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	21.3	ug/L	Q2	0.200	2.00	1
563-58-6	1,1-Dichloropropene	23.2	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	21.2	ug/L	Q2	0.200	2.00	1
107-06-2	1,2-Dichloroethane	21.0	ug/L	Q2	0.200	2.00	1
71-43-2	Benzene	34.5	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.4	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	24.8	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	23.3	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	22.4	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.3	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	119	ug/L		2.00	10.0	1
108-88-3	Toluene	35.7	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.1	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	25.4	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.7	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	22.2	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	118	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	23.8	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.1	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.8	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.7	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	126	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	129	ug/L		0.400	4.00	1
95-47-6	o-Xylene	134	ug/L		0.200	2.00	1
100-42-5	Styrene	29.5	ug/L		0.200	2.00	1
75-25-2	Bromoform	23.3	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	45.3	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	23.0	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.8	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812012-MSD1
% Solids:	NA	Date Collected:	11/18/08 15:55
Analytical Methdod:	8260B	Date Analyzed:	11/26/08 14:55
Preparation:	EPA 5030B	Date Received:	11/20/08 11:38
Batch:	P812012		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	25.1	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	59.0	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	29.0	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	25.4	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	43.8	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	19.6	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	94.5	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	25.0	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	24.2	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	24.7	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.8	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	24.1	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	31.0	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	25.7	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	25.9	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	26.2	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	22.8	ug/L		0.200	2.00	1
91-20-3	Naphthalene	220	ug/L		0.400	2.00	1

Form 3 - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812012

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811029-09*** ***Lab Sample ID for MS :*** ***P812012-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Dichlorodifluoromethane	0	25.0	19.0	75.8		30	155
Chloromethane	0	25.0	19.2	76.7		40	125
Vinyl chloride	0	25.0	23.8	95.2		50	145
Bromomethane	0	25.0	47.2	189	ME*	30	145
Chloroethane	0	25.0	30.6	122		60	135
Trichlorofluoromethane	0	25.0	19.4	77.7		60	145
1,1-Dichloroethene	0	25.0	22.9	91.7		70	130
Acrolein	0	125	129	103		54	142
Acetone	0	125	112	89.9		40	140
Acrylonitrile	0	25.0	21.8	87.0		71	129
Carbon disulfide	0	25.0	24.2	96.9		35	160
Methylene Chloride	0	25.0	25.3	101		55	140
trans-1,2-Dichloroethene	0	25.0	24.8	99.2		60	140
Vinyl acetate	0	25.0	23.0	92.2		72	121
Methyl tert-Butyl Ether	0	25.0	27.0	108		65	125
1,1-Dichloroethane	0	25.0	23.2	92.6		70	135
2-Butanone	0	125	113	90.0		30	150
cis-1,2-Dichloroethene	0	25.0	25.1	100		70	125
2,2-Dichloropropane	0	25.0	21.4	85.6		70	135
Bromochloromethane	0	25.0	26.4	105		65	130
Chloroform	0.690	25.0	22.8	88.6		65	135
1,1,1-Trichloroethane	0	25.0	21.0	84.2		65	130
1,1-Dichloropropene	0	25.0	22.6	90.3		75	130
Carbon Tetrachloride	0	25.0	20.6	82.6		65	140
1,2-Dichloroethane	0	25.0	21.5	85.8		70	130
Benzene	11.7	25.0	34.4	90.9		80	120
Trichloroethene	0	25.0	23.2	92.6		70	125
1,2-Dichloropropane	0	25.0	25.2	101		75	125
Dibromomethane	0	25.0	23.8	95.2		75	125
Bromodichloromethane	0	25.0	22.4	89.6		75	120
cis-1,3-Dichloropropene	0	25.0	24.7	98.6		70	130
4-Methyl-2-pentanone	0	125	119	95.5		60	135
Toluene	12.3	25.0	35.5	92.7		75	120
trans-1,3-Dichloropropene	0	25.0	23.4	93.7		55	140
1,1,2-Trichloroethane	0	25.0	25.5	102		75	125
1,3-Dichloropropane	0	25.0	25.0	100		75	125
Tetrachloroethene	0	25.0	21.6	86.2		45	150
2-Hexanone	0	125	119	95.3		55	130
Dibromochloromethane	0	25.0	24.1	96.3		60	135
1,2-Dibromoethane	0	25.0	25.3	101		80	120
Chlorobenzene	0	25.0	24.4	97.7		80	120
1,1,1,2-Tetrachloroethane	0	25.0	23.4	93.5		80	130
Ethylbenzene	120	25.0	126	22.8	ME*	75	125
m-Xylene/p-Xylene	87.6	50.0	130	84.9		75	130
o-Xylene	116	25.0	135	78.9	ME	80	120
Styrene	0	25.0	29.6	118		65	135
Bromoform	0	25.0	23.2	92.8		70	130
Isopropylbenzene	24.3	25.0	45.5	84.8		75	125
1,2,3-Trichloropropane	0	25.0	23.2	93.0		75	125
1,1,2,2-Tetrachloroethane	0	25.0	24.9	99.6		65	130
Bromobenzene	0	25.0	25.1	101		75	125
n-Propylbenzene	39.3	25.0	58.7	77.5		70	130
2-Chlorotoluene	0	25.0	28.2	113		75	125
4-Chlorotoluene	0	25.0	24.7	98.9		75	130

AML Work Order/Report Number: 0811037 Printed: 12/31/2008

Form 3 - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812012

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Original Sample ***0811029-09*** ***Lab Sample ID for MS :*** ***P812012-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
1,3,5-Trimethylbenzene	22.9	25.0	43.3	81.6		75	130
tert-Butylbenzene	0	25.0	18.7	74.9		70	130
1,2,4-Trimethylbenzene	78.5	25.0	95.3	67.2	ME	75	130
sec-Butylbenzene	0	25.0	24.4	97.6		70	125
1,3-Dichlorobenzene	0	25.0	23.5	94.1		75	125
1,4-Dichlorobenzene	0	25.0	24.2	96.8		75	125
1,2-Dichlorobenzene	0	25.0	24.6	98.4		70	120
4-Isopropyltoluene	0	25.0	23.5	94.0		75	130
n-Butylbenzene	0	25.0	30.1	120		70	135
1,2-Dibromo-3-chloropropane	0	25.0	25.2	101		50	130
1,2,4-Trichlorobenzene	0	25.0	25.1	100		65	135
1,2,3-Trichlorobenzene	0	25.0	25.7	103		55	140
Hexachlorobutadiene	0	25.0	21.4	85.8		50	140
Naphthalene	180	25.0	226	183	ME*	55	140

Form 3 - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812012

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811029-09*** ***Lab Sample ID for MSD*** ***P812012-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Dichlorodifluoromethane	0	25.0	19.5	77.8		2.60		30	155	30
Chloromethane	0	25.0	18.6	74.6		2.86		40	125	30
Vinyl chloride	0	25.0	23.7	94.7		0.505		50	145	30
Bromomethane	0	25.0	52.0	208	ME*	9.65		30	145	30
Chloroethane	0	25.0	34.6	138	ME	12.3		60	135	30
Trichlorofluoromethane	0	25.0	20.0	80.0		2.99		60	145	30
1,1-Dichloroethene	0	25.0	23.4	93.8		2.20		70	130	30
Acrolein	0	125	122	97.9		4.89		54	142	30
Acetone	0	125	112	89.5		0.375		40	140	30
Acrylonitrile	0	25.0	22.1	88.4		1.60		71	129	30
Carbon disulfide	0	25.0	24.9	99.6		2.69		35	160	30
Methylene Chloride	0	25.0	25.0	100		0.915		55	140	30
trans-1,2-Dichloroethene	0	25.0	25.5	102		2.74		60	140	30
Vinyl acetate	0	25.0	21.3	85.4		7.70		72	121	30
Methyl tert-Butyl Ether	0	25.0	26.0	104		3.85		65	125	30
1,1-Dichloroethane	0	25.0	23.3	93.2		0.646		70	135	30
2-Butanone	0	125	98.1	78.4		13.8		30	150	30
cis-1,2-Dichloroethene	0	25.0	25.0	100		0.399		70	125	30
2,2-Dichloropropane	0	25.0	21.9	87.4		2.13		70	135	30
Bromochloromethane	0	25.0	25.8	103		2.15		65	130	30
Chloroform	0.690	25.0	23.2	90.1		1.66		65	135	30
1,1,1-Trichloroethane	0	25.0	21.3	85.2		1.18		65	130	30
1,1-Dichloropropene	0	25.0	23.2	92.8		2.71		75	130	30
Carbon Tetrachloride	0	25.0	21.2	84.7		2.58		65	140	30
1,2-Dichloroethane	0	25.0	21.0	83.8		2.36		70	130	30
Benzene	11.7	25.0	34.5	91.1		0.220		80	120	30
Trichloroethene	0	25.0	23.4	93.6		1.12		70	125	30
1,2-Dichloropropane	0	25.0	24.8	99.4		1.48		75	125	30
Dibromomethane	0	25.0	23.3	93.4		1.99		75	125	30
Bromodichloromethane	0	25.0	22.4	89.7		0.0892		75	120	30
cis-1,3-Dichloropropene	0	25.0	24.3	97.1		1.59		70	130	30
4-Methyl-2-pentanone	0	125	119	95.1		0.336		60	135	30
Toluene	12.3	25.0	35.7	93.4		0.817		75	120	30
trans-1,3-Dichloropropene	0	25.0	23.1	92.4		1.38		55	140	30
1,1,2-Trichloroethane	0	25.0	25.4	102		0.393		75	125	30
1,3-Dichloropropane	0	25.0	24.7	98.7		1.25		75	125	30
Tetrachloroethene	0	25.0	22.2	88.9		3.06		45	150	30
2-Hexanone	0	125	118	94.2		1.16		55	130	30
Dibromochloromethane	0	25.0	23.8	95.0		1.34		60	135	30
1,2-Dibromoethane	0	25.0	25.1	100		0.992		80	120	30
Chlorobenzene	0	25.0	24.8	99.4		1.75		80	120	30
1,1,1,2-Tetrachloroethane	0	25.0	23.7	94.6		1.23		80	130	30
Ethylbenzene	120	25.0	126	22.4	ME*	1.77		75	125	30
m-Xylene/p-Xylene	87.6	50.0	129	83.5		1.69		75	130	30
o-Xylene	116	25.0	134	72.2	ME*	8.95		80	120	30
Styrene	0	25.0	29.5	118		0.508		65	135	30
Bromoform	0	25.0	23.3	93.0		0.301		70	130	30
Isopropylbenzene	24.3	25.0	45.3	84.3		0.615		75	125	30
1,2,3-Trichloropropane	0	25.0	23.0	92.0		1.12		75	125	30
1,1,2,2-Tetrachloroethane	0	25.0	24.8	99.3		0.322		65	130	30
Bromobenzene	0	25.0	25.1	100		0.199		75	125	30
n-Propylbenzene	39.3	25.0	59.0	78.8		1.64		70	130	30
2-Chlorotoluene	0	25.0	29.0	116		2.90		75	125	30
4-Chlorotoluene	0	25.0	25.4	101		2.52		75	130	30

AML Work Order/Report Number: 0811037 Printed: 12/31/2008

Form 3 - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812012

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Original Sample ***0811029-09*** ***Lab Sample ID for MSD*** ***P812012-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
1,3,5-Trimethylbenzene	22.9	25.0	43.8	83.4		2.18		75	130	30
tert-Butylbenzene	0	25.0	19.6	78.3		4.44		70	130	30
1,2,4-Trimethylbenzene	78.5	25.0	94.5	63.9	ME*	5.01		75	130	30
sec-Butylbenzene	0	25.0	25.0	99.9		2.31		70	125	30
1,3-Dichlorobenzene	0	25.0	24.2	96.7		2.77		75	125	30
1,4-Dichlorobenzene	0	25.0	24.7	98.8		2.04		75	125	30
1,2-Dichlorobenzene	0	25.0	24.8	99.4		1.05		70	120	30
4-Isopropyltoluene	0	25.0	24.1	96.4		2.52		75	130	30
n-Butylbenzene	0	25.0	31.0	124		2.98		70	135	30
1,2-Dibromo-3-chloropropane	0	25.0	25.7	103		1.97		50	130	30
1,2,4-Trichlorobenzene	0	25.0	25.9	104		3.06		65	135	30
1,2,3-Trichlorobenzene	0	25.0	26.2	105		2.00		55	140	30
Hexachlorobutadiene	0	25.0	22.8	91.1		6.01		50	140	30
Naphthalene	180	25.0	220	158	ME*	14.9		55	140	30

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811037

(Sample Delivery Group, SDG)

8260B

(Parameter)

P812015

(Analytical Batch)

Quality Control Association Form

Lab Name:	Analytical Management Laboratories, Inc.	**Fraction:**	VOA_GCMS
QC Batch:	P812015	**Method:**	8260B

Date Analyzed	Lab Sample ID	Original Sample	Sample Type	Project Number
11/28/08	0811037-01		SAMPLE	0811037
11/28/08	0811037-09		SAMPLE	0811037
11/28/08	P812015-BLK1		Method Blank	0811037
11/28/08	P812015-BS1		LCS	0811037
11/28/08	P812015-BSD1		LCS Dup	0811037

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812015

Trip Blank (0811037-01)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	99.8	85	115	
1,2-Dichloroethane-d4	88.2	70	120	
Toluene-d8	102	85	120	
4-Bromofluorobenzene	102	75	120	

GW-LMW-8-11-08 (0811037-09)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	102	85	115	
1,2-Dichloroethane-d4	92.6	70	120	
Toluene-d8	105	85	120	
4-Bromofluorobenzene	103	75	120	

Blank (P812015-BLK1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	97.0	85	115	
1,2-Dichloroethane-d4	84.5	70	120	
Toluene-d8	102	85	120	
4-Bromofluorobenzene	100	75	120	

LCS (P812015-BS1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	99.1	85	115	
1,2-Dichloroethane-d4	88.3	70	120	
Toluene-d8	104	85	120	
4-Bromofluorobenzene	104	75	120	

LCS Dup (P812015-BSD1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	97.9	85	115	
1,2-Dichloroethane-d4	88.8	70	120	
Toluene-d8	105	85	120	
4-Bromofluorobenzene	105	75	120	

Form 1 - Equivalent

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812015-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/28/08 14:48
Preparation:	EPA 5030B	Date Received:	
Batch:	P812015		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1

AML Work Order/Report Number: 0811037 Printed: 12/31/2008

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812015-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/28/08 14:48
Preparation:	EPA 5030B	Date Received:	
Batch:	P812015		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812015-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/28/08 12:21
Preparation:	EPA 5030B	Date Received:	
Batch:	P812015		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	16.9	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	19.3	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	22.8	ug/L		0.200	2.00	1
74-83-9	Bromomethane	48.9	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	33.1	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	20.5	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	23.1	ug/L		0.200	2.00	1
107-02-8	Acrolein	149	ug/L		1.00	10.0	1
67-64-1	Acetone	121	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	21.9	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.2	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.4	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	24.9	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	22.5	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	23.8	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	23.0	ug/L		0.200	2.00	1
78-93-3	2-Butanone	126	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.1	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	21.6	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	26.3	ug/L		0.200	2.00	1
67-66-3	Chloroform	22.9	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	21.4	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	22.7	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	21.8	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	21.3	ug/L		0.200	2.00	1
71-43-2	Benzene	23.8	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.2	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	24.5	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	24.2	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	23.2	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.8	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	120	ug/L		2.00	10.0	1
108-88-3	Toluene	23.8	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.7	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	25.9	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.6	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	22.6	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	118	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	24.9	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.4	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.2	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.9	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.9	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	46.1	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.8	ug/L		0.200	2.00	1
100-42-5	Styrene	23.9	ug/L		0.200	2.00	1
75-25-2	Bromoform	25.1	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.8	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	24.1	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.9	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812015-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/28/08 12:21
Preparation:	EPA 5030B	Date Received:	
Batch:	P812015		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.7	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.7	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	22.6	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	22.1	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	22.3	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	23.1	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	22.2	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.6	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.1	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.7	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.0	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	22.0	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	21.6	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	26.0	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	24.3	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	24.8	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	20.9	ug/L		0.200	2.00	1
91-20-3	Naphthalene	26.3	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812015-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/28/08 12:54
Preparation:	EPA 5030B	Date Received:	
Batch:	P812015		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	16.6	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	18.7	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	21.8	ug/L		0.200	2.00	1
74-83-9	Bromomethane	32.1	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	28.3	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	19.2	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.3	ug/L		0.200	2.00	1
107-02-8	Acrolein	139	ug/L		1.00	10.0	1
67-64-1	Acetone	126	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	21.4	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	23.7	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.5	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	24.6	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	22.3	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	24.4	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	22.9	ug/L		0.200	2.00	1
78-93-3	2-Butanone	127	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	24.9	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	21.1	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	26.3	ug/L		0.200	2.00	1
67-66-3	Chloroform	22.6	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	21.1	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	22.4	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	21.4	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	21.5	ug/L		0.200	2.00	1
71-43-2	Benzene	24.1	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.2	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	24.6	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	24.4	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	23.0	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.8	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	123	ug/L		2.00	10.0	1
108-88-3	Toluene	23.8	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	24.3	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	26.1	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.4	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	25.9	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	121	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	24.4	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.3	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	23.9	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.5	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.6	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	45.4	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.6	ug/L		0.200	2.00	1
100-42-5	Styrene	24.0	ug/L		0.200	2.00	1
75-25-2	Bromoform	25.2	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.5	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	22.9	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.2	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812015-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/28/08 12:54
Preparation:	EPA 5030B	Date Received:	
Batch:	P812015		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.5	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.5	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	22.3	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	22.1	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	22.4	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	22.4	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	22.3	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.4	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.6	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	24.0	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.8	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	22.3	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	21.9	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	25.7	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	25.2	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	25.6	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	22.8	ug/L		0.200	2.00	1
91-20-3	Naphthalene	26.9	ug/L		0.400	2.00	1

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812015

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812015-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Dichlorodifluoromethane	25.0	16.9	67.7		30	155
Chloromethane	25.0	19.3	77.1		40	125
Vinyl chloride	25.0	22.8	91.1		50	145
Bromomethane	25.0	48.9	196	ME*	30	145
Chloroethane	25.0	33.1	132		60	135
Trichlorofluoromethane	25.0	20.5	82.0		60	145
1,1-Dichloroethene	25.0	23.1	92.4		70	130
Acrolein	125	149	119		54	142
Acetone	125	121	96.5		40	140
Acrylonitrile	25.0	21.9	87.6		71	129
Carbon disulfide	25.0	24.2	97.0		35	160
Methylene Chloride	25.0	25.4	102		55	140
trans-1,2-Dichloroethene	25.0	24.9	99.6		60	140
Vinyl acetate	25.0	22.5	90.0		72	121
Methyl tert-Butyl Ether	25.0	23.8	95.3		65	125
1,1-Dichloroethane	25.0	23.0	92.2		70	135
2-Butanone	125	126	101		30	150
cis-1,2-Dichloroethene	25.0	25.1	100		70	125
2,2-Dichloropropane	25.0	21.6	86.3		70	135
Bromochloromethane	25.0	26.3	105		65	130
Chloroform	25.0	22.9	91.4		65	135
1,1,1-Trichloroethane	25.0	21.4	85.5		65	130
1,1-Dichloropropene	25.0	22.7	90.9		75	130
Carbon Tetrachloride	25.0	21.8	87.2		65	140
1,2-Dichloroethane	25.0	21.3	85.2		70	130
Benzene	25.0	23.8	95.0		80	120
Trichloroethene	25.0	23.2	92.9		70	125
1,2-Dichloropropane	25.0	24.5	97.9		75	125
Dibromomethane	25.0	24.2	96.7		75	125
Bromodichloromethane	25.0	23.2	92.9		75	120
cis-1,3-Dichloropropene	25.0	24.8	99.4		70	130
4-Methyl-2-pentanone	125	120	95.7		60	135
Toluene	25.0	23.8	95.2		75	120
trans-1,3-Dichloropropene	25.0	23.7	94.8		55	140
1,1,2-Trichloroethane	25.0	25.9	104		75	125
1,3-Dichloropropane	25.0	24.6	98.4		75	125
Tetrachloroethene	25.0	22.6	90.5		45	150
2-Hexanone	125	118	94.5		55	130
Dibromochloromethane	25.0	24.9	99.7		60	135
1,2-Dibromoethane	25.0	25.4	101		80	120
Chlorobenzene	25.0	24.2	96.7		80	120
1,1,1,2-Tetrachloroethane	25.0	23.9	95.7		80	130
Ethylbenzene	25.0	22.9	91.7		75	125
m-Xylene/p-Xylene	50.0	46.1	92.2		75	130
o-Xylene	25.0	23.8	95.2		80	120
Styrene	25.0	23.9	95.5		65	135
Bromoform	25.0	25.1	100		70	130
Isopropylbenzene	25.0	22.8	91.3		75	125
1,2,3-Trichloropropane	25.0	24.1	96.5		75	125
1,1,2,2-Tetrachloroethane	25.0	24.9	99.8		65	130
Bromobenzene	25.0	24.7	98.8		75	125
n-Propylbenzene	25.0	22.7	90.7		70	130
2-Chlorotoluene	25.0	22.6	90.4		75	125
4-Chlorotoluene	25.0	22.1	88.4		75	130

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812015

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812015-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
1,3,5-Trimethylbenzene	25.0	22.3	89.3		75	130
tert-Butylbenzene	25.0	23.1	92.2		70	130
1,2,4-Trimethylbenzene	25.0	22.2	88.7		75	130
sec-Butylbenzene	25.0	21.6	86.6		70	125
1,3-Dichlorobenzene	25.0	23.1	92.4		75	125
1,4-Dichlorobenzene	25.0	23.7	94.8		75	125
1,2-Dichlorobenzene	25.0	24.0	96.0		70	120
4-Isopropyltoluene	25.0	22.0	87.8		75	130
n-Butylbenzene	25.0	21.6	86.4		70	135
1,2-Dibromo-3-chloropropane	25.0	26.0	104		50	130
1,2,4-Trichlorobenzene	25.0	24.3	97.2		65	135
1,2,3-Trichlorobenzene	25.0	24.8	99.2		55	140
Hexachlorobutadiene	25.0	20.9	83.6		50	140
Naphthalene	25.0	26.3	105		55	140

Actual Number of Marginal Exceedences: 1

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812015

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812015-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Dichlorodifluoromethane	25.0	16.6	66.4		30	155	1.97
Chloromethane	25.0	18.7	74.8		40	125	2.95
Vinyl chloride	25.0	21.8	87.1		50	145	4.53
Bromomethane	25.0	32.1	129		30	145	41.5
Chloroethane	25.0	28.3	113		60	135	15.5
Trichlorofluoromethane	25.0	19.2	77.0		60	145	6.39
1,1-Dichloroethene	25.0	22.3	89.2		70	130	3.52
Acrolein	125	139	111		54	142	7.19
Acetone	125	126	101		40	140	4.63
Acrylonitrile	25.0	21.4	85.6		71	129	2.36
Carbon disulfide	25.0	23.7	94.7		35	160	2.42
Methylene Chloride	25.0	25.5	102		55	140	0.275
trans-1,2-Dichloroethene	25.0	24.6	98.4		60	140	1.29
Vinyl acetate	25.0	22.3	89.0		72	121	1.03
Methyl tert-Butyl Ether	25.0	24.4	97.6		65	125	2.40
1,1-Dichloroethane	25.0	22.9	91.7		70	135	0.522
2-Butanone	125	127	102		30	150	1.30
cis-1,2-Dichloroethene	25.0	24.9	99.6		70	125	0.840
2,2-Dichloropropane	25.0	21.1	84.4		70	135	2.20
Bromochloromethane	25.0	26.3	105		65	130	0.0761
Chloroform	25.0	22.6	90.2		65	135	1.32
1,1,1-Trichloroethane	25.0	21.1	84.4		65	130	1.32
1,1-Dichloropropene	25.0	22.4	89.6		75	130	1.42
Carbon Tetrachloride	25.0	21.4	85.6		65	140	1.90
1,2-Dichloroethane	25.0	21.5	86.1		70	130	1.03
Benzene	25.0	24.1	96.5		80	120	1.55
Trichloroethene	25.0	23.2	92.9		70	125	0.0431
1,2-Dichloropropane	25.0	24.6	98.4		75	125	0.448
Dibromomethane	25.0	24.4	97.7		75	125	1.03
Bromodichloromethane	25.0	23.0	92.1		75	120	0.865
cis-1,3-Dichloropropene	25.0	24.8	99.1		70	130	0.322
4-Methyl-2-pentanone	125	123	98.2		60	135	2.57
Toluene	25.0	23.8	95.4		75	120	0.252
trans-1,3-Dichloropropene	25.0	24.3	97.3		55	140	2.67
1,1,2-Trichloroethane	25.0	26.1	104		75	125	0.693
1,3-Dichloropropane	25.0	24.4	97.6		75	125	0.816
Tetrachloroethene	25.0	25.9	103		45	150	13.4
2-Hexanone	125	121	96.6		55	130	2.21
Dibromochloromethane	25.0	24.4	97.4		60	135	2.31
1,2-Dibromoethane	25.0	25.3	101		80	120	0.316
Chlorobenzene	25.0	23.9	95.4		80	120	1.33
1,1,1,2-Tetrachloroethane	25.0	23.5	93.9		80	130	1.90
Ethylbenzene	25.0	22.6	90.3		75	125	1.58
m-Xylene/p-Xylene	50.0	45.4	90.7		75	130	1.64
o-Xylene	25.0	23.6	94.5		80	120	0.801
Styrene	25.0	24.0	95.8		65	135	0.335
Bromoform	25.0	25.2	101		70	130	0.676
Isopropylbenzene	25.0	22.5	90.2		75	125	1.23
1,2,3-Trichloropropane	25.0	22.9	91.6		75	125	5.15
1,1,2,2-Tetrachloroethane	25.0	24.2	96.6		65	130	3.18
Bromobenzene	25.0	24.5	97.9		75	125	0.935
n-Propylbenzene	25.0	22.5	90.1		70	130	0.664
2-Chlorotoluene	25.0	22.3	89.3		75	125	1.25
4-Chlorotoluene	25.0	22.1	88.3		75	130	0.0453

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812015

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812015-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
1,3,5-Trimethylbenzene	25.0	22.4	89.5		75	130	0.224
tert-Butylbenzene	25.0	22.4	89.5		70	130	3.04
1,2,4-Trimethylbenzene	25.0	22.3	89.1		75	130	0.495
sec-Butylbenzene	25.0	21.4	85.7		70	125	0.975
1,3-Dichlorobenzene	25.0	23.6	94.2		75	125	1.89
1,4-Dichlorobenzene	25.0	24.0	96.2		75	125	1.51
1,2-Dichlorobenzene	25.0	24.8	99.3		70	120	3.36
4-Isopropyltoluene	25.0	22.3	89.3		75	130	1.63
n-Butylbenzene	25.0	21.9	87.7		70	135	1.42
1,2-Dibromo-3-chloropropane	25.0	25.7	103		50	130	1.43
1,2,4-Trichlorobenzene	25.0	25.2	101		65	135	3.83
1,2,3-Trichlorobenzene	25.0	25.6	103		55	140	3.29
Hexachlorobutadiene	25.0	22.8	91.3		50	140	8.83
Naphthalene	25.0	26.9	108		55	140	2.33

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811037

(Sample Delivery Group, SDG)

8260B

(Parameter)

P812162

(Analytical Batch)

Quality Control Association Form

Lab Name: Analytical Management Laboratories, Inc. **Fraction:** VOA_GCMS

QC Batch: P812162 **Method:** 8260B

Date Analyzed	Lab Sample ID	Original Sample	Sample Type	Project Number
12/19/08	0811037-02RE1		SAMPLE RE-ANALYSIS	0811037
12/19/08	0811037-03RE1		SAMPLE RE-ANALYSIS	0811037
12/19/08	0811037-04RE1		SAMPLE RE-ANALYSIS	0811037
12/19/08	0811037-05RE1		SAMPLE RE-ANALYSIS	0811037
12/19/08	0811037-06RE1		SAMPLE RE-ANALYSIS	0811037
12/19/08	P812162-BLK1		Method Blank	0811037
12/19/08	P812162-BS1		LCS	0811037
12/19/08	P812162-BSD1		LCS Dup	0811037

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812162

GW-LMW-3-11-08 (0811037-02RE1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	98.6	85	115	
1,2-Dichloroethane-d4	93.6	70	120	
Toluene-d8	95.5	85	120	
4-Bromofluorobenzene	101	75	120	

GW-LMW-3s-11-08 (0811037-03RE1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	99.8	85	115	
1,2-Dichloroethane-d4	94.6	70	120	
Toluene-d8	97.2	85	120	
4-Bromofluorobenzene	103	75	120	

GW-LMW-6-11-08 (0811037-04RE1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	101	85	115	
1,2-Dichloroethane-d4	97.0	70	120	
Toluene-d8	98.5	85	120	
4-Bromofluorobenzene	100	75	120	

GW-LMW-4-11-08 (0811037-05RE1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	103	85	115	
1,2-Dichloroethane-d4	97.5	70	120	
Toluene-d8	96.0	85	120	
4-Bromofluorobenzene	101	75	120	

GW-LMW-10-11-08 (0811037-06RE1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	102	85	115	
1,2-Dichloroethane-d4	95.7	70	120	
Toluene-d8	99.6	85	120	
4-Bromofluorobenzene	101	75	120	

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812162

Blank (P812162-BLK1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	90.3	85	115	
1,2-Dichloroethane-d4	85.4	70	120	
Toluene-d8	86.5	85	120	
4-Bromofluorobenzene	91.4	75	120	

LCS (P812162-BS1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	103	85	115	
1,2-Dichloroethane-d4	89.7	70	120	
Toluene-d8	99.8	85	120	
4-Bromofluorobenzene	102	75	120	

LCS Dup (P812162-BSD1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	102	85	115	
1,2-Dichloroethane-d4	89.4	70	120	
Toluene-d8	98.1	85	120	
4-Bromofluorobenzene	103	75	120	

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812162-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/19/08 16:22
Preparation:	EPA 5030B	Date Received:	
Batch:	P812162		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812162-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/19/08 14:03
Preparation:	EPA 5030B	Date Received:	
Batch:	P812162		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	25.9	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.8	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	22.4	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	21.6	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812162-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/19/08 14:34
Preparation:	EPA 5030B	Date Received:	
Batch:	P812162		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	24.1	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.0	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	21.9	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	21.0	ug/L		0.200	2.00	1

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812162

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812162-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Dichlorodifluoromethane	25.0	25.9	104		30	155
sec-Butylbenzene	25.0	21.8	87.1		70	125
4-Isopropyltoluene	25.0	22.4	89.6		75	130
n-Butylbenzene	25.0	21.6	86.4		70	135

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 4

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812162

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812162-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Dichlorodifluoromethane	25.0	24.1	96.4		30	155	7.24
sec-Butylbenzene	25.0	21.0	84.0		70	125	3.60
4-Isopropyltoluene	25.0	21.9	87.5		75	130	2.35
n-Butylbenzene	25.0	21.0	83.9		70	135	2.96

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 4

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811037

(Sample Delivery Group, SDG)

8260B

(Parameter)

P812181

(Analytical Batch)

Quality Control Association Form

Lab Name:	Analytical Management Laboratories, Inc.	**Fraction:**	VOA_GCMS
QC Batch:	P812181	**Method:**	8260B

Date Analyzed	Lab Sample ID	Original Sample	Sample Type	Project Number
12/29/08	0811037-02RE2		SAMPLE RE-ANALYSIS	0811037
12/29/08	0811037-03RE2		SAMPLE RE-ANALYSIS	0811037
12/29/08	0811037-04RE2		SAMPLE RE-ANALYSIS	0811037
12/29/08	0811037-05RE2		SAMPLE RE-ANALYSIS	0811037
12/29/08	0811037-06RE2		SAMPLE RE-ANALYSIS	0811037
12/29/08	P812181-BLK1		Method Blank	0811037
12/29/08	P812181-BS1		LCS	0811037
12/29/08	P812181-BSD1		LCS Dup	0811037

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812181

GW-LMW-3-11-08 (0811037-02RE2)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	101	85	115	
1,2-Dichloroethane-d4	88.9	70	120	
Toluene-d8	98.8	85	120	
4-Bromofluorobenzene	99.1	75	120	

GW-LMW-3s-11-08 (0811037-03RE2)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	108	85	115	
1,2-Dichloroethane-d4	103	70	120	
Toluene-d8	100	85	120	
4-Bromofluorobenzene	101	75	120	

GW-LMW-6-11-08 (0811037-04RE2)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	96.1	85	115	
1,2-Dichloroethane-d4	84.7	70	120	
Toluene-d8	98.0	85	120	
4-Bromofluorobenzene	96.8	75	120	

GW-LMW-4-11-08 (0811037-05RE2)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	102	85	115	
1,2-Dichloroethane-d4	91.5	70	120	
Toluene-d8	99.1	85	120	
4-Bromofluorobenzene	94.7	75	120	

GW-LMW-10-11-08 (0811037-06RE2)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	108	85	115	
1,2-Dichloroethane-d4	104	70	120	
Toluene-d8	97.6	85	120	
4-Bromofluorobenzene	101	75	120	

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812181

Blank (P812181-BLK1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	97.6	85	115	
1,2-Dichloroethane-d4	87.3	70	120	
Toluene-d8	95.8	85	120	
4-Bromofluorobenzene	99.0	75	120	

LCS (P812181-BS1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	104	85	115	
1,2-Dichloroethane-d4	96.1	70	120	
Toluene-d8	97.8	85	120	
4-Bromofluorobenzene	96.2	75	120	

LCS Dup (P812181-BSD1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	107	85	115	
1,2-Dichloroethane-d4	102	70	120	
Toluene-d8	98.2	85	120	
4-Bromofluorobenzene	99.6	75	120	

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812181-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/29/08 14:57
Preparation:	EPA 5030B	Date Received:	
Batch:	P812181		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812181-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/29/08 13:19
Preparation:	EPA 5030B	Date Received:	
Batch:	P812181		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-69-4	Trichlorofluoromethane	27.9	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811037
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812181-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/29/08 13:52
Preparation:	EPA 5030B	Date Received:	
Batch:	P812181		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-69-4	Trichlorofluoromethane	25.2	ug/L		0.200	2.00	1

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812181

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812181-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Trichlorofluoromethane	25.0	27.9	111		60	145

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 1

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812181

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812181-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Trichlorofluoromethane	25.0	25.2	101		60	145	9.99

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 1

Analytical Management Laboratories, Inc.
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Results of Laboratory Analysis

December 3, 2008

Mr. Judson Smith
Project Chemist, CESAS-EN-GG
U.S. Army Corps of Engineers, Savannah District
100 W. Oglethorpe Ave.
P. O. Box 889
Savannah, GA 31401-0360
Phone: 912-652-5673
Fax: 912-652-5311

Dear Mr. Smith:

RE: Fort Bragg, DO# 122
W912HN-05-D-0013
AML Work Order Number: **0811020**

Attached, please find the hardcopy analytical report (64 total pages) for environmental samples collected by CESAS for the project described above. The analytical results included in this report relate only to the samples received by Analytical Management Laboratories (AML). Problems encountered in the analysis of these samples are documented in the laboratory case narrative observations and non-conformances and/or data qualifiers. The case narrative is an integral part of this report. This report has been paginated and may not be reproduced for distribution, except in full, without the written approval of AML. The electronic data deliverables (EDDs) for this report will be e-mailed within a few days of this report. Please feel free to contact me by phone (913-829-0101-ext. 26), fax (913-829-1181) or email (alester@amlabinc.com) if you have any questions.

Respectfully Submitted,
Analytical Management Laboratories, Inc.

Aime Lester
Project Manager

15130 South Keeler, Olathe, Kansas 66062
Phone: (913) 829-0101 Fax: (913) 829-1181

Case Narrative

Project and Sample Information

Task order information, completed copies of the chain of custody form(s), and Analytical Management Laboratories (AML) sample condition upon receipt form (s) are included in the Project and Sample Information section. The AML laboratory information management system (LIMS)-generated sample status and receipt report, showing field sample identifiers and corresponding laboratory identifiers is also included.

Reports

The hardcopy laboratory reports and electronic data deliverables (EDDs) were prepared using the Promium Element Data System (LIMS). Under the procedure used by the laboratory, the hardcopy reports are generated using information contained in a database, which is also used to generate electronic deliverables to assure data integrity between the two media. The attached report is organized as follows:

Cover Letter
Laboratory Case Narrative
Sample Information
Sample Result Forms, organized in the following order: by test and by sample.

Quality Control (QC) Summary Reports, organized in the following order: by test, by matrix, and by QC batch number. The QC Summary for each analytical batch contains the following, when applicable:

1. QC Association Form
2. Surrogate Recovery Summary, when applicable
3. Method Blank (MB) Results
4. Laboratory Control Sample (LCS) Results
5. LCS duplicate (LCSD) Results, when available
6. LCS Recoveries Summary
7. LCSD (when applicable) Recoveries and RPD Summary
8. Matrix Spike (MS) Results
9. MS duplicate (MSD) Results
10. MS Recoveries Summary
11. MSD Recoveries and RPD Summary

Sample Result Forms
Sample results are shown on modified Form 1 equivalents with the following qualifiers:

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U = Not detected or detected below method detection limit (MDL) or the limit of detection (LOD).
J = Detected above MDL or LOD but below the limit of quantitation (LOQ).
P = RPD >40% between primary and confirmation column results for dual column chromatographic methods (e.g. GC and HPLC methods).
E = Detected at levels in excess of the upper calibration limit.
B = Detected in the associated method blank
Q1 = The %D or %Drift for the associated CCV is outside the method QC limit.
Q2 = The %D or %Drift for the associated CCV is outside the method and/or laboratory established QC limit with a low bias.
* = Exceeds QC limits
ME = Marginal exceedence of the 3-sigma QC limits
ME* = Exceedence of the 4-sigma QC limits
X = as defined in the case narrative when utilized

The LODs and LOQs have been adjusted for sample weight or volume, dilution, and percent solids, when applicable. MDLs are statistically defined, instrument-specific quantities, which are used as LODs for some tests. For situations when multiple MDLs exist for a test (e.g several instruments running the same test on a given matrix) or when MDLs are unachievable on a routine basis, LODs, which may be grater than MDL but typically one-half of the applicable LOQs are used to define cut-off points for reporting positive results. The LOQs are typically the lowest point on the initial calibration curve.

Quantitative results for analytes detected in the sample (positive results) are shown under the column labeled "Result". Results coded with the qualifier E should not be used unless additional analyses were unavailable due to other limitations. Data coded as E should not be compared to other data since non-linearity in calibration may be a severe problem for some analytes. Multiple sample result forms may be provided for one or more of the following reasons:
Sample was reanalyzed for surrogate or internal standard recovery outliers;
Sample was reanalyzed at a dilution;
One of the analyses was performed outside holding times;
A replicate analysis was performed for other quality control purposes;
Client requirements

QC Association Forms
The list consisting of MB, LCS, LCSD (if any), MS (whenever available), MSD (whenever available), and field samples from the reported AML work order that are associated with each QC batch are shown on QC Association Forms. Additional items

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such as PDS, SD may be included for some parameters (e.g metals). Separate forms are included for each QC batch, for each matrix and test.

Surrogate Recovery Forms

A summary of the system monitoring compound recoveries for organic analyses is included in this section. The QC limits from the Department of Defense Quality Systems Manual for Environmental Laboratories, Final Version 3, January 2006 is used in the reports, when available. Method-specified limits or in-house limits are used as applicable. Corrective action involving re-extraction and/or reanalysis is performed for samples that exceed the surrogate QC limits.

Method Blank Result Forms

The QC limit for the Method Blank is set at one half of the applicable LOQ for each target analyte with the exception of common laboratory contaminants, which is set at the LOQ.

Laboratory Control Sample (LCS) Report Forms

Laboratory control samples were analyzed with each QC batch as described in the QC Association Form. Laboratory Control sample limits are set as a default to the DOD QSM limits when available. When the 3-sigma control limit is exceeded for any analyte, the LCS report is flagged "ME". The total number of method analytes, and the number of ME analytes are tracked and compared against the number allowed per NELAC and the DOD QSM. This information is summarized at the bottom of the recoveries summary reports. Analytes with LCS recoveries that exceed the 4-sigma limits are flagged ME* and reanalysis may be required for the affected analyte if it is a contaminant of concern. The relative percent differences (RPDs) for the LCS duplicates, a voluntary laboratory QC parameter, are computed to track in-house precision for method duplicates.

Matrix Spike/Matrix Spike Duplicate Recoveries Report Forms

The MS/MSD results are shown in Form-1 equivalents. See section on LCS for additional details. The RPDs for MS duplicates that are outside the applicable QC limits are flagged with an asterisk (*). The effect of matrix is taken into account in determining corrective action procedures based on MS and MSD results, recoveries, and RPD.

Calibration

Instruments were calibrated in accordance with applicable method. Deviations are noted as a non-conformance. Copies of initial calibration and calibration verification summaries and associated raw data will be maintained in laboratory files and made available for detailed client review.

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Test Methods and Holding Times
Analyses were performed within applicable holding times except as noted on sample reports. See parameter specific non-conformances for more information.

Batch-specific Quality Control Procedures
Quality control data from method blanks and laboratory control samples are used as batch QC elements. In accordance with EPA, USACE, and DoD guidelines, QC data from matrix spikes are used as matrix-specific QC elements and QC data from surrogates, internal standard areas, etc. are used as sample-specific QC elements. When the batch QC elements are outside their QC limits, results for associated samples are evaluated and corrective actions that affect the entire sample set are performed.

Matrix-specific or Sample-specific Quality Control Procedures
Sample concentrations exceeding the upper calibration limit, surrogate recoveries outside the QC limits, calibration parameters not within QC limits, etc. are used as sample-specific and/or sample-group specific QC elements for one or more associated samples during instrumental analysis. Serial dilution, standard addition, MS recoveries, etc. are used as matrix-specific QC elements for one or more associated samples. When these QC elements are outside their QC limits, associated individual sample results are evaluated and appropriate corrective actions are performed.

Manual Integration
Manual integration operations that have potential to improve accuracy of analysis are performed, as necessary (shown with an “M” flag on raw data) based on visual inspection of peak shapes for each target analyte. Such operations are technically defensible and they are not aimed at meeting the minimum technical requirements of the analytical procedure.

Statement
To the best of our knowledge, this data package is in compliance with the client terms and conditions, both technically and for completeness. Non-conformances are listed in the case narrative and/or data qualifiers for each parameter tested.

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Results of Laboratory Analysis

Project Information
Four (4) samples were received by AML on November 18, 2008 and logged in according to the Sample Status and Receipt Report included in this report. Reference the chain of custody and Sample Condition upon receipt Report for any non-conformances on receipt condition and temperature upon receipt.

Observations and Non-Conformances

Metals by 6010B/3030C
There were no observations and/or non-conformances to report for this analysis.

Metals by 6020A/3030C
Batch P811083 - MS/MSD recoveries are outside QC limits biased low for Thallium due to potential matrix interference. LCS/LCSD and Post Digestion spike recoveries were within QC limits.

Nitrate/Nitrite by SM-4500-NO3 E
Batch P811078 - MS recovery is outside QC limits.
LCS/LCSD and MSD recoveries were within QC limits.

VOCs by 8260B
Due to client's request, VOCs were cancelled because no trip blank was collected.

15130 South Keeler, Olathe, Kansas 66062
Phone: (913) 829-0101 Fax: (913) 829-1181

Field Sample Information

(Chain of Custody Record, Sample Receipt Report, Condition Upon Receipt Report)

0811020

(Sample Delivery Group, SDG)

Analytical Management Laboratories, Inc.
15130 South Keeler
Olathe, Kansas 66062
Phone (913) 829-0101
Fax (913) 829-1181

42434

Page 1 of 1

Chain of Custody Record / Request for Analysis

Client Contact Name: JUD SMITH
Company Name: US ARMY CORPS OF ENGINEERS
Address: 100 W OGLETHORPE AVE
City, State, Zip: SAVANNAH, GA 31401
Phone #: (912) 652-5673 Ext:
Fax #: (912) 652-5311
Email:

Project Name: FT BRAGG
Project Number:
Purchase Order Number: DO 122
Project Due Date:
Project Comments:
Print Sampler's Name: JON COOMBS

Analysis/Method to be Performed (Check all that apply)

Laboratory Project Number: 0811020

Specify method # ---> 8260 8260

Lab ID	Sample Description	Date	Time	Matrix (10)	Total # Containers	HCl	HNO_3	NaOH	H_2SO_4	Unpreserved	4°C	VOCs	SVOCs	Pesticides	PCBs	Herbicides	Metals (specify) NAT	DRO	GRO	Explosives	Anions (specify)	NITRATE	Comments:
0811020-01	LMW-15r-11-08	11/17/08	1518	AQ	6	6	2		2			6					2					2	MS & MSD [illegible]
0811020-02	LMW-14r-11-08	11/17/08	1638	AQ	5	3	1		1			3					1					1	
0811020-03	LMW-DUP-1	11/17/08	1518	AQ	5	3	1		1			3					1					1	
0811020-04	LMW-DUP-2	11/17/08	1638	AQ	5	3	1		1			3					1					1	*CANNOT ANALYZE
5																							FOR METALS, IT WAS
6																							PRESERVED IN NaOH
7																							instead of HNO3.
8																							JON COOMBS WILL
9																							COLLECT A NEW SAMPLE
10																							NS 11/18/08

Please include any information that may be useful in the analysis of the sample.
Example: high concentration
List analytes
MS/MSD

CUSTODY					
Relinquished By:	[signature]	Date/Time: 11/17/08 1800	Received By: SHIPPER	Date/Time: 11/17/08 1800
Relinquished By:		Date/Time:	Received By: [signature]	Date/Time: 11/18/08 1000am

By signing the request (chain of custody) you are ordering work from Analytical Management Laboratories, Inc. which constitutes the acceptance of the terms and conditions on the back of this form.

Delivery Method	Custody Seals	Coolant	Cooler Temp.	Receiving Comments:
☐ Delivered in Person ☑ Courier FedEx ☐ Airbill #: 8425919740 58	☑ Yes ☐ No ☐ Intact ☐ Broken	☑ Ice ☐ Blue Ice ☐ None	20 °C ☐ Temp. Blank ☑ Cooler	

Analytical Management Laboratories - Sample Status and Receipt Report

AML Project Number 0811020

Work Order Due Date 12/02/08

Work Order TAT 14

Client AML ID USACE Savannah

Client Project ID Ft Bragg, DO# 122

Report Lvl. 3

AML Sample	*Matrix*	Client Sample ID	Date Collected	Projected Analytical Due Date	Analysis	Comments
0811020-01	Water	LMW-15r-11-08	11/17/08 15:18	11/30/08	Nitrate/Nitrite by SM-4500-NO3 E	MS MSD, Nitrate
0811020-01	Water	LMW-15r-11-08	11/17/08 15:18	11/30/08	Metals by 6010B	MS MSD, Appendix I
0811020-01	Water	LMW-15r-11-08	11/17/08 15:18	11/30/08	Metals by 6020A	MS MSD, Appendix I
0811020-01	Water	LMW-15r-11-08	11/17/08 15:18	11/30/08	VOCs by 8260B	MS MSD
0811020-02	Water	LMW-14r-11-08	11/17/08 16:38	11/30/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811020-02	Water	LMW-14r-11-08	11/17/08 16:38	11/30/08	Metals by 6010B	Appendix I
0811020-02	Water	LMW-14r-11-08	11/17/08 16:38	11/30/08	Metals by 6020A	Appendix I
0811020-02	Water	LMW-14r-11-08	11/17/08 16:38	11/30/08	VOCs by 8260B	
0811020-03	Water	LMW-DUP-1	11/17/08 15:18	11/30/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811020-03	Water	LMW-DUP-1	11/17/08 15:18	11/30/08	Metals by 6010B	Appendix I
0811020-03	Water	LMW-DUP-1	11/17/08 15:18	11/30/08	Metals by 6020A	Appendix I
0811020-03	Water	LMW-DUP-1	11/17/08 15:18	11/30/08	VOCs by 8260B	
0811020-04	Water	LMW-DUP-2	11/17/08 16:38	11/30/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811020-04	Water	LMW-DUP-2	11/17/08 16:38	11/30/08	VOCs by 8260B	

Analytical Management Laboratories, Inc.

AML - Sample Condition Upon Receipt Report
(See Comments for exceptions)

Client ID: USACE Sav

AML Work Order Number: 0811020

Project ID: Ft Bragg, DO# 122

Cooler ID: Default Cooler

Delivery Method

Delivery Method: Fed Ex

Name of Person Receiving Samples: Nissa Said

Airbill Number: 842591974058

Custody Seals

Were Custody Seals Present? Yes

Cooler Opened By: Nissa Said

Were Custody Seals Intact? Yes

Date Opened 11/18/2008

Packaging / Coolant / Temperature

Type of Coolant Used: Ice

Temperature of Cooler: 2.00°C

Type of Packing Used: Bubble Wrap

Did all the bottles arrive unbroken? Yes

Were all bottles sealed in separate plastic bags? Yes

Chain of Custody

Was Chain of Custody filled out properly? Yes

Do Chain of Custody and Sample Labels agree? No

Comments/ Exceptions: LMW-DUP-2 cannot be analyze for metals because it was preserved with NaOH instead of HNO3. Jon Coombs will collect another one.

Were all sample labels complete? Yes

Was a sufficient amount of sample sent for analysis? Yes

Were samples received in proper containers? Yes

Were air bubbles absent in VOA samples? Yes

Was sample pH within QC limits? No
(if no see comments)

Was project manager contacted about any "out of control" issues? Yes

Samples Received by: Nissa Said

Project Manager Review: [signature]

Date: 11/19/08

Field Sample Analysis Data Sheets

(Form I equivalents)

0811020

(Sample Delivery Group, SDG)

6010B

(Parameter)

P811082

(Analytical Batch)

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-15r-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811020-01
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Method:	6010B	Date Analyzed:	11/19/08 16:29
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811082	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0376	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper	0.00524	mg/L	J	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-14r-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811020-02
% Solids:	NA	Date Collected:	11/17/08 16:38
Analytical Method:	6010B	Date Analyzed:	11/19/08 17:06
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811082	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0133	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel	0.00323	mg/L	J	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-DUP-1
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811020-03
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Method:	6010B	Date Analyzed:	11/19/08 17:11
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811082	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0383	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

Field Sample Analysis Data Sheets

(Form I equivalents)

0811020

(Sample Delivery Group, SDG)

6020A

(Parameter)

P811083

(Analytical Batch)

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-15r-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811020-01
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Method:	6020A	Date Analyzed:	11/27/08 01:58
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811083	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic	12.7	ug/L		1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead	1.08	ug/L		0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-14r-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811020-02
% Solids:	NA	Date Collected:	11/17/08 16:38
Analytical Method:	6020A	Date Analyzed:	11/27/08 02:23
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811083	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic	9.08	ug/L		1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-DUP-1
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811020-03
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Method:	6020A	Date Analyzed:	11/27/08 02:26
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811083	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic	9.47	ug/L		1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

Note:

Field Sample Analysis Data Sheets

(Form I equivalents)

0811020

(Sample Delivery Group, SDG)

SM-4500-NO3 E

(Parameter)

P811078

(Analytical Batch)

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-15r-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811020-01
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	1.46	mg/L		0.200	0.400	10

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-14r-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811020-02
% Solids:	NA	Date Collected:	11/17/08 16:38
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.960	mg/L		0.200	0.400	10

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-DUP-1
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811020-03
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	1.40	mg/L		0.200	0.400	10

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LMW-DUP-2
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811020-04
% Solids:	NA	Date Collected:	11/17/08 16:38
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	2.26	mg/L		0.200	0.400	10

Note:

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811020

(Sample Delivery Group, SDG)

6010B

(Parameter)

P811082

(Analytical Batch)

Quality Control Association Form

Lab Name:	Analytical Management Laboratories, Inc.	**Fraction:**	METALS
QC Batch:	P811082	**Method:**	6010B

Date Analyzed	Date Prepared	Lab Sample ID	Original Sample	Sample Type	Project Number
11/19/08	11/19/08	0811020-01		SAMPLE	0811020
11/19/08	11/19/08	0811020-02		SAMPLE	0811020
11/19/08	11/19/08	0811020-03		SAMPLE	0811020
11/19/08	11/19/08	8K19004-SRD1	0811020-01	Serial Dilution	0811020
11/19/08	11/19/08	P811082-BLK1		Method Blank	0811020
11/19/08	11/19/08	P811082-BS1		LCS	0811020
11/19/08	11/19/08	P811082-BSD1		LCS Dup	0811020
11/19/08	11/19/08	P811082-MS1	0811020-01	Matrix Spike	0811020
11/19/08	11/19/08	P811082-MSD1	0811020-01	Matrix Spike Dup	0811020
11/19/08	11/19/08	P811082-PS1	0811020-01	Post Spike	0811020

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 16:07
Preparation:	SM3030C	Date Received:	
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium		mg/L	U	0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 16:12
Preparation:	SM3030C	Date Received:	
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	1.95	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.508	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.515	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.511	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.507	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.939	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.501	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.505	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.499	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.06	mg/L		0.0250	0.0500	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 17:57
Preparation:	SM3030C	Date Received:	
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	2.03	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.530	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.540	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.533	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.528	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.987	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.513	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.534	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.523	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.08	mg/L		0.0250	0.0500	1

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811082

Fraction: METALS Matrix: Water

Units: mg/L

Lab Sample ID: ***P811082-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Barium	2.00	1.95	97.7		80	120
Beryllium	0.500	0.508	102		80	120
Cadmium	0.500	0.515	103		80	120
Chromium	0.500	0.511	102		80	120
Cobalt	0.500	0.507	101		80	120
Copper	1.00	0.939	93.9		80	120
Nickel	0.500	0.501	100		80	120
Silver	0.500	0.505	101		80	120
Vanadium	0.500	0.499	99.7		80	120
Zinc	1.00	1.06	106		80	120

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 10

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811082

Fraction: METALS Matrix: Water

Units: mg/L

Lab Sample ID: ***P811082-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Barium	2.00	2.03	102		80	120	3.90
Beryllium	0.500	0.530	106		80	120	4.10
Cadmium	0.500	0.540	108		80	120	4.72
Chromium	0.500	0.533	107		80	120	4.35
Cobalt	0.500	0.528	106		80	120	4.01
Copper	1.00	0.987	98.7		80	120	5.03
Nickel	0.500	0.513	103		80	120	2.26
Silver	0.500	0.534	107		80	120	5.60
Vanadium	0.500	0.523	105		80	120	4.84
Zinc	1.00	1.08	108		80	120	1.71

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 10

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-MS1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 16:41
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	2.01	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.531	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.519	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.519	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.517	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.957	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.506	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.517	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.506	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.09	mg/L		0.0250	0.0500	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-MSD1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 16:49
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	1.95	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.513	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.501	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.500	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.501	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.938	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.491	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.499	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.490	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.04	mg/L		0.0250	0.0500	1

Form 5A - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811082

Fraction: METALS Matrix: Water

Units: mg/L

Original Sample ***0811020-01*** ***Lab Sample ID for MS :*** ***P811082-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Barium	0.0376	2.00	2.01	98.9		80	120
Beryllium	0	0.500	0.531	106		80	120
Cadmium	0	0.500	0.519	104		80	120
Chromium	0	0.500	0.519	104		80	120
Cobalt	0	0.500	0.517	103		80	120
Copper	0.00524	1.00	0.957	95.2		80	120
Nickel	0	0.500	0.506	101		80	120
Silver	0	0.500	0.517	103		80	120
Vanadium	0	0.500	0.506	101		80	120
Zinc	0	1.00	1.09	109		80	120

Form 5A - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811082

Fraction: METALS Matrix: Water

Units: mg/L

Original Sample ***0811020-01*** ***Lab Sample ID for MSD*** ***P811082-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Barium	0.0376	2.00	1.95	95.4		3.49		80	120	25
Beryllium	0	0.500	0.513	103		3.48		80	120	25
Cadmium	0	0.500	0.501	100		3.55		80	120	25
Chromium	0	0.500	0.500	100		3.64		80	120	25
Cobalt	0	0.500	0.501	100		3.12		80	120	25
Copper	0.00524	1.00	0.938	93.3		1.98		80	120	25
Nickel	0	0.500	0.491	98.1		3.17		80	120	25
Silver	0	0.500	0.499	99.7		3.65		80	120	25
Vanadium	0	0.500	0.490	97.9		3.29		80	120	25
Zinc	0	1.00	1.04	104		3.98		80	120	25

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Post Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-PS1
% Solids:	NA	Instrument ID:	ICP
Analytical Methdod:	6010B	Date Collected:	11/17/08 15:18
Preparation:	SM3030C	Date Analyzed:	11/19/08 16:57
Batch:	P811082	Date Received:	11/18/08 10:00

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	2.00	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.527	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.527	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.515	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.514	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.948	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.515	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.513	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.503	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.10	mg/L		0.0250	0.0500	1

Form 5B - Equivalent

POST DIGESTION SPIKE SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc.

Fraction: METALS

Analytical Batch: 8K19004

Prep Batch: P811082

COMPOUND	Original Amount	SPIKE ADDED	PDS Amount	PDS % REC	PDS % REC FLAG	QC. LIMITS LCL	QC. LIMITS UCL
Barium	0.0376	2.00	2.00	98.3		75	125
Beryllium	ND	0.500	0.527	105		75	125
Cadmium	ND	0.500	0.527	105		75	125
Chromium	ND	0.500	0.515	103		75	125
Cobalt	ND	0.500	0.514	103		75	125
Copper	0.00524	1.00	0.948	94.3		75	125
Nickel	ND	0.500	0.515	103		75	125
Silver	ND	0.500	0.513	103		75	125
Vanadium	ND	0.500	0.503	101		75	125
Zinc	ND	1.00	1.10	110		75	125

* Values outside of QC limits

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Serial Dilution
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	8K19004-SRD1
% Solids:	NA	Instrument ID:	ICP
Analytical Methdod:	6010B	Date Collected:	11/17/08 15:18
Preparation:	P811082	Date Analyzed:	11/19/08 16:35
Batch:	8K19004	Date Received:	11/18/08 10:00

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0392	mg/L		0.0100	0.0200	5
7440-41-7	Beryllium		mg/L	U	0.0100	0.0200	5
7440-43-9	Cadmium		mg/L	U	0.0100	0.0200	5
7440-47-3	Chromium		mg/L	U	0.0250	0.0500	5
7440-48-4	Cobalt		mg/L	U	0.0100	0.0200	5
7440-50-8	Copper		mg/L	U	0.0250	0.0500	5
7440-02-0	Nickel		mg/L	U	0.0150	0.0300	5
7440-22-4	Silver		mg/L	U	0.0250	0.0500	5
7440-62-2	Vanadium		mg/L	U	0.0100	0.0200	5
7440-66-6	Zinc		mg/L	U	0.125	0.250	5

Form 8 - Equivalent

PERCENT DIFFERENCE FOR SERIAL DILUTION SAMPLE

Lab Name: Analytical Management Laboratories, Inc. Analytical Batch: 8K19004

Fraction: METALS

Orig HSN: 0811020-01 **SD HSN:** 8K19004-SRD1

Orig Dil: 1 **SD Dil:** 5

COMPOUND	Original Amount	SD Amount	%D	QC FLAG	QC. LIMIT UCL
Barium	0.0376	0.0392	4.26		10
Beryllium	U	U	NA		10
Cadmium	U	U	NA		10
Chromium	U	U	NA		10
Cobalt	U	U	NA		10
Copper	0.00524	U	NA		10
Nickel	U	U	NA		10
Silver	U	U	NA		10
Vanadium	U	U	NA		10
Zinc	U	U	NA		10

* Values outside of QC limits

NA = Not Applicable

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811020

(Sample Delivery Group, SDG)

6020A

(Parameter)

P811083

(Analytical Batch)

Quality Control Association Form

Lab Name:	Analytical Management Laboratories, Inc.	**Fraction:**	METALS
QC Batch:	P811083	**Method:**	6020A

Date Analyzed	Date Prepared	Lab Sample ID	Original Sample	Sample Type	Project Number
11/27/08	11/19/08	0811020-01		SAMPLE	0811020
11/27/08	11/19/08	0811020-02		SAMPLE	0811020
11/27/08	11/19/08	0811020-03		SAMPLE	0811020
11/27/08	11/26/08	8K26001-SRD1	0811020-01	Serial Dilution	0811020
11/27/08	11/19/08	P811083-BLK1		Method Blank	0811020
11/27/08	11/19/08	P811083-BS1		LCS	0811020
11/27/08	11/19/08	P811083-BSD1		LCS Dup	0811020
11/27/08	11/19/08	P811083-MS1	0811020-01	Matrix Spike	0811020
11/27/08	11/19/08	P811083-MSD1	0811020-01	Matrix Spike Dup	0811020
11/27/08	11/19/08	P811083-PS1	0811020-01	Post Spike	0811020

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 01:43
Preparation:	SM3030C	Date Received:	
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic		ug/L	U	1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 01:47
Preparation:	SM3030C	Date Received:	
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	53.8	ug/L		0.500	1.00	1
7440-38-2	Arsenic	50.0	ug/L		1.00	2.00	1
7440-43-9	Cadmium	48.9	ug/L		0.500	1.00	1
7439-92-1	Lead	479	ug/L		0.500	1.00	1
7782-49-2	Selenium	47.3	ug/L		2.00	4.00	1
7440-28-0	Thallium	49.6	ug/L		0.500	1.00	1
7440-31-5	Tin	94.2	ug/L		2.50	5.00	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 01:52
Preparation:	SM3030C	Date Received:	
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	54.2	ug/L		0.500	1.00	1
7440-38-2	Arsenic	50.1	ug/L		1.00	2.00	1
7440-43-9	Cadmium	48.2	ug/L		0.500	1.00	1
7439-92-1	Lead	479	ug/L		0.500	1.00	1
7782-49-2	Selenium	46.4	ug/L		2.00	4.00	1
7440-28-0	Thallium	49.4	ug/L		0.500	1.00	1
7440-31-5	Tin	95.0	ug/L		2.50	5.00	1

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811083

Fraction: METALS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811083-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Antimony	50.0	53.8	108		80	120
Arsenic	50.0	50.0	100		80	120
Cadmium	50.0	48.9	97.9		80	120
Lead	500	479	95.8		80	120
Selenium	50.0	47.3	94.6		80	120
Thallium	50.0	49.6	99.2		80	120
Tin	100	94.2	94.2		80	120

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 7

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811083

Fraction: METALS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811083-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Antimony	50.0	54.2	108		80	120	0.668
Arsenic	50.0	50.1	100		80	120	0.0114
Cadmium	50.0	48.2	96.5		80	120	1.46
Lead	500	479	95.9		80	120	0.0221
Selenium	50.0	46.4	92.9		80	120	1.83
Thallium	50.0	49.4	98.9		80	120	0.288
Tin	100	95.0	95.0		80	120	0.788

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 7

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-MS1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 02:06
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	54.7	ug/L		0.500	1.00	1
7440-38-2	Arsenic	63.4	ug/L		1.00	2.00	1
7440-43-9	Cadmium	49.0	ug/L		0.500	1.00	1
7439-92-1	Lead	474	ug/L		0.500	1.00	1
7782-49-2	Selenium	50.8	ug/L		2.00	4.00	1
7440-28-0	Thallium	35.8	ug/L		0.500	1.00	1
7440-31-5	Tin	96.0	ug/L		2.50	5.00	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-MSD1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 02:11
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	54.9	ug/L		0.500	1.00	1
7440-38-2	Arsenic	61.7	ug/L		1.00	2.00	1
7440-43-9	Cadmium	49.8	ug/L		0.500	1.00	1
7439-92-1	Lead	486	ug/L		0.500	1.00	1
7782-49-2	Selenium	51.6	ug/L		2.00	4.00	1
7440-28-0	Thallium	37.4	ug/L		0.500	1.00	1
7440-31-5	Tin	98.5	ug/L		2.50	5.00	1

Form 5A - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811083

Fraction: METALS Matrix: Water

Units: ug/L

Original Sample ***0811020-01*** ***Lab Sample ID for MS :*** ***P811083-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Antimony	0	50.0	54.7	109		75	125
Arsenic	12.7	50.0	63.4	101		75	125
Cadmium	0	50.0	49.0	97.9		75	125
Lead	1.08	500	474	94.6		75	125
Selenium	0	50.0	50.8	102		75	125
Thallium	0	50.0	35.8	71.5	ME	75	125
Tin	0	100	96.0	96.0		75	125

Form 5A - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811083

Fraction: METALS Matrix: Water

Units: ug/L

Original Sample ***0811020-01*** ***Lab Sample ID for MSD*** ***P811083-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Antimony	0	50.0	54.9	110		0.304		75	125	20
Arsenic	12.7	50.0	61.7	98.0		2.58		75	125	20
Cadmium	0	50.0	49.8	99.7		1.77		75	125	20
Lead	1.08	500	486	96.9		2.38		75	125	20
Selenium	0	50.0	51.6	103		1.50		75	125	20
Thallium	0	50.0	37.4	74.8	ME	4.52		75	125	20
Tin	0	100	98.5	98.5		2.55		75	125	20

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Post Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-PS1
% Solids:	NA	Instrument ID:	ICPMS
Analytical Methdod:	6020A	Date Collected:	11/17/08 15:18
Preparation:	SM3030C	Date Analyzed:	11/27/08 02:17
Batch:	P811083	Date Received:	11/18/08 10:00

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	54.0	ug/L				1
7440-38-2	Arsenic	58.8	ug/L				1
7440-43-9	Cadmium	48.4	ug/L				1
7439-92-1	Lead	476	ug/L				1
7782-49-2	Selenium	48.9	ug/L				1
7440-28-0	Thallium	48.2	ug/L				1
7440-31-5	Tin	96.5	ug/L				1

Form 5B - Equivalent

POST DIGESTION SPIKE SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc.

Fraction: METALS

Analytical Batch: 8K26001

Prep Batch: P811083

COMPOUND	Original Amount	SPIKE ADDED	PDS Amount	PDS % REC	PDS % REC FLAG	QC. LIMITS LCL	QC. LIMITS UCL
Antimony	0.181	50.0	54.0	108		75	125
Arsenic	12.7	50.0	58.8	92.1		75	125
Cadmium	0.146	50.0	48.4	96.4		75	125
Lead	1.08	500	476	95.0		75	125
Selenium	1.66	50.0	48.9	94.6		75	125
Thallium	0.113	50.0	48.2	96.1		75	125
Tin	0.623	100	96.5	95.9		75	125

* Values outside of QC limits

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Serial Dilution
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	8K26001-SRD1
% Solids:	NA	Instrument ID:	ICPMS
Analytical Methdod:	6020A	Date Collected:	11/17/08 15:18
Preparation:	P811083	Date Analyzed:	11/27/08 02:03
Batch:	8K26001	Date Received:	11/18/08 10:00

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	2.50	5.00	5
7440-38-2	Arsenic		ug/L	U	5.00	10.0	5
7440-43-9	Cadmium		ug/L	U	2.50	5.00	5
7439-92-1	Lead		ug/L	U	2.50	5.00	5
7782-49-2	Selenium		ug/L	U	10.0	20.0	5
7440-28-0	Thallium		ug/L	U	2.50	5.00	5
7440-31-5	Tin		ug/L	U	12.5	25.0	5

Form 8 - Equivalent

PERCENT DIFFERENCE FOR SERIAL DILUTION SAMPLE

Lab Name: Analytical Management Laboratories, Inc. Analytical Batch: 8K26001

Fraction: METALS

Orig HSN: 0811020-01 **SD HSN:** 8K26001-SRD1

Orig Dil: 1 **SD Dil:** 5

COMPOUND	Original Amount	SD Amount	%D	QC FLAG	QC. LIMIT UCL
Antimony	U	U	NA		10
Arsenic	12.7	U	NA		10
Cadmium	U	U	NA		10
Lead	1.08	U	NA		10
Selenium	U	U	NA		10
Thallium	U	U	NA		10
Tin	U	U	NA		10

* Values outside of QC limits

NA = Not Applicable

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811020

(Sample Delivery Group, SDG)

SM-4500-NO3 E

(Parameter)

P811078

(Analytical Batch)

Quality Control Association Form

Lab Name: Analytical Management Laboratories, Inc. **Fraction:** Wet Chemistry

QC Batch: P811078 **Method:** SM-4500-NO3 E

Date Analyzed	Date Prepared	Lab Sample ID	Original Sample	Sample Type	Project Number
11/21/08	11/20/08	0811020-01		SAMPLE	0811020
11/21/08	11/20/08	0811020-02		SAMPLE	0811020
11/21/08	11/20/08	0811020-03		SAMPLE	0811020
11/21/08	11/20/08	0811020-04		SAMPLE	0811020
11/21/08	11/20/08	P811078-BLK1		Method Blank	0811020
11/21/08	11/20/08	P811078-BS1		LCS	0811020
11/21/08	11/20/08	P811078-BSD1		LCS Dup	0811020
11/21/08	11/20/08	P811078-MS1	0811020-01	Matrix Spike	0811020
11/21/08	11/20/08	P811078-MSD1	0811020-01	Matrix Spike Dup	0811020

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N		mg/L	U	0.0200	0.0400	1

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.276	mg/L		0.0200	0.0400	1

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.281	mg/L		0.0200	0.0400	1

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811078

Fraction: WET Matrix: Water

Units: mg/L

Lab Sample ID: ***P811078-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Nitrate/Nitrite as N	0.300	0.276	92.0		80	120

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 1

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811078

Fraction: WET Matrix: Water

Units: mg/L

Lab Sample ID: ***P811078-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Nitrate/Nitrite as N	0.300	0.281	93.7		80	120	1.80

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 1

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-MS1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	1.83	mg/L		0.200	0.400	10

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811020
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-MSD1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	1.78	mg/L		0.200	0.400	10

Form 5A - Equivalent

MATRIX SPIKE RECOVERY

Lab Name:	Analytical Management Laboratories, Inc.	Batch:	P811078
Fraction:	WET	Matrix:	Water
Units:	mg/L		

Original Sample ***0811020-01*** ***Lab Sample ID for MS :*** ***P811078-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Nitrate/Nitrite as N	1.46	0.300	1.83	123	ME*	80	120

Form 5A - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811078

Fraction: WET Matrix: Water

Units: mg/L

Original Sample ***0811020-01*** ***Lab Sample ID for MSD*** ***P811078-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Nitrate/Nitrite as N	1.46	0.300	1.78	107		2.77		80	120	20

Analytical Management Laboratories, Inc.
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Results of Laboratory Analysis

December 22, 2008

Mr. Judson Smith
Project Chemist, CESAS-EN-GG
U.S. Army Corps of Engineers, Savannah District
100 W. Oglethorpe Ave.
P. O. Box 889
Savannah, GA 31401-0360
Phone: 912-652-5673
Fax: 912-652-5311

Dear Mr. Smith:

RE: Fort Bragg, Lamont LF, DO# 122
W912HN-05-D-0013
AML Work Order Number: **0811025**

Attached, please find the hardcopy analytical report (69 total pages) for environmental samples collected by CESAS for the project described above. The analytical results included in this report relate only to the samples received by Analytical Management Laboratories (AML). Problems encountered in the analysis of these samples are documented in the laboratory case narrative observations and non-conformances and/or data qualifiers. The case narrative is an integral part of this report. This report has been paginated and may not be reproduced for distribution, except in full, without the written approval of AML. The electronic data deliverables (EDDs) for this report will be e-mailed within a few days of this report. Please feel free to contact me by phone (913-829-0101-ext. 26), fax (913-829-1181) or email (alester@amlabinc.com) if you have any questions.

Respectfully Submitted,
Analytical Management Laboratories, Inc.

Aime Lester
Project Manager

15130 South Keeler, Olathe, Kansas 66062
Phone: (913) 829-0101 Fax: (913) 829-1181

Case Narrative

Project and Sample Information

Task order information, completed copies of the chain of custody form(s), and Analytical Management Laboratories (AML) sample condition upon receipt form (s) are included in the Project and Sample Information section. The AML laboratory information management system (LIMS)-generated sample status and receipt report, showing field sample identifiers and corresponding laboratory identifiers is also included.

Reports

The hardcopy laboratory reports and electronic data deliverables (EDDs) were prepared using the Promium Element Data System (LIMS). Under the procedure used by the laboratory, the hardcopy reports are generated using information contained in a database, which is also used to generate electronic deliverables to assure data integrity between the two media. The attached report is organized as follows:

Cover Letter
Laboratory Case Narrative
Sample Information
Sample Result Forms, organized in the following order: by test and by sample.

Quality Control (QC) Summary Reports, organized in the following order: by test, by matrix, and by QC batch number. The QC Summary for each analytical batch contains the following, when applicable:

1. QC Association Form
2. Surrogate Recovery Summary, when applicable
3. Method Blank (MB) Results
4. Laboratory Control Sample (LCS) Results
5. LCS duplicate (LCSD) Results, when available
6. LCS Recoveries Summary
7. LCSD (when applicable) Recoveries and RPD Summary
8. Matrix Spike (MS) Results
9. MS duplicate (MSD) Results
10. MS Recoveries Summary
11. MSD Recoveries and RPD Summary

Sample Result Forms
Sample results are shown on modified Form 1 equivalents with the following qualifiers:

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Phone: (913) 829-0101 Fax: (913) 829-1181

U = Not detected or detected below method detection limit (MDL) or the limit of detection (LOD).
J = Detected above MDL or LOD but below the limit of quantitation (LOQ).
P = RPD >40% between primary and confirmation column results for dual column chromatographic methods (e.g. GC and HPLC methods).
E = Detected at levels in excess of the upper calibration limit.
B = Detected in the associated method blank
Q1 = The %D or %Drift for the associated CCV is outside the method QC limit.
Q2 = The %D or %Drift for the associated CCV is outside the method and/or laboratory established QC limit with a low bias.
* = Exceeds QC limits
ME = Marginal exceedence of the 3-sigma QC limits
ME* = Exceedence of the 4-sigma QC limits
X = as defined in the case narrative when utilized

The LODs and LOQs have been adjusted for sample weight or volume, dilution, and percent solids, when applicable. MDLs are statistically defined, instrument-specific quantities, which are used as LODs for some tests. For situations when multiple MDLs exist for a test (e.g several instruments running the same test on a given matrix) or when MDLs are unachievable on a routine basis, LODs, which may be grater than MDL but typically one-half of the applicable LOQs are used to define cut-off points for reporting positive results. The LOQs are typically the lowest point on the initial calibration curve.

Quantitative results for analytes detected in the sample (positive results) are shown under the column labeled "Result". Results coded with the qualifier E should not be used unless additional analyses were unavailable due to other limitations. Data coded as E should not be compared to other data since non-linearity in calibration may be a severe problem for some analytes. Multiple sample result forms may be provided for one or more of the following reasons:
Sample was reanalyzed for surrogate or internal standard recovery outliers;
Sample was reanalyzed at a dilution;
One of the analyses was performed outside holding times;
A replicate analysis was performed for other quality control purposes;
Client requirements

QC Association Forms
The list consisting of MB, LCS, LCSD (if any), MS (whenever available), MSD (whenever available), and field samples from the reported AML work order that are associated with each QC batch are shown on QC Association Forms. Additional items

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such as PDS, SD may be included for some parameters (e.g metals). Separate forms are included for each QC batch, for each matrix and test.

Surrogate Recovery Forms

A summary of the system monitoring compound recoveries for organic analyses is included in this section. The QC limits from the Department of Defense Quality Systems Manual for Environmental Laboratories, Final Version 3, January 2006 is used in the reports, when available. Method-specified limits or in-house limits are used as applicable. Corrective action involving re-extraction and/or reanalysis is performed for samples that exceed the surrogate QC limits.

Method Blank Result Forms

The QC limit for the Method Blank is set at one half of the applicable LOQ for each target analyte with the exception of common laboratory contaminants, which is set at the LOQ.

Laboratory Control Sample (LCS) Report Forms

Laboratory control samples were analyzed with each QC batch as described in the QC Association Form. Laboratory Control sample limits are set as a default to the DOD QSM limits when available. When the 3-sigma control limit is exceeded for any analyte, the LCS report is flagged "ME". The total number of method analytes, and the number of ME analytes are tracked and compared against the number allowed per NELAC and the DOD QSM. This information is summarized at the bottom of the recoveries summary reports. Analytes with LCS recoveries that exceed the 4-sigma limits are flagged ME* and reanalysis may be required for the affected analyte if it is a contaminant of concern. The relative percent differences (RPDs) for the LCS duplicates, a voluntary laboratory QC parameter, are computed to track in-house precision for method duplicates.

Matrix Spike/Matrix Spike Duplicate Recoveries Report Forms

The MS/MSD results are shown in Form-1 equivalents. See section on LCS for additional details. The RPDs for MS duplicates that are outside the applicable QC limits are flagged with an asterisk (*). The effect of matrix is taken into account in determining corrective action procedures based on MS and MSD results, recoveries, and RPD.

Calibration

Instruments were calibrated in accordance with applicable method. Deviations are noted as a non-conformance. Copies of initial calibration and calibration verification summaries and associated raw data will be maintained in laboratory files and made available for detailed client review.

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Test Methods and Holding Times
Analyses were performed within applicable holding times except as noted on sample reports. See parameter specific non-conformances for more information.

Batch-specific Quality Control Procedures
Quality control data from method blanks and laboratory control samples are used as batch QC elements. In accordance with EPA, USACE, and DoD guidelines, QC data from matrix spikes are used as matrix-specific QC elements and QC data from surrogates, internal standard areas, etc. are used as sample-specific QC elements. When the batch QC elements are outside their QC limits, results for associated samples are evaluated and corrective actions that affect the entire sample set are performed.

Matrix-specific or Sample-specific Quality Control Procedures
Sample concentrations exceeding the upper calibration limit, surrogate recoveries outside the QC limits, calibration parameters not within QC limits, etc. are used as sample-specific and/or sample-group specific QC elements for one or more associated samples during instrumental analysis. Serial dilution, standard addition, MS recoveries, etc. are used as matrix-specific QC elements for one or more associated samples. When these QC elements are outside their QC limits, associated individual sample results are evaluated and appropriate corrective actions are performed.

Manual Integration
Manual integration operations that have potential to improve accuracy of analysis are performed, as necessary (shown with an “M” flag on raw data) based on visual inspection of peak shapes for each target analyte. Such operations are technically defensible and they are not aimed at meeting the minimum technical requirements of the analytical procedure.

Statement
To the best of our knowledge, this data package is in compliance with the client terms and conditions, both technically and for completeness. Non-conformances are listed in the case narrative and/or data qualifiers for each parameter tested.

Analytical Management Laboratories, Inc.
est. 1993

Results of Laboratory Analysis

Project Information

Five (5) samples were received by AML on November 20, 2008 and logged in according to the Sample Status and Receipt Report included in this report. Reference the chain of custody and Sample Condition upon receipt Report for any non-conformances on receipt condition and temperature upon receipt.

Observations and Non-Conformances

Nitrate/Nitrate by SM-4500-N03 E

Batch P811078 - MS recoveries are outside QC limits due to potential matrix interference. LCS/LCSD and MSD recoveries were within QC limits.

There were no observations and/or non-conformances to report for the following analyses:

Metals by 6010B/3030C
Metals by 6020A/3030C

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Field Sample Information

(Chain of Custody Record, Sample Receipt Report, Condition Upon Receipt Report)

0811025

(Sample Delivery Group, SDG)

AML
Analytical Management Laboratories, Inc.
15130 South Keeler
Olathe, Kansas 66062
Phone (913) 829-0101
Fax (913) 829-1181

METALS / NITRATES

42461

Chain of Custody Record / Request for Analysis

Client Contact Name: JUD SMITH
Company Name: US ARMY CORPS OF ENGINEERS
Address: 100 W OGLETHORPE
City, State, Zip: SAVANNAH GA, 31401
Phone #: (912) 652-5673 Ext:
Fax #: ( )
Email:

Project Name: LAMONT LF FT BRAGG
Project Number:
Purchase Order Number: DO 122
Project Due Date:
Project Comments:
Print Sampler's Name: JON COOMBS

Analysis/Method to be Performed (Check all that apply)

Laboratory Project Number: 0811025

Specify method # ---> 8330

Lab ID	Sample Description	Date	Time	Matrix	Total # Containers	HCl	HNO_3	NaOH	H_2SO_4	Unpreserved	4° C	VOCs	SVOCs	Pesticides	PCBs	Herbicides	Metals (specify) APPT	DRO	GRO	Explosives	Anions (specify)	NITRATES	Comments:
0811025-01	GW-LMW-3-11-08	11/19/08	0848	AQ	2		1		1								1					1	
0811025-02	GW-LMW-35-11-08	11/19/08	0956	AQ	2		1		1								1					1	
0811025-03	GW-LMW-6-11-08	11/19/08	1105	AQ	2		1		1								1					1	
0811025-04	GW-LMW-9-11-08	11/19/08	1546	AQ	2		1		1								1					1	
0811025-05	GW-LMW-10-11-08	11/19/08	1414	AQ	2		1		1								1					1	
6																							
7																							
8																							
9																							
10																							

Preservative: List total number of bottles for each preservative type.

Please include any information that may be useful in the analysis of the sample.
Example: high concentration
List analytes
MS/MSD

CUSTODY						
Relinquished By:	[signature]	Date/Time:	11/19/08 1730	Received By:	SHIPPER	Date/Time: 11/19/08 1730
Relinquished By:		Date/Time:		Received By:	[signature]	Date/Time: 11/20/08 0930am

By signing the request (chain of custody) you are ordering work from Analytical Management Laboratories, Inc. which constitutes the acceptance of the terms and conditions on the back of this form.

Delivery Method	Custody Seals	Coolant	Cooler Temp.	Receiving Comments:
☐ Delivered in Person ☑ Courier FedEx ☐ Airbill #: 8425 9197 3978	☑ Yes ☐ No ☐ Intact ☐ Broken	☑ Ice ☐ Blue Ice ☐ None	1.9 °C ☐ Temp. Blank ☑ Cooler	AML2

Analytical Management Laboratories - Sample Status and Receipt Report

AML Project Number	0811025	**Client AML ID**	USACE Savannah	**Report Lvl.** 3
Work Order Due Date	12/04/08	**Client Project ID**	Ft Bragg, DO# 122	
Work Order TAT	14			

AML Sample	*Matrix*	Client Sample ID	Date Collected	Projected Analytical Due Date	Analysis	Comments
0811025-01	Water	GW-LMW-3-11-08	11/19/08 08:48	12/02/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811025-01	Water	GW-LMW-3-11-08	11/19/08 08:48	12/02/08	Metals by 6010B	Appendix I
0811025-01	Water	GW-LMW-3-11-08	11/19/08 08:48	12/02/08	Metals by 6020A	Appendix I
0811025-02	Water	GW-LMW-3s-11-08	11/19/08 08:56	12/02/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811025-02	Water	GW-LMW-3s-11-08	11/19/08 08:56	12/02/08	Metals by 6010B	Appendix I
0811025-02	Water	GW-LMW-3s-11-08	11/19/08 08:56	12/02/08	Metals by 6020A	Appendix I
0811025-03	Water	GW-LMW-6-11-08	11/19/08 11:05	12/02/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811025-03	Water	GW-LMW-6-11-08	11/19/08 11:05	12/02/08	Metals by 6010B	Appendix I
0811025-03	Water	GW-LMW-6-11-08	11/19/08 11:05	12/02/08	Metals by 6020A	Appendix I
0811025-04	Water	GW-LMW-4-11-08	11/19/08 15:48	12/02/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811025-04	Water	GW-LMW-4-11-08	11/19/08 15:48	12/02/08	Metals by 6010B	Appendix I
0811025-04	Water	GW-LMW-4-11-08	11/19/08 15:48	12/02/08	Metals by 6020A	Appendix I
0811025-05	Water	GW-LMW-10-11-08	11/19/08 14:16	12/02/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811025-05	Water	GW-LMW-10-11-08	11/19/08 14:16	12/02/08	Metals by 6010B	Appendix I
0811025-05	Water	GW-LMW-10-11-08	11/19/08 14:16	12/02/08	Metals by 6020A	Appendix I

Analytical Management Laboratories, Inc.

AML - Sample Condition Upon Receipt Report
(See Comments for exceptions)

Client ID: USACE_Sav

AML Work Order Number: 0811025

Project ID: Ft Bragg, DO# 122

Cooler ID: AML2

Delivery Method

Delivery Method: Fed Ex

Name of Person Receiving Samples: Nissa Said

Airbill Number: 842591973978

Custody Seals

Were Custody Seals Present? Yes

Cooler Opened By: Nissa Said

Were Custody Seals Intact? Yes

Date Opened 11/20/2008

Packaging / Coolant / Temperature

Type of Coolant Used: Ice

Temperature of Cooler: 1.90°C

Type of Packing Used: Bubble Wrap

Did all the bottles arrive unbroken? Yes

Were all bottles sealed in separate plastic bags? Yes

Chain of Custody

Was Chain of Custody filled out properly? Yes

Do Chain of Custody and Sample Labels agree? Yes

Comments/ Exceptions

Were all sample labels complete? Yes

Was a sufficient amount of sample sent for analysis? Yes

Were samples received in proper containers? Yes

Were air bubbles absent in VOA samples? NA

Was sample pH within QC limits? Yes
(if no see comments)

Was project manager contacted about any "out of control" issues? Yes

Samples Received by: Nissa Said

Project Manager Review: [signature]

Date: 11/20/08

Field Sample Analysis Data Sheets

(Form I equivalents)

0811025

(Sample Delivery Group, SDG)

6010B

(Parameter)

P811087

(Analytical Batch)

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-01
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Method:	6010B	Date Analyzed:	11/21/08 11:52
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811087	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.00581	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3s-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-02
% Solids:	NA	Date Collected:	11/19/08 08:56
Analytical Method:	6010B	Date Analyzed:	11/21/08 12:28
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811087	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0138	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel	0.00372	mg/L	J	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-6-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-03
% Solids:	NA	Date Collected:	11/19/08 11:05
Analytical Method:	6010B	Date Analyzed:	11/21/08 12:34
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811087	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0737	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-4-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-04
% Solids:	NA	Date Collected:	11/19/08 15:48
Analytical Method:	6010B	Date Analyzed:	11/21/08 12:58
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811087	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0147	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-10-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-05
% Solids:	NA	Date Collected:	11/19/08 14:16
Analytical Method:	6010B	Date Analyzed:	11/21/08 13:04
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811087	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0127	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

Field Sample Analysis Data Sheets

(Form I equivalents)

0811025

(Sample Delivery Group, SDG)

6020A

(Parameter)

P811088

(Analytical Batch)

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-01
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Method:	6020A	Date Analyzed:	11/26/08 11:58
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811088	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic		ug/L	U	1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3s-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-02
% Solids:	NA	Date Collected:	11/19/08 08:56
Analytical Method:	6020A	Date Analyzed:	11/26/08 12:10
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811088	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic		ug/L	U	1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-6-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-03
% Solids:	NA	Date Collected:	11/19/08 11:05
Analytical Method:	6020A	Date Analyzed:	11/26/08 12:13
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811088	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic		ug/L	U	1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium	2.87	ug/L	J	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-4-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-04
% Solids:	NA	Date Collected:	11/19/08 15:48
Analytical Method:	6020A	Date Analyzed:	11/26/08 12:15
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811088	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic		ug/L	U	1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-10-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811025-05
% Solids:	NA	Date Collected:	11/19/08 14:16
Analytical Method:	6020A	Date Analyzed:	11/26/08 12:18
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811088	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic		ug/L	U	1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead	0.524	ug/L	J	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1

Note:

Field Sample Analysis Data Sheets

(Form I equivalents)

0811025

(Sample Delivery Group, SDG)

SM-4500-NO3 E

(Parameter)

P811078

(Analytical Batch)

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811025-01
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/20/08 09:30
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	5.22	mg/L		0.200	0.400	10

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-3s-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811025-02
% Solids:	NA	Date Collected:	11/19/08 08:56
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/20/08 09:30
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.343	mg/L		0.0200	0.0400	1

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-6-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811025-03
% Solids:	NA	Date Collected:	11/19/08 11:05
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/20/08 09:30
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.908	mg/L		0.0200	0.0400	1

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-4-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811025-04
% Solids:	NA	Date Collected:	11/19/08 15:48
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/20/08 09:30
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.0440	mg/L		0.0200	0.0400	1

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-10-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811025-05
% Solids:	NA	Date Collected:	11/19/08 14:16
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/20/08 09:30
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.513	mg/L		0.0200	0.0400	1

Note:

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811025

(Sample Delivery Group, SDG)

6010B

(Parameter)

P811087

(Analytical Batch)

Quality Control Association Form

Lab Name: Analytical Management Laboratories, Inc. **Fraction:** METALS

QC Batch: P811087 **Method:** 6010B

Date Analyzed	Date Prepared	Lab Sample ID	Original Sample	Sample Type	Project Number
11/21/08	11/20/08	0811025-01		SAMPLE	0811025
11/21/08	11/20/08	0811025-02		SAMPLE	0811025
11/21/08	11/20/08	0811025-03		SAMPLE	0811025
11/21/08	11/20/08	0811025-04		SAMPLE	0811025
11/21/08	11/20/08	0811025-05		SAMPLE	0811025
11/21/08	11/21/08	8K21001-SRD1	0811025-01	Serial Dilution	0811025
11/21/08	11/20/08	P811087-BLK1		Method Blank	0811025
11/21/08	11/20/08	P811087-BS1		LCS	0811025
11/21/08	11/20/08	P811087-BSD1		LCS Dup	0811025
11/21/08	11/20/08	P811087-MS1	0811025-01	Matrix Spike	0811025
11/21/08	11/20/08	P811087-MSD1	0811025-01	Matrix Spike Dup	0811025
11/21/08	11/20/08	P811087-PS1	0811025-01	Post Spike	0811025

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811087-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6010B	Date Analyzed:	11/21/08 11:29
Preparation:	SM3030C	Date Received:	
Batch:	P811087	Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium		mg/L	U	0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811087-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6010B	Date Analyzed:	11/21/08 11:35
Preparation:	SM3030C	Date Received:	
Batch:	P811087	Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	1.92	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.456	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.513	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.498	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.497	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.952	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.480	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.478	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.489	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.07	mg/L		0.0250	0.0500	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811087-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6010B	Date Analyzed:	11/21/08 11:43
Preparation:	SM3030C	Date Received:	
Batch:	P811087	Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	1.90	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.451	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.508	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.492	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.493	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.938	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.476	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.473	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.485	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.06	mg/L		0.0250	0.0500	1

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811087

Fraction: METALS Matrix: Water

Units: mg/L

Lab Sample ID: ***P811087-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Barium	2.00	1.92	96.0		80	120
Beryllium	0.500	0.456	91.2		80	120
Cadmium	0.500	0.513	103		80	120
Chromium	0.500	0.498	99.6		80	120
Cobalt	0.500	0.497	99.5		80	120
Copper	1.00	0.952	95.2		80	120
Nickel	0.500	0.480	96.0		80	120
Silver	0.500	0.478	95.7		80	120
Vanadium	0.500	0.489	97.8		80	120
Zinc	1.00	1.07	107		80	120

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 10

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811087

Fraction: METALS Matrix: Water

Units: mg/L

Lab Sample ID: ***P811087-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Barium	2.00	1.90	95.1		80	120	0.865
Beryllium	0.500	0.451	90.2		80	120	1.08
Cadmium	0.500	0.508	102		80	120	1.09
Chromium	0.500	0.492	98.5		80	120	1.11
Cobalt	0.500	0.493	98.6		80	120	0.911
Copper	1.00	0.938	93.8		80	120	1.49
Nickel	0.500	0.476	95.2		80	120	0.847
Silver	0.500	0.473	94.6		80	120	1.11
Vanadium	0.500	0.485	97.0		80	120	0.813
Zinc	1.00	1.06	106		80	120	1.37

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 10

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811087-MS1
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Methdod:	6010B	Date Analyzed:	11/21/08 12:03
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811087	Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	1.94	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.467	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.532	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.500	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.501	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.962	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.496	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.488	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.491	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.14	mg/L		0.0250	0.0500	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811087-MSD1
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Methdod:	6010B	Date Analyzed:	11/21/08 12:12
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811087	Date Prepared:	11/20/08 10:36

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	1.92	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.464	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.527	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.495	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.496	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.946	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.491	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.482	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.485	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.12	mg/L		0.0250	0.0500	1

Form 5A - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811087

Fraction: METALS Matrix: Water

Units: mg/L

Original Sample ***0811025-01*** ***Lab Sample ID for MS :*** ***P811087-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Barium	0.00581	2.00	1.94	96.6		80	120
Beryllium	0	0.500	0.467	93.4		80	120
Cadmium	0	0.500	0.532	106		80	120
Chromium	0	0.500	0.500	99.9		80	120
Cobalt	0	0.500	0.501	100		80	120
Copper	0	1.00	0.962	96.2		80	120
Nickel	0	0.500	0.496	99.2		80	120
Silver	0	0.500	0.488	97.5		80	120
Vanadium	0	0.500	0.491	98.1		80	120
Zinc	0	1.00	1.14	114		80	120

Form 5A - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811087

Fraction: METALS Matrix: Water

Units: mg/L

Original Sample ***0811025-01*** ***Lab Sample ID for MSD*** ***P811087-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Barium	0.00581	2.00	1.92	95.7		0.967		80	120	25
Beryllium	0	0.500	0.464	92.8		0.666		80	120	25
Cadmium	0	0.500	0.527	105		0.907		80	120	25
Chromium	0	0.500	0.495	98.9		1.01		80	120	25
Cobalt	0	0.500	0.496	99.2		0.919		80	120	25
Copper	0	1.00	0.946	94.6		1.71		80	120	25
Nickel	0	0.500	0.491	98.2		0.980		80	120	25
Silver	0	0.500	0.482	96.4		1.15		80	120	25
Vanadium	0	0.500	0.485	97.0		1.15		80	120	25
Zinc	0	1.00	1.12	112		1.73		80	120	25

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Post Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811087-PS1
% Solids:	NA	Instrument ID:	ICP
Analytical Methdod:	6010B	Date Collected:	11/19/08 08:48
Preparation:	SM3030C	Date Analyzed:	11/21/08 12:20
Batch:	P811087	Date Received:	11/20/08 09:30

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	1.99	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.477	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.546	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.514	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.513	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.977	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.509	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.498	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.503	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.16	mg/L		0.0250	0.0500	1

Form 5B - Equivalent

POST DIGESTION SPIKE SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc.

Fraction: METALS

Analytical Batch: 8K21001

Prep Batch: P811087

COMPOUND	Original Amount	SPIKE ADDED	PDS Amount	PDS % REC	PDS % REC FLAG	QC. LIMITS LCL	QC. LIMITS UCL
Barium	0.00581	2.00	1.99	99.0		75	125
Beryllium	ND	0.500	0.477	95.3		75	125
Cadmium	ND	0.500	0.546	109		75	125
Chromium	ND	0.500	0.514	103		75	125
Cobalt	ND	0.500	0.513	103		75	125
Copper	ND	1.00	0.977	97.7		75	125
Nickel	ND	0.500	0.509	102		75	125
Silver	ND	0.500	0.498	99.7		75	125
Vanadium	ND	0.500	0.503	101		75	125
Zinc	ND	1.00	1.16	116		75	125

* Values outside of QC limits

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Serial Dilution
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	8K21001-SRD1
% Solids:	NA	Instrument ID:	ICP
Analytical Methdod:	6010B	Date Collected:	11/19/08 08:48
Preparation:	P811087	Date Analyzed:	11/21/08 11:58
Batch:	8K21001	Date Received:	11/20/08 09:30

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium		mg/L	U	0.0100	0.0200	5
7440-41-7	Beryllium		mg/L	U	0.0100	0.0200	5
7440-43-9	Cadmium		mg/L	U	0.0100	0.0200	5
7440-47-3	Chromium		mg/L	U	0.0250	0.0500	5
7440-48-4	Cobalt		mg/L	U	0.0100	0.0200	5
7440-50-8	Copper		mg/L	U	0.0250	0.0500	5
7440-02-0	Nickel		mg/L	U	0.0150	0.0300	5
7440-22-4	Silver		mg/L	U	0.0250	0.0500	5
7440-62-2	Vanadium		mg/L	U	0.0100	0.0200	5
7440-66-6	Zinc		mg/L	U	0.125	0.250	5

Form 8 - Equivalent

PERCENT DIFFERENCE FOR SERIAL DILUTION SAMPLE

Lab Name: Analytical Management Laboratories, Inc. Analytical Batch: 8K21001

Fraction: METALS

Orig HSN: 0811025-01 **SD HSN:** 8K21001-SRD1

Orig Dil: 1 **SD Dil:** 5

COMPOUND	Original Amount	SD Amount	%D	QC FLAG	QC. LIMIT UCL
Barium	0.00581	U	NA		10
Beryllium	U	U	NA		10
Cadmium	U	U	NA		10
Chromium	U	U	NA		10
Cobalt	U	U	NA		10
Copper	U	U	NA		10
Nickel	U	U	NA		10
Silver	U	U	NA		10
Vanadium	U	U	NA		10
Zinc	U	U	NA		10

* Values outside of QC limits

NA = Not Applicable

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811025

(Sample Delivery Group, SDG)

6020A

(Parameter)

P811088

(Analytical Batch)

Quality Control Association Form

Lab Name: Analytical Management Laboratories, Inc. **Fraction:** METALS

QC Batch: P811088 **Method:** 6020A

Date Analyzed	Date Prepared	Lab Sample ID	Original Sample	Sample Type	Project Number
11/26/08	11/20/08	0811025-01		SAMPLE	0811025
11/26/08	11/20/08	0811025-02		SAMPLE	0811025
11/26/08	11/20/08	0811025-03		SAMPLE	0811025
11/26/08	11/20/08	0811025-04		SAMPLE	0811025
11/26/08	11/20/08	0811025-05		SAMPLE	0811025
11/26/08	11/26/08	8K26003-SRD1	0811025-01	Serial Dilution	0811025
11/26/08	11/20/08	P811088-BLK1		Method Blank	0811025
11/26/08	11/20/08	P811088-BS1		LCS	0811025
11/26/08	11/20/08	P811088-BSD1		LCS Dup	0811025
11/26/08	11/20/08	P811088-MS1	0811025-01	Matrix Spike	0811025
11/26/08	11/20/08	P811088-MSD1	0811025-01	Matrix Spike Dup	0811025
11/26/08	11/20/08	P811088-PS1	0811025-01	Post Spike	0811025

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811088-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6020A	Date Analyzed:	11/26/08 11:43
Preparation:	SM3030C	Date Received:	
Batch:	P811088	Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic		ug/L	U	1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811088-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6020A	Date Analyzed:	11/26/08 11:46
Preparation:	SM3030C	Date Received:	
Batch:	P811088	Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	48.0	ug/L		0.500	1.00	1
7440-38-2	Arsenic	42.2	ug/L		1.00	2.00	1
7440-43-9	Cadmium	44.1	ug/L		0.500	1.00	1
7439-92-1	Lead	439	ug/L		0.500	1.00	1
7782-49-2	Selenium	41.0	ug/L		2.00	4.00	1
7440-28-0	Thallium	45.9	ug/L		0.500	1.00	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811088-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6020A	Date Analyzed:	11/26/08 11:48
Preparation:	SM3030C	Date Received:	
Batch:	P811088	Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	47.1	ug/L		0.500	1.00	1
7440-38-2	Arsenic	41.4	ug/L		1.00	2.00	1
7440-43-9	Cadmium	42.8	ug/L		0.500	1.00	1
7439-92-1	Lead	433	ug/L		0.500	1.00	1
7782-49-2	Selenium	40.6	ug/L		2.00	4.00	1
7440-28-0	Thallium	44.5	ug/L		0.500	1.00	1

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811088

Fraction: METALS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811088-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Antimony	50.0	48.0	95.9		80	120
Arsenic	50.0	42.2	84.4		80	120
Cadmium	50.0	44.1	88.2		80	120
Lead	500	439	87.8		80	120
Selenium	50.0	41.0	82.0		80	120
Thallium	50.0	45.9	91.8		80	120

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 6

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811088

Fraction: METALS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811088-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Antimony	50.0	47.1	94.2		80	120	1.80
Arsenic	50.0	41.4	82.7		80	120	2.04
Cadmium	50.0	42.8	85.6		80	120	2.95
Lead	500	433	86.5		80	120	1.50
Selenium	50.0	40.6	81.1		80	120	1.05
Thallium	50.0	44.5	89.1		80	120	2.98

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 6

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811088-MS1
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Methdod:	6020A	Date Analyzed:	11/26/08 12:03
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811088	Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	53.7	ug/L		0.500	1.00	1
7440-38-2	Arsenic	50.5	ug/L		1.00	2.00	1
7440-43-9	Cadmium	50.0	ug/L		0.500	1.00	1
7439-92-1	Lead	465	ug/L		0.500	1.00	1
7782-49-2	Selenium	52.7	ug/L		2.00	4.00	1
7440-28-0	Thallium	46.3	ug/L		0.500	1.00	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811088-MSD1
% Solids:	NA	Date Collected:	11/19/08 08:48
Analytical Methdod:	6020A	Date Analyzed:	11/26/08 12:06
Preparation:	SM3030C	Date Received:	11/20/08 09:30
Batch:	P811088	Date Prepared:	11/20/08 10:40

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	47.2	ug/L		0.500	1.00	1
7440-38-2	Arsenic	44.6	ug/L		1.00	2.00	1
7440-43-9	Cadmium	44.5	ug/L		0.500	1.00	1
7439-92-1	Lead	421	ug/L		0.500	1.00	1
7782-49-2	Selenium	47.3	ug/L		2.00	4.00	1
7440-28-0	Thallium	42.7	ug/L		0.500	1.00	1

Form 5A - Equivalent

MATRIX SPIKE RECOVERY

Lab Name:	Analytical Management Laboratories, Inc.	Batch:	P811088
Fraction:	METALS	Matrix:	Water
Units:	ug/L		

Original Sample ***0811025-01*** ***Lab Sample ID for MS :*** ***P811088-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Antimony	0	50.0	53.7	107		75	125
Arsenic	0	50.0	50.5	101		75	125
Cadmium	0	50.0	50.0	100		75	125
Lead	0	500	465	93.0		75	125
Selenium	0	50.0	52.7	105		75	125
Thallium	0	50.0	46.3	92.5		75	125

Form 5A - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811088

Fraction: METALS Matrix: Water

Units: ug/L

Original Sample ***0811025-01*** ***Lab Sample ID for MSD*** ***P811088-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Antimony	0	50.0	47.2	94.5		12.7		75	125	20
Arsenic	0	50.0	44.6	89.3		12.3		75	125	20
Cadmium	0	50.0	44.5	89.0		11.7		75	125	20
Lead	0	500	421	84.3		9.89		75	125	20
Selenium	0	50.0	47.3	94.6		10.8		75	125	20
Thallium	0	50.0	42.7	85.4		8.03		75	125	20

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Post Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811088-PS1
% Solids:	NA	Instrument ID:	ICPMS
Analytical Methdod:	6020A	Date Collected:	11/19/08 08:48
Preparation:	SM3030C	Date Analyzed:	11/26/08 12:08
Batch:	P811088	Date Received:	11/20/08 09:30

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	45.7	ug/L		0.500	1.00	1
7440-38-2	Arsenic	43.0	ug/L		1.00	2.00	1
7440-43-9	Cadmium	42.8	ug/L		0.500	1.00	1
7439-92-1	Lead	409	ug/L		0.500	1.00	1
7782-49-2	Selenium	45.8	ug/L		2.00	4.00	1
7440-28-0	Thallium	41.8	ug/L		0.500	1.00	1

Form 5B - Equivalent

POST DIGESTION SPIKE SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc.

Fraction: METALS

Analytical Batch: 8K26003

Prep Batch: P811088

COMPOUND	Original Amount	SPIKE ADDED	PDS Amount	PDS % REC	PDS % REC FLAG	QC. LIMITS LCL	QC. LIMITS UCL
Antimony	ND	50.0	45.7	91.4		75	125
Arsenic	ND	50.0	43.0	86.0		75	125
Cadmium	ND	50.0	42.8	85.6		75	125
Lead	ND	500	409	81.9		75	125
Selenium	ND	50.0	45.8	91.6		75	125
Thallium	ND	50.0	41.8	83.7		75	125

* Values outside of QC limits

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Serial Dilution
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	8K26003-SRD1
% Solids:	NA	Instrument ID:	ICPMS
Analytical Methdod:	6020A	Date Collected:	11/19/08 08:48
Preparation:	P811088	Date Analyzed:	11/26/08 12:01
Batch:	8K26003	Date Received:	11/20/08 09:30

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	2.50	5.00	5
7440-38-2	Arsenic		ug/L	U	5.00	10.0	5
7440-43-9	Cadmium		ug/L	U	2.50	5.00	5
7439-92-1	Lead		ug/L	U	2.50	5.00	5
7782-49-2	Selenium		ug/L	U	10.0	20.0	5
7440-28-0	Thallium		ug/L	U	2.50	5.00	5

Form 8 - Equivalent

PERCENT DIFFERENCE FOR SERIAL DILUTION SAMPLE

Lab Name: Analytical Management Laboratories, Inc. Analytical Batch: 8K26003

Fraction: METALS

Orig HSN: 0811025-01 **SD HSN:** 8K26003-SRD1

Orig Dil: 1 **SD Dil:** 5

COMPOUND	Original Amount	SD Amount	%D	QC FLAG	QC. LIMIT UCL
Antimony	U	U	NA		10
Arsenic	U	U	NA		10
Cadmium	U	U	NA		10
Lead	U	U	NA		10
Selenium	U	U	NA		10
Thallium	U	U	NA		10

* Values outside of QC limits

NA = Not Applicable

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811025

(Sample Delivery Group, SDG)

SM-4500-NO3 E

(Parameter)

P811078

(Analytical Batch)

Quality Control Association Form

Lab Name: Analytical Management Laboratories, Inc. **Fraction:** Wet Chemistry

QC Batch: P811078 **Method:** SM-4500-NO3 E

Date Analyzed	Date Prepared	Lab Sample ID	Original Sample	Sample Type	Project Number
11/21/08	11/20/08	0811025-01		SAMPLE	0811025
11/21/08	11/20/08	0811025-02		SAMPLE	0811025
11/21/08	11/20/08	0811025-03		SAMPLE	0811025
11/21/08	11/20/08	0811025-04		SAMPLE	0811025
11/21/08	11/20/08	0811025-05		SAMPLE	0811025
11/21/08	11/20/08	P811078-BLK1		Method Blank	0811025
11/21/08	11/20/08	P811078-BS1		LCS	0811025
11/21/08	11/20/08	P811078-BSD1		LCS Dup	0811025
11/21/08	11/20/08	P811078-MS1	0811020-01	Matrix Spike	0811025
11/21/08	11/20/08	P811078-MSD1	0811020-01	Matrix Spike Dup	0811025

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N		mg/L	U	0.0200	0.0400	1

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.276	mg/L		0.0200	0.0400	1

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.281	mg/L		0.0200	0.0400	1

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811078

Fraction: WET Matrix: Water

Units: mg/L

Lab Sample ID: ***P811078-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Nitrate/Nitrite as N	0.300	0.276	92.0		80	120

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 1

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811078

Fraction: WET Matrix: Water

Units: mg/L

Lab Sample ID: ***P811078-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Nitrate/Nitrite as N	0.300	0.281	93.7		80	120	1.80

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 1

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-MS1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	1.83	mg/L		0.200	0.400	10

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811025
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-MSD1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	1.78	mg/L		0.200	0.400	10

Form 5A - Equivalent

MATRIX SPIKE RECOVERY

Lab Name:	Analytical Management Laboratories, Inc.	Batch:	P811078
Fraction:	WET	Matrix:	Water
Units:	mg/L		

Original Sample ***0811020-01*** ***Lab Sample ID for MS :*** ***P811078-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Nitrate/Nitrite as N	1.46	0.300	1.83	123	ME*	80	120

Form 5A - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811078

Fraction: WET Matrix: Water

Units: mg/L

Original Sample ***0811020-01*** ***Lab Sample ID for MSD*** ***P811078-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Nitrate/Nitrite as N	1.46	0.300	1.78	107		2.77		80	120	20

Analytical Management Laboratories, Inc.
est. 1993

Results of Laboratory Analysis

December 18, 2008

Mr. Judson Smith
Project Chemist, CESAS-EN-GG
U.S. Army Corps of Engineers, Savannah District
100 W. Oglethorpe Ave.
P. O. Box 889
Savannah, GA 31401-0360
Phone: 912-652-5673
Fax: 912-652-5311

Dear Mr. Smith:

RE: Fort Bragg, Lamont LF, DO# 122
W912HN-05-D-0013
AML Work Order Number: **0811043**

Attached, please find the hardcopy analytical report (81 total pages) for environmental samples collected by CESAS for the project described above. The analytical results included in this report relate only to the samples received by Analytical Management Laboratories (AML). Problems encountered in the analysis of these samples are documented in the laboratory case narrative observations and non-conformances and/or data qualifiers. The case narrative is an integral part of this report. This report has been paginated and may not be reproduced for distribution, except in full, without the written approval of AML. The electronic data deliverables (EDDs) for this report will be e-mailed within a few days of this report. Please feel free to contact me by phone (913-829-0101-ext. 26), fax (913-829-1181) or email (alester@amlabinc.com) if you have any questions.

Respectfully Submitted,
Analytical Management Laboratories, Inc.

Aime Lester
Project Manager

15130 South Keeler, Olathe, Kansas 66062
Phone: (913) 829-0101 Fax: (913) 829-1181

Case Narrative

Project and Sample Information
Task order information, completed copies of the chain of custody form(s), and Analytical Management Laboratories (AML) sample condition upon receipt form (s) are included in the Project and Sample Information section. The AML laboratory information management system (LIMS)-generated sample status and receipt report, showing field sample identifiers and corresponding laboratory identifiers is also included.

Reports
The hardcopy laboratory reports and electronic data deliverables (EDDs) were prepared using the Promium Element Data System (LIMS). Under the procedure used by the laboratory, the hardcopy reports are generated using information contained in a database, which is also used to generate electronic deliverables to assure data integrity between the two media. The attached report is organized as follows:

Cover Letter
Laboratory Case Narrative
Sample Information
Sample Result Forms, organized in the following order: by test and by sample.

Quality Control (QC) Summary Reports, organized in the following order: by test, by matrix, and by QC batch number. The QC Summary for each analytical batch contains the following, when applicable:

1. QC Association Form
2. Surrogate Recovery Summary, when applicable
3. Method Blank (MB) Results
4. Laboratory Control Sample (LCS) Results
5. LCS duplicate (LCSD) Results, when available
6. LCS Recoveries Summary
7. LCSD (when applicable) Recoveries and RPD Summary
8. Matrix Spike (MS) Results
9. MS duplicate (MSD) Results
10. MS Recoveries Summary
11. MSD Recoveries and RPD Summary

Sample Result Forms
Sample results are shown on modified Form 1 equivalents with the following qualifiers:

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U = Not detected or detected below method detection limit (MDL) or the limit of detection (LOD).
J = Detected above MDL or LOD but below the limit of quantitation (LOQ).
P = RPD >40% between primary and confirmation column results for dual column chromatographic methods (e.g. GC and HPLC methods).
E = Detected at levels in excess of the upper calibration limit.
B = Detected in the associated method blank
Q1 = The %D or %Drift for the associated CCV is outside the method QC limit.
Q2 = The %D or %Drift for the associated CCV is outside the method and/or laboratory established QC limit with a low bias.
* = Exceeds QC limits
ME = Marginal exceedence of the 3-sigma QC limits
ME* = Exceedence of the 4-sigma QC limits
X = as defined in the case narrative when utilized

The LODs and LOQs have been adjusted for sample weight or volume, dilution, and percent solids, when applicable. MDLs are statistically defined, instrument-specific quantities, which are used as LODs for some tests. For situations when multiple MDLs exist for a test (e.g several instruments running the same test on a given matrix) or when MDLs are unachievable on a routine basis, LODs, which may be grater than MDL but typically one-half of the applicable LOQs are used to define cut-off points for reporting positive results. The LOQs are typically the lowest point on the initial calibration curve.

Quantitative results for analytes detected in the sample (positive results) are shown under the column labeled "Result". Results coded with the qualifier E should not be used unless additional analyses were unavailable due to other limitations. Data coded as E should not be compared to other data since non-linearity in calibration may be a severe problem for some analytes. Multiple sample result forms may be provided for one or more of the following reasons:
Sample was reanalyzed for surrogate or internal standard recovery outliers;
Sample was reanalyzed at a dilution;
One of the analyses was performed outside holding times;
A replicate analysis was performed for other quality control purposes;
Client requirements

QC Association Forms
The list consisting of MB, LCS, LCSD (if any), MS (whenever available), MSD (whenever available), and field samples from the reported AML work order that are associated with each QC batch are shown on QC Association Forms. Additional items

15130 South Keeler, Olathe, Kansas 66062
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such as PDS, SD may be included for some parameters (e.g metals). Separate forms are included for each QC batch, for each matrix and test.

Surrogate Recovery Forms

A summary of the system monitoring compound recoveries for organic analyses is included in this section. The QC limits from the Department of Defense Quality Systems Manual for Environmental Laboratories, Final Version 3, January 2006 is used in the reports, when available. Method-specified limits or in-house limits are used as applicable. Corrective action involving re-extraction and/or reanalysis is performed for samples that exceed the surrogate QC limits.

Method Blank Result Forms

The QC limit for the Method Blank is set at one half of the applicable LOQ for each target analyte with the exception of common laboratory contaminants, which is set at the LOQ.

Laboratory Control Sample (LCS) Report Forms

Laboratory control samples were analyzed with each QC batch as described in the QC Association Form. Laboratory Control sample limits are set as a default to the DOD QSM limits when available. When the 3-sigma control limit is exceeded for any analyte, the LCS report is flagged "ME". The total number of method analytes, and the number of ME analytes are tracked and compared against the number allowed per NELAC and the DOD QSM. This information is summarized at the bottom of the recoveries summary reports. Analytes with LCS recoveries that exceed the 4-sigma limits are flagged ME* and reanalysis may be required for the affected analyte if it is a contaminant of concern. The relative percent differences (RPDs) for the LCS duplicates, a voluntary laboratory QC parameter, are computed to track in-house precision for method duplicates.

Matrix Spike/Matrix Spike Duplicate Recoveries Report Forms

The MS/MSD results are shown in Form-1 equivalents. See section on LCS for additional details. The RPDs for MS duplicates that are outside the applicable QC limits are flagged with an asterisk (*). The effect of matrix is taken into account in determining corrective action procedures based on MS and MSD results, recoveries, and RPD.

Calibration

Instruments were calibrated in accordance with applicable method. Deviations are noted as a non-conformance. Copies of initial calibration and calibration verification summaries and associated raw data will be maintained in laboratory files and made available for detailed client review.

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Test Methods and Holding Times
Analyses were performed within applicable holding times except as noted on sample reports. See parameter specific non-conformances for more information.

Batch-specific Quality Control Procedures
Quality control data from method blanks and laboratory control samples are used as batch QC elements. In accordance with EPA, USACE, and DoD guidelines, QC data from matrix spikes are used as matrix-specific QC elements and QC data from surrogates, internal standard areas, etc. are used as sample-specific QC elements. When the batch QC elements are outside their QC limits, results for associated samples are evaluated and corrective actions that affect the entire sample set are performed.

Matrix-specific or Sample-specific Quality Control Procedures
Sample concentrations exceeding the upper calibration limit, surrogate recoveries outside the QC limits, calibration parameters not within QC limits, etc. are used as sample-specific and/or sample-group specific QC elements for one or more associated samples during instrumental analysis. Serial dilution, standard addition, MS recoveries, etc. are used as matrix-specific QC elements for one or more associated samples. When these QC elements are outside their QC limits, associated individual sample results are evaluated and appropriate corrective actions are performed.

Manual Integration
Manual integration operations that have potential to improve accuracy of analysis are performed, as necessary (shown with an “M” flag on raw data) based on visual inspection of peak shapes for each target analyte. Such operations are technically defensible and they are not aimed at meeting the minimum technical requirements of the analytical procedure.

Statement
To the best of our knowledge, this data package is in compliance with the client terms and conditions, both technically and for completeness. Non-conformances are listed in the case narrative and/or data qualifiers for each parameter tested.

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Project Information
Two (2) samples were received by AML on November 21, 2008 and logged in according to the Sample Status and Receipt Report included in this report. Reference the chain of custody and Sample Condition upon receipt Report for any non-conformances on receipt condition and temperature upon receipt.

Observations and Non-Conformances

VOCs by 8260B
Batch P812016 - Compounds outside the laboratory established 20% Drift/Difference for the Continuing Calibration Verification have been flagged. "Q1" Flags indicated that the compound(s) were outside QC limits biased high, and "Q2" flags indicate that the compound(s) were outside QC limits biased low. Bromomethane and Chloroethane were outside QC limits biased high. Dichlorodifluoromethane, Chloromethane, and hexachlorobutadiene were outside QC limits biased low at 41.9%, 35.2%, and 20.6% respectively. Compounds are flagged to inform the user of the data that compounds fell outside the 20% criteria. All SPCC/CCC compounds were within QC limits indicating a valid CCV.

Batch P812016 - LCS/LCSD recoveries are outside QC limits as flagged on summary reports; the marginal exceedences are within the allowed number of outliers for the number of compounds reported. Additionally, MSD recoveries were outside QC limits for multiple compounds as flagged on the MS/MSD summary reports. LCS/LCSD and MS is acceptable.

Batch P812017 - Compounds outside the laboratory established 20% Drift/Difference for the Continuing Calibration Verification have been flagged. "Q1" Flags indicated that the compound(s) were outside QC limits biased high, and "Q2" flags indicate that the compound(s) were outside QC limits biased low. Bromomethane and Chloroethane were outside QC limits biased high. Dichlorodifluoromethane, Chloromethane, and Trichlorofluoromethane were outside QC limits biased low at 44.9%, 36.0%, and 22.4% respectively. Compounds are flagged to inform the user of the data that compounds fell outside the 20% criteria. The SPCC 1,1,2,2-Tetrachloroethane failed below the 0.3 RF, indicating a failing CCV. Sample 0811043-01 was rerun outside of holding time under a valid CCV. Both the initial and reanalysis had similar results.

Batch P812017 – LCS recoveries are outside QC limits as flagged on summary reports; the marginal exceedences are within the allowed number of outliers for the number of compounds reported. Additionally, MS/MSD recoveries were outside QC limits for

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multiple compounds as flagged on the MS/MSD summary reports. LCS/LCSD and MS/MSD are acceptable.

Batch P812130 - Compounds outside the laboratory established 20% Drift/Difference for the Continuing Calibration Verification have been flagged. “Q1” Flags indicated that the compound(s) were outside QC limits biased high, and “Q2” flags indicate that the compound(s) were outside QC limits biased low. Bromomethane was outside QC limits biased high. Acrolein, sec-butylbenzene, 4-isopropyltoluene, n-butylbenzene, and hexachlorobutadiene were outside QC limits biased low at 22.7%, 23.2%, 22.7%, 27.7%, and 39.9% respectively. Compounds are flagged to inform the user of the data that compounds fell outside the 20% criteria. All SPCC/CCC compounds were within QC limits indicating a valid CCV.

Batch P812130 - LCS/LCSD recoveries are outside QC limits as flagged on summary reports; the marginal exceedences are within the allowed number of outliers for the number of compounds reported. LCS/LCSD is acceptable. Additionally, insufficient sample was received for MS/MSD analysis. LCS/LCSD reported.

Batch P812130 - Method Blank exhibited a positive result greater than the LOD but less than the LOQ for Hexachlorobutadiene indicating low level contamination; samples with positive results up to 10 times the amount found in the method blank may be attributed to potential laboratory contamination. Affected samples “B” flagged as appropriate.

Field Sample Information

(Chain of Custody Record, Sample Receipt Report, Condition Upon Receipt Report)

0811043

(Sample Delivery Group, SDG)

AML
Analytical Management Laboratories, Inc.
15130 South Keeler
Olathe, Kansas 66062
Phone (913) 829-0101
Fax (913) 829-1181

VOC

42456

Chain of Custody Record / Request for Analysis

Client Contact Name: JUD SMITH
Company Name: US ARMY CORPS OF ENGINEERS
Address: 100 W OGLETHORPE
City, State, Zip: SAVANNAH, GA 31401
Phone #: (912) 652-5673 Ext:
Fax #: (912) 652-5311
Email:

Project Name: FT BRAGG LANDFILL
Project Number:
Purchase Order Number: DO 122
Project Due Date:
Project Comments:
Print Sampler's Name: JON COOMBS

Analysis/Method to be Performed (Check all that apply)

Laboratory Project Number: 811043

Specify method # ---> 8260

Lab ID	Sample Description	Date	Time	Matrix	Total # Containers	HCl	HNO_3	NaOH	H_2SO_4	Unpreserved	4° C	VOCs	SVOCs	Pesticides	PCBs	Herbicides	Metals (specify)	DRO	GRO	Explosives	Anions (specify)	Comments
811043-01	GW-LMW-15R-11-08	11/22/08	0911	AQ		3						3										RESAMPLE 11/25/08
811043-02	GW-LMW-16R-11-08	11/22/08	1010	AQ		3						3										RESAMPLE
811043-03	TRIP BLANK			AQ		2						2										
811043-04	GW-LMW-DUP-1	11/22/08	0911	AQ		2						2										*Added on the COC
811043-05	GW-LMW-DUP-2	11/22/08	1010	AQ		2						2										11/25/08
6																						
7																						
8																						
9																						
10																						

Please include any information that may be useful in the analysis of the sample.
Example: high concentration
List analytes
MS/MSD

CUSTODY						
Relinquished By:		Date/Time:	11/24/08 1700	Received By:	SHIPPER	Date/Time: 11/24/08 1700
Relinquished By:		Date/Time:		Received By:		Date/Time: 11/25/08 1100am

By signing the request (chain of custody) you are ordering work from Analytical Management Laboratories, Inc. which constitutes the acceptance of the terms and conditions on the back of this form.

Delivery Method	Custody Seals	Coolant	Cooler Temp.	Receiving Comments:
☐ Delivered in Person ☐ Courier FedEx ☐ Airbill #: See Sample Rept Form	☑ Yes ☐ No ☐ Intact ☐ Broken	☑ Ice ☐ Blue Ice ☐ None	2.0 °C ☐ Temp. Blank ☐ Cooler	See COC AML 10C

Analytical Management Laboratories - Sample Status and Receipt Report

AML Project Number	**0811043**	**Client AML ID**	USACE Savannah	**Report Lvl.** 3
Work Order Due Date	12/09/08	**Client Project ID**	Ft Bragg, DO# 122	
Work Order TAT	14			

AML Sample	*Matrix*	Client Sample ID	Date Collected	Projected Analytical Due Date	Analysis	Comments
0811043-01	Water	GW-LMW-15R-11-08	11/22/08 09:11	12/07/08	VOCs by 8260B	MS MSD
0811043-02	Water	GW-LMW-14R-11-08	11/22/08 10:10	12/07/08	VOCs by 8260B	
0811043-03	Water	Trip Blank	11/22/08 10:10	12/07/08	VOCs by 8260B	
0811043-04	Water	GW-LMW-DUP-1	11/22/08 09:11	12/07/08	VOCs by 8260B	
0811043-05	Water	GW-LMW-DUP-2	11/22/08 10:10	12/07/08	VOCs by 8260B	

Analytical Management Laboratories, Inc.

AML - Sample Condition Upon Receipt Report
(See Comments for exceptions)

Client ID: USACE_Sav

Project ID: Ft Bragg, DO# 122

AML Work Order Number: 0811043

Cooler ID: AML10C

Delivery Method

Delivery Method: Fed Ex

Name of Person Receiving Samples: Nissa Said

Airbill Number: 795522603058

Custody Seals

Were Custody Seals Present? Yes

Were Custody Seals Intact? Yes

Number of Custody Seals NA

Cooler Opened By: Nissa Said

Date Opened 11/25/2008

Packaging / Coolant / Temperature

Type of Coolant Used: Ice

Temperature of Cooler: 2.00

Type of Packing Used: Bubble Wrap

Chain of Custody

Was Chain of Custody filled out properly? Yes

Do Chain of Custody and Sample Labels agree? No

Comments/ Exceptions: MS MSD was collected for sample GW-LMW-15R-11-08. Samples GW-LMW-DUP-1and GW-LMW-DUP-2 were added on the COC per Jon.

Were all sample labes complete? Yes

Were correct preservatives added to the samples? Yes

Was sample PH within QC limits? No

Were air bubbles absent in VOA samples? Yes

Were all bottles sealed in separate plastic bags? Yes

Did all the bottles arrive unbroken? Yes

Was a sufficient amount of sample sent for analysis? Yes

Was project manager contacted about any "out of control" issues? Yes

Samples Received by: Nissa Said

Project Manager Review:

Date: 11/26/08

Field Sample Analysis Data Sheets

(Form I equivalents)

0811043

(Sample Delivery Group, SDG)

8260B

(Parameter)

P812016
P812017
P812130

(Analytical Batch)

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-15R-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-01
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Method:	8260B	Date Analyzed:	12/02/08 18:21
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812017	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	Q2, U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.290	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	0.470	ug/L	J	0.400	4.00	1
95-47-6	o-Xylene	0.240	ug/L	J	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-15R-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-01
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Method:	8260B	Date Analyzed:	12/02/08 18:21
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812017	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	0.300	ug/L	J	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-15R-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-01RE1
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Method:	8260B	Date Analyzed:	12/16/08 18:31
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812130	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	Q2, U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.220	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-15R-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-01RE1
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Method:	8260B	Date Analyzed:	12/16/08 18:31
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812130	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	Q2, U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	Q2, U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	Q2, U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	Q2, U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

Sample was analyzed outside the analytical hold time, but within two times the analytical hold time.

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-14R-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-02
% Solids:	NA	Date Collected:	11/22/08 10:10
Analytical Method:	8260B	Date Analyzed:	12/02/08 01:35
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812016	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-14R-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-02
% Solids:	NA	Date Collected:	11/22/08 10:10
Analytical Method:	8260B	Date Analyzed:	12/02/08 01:35
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812016	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	Q2, U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Trip Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-03
% Solids:	NA	Date Collected:	11/22/08 10:10
Analytical Method:	8260B	Date Analyzed:	12/01/08 23:52
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812016	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Trip Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-03
% Solids:	NA	Date Collected:	11/22/08 10:10
Analytical Method:	8260B	Date Analyzed:	12/01/08 23:52
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812016	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	Q2, U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-DUP-1
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-04
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Method:	8260B	Date Analyzed:	12/02/08 00:24
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812016	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-DUP-1
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-04
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Method:	8260B	Date Analyzed:	12/02/08 00:24
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812016	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	Q2, U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-DUP-2
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-05
% Solids:	NA	Date Collected:	11/22/08 10:10
Analytical Method:	8260B	Date Analyzed:	12/02/08 00:57
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812016	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-DUP-2
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811043-05
% Solids:	NA	Date Collected:	11/22/08 10:10
Analytical Method:	8260B	Date Analyzed:	12/02/08 00:57
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812016	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	Q2, U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811043

(Sample Delivery Group, SDG)

8260B

(Parameter)

P812016

(Analytical Batch)

Quality Control Association Form

Lab Name: Analytical Management Laboratories, Inc. **Fraction:** VOA_GCMS

QC Batch: P812016 **Method:** 8260B

Date Analyzed	Lab Sample ID	Original Sample	Sample Type	Project Number
12/2/08	0811043-02		SAMPLE	0811043
12/1/08	0811043-03		SAMPLE	0811043
12/2/08	0811043-04		SAMPLE	0811043
12/2/08	0811043-05		SAMPLE	0811043
12/1/08	P812016-BLK1		Method Blank	0811043
12/1/08	P812016-BS1		LCS	0811043
12/1/08	P812016-BSD1		LCS Dup	0811043
12/1/08	P812016-MS1	0811038-01	Matrix Spike	0811043
12/1/08	P812016-MSD1	0811038-01	Matrix Spike Dup	0811043

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812016

GW-LMW-14R-11-08 (0811043-02)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	103	85	115	
1,2-Dichloroethane-d4	94.2	70	120	
Toluene-d8	106	85	120	
4-Bromofluorobenzene	102	75	120	

Trip Blank (0811043-03)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	100	85	115	
1,2-Dichloroethane-d4	91.0	70	120	
Toluene-d8	104	85	120	
4-Bromofluorobenzene	103	75	120	

GW-LMW-DUP-1 (0811043-04)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	104	85	115	
1,2-Dichloroethane-d4	92.6	70	120	
Toluene-d8	106	85	120	
4-Bromofluorobenzene	104	75	120	

GW-LMW-DUP-2 (0811043-05)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	104	85	115	
1,2-Dichloroethane-d4	94.4	70	120	
Toluene-d8	106	85	120	
4-Bromofluorobenzene	104	75	120	

Blank (P812016-BLK1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	100	85	115	
1,2-Dichloroethane-d4	90.3	70	120	
Toluene-d8	106	85	120	
4-Bromofluorobenzene	103	75	120	

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812016

LCS (P812016-BS1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	100	85	115	
1,2-Dichloroethane-d4	88.4	70	120	
Toluene-d8	105	85	120	
4-Bromofluorobenzene	105	75	120	

LCS Dup (P812016-BSD1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	101	85	115	
1,2-Dichloroethane-d4	92.6	70	120	
Toluene-d8	106	85	120	
4-Bromofluorobenzene	104	75	120	

Matrix Spike (P812016-MS1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	102	85	115	
1,2-Dichloroethane-d4	94.6	70	120	
Toluene-d8	108	85	120	
4-Bromofluorobenzene	104	75	120	

Matrix Spike Dup (P812016-MSD1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	103	85	115	
1,2-Dichloroethane-d4	95.4	70	120	
Toluene-d8	106	85	120	
4-Bromofluorobenzene	105	75	120	

Form 1 - Equivalent

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 19:31
Preparation:	EPA 5030B	Date Received:	
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 19:31
Preparation:	EPA 5030B	Date Received:	
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	Q2, U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 17:54
Preparation:	EPA 5030B	Date Received:	
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	14.5	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	16.2	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	21.9	ug/L		0.200	2.00	1
74-83-9	Bromomethane	48.4	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	32.0	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	20.1	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.7	ug/L		0.200	2.00	1
107-02-8	Acrolein	127	ug/L		1.00	10.0	1
67-64-1	Acetone	113	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	21.9	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	23.6	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.2	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	24.5	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	22.4	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	23.8	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	23.1	ug/L		0.200	2.00	1
78-93-3	2-Butanone	119	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	24.6	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	22.2	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	26.5	ug/L		0.200	2.00	1
67-66-3	Chloroform	23.0	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	21.9	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	23.1	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	22.1	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	21.6	ug/L		0.200	2.00	1
71-43-2	Benzene	24.0	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.7	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	24.7	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	24.8	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	23.3	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.8	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	117	ug/L		2.00	10.0	1
108-88-3	Toluene	23.9	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.9	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	26.2	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.2	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	21.2	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	113	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	25.1	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	24.7	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.1	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.7	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.9	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	45.9	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.6	ug/L		0.200	2.00	1
100-42-5	Styrene	23.6	ug/L		0.200	2.00	1
75-25-2	Bromoform	24.8	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.6	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	23.6	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.5	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 17:54
Preparation:	EPA 5030B	Date Received:	
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.6	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.3	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	22.4	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	21.9	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	22.0	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	22.8	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	21.9	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.0	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.0	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.3	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	23.9	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	21.6	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	21.3	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	24.6	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	23.6	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	24.4	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	19.9	ug/L	Q2	0.200	2.00	1
91-20-3	Naphthalene	25.7	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 18:26
Preparation:	EPA 5030B	Date Received:	
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	14.5	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	14.7	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	20.4	ug/L		0.200	2.00	1
74-83-9	Bromomethane	47.8	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	30.3	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	19.6	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.5	ug/L		0.200	2.00	1
107-02-8	Acrolein	133	ug/L		1.00	10.0	1
67-64-1	Acetone	123	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	22.2	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	23.4	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	26.0	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	25.2	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	22.4	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	24.9	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	23.3	ug/L		0.200	2.00	1
78-93-3	2-Butanone	124	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.1	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	22.1	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	27.2	ug/L		0.200	2.00	1
67-66-3	Chloroform	23.2	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	22.0	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	23.0	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	22.2	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	22.3	ug/L		0.200	2.00	1
71-43-2	Benzene	23.7	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.6	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	25.2	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	25.2	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	23.7	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	25.3	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	125	ug/L		2.00	10.0	1
108-88-3	Toluene	24.1	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	24.3	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	26.6	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.2	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	22.1	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	117	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	24.2	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	24.7	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	23.5	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.3	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.2	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	44.5	ug/L		0.400	4.00	1
95-47-6	o-Xylene	22.8	ug/L		0.200	2.00	1
100-42-5	Styrene	22.9	ug/L		0.200	2.00	1
75-25-2	Bromoform	24.9	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.1	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	22.9	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	23.8	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 18:26
Preparation:	EPA 5030B	Date Received:	
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	23.8	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.0	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	22.1	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	21.7	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	21.9	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	22.3	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	21.6	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.0	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	22.7	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.2	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	23.7	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	21.6	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	21.6	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	25.6	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	25.2	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	25.8	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	22.0	ug/L	Q2	0.200	2.00	1
91-20-3	Naphthalene	26.6	ug/L		0.400	2.00	1

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812016

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812016-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Dichlorodifluoromethane	25.0	14.5	58.1		30	155
Chloromethane	25.0	16.2	64.8		40	125
Vinyl chloride	25.0	21.9	87.6		50	145
Bromomethane	25.0	48.4	194	ME*	30	145
Chloroethane	25.0	32.0	128		60	135
Trichlorofluoromethane	25.0	20.1	80.4		60	145
1,1-Dichloroethene	25.0	22.7	91.0		70	130
Acrolein	125	127	102		54	142
Acetone	125	113	90.6		40	140
Acrylonitrile	25.0	21.9	87.6		71	129
Carbon disulfide	25.0	23.6	94.4		35	160
Methylene Chloride	25.0	25.2	101		55	140
trans-1,2-Dichloroethene	25.0	24.5	98.1		60	140
Vinyl acetate	25.0	22.4	89.5		72	121
Methyl tert-Butyl Ether	25.0	23.8	95.0		65	125
1,1-Dichloroethane	25.0	23.1	92.4		70	135
2-Butanone	125	119	95.1		30	150
cis-1,2-Dichloroethene	25.0	24.6	98.4		70	125
2,2-Dichloropropane	25.0	22.2	88.9		70	135
Bromochloromethane	25.0	26.5	106		65	130
Chloroform	25.0	23.0	91.9		65	135
1,1,1-Trichloroethane	25.0	21.9	87.6		65	130
1,1-Dichloropropene	25.0	23.1	92.3		75	130
Carbon Tetrachloride	25.0	22.1	88.4		65	140
1,2-Dichloroethane	25.0	21.6	86.2		70	130
Benzene	25.0	24.0	95.8		80	120
Trichloroethene	25.0	23.7	95.0		70	125
1,2-Dichloropropane	25.0	24.7	98.7		75	125
Dibromomethane	25.0	24.8	99.0		75	125
Bromodichloromethane	25.0	23.3	93.1		75	120
cis-1,3-Dichloropropene	25.0	24.8	99.3		70	130
4-Methyl-2-pentanone	125	117	93.4		60	135
Toluene	25.0	23.9	95.6		75	120
trans-1,3-Dichloropropene	25.0	23.9	95.6		55	140
1,1,2-Trichloroethane	25.0	26.2	105		75	125
1,3-Dichloropropane	25.0	24.2	97.0		75	125
Tetrachloroethene	25.0	21.2	84.9		45	150
2-Hexanone	125	113	90.1		55	130
Dibromochloromethane	25.0	25.1	100		60	135
1,2-Dibromoethane	25.0	24.7	98.7		80	120
Chlorobenzene	25.0	24.1	96.4		80	120
1,1,1,2-Tetrachloroethane	25.0	23.7	95.0		80	130
Ethylbenzene	25.0	22.9	91.6		75	125
m-Xylene/p-Xylene	50.0	45.9	91.7		75	130
o-Xylene	25.0	23.6	94.3		80	120
Styrene	25.0	23.6	94.4		65	135
Bromoform	25.0	24.8	99.0		70	130
Isopropylbenzene	25.0	22.6	90.2		75	125
1,2,3-Trichloropropane	25.0	23.6	94.2		75	125
1,1,2,2-Tetrachloroethane	25.0	24.5	98.0		65	130
Bromobenzene	25.0	24.6	98.5		75	125
n-Propylbenzene	25.0	22.3	89.2		70	130
2-Chlorotoluene	25.0	22.4	89.5		75	125
4-Chlorotoluene	25.0	21.9	87.6		75	130

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812016

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812016-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
1,3,5-Trimethylbenzene	25.0	22.0	88.2		75	130
tert-Butylbenzene	25.0	22.8	91.3		70	130
1,2,4-Trimethylbenzene	25.0	21.9	87.5		75	130
sec-Butylbenzene	25.0	21.0	83.8		70	125
1,3-Dichlorobenzene	25.0	23.0	91.8		75	125
1,4-Dichlorobenzene	25.0	23.3	93.3		75	125
1,2-Dichlorobenzene	25.0	23.9	95.5		70	120
4-Isopropyltoluene	25.0	21.6	86.4		75	130
n-Butylbenzene	25.0	21.3	85.3		70	135
1,2-Dibromo-3-chloropropane	25.0	24.6	98.6		50	130
1,2,4-Trichlorobenzene	25.0	23.6	94.4		65	135
1,2,3-Trichlorobenzene	25.0	24.4	97.8		55	140
Hexachlorobutadiene	25.0	19.9	79.4		50	140
Naphthalene	25.0	25.7	103		55	140

Actual Number of Marginal Exceedences: 1

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812016

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812016-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Dichlorodifluoromethane	25.0	14.5	57.8		30	155	0.483
Chloromethane	25.0	14.7	59.0		40	125	9.50
Vinyl chloride	25.0	20.4	81.4		50	145	7.29
Bromomethane	25.0	47.8	191	ME*	30	145	1.29
Chloroethane	25.0	30.3	121		60	135	5.33
Trichlorofluoromethane	25.0	19.6	78.5		60	145	2.42
1,1-Dichloroethene	25.0	22.5	89.8		70	130	1.24
Acrolein	125	133	107		54	142	4.57
Acetone	125	123	98.0		40	140	7.81
Acrylonitrile	25.0	22.2	88.8		71	129	1.36
Carbon disulfide	25.0	23.4	93.8		35	160	0.680
Methylene Chloride	25.0	26.0	104		55	140	3.52
trans-1,2-Dichloroethene	25.0	25.2	101		60	140	2.58
Vinyl acetate	25.0	22.4	89.6		72	121	0.179
Methyl tert-Butyl Ether	25.0	24.9	99.4		65	125	4.52
1,1-Dichloroethane	25.0	23.3	93.1		70	135	0.819
2-Butanone	125	124	98.9		30	150	3.91
cis-1,2-Dichloroethene	25.0	25.1	100		70	125	1.89
2,2-Dichloropropane	25.0	22.1	88.5		70	135	0.451
Bromochloromethane	25.0	27.2	109		65	130	2.53
Chloroform	25.0	23.2	92.7		65	135	0.910
1,1,1-Trichloroethane	25.0	22.0	87.8		65	130	0.228
1,1-Dichloropropene	25.0	23.0	92.0		75	130	0.347
Carbon Tetrachloride	25.0	22.2	88.7		65	140	0.361
1,2-Dichloroethane	25.0	22.3	89.1		70	130	3.29
Benzene	25.0	23.7	94.7		80	120	1.13
Trichloroethene	25.0	23.6	94.3		70	125	0.719
1,2-Dichloropropane	25.0	25.2	101		75	125	2.09
Dibromomethane	25.0	25.2	101		75	125	1.56
Bromodichloromethane	25.0	23.7	94.7		75	120	1.75
cis-1,3-Dichloropropene	25.0	25.3	101		70	130	1.80
4-Methyl-2-pentanone	125	125	99.6		60	135	6.40
Toluene	25.0	24.1	96.3		75	120	0.667
trans-1,3-Dichloropropene	25.0	24.3	97.3		55	140	1.82
1,1,2-Trichloroethane	25.0	26.6	106		75	125	1.56
1,3-Dichloropropane	25.0	24.2	97.0		75	125	0.0412
Tetrachloroethene	25.0	22.1	88.5		45	150	4.11
2-Hexanone	125	117	93.7		55	130	4.00
Dibromochloromethane	25.0	24.2	96.9		60	135	3.41
1,2-Dibromoethane	25.0	24.7	98.8		80	120	0.122
Chlorobenzene	25.0	23.5	94.2		80	120	2.31
1,1,1,2-Tetrachloroethane	25.0	23.3	93.1		80	130	1.96
Ethylbenzene	25.0	22.2	88.8		75	125	3.11
m-Xylene/p-Xylene	50.0	44.5	89.0		75	130	2.99
o-Xylene	25.0	22.8	91.2		80	120	3.36
Styrene	25.0	22.9	91.7		65	135	2.88
Bromoform	25.0	24.9	99.7		70	130	0.644
Isopropylbenzene	25.0	22.1	88.2		75	125	2.24
1,2,3-Trichloropropane	25.0	22.9	91.7		75	125	2.67
1,1,2,2-Tetrachloroethane	25.0	23.8	95.4		65	130	2.73
Bromobenzene	25.0	23.8	95.4		75	125	3.26
n-Propylbenzene	25.0	22.0	87.8		70	130	1.54
2-Chlorotoluene	25.0	22.1	88.3		75	125	1.39
4-Chlorotoluene	25.0	21.7	86.9		75	130	0.871

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812016

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812016-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
1,3,5-Trimethylbenzene	25.0	21.9	87.4		75	130	0.820
tert-Butylbenzene	25.0	22.3	89.3		70	130	2.21
1,2,4-Trimethylbenzene	25.0	21.6	86.4		75	130	1.20
sec-Butylbenzene	25.0	21.0	84.2		70	125	0.429
1,3-Dichlorobenzene	25.0	22.7	90.8		75	125	1.10
1,4-Dichlorobenzene	25.0	23.2	92.8		75	125	0.559
1,2-Dichlorobenzene	25.0	23.7	94.8		70	120	0.715
4-Isopropyltoluene	25.0	21.6	86.6		75	130	0.231
n-Butylbenzene	25.0	21.6	86.4		70	135	1.26
1,2-Dibromo-3-chloropropane	25.0	25.6	102		50	130	3.59
1,2,4-Trichlorobenzene	25.0	25.2	101		65	135	6.40
1,2,3-Trichlorobenzene	25.0	25.8	103		55	140	5.41
Hexachlorobutadiene	25.0	22.0	88.0		50	140	10.3
Naphthalene	25.0	26.6	106		55	140	3.41

Actual Number of Marginal Exceedences: 1

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-MS1
% Solids:	NA	Date Collected:	11/20/08 14:42
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 22:14
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	15.2	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	16.1	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	22.3	ug/L		0.200	2.00	1
74-83-9	Bromomethane	29.1	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	29.0	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	20.4	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	23.1	ug/L		0.200	2.00	1
107-02-8	Acrolein	134	ug/L		1.00	10.0	1
67-64-1	Acetone	115	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	23.0	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.6	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	26.7	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	26.3	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	23.4	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	26.5	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	24.9	ug/L		0.200	2.00	1
78-93-3	2-Butanone	123	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	37.5	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	21.4	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	27.3	ug/L		0.200	2.00	1
67-66-3	Chloroform	24.3	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	23.0	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	24.0	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	23.4	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	23.8	ug/L		0.200	2.00	1
71-43-2	Benzene	26.9	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	25.4	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	28.9	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	25.6	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	25.1	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	25.8	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	131	ug/L		2.00	10.0	1
108-88-3	Toluene	25.7	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	25.0	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	27.1	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.8	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	22.2	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	121	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	25.5	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.2	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	25.1	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	24.1	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	23.0	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	46.5	ug/L		0.400	4.00	1
95-47-6	o-Xylene	24.0	ug/L		0.200	2.00	1
100-42-5	Styrene	24.1	ug/L		0.200	2.00	1
75-25-2	Bromoform	25.7	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	23.2	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	23.9	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	23.8	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-MS1
% Solids:	NA	Date Collected:	11/20/08 14:42
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 22:14
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.2	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.7	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	22.6	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	22.1	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	22.3	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	23.2	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	22.5	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.9	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.2	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	29.6	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.5	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	22.2	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	22.1	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	26.0	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	24.9	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	25.7	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	21.7	ug/L	Q2	0.200	2.00	1
91-20-3	Naphthalene	26.2	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-MSD1
% Solids:	NA	Date Collected:	11/20/08 14:42
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 22:46
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	15.5	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	16.8	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	22.9	ug/L		0.200	2.00	1
74-83-9	Bromomethane	37.7	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	32.8	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	21.1	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	24.1	ug/L		0.200	2.00	1
107-02-8	Acrolein	136	ug/L		1.00	10.0	1
67-64-1	Acetone	127	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	23.5	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.9	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	26.7	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	25.9	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	24.2	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	27.5	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	25.4	ug/L		0.200	2.00	1
78-93-3	2-Butanone	131	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	36.8	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	21.4	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	28.3	ug/L		0.200	2.00	1
67-66-3	Chloroform	24.4	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	23.1	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	24.4	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	23.5	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	24.4	ug/L		0.200	2.00	1
71-43-2	Benzene	27.0	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	25.3	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	29.2	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	26.7	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	24.8	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	26.0	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	136	ug/L		2.00	10.0	1
108-88-3	Toluene	25.7	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	25.4	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	28.6	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	25.4	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	22.1	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	126	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	25.8	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	26.2	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	25.0	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	24.4	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	23.2	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	46.5	ug/L		0.400	4.00	1
95-47-6	o-Xylene	24.2	ug/L		0.200	2.00	1
100-42-5	Styrene	24.3	ug/L		0.200	2.00	1
75-25-2	Bromoform	26.9	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	23.2	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	24.2	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.8	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812016-MSD1
% Solids:	NA	Date Collected:	11/20/08 14:42
Analytical Methdod:	8260B	Date Analyzed:	12/01/08 22:46
Preparation:	EPA 5030B	Date Received:	11/22/08 10:15
Batch:	P812016		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.3	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.7	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	22.7	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	22.3	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	22.6	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	23.2	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	22.4	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	22.2	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.2	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	30.1	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.7	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	22.4	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	22.2	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	28.3	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	26.0	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	27.0	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	22.3	ug/L	Q2	0.200	2.00	1
91-20-3	Naphthalene	27.9	ug/L		0.400	2.00	1

Form 3 - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812016

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811038-01*** ***Lab Sample ID for MS :*** ***P812016-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Dichlorodifluoromethane	0	25.0	15.2	60.9		30	155
Chloromethane	0	25.0	16.1	64.4		40	125
Vinyl chloride	1.58	25.0	22.3	82.9		50	145
Bromomethane	0	25.0	29.1	116		30	145
Chloroethane	0	25.0	29.0	116		60	135
Trichlorofluoromethane	0	25.0	20.4	81.6		60	145
1,1-Dichloroethene	0	25.0	23.1	92.6		70	130
Acrolein	0	125	134	107		54	142
Acetone	0	125	115	91.7		40	140
Acrylonitrile	0	25.0	23.0	92.0		71	129
Carbon disulfide	0	25.0	24.6	98.3		35	160
Methylene Chloride	0	25.0	26.7	107		55	140
trans-1,2-Dichloroethene	0.210	25.0	26.3	104		60	140
Vinyl acetate	0	25.0	23.4	93.8		72	121
Methyl tert-Butyl Ether	0.570	25.0	26.5	104		65	125
1,1-Dichloroethane	0.920	25.0	24.9	95.8		70	135
2-Butanone	0	125	123	98.8		30	150
cis-1,2-Dichloroethene	11.8	25.0	37.5	103		70	125
2,2-Dichloropropane	0	25.0	21.4	85.7		70	135
Bromochloromethane	0	25.0	27.3	109		65	130
Chloroform	0	25.0	24.3	97.3		65	135
1,1,1-Trichloroethane	0	25.0	23.0	92.1		65	130
1,1-Dichloropropene	0	25.0	24.0	95.9		75	130
Carbon Tetrachloride	0	25.0	23.4	93.6		65	140
1,2-Dichloroethane	0.480	25.0	23.8	93.4		70	130
Benzene	1.00	25.0	26.9	104		80	120
Trichloroethene	0.910	25.0	25.4	97.8		70	125
1,2-Dichloropropane	3.27	25.0	28.9	103		75	125
Dibromomethane	0	25.0	25.6	102		75	125
Bromodichloromethane	0	25.0	25.1	100		75	120
cis-1,3-Dichloropropene	0	25.0	25.8	103		70	130
4-Methyl-2-pentanone	0	125	131	105		60	135
Toluene	0	25.0	25.7	103		75	120
trans-1,3-Dichloropropene	0	25.0	25.0	99.8		55	140
1,1,2-Trichloroethane	0	25.0	27.1	108		75	125
1,3-Dichloropropane	0	25.0	24.8	99.2		75	125
Tetrachloroethene	0.250	25.0	22.2	88.0		45	150
2-Hexanone	0	125	121	97.2		55	130
Dibromochloromethane	0	25.0	25.5	102		60	135
1,2-Dibromoethane	0	25.0	25.2	101		80	120
Chlorobenzene	0.620	25.0	25.1	97.8		80	120
1,1,1,2-Tetrachloroethane	0	25.0	24.1	96.3		80	130
Ethylbenzene	0	25.0	23.0	92.2		75	125
m-Xylene/p-Xylene	0	50.0	46.5	93.0		75	130
o-Xylene	0	25.0	24.0	95.9		80	120
Styrene	0	25.0	24.1	96.2		65	135
Bromoform	0	25.0	25.7	103		70	130
Isopropylbenzene	0	25.0	23.2	92.7		75	125
1,2,3-Trichloropropane	0	25.0	23.9	95.7		75	125
1,1,2,2-Tetrachloroethane	0	25.0	23.8	95.1		65	130
Bromobenzene	0	25.0	24.2	96.7		75	125
n-Propylbenzene	0	25.0	22.7	90.6		70	130
2-Chlorotoluene	0	25.0	22.6	90.4		75	125
4-Chlorotoluene	0	25.0	22.1	88.6		75	130

AML Work Order/Report Number: 0811043 Printed: 12/18/2008

Form 3 - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812016

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Original Sample ***0811038-01*** ***Lab Sample ID for MS :*** ***P812016-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
1,3,5-Trimethylbenzene	0	25.0	22.3	89.1		75	130
tert-Butylbenzene	0	25.0	23.2	92.6		70	130
1,2,4-Trimethylbenzene	0	25.0	22.5	90.1		75	130
sec-Butylbenzene	0	25.0	21.9	87.5		70	125
1,3-Dichlorobenzene	0	25.0	23.2	92.8		75	125
1,4-Dichlorobenzene	6.14	25.0	29.6	94.0		75	125
1,2-Dichlorobenzene	0	25.0	24.5	97.8		70	120
4-Isopropyltoluene	0	25.0	22.2	88.7		75	130
n-Butylbenzene	0	25.0	22.1	88.3		70	135
1,2-Dibromo-3-chloropropane	0	25.0	26.0	104		50	130
1,2,4-Trichlorobenzene	0	25.0	24.9	99.7		65	135
1,2,3-Trichlorobenzene	0	25.0	25.7	103		55	140
Hexachlorobutadiene	0	25.0	21.7	86.8		50	140
Naphthalene	0	25.0	26.2	105		55	140

Form 3 - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812016

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811038-01*** ***Lab Sample ID for MSD*** ***P812016-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*	*RPD*
Dichlorodifluoromethane	0	25.0	15.5	61.8		1.50		30	155	30
Chloromethane	0	25.0	16.8	67.1		4.20		40	125	30
Vinyl chloride	1.58	25.0	22.9	85.2		2.81		50	145	30
Bromomethane	0	25.0	37.7	151	ME	25.8		30	145	30
Chloroethane	0	25.0	32.8	131		12.4		60	135	30
Trichlorofluoromethane	0	25.0	21.1	84.3		3.23		60	145	30
1,1-Dichloroethene	0	25.0	24.1	96.4		4.06		70	130	30
Acrolein	0	125	136	108		1.08		54	142	30
Acetone	0	125	127	102		10.2		40	140	30
Acrylonitrile	0	25.0	23.5	94.0		2.19		71	129	30
Carbon disulfide	0	25.0	24.9	99.6		1.37		35	160	30
Methylene Chloride	0	25.0	26.7	107		0.150		55	140	30
trans-1,2-Dichloroethene	0.210	25.0	25.9	103		1.59		60	140	30
Vinyl acetate	0	25.0	24.2	96.8		3.19		72	121	30
Methyl tert-Butyl Ether	0.570	25.0	27.5	108		3.71		65	125	30
1,1-Dichloroethane	0.920	25.0	25.4	98.0		2.23		70	135	30
2-Butanone	0	125	131	105		6.08		30	150	30
cis-1,2-Dichloroethene	11.8	25.0	36.8	100		2.40		70	125	30
2,2-Dichloropropane	0	25.0	21.4	85.5		0.234		70	135	30
Bromochloromethane	0	25.0	28.3	113		3.59		65	130	30
Chloroform	0	25.0	24.4	97.6		0.287		65	135	30
1,1,1-Trichloroethane	0	25.0	23.1	92.4		0.390		65	130	30
1,1-Dichloropropene	0	25.0	24.4	97.4		1.61		75	130	30
Carbon Tetrachloride	0	25.0	23.5	93.9		0.299		65	140	30
1,2-Dichloroethane	0.480	25.0	24.4	95.8		2.54		70	130	30
Benzene	1.00	25.0	27.0	104		0.193		80	120	30
Trichloroethene	0.910	25.0	25.3	97.6		0.205		70	125	30
1,2-Dichloropropane	3.27	25.0	29.2	104		0.893		75	125	30
Dibromomethane	0	25.0	26.7	107		4.28		75	125	30
Bromodichloromethane	0	25.0	24.8	99.3		1.00		75	120	30
cis-1,3-Dichloropropene	0	25.0	26.0	104		0.965		70	130	30
4-Methyl-2-pentanone	0	125	136	109		3.91		60	135	30
Toluene	0	25.0	25.7	103		0.272		75	120	30
trans-1,3-Dichloropropene	0	25.0	25.4	102		1.79		55	140	30
1,1,2-Trichloroethane	0	25.0	28.6	114		5.17		75	125	30
1,3-Dichloropropane	0	25.0	25.4	101		2.23		75	125	30
Tetrachloroethene	0.250	25.0	22.1	87.3		0.776		45	150	30
2-Hexanone	0	125	126	100		3.33		55	130	30
Dibromochloromethane	0	25.0	25.8	103		1.21		60	135	30
1,2-Dibromoethane	0	25.0	26.2	105		3.97		80	120	30
Chlorobenzene	0.620	25.0	25.0	97.4		0.451		80	120	30
1,1,1,2-Tetrachloroethane	0	25.0	24.4	97.8		1.52		80	130	30
Ethylbenzene	0	25.0	23.2	92.8		0.649		75	125	30
m-Xylene/p-Xylene	0	50.0	46.5	93.1		0.107		75	130	30
o-Xylene	0	25.0	24.2	96.8		0.913		80	120	30
Styrene	0	25.0	24.3	97.0		0.828		65	135	30
Bromoform	0	25.0	26.9	107		4.45		70	130	30
Isopropylbenzene	0	25.0	23.2	92.9		0.172		75	125	30
1,2,3-Trichloropropane	0	25.0	24.2	96.9		1.20		75	125	30
1,1,2,2-Tetrachloroethane	0	25.0	24.8	99.2		4.20		65	130	30
Bromobenzene	0	25.0	24.3	97.2		0.536		75	125	30
n-Propylbenzene	0	25.0	22.7	90.8		0.132		70	130	30
2-Chlorotoluene	0	25.0	22.7	90.6		0.309		75	125	30
4-Chlorotoluene	0	25.0	22.3	89.1		0.630		75	130	30

AML Work Order/Report Number: 0811043 Printed: 12/18/2008

Form 3 - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812016

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Original Sample ***0811038-01*** ***Lab Sample ID for MSD*** ***P812016-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
1,3,5-Trimethylbenzene	0	25.0	22.6	90.5		1.51		75	130	30
tert-Butylbenzene	0	25.0	23.2	92.9		0.302		70	130	30
1,2,4-Trimethylbenzene	0	25.0	22.4	89.7		0.400		75	130	30
sec-Butylbenzene	0	25.0	22.2	88.9		1.59		70	125	30
1,3-Dichlorobenzene	0	25.0	23.2	92.8		0.0431		75	125	30
1,4-Dichlorobenzene	6.14	25.0	30.1	95.8		1.85		75	125	30
1,2-Dichlorobenzene	0	25.0	24.7	99.0		1.14		70	120	30
4-Isopropyltoluene	0	25.0	22.4	89.6		0.987		75	130	30
n-Butylbenzene	0	25.0	22.2	88.9		0.677		70	135	30
1,2-Dibromo-3-chloropropane	0	25.0	28.3	113		8.51		50	130	30
1,2,4-Trichlorobenzene	0	25.0	26.0	104		4.36		65	135	30
1,2,3-Trichlorobenzene	0	25.0	27.0	108		4.86		55	140	30
Hexachlorobutadiene	0	25.0	22.3	89.1		2.68		50	140	30
Naphthalene	0	25.0	27.9	112		6.43		55	140	30

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811043

(Sample Delivery Group, SDG)

8260B

(Parameter)

P812017

(Analytical Batch)

Quality Control Association Form

Lab Name:	Analytical Management Laboratories, Inc.	**Fraction:**	VOA_GCMS
QC Batch:	P812017	**Method:**	8260B

Date Analyzed	Lab Sample ID	Original Sample	Sample Type	Project Number
12/2/08	0811043-01		SAMPLE	0811043
12/2/08	P812017-BLK1		Method Blank	0811043
12/2/08	P812017-BS1		LCS	0811043
12/2/08	P812017-BSD1		LCS Dup	0811043
12/2/08	P812017-MS1	0811043-01	Matrix Spike	0811043
12/2/08	P812017-MSD1	0811043-01	Matrix Spike Dup	0811043

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812017

GW-LMW-15R-11-08 (0811043-01)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	102	85	115	
1,2-Dichloroethane-d4	89.5	70	120	
Toluene-d8	105	85	120	
4-Bromofluorobenzene	102	75	120	

Blank (P812017-BLK1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	98.8	85	115	
1,2-Dichloroethane-d4	90.8	70	120	
Toluene-d8	106	85	120	
4-Bromofluorobenzene	103	75	120	

LCS (P812017-BS1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	99.2	85	115	
1,2-Dichloroethane-d4	86.7	70	120	
Toluene-d8	105	85	120	
4-Bromofluorobenzene	103	75	120	

LCS Dup (P812017-BSD1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	102	85	115	
1,2-Dichloroethane-d4	90.1	70	120	
Toluene-d8	107	85	120	
4-Bromofluorobenzene	102	75	120	

Matrix Spike (P812017-MS1)

Surrogate Compound	% Rec	QC Limit Low	QC Limit High	QC Flag
Dibromofluoromethane	103	85	115	
1,2-Dichloroethane-d4	91.6	70	120	
Toluene-d8	105	85	120	
4-Bromofluorobenzene	103	75	120	

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812017

Matrix Spike Dup (P812017-MSD1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	103	85	115	
1,2-Dichloroethane-d4	90.7	70	120	
Toluene-d8	107	85	120	
4-Bromofluorobenzene	103	75	120	

Form 1 - Equivalent

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 17:16
Preparation:	EPA 5030B	Date Received:	
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	Q2, U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	Q2, U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	Q2, U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1

AML Work Order/Report Number: 0811043 Printed: 12/18/2008

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 17:16
Preparation:	EPA 5030B	Date Received:	
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 15:51
Preparation:	EPA 5030B	Date Received:	
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	13.8	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	16.0	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	21.5	ug/L		0.200	2.00	1
74-83-9	Bromomethane	46.3	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	31.9	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	19.4	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene	21.8	ug/L		0.200	2.00	1
107-02-8	Acrolein	122	ug/L		1.00	10.0	1
67-64-1	Acetone	111	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	21.7	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	23.0	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.3	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	25.0	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	21.7	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	23.1	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	23.2	ug/L		0.200	2.00	1
78-93-3	2-Butanone	112	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.2	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	21.8	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	26.0	ug/L		0.200	2.00	1
67-66-3	Chloroform	23.1	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	21.7	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	22.8	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	21.9	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	21.6	ug/L		0.200	2.00	1
71-43-2	Benzene	23.9	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.5	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	24.5	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	23.8	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	23.0	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.4	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	113	ug/L		2.00	10.0	1
108-88-3	Toluene	24.0	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.4	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	25.3	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	23.4	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	21.6	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	106	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	23.9	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	23.8	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	23.7	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.2	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.4	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	44.4	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.0	ug/L		0.200	2.00	1
100-42-5	Styrene	23.1	ug/L		0.200	2.00	1
75-25-2	Bromoform	23.9	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.4	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	21.8	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	22.5	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 15:51
Preparation:	EPA 5030B	Date Received:	
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	23.7	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.2	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	22.2	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	21.8	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	22.1	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	22.7	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	21.6	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	21.2	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	22.5	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.0	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	23.4	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	22.0	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	21.7	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	23.7	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	23.8	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	24.4	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	20.6	ug/L		0.200	2.00	1
91-20-3	Naphthalene	24.3	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 16:17
Preparation:	EPA 5030B	Date Received:	
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	14.6	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	16.9	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	22.0	ug/L		0.200	2.00	1
74-83-9	Bromomethane	24.1	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	23.6	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	20.2	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.7	ug/L		0.200	2.00	1
107-02-8	Acrolein	131	ug/L		1.00	10.0	1
67-64-1	Acetone	136	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	22.6	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	23.9	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.9	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	25.0	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	22.2	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	24.1	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	23.8	ug/L		0.200	2.00	1
78-93-3	2-Butanone	121	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.7	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	22.2	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	27.5	ug/L		0.200	2.00	1
67-66-3	Chloroform	23.4	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	22.4	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	23.3	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	22.6	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	22.4	ug/L		0.200	2.00	1
71-43-2	Benzene	24.2	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	24.4	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	25.2	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	24.6	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	23.7	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	25.1	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	122	ug/L		2.00	10.0	1
108-88-3	Toluene	24.4	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	24.1	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	26.7	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.2	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	24.6	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	114	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	24.3	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.1	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	23.9	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.2	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.3	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	45.2	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.3	ug/L		0.200	2.00	1
100-42-5	Styrene	23.4	ug/L		0.200	2.00	1
75-25-2	Bromoform	24.4	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.6	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	23.7	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.3	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 16:17
Preparation:	EPA 5030B	Date Received:	
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.2	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.8	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	22.8	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	22.4	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	22.4	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	22.7	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	22.2	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	22.0	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.0	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.8	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	23.8	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	21.9	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	21.9	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	26.1	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	24.4	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	24.9	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	21.1	ug/L		0.200	2.00	1
91-20-3	Naphthalene	25.9	ug/L		0.400	2.00	1

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812017

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812017-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Dichlorodifluoromethane	25.0	13.8	55.1		30	155
Chloromethane	25.0	16.0	64.0		40	125
Vinyl chloride	25.0	21.5	86.0		50	145
Bromomethane	25.0	46.3	185	ME*	30	145
Chloroethane	25.0	31.9	128		60	135
Trichlorofluoromethane	25.0	19.4	77.6		60	145
1,1-Dichloroethene	25.0	21.8	87.2		70	130
Acrolein	125	122	97.2		54	142
Acetone	125	111	88.9		40	140
Acrylonitrile	25.0	21.7	87.0		71	129
Carbon disulfide	25.0	23.0	92.0		35	160
Methylene Chloride	25.0	25.3	101		55	140
trans-1,2-Dichloroethene	25.0	25.0	100		60	140
Vinyl acetate	25.0	21.7	87.0		72	121
Methyl tert-Butyl Ether	25.0	23.1	92.6		65	125
1,1-Dichloroethane	25.0	23.2	92.8		70	135
2-Butanone	125	112	90.0		30	150
cis-1,2-Dichloroethene	25.0	25.2	101		70	125
2,2-Dichloropropane	25.0	21.8	87.2		70	135
Bromochloromethane	25.0	26.0	104		65	130
Chloroform	25.0	23.1	92.5		65	135
1,1,1-Trichloroethane	25.0	21.7	86.9		65	130
1,1-Dichloropropene	25.0	22.8	91.1		75	130
Carbon Tetrachloride	25.0	21.9	87.7		65	140
1,2-Dichloroethane	25.0	21.6	86.3		70	130
Benzene	25.0	23.9	95.7		80	120
Trichloroethene	25.0	23.5	93.9		70	125
1,2-Dichloropropane	25.0	24.5	98.0		75	125
Dibromomethane	25.0	23.8	95.3		75	125
Bromodichloromethane	25.0	23.0	92.2		75	120
cis-1,3-Dichloropropene	25.0	24.4	97.6		70	130
4-Methyl-2-pentanone	125	113	90.2		60	135
Toluene	25.0	24.0	96.1		75	120
trans-1,3-Dichloropropene	25.0	23.4	93.4		55	140
1,1,2-Trichloroethane	25.0	25.3	101		75	125
1,3-Dichloropropane	25.0	23.4	93.6		75	125
Tetrachloroethene	25.0	21.6	86.3		45	150
2-Hexanone	125	106	84.7		55	130
Dibromochloromethane	25.0	23.9	95.7		60	135
1,2-Dibromoethane	25.0	23.8	95.2		80	120
Chlorobenzene	25.0	23.7	94.9		80	120
1,1,1,2-Tetrachloroethane	25.0	23.2	92.6		80	130
Ethylbenzene	25.0	22.4	89.6		75	125
m-Xylene/p-Xylene	50.0	44.4	88.8		75	130
o-Xylene	25.0	23.0	92.0		80	120
Styrene	25.0	23.1	92.2		65	135
Bromoform	25.0	23.9	95.8		70	130
Isopropylbenzene	25.0	22.4	89.8		75	125
1,2,3-Trichloropropane	25.0	21.8	87.0		75	125
1,1,2,2-Tetrachloroethane	25.0	22.5	90.1		65	130
Bromobenzene	25.0	23.7	94.8		75	125
n-Propylbenzene	25.0	22.2	88.8		70	130
2-Chlorotoluene	25.0	22.2	88.8		75	125
4-Chlorotoluene	25.0	21.8	87.3		75	130

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812017

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812017-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
1,3,5-Trimethylbenzene	25.0	22.1	88.3		75	130
tert-Butylbenzene	25.0	22.7	90.7		70	130
1,2,4-Trimethylbenzene	25.0	21.6	86.5		75	130
sec-Butylbenzene	25.0	21.2	84.8		70	125
1,3-Dichlorobenzene	25.0	22.5	90.2		75	125
1,4-Dichlorobenzene	25.0	23.0	92.1		75	125
1,2-Dichlorobenzene	25.0	23.4	93.5		70	120
4-Isopropyltoluene	25.0	22.0	87.8		75	130
n-Butylbenzene	25.0	21.7	86.9		70	135
1,2-Dibromo-3-chloropropane	25.0	23.7	94.7		50	130
1,2,4-Trichlorobenzene	25.0	23.8	95.3		65	135
1,2,3-Trichlorobenzene	25.0	24.4	97.7		55	140
Hexachlorobutadiene	25.0	20.6	82.6		50	140
Naphthalene	25.0	24.3	97.4		55	140

Actual Number of Marginal Exceedences: 1

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812017

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812017-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Dichlorodifluoromethane	25.0	14.6	58.3		30	155	5.71
Chloromethane	25.0	16.9	67.7		40	125	5.65
Vinyl chloride	25.0	22.0	88.2		50	145	2.57
Bromomethane	25.0	24.1	96.4		30	145	63.1
Chloroethane	25.0	23.6	94.5		60	135	29.8
Trichlorofluoromethane	25.0	20.2	81.0		60	145	4.24
1,1-Dichloroethene	25.0	22.7	90.8		70	130	4.00
Acrolein	125	131	105		54	142	7.26
Acetone	125	136	109		40	140	20.5
Acrylonitrile	25.0	22.6	90.5		71	129	4.01
Carbon disulfide	25.0	23.9	95.4		35	160	3.67
Methylene Chloride	25.0	25.9	104		55	140	2.31
trans-1,2-Dichloroethene	25.0	25.0	100		60	140	0.160
Vinyl acetate	25.0	22.2	88.7		72	121	1.96
Methyl tert-Butyl Ether	25.0	24.1	96.5		65	125	4.15
1,1-Dichloroethane	25.0	23.8	95.2		70	135	2.55
2-Butanone	125	121	96.7		30	150	7.23
cis-1,2-Dichloroethene	25.0	25.7	103		70	125	1.92
2,2-Dichloropropane	25.0	22.2	89.0		70	135	2.00
Bromochloromethane	25.0	27.5	110		65	130	5.34
Chloroform	25.0	23.4	93.7		65	135	1.25
1,1,1-Trichloroethane	25.0	22.4	89.5		65	130	2.95
1,1-Dichloropropene	25.0	23.3	93.4		75	130	2.43
Carbon Tetrachloride	25.0	22.6	90.6		65	140	3.28
1,2-Dichloroethane	25.0	22.4	89.6		70	130	3.77
Benzene	25.0	24.2	96.8		80	120	1.21
Trichloroethene	25.0	24.4	97.5		70	125	3.72
1,2-Dichloropropane	25.0	25.2	101		75	125	2.93
Dibromomethane	25.0	24.6	98.4		75	125	3.14
Bromodichloromethane	25.0	23.7	95.0		75	120	2.99
cis-1,3-Dichloropropene	25.0	25.1	100		70	130	2.91
4-Methyl-2-pentanone	125	122	97.4		60	135	7.64
Toluene	25.0	24.4	97.4		75	120	1.32
trans-1,3-Dichloropropene	25.0	24.1	96.6		55	140	3.28
1,1,2-Trichloroethane	25.0	26.7	107		75	125	5.51
1,3-Dichloropropane	25.0	24.2	96.6		75	125	3.15
Tetrachloroethene	25.0	24.6	98.3		45	150	13.0
2-Hexanone	125	114	91.0		55	130	7.10
Dibromochloromethane	25.0	24.3	97.3		60	135	1.66
1,2-Dibromoethane	25.0	25.1	100		80	120	5.24
Chlorobenzene	25.0	23.9	95.7		80	120	0.881
1,1,1,2-Tetrachloroethane	25.0	23.2	92.8		80	130	0.129
Ethylbenzene	25.0	22.3	89.1		75	125	0.537
m-Xylene/p-Xylene	50.0	45.2	90.3		75	130	1.67
o-Xylene	25.0	23.3	93.0		80	120	1.08
Styrene	25.0	23.4	93.4		65	135	1.29
Bromoform	25.0	24.4	97.8		70	130	2.07
Isopropylbenzene	25.0	22.6	90.4		75	125	0.710
1,2,3-Trichloropropane	25.0	23.7	94.6		75	125	8.41
1,1,2,2-Tetrachloroethane	25.0	24.3	97.3		65	130	7.68
Bromobenzene	25.0	24.2	96.8		75	125	2.09
n-Propylbenzene	25.0	22.8	91.2		70	130	2.67
2-Chlorotoluene	25.0	22.8	91.0		75	125	2.40
4-Chlorotoluene	25.0	22.4	89.6		75	130	2.53

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812017

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812017-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
1,3,5-Trimethylbenzene	25.0	22.4	89.5		75	130	1.39
tert-Butylbenzene	25.0	22.7	90.8		70	130	0.176
1,2,4-Trimethylbenzene	25.0	22.2	88.6		75	130	2.38
sec-Butylbenzene	25.0	22.0	87.9		70	125	3.66
1,3-Dichlorobenzene	25.0	23.0	91.9		75	125	1.89
1,4-Dichlorobenzene	25.0	23.8	95.1		75	125	3.25
1,2-Dichlorobenzene	25.0	23.8	95.1		70	120	1.65
4-Isopropyltoluene	25.0	21.9	87.8		75	130	0.0911
n-Butylbenzene	25.0	21.9	87.4		70	135	0.596
1,2-Dibromo-3-chloropropane	25.0	26.1	104		50	130	9.84
1,2,4-Trichlorobenzene	25.0	24.4	97.8		65	135	2.57
1,2,3-Trichlorobenzene	25.0	24.9	99.4		55	140	1.74
Hexachlorobutadiene	25.0	21.1	84.5		50	140	2.30
Naphthalene	25.0	25.9	103		55	140	6.06

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-MS1
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 18:53
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	14.1	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	16.4	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	20.7	ug/L		0.200	2.00	1
74-83-9	Bromomethane	20.9	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	24.3	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	19.6	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.2	ug/L		0.200	2.00	1
107-02-8	Acrolein	107	ug/L		1.00	10.0	1
67-64-1	Acetone	129	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	22.7	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	23.4	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	26.8	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	24.8	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	19.1	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	25.7	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	24.3	ug/L		0.200	2.00	1
78-93-3	2-Butanone	125	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.8	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	13.5	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	28.3	ug/L		0.200	2.00	1
67-66-3	Chloroform	24.2	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	22.5	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	23.3	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	22.4	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	23.3	ug/L		0.200	2.00	1
71-43-2	Benzene	25.8	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.9	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	26.0	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	26.0	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	24.6	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.1	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	131	ug/L		2.00	10.0	1
108-88-3	Toluene	25.6	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.4	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	27.7	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.6	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	19.6	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	117	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	25.0	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.6	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	23.9	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	24.1	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.3	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	44.7	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.5	ug/L		0.200	2.00	1
100-42-5	Styrene	23.4	ug/L		0.200	2.00	1
75-25-2	Bromoform	25.6	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.1	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	23.9	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	25.3	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-MS1
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 18:53
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.3	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	21.3	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	21.7	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	21.0	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	21.0	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	22.1	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	21.1	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	20.1	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	22.1	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.1	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	23.4	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	20.2	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	18.9	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	26.2	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	22.4	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	23.4	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	17.6	ug/L		0.200	2.00	1
91-20-3	Naphthalene	25.3	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-MSD1
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 19:26
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	14.5	ug/L	Q2	0.200	2.00	1
74-87-3	Chloromethane	18.2	ug/L	Q2	0.400	2.00	1
75-01-4	Vinyl chloride	23.1	ug/L		0.200	2.00	1
74-83-9	Bromomethane	31.5	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	24.9	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	20.5	ug/L	Q2	0.200	2.00	1
75-35-4	1,1-Dichloroethene	23.5	ug/L		0.200	2.00	1
107-02-8	Acrolein	110	ug/L		1.00	10.0	1
67-64-1	Acetone	129	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	23.2	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.0	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	26.7	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	25.6	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	18.4	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	24.1	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	24.6	ug/L		0.200	2.00	1
78-93-3	2-Butanone	115	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	26.1	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	13.6	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	27.1	ug/L		0.200	2.00	1
67-66-3	Chloroform	24.2	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	22.9	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	23.8	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	23.3	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	22.6	ug/L		0.200	2.00	1
71-43-2	Benzene	25.7	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	24.0	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	25.5	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	25.2	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	24.2	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	23.3	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	121	ug/L		2.00	10.0	1
108-88-3	Toluene	25.2	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	22.4	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	26.8	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.2	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	20.2	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	111	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	24.7	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.2	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.0	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.9	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.7	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	45.4	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.5	ug/L		0.200	2.00	1
100-42-5	Styrene	23.2	ug/L		0.200	2.00	1
75-25-2	Bromoform	24.8	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.8	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	23.2	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.1	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812017-MSD1
% Solids:	NA	Date Collected:	11/22/08 09:11
Analytical Methdod:	8260B	Date Analyzed:	12/02/08 19:26
Preparation:	EPA 5030B	Date Received:	11/25/08 11:00
Batch:	P812017		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.4	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	21.9	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	22.4	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	21.4	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	21.7	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	23.1	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	21.7	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	20.9	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	22.3	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.3	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	23.5	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	21.0	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	19.4	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	24.9	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	22.0	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	23.4	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	18.5	ug/L		0.200	2.00	1
91-20-3	Naphthalene	25.1	ug/L		0.400	2.00	1

Form 3 - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812017

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811043-01*** ***Lab Sample ID for MS :*** ***P812017-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Dichlorodifluoromethane	0	25.0	14.1	56.4		30	155
Chloromethane	0	25.0	16.4	65.4		40	125
Vinyl chloride	0	25.0	20.7	82.8		50	145
Bromomethane	0	25.0	20.9	83.4		30	145
Chloroethane	0	25.0	24.3	97.1		60	135
Trichlorofluoromethane	0	25.0	19.6	78.6		60	145
1,1-Dichloroethene	0	25.0	22.2	89.0		70	130
Acrolein	0	125	107	85.8		54	142
Acetone	0	125	129	103		40	140
Acrylonitrile	0	25.0	22.7	90.9		71	129
Carbon disulfide	0	25.0	23.4	93.4		35	160
Methylene Chloride	0	25.0	26.8	107		55	140
trans-1,2-Dichloroethene	0	25.0	24.8	99.4		60	140
Vinyl acetate	0	25.0	19.1	76.4		72	121
Methyl tert-Butyl Ether	0	25.0	25.7	103		65	125
1,1-Dichloroethane	0	25.0	24.3	97.2		70	135
2-Butanone	0	125	125	100		30	150
cis-1,2-Dichloroethene	0	25.0	25.8	103		70	125
2,2-Dichloropropane	0	25.0	13.5	53.8	ME*	70	135
Bromochloromethane	0	25.0	28.3	113		65	130
Chloroform	0	25.0	24.2	96.7		65	135
1,1,1-Trichloroethane	0	25.0	22.5	89.9		65	130
1,1-Dichloropropene	0	25.0	23.3	93.0		75	130
Carbon Tetrachloride	0	25.0	22.4	89.4		65	140
1,2-Dichloroethane	0	25.0	23.3	93.4		70	130
Benzene	0	25.0	25.8	103		80	120
Trichloroethene	0	25.0	23.9	95.6		70	125
1,2-Dichloropropane	0	25.0	26.0	104		75	125
Dibromomethane	0	25.0	26.0	104		75	125
Bromodichloromethane	0	25.0	24.6	98.5		75	120
cis-1,3-Dichloropropene	0	25.0	24.1	96.4		70	130
4-Methyl-2-pentanone	0	125	131	105		60	135
Toluene	0.290	25.0	25.6	101		75	120
trans-1,3-Dichloropropene	0	25.0	23.4	93.8		55	140
1,1,2-Trichloroethane	0	25.0	27.7	111		75	125
1,3-Dichloropropane	0	25.0	24.6	98.5		75	125
Tetrachloroethene	0	25.0	19.6	78.6		45	150
2-Hexanone	0	125	117	93.6		55	130
Dibromochloromethane	0	25.0	25.0	99.8		60	135
1,2-Dibromoethane	0	25.0	25.6	102		80	120
Chlorobenzene	0	25.0	23.9	95.6		80	120
1,1,1,2-Tetrachloroethane	0	25.0	24.1	96.4		80	130
Ethylbenzene	0	25.0	22.3	89.0		75	125
m-Xylene/p-Xylene	0.470	50.0	44.7	88.4		75	130
o-Xylene	0.240	25.0	23.5	93.0		80	120
Styrene	0	25.0	23.4	93.7		65	135
Bromoform	0	25.0	25.6	102		70	130
Isopropylbenzene	0	25.0	22.1	88.4		75	125
1,2,3-Trichloropropane	0	25.0	23.9	95.5		75	125
1,1,2,2-Tetrachloroethane	0	25.0	25.3	101		65	130
Bromobenzene	0	25.0	24.3	97.2		75	125
n-Propylbenzene	0	25.0	21.3	85.0		70	130
2-Chlorotoluene	0	25.0	21.7	86.8		75	125
4-Chlorotoluene	0	25.0	21.0	84.0		75	130

AML Work Order/Report Number: 0811043 Printed: 12/18/2008

Form 3 - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812017

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811043-01*** ***Lab Sample ID for MS :*** ***P812017-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
1,3,5-Trimethylbenzene	0	25.0	21.0	84.1		75	130
tert-Butylbenzene	0	25.0	22.1	88.4		70	130
1,2,4-Trimethylbenzene	0.300	25.0	21.1	83.2		75	130
sec-Butylbenzene	0	25.0	20.1	80.5		70	125
1,3-Dichlorobenzene	0	25.0	22.1	88.4		75	125
1,4-Dichlorobenzene	0	25.0	23.1	92.3		75	125
1,2-Dichlorobenzene	0	25.0	23.4	93.8		70	120
4-Isopropyltoluene	0	25.0	20.2	80.9		75	130
n-Butylbenzene	0	25.0	18.9	75.7		70	135
1,2-Dibromo-3-chloropropane	0	25.0	26.2	105		50	130
1,2,4-Trichlorobenzene	0	25.0	22.4	89.5		65	135
1,2,3-Trichlorobenzene	0	25.0	23.4	93.8		55	140
Hexachlorobutadiene	0	25.0	17.6	70.3		50	140
Naphthalene	0	25.0	25.3	101		55	140

Form 3 - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812017

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811043-01*** ***Lab Sample ID for MSD*** ***P812017-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Dichlorodifluoromethane	0	25.0	14.5	57.9		2.59		30	155	30
Chloromethane	0	25.0	18.2	72.8		10.6		40	125	30
Vinyl chloride	0	25.0	23.1	92.3		10.8		50	145	30
Bromomethane	0	25.0	31.5	126		40.6	*	30	145	30
Chloroethane	0	25.0	24.9	99.6		2.60		60	135	30
Trichlorofluoromethane	0	25.0	20.5	81.9		4.09		60	145	30
1,1-Dichloroethene	0	25.0	23.5	93.8		5.34		70	130	30
Acrolein	0	125	110	87.7		2.16		54	142	30
Acetone	0	125	129	103		0.0233		40	140	30
Acrylonitrile	0	25.0	23.2	92.6		1.83		71	129	30
Carbon disulfide	0	25.0	24.0	96.1		2.83		35	160	30
Methylene Chloride	0	25.0	26.7	107		0.225		55	140	30
trans-1,2-Dichloroethene	0	25.0	25.6	103		3.21		60	140	30
Vinyl acetate	0	25.0	18.4	73.7		3.62		72	121	30
Methyl tert-Butyl Ether	0	25.0	24.1	96.4		6.50		65	125	30
1,1-Dichloroethane	0	25.0	24.6	98.4		1.19		70	135	30
2-Butanone	0	125	115	92.1		8.28		30	150	30
cis-1,2-Dichloroethene	0	25.0	26.1	104		0.964		70	125	30
2,2-Dichloropropane	0	25.0	13.6	54.3	ME*	0.814		70	135	30
Bromochloromethane	0	25.0	27.1	108		4.41		65	130	30
Chloroform	0	25.0	24.2	96.8		0.0827		65	135	30
1,1,1-Trichloroethane	0	25.0	22.9	91.5		1.76		65	130	30
1,1-Dichloropropene	0	25.0	23.8	95.4		2.46		75	130	30
Carbon Tetrachloride	0	25.0	23.3	93.3		4.25		65	140	30
1,2-Dichloroethane	0	25.0	22.6	90.4		3.18		70	130	30
Benzene	0	25.0	25.7	103		0.350		80	120	30
Trichloroethene	0	25.0	24.0	96.2		0.668		70	125	30
1,2-Dichloropropane	0	25.0	25.5	102		1.79		75	125	30
Dibromomethane	0	25.0	25.2	101		3.20		75	125	30
Bromodichloromethane	0	25.0	24.2	96.7		1.80		75	120	30
cis-1,3-Dichloropropene	0	25.0	23.3	93.3		3.21		70	130	30
4-Methyl-2-pentanone	0	125	121	96.7		8.06		60	135	30
Toluene	0.290	25.0	25.2	99.7		1.59		75	120	30
trans-1,3-Dichloropropene	0	25.0	22.4	89.5		4.71		55	140	30
1,1,2-Trichloroethane	0	25.0	26.8	107		3.08		75	125	30
1,3-Dichloropropane	0	25.0	24.2	96.7		1.80		75	125	30
Tetrachloroethene	0	25.0	20.2	80.9		2.91		45	150	30
2-Hexanone	0	125	111	88.5		5.60		55	130	30
Dibromochloromethane	0	25.0	24.7	98.8		1.01		60	135	30
1,2-Dibromoethane	0	25.0	25.2	101		1.69		80	120	30
Chlorobenzene	0	25.0	24.0	96.1		0.459		80	120	30
1,1,1,2-Tetrachloroethane	0	25.0	23.9	95.5		1.00		80	130	30
Ethylbenzene	0	25.0	22.7	90.6		1.78		75	125	30
m-Xylene/p-Xylene	0.470	50.0	45.4	89.9		1.64		75	130	30
o-Xylene	0.240	25.0	23.5	93.0		0.00		80	120	30
Styrene	0	25.0	23.2	93.0		0.729		65	135	30
Bromoform	0	25.0	24.8	99.2		3.14		70	130	30
Isopropylbenzene	0	25.0	22.8	91.2		3.16		75	125	30
1,2,3-Trichloropropane	0	25.0	23.2	92.7		3.02		75	125	30
1,1,2,2-Tetrachloroethane	0	25.0	24.1	96.4		4.86		65	130	30
Bromobenzene	0	25.0	24.4	97.6		0.452		75	125	30
n-Propylbenzene	0	25.0	21.9	87.8		3.15		70	130	30
2-Chlorotoluene	0	25.0	22.4	89.8		3.40		75	125	30
4-Chlorotoluene	0	25.0	21.4	85.6		1.79		75	130	30

AML Work Order/Report Number: 0811043 Printed: 12/18/2008

Form 3 - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812017

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Original Sample ***0811043-01*** ***Lab Sample ID for MSD*** ***P812017-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
1,3,5-Trimethylbenzene	0	25.0	21.7	86.9		3.27		75	130	30
tert-Butylbenzene	0	25.0	23.1	92.3		4.34		70	130	30
1,2,4-Trimethylbenzene	0.300	25.0	21.7	85.7		2.98		75	130	30
sec-Butylbenzene	0	25.0	20.9	83.6		3.85		70	125	30
1,3-Dichlorobenzene	0	25.0	22.3	89.4		1.13		75	125	30
1,4-Dichlorobenzene	0	25.0	23.3	93.2		0.949		75	125	30
1,2-Dichlorobenzene	0	25.0	23.5	93.9		0.128		70	120	30
4-Isopropyltoluene	0	25.0	21.0	83.8		3.54		75	130	30
n-Butylbenzene	0	25.0	19.4	77.7		2.56		70	135	30
1,2-Dibromo-3-chloropropane	0	25.0	24.9	99.8		4.81		50	130	30
1,2,4-Trichlorobenzene	0	25.0	22.0	88.0		1.67		65	135	30
1,2,3-Trichlorobenzene	0	25.0	23.4	93.8		0.00		55	140	30
Hexachlorobutadiene	0	25.0	18.5	73.9		4.94		50	140	30
Naphthalene	0	25.0	25.1	100		0.872		55	140	30

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811043

(Sample Delivery Group, SDG)

8260B

(Parameter)

P812130

(Analytical Batch)

Quality Control Association Form

Lab Name:	Analytical Management Laboratories, Inc.	**Fraction:**	VOA_GCMS
QC Batch:	P812130	**Method:**	8260B

Date Analyzed	Lab Sample ID	Original Sample	Sample Type	Project Number
12/16/08	0811043-01RE1		SAMPLE RE-ANALYSIS	0811043
12/16/08	P812130-BLK1		Method Blank	0811043
12/16/08	P812130-BS1		LCS	0811043
12/16/08	P812130-BSD1		LCS Dup	0811043

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P812130

GW-LMW-15R-11-08 (0811043-01RE1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	95.4	85	115	
1,2-Dichloroethane-d4	84.2	70	120	
Toluene-d8	98.6	85	120	
4-Bromofluorobenzene	108	75	120	

Blank (P812130-BLK1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	96.8	85	115	
1,2-Dichloroethane-d4	83.1	70	120	
Toluene-d8	97.6	85	120	
4-Bromofluorobenzene	104	75	120	

LCS (P812130-BS1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	97.4	85	115	
1,2-Dichloroethane-d4	86.8	70	120	
Toluene-d8	99.7	85	120	
4-Bromofluorobenzene	107	75	120	

LCS Dup (P812130-BSD1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	96.5	85	115	
1,2-Dichloroethane-d4	82.7	70	120	
Toluene-d8	98.6	85	120	
4-Bromofluorobenzene	107	75	120	

Form 1 - Equivalent

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812130-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/16/08 17:58
Preparation:	EPA 5030B	Date Received:	
Batch:	P812130		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	Q2, U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1

AML Work Order/Report Number: 0811043 Printed: 12/18/2008

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812130-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/16/08 17:58
Preparation:	EPA 5030B	Date Received:	
Batch:	P812130		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	Q2, U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	Q2, U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	Q2, U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene	0.230	ug/L	B, Q2, J	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812130-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/16/08 16:27
Preparation:	EPA 5030B	Date Received:	
Batch:	P812130		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	25.1	ug/L		0.200	2.00	1
74-87-3	Chloromethane	25.2	ug/L		0.400	2.00	1
75-01-4	Vinyl chloride	27.7	ug/L		0.200	2.00	1
74-83-9	Bromomethane	37.6	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	26.6	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	23.6	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.7	ug/L		0.200	2.00	1
107-02-8	Acrolein	113	ug/L	Q2	1.00	10.0	1
67-64-1	Acetone	138	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	23.4	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.9	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	26.6	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	26.0	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	23.3	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	27.0	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	24.5	ug/L		0.200	2.00	1
78-93-3	2-Butanone	126	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	26.6	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	23.4	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	28.5	ug/L		0.200	2.00	1
67-66-3	Chloroform	25.3	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	24.2	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	24.1	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	25.0	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	24.2	ug/L		0.200	2.00	1
71-43-2	Benzene	24.2	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	24.9	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	25.7	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	26.6	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	25.6	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	26.1	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	122	ug/L		2.00	10.0	1
108-88-3	Toluene	24.4	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	25.1	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	27.1	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	25.2	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	21.0	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	116	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	26.7	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.7	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	23.9	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	24.5	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.2	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	43.4	ug/L		0.400	4.00	1
95-47-6	o-Xylene	22.8	ug/L		0.200	2.00	1
100-42-5	Styrene	23.0	ug/L		0.200	2.00	1
75-25-2	Bromoform	26.9	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	21.3	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	25.9	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	25.9	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812130-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/16/08 16:27
Preparation:	EPA 5030B	Date Received:	
Batch:	P812130		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	25.5	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	21.8	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	23.0	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	22.0	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	21.9	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	21.9	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	22.0	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	19.9	ug/L	Q2	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.1	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	24.2	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.2	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	20.0	ug/L	Q2	0.200	2.00	1
104-51-8	n-Butylbenzene	19.0	ug/L	Q2	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	27.0	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	23.2	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	23.7	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	16.2	ug/L	Q2, B	0.200	2.00	1
91-20-3	Naphthalene	25.5	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812130-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/16/08 16:53
Preparation:	EPA 5030B	Date Received:	
Batch:	P812130		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	24.9	ug/L		0.200	2.00	1
74-87-3	Chloromethane	24.4	ug/L		0.400	2.00	1
75-01-4	Vinyl chloride	27.4	ug/L		0.200	2.00	1
74-83-9	Bromomethane	35.7	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	26.4	ug/L		0.200	2.00	1
75-69-4	Trichlorofluoromethane	23.6	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	22.7	ug/L		0.200	2.00	1
107-02-8	Acrolein	110	ug/L	Q2	1.00	10.0	1
67-64-1	Acetone	133	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	23.4	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.7	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	26.0	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	25.3	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	22.2	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	25.5	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	24.3	ug/L		0.200	2.00	1
78-93-3	2-Butanone	119	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.9	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	22.8	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	27.9	ug/L		0.200	2.00	1
67-66-3	Chloroform	25.0	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	24.0	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	24.0	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	24.7	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	23.6	ug/L		0.200	2.00	1
71-43-2	Benzene	23.8	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	24.9	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	25.3	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	26.1	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	25.1	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	25.4	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	117	ug/L		2.00	10.0	1
108-88-3	Toluene	24.0	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	24.3	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	26.9	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.2	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	21.9	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	110	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	25.6	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.0	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.0	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	24.2	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	22.3	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	44.3	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.1	ug/L		0.200	2.00	1
100-42-5	Styrene	23.1	ug/L		0.200	2.00	1
75-25-2	Bromoform	25.6	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	22.0	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	25.1	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	25.0	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811043
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P812130-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	12/16/08 16:53
Preparation:	EPA 5030B	Date Received:	
Batch:	P812130		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	25.8	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	22.6	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	23.2	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	22.3	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	22.5	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	22.4	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	22.4	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	20.6	ug/L	Q2	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.2	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	24.1	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.5	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	20.7	ug/L	Q2	0.200	2.00	1
104-51-8	n-Butylbenzene	20.0	ug/L	Q2	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	25.3	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	23.7	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	24.2	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	17.9	ug/L	Q2, B	0.200	2.00	1
91-20-3	Naphthalene	25.4	ug/L		0.400	2.00	1

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812130

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812130-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Dichlorodifluoromethane	25.0	25.1	100		30	155
Chloromethane	25.0	25.2	101		40	125
Vinyl chloride	25.0	27.7	111		50	145
Bromomethane	25.0	37.6	150	ME	30	145
Chloroethane	25.0	26.6	107		60	135
Trichlorofluoromethane	25.0	23.6	94.6		60	145
1,1-Dichloroethene	25.0	22.7	90.9		70	130
Acrolein	125	113	90.1		54	142
Acetone	125	138	111		40	140
Acrylonitrile	25.0	23.4	93.4		71	129
Carbon disulfide	25.0	24.9	99.6		35	160
Methylene Chloride	25.0	26.6	106		55	140
trans-1,2-Dichloroethene	25.0	26.0	104		60	140
Vinyl acetate	25.0	23.3	93.0		72	121
Methyl tert-Butyl Ether	25.0	27.0	108		65	125
1,1-Dichloroethane	25.0	24.5	97.9		70	135
2-Butanone	125	126	100		30	150
cis-1,2-Dichloroethene	25.0	26.6	106		70	125
2,2-Dichloropropane	25.0	23.4	93.6		70	135
Bromochloromethane	25.0	28.5	114		65	130
Chloroform	25.0	25.3	101		65	135
1,1,1-Trichloroethane	25.0	24.2	96.6		65	130
1,1-Dichloropropene	25.0	24.1	96.5		75	130
Carbon Tetrachloride	25.0	25.0	99.9		65	140
1,2-Dichloroethane	25.0	24.2	96.9		70	130
Benzene	25.0	24.2	96.7		80	120
Trichloroethene	25.0	24.9	99.5		70	125
1,2-Dichloropropane	25.0	25.7	103		75	125
Dibromomethane	25.0	26.6	106		75	125
Bromodichloromethane	25.0	25.6	103		75	120
cis-1,3-Dichloropropene	25.0	26.1	104		70	130
4-Methyl-2-pentanone	125	122	97.6		60	135
Toluene	25.0	24.4	97.4		75	120
trans-1,3-Dichloropropene	25.0	25.1	101		55	140
1,1,2-Trichloroethane	25.0	27.1	108		75	125
1,3-Dichloropropane	25.0	25.2	101		75	125
Tetrachloroethene	25.0	21.0	84.0		45	150
2-Hexanone	125	116	92.8		55	130
Dibromochloromethane	25.0	26.7	107		60	135
1,2-Dibromoethane	25.0	25.7	103		80	120
Chlorobenzene	25.0	23.9	95.5		80	120
1,1,1,2-Tetrachloroethane	25.0	24.5	98.0		80	130
Ethylbenzene	25.0	22.2	88.6		75	125
m-Xylene/p-Xylene	50.0	43.4	86.9		75	130
o-Xylene	25.0	22.8	91.2		80	120
Styrene	25.0	23.0	92.2		65	135
Bromoform	25.0	26.9	108		70	130
Isopropylbenzene	25.0	21.3	85.1		75	125
1,2,3-Trichloropropane	25.0	25.9	104		75	125
1,1,2,2-Tetrachloroethane	25.0	25.9	104		65	130
Bromobenzene	25.0	25.5	102		75	125
n-Propylbenzene	25.0	21.8	87.4		70	130
2-Chlorotoluene	25.0	23.0	92.0		75	125
4-Chlorotoluene	25.0	22.0	88.0		75	130

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P812130

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812130-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
1,3,5-Trimethylbenzene	25.0	21.9	87.5		75	130
tert-Butylbenzene	25.0	21.9	87.5		70	130
1,2,4-Trimethylbenzene	25.0	22.0	87.8		75	130
sec-Butylbenzene	25.0	19.9	79.5		70	125
1,3-Dichlorobenzene	25.0	23.1	92.6		75	125
1,4-Dichlorobenzene	25.0	24.2	96.9		75	125
1,2-Dichlorobenzene	25.0	24.2	97.0		70	120
4-Isopropyltoluene	25.0	20.0	80.0		75	130
n-Butylbenzene	25.0	19.0	76.1		70	135
1,2-Dibromo-3-chloropropane	25.0	27.0	108		50	130
1,2,4-Trichlorobenzene	25.0	23.2	92.6		65	135
1,2,3-Trichlorobenzene	25.0	23.7	94.8		55	140
Hexachlorobutadiene	25.0	16.2	64.8		50	140
Naphthalene	25.0	25.5	102		55	140

Actual Number of Marginal Exceedences: 1

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812130

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812130-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Dichlorodifluoromethane	25.0	24.9	99.6		30	155	0.760
Chloromethane	25.0	24.4	97.6		40	125	3.39
Vinyl chloride	25.0	27.4	110		50	145	0.907
Bromomethane	25.0	35.7	143		30	145	5.13
Chloroethane	25.0	26.4	105		60	135	1.06
Trichlorofluoromethane	25.0	23.6	94.3		60	145	0.297
1,1-Dichloroethene	25.0	22.7	90.8		70	130	0.132
Acrolein	125	110	87.9		54	142	2.44
Acetone	125	133	106		40	140	4.23
Acrylonitrile	25.0	23.4	93.4		71	129	0.0428
Carbon disulfide	25.0	24.7	98.6		35	160	0.969
Methylene Chloride	25.0	26.0	104		55	140	2.13
trans-1,2-Dichloroethene	25.0	25.3	101		60	140	2.96
Vinyl acetate	25.0	22.2	88.8		72	121	4.62
Methyl tert-Butyl Ether	25.0	25.5	102		65	125	5.75
1,1-Dichloroethane	25.0	24.3	97.2		70	135	0.738
2-Butanone	125	119	95.0		30	150	5.53
cis-1,2-Dichloroethene	25.0	25.9	104		70	125	2.36
2,2-Dichloropropane	25.0	22.8	91.3		70	135	2.47
Bromochloromethane	25.0	27.9	112		65	130	2.06
Chloroform	25.0	25.0	100		65	135	1.19
1,1,1-Trichloroethane	25.0	24.0	96.0		65	130	0.664
1,1-Dichloropropene	25.0	24.0	96.2		75	130	0.291
Carbon Tetrachloride	25.0	24.7	98.8		65	140	1.17
1,2-Dichloroethane	25.0	23.6	94.6		70	130	2.47
Benzene	25.0	23.8	95.3		80	120	1.46
Trichloroethene	25.0	24.9	99.5		70	125	0.0402
1,2-Dichloropropane	25.0	25.3	101		75	125	1.65
Dibromomethane	25.0	26.1	104		75	125	1.86
Bromodichloromethane	25.0	25.1	100		75	120	2.13
cis-1,3-Dichloropropene	25.0	25.4	102		70	130	2.48
4-Methyl-2-pentanone	125	117	93.6		60	135	4.13
Toluene	25.0	24.0	96.0		75	120	1.41
trans-1,3-Dichloropropene	25.0	24.3	97.2		55	140	3.44
1,1,2-Trichloroethane	25.0	26.9	108		75	125	0.741
1,3-Dichloropropane	25.0	24.2	96.6		75	125	4.02
Tetrachloroethene	25.0	21.9	87.4		45	150	4.01
2-Hexanone	125	110	88.1		55	130	5.13
Dibromochloromethane	25.0	25.6	102		60	135	4.13
1,2-Dibromoethane	25.0	25.0	100		80	120	2.68
Chlorobenzene	25.0	24.0	96.2		80	120	0.710
1,1,1,2-Tetrachloroethane	25.0	24.2	97.0		80	130	1.07
Ethylbenzene	25.0	22.3	89.1		75	125	0.540
m-Xylene/p-Xylene	50.0	44.3	88.6		75	130	2.03
o-Xylene	25.0	23.1	92.3		80	120	1.18
Styrene	25.0	23.1	92.5		65	135	0.347
Bromoform	25.0	25.6	102		70	130	5.03
Isopropylbenzene	25.0	22.0	88.0		75	125	3.42
1,2,3-Trichloropropane	25.0	25.1	100		75	125	3.22
1,1,2,2-Tetrachloroethane	25.0	25.0	100		65	130	3.65
Bromobenzene	25.0	25.8	103		75	125	1.13
n-Propylbenzene	25.0	22.6	90.3		70	130	3.29
2-Chlorotoluene	25.0	23.2	93.0		75	125	1.12
4-Chlorotoluene	25.0	22.3	89.1		75	130	1.26

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P812130

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P812130-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
1,3,5-Trimethylbenzene	25.0	22.5	90.2		75	130	3.02
tert-Butylbenzene	25.0	22.4	89.5		70	130	2.31
1,2,4-Trimethylbenzene	25.0	22.4	89.6		75	130	2.03
sec-Butylbenzene	25.0	20.6	82.2		70	125	3.31
1,3-Dichlorobenzene	25.0	23.2	92.6		75	125	0.0432
1,4-Dichlorobenzene	25.0	24.1	96.5		75	125	0.372
1,2-Dichlorobenzene	25.0	24.5	98.0		70	120	1.03
4-Isopropyltoluene	25.0	20.7	82.7		75	130	3.34
n-Butylbenzene	25.0	20.0	80.0		70	135	5.02
1,2-Dibromo-3-chloropropane	25.0	25.3	101		50	130	6.54
1,2,4-Trichlorobenzene	25.0	23.7	94.8		65	135	2.26
1,2,3-Trichlorobenzene	25.0	24.2	97.0		55	140	2.25
Hexachlorobutadiene	25.0	17.9	71.5		50	140	9.80
Naphthalene	25.0	25.4	101		55	140	0.354

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

Analytical Management Laboratories, Inc.
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Results of Laboratory Analysis

December 4, 2008

Mr. Judson Smith
Project Chemist, CESAS-EN-GG
U.S. Army Corps of Engineers, Savannah District
100 W. Oglethorpe Ave.
P. O. Box 889
Savannah, GA 31401-0360
Phone: 912-652-5673
Fax: 912-652-5311

Dear Mr. Smith:

RE: Fort Bragg, DO# 122
W912HN-05-D-0013
AML Work Order Number: **0811022**

Attached, please find the hardcopy analytical report (103 total pages) for environmental samples collected by CESAS for the project described above. The analytical results included in this report relate only to the samples received by Analytical Management Laboratories (AML). Problems encountered in the analysis of these samples are documented in the laboratory case narrative observations and non-conformances and/or data qualifiers. The case narrative is an integral part of this report. This report has been paginated and may not be reproduced for distribution, except in full, without the written approval of AML. The electronic data deliverables (EDDs) for this report will be e-mailed within a few days of this report. Please feel free to contact me by phone (913-829-0101-ext. 26), fax (913-829-1181) or email (alester@amlabinc.com) if you have any questions.

Respectfully Submitted,
Analytical Management Laboratories, Inc.

Aime Lester
Project Manager

15130 South Keeler, Olathe, Kansas 66062
Phone: (913) 829-0101 Fax: (913) 829-1181

Case Narrative

Project and Sample Information

Task order information, completed copies of the chain of custody form(s), and Analytical Management Laboratories (AML) sample condition upon receipt form (s) are included in the Project and Sample Information section. The AML laboratory information management system (LIMS)-generated sample status and receipt report, showing field sample identifiers and corresponding laboratory identifiers is also included.

Reports

The hardcopy laboratory reports and electronic data deliverables (EDDs) were prepared using the Promium Element Data System (LIMS). Under the procedure used by the laboratory, the hardcopy reports are generated using information contained in a database, which is also used to generate electronic deliverables to assure data integrity between the two media. The attached report is organized as follows:

Cover Letter
Laboratory Case Narrative
Sample Information
Sample Result Forms, organized in the following order: by test and by sample.

Quality Control (QC) Summary Reports, organized in the following order: by test, by matrix, and by QC batch number. The QC Summary for each analytical batch contains the following, when applicable:

1. QC Association Form
2. Surrogate Recovery Summary, when applicable
3. Method Blank (MB) Results
4. Laboratory Control Sample (LCS) Results
5. LCS duplicate (LCSD) Results, when available
6. LCS Recoveries Summary
7. LCSD (when applicable) Recoveries and RPD Summary
8. Matrix Spike (MS) Results
9. MS duplicate (MSD) Results
10. MS Recoveries Summary
11. MSD Recoveries and RPD Summary

Sample Result Forms
Sample results are shown on modified Form 1 equivalents with the following qualifiers:

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U = Not detected or detected below method detection limit (MDL) or the limit of detection (LOD).
J = Detected above MDL or LOD but below the limit of quantitation (LOQ).
P = RPD >40% between primary and confirmation column results for dual column chromatographic methods (e.g. GC and HPLC methods).
E = Detected at levels in excess of the upper calibration limit.
B = Detected in the associated method blank
Q1 = The %D or %Drift for the associated CCV is outside the method QC limit.
Q2 = The %D or %Drift for the associated CCV is outside the method and/or laboratory established QC limit with a low bias.
* = Exceeds QC limits
ME = Marginal exceedence of the 3-sigma QC limits
ME* = Exceedence of the 4-sigma QC limits
X = as defined in the case narrative when utilized

The LODs and LOQs have been adjusted for sample weight or volume, dilution, and percent solids, when applicable. MDLs are statistically defined, instrument-specific quantities, which are used as LODs for some tests. For situations when multiple MDLs exist for a test (e.g several instruments running the same test on a given matrix) or when MDLs are unachievable on a routine basis, LODs, which may be grater than MDL but typically one-half of the applicable LOQs are used to define cut-off points for reporting positive results. The LOQs are typically the lowest point on the initial calibration curve.

Quantitative results for analytes detected in the sample (positive results) are shown under the column labeled "Result". Results coded with the qualifier E should not be used unless additional analyses were unavailable due to other limitations. Data coded as E should not be compared to other data since non-linearity in calibration may be a severe problem for some analytes. Multiple sample result forms may be provided for one or more of the following reasons:
Sample was reanalyzed for surrogate or internal standard recovery outliers;
Sample was reanalyzed at a dilution;
One of the analyses was performed outside holding times;
A replicate analysis was performed for other quality control purposes;
Client requirements

QC Association Forms
The list consisting of MB, LCS, LCSD (if any), MS (whenever available), MSD (whenever available), and field samples from the reported AML work order that are associated with each QC batch are shown on QC Association Forms. Additional items

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such as PDS, SD may be included for some parameters (e.g metals). Separate forms are included for each QC batch, for each matrix and test.

Surrogate Recovery Forms

A summary of the system monitoring compound recoveries for organic analyses is included in this section. The QC limits from the Department of Defense Quality Systems Manual for Environmental Laboratories, Final Version 3, January 2006 is used in the reports, when available. Method-specified limits or in-house limits are used as applicable. Corrective action involving re-extraction and/or reanalysis is performed for samples that exceed the surrogate QC limits.

Method Blank Result Forms

The QC limit for the Method Blank is set at one half of the applicable LOQ for each target analyte with the exception of common laboratory contaminants, which is set at the LOQ.

Laboratory Control Sample (LCS) Report Forms

Laboratory control samples were analyzed with each QC batch as described in the QC Association Form. Laboratory Control sample limits are set as a default to the DOD QSM limits when available. When the 3-sigma control limit is exceeded for any analyte, the LCS report is flagged "ME". The total number of method analytes, and the number of ME analytes are tracked and compared against the number allowed per NELAC and the DOD QSM. This information is summarized at the bottom of the recoveries summary reports. Analytes with LCS recoveries that exceed the 4-sigma limits are flagged ME* and reanalysis may be required for the affected analyte if it is a contaminant of concern. The relative percent differences (RPDs) for the LCS duplicates, a voluntary laboratory QC parameter, are computed to track in-house precision for method duplicates.

Matrix Spike/Matrix Spike Duplicate Recoveries Report Forms

The MS/MSD results are shown in Form-1 equivalents. See section on LCS for additional details. The RPDs for MS duplicates that are outside the applicable QC limits are flagged with an asterisk (*). The effect of matrix is taken into account in determining corrective action procedures based on MS and MSD results, recoveries, and RPD.

Calibration

Instruments were calibrated in accordance with applicable method. Deviations are noted as a non-conformance. Copies of initial calibration and calibration verification summaries and associated raw data will be maintained in laboratory files and made available for detailed client review.

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Test Methods and Holding Times
Analyses were performed within applicable holding times except as noted on sample reports. See parameter specific non-conformances for more information.

Batch-specific Quality Control Procedures
Quality control data from method blanks and laboratory control samples are used as batch QC elements. In accordance with EPA, USACE, and DoD guidelines, QC data from matrix spikes are used as matrix-specific QC elements and QC data from surrogates, internal standard areas, etc. are used as sample-specific QC elements. When the batch QC elements are outside their QC limits, results for associated samples are evaluated and corrective actions that affect the entire sample set are performed.

Matrix-specific or Sample-specific Quality Control Procedures
Sample concentrations exceeding the upper calibration limit, surrogate recoveries outside the QC limits, calibration parameters not within QC limits, etc. are used as sample-specific and/or sample-group specific QC elements for one or more associated samples during instrumental analysis. Serial dilution, standard addition, MS recoveries, etc. are used as matrix-specific QC elements for one or more associated samples. When these QC elements are outside their QC limits, associated individual sample results are evaluated and appropriate corrective actions are performed.

Manual Integration
Manual integration operations that have potential to improve accuracy of analysis are performed, as necessary (shown with an “M” flag on raw data) based on visual inspection of peak shapes for each target analyte. Such operations are technically defensible and they are not aimed at meeting the minimum technical requirements of the analytical procedure.

Statement
To the best of our knowledge, this data package is in compliance with the client terms and conditions, both technically and for completeness. Non-conformances are listed in the case narrative and/or data qualifiers for each parameter tested.

Analytical Management Laboratories, Inc.
est. 1993

Results of Laboratory Analysis

Project Information

Five (5) samples were received by AML on November 19, 2008 and logged in according to the Sample Status and Receipt Report included in this report. Reference the chain of custody and Sample Condition upon receipt Report for any non-conformances on receipt condition and temperature upon receipt.

Observations and Non-Conformances

Metals by 6010B/3030C

There were no observations and/or non-conformances to report for this analysis.

Metals by 6020A/3030C

Batch P811083 - MS/MSD recoveries are outside QC limits biased low for Thallium due to potential matrix interference. LCS/LCSD recoveries were within QC limits.

Nitrate/Nitrite by SM-4500-NO3 E

Batch P811078 - MS recovery is outside QC limits due to potential matrix interference. LCS/LCSD and MSD recoveries were within QC limits.

VOCs by 8260B

Batch P811123 - MS/MSD recoveries were outside QC limits due to potential matrix interference. LCS/LCSD recoveries were within QC limits.

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Field Sample Information

(Chain of Custody Record, Sample Receipt Report, Condition Upon Receipt Report)

0811022

(Sample Delivery Group, SDG)

AML
Analytical Management Laboratories, Inc.
15130 South Keeler
Olathe, Kansas 66062
Phone (913) 829-0101
Fax (913) 829-1181

42435

Chain of Custody Record / Request for Analysis

Client Contact Name: JUD SMITH
Company Name: US ARMY CORPS OF ENGINEERS
Address: 100 W OGLETHORPE AVE
City, State, Zip: SAVANNAH, GA 31401
Phone #: (912) 652-5673 Ext:
Fax #: (912) 652-5311
Email:

Project Name: FT BRAGG
Project Number:
Purchase Order Number: DO 122
Project Due Date:
Project Comments:
Print Sampler's Name: JON COOMBS

Analysis/Method to be Performed (Check all that apply)

Laboratory Project Number: 081102 2

Specify method # ---> 8260 8330

Lab ID	Sample Description	Date	Time	Matrix	Total # Containers	HCl	HNO_3	NaOH	H_2SO_4	Unpreserved	4° C		VOCs	SVOCs	Pesticides	PCBs	Herbicides	Metals (specify) ARPT	DRO	GRO	Explosives	Anions (specify)	NITRATE					Comments:
081102 2-01	GW-LMW-9-11-08	11/18/08	1420	AQ	5	3	1		1				3					1					1					
081102 2-02	GW-LMW-38-1-08	11/18/08	1605	AQ	5	3	1		1				3					1					1					* LMW-7 PER JON
081102 2-03	GW-LMW-BLANK	11/18/08	1630	AQ	5	3	1		1				3					1					1					EQUIPMENT BLANK
081102 2-04	TRIP BLANK	11/18/08		AQ	3	3							3															
081102 2-05(M)	GW-LMW-16	11/18/08	1605	AQ	5	3	1		1				3					1					1					ADDED ON TAC COC PER 11/19/08 JON
6																												
7																												
8																												
9																												
10																												

Please include any information that may be useful in the analysis of the sample.
Example: high concentration
List analytes
MS/MSD

CUSTODY						
Relinquished By:	[signature]	Date/Time:	11/18/08 1800	Received By:	SHIPPER	Date/Time: 11/18/08 1800
Relinquished By:		Date/Time:		Received By:	[signature]	Date/Time: 11/19/08 1000am

By signing the request (chain of custody) you are ordering work from Analytical Management Laboratories, Inc. which constitutes the acceptance of the terms and conditions on the back of this form.

Delivery Method	Custody Seals	Coolant	Cooler Temp.	Receiving Comments:
☐ Delivered in Person ☐ Courier Fedex ☐ Airbill #: 842591973967	☑ Yes ☐ No ☐ Intact ☐ Broken	☑ Ice ☐ Blue Ice ☐ None	2.0 °C ☐ Temp. Blank ☑ Cooler	

AML
Analytical Management Laboratories, Inc.
15130 South Keeler
Olathe, Kansas 66062
Phone (913) 829-0101
Fax (913) 829-1181

42436

Chain of Custody Record / Request for Analysis

Client Contact Name: JUD SMITH
Company Name: US ARMY CORPS OF ENGINEERS
Address: 100 W OGLETHORPE AVE
City, State, Zip: SAVANNAH, GA 31401
Phone #: (912) 652-5673 Ext:
Fax #: (912) 652-5311
Email:

Project Name: FT BRAGG
Project Number:
Purchase Order Number: DO #122
Project Due Date:
Project Comments:
Print Sampler's Name: JON COOMBS

Analysis/Method to be Performed (Check all that apply)

Laboratory Project Number: 0811022

Specify method # ---> 8260 / 6010 APL

Lab ID	Sample Description	Date	Time	Matrix	Total # Containers	HCl	HNO_3	NaOH	H_2SO_4	Unpreserved	4° C	VOCs	SVOCs	Pesticides	PCBs	Herbicides	Metals (specify) APL	DRO	GRO	Explosives	Anions (specify)	Comments:
0811022-06	GW-LMW-DUP-2	11/18/08	1420	AQ	1		1										1					REPLACEMENT DUP
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Preservative: List total number of bottles for each preservative type.

Please include any information that may be useful in the analysis of the sample.
Example: high concentration
List analytes
MS/MSD

CUSTODY						
Relinquished By:	[signature]	Date/Time: 11/18/08	Received By:	SHIPPED	Date/Time:	11/18/08
Relinquished By:		Date/Time:	Received By:	[signature]	Date/Time:	11/19/08 1000am.

By signing the request (chain of custody) you are ordering work from Analytical Management Laboratories, Inc. which constitutes the acceptance of the terms and conditions on the back of this form.

Delivery Method	Custody Seals	Coolant	Cooler Temp.	Receiving Comments:
☐ Delivered in Person ☒ Courier FedEx ☐ Airbill #: 8125 9197 3967	☒ Yes ☐ No ☒ Intact ☐ Broken	☒ Ice ☐ Blue Ice ☐ None	2.0 °C ☐ Temp. Blank ☒ Cooler	

Analytical Management Laboratories - Sample Status and Receipt Report

AML Project Number	0811022	**Client AML ID**	USACE Savannah	**Report Lvl.** 3
Work Order Due Date	12/03/08	**Client Project ID**	Ft Bragg, DO# 122	
Work Order TAT	14			

AML Sample	*Matrix*	Client Sample ID	Date Collected	Projected Analytical Due Date	Analysis	Comments
0811022-01	Water	GW-LMW-9-11-08	11/18/08 14:20	12/01/08	Metals by 6020A	Appendix I
0811022-01	Water	GW-LMW-9-11-08	11/18/08 14:20	12/01/08	VOCs by 8260B	
0811022-01	Water	GW-LMW-9-11-08	11/18/08 14:20	12/01/08	Metals by 6010B	Appendix I
0811022-01	Water	GW-LMW-9-11-08	11/18/08 14:20	12/01/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811022-02	Water	GW-LMW-7-11-08	11/18/08 16:05	12/01/08	VOCs by 8260B	
0811022-02	Water	GW-LMW-7-11-08	11/18/08 16:05	12/01/08	Metals by 6020A	Appendix I
0811022-02	Water	GW-LMW-7-11-08	11/18/08 16:05	12/01/08	Metals by 6010B	Appendix I
0811022-02	Water	GW-LMW-7-11-08	11/18/08 16:05	12/01/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811022-03	Water	GW-LMW-Blank	11/18/08 16:30	12/01/08	Metals by 6010B	Appendix I
0811022-03	Water	GW-LMW-Blank	11/18/08 16:30	12/01/08	Metals by 6020A	Appendix I
0811022-03	Water	GW-LMW-Blank	11/18/08 16:30	12/01/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811022-03	Water	GW-LMW-Blank	11/18/08 16:30	12/01/08	VOCs by 8260B	
0811022-04	Water	Trip Blank	11/18/08 00:00	12/01/08	VOCs by 8260B	
0811022-05	Water	GW-LMW-16-11-08	11/18/08 16:05	12/01/08	Metals by 6010B	Appendix I
0811022-05	Water	GW-LMW-16-11-08	11/18/08 16:05	12/01/08	Nitrate/Nitrite by SM-4500-NO3 E	Nitrate
0811022-05	Water	GW-LMW-16-11-08	11/18/08 16:05	12/01/08	VOCs by 8260B	
0811022-05	Water	GW-LMW-16-11-08	11/18/08 16:05	12/01/08	Metals by 6020A	Appendix I
0811022-06	Water	GW-LMW-DUP-2	11/18/08 14:20	12/01/08	Metals by 6020A	Appendix I
0811022-06	Water	GW-LMW-DUP-2	11/18/08 14:20	12/01/08	Metals by 6010B	Appendix I

Analytical Management Laboratories, Inc.

AML - Sample Condition Upon Receipt Report
(See Comments for exceptions)

Client ID: USACE_Sav

Project ID: Ft Bragg, DO# 122

AML Work Order Number: 0811022

Cooler ID: Default Cooler

Delivery Method

Delivery Method: Fed Ex

Name of Person Receiving Samples: Nissa Said

Airbill Number: 842591974058

Custody Seals

Were Custody Seals Present? Yes

Were Custody Seals Intact? Yes

Cooler Opened By: Nissa Said

Date Opened 11/19/2008

Packaging / Coolant / Temperature

Type of Coolant Used: Ice

Temperature of Cooler: 2.00°C

Type of Packing Used: Bubble Wrap

Did all the bottles arrive unbroken? Yes

Were all bottles sealed in separate plastic bags? Yes

Chain of Custody

Was Chain of Custody filled out properly? Yes

Do Chain of Custody and Sample Labels agree? No

Comments/ Exceptions: GW-LMW-9-11-08 (2nd line) should read GW-LMW-7-11-08. GW-LMW-16-11-08 was added on the COC per Jon Coombs

Were all sample labels complete? Yes

Was a sufficient amount of sample sent for analysis? Yes

Were samples received in proper containers? Yes

Were air bubbles absent in VOA samples? Yes

Was sample pH within QC limits? Yes (if no see comments)

Was project manager contacted about any "out of control" issues? Yes

Samples Received by: Nissa Said

Project Manager Review: [signature]

Date: 11/19/08

Field Sample Analysis Data Sheets

(Form I equivalents)

0811022

(Sample Delivery Group, SDG)

6010B

(Parameter)

P811082

(Analytical Batch)

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-9-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-01
% Solids:	NA	Date Collected:	11/18/08 14:20
Analytical Method:	6010B	Date Analyzed:	11/19/08 17:28
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811082	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.00416	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel	0.00851	mg/L		0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-7-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-02
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	6010B	Date Analyzed:	11/19/08 17:34
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811082	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.00659	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel	0.00307	mg/L	J	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-03
% Solids:	NA	Date Collected:	11/18/08 16:30
Analytical Method:	6010B	Date Analyzed:	11/19/08 17:40
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811082	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium		mg/L	U	0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-16-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-05
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	6010B	Date Analyzed:	11/19/08 17:45
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811082	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0231	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium	0.00212	mg/L	J	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper	0.00533	mg/L	J	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-DUP-2
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-06
% Solids:	NA	Date Collected:	11/18/08 14:20
Analytical Method:	6010B	Date Analyzed:	11/19/08 17:51
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811082	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.00394	mg/L	J	0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

Note:

Field Sample Analysis Data Sheets

(Form I equivalents)

0811022

(Sample Delivery Group, SDG)

6020A

(Parameter)

P811083

(Analytical Batch)

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-9-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-01
% Solids:	NA	Date Collected:	11/18/08 14:20
Analytical Method:	6020A	Date Analyzed:	11/27/08 02:40
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811083	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic	8.70	ug/L		1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-7-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-02
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	6020A	Date Analyzed:	11/27/08 02:43
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811083	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic	10.8	ug/L		1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead	0.533	ug/L	J	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-03
% Solids:	NA	Date Collected:	11/18/08 16:30
Analytical Method:	6020A	Date Analyzed:	11/27/08 02:47
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811083	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic	10.4	ug/L		1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-16-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-05
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	6020A	Date Analyzed:	11/27/08 02:51
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811083	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic	9.27	ug/L		1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

Note:

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-DUP-2
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	0811022-06
% Solids:	NA	Date Collected:	11/18/08 14:20
Analytical Method:	6020A	Date Analyzed:	11/27/08 02:54
Preparation:	SM3030C	Date Received:	11/19/08 10:00
Batch:	P811083	Date Leached:	NA
Leach Method:		Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic	11.0	ug/L		1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

Note:

Field Sample Analysis Data Sheets

(Form I equivalents)

0811022

(Sample Delivery Group, SDG)

SM-4500-NO3 E

(Parameter)

P811078

(Analytical Batch)

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-9-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-01
% Solids:	NA	Date Collected:	11/18/08 14:20
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/19/08 10:00
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.236	mg/L		0.0200	0.0400	1

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-7-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-02
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/19/08 10:00
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.113	mg/L		0.0200	0.0400	1

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-03
% Solids:	NA	Date Collected:	11/18/08 16:30
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/19/08 10:00
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.106	mg/L		0.0200	0.0400	1

Note:

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-16-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-05
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/19/08 10:00
Batch:	P811078	Date Leached:	NA
Leach Method:		Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.0330	mg/L	J	0.0200	0.0400	1

Note:

Field Sample Analysis Data Sheets

(Form I equivalents)

0811022

(Sample Delivery Group, SDG)

8260B

(Parameter)

P811123

(Analytical Batch)

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-9-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-01
% Solids:	NA	Date Collected:	11/18/08 14:20
Analytical Method:	8260B	Date Analyzed:	11/24/08 22:12
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene	0.520	ug/L	J	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	0.410	ug/L	J	0.400	4.00	1
95-47-6	o-Xylene	0.220	ug/L	J	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-9-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-01
% Solids:	NA	Date Collected:	11/18/08 14:20
Analytical Method:	8260B	Date Analyzed:	11/24/08 22:12
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	0.210	ug/L	J	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-7-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-02
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	8260B	Date Analyzed:	11/24/08 22:44
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	U	0.200	2.00	1
74-87-3	Chloromethane	0.500	ug/L	J	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone	4.22	ug/L	J	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-7-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-02
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	8260B	Date Analyzed:	11/24/08 22:44
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-03
% Solids:	NA	Date Collected:	11/18/08 16:30
Analytical Method:	8260B	Date Analyzed:	11/24/08 20:35
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

AML Work Order/Report Number: 0811022 Printed: 12/4/2008

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-03
% Solids:	NA	Date Collected:	11/18/08 16:30
Analytical Method:	8260B	Date Analyzed:	11/24/08 20:35
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

1A - Equivalent

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Trip Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-04
% Solids:	NA	Date Collected:	11/18/08 00:00
Analytical Method:	8260B	Date Analyzed:	11/24/08 21:07
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	U	0.200	2.00	1
74-87-3	Chloromethane	0.400	ug/L	J	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone	2.19	ug/L	J	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

AML Work Order/Report Number: 0811022 Printed: 12/4/2008

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Trip Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-04
% Solids:	NA	Date Collected:	11/18/08 00:00
Analytical Method:	8260B	Date Analyzed:	11/24/08 21:07
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-16-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-05
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	8260B	Date Analyzed:	11/24/08 21:39
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	GW-LMW-16-11-08
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	0811022-05
% Solids:	NA	Date Collected:	11/18/08 16:05
Analytical Method:	8260B	Date Analyzed:	11/24/08 21:39
Preparation:	EPA 5030B	Date Received:	11/19/08 10:00
Batch:	P811123	Date Leached:	NA
Leach Method:			

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

Note:

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811022

(Sample Delivery Group, SDG)

6010B

(Parameter)

P811082

(Analytical Batch)

Quality Control Association Form

Lab Name: Analytical Management Laboratories, Inc. **Fraction:** METALS

QC Batch: P811082 **Method:** 6010B

Date Analyzed	Date Prepared	Lab Sample ID	Original Sample	Sample Type	Project Number
11/19/08	11/19/08	0811022-01		SAMPLE	0811022
11/19/08	11/19/08	0811022-02		SAMPLE	0811022
11/19/08	11/19/08	0811022-03		SAMPLE	0811022
11/19/08	11/19/08	0811022-05		SAMPLE	0811022
11/19/08	11/19/08	0811022-06		SAMPLE	0811022
11/19/08	11/19/08	8K19004-SRD1	0811020-01	Serial Dilution	0811022
11/19/08	11/19/08	P811082-BLK1		Method Blank	0811022
11/19/08	11/19/08	P811082-BS1		LCS	0811022
11/19/08	11/19/08	P811082-BSD1		LCS Dup	0811022
11/19/08	11/19/08	P811082-MS1	0811020-01	Matrix Spike	0811022
11/19/08	11/19/08	P811082-MSD1	0811020-01	Matrix Spike Dup	0811022
11/19/08	11/19/08	P811082-PS1	0811020-01	Post Spike	0811022

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 16:07
Preparation:	SM3030C	Date Received:	
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium		mg/L	U	0.00200	0.00400	1
7440-41-7	Beryllium		mg/L	U	0.00200	0.00400	1
7440-43-9	Cadmium		mg/L	U	0.00200	0.00400	1
7440-47-3	Chromium		mg/L	U	0.00500	0.0100	1
7440-48-4	Cobalt		mg/L	U	0.00200	0.00400	1
7440-50-8	Copper		mg/L	U	0.00500	0.0100	1
7440-02-0	Nickel		mg/L	U	0.00300	0.00600	1
7440-22-4	Silver		mg/L	U	0.00500	0.0100	1
7440-62-2	Vanadium		mg/L	U	0.00200	0.00400	1
7440-66-6	Zinc		mg/L	U	0.0250	0.0500	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 16:12
Preparation:	SM3030C	Date Received:	
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	1.95	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.508	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.515	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.511	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.507	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.939	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.501	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.505	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.499	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.06	mg/L		0.0250	0.0500	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 17:57
Preparation:	SM3030C	Date Received:	
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	2.03	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.530	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.540	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.533	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.528	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.987	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.513	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.534	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.523	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.08	mg/L		0.0250	0.0500	1

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811082

Fraction: METALS Matrix: Water

Units: mg/L

Lab Sample ID: ***P811082-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Barium	2.00	1.95	97.7		80	120
Beryllium	0.500	0.508	102		80	120
Cadmium	0.500	0.515	103		80	120
Chromium	0.500	0.511	102		80	120
Cobalt	0.500	0.507	101		80	120
Copper	1.00	0.939	93.9		80	120
Nickel	0.500	0.501	100		80	120
Silver	0.500	0.505	101		80	120
Vanadium	0.500	0.499	99.7		80	120
Zinc	1.00	1.06	106		80	120

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 10

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811082

Fraction: METALS Matrix: Water

Units: mg/L

Lab Sample ID: ***P811082-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Barium	2.00	2.03	102		80	120	3.90
Beryllium	0.500	0.530	106		80	120	4.10
Cadmium	0.500	0.540	108		80	120	4.72
Chromium	0.500	0.533	107		80	120	4.35
Cobalt	0.500	0.528	106		80	120	4.01
Copper	1.00	0.987	98.7		80	120	5.03
Nickel	0.500	0.513	103		80	120	2.26
Silver	0.500	0.534	107		80	120	5.60
Vanadium	0.500	0.523	105		80	120	4.84
Zinc	1.00	1.08	108		80	120	1.71

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 10

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-MS1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 16:41
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	2.01	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.531	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.519	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.519	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.517	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.957	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.506	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.517	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.506	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.09	mg/L		0.0250	0.0500	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-MSD1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	6010B	Date Analyzed:	11/19/08 16:49
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811082	Date Prepared:	11/19/08 11:06

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	1.95	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.513	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.501	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.500	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.501	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.938	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.491	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.499	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.490	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.04	mg/L		0.0250	0.0500	1

Form 5A - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811082

Fraction: METALS Matrix: Water

Units: mg/L

Original Sample ***0811020-01*** ***Lab Sample ID for MS :*** ***P811082-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Barium	0.0376	2.00	2.01	98.9		80	120
Beryllium	0	0.500	0.531	106		80	120
Cadmium	0	0.500	0.519	104		80	120
Chromium	0	0.500	0.519	104		80	120
Cobalt	0	0.500	0.517	103		80	120
Copper	0.00524	1.00	0.957	95.2		80	120
Nickel	0	0.500	0.506	101		80	120
Silver	0	0.500	0.517	103		80	120
Vanadium	0	0.500	0.506	101		80	120
Zinc	0	1.00	1.09	109		80	120

Form 5A - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811082

Fraction: METALS Matrix: Water

Units: mg/L

Original Sample ***0811020-01*** ***Lab Sample ID for MSD*** ***P811082-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Barium	0.0376	2.00	1.95	95.4		3.49		80	120	25
Beryllium	0	0.500	0.513	103		3.48		80	120	25
Cadmium	0	0.500	0.501	100		3.55		80	120	25
Chromium	0	0.500	0.500	100		3.64		80	120	25
Cobalt	0	0.500	0.501	100		3.12		80	120	25
Copper	0.00524	1.00	0.938	93.3		1.98		80	120	25
Nickel	0	0.500	0.491	98.1		3.17		80	120	25
Silver	0	0.500	0.499	99.7		3.65		80	120	25
Vanadium	0	0.500	0.490	97.9		3.29		80	120	25
Zinc	0	1.00	1.04	104		3.98		80	120	25

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Post Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811082-PS1
% Solids:	NA	Instrument ID:	ICP
Analytical Methdod:	6010B	Date Collected:	11/17/08 15:18
Preparation:	SM3030C	Date Analyzed:	11/19/08 16:57
Batch:	P811082	Date Received:	11/18/08 10:00

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	2.00	mg/L		0.00200	0.00400	1
7440-41-7	Beryllium	0.527	mg/L		0.00200	0.00400	1
7440-43-9	Cadmium	0.527	mg/L		0.00200	0.00400	1
7440-47-3	Chromium	0.515	mg/L		0.00500	0.0100	1
7440-48-4	Cobalt	0.514	mg/L		0.00200	0.00400	1
7440-50-8	Copper	0.948	mg/L		0.00500	0.0100	1
7440-02-0	Nickel	0.515	mg/L		0.00300	0.00600	1
7440-22-4	Silver	0.513	mg/L		0.00500	0.0100	1
7440-62-2	Vanadium	0.503	mg/L		0.00200	0.00400	1
7440-66-6	Zinc	1.10	mg/L		0.0250	0.0500	1

Form 5B - Equivalent

POST DIGESTION SPIKE SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc.

Fraction: METALS

Analytical Batch: 8K19004

Prep Batch: P811082

COMPOUND	Original Amount	SPIKE ADDED	PDS Amount	PDS % REC	PDS % REC FLAG	QC. LIMITS LCL	QC. LIMITS UCL
Barium	0.0376	2.00	2.00	98.3		75	125
Beryllium	ND	0.500	0.527	105		75	125
Cadmium	ND	0.500	0.527	105		75	125
Chromium	ND	0.500	0.515	103		75	125
Cobalt	ND	0.500	0.514	103		75	125
Copper	0.00524	1.00	0.948	94.3		75	125
Nickel	ND	0.500	0.515	103		75	125
Silver	ND	0.500	0.513	103		75	125
Vanadium	ND	0.500	0.503	101		75	125
Zinc	ND	1.00	1.10	110		75	125

* Values outside of QC limits

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Serial Dilution
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	8K19004-SRD1
% Solids:	NA	Instrument ID:	ICP
Analytical Methdod:	6010B	Date Collected:	11/17/08 15:18
Preparation:	P811082	Date Analyzed:	11/19/08 16:35
Batch:	8K19004	Date Received:	11/18/08 10:00

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-39-3	Barium	0.0392	mg/L		0.0100	0.0200	5
7440-41-7	Beryllium		mg/L	U	0.0100	0.0200	5
7440-43-9	Cadmium		mg/L	U	0.0100	0.0200	5
7440-47-3	Chromium		mg/L	U	0.0250	0.0500	5
7440-48-4	Cobalt		mg/L	U	0.0100	0.0200	5
7440-50-8	Copper		mg/L	U	0.0250	0.0500	5
7440-02-0	Nickel		mg/L	U	0.0150	0.0300	5
7440-22-4	Silver		mg/L	U	0.0250	0.0500	5
7440-62-2	Vanadium		mg/L	U	0.0100	0.0200	5
7440-66-6	Zinc		mg/L	U	0.125	0.250	5

Form 8 - Equivalent

PERCENT DIFFERENCE FOR SERIAL DILUTION SAMPLE

Lab Name: Analytical Management Laboratories, Inc. Analytical Batch: 8K19004

Fraction: METALS

Orig HSN: 0811020-01 **SD HSN:** 8K19004-SRD1

Orig Dil: 1 **SD Dil:** 5

COMPOUND	Original Amount	SD Amount	%D	QC FLAG	QC. LIMIT UCL
Barium	0.0376	0.0392	4.26		10
Beryllium	U	U	NA		10
Cadmium	U	U	NA		10
Chromium	U	U	NA		10
Cobalt	U	U	NA		10
Copper	0.00524	U	NA		10
Nickel	U	U	NA		10
Silver	U	U	NA		10
Vanadium	U	U	NA		10
Zinc	U	U	NA		10

* Values outside of QC limits

NA = Not Applicable

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811022

(Sample Delivery Group, SDG)

6020A

(Parameter)

P811083

(Analytical Batch)

Quality Control Association Form

Lab Name: Analytical Management Laboratories, Inc. **Fraction:** METALS

QC Batch: P811083 **Method:** 6020A

Date Analyzed	Date Prepared	Lab Sample ID	Original Sample	Sample Type	Project Number
11/27/08	11/19/08	0811022-01		SAMPLE	0811022
11/27/08	11/19/08	0811022-02		SAMPLE	0811022
11/27/08	11/19/08	0811022-03		SAMPLE	0811022
11/27/08	11/19/08	0811022-05		SAMPLE	0811022
11/27/08	11/19/08	0811022-06		SAMPLE	0811022
11/27/08	11/26/08	8K26001-SRD1	0811020-01	Serial Dilution	0811022
11/27/08	11/19/08	P811083-BLK1		Method Blank	0811022
11/27/08	11/19/08	P811083-BS1		LCS	0811022
11/27/08	11/19/08	P811083-BSD1		LCS Dup	0811022
11/27/08	11/19/08	P811083-MS1	0811020-01	Matrix Spike	0811022
11/27/08	11/19/08	P811083-MSD1	0811020-01	Matrix Spike Dup	0811022
11/27/08	11/19/08	P811083-PS1	0811020-01	Post Spike	0811022

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 01:43
Preparation:	SM3030C	Date Received:	
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	0.500	1.00	1
7440-38-2	Arsenic		ug/L	U	1.00	2.00	1
7440-43-9	Cadmium		ug/L	U	0.500	1.00	1
7439-92-1	Lead		ug/L	U	0.500	1.00	1
7782-49-2	Selenium		ug/L	U	2.00	4.00	1
7440-28-0	Thallium		ug/L	U	0.500	1.00	1
7440-31-5	Tin		ug/L	U	2.50	5.00	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 01:47
Preparation:	SM3030C	Date Received:	
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	53.8	ug/L		0.500	1.00	1
7440-38-2	Arsenic	50.0	ug/L		1.00	2.00	1
7440-43-9	Cadmium	48.9	ug/L		0.500	1.00	1
7439-92-1	Lead	479	ug/L		0.500	1.00	1
7782-49-2	Selenium	47.3	ug/L		2.00	4.00	1
7440-28-0	Thallium	49.6	ug/L		0.500	1.00	1
7440-31-5	Tin	94.2	ug/L		2.50	5.00	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 01:52
Preparation:	SM3030C	Date Received:	
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	54.2	ug/L		0.500	1.00	1
7440-38-2	Arsenic	50.1	ug/L		1.00	2.00	1
7440-43-9	Cadmium	48.2	ug/L		0.500	1.00	1
7439-92-1	Lead	479	ug/L		0.500	1.00	1
7782-49-2	Selenium	46.4	ug/L		2.00	4.00	1
7440-28-0	Thallium	49.4	ug/L		0.500	1.00	1
7440-31-5	Tin	95.0	ug/L		2.50	5.00	1

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811083

Fraction: METALS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811083-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Antimony	50.0	53.8	108		80	120
Arsenic	50.0	50.0	100		80	120
Cadmium	50.0	48.9	97.9		80	120
Lead	500	479	95.8		80	120
Selenium	50.0	47.3	94.6		80	120
Thallium	50.0	49.6	99.2		80	120
Tin	100	94.2	94.2		80	120

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 7

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811083

Fraction: METALS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811083-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Antimony	50.0	54.2	108		80	120	0.668
Arsenic	50.0	50.1	100		80	120	0.0114
Cadmium	50.0	48.2	96.5		80	120	1.46
Lead	500	479	95.9		80	120	0.0221
Selenium	50.0	46.4	92.9		80	120	1.83
Thallium	50.0	49.4	98.9		80	120	0.288
Tin	100	95.0	95.0		80	120	0.788

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 7

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-MS1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 02:06
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	54.7	ug/L		0.500	1.00	1
7440-38-2	Arsenic	63.4	ug/L		1.00	2.00	1
7440-43-9	Cadmium	49.0	ug/L		0.500	1.00	1
7439-92-1	Lead	474	ug/L		0.500	1.00	1
7782-49-2	Selenium	50.8	ug/L		2.00	4.00	1
7440-28-0	Thallium	35.8	ug/L		0.500	1.00	1
7440-31-5	Tin	96.0	ug/L		2.50	5.00	1

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-MSD1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	6020A	Date Analyzed:	11/27/08 02:11
Preparation:	SM3030C	Date Received:	11/18/08 10:00
Batch:	P811083	Date Prepared:	11/19/08 11:09

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	54.9	ug/L		0.500	1.00	1
7440-38-2	Arsenic	61.7	ug/L		1.00	2.00	1
7440-43-9	Cadmium	49.8	ug/L		0.500	1.00	1
7439-92-1	Lead	486	ug/L		0.500	1.00	1
7782-49-2	Selenium	51.6	ug/L		2.00	4.00	1
7440-28-0	Thallium	37.4	ug/L		0.500	1.00	1
7440-31-5	Tin	98.5	ug/L		2.50	5.00	1

Form 5A - Equivalent

MATRIX SPIKE RECOVERY

Lab Name:	Analytical Management Laboratories, Inc.	Batch:	P811083
Fraction:	METALS	Matrix:	Water
Units:	ug/L		

Original Sample ***0811020-01*** ***Lab Sample ID for MS :*** ***P811083-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Antimony	0	50.0	54.7	109		75	125
Arsenic	12.7	50.0	63.4	101		75	125
Cadmium	0	50.0	49.0	97.9		75	125
Lead	1.08	500	474	94.6		75	125
Selenium	0	50.0	50.8	102		75	125
Thallium	0	50.0	35.8	71.5	ME	75	125
Tin	0	100	96.0	96.0		75	125

Form 5A - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811083

Fraction: METALS Matrix: Water

Units: ug/L

Original Sample ***0811020-01*** ***Lab Sample ID for MSD*** ***P811083-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Antimony	0	50.0	54.9	110		0.304		75	125	20
Arsenic	12.7	50.0	61.7	98.0		2.58		75	125	20
Cadmium	0	50.0	49.8	99.7		1.77		75	125	20
Lead	1.08	500	486	96.9		2.38		75	125	20
Selenium	0	50.0	51.6	103		1.50		75	125	20
Thallium	0	50.0	37.4	74.8	ME	4.52		75	125	20
Tin	0	100	98.5	98.5		2.55		75	125	20

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Post Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	P811083-PS1
% Solids:	NA	Instrument ID:	ICPMS
Analytical Methdod:	6020A	Date Collected:	11/17/08 15:18
Preparation:	SM3030C	Date Analyzed:	11/27/08 02:17
Batch:	P811083	Date Received:	11/18/08 10:00

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony	54.0	ug/L				1
7440-38-2	Arsenic	58.8	ug/L				1
7440-43-9	Cadmium	48.4	ug/L				1
7439-92-1	Lead	476	ug/L				1
7782-49-2	Selenium	48.9	ug/L				1
7440-28-0	Thallium	48.2	ug/L				1
7440-31-5	Tin	96.5	ug/L				1

Form 5B - Equivalent

POST DIGESTION SPIKE SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc.

Fraction: METALS

Analytical Batch: 8K26001

Prep Batch: P811083

COMPOUND	Original Amount	SPIKE ADDED	PDS Amount	PDS % REC	PDS % REC FLAG	QC. LIMITS LCL	QC. LIMITS UCL
Antimony	0.181	50.0	54.0	108		75	125
Arsenic	12.7	50.0	58.8	92.1		75	125
Cadmium	0.146	50.0	48.4	96.4		75	125
Lead	1.08	500	476	95.0		75	125
Selenium	1.66	50.0	48.9	94.6		75	125
Thallium	0.113	50.0	48.2	96.1		75	125
Tin	0.623	100	96.5	95.9		75	125

* Values outside of QC limits

INORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Serial Dilution
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	50.0 mL / 50 mL	Lab Sample ID:	8K26001-SRD1
% Solids:	NA	Instrument ID:	ICPMS
Analytical Methdod:	6020A	Date Collected:	11/17/08 15:18
Preparation:	P811083	Date Analyzed:	11/27/08 02:03
Batch:	8K26001	Date Received:	11/18/08 10:00

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
7440-36-0	Antimony		ug/L	U	2.50	5.00	5
7440-38-2	Arsenic		ug/L	U	5.00	10.0	5
7440-43-9	Cadmium		ug/L	U	2.50	5.00	5
7439-92-1	Lead		ug/L	U	2.50	5.00	5
7782-49-2	Selenium		ug/L	U	10.0	20.0	5
7440-28-0	Thallium		ug/L	U	2.50	5.00	5
7440-31-5	Tin		ug/L	U	12.5	25.0	5

Form 8 - Equivalent

PERCENT DIFFERENCE FOR SERIAL DILUTION SAMPLE

Lab Name: Analytical Management Laboratories, Inc. Analytical Batch: 8K26001

Fraction: METALS

Orig HSN: 0811020-01 **SD HSN:** 8K26001-SRD1

Orig Dil: 1 **SD Dil:** 5

COMPOUND	Original Amount	SD Amount	%D	QC FLAG	QC. LIMIT UCL
Antimony	U	U	NA		10
Arsenic	12.7	U	NA		10
Cadmium	U	U	NA		10
Lead	1.08	U	NA		10
Selenium	U	U	NA		10
Thallium	U	U	NA		10
Tin	U	U	NA		10

* Values outside of QC limits

NA = Not Applicable

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811022

(Sample Delivery Group, SDG)

SM-4500-NO3 E

(Parameter)

P811078

(Analytical Batch)

Quality Control Association Form

Lab Name:	Analytical Management Laboratories, Inc.	**Fraction:**	Wet Chemistry
QC Batch:	P811078	**Method:**	SM-4500-NO3 E

Date Analyzed	Date Prepared	Lab Sample ID	Original Sample	Sample Type	Project Number
11/21/08	11/20/08	0811022-01		SAMPLE	0811022
11/21/08	11/20/08	0811022-02		SAMPLE	0811022
11/21/08	11/20/08	0811022-03		SAMPLE	0811022
11/21/08	11/20/08	0811022-05		SAMPLE	0811022
11/21/08	11/20/08	P811078-BLK1		Method Blank	0811022
11/21/08	11/20/08	P811078-BS1		LCS	0811022
11/21/08	11/20/08	P811078-BSD1		LCS Dup	0811022
11/21/08	11/20/08	P811078-MS1	0811020-01	Matrix Spike	0811022
11/21/08	11/20/08	P811078-MSD1	0811020-01	Matrix Spike Dup	0811022

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N		mg/L	U	0.0200	0.0400	1

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.276	mg/L		0.0200	0.0400	1

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	0.281	mg/L		0.0200	0.0400	1

Form 7 - Equivalent

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811078

Fraction: WET Matrix: Water

Units: mg/L

Lab Sample ID: ***P811078-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Nitrate/Nitrite as N	0.300	0.276	92.0		80	120

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 1

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811078

Fraction: WET Matrix: Water

Units: mg/L

Lab Sample ID: ***P811078-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Nitrate/Nitrite as N	0.300	0.281	93.7		80	120	1.80

Actual Number of Marginal Exceedences: 0

Number of Exceedences (ME) Allowed: 0

Total Number of Analytes: 1

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-MS1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	1.83	mg/L		0.200	0.400	10

ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811078-MSD1
% Solids:	NA	Date Collected:	11/17/08 15:18
Analytical Methdod:	SM-4500-NO3 E	Date Analyzed:	11/21/08 16:06
Preparation:	SM-4500-NO3 E	Date Received:	11/18/08 10:00
Batch:	P811078	Date Prepared:	11/20/08 10:18

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
N3N2N	Nitrate/Nitrite as N	1.78	mg/L		0.200	0.400	10

Form 5A - Equivalent

MATRIX SPIKE RECOVERY

Lab Name:	Analytical Management Laboratories, Inc.	Batch:	P811078
Fraction:	WET	Matrix:	Water
Units:	mg/L		

Original Sample ***0811020-01*** ***Lab Sample ID for MS :*** ***P811078-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Nitrate/Nitrite as N	1.46	0.300	1.83	123	ME*	80	120

Form 5A - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name:	Analytical Management Laboratories, Inc.	Batch:	P811078
Fraction:	WET	Matrix:	Water
Units:	mg/L		

Original Sample ***0811020-01*** ***Lab Sample ID for MSD*** ***P811078-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
Nitrate/Nitrite as N	1.46	0.300	1.78	107		2.77		80	120	20

QAQC Analysis Data Sheets

(Form I equivalents, QCAF Form, Recovery Forms)

0811022

(Sample Delivery Group, SDG)

8260B

(Parameter)

P811123

(Analytical Batch)

Quality Control Association Form

Lab Name:	Analytical Management Laboratories, Inc.	**Fraction:**	VOA_GCMS
QC Batch:	P811123	**Method:**	8260B

Date Analyzed	Lab Sample ID	Original Sample	Sample Type	Project Number
11/24/08	0811022-01		SAMPLE	0811022
11/24/08	0811022-02		SAMPLE	0811022
11/24/08	0811022-03		SAMPLE	0811022
11/24/08	0811022-04		SAMPLE	0811022
11/24/08	0811022-05		SAMPLE	0811022
11/24/08	P811123-BLK1		Method Blank	0811022
11/24/08	P811123-BS1		LCS	0811022
11/24/08	P811123-BSD1		LCS Dup	0811022
11/25/08	P811123-MS1	0811027-01	Matrix Spike	0811022
11/25/08	P811123-MSD1	0811027-01	Matrix Spike Dup	0811022

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P811123

GW-LMW-9-11-08 (0811022-01)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	108	85	115	
1,2-Dichloroethane-d4	112	70	120	
Toluene-d8	103	85	120	
4-Bromofluorobenzene	103	75	120	

GW-LMW-7-11-08 (0811022-02)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	107	85	115	
1,2-Dichloroethane-d4	110	70	120	
Toluene-d8	104	85	120	
4-Bromofluorobenzene	102	75	120	

GW-LMW-Blank (0811022-03)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	104	85	115	
1,2-Dichloroethane-d4	105	70	120	
Toluene-d8	104	85	120	
4-Bromofluorobenzene	101	75	120	

Trip Blank (0811022-04)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	103	85	115	
1,2-Dichloroethane-d4	105	70	120	
Toluene-d8	102	85	120	
4-Bromofluorobenzene	100	75	120	

GW-LMW-16-11-08 (0811022-05)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	104	85	115	
1,2-Dichloroethane-d4	106	70	120	
Toluene-d8	102	85	120	
4-Bromofluorobenzene	103	75	120	

Form 2 - Equivalent

SYSTEM MONITORING COMPOUND RECOVERY

Laboratory: Analytical Management Laboratories, Inc.

QC Batch: P811123

Blank (P811123-BLK1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	101	85	115	
1,2-Dichloroethane-d4	97.4	70	120	
Toluene-d8	101	85	120	
4-Bromofluorobenzene	101	75	120	

LCS (P811123-BS1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	99.7	85	115	
1,2-Dichloroethane-d4	92.4	70	120	
Toluene-d8	102	85	120	
4-Bromofluorobenzene	99.4	75	120	

LCS Dup (P811123-BSD1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	99.1	85	115	
1,2-Dichloroethane-d4	94.8	70	120	
Toluene-d8	102	85	120	
4-Bromofluorobenzene	102	75	120	

Matrix Spike (P811123-MS1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	98.0	85	115	
1,2-Dichloroethane-d4	93.5	70	120	
Toluene-d8	104	85	120	
4-Bromofluorobenzene	100	75	120	

Matrix Spike Dup (P811123-MSD1)

Surrogate Compound	*% Rec*	*QC Limit Low*	*QC Limit High*	*QC Flag*
Dibromofluoromethane	101	85	115	
1,2-Dichloroethane-d4	96.0	70	120	
Toluene-d8	104	85	120	
4-Bromofluorobenzene	101	75	120	

Form 1 - Equivalent

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/24/08 18:57
Preparation:	EPA 5030B	Date Received:	
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane		ug/L	U	0.200	2.00	1
74-87-3	Chloromethane		ug/L	U	0.400	2.00	1
75-01-4	Vinyl chloride		ug/L	U	0.200	2.00	1
74-83-9	Bromomethane		ug/L	Q1, U	0.200	2.00	1
75-00-3	Chloroethane		ug/L	Q1, U	0.200	2.00	1
75-69-4	Trichlorofluoromethane		ug/L	U	0.200	2.00	1
75-35-4	1,1-Dichloroethene		ug/L	U	0.200	2.00	1
107-02-8	Acrolein		ug/L	U	1.00	10.0	1
67-64-1	Acetone		ug/L	U	2.00	10.0	1
107-13-1	Acrylonitrile		ug/L	U	0.200	10.0	1
75-15-0	Carbon disulfide		ug/L	U	0.200	2.00	1
75-09-2	Methylene Chloride		ug/L	U	0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
108-05-4	Vinyl acetate		ug/L	U	0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether		ug/L	U	0.200	2.00	1
75-34-3	1,1-Dichloroethane		ug/L	U	0.200	2.00	1
78-93-3	2-Butanone		ug/L	U	2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene		ug/L	U	0.200	2.00	1
594-20-7	2,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-97-5	Bromochloromethane		ug/L	U	0.200	2.00	1
67-66-3	Chloroform		ug/L	U	0.200	2.00	1
71-55-6	1,1,1-Trichloroethane		ug/L	U	0.200	2.00	1
563-58-6	1,1-Dichloropropene		ug/L	U	0.200	2.00	1
56-23-5	Carbon Tetrachloride		ug/L	U	0.200	2.00	1
107-06-2	1,2-Dichloroethane		ug/L	U	0.200	2.00	1
71-43-2	Benzene		ug/L	U	0.200	2.00	1
79-01-6	Trichloroethene		ug/L	U	0.200	2.00	1
78-87-5	1,2-Dichloropropane		ug/L	U	0.200	2.00	1
74-95-3	Dibromomethane		ug/L	U	0.200	2.00	1
75-27-4	Bromodichloromethane		ug/L	U	0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
108-10-1	4-Methyl-2-pentanone		ug/L	U	2.00	10.0	1
108-88-3	Toluene		ug/L	U	0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene		ug/L	U	0.200	2.00	1
79-00-5	1,1,2-Trichloroethane		ug/L	U	0.200	2.00	1
142-28-9	1,3-Dichloropropane		ug/L	U	0.200	2.00	1
127-18-4	Tetrachloroethene		ug/L	U	0.200	2.00	1
591-78-6	2-Hexanone		ug/L	U	2.00	10.0	1
124-48-1	Dibromochloromethane		ug/L	U	0.200	2.00	1
106-93-4	1,2-Dibromoethane		ug/L	U	0.200	2.00	1
108-90-7	Chlorobenzene		ug/L	U	0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane		ug/L	U	0.200	2.00	1
100-41-4	Ethylbenzene		ug/L	U	0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene		ug/L	U	0.400	4.00	1
95-47-6	o-Xylene		ug/L	U	0.200	2.00	1
100-42-5	Styrene		ug/L	U	0.200	2.00	1
75-25-2	Bromoform		ug/L	U	0.200	2.00	1
98-82-8	Isopropylbenzene		ug/L	U	0.200	2.00	1
96-18-4	1,2,3-Trichloropropane		ug/L	U	0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane		ug/L	U	0.200	2.00	1

AML Work Order/Report Number: 0811022 Printed: 12/4/2008

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Method Blank
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-BLK1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/24/08 18:57
Preparation:	EPA 5030B	Date Received:	
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene		ug/L	U	0.200	2.00	1
103-65-1	n-Propylbenzene		ug/L	U	0.200	2.00	1
95-49-8	2-Chlorotoluene		ug/L	U	0.200	2.00	1
106-43-4	4-Chlorotoluene		ug/L	U	0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene		ug/L	U	0.200	2.00	1
98-06-6	tert-Butylbenzene		ug/L	U	0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene		ug/L	U	0.200	2.00	1
135-98-8	sec-Butylbenzene		ug/L	U	0.200	2.00	1
541-73-1	1,3-Dichlorobenzene		ug/L	U	0.200	2.00	1
106-46-7	1,4-Dichlorobenzene		ug/L	U	0.200	2.00	1
95-50-1	1,2-Dichlorobenzene		ug/L	U	0.200	2.00	1
99-87-6	4-Isopropyltoluene		ug/L	U	0.200	2.00	1
104-51-8	n-Butylbenzene		ug/L	U	0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane		ug/L	U	0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene		ug/L	U	0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene		ug/L	U	0.400	2.00	1
87-68-3	Hexachlorobutadiene		ug/L	U	0.200	2.00	1
91-20-3	Naphthalene		ug/L	U	0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/24/08 17:19
Preparation:	EPA 5030B	Date Received:	
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	22.8	ug/L		0.200	2.00	1
74-87-3	Chloromethane	20.5	ug/L		0.400	2.00	1
75-01-4	Vinyl chloride	25.0	ug/L		0.200	2.00	1
74-83-9	Bromomethane	46.7	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	35.2	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	22.3	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	24.0	ug/L		0.200	2.00	1
107-02-8	Acrolein	140	ug/L		1.00	10.0	1
67-64-1	Acetone	116	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	23.4	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.6	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	24.5	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	24.6	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	22.8	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	23.4	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	23.5	ug/L		0.200	2.00	1
78-93-3	2-Butanone	110	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	24.0	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	22.9	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	24.5	ug/L		0.200	2.00	1
67-66-3	Chloroform	23.1	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	22.4	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	23.4	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	22.5	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	22.4	ug/L		0.200	2.00	1
71-43-2	Benzene	23.3	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.4	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	24.2	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	23.5	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	22.9	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	23.8	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	118	ug/L		2.00	10.0	1
108-88-3	Toluene	23.2	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.0	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	24.3	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	24.4	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	23.6	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	118	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	24.1	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	24.5	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	23.8	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	23.4	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	23.4	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	46.2	ug/L		0.400	4.00	1
95-47-6	o-Xylene	23.4	ug/L		0.200	2.00	1
100-42-5	Styrene	23.4	ug/L		0.200	2.00	1
75-25-2	Bromoform	23.2	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	23.1	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	24.0	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	24.9	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-BS1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/24/08 17:19
Preparation:	EPA 5030B	Date Received:	
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	24.7	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	24.5	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	24.4	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	24.0	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	24.1	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	24.1	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	23.4	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	23.7	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.9	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.9	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.3	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	23.6	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	23.6	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	25.3	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	24.5	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	25.3	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	21.9	ug/L		0.200	2.00	1
91-20-3	Naphthalene	26.3	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/24/08 17:52
Preparation:	EPA 5030B	Date Received:	
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	23.4	ug/L		0.200	2.00	1
74-87-3	Chloromethane	21.2	ug/L		0.400	2.00	1
75-01-4	Vinyl chloride	24.8	ug/L		0.200	2.00	1
74-83-9	Bromomethane	47.7	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	35.4	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	23.0	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	24.6	ug/L		0.200	2.00	1
107-02-8	Acrolein	143	ug/L		1.00	10.0	1
67-64-1	Acetone	121	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	24.2	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	25.5	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.0	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	25.2	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	23.6	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	24.8	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	24.2	ug/L		0.200	2.00	1
78-93-3	2-Butanone	120	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	24.8	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	23.4	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	25.9	ug/L		0.200	2.00	1
67-66-3	Chloroform	23.9	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	23.2	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	24.0	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	23.3	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	23.1	ug/L		0.200	2.00	1
71-43-2	Benzene	23.7	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	24.1	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	24.7	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	24.3	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	23.8	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	25.0	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	127	ug/L		2.00	10.0	1
108-88-3	Toluene	23.6	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.9	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	25.4	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	25.5	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	25.1	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	128	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	25.4	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.6	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.6	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	24.6	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	24.0	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	47.6	ug/L		0.400	4.00	1
95-47-6	o-Xylene	24.2	ug/L		0.200	2.00	1
100-42-5	Styrene	24.1	ug/L		0.200	2.00	1
75-25-2	Bromoform	24.7	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	24.0	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	24.5	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	26.0	ug/L		0.200	2.00	1

AML Work Order/Report Number: 0811022 Printed: 12/4/2008

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	LCS Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-BSD1
% Solids:	NA	Date Collected:	
Analytical Methdod:	8260B	Date Analyzed:	11/24/08 17:52
Preparation:	EPA 5030B	Date Received:	
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	25.2	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	24.7	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	24.5	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	24.1	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	24.2	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	24.6	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	24.2	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	24.1	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	24.2	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	24.7	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.8	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	24.0	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	23.9	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	26.6	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	25.5	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	26.1	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	22.8	ug/L		0.200	2.00	1
91-20-3	Naphthalene	27.5	ug/L		0.400	2.00	1

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811123

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811123-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
Dichlorodifluoromethane	25.0	22.8	91.3		30	155
Chloromethane	25.0	20.5	82.2		40	125
Vinyl chloride	25.0	25.0	100		50	145
Bromomethane	25.0	46.7	187	ME*	30	145
Chloroethane	25.0	35.2	141	ME	60	135
Trichlorofluoromethane	25.0	22.3	89.4		60	145
1,1-Dichloroethene	25.0	24.0	96.0		70	130
Acrolein	125	140	112		54	142
Acetone	125	116	92.8		40	140
Acrylonitrile	25.0	23.4	93.5		71	129
Carbon disulfide	25.0	24.6	98.3		35	160
Methylene Chloride	25.0	24.5	98.2		55	140
trans-1,2-Dichloroethene	25.0	24.6	98.3		60	140
Vinyl acetate	25.0	22.8	91.0		72	121
Methyl tert-Butyl Ether	25.0	23.4	93.7		65	125
1,1-Dichloroethane	25.0	23.5	94.0		70	135
2-Butanone	125	110	87.6		30	150
cis-1,2-Dichloroethene	25.0	24.0	96.2		70	125
2,2-Dichloropropane	25.0	22.9	91.6		70	135
Bromochloromethane	25.0	24.5	98.0		65	130
Chloroform	25.0	23.1	92.5		65	135
1,1,1-Trichloroethane	25.0	22.4	89.8		65	130
1,1-Dichloropropene	25.0	23.4	93.6		75	130
Carbon Tetrachloride	25.0	22.5	90.1		65	140
1,2-Dichloroethane	25.0	22.4	89.8		70	130
Benzene	25.0	23.3	93.3		80	120
Trichloroethene	25.0	23.4	93.6		70	125
1,2-Dichloropropane	25.0	24.2	96.6		75	125
Dibromomethane	25.0	23.5	94.0		75	125
Bromodichloromethane	25.0	22.9	91.4		75	120
cis-1,3-Dichloropropene	25.0	23.8	95.4		70	130
4-Methyl-2-pentanone	125	118	94.4		60	135
Toluene	25.0	23.2	92.8		75	120
trans-1,3-Dichloropropene	25.0	23.0	91.9		55	140
1,1,2-Trichloroethane	25.0	24.3	97.4		75	125
1,3-Dichloropropane	25.0	24.4	97.6		75	125
Tetrachloroethene	25.0	23.6	94.4		45	150
2-Hexanone	125	118	94.3		55	130
Dibromochloromethane	25.0	24.1	96.3		60	135
1,2-Dibromoethane	25.0	24.5	98.0		80	120
Chlorobenzene	25.0	23.8	95.1		80	120
1,1,1,2-Tetrachloroethane	25.0	23.4	93.4		80	130
Ethylbenzene	25.0	23.4	93.5		75	125
m-Xylene/p-Xylene	50.0	46.2	92.4		75	130
o-Xylene	25.0	23.4	93.8		80	120
Styrene	25.0	23.4	93.5		65	135
Bromoform	25.0	23.2	92.9		70	130
Isopropylbenzene	25.0	23.1	92.4		75	125
1,2,3-Trichloropropane	25.0	24.0	95.8		75	125
1,1,2,2-Tetrachloroethane	25.0	24.9	99.7		65	130
Bromobenzene	25.0	24.7	99.0		75	125
n-Propylbenzene	25.0	24.5	98.1		70	130
2-Chlorotoluene	25.0	24.4	97.6		75	125
4-Chlorotoluene	25.0	24.0	95.8		75	130

LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811123

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811123-BS1***

Analyte	*SPIKE ADDED*	*LCS AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*	
					LCL	*UCL*
1,3,5-Trimethylbenzene	25.0	24.1	96.4		75	130
tert-Butylbenzene	25.0	24.1	96.6		70	130
1,2,4-Trimethylbenzene	25.0	23.4	93.7		75	130
sec-Butylbenzene	25.0	23.7	95.0		70	125
1,3-Dichlorobenzene	25.0	23.9	95.5		75	125
1,4-Dichlorobenzene	25.0	23.9	95.5		75	125
1,2-Dichlorobenzene	25.0	24.3	97.1		70	120
4-Isopropyltoluene	25.0	23.6	94.4		75	130
n-Butylbenzene	25.0	23.6	94.3		70	135
1,2-Dibromo-3-chloropropane	25.0	25.3	101		50	130
1,2,4-Trichlorobenzene	25.0	24.5	98.1		65	135
1,2,3-Trichlorobenzene	25.0	25.3	101		55	140
Hexachlorobutadiene	25.0	21.9	87.4		50	140
Naphthalene	25.0	26.3	105		55	140

Actual Number of Marginal Exceedences: 2

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811123

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811123-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
Dichlorodifluoromethane	25.0	23.4	93.8		30	155	2.68
Chloromethane	25.0	21.2	84.7		40	125	3.02
Vinyl chloride	25.0	24.8	99.2		50	145	0.804
Bromomethane	25.0	47.7	191	ME*	30	145	2.03
Chloroethane	25.0	35.4	141	ME	60	135	0.624
Trichlorofluoromethane	25.0	23.0	92.1		60	145	3.04
1,1-Dichloroethene	25.0	24.6	98.5		70	130	2.59
Acrolein	125	143	115		54	142	2.03
Acetone	125	121	97.1		40	140	4.62
Acrylonitrile	25.0	24.2	96.7		71	129	3.41
Carbon disulfide	25.0	25.5	102		35	160	3.83
Methylene Chloride	25.0	25.0	100		55	140	2.06
trans-1,2-Dichloroethene	25.0	25.2	101		60	140	2.61
Vinyl acetate	25.0	23.6	94.5		72	121	3.79
Methyl tert-Butyl Ether	25.0	24.8	99.4		65	125	5.93
1,1-Dichloroethane	25.0	24.2	96.9		70	135	3.06
2-Butanone	125	120	96.0		30	150	9.19
cis-1,2-Dichloroethene	25.0	24.8	99.1		70	125	2.99
2,2-Dichloropropane	25.0	23.4	93.6		70	135	2.16
Bromochloromethane	25.0	25.9	104		65	130	5.51
Chloroform	25.0	23.9	95.6		65	135	3.36
1,1,1-Trichloroethane	25.0	23.2	93.0		65	130	3.50
1,1-Dichloropropene	25.0	24.0	96.0		75	130	2.62
Carbon Tetrachloride	25.0	23.3	93.4		65	140	3.58
1,2-Dichloroethane	25.0	23.1	92.5		70	130	3.03
Benzene	25.0	23.7	94.9		80	120	1.66
Trichloroethene	25.0	24.1	96.2		70	125	2.82
1,2-Dichloropropane	25.0	24.7	99.0		75	125	2.41
Dibromomethane	25.0	24.3	97.1		75	125	3.22
Bromodichloromethane	25.0	23.8	95.2		75	120	3.99
cis-1,3-Dichloropropene	25.0	25.0	100		70	130	4.75
4-Methyl-2-pentanone	125	127	101		60	135	7.01
Toluene	25.0	23.6	94.4		75	120	1.62
trans-1,3-Dichloropropene	25.0	23.9	95.6		55	140	3.92
1,1,2-Trichloroethane	25.0	25.4	102		75	125	4.26
1,3-Dichloropropane	25.0	25.5	102		75	125	4.33
Tetrachloroethene	25.0	25.1	100		45	150	6.20
2-Hexanone	125	128	103		55	130	8.55
Dibromochloromethane	25.0	25.4	101		60	135	5.14
1,2-Dibromoethane	25.0	25.6	102		80	120	4.39
Chlorobenzene	25.0	24.6	98.5		80	120	3.51
1,1,1,2-Tetrachloroethane	25.0	24.6	98.6		80	130	5.42
Ethylbenzene	25.0	24.0	96.2		75	125	2.83
m-Xylene/p-Xylene	50.0	47.6	95.1		75	130	2.88
o-Xylene	25.0	24.2	96.8		80	120	3.11
Styrene	25.0	24.1	96.4		65	135	3.07
Bromoform	25.0	24.7	98.9		70	130	6.21
Isopropylbenzene	25.0	24.0	96.0		75	125	3.82
1,2,3-Trichloropropane	25.0	24.5	97.9		75	125	2.11
1,1,2,2-Tetrachloroethane	25.0	26.0	104		65	130	4.24
Bromobenzene	25.0	25.2	101		75	125	1.92
n-Propylbenzene	25.0	24.7	98.9		70	130	0.812
2-Chlorotoluene	25.0	24.5	97.9		75	125	0.327
4-Chlorotoluene	25.0	24.1	96.4		75	130	0.583

LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811123

Fraction: VOA GCMS Matrix: Water

Units: ug/L

Lab Sample ID: ***P811123-BSD1***

Analyte	*SPIKE ADDED*	*LCSD AMOUNT*	*%REC*	*QC FLAG*	*% REC QC. LIMITS*		*LCS/LCSD RPD*
					LCL	*UCL*	
1,3,5-Trimethylbenzene	25.0	24.2	96.6		75	130	0.207
tert-Butylbenzene	25.0	24.6	98.3		70	130	1.81
1,2,4-Trimethylbenzene	25.0	24.2	96.7		75	130	3.19
sec-Butylbenzene	25.0	24.1	96.2		70	125	1.34
1,3-Dichlorobenzene	25.0	24.2	97.0		75	125	1.54
1,4-Dichlorobenzene	25.0	24.7	98.8		75	125	3.38
1,2-Dichlorobenzene	25.0	24.8	99.4		70	120	2.36
4-Isopropyltoluene	25.0	24.0	96.2		75	130	1.89
n-Butylbenzene	25.0	23.9	95.7		70	135	1.47
1,2-Dibromo-3-chloropropane	25.0	26.6	107		50	130	5.16
1,2,4-Trichlorobenzene	25.0	25.5	102		65	135	4.00
1,2,3-Trichlorobenzene	25.0	26.1	104		55	140	3.00
Hexachlorobutadiene	25.0	22.8	91.2		50	140	4.25
Naphthalene	25.0	27.5	110		55	140	4.57

Actual Number of Marginal Exceedences: 2

Number of Exceedences (ME) Allowed: 3

Total Number of Analytes: 68

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-MS1
% Solids:	NA	Date Collected:	11/19/08 10:00
Analytical Methdod:	8260B	Date Analyzed:	11/25/08 00:54
Preparation:	EPA 5030B	Date Received:	11/20/08 09:30
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	21.6	ug/L		0.200	2.00	1
74-87-3	Chloromethane	20.2	ug/L		0.400	2.00	1
75-01-4	Vinyl chloride	24.4	ug/L		0.200	2.00	1
74-83-9	Bromomethane	33.7	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	29.2	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	19.7	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	23.8	ug/L		0.200	2.00	1
107-02-8	Acrolein	132	ug/L		1.00	10.0	1
67-64-1	Acetone	124	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	23.6	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	24.6	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.4	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	24.9	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	22.2	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	26.2	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	23.9	ug/L		0.200	2.00	1
78-93-3	2-Butanone	125	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.0	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	19.5	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	26.3	ug/L		0.200	2.00	1
67-66-3	Chloroform	23.7	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	22.6	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	23.6	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	22.6	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	23.4	ug/L		0.200	2.00	1
71-43-2	Benzene	44.1	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.5	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	25.5	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	24.4	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	23.1	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.2	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	133	ug/L		2.00	10.0	1
108-88-3	Toluene	28.6	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	23.7	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	25.8	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	25.5	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	20.6	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	131	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	24.7	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.3	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.5	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	24.4	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	46.5	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	151	ug/L		0.400	4.00	1
95-47-6	o-Xylene	104	ug/L		0.200	2.00	1
100-42-5	Styrene	27.3	ug/L		0.200	2.00	1
75-25-2	Bromoform	24.0	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	28.2	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	25.2	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	26.7	ug/L		0.200	2.00	1

AML Work Order/Report Number: 0811022 Printed: 12/4/2008

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-MS1
% Solids:	NA	Date Collected:	11/19/08 10:00
Analytical Methdod:	8260B	Date Analyzed:	11/25/08 00:54
Preparation:	EPA 5030B	Date Received:	11/20/08 09:30
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	25.3	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	31.8	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	38.6	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	28.6	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	68.7	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	18.4	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	130	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	33.2	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.8	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	24.0	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.8	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	29.0	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	32.2	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	26.8	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	23.9	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	25.4	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	13.3	ug/L		0.200	2.00	1
91-20-3	Naphthalene	53.8	ug/L		0.400	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-MSD1
% Solids:	NA	Date Collected:	11/19/08 10:00
Analytical Methdod:	8260B	Date Analyzed:	11/25/08 01:26
Preparation:	EPA 5030B	Date Received:	11/20/08 09:30
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
75-71-8	Dichlorodifluoromethane	21.6	ug/L		0.200	2.00	1
74-87-3	Chloromethane	19.7	ug/L		0.400	2.00	1
75-01-4	Vinyl chloride	24.3	ug/L		0.200	2.00	1
74-83-9	Bromomethane	34.6	ug/L	Q1	0.200	2.00	1
75-00-3	Chloroethane	29.1	ug/L	Q1	0.200	2.00	1
75-69-4	Trichlorofluoromethane	19.0	ug/L		0.200	2.00	1
75-35-4	1,1-Dichloroethene	24.5	ug/L		0.200	2.00	1
107-02-8	Acrolein	135	ug/L		1.00	10.0	1
67-64-1	Acetone	136	ug/L		2.00	10.0	1
107-13-1	Acrylonitrile	23.7	ug/L		0.200	10.0	1
75-15-0	Carbon disulfide	25.2	ug/L		0.200	2.00	1
75-09-2	Methylene Chloride	25.9	ug/L		0.200	2.00	1
156-60-5	trans-1,2-Dichloroethene	25.3	ug/L		0.200	2.00	1
108-05-4	Vinyl acetate	23.0	ug/L		0.200	2.00	1
1634-04-4	Methyl tert-Butyl Ether	28.0	ug/L		0.200	2.00	1
75-34-3	1,1-Dichloroethane	24.3	ug/L		0.200	2.00	1
78-93-3	2-Butanone	139	ug/L		2.00	10.0	1
156-59-2	cis-1,2-Dichloroethene	25.3	ug/L		0.200	2.00	1
594-20-7	2,2-Dichloropropane	19.3	ug/L		0.200	2.00	1
74-97-5	Bromochloromethane	26.3	ug/L		0.200	2.00	1
67-66-3	Chloroform	23.8	ug/L		0.200	2.00	1
71-55-6	1,1,1-Trichloroethane	22.7	ug/L		0.200	2.00	1
563-58-6	1,1-Dichloropropene	23.8	ug/L		0.200	2.00	1
56-23-5	Carbon Tetrachloride	22.5	ug/L		0.200	2.00	1
107-06-2	1,2-Dichloroethane	24.0	ug/L		0.200	2.00	1
71-43-2	Benzene	45.9	ug/L		0.200	2.00	1
79-01-6	Trichloroethene	23.6	ug/L		0.200	2.00	1
78-87-5	1,2-Dichloropropane	26.0	ug/L		0.200	2.00	1
74-95-3	Dibromomethane	25.1	ug/L		0.200	2.00	1
75-27-4	Bromodichloromethane	23.8	ug/L		0.200	2.00	1
10061-01-5	cis-1,3-Dichloropropene	24.8	ug/L		0.200	2.00	1
108-10-1	4-Methyl-2-pentanone	143	ug/L		2.00	10.0	1
108-88-3	Toluene	29.2	ug/L		0.200	2.00	1
10061-02-6	trans-1,3-Dichloropropene	24.2	ug/L		0.200	2.00	1
79-00-5	1,1,2-Trichloroethane	26.2	ug/L		0.200	2.00	1
142-28-9	1,3-Dichloropropane	25.7	ug/L		0.200	2.00	1
127-18-4	Tetrachloroethene	20.5	ug/L		0.200	2.00	1
591-78-6	2-Hexanone	137	ug/L		2.00	10.0	1
124-48-1	Dibromochloromethane	25.0	ug/L		0.200	2.00	1
106-93-4	1,2-Dibromoethane	25.6	ug/L		0.200	2.00	1
108-90-7	Chlorobenzene	24.4	ug/L		0.200	2.00	1
630-20-6	1,1,1,2-Tetrachloroethane	24.2	ug/L		0.200	2.00	1
100-41-4	Ethylbenzene	47.6	ug/L		0.200	2.00	1
179601-23-1	m-Xylene/p-Xylene	159	ug/L		0.400	4.00	1
95-47-6	o-Xylene	108	ug/L		0.200	2.00	1
100-42-5	Styrene	27.6	ug/L		0.200	2.00	1
75-25-2	Bromoform	24.7	ug/L		0.200	2.00	1
98-82-8	Isopropylbenzene	28.8	ug/L		0.200	2.00	1
96-18-4	1,2,3-Trichloropropane	25.7	ug/L		0.400	2.00	1
79-34-5	1,1,2,2-Tetrachloroethane	27.2	ug/L		0.200	2.00	1

ORGANIC ANALYSIS DATA SHEET

Lab Name:	Analytical Management Laboratories, Inc.	Sample ID:	Matrix Spike Dup
Client ID:	USACE Savannah	Project:	Ft Bragg, DO# 122
Matrix:	Water	Project Num:	0811022
Initial/Final:	25.0 mL / 25 mL	Lab Sample ID:	P811123-MSD1
% Solids:	NA	Date Collected:	11/19/08 10:00
Analytical Methdod:	8260B	Date Analyzed:	11/25/08 01:26
Preparation:	EPA 5030B	Date Received:	11/20/08 09:30
Batch:	P811123		

CAS NO.	COMPOUND	RESULT	Units	Flag	LOD	LOQ	DIL
108-86-1	Bromobenzene	25.3	ug/L		0.200	2.00	1
103-65-1	n-Propylbenzene	32.7	ug/L		0.200	2.00	1
95-49-8	2-Chlorotoluene	39.9	ug/L		0.200	2.00	1
106-43-4	4-Chlorotoluene	28.7	ug/L		0.200	2.00	1
108-67-8	1,3,5-Trimethylbenzene	75.0	ug/L		0.200	2.00	1
98-06-6	tert-Butylbenzene	18.8	ug/L		0.200	2.00	1
95-63-6	1,2,4-Trimethylbenzene	135	ug/L		0.200	2.00	1
135-98-8	sec-Butylbenzene	35.2	ug/L		0.200	2.00	1
541-73-1	1,3-Dichlorobenzene	23.7	ug/L		0.200	2.00	1
106-46-7	1,4-Dichlorobenzene	23.9	ug/L		0.200	2.00	1
95-50-1	1,2-Dichlorobenzene	24.5	ug/L		0.200	2.00	1
99-87-6	4-Isopropyltoluene	30.9	ug/L		0.200	2.00	1
104-51-8	n-Butylbenzene	35.7	ug/L		0.200	2.00	1
96-12-8	1,2-Dibromo-3-chloropropane	27.9	ug/L		0.400	2.00	1
120-82-1	1,2,4-Trichlorobenzene	24.9	ug/L		0.200	2.00	1
87-61-6	1,2,3-Trichlorobenzene	26.3	ug/L		0.400	2.00	1
87-68-3	Hexachlorobutadiene	14.4	ug/L		0.200	2.00	1
91-20-3	Naphthalene	57.6	ug/L		0.400	2.00	1

Form 3 - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811123

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811027-01*** ***Lab Sample ID for MS :*** ***P811123-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
Dichlorodifluoromethane	0	25.0	21.6	86.2		30	155
Chloromethane	0	25.0	20.2	81.0		40	125
Vinyl chloride	0	25.0	24.4	97.8		50	145
Bromomethane	0	25.0	33.7	135		30	145
Chloroethane	0	25.0	29.2	117		60	135
Trichlorofluoromethane	0	25.0	19.7	78.7		60	145
1,1-Dichloroethene	0	25.0	23.8	95.3		70	130
Acrolein	0	125	132	106		54	142
Acetone	6.97	125	124	93.9		40	140
Acrylonitrile	0	25.0	23.6	94.6		71	129
Carbon disulfide	0	25.0	24.6	98.4		35	160
Methylene Chloride	0	25.0	25.4	102		55	140
trans-1,2-Dichloroethene	0	25.0	24.9	99.7		60	140
Vinyl acetate	0	25.0	22.2	88.6		72	121
Methyl tert-Butyl Ether	1.39	25.0	26.2	99.4		65	125
1,1-Dichloroethane	0	25.0	23.9	95.8		70	135
2-Butanone	0	125	125	99.9		30	150
cis-1,2-Dichloroethene	0	25.0	25.0	99.9		70	125
2,2-Dichloropropane	0	25.0	19.5	78.0		70	135
Bromochloromethane	0	25.0	26.3	105		65	130
Chloroform	0	25.0	23.7	94.9		65	135
1,1,1-Trichloroethane	0	25.0	22.6	90.4		65	130
1,1-Dichloropropene	0	25.0	23.6	94.6		75	130
Carbon Tetrachloride	0	25.0	22.6	90.4		65	140
1,2-Dichloroethane	0	25.0	23.4	93.8		70	130
Benzene	21.5	25.0	44.1	90.4		80	120
Trichloroethene	0	25.0	23.5	94.1		70	125
1,2-Dichloropropane	0	25.0	25.5	102		75	125
Dibromomethane	0	25.0	24.4	97.7		75	125
Bromodichloromethane	0	25.0	23.1	92.3		75	120
cis-1,3-Dichloropropene	0	25.0	24.2	96.8		70	130
4-Methyl-2-pentanone	0	125	133	107		60	135
Toluene	4.85	25.0	28.6	94.9		75	120
trans-1,3-Dichloropropene	0	25.0	23.7	94.7		55	140
1,1,2-Trichloroethane	0	25.0	25.8	103		75	125
1,3-Dichloropropane	0	25.0	25.5	102		75	125
Tetrachloroethene	0	25.0	20.6	82.5		45	150
2-Hexanone	0	125	131	105		55	130
Dibromochloromethane	0	25.0	24.7	99.0		60	135
1,2-Dibromoethane	0	25.0	25.3	101		80	120
Chlorobenzene	0	25.0	24.5	98.2		80	120
1,1,1,2-Tetrachloroethane	0	25.0	24.4	97.5		80	130
Ethylbenzene	25.0	25.0	46.5	86.0		75	125
m-Xylene/p-Xylene	114	50.0	151	74.1	ME	75	130
o-Xylene	87.6	25.0	104	65.9	ME*	80	120
Styrene	0	25.0	27.3	109		65	135
Bromoform	0	25.0	24.0	96.1		70	130
Isopropylbenzene	6.30	25.0	28.2	87.5		75	125
1,2,3-Trichloropropane	0	25.0	25.2	101		75	125
1,1,2,2-Tetrachloroethane	0	25.0	26.7	107		65	130
Bromobenzene	0	25.0	25.3	101		75	125
n-Propylbenzene	9.59	25.0	31.8	88.6		70	130
2-Chlorotoluene	0	25.0	38.6	154	ME*	75	125
4-Chlorotoluene	0	25.0	28.6	114		75	130

AML Work Order/Report Number: 0811022 Printed: 12/4/2008

Form 3 - Equivalent

MATRIX SPIKE RECOVERY

Lab Name: Analytical Management Laboratories, Inc. Batch: P811123

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811027-01*** ***Lab Sample ID for MS :*** ***P811123-MS1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MS* Amount	*%REC*	*QC FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*
1,3,5-Trimethylbenzene	53.9	25.0	68.7	59.0	ME*	75	130
tert-Butylbenzene	0	25.0	18.4	73.6		70	130
1,2,4-Trimethylbenzene	125	25.0	130	19.2	ME*	75	130
sec-Butylbenzene	0	25.0	33.2	133	ME	70	125
1,3-Dichlorobenzene	0	25.0	23.8	95.0		75	125
1,4-Dichlorobenzene	0	25.0	24.0	96.0		75	125
1,2-Dichlorobenzene	0	25.0	24.8	99.0		70	120
4-Isopropyltoluene	9.49	25.0	29.0	78.0		75	130
n-Butylbenzene	5.47	25.0	32.2	107		70	135
1,2-Dibromo-3-chloropropane	0	25.0	26.8	107		50	130
1,2,4-Trichlorobenzene	0	25.0	23.9	95.5		65	135
1,2,3-Trichlorobenzene	0	25.0	25.4	102		55	140
Hexachlorobutadiene	0	25.0	13.3	53.1		50	140
Naphthalene	27.3	25.0	53.8	106		55	140

Form 3 - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811123

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811027-01*** ***Lab Sample ID for MSD*** ***P811123-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS* *LCL*	*UCL*	*RPD*
Dichlorodifluoromethane	0	25.0	21.6	86.5		0.324		30	155	30
Chloromethane	0	25.0	19.7	79.0		2.55		40	125	30
Vinyl chloride	0	25.0	24.3	97.0		0.780		50	145	30
Bromomethane	0	25.0	34.6	139		2.66		30	145	30
Chloroethane	0	25.0	29.1	117		0.411		60	135	30
Trichlorofluoromethane	0	25.0	19.0	76.1		3.31		60	145	30
1,1-Dichloroethene	0	25.0	24.5	98.1		2.89		70	130	30
Acrolein	0	125	135	108		1.77		54	142	30
Acetone	6.97	125	136	103		9.37		40	140	30
Acrylonitrile	0	25.0	23.7	94.6		0.0846		71	129	30
Carbon disulfide	0	25.0	25.2	101		2.49		35	160	30
Methylene Chloride	0	25.0	25.9	104		1.87		55	140	30
trans-1,2-Dichloroethene	0	25.0	25.3	101		1.39		60	140	30
Vinyl acetate	0	25.0	23.0	92.1		3.81		72	121	30
Methyl tert-Butyl Ether	1.39	25.0	28.0	107		6.91		65	125	30
1,1-Dichloroethane	0	25.0	24.3	97.3		1.62		70	135	30
2-Butanone	0	125	139	111		10.5		30	150	30
cis-1,2-Dichloroethene	0	25.0	25.3	101		1.39		70	125	30
2,2-Dichloropropane	0	25.0	19.3	77.4		0.773		70	135	30
Bromochloromethane	0	25.0	26.3	105		0.152		65	130	30
Chloroform	0	25.0	23.8	95.2		0.337		65	135	30
1,1,1-Trichloroethane	0	25.0	22.7	90.8		0.486		65	130	30
1,1-Dichloropropene	0	25.0	23.8	95.3		0.716		75	130	30
Carbon Tetrachloride	0	25.0	22.5	89.9		0.621		65	140	30
1,2-Dichloroethane	0	25.0	24.0	96.2		2.48		70	130	30
Benzene	21.5	25.0	45.9	97.5		7.58		80	120	30
Trichloroethene	0	25.0	23.6	94.6		0.551		70	125	30
1,2-Dichloropropane	0	25.0	26.0	104		2.14		75	125	30
Dibromomethane	0	25.0	25.1	100		2.71		75	125	30
Bromodichloromethane	0	25.0	23.8	95.0		2.95		75	120	30
cis-1,3-Dichloropropene	0	25.0	24.8	99.3		2.53		70	130	30
4-Methyl-2-pentanone	0	125	143	115		7.15		60	135	30
Toluene	4.85	25.0	29.2	97.4		2.66		75	120	30
trans-1,3-Dichloropropene	0	25.0	24.2	96.6		1.97		55	140	30
1,1,2-Trichloroethane	0	25.0	26.2	105		1.46		75	125	30
1,3-Dichloropropane	0	25.0	25.7	103		0.743		75	125	30
Tetrachloroethene	0	25.0	20.5	82.0		0.583		45	150	30
2-Hexanone	0	125	137	110		4.77		55	130	30
Dibromochloromethane	0	25.0	25.0	99.9		0.925		60	135	30
1,2-Dibromoethane	0	25.0	25.6	102		0.982		80	120	30
Chlorobenzene	0	25.0	24.4	97.6		0.613		80	120	30
1,1,1,2-Tetrachloroethane	0	25.0	24.2	96.8		0.741		80	130	30
Ethylbenzene	25.0	25.0	47.6	90.2		4.77		75	125	30
m-Xylene/p-Xylene	114	50.0	159	90.2		19.7		75	130	30
o-Xylene	87.6	25.0	108	83.3		23.3		80	120	30
Styrene	0	25.0	27.6	110		0.801		65	135	30
Bromoform	0	25.0	24.7	98.8		2.75		70	130	30
Isopropylbenzene	6.30	25.0	28.8	90.1		2.93		75	125	30
1,2,3-Trichloropropane	0	25.0	25.7	103		1.84		75	125	30
1,1,2,2-Tetrachloroethane	0	25.0	27.2	109		1.60		65	130	30
Bromobenzene	0	25.0	25.3	101		0.0396		75	125	30
n-Propylbenzene	9.59	25.0	32.7	92.3		4.07		70	130	30
2-Chlorotoluene	0	25.0	39.9	160	ME*	3.39		75	125	30
4-Chlorotoluene	0	25.0	28.7	115		0.663		75	130	30

AML Work Order/Report Number: 0811022 Printed: 12/4/2008

Form 3 - Equivalent

MATRIX SPIKE DUPLICATE RECOVERY AND RPD

Lab Name: Analytical Management Laboratories, Inc. Batch: P811123

Fraction: VOA_GCMS Matrix: Water

Units: ug/L

Original Sample ***0811027-01*** ***Lab Sample ID for MSD*** ***P811123-MSD1***

Analyte	*Original Amount*	*SPIKE ADDED*	*MSD* Amount	*%REC*	*QC FLAG*	*MS/MSD RPD*	*RPD FLAG*	*% REC QC. LIMITS*		
								LCL	*UCL*	*RPD*
1,3,5-Trimethylbenzene	53.9	25.0	75.0	84.5		35.5	*	75	130	30
tert-Butylbenzene	0	25.0	18.8	75.1		1.99		70	130	30
1,2,4-Trimethylbenzene	125	25.0	135	39.7	ME*	69.6	*	75	130	30
sec-Butylbenzene	0	25.0	35.2	141	ME*	5.90		70	125	30
1,3-Dichlorobenzene	0	25.0	23.7	94.8		0.211		75	125	30
1,4-Dichlorobenzene	0	25.0	23.9	95.7		0.376		75	125	30
1,2-Dichlorobenzene	0	25.0	24.5	98.2		0.852		70	120	30
4-Isopropyltoluene	9.49	25.0	30.9	85.5		9.25		75	130	30
n-Butylbenzene	5.47	25.0	35.7	121		12.2		70	135	30
1,2-Dibromo-3-chloropropane	0	25.0	27.9	112		4.14		50	130	30
1,2,4-Trichlorobenzene	0	25.0	24.9	99.6		4.22		65	135	30
1,2,3-Trichlorobenzene	0	25.0	26.3	105		3.64		55	140	30
Hexachlorobutadiene	0	25.0	14.4	57.7		8.38		50	140	30
Naphthalene	27.3	25.0	57.6	121		13.7		55	140	30

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 N17

Permit No. 26G and 26-08

April 2009

Prepared by
U.S. Army Corps of Engineers, Savannah District
100 West Oglethorpe Ave.
Savannah, Georgia 31401

Statistical Analysis of Ground-Water Data
Lamont Road Land Clearing and Inert Debris Landfill
Fort Bragg, North Carolina
Rounds N1 through N17

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 November 17, 2008. 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. The six new monitoring wells require additional analytical data before inclusion in the statistical report. 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. All Appendix I Inorganics detected are listed on Table 2. All Appendix I Organics detected are listed on Table 3. Kruskal-Wallis Test method was selected as the most appropriate procedure for the analysis of this data set. Any analyte with at least one detection since the beginning of the study was analyzed with the Kruskal Wallis Test.

Appendix I Inorganics failing the Kruskal-Wallis Test were: barium, cooper, nickel, selenium, vanadium and zinc. The Appendix I Organics failing the Kruskal-Wallis Test were cis-1,2-dichloroethane, dichlorodifluoromethane, methylene chloride, tetrachloroethene, trichloroethene and trichlorofluoromethane. All analytes failing the Kruskal-Wallis Test were further examined by the Mann-Kendall Trend Analysis and the Shewhart-CUSUM Control Chart. Analytes failing these statistical tests include: barium, selenium, dichlorodifluoromethane, and trichlorofluoromethane.

Statistically, the barium data from monitoring well LMW-6 exhibits evidence of an upward trend, but the highest concentration detected was 73.7ppb. The laboratory results for barium in LMW-6 during this sampling round was 73.7ppb. Concentrations of barium detected at that site have ranged from 109ppb to below the detection limit. The fluctuation in barium data in monitoring well LMW-6 can be considered statistically insignificant. The few abnormalities in ground-water data were due to natural fluctuation.

Statistically, the barium data from monitoring well LMW-10 exhibits evidence of an upward trend, but the highest concentration detected was 21.3 ppb. The laboratory results for barium in LMW-10 during this sampling round was 12.7 ppb. Concentrations of barium

detected at that site have ranged from 109 ppb to below the detection limit. These results are within the natural fluctuation of barium concentrations.

Statistically, the selenium data from monitoring well LMW-6 exhibits evidence of an upward trend. A slight increase in concentration since October 2005 is due to the change in laboratories. These results fluctuate around the detection limit has occurred, but the highest concentration for selenium was only approximately twice the reporting limit for this analyte. Further results are required to determine significance.

Dichlorodifluoromethane data from monitoring well LMW-6 are too low to determine statistical analysis. All dichlorodifluoromethane data are below the reporting limit except for the November 2006 result 2.67 ppb. No statistical event occurred at this monitoring well.

The concentration of dichlorodifluoromethane from monitoring well LMW-10 has decreased since November 2006. The results generally range (ND to 2.95 ppb). Due to the results from November 2006 (9.35 ppb) and May 2008 (4.66 ppb), this well exhibits evidence of contamination and an upward trend. Additional results are needed to determine if the concentrations continue to fluctuate or demonstrate an upward trend.

Trichlorofluoromethane data from monitoring well LMW-10 exhibits possible evidence of contamination and an upward trend. The lab results for LMW-10 fluctuates between 0.26 J ppb to 10.6 ppb. Only the November 2006 result (7.01 ppb) and the May 2008 result (10.6 ppb) elevate LMW-10 to a possible statistical event. Additional data are needed to determine if the concentrations continue to fluctuate or demonstrate an upward trend.

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.

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Reviewed by:

_____

DATE: April 2009

TABLE OF CONTENTS

SECTION Page

EXECUTIVE SUMMARY i

1.0 BACKGROUND 1

2.0 DETERMINATION OF APPROPRIATE DISTRIBUTIONAL MODEL 1

3.0 SELECTION OF STATISTICAL METHOD 2

4.0 FIELD ACTIVITIES 4

5.0 RESULTS 5

6.0 CONCLUSIONS 6

7.0 REFERENCES 7

LIST OF TABLES

Table 1 Ground-Water Monitoring Network 2

Table 2. Statistical Evaluation Results for Inorganics 8

Table 3. Statistical Evaluation Results for Appendix I Organic Compounds 8

Table 4. Mann-Kendall Statistical Evaluation Results 10

Table 5. Shewhart-CUSUM Statistical Evaluation Results 11

FIGURES

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=15 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 sixteenth round of sampling (N=16) were conducted during May, 2008. 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 laboratory data for the recently installed compliance wells: MW-1, MW-3S, MW-9D, MW-9S, MW-15, and MW-16 were added to the statistical data, but additional rounds of data are required for valid calculations. The remaining compliance monitoring wells: MW-3, MW-6, MW-7, MW-8, MW-9, and MW-10 were analyzed and included in this report. 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-3	**Active - Compliance Monitoring Well**
MW-5	**Abandoned - 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-10	**Active - Compliance Monitoring Well**
MW-11	**Abandoned - Compliance Monitoring Well**
MW-12	**Abandoned - Compliance Monitoring Well**
MW-13	**Abandoned - Compliance Monitoring Well**
MW-4	**Active - Compliance Monitoring Well (Background)**
MW-1	**Recently Installed / Active - Compliance Monitoring Well**
MW-3S	**Recently Installed / Active - Compliance Monitoring Well**
MW-9D	**Recently Installed / Active - Compliance Monitoring Well**
MW-9S	**Recently Installed / Active - Compliance Monitoring Well**
MW-15	**Recently Installed / Active - Compliance Monitoring Well**
MW-16	**Recently Installed / Active - Compliance Monitoring Wells**

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. 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 exceeds 15%, then the Kruskal-Wallis Test was applied. For this test 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.

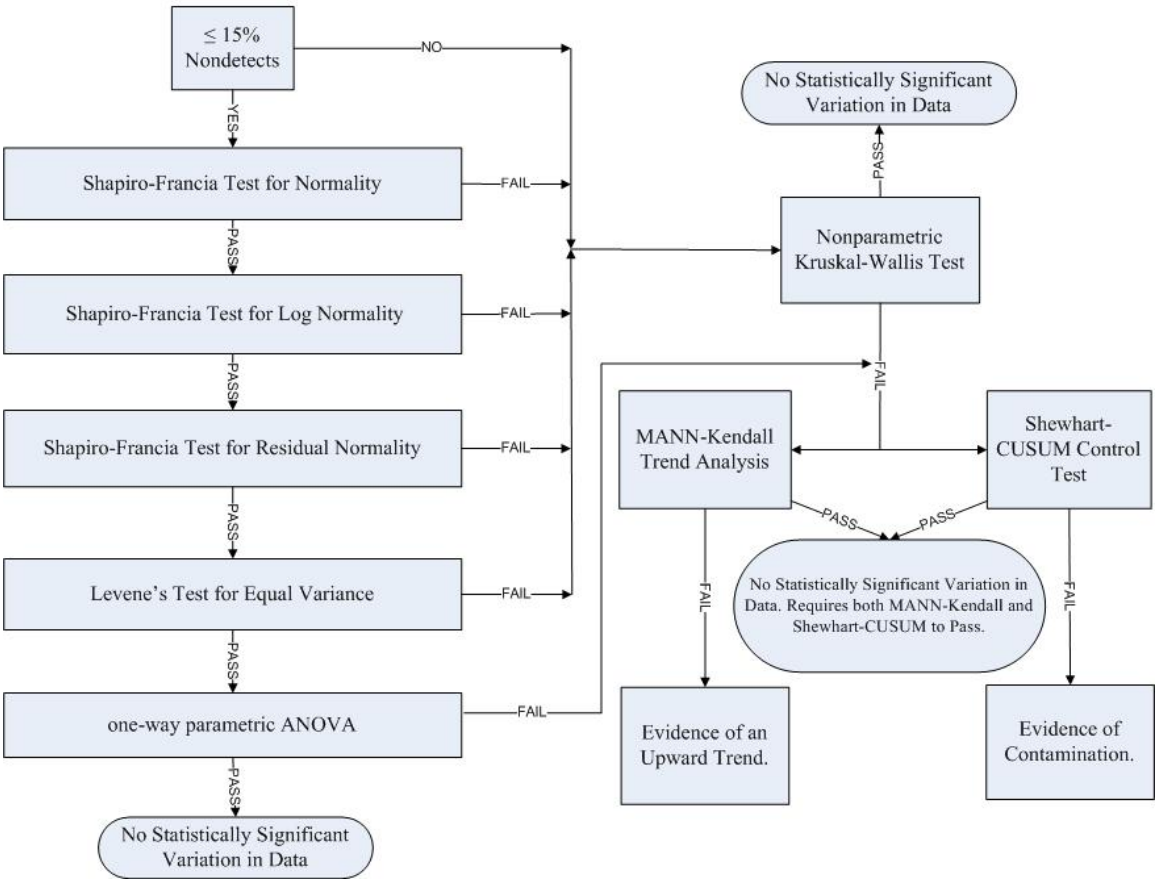
In this case, the Kruskal-Wallis Test performs post-hoc comparisons between background and compliance well data to determine which wells, if any, show evidence of contamination. If the difference between the average ranks and the mean background rank of any individual well exceeds the critical difference calculated for that well, then evidence of contamination exists. The only 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.

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. All sampling procedures that were used at the landfill are in

accordance with EPA, Region IV, *Standard Operating Procedures and Quality Assurance Manual*, Revision 1 (November 2001).

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 November 24, 2008. 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. Appendix I Inorganics detected are listed on Table 2; Appendix I Organics detected are listed on Table 3. The Kruskal-Wallis Test was selected as the most appropriate procedure for the analysis of this data set. Any analyte with at least one detection since the beginning of the study will be analyzed with Kruskal Wallis Test.

Statistically, the barium data from monitoring well LMW-6 exhibits evidence of an upward trend, but the highest concentration detected was 52.4ppb. The laboratory results for barium in LMW-6 during this sampling round was 49.2ppb. Concentrations of barium detected at that site have ranged from 109 ppb to below the detection limit. The fluctuation in barium data in monitoring well LMW-6 can be considered statistically insignificant. The few abnormalities in ground-water data were due to natural fluctuation.

Statistically, the barium data from monitoring well LMW-6 exhibits evidence of an upward trend, but the highest concentration detected was 73.7ppb. The laboratory results for barium in LMW-6 during this sampling round was 73.7ppb. Concentrations of barium detected at that site have ranged from 109ppb to below the detection limit. The fluctuation in barium data in monitoring well LMW-6 can be considered statistically insignificant. The few abnormalities in ground-water data were due to natural fluctuation.

Statistically, the barium data from monitoring well LMW-10 exhibits evidence of an upward trend, but the highest concentration detected was 21.3 ppb. The laboratory results for barium in LMW-10 during this sampling round was 12.7 ppb. Concentrations of barium detected at that site have ranged from 109ppb to below the detection limit. These results are within the natural fluctuation of barium concentrations.

Statistically, the selenium data from monitoring well LMW-6 exhibits evidence of an upward trend. A slight increase in concentration since October 2005 is due to the change in laboratories. These results fluctuate around the detection limit has occurred, but the highest concentration for selenium was only approximately twice the reporting limit for this analyte. Further results are required to determine significance.

Dichlorodifluoromethane data from monitoring well LMW-6 are too low to determine statistical analysis. All dichlorodifluoromethane data are below the reporting limit except for the November 2006 result 2.67 ppb. No statistical event occurred at this monitoring well.

The concentration of dichlorodifluoromethane from monitoring well LMW-10 has decreased since November 2006. The results generally range (ND to 2.95 ppb). Due to the results from November 2006 (9.35 ppb) and May 2008 (4.66 ppb), this well exhibits evidence of contamination and an upward trend. Additional results are needed to determine if the concentrations continue to fluctuate or demonstrate an upward trend.

Trichlorofluoromethane data from monitoring well LMW-10 exhibits possible evidence of contamination and an upward trend. The lab results for LMW-10 fluctuates between 0.26 J ppb to 10.6 ppb. Only the November 2006 result (7.01 ppb) and the May 2008 result (10.6 ppb) elevate LMW-10 to a possible statistical event. Additional data are needed to determine if the concentrations continue to fluctuate or demonstrate an upward trend.

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 barium, selenium, dichlorodifluoromethane, and trichlorofluoromethane results from Lamont Road Land Clearing and Inert Debris Landfill require additional sampling events to determine if evidence of contamination 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.

Table 2. Statistical Evaluation Results for Inorganics

Appendix I Metals	% Non-Detect	Normality	Test	Pass/Fail
Antimony, total	100.0%	N/A	N/A	N/A
Arsenic, total	88.2%	Non-normal	Kruskal-Wallis	Pass
Barium, total	**49.3%**	**Non-normal**	**Kruskal-Wallis**	**Group Fail**
Beryllium, total	100.0%	N/A	N/A	N/A
Cadmium, total	88.2%	Non-normal	Kruskal-Wallis	Pass
Chromium, total	79.2%	Non-normal	Kruskal-Wallis	Pass
Cobalt, total	94.4%	Non-normal	Kruskal-Wallis	Pass
Copper, total	79.2%	**Non-normal**	**Kruskal-Wallis**	**Group Fail**
Lead, total	73.4%	Non-normal	Kruskal-Wallis	Pass
Mercury	89.6%	Non-normal	Kruskal-Wallis	Pass
Nickel, total	**80.6%**	**Non-normal**	**Kruskal-Wallis**	**LMW-3S**
Selenium, total	**90.3%**	**Non-normal**	**Kruskal-Wallis**	**Group Fail**
Silver, total	100.0%	N/A	N/A	N/A
Thallium, total	100.0%	N/A	N/A	N/A
Vanadium	**89.6%**	**Non-normal**	**Kruskal-Wallis**	**Group Fail**
Zinc, total	**74.3%**	**Non-normal**	**Kruskal-Wallis**	**Group Fail**
Nitrate	57.8%	Non-normal	Kruskal-Wallis	Pass
Nitrate + Nitrite	56.3%	Non-normal	Kruskal-Wallis	Pass
Nitrite	100.0%	Non-normal	Kruskal-Wallis	Pass

Bold Values: Statistical difference from norm. Does not indicate a statistically significant event has occurred.

Table 3. Statistical Evaluation Results for Appendix I Organic Compounds

Volatile Organic Compounds	% Non-Detect	Normality	Test	Pass/Fail
1,1,1,2-Tetrachloroethane	100.0%	N/A	N/A	N/A
1,1,1-Trichloroethane	100.0%	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	100.0%	N/A	N/A	N/A
1,1,2-Trichloroethane	100.0%	N/A	N/A	N/A
1,1-Dichloroethane	100.0%	N/A	N/A	N/A
1,1-Dichloroethene (-ethylene)	100.0%	N/A	N/A	N/A
1,2,3-Trichlorobenzene	100.0%	N/A	N/A	N/A
1,2,3-Trichloropropane	100.0%	N/A	N/A	N/A
1,2-Dibromo-3-chloropropane; DBCP	100.0%	N/A	N/A	N/A
1,2-Dibromoethane; Ethylene dibromide	100.0%	N/A	N/A	N/A
1,2-Dichlorobenzene	100.0%	N/A	N/A	N/A

Bold Values: Statistical difference from norm. Does not indicate a statistically significant event has occurred.

Table 3.(Cont) Statistical Evaluation Results for Appendix I Organic Compounds

Volatile Organic Compounds	% Non-Detect	Normality	Test	Pass/Fail
1,2-Dichloroethane	100.0%	N/A	N/A	N/A
1,2-Dichloropropane	100.0%	N/A	N/A	N/A
1,3-Dichloropropane	100.0%	N/A	N/A	N/A
1,4-Dichloro-2-butene	100.0%	N/A	N/A	N/A
1,4-Dichlorobenzene	100.0%	N/A	N/A	N/A
2-Butanone (Methyl ethyl ketone)	100.0%	N/A	N/A	N/A
2-Chloroethyl vinyl ether	100.0%	N/A	N/A	N/A
2-Hexanone	100.0%	N/A	N/A	N/A
4-Methyl-2-Pentanone	100.0%	N/A	N/A	N/A
Acetone	97.9%	Non-normal	Kruskal-Wallis	Pass
Acetonitrile; Methyl cyanide	100.0%	N/A	N/A	N/A
Acrylonitrile	100.0%	N/A	N/A	N/A
Benzene	100.0%	N/A	N/A	N/A
Bromochloromethane	100.0%	N/A	N/A	N/A
Bromodichloromethane	100.0%	N/A	N/A	N/A
Bromoform	100.0%	N/A	N/A	N/A
Bromomethane	100.0%	N/A	N/A	N/A
Carbon Disulfide	100.0%	N/A	N/A	N/A
Carbon tetrachloride	100.0%	N/A	N/A	N/A
Chlorobenzene	100.0%	N/A	N/A	N/A
Chloroethane	100.0%	N/A	N/A	N/A
Chloroform	97.2%	Non-normal	Kruskal-Wallis	Pass
Chloromethane	99.3%	N/A	N/A	N/A
cis-1,2-Dichloroethene (-ethylene)	97.2%	Non-normal	Kruskal-Wallis	Group Fail
cis-1,3-Dichloropropene (-propylene)	100.0%	N/A	N/A	N/A
Dibromochloromethane	98.3%	Non-normal	Kruskal-Wallis	Pass
Dibromomethane	100.0%	N/A	N/A	N/A
Dichlorodifluoromethane	86.8%	Non-normal	Kruskal-Wallis	Group Fail
Ethylbenzene	100.0%	N/A	N/A	N/A
Ethylene dibromide or Ethane, 1,2-dibromo-	100.0%	N/A	N/A	N/A
Iodomethane	100.0%	N/A	N/A	N/A
Methyl Bromide	100.0%	N/A	N/A	N/A
Methyl Chloride	100.0%	N/A	N/A	N/A
Methyl Ethyl Ketone (MEK) (2-Butanone)	100.0%	N/A	N/A	N/A
Methyl Iodide	100.0%	N/A	N/A	N/A
Methylene Bromide	100.0%	N/A	N/A	N/A

Bold Values: Statistical difference from norm. Does not indicate a statistically significant event has occurred.

Table 3.(Cont) Statistical Evaluation Results for Appendix I Organic Compounds

Volatile Organic Compounds	% Non-Detect	Normality	Test	Pass/Fail
Methylene Chloride	98.2%	Non-normal	Kruskal-Wallis	Group Fail
Methyl tert-butyl ether	98.8%	Non-normal	Kruskal-Wallis	Pass
Naphthalene	98.0%	Non-normal	Kruskal-Wallis	Pass
Styrene	100.0%	N/A	N/A	N/A
Tetrachloroethene (-ethylene)	**97.2%**	**Non-normal**	**Kruskal-Wallis**	**Group Fail**
Toluene	90.3%	Non-normal	Kruskal-Wallis	Pass
Total Xylenes	96.6%	Non-normal	Kruskal-Wallis	Pass
trans-1,2-Dichloroethene (-ylene)	100.0%	N/A	N/A	N/A
trans-1,3-Dichloropropene (-propylene)	99.2%	Non-normal	Kruskal-Wallis	Pass
trans-1,4-Dichloro-2-Butene	100.0%	N/A	N/A	N/A
Trichloroethene (-ethylene)	**95.1%**	**Non-normal**	**Kruskal-Wallis**	**Group Fail**
Trichlorofluoromethane	**79.2%**	**Non-normal**	**Kruskal-Wallis**	**Group Fail**
Vinyl acetate	100.0%	N/A	N/A	N/A
Vinyl chloride	100.0%	N/A	N/A	N/A

Bold Values: Statistical difference from norm. Does not indicate a statistically significant event has occurred.

Table 4. Mann-Kendall Statistical Evaluation Results

Monitoring Well	Analyte	Test	Trend
LMW-3	Barium, total	Mann-Kendall	No Upward Trend
LMW-6**	Barium, total	Mann-Kendall	No Upward Trend
LMW-7	Barium, total	Mann-Kendall	No Upward Trend
LMW-8	Barium, total	Mann-Kendall	No Upward Trend
LMW-10**	Barium, total	Mann-Kendall	No Upward Trend
LMW-3S**	Nickel, total	Mann-Kendall	No Upward Trend
LMW-6**	Selenium, total	Mann-Kendall	No Upward Trend
LMW-8	Selenium, total	Mann-Kendall	No Upward Trend
LMW-7	Vanadium	Mann-Kendall	No Upward Trend
LMW-3	Zinc, total	Mann-Kendall	No Upward Trend
LMW-8	Zinc, total	Mann-Kendall	No Upward Trend
LMW-6	Dichlorodifluoromethane	Mann-Kendall	No Upward Trend
LMW-10**	Dichlorodifluoromethane	Mann-Kendall	No Upward Trend
LMW-6**	Trichlorofluoromethane	Mann-Kendall	No Upward Trend
LMW-7	Trichlorofluoromethane	Mann-Kendall	No Upward Trend
LMW-10**	Trichlorofluoromethane	Mann-Kendall	No Upward Trend

*: All readings are below the reporting limit or only slightly exceed reporting limits. Critical values not exceeded for any well (Group Fail). Statistical results are considered false positives. ** = See notes in report.
Bold Values: Statistical difference from norm. Does not indicate a statistically significant event has occurred.

Table 5. Shewhart-CUSUM Statistical Evaluation Results

Monitoring Well	Analyte	Test	Evidence of Contamination
LMW-3	Barium, total	Shewhart-CUSUM	No Evidence
LMW-6	Barium, total	Shewhart-CUSUM	No Evidence
LMW-7	Barium, total	Shewhart-CUSUM	No Evidence
LMW-8	Barium, total	Shewhart-CUSUM	No Evidence
LMW-10**	Barium, total	Shewhart-CUSUM	No Evidence
LMW-3S**	Nickel, total	Shewhart-CUSUM	No Evidence
LMW-6**	Selenium, total	Shewhart-CUSUM	No Evidence
LMW-8	Selenium, total	Shewhart-CUSUM	No Evidence
LMW-7	Vanadium	Shewhart-CUSUM	No Evidence
LMW-3	Zinc, total	Shewhart-CUSUM	No Evidence
LMW-8	Zinc, total	Shewhart-CUSUM	No Evidence
LMW-6**	Dichlorodifluoromethane	Shewhart-CUSUM	No Evidence
LMW-10**	Dichlorodifluoromethane	Shewhart-CUSUM	No Evidence
LMW-6**	Trichlorofluoromethane	Shewhart-CUSUM	No Evidence
LMW-7	Trichlorofluoromethane	Shewhart-CUSUM	No Evidence
LMW-10**	Trichlorofluoromethane	Shewhart-CUSUM	No Evidence

*: All readings are below the reporting limit or only slightly exceed reporting limits. Critical values not exceeded for any well (Group Fail). Statistical results are considered false positives. ** = See notes in report.
Bold Values: Statistical difference from norm. Does not indicate a statistically significant event has occurred.

Kruskal-Wallis Non-Parametric Test

Parameter: Antimony, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<5	72.5
	3/16/1999	ND<5	72.5
	9/23/1999	ND<5	72.5
	3/14/2000	ND<5	72.5
	9/23/2003	ND<5	72.5
	3/10/2004	ND<5	72.5
	10/12/2004	ND<5	72.5
	4/1/2005	ND<5	72.5
	10/26/2005	ND<5	72.5
	6/19/2006	ND<5	72.5
	11/18/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

Background Rank Sum = 1087.5
Background Rank Mean = 72.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<5	72.5
	3/24/1997	ND<5	72.5
	1/16/1998	ND<5	72.5
	3/16/1999	ND<5	72.5
	9/23/1999	ND<5	72.5
	3/14/2000	ND<5	72.5
	9/23/2003	ND<5	72.5
	3/10/2004	ND<5	72.5
	10/12/2004	ND<5	72.5
	4/1/2005	ND<5	72.5
	10/26/2005	ND<5	72.5
	6/19/2006	ND<5	72.5
	11/18/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 1232.5
Rank Mean = 72.5

LMW-6	1/16/1998	ND<5	72.5
	3/16/1999	ND<5	72.5
	9/23/1999	ND<5	72.5
	3/14/2000	ND<5	72.5
	9/23/2003	ND<5	72.5
	3/10/2004	ND<5	72.5
	10/12/2004	ND<5	72.5
	4/1/2005	ND<5	72.5
	10/26/2005	ND<5	72.5
	6/19/2006	ND<5	72.5
	11/18/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-7	1/16/1998	ND<5	72.5
	3/16/1999	ND<5	72.5
	9/23/1999	ND<5	72.5
	3/14/2000	ND<5	72.5
	9/23/2003	ND<5	72.5
	3/10/2004	ND<5	72.5
	10/12/2004	ND<5	72.5
	4/1/2005	ND<5	72.5
	10/26/2005	ND<5	72.5
	6/19/2006	ND<5	72.5
	11/18/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-8	1/16/1998	ND<5	72.5
	3/16/1999	ND<5	72.5
	9/23/1999	ND<5	72.5
	3/14/2000	ND<5	72.5
	9/23/2003	ND<5	72.5
	3/10/2004	ND<5	72.5
	10/12/2004	ND<5	72.5
	4/1/2005	ND<5	72.5
	10/26/2005	ND<5	72.5
	6/19/2006	ND<5	72.5
	11/18/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-10	3/14/2000	ND<5	72.5
	9/23/2003	ND<5	72.5
	3/10/2004	ND<5	72.5
	10/12/2004	ND<5	72.5
	4/1/2005	ND<5	72.5
	10/26/2005	ND<5	72.5
	6/19/2006	ND<5	72.5
	11/18/2006	ND<5	72.5

	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 870
Rank Mean = 72.5

LMW-11	3/14/2000	ND<5	72.5
	9/23/2003	ND<5	72.5
	3/10/2004	ND<5	72.5
	10/12/2004	ND<5	72.5
	4/1/2005	ND<5	72.5
	10/26/2005	ND<5	72.5
	6/19/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-12	3/14/2000	ND<5	72.5
	9/23/2003	ND<5	72.5
	3/10/2004	ND<5	72.5
	10/12/2004	ND<5	72.5
	4/1/2005	ND<5	72.5
	10/26/2005	ND<5	72.5
	6/19/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-13	3/14/2000	ND<5	72.5
	9/23/2003	ND<5	72.5
	3/10/2004	ND<5	72.5
	10/12/2004	ND<5	72.5
	4/1/2005	ND<5	72.5
	10/26/2005	ND<5	72.5
	6/19/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-15	11/18/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 580
Rank Mean = 72.5

LMW-16	11/18/2006	ND<5	72.5
	6/2/2007	ND<5	72.5

	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 362.5
Rank Mean = 72.5

LMW-3S	11/18/2006	ND<5	72.5
	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 362.5
Rank Mean = 72.5

LMW-14R	6/2/2007	ND<5	72.5
	11/15/2007	ND<5	72.5
	5/20/2008	ND<5	72.5
	11/20/2008	ND<5	72.5

Rank Sum = 290
Rank Mean = 72.5

Calculation Results:

Kruskal-Wallis H Statistic = 0
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 0
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0 < 21.0261 indicating no significant group difference at 5% significance level
0 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Arsenic, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<2	64
	3/16/1999	ND<2	64
	9/23/1999	ND<2	64
	3/14/2000	ND<2	64
	9/23/2003	ND<2	64
	3/10/2004	ND<2	64
	10/12/2004	ND<2	64
	4/1/2005	ND<2	64
	10/26/2005	ND<2	64
	6/19/2006	ND<2	64
	11/18/2006	ND<2	64
	6/2/2007	1.13 J	131
	11/15/2007	1.14 J	132
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 1095
Rank Mean = 73

Background Rank Sum = 1095
Background Rank Mean = 73

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<2	64
	3/24/1997	ND<2	64
	1/16/1998	ND<2	64
	3/16/1999	ND<2	64
	9/23/1999	ND<2	64
	3/14/2000	ND<2	64
	9/23/2003	ND<2	64
	3/10/2004	ND<2	64
	10/12/2004	ND<2	64
	4/1/2005	ND<2	64
	10/26/2005	ND<2	64
	6/19/2006	ND<2	64
	11/18/2006	ND<2	64
	6/2/2007	ND<2	64
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 1088
Rank Mean = 64

LMW-6	1/16/1998	ND<2	64

	3/16/1999	ND<2	64
	9/23/1999	ND<2	64
	3/14/2000	ND<2	64
	9/23/2003	ND<2	64
	3/10/2004	ND<2	64
	10/12/2004	ND<2	64
	4/1/2005	ND<2	64
	10/26/2005	ND<2	64
	6/19/2006	ND<2	64
	11/18/2006	ND<2	64
	6/2/2007	1.1 J	129
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 1025
Rank Mean = 68.3333

LMW-7	1/16/1998	ND<2	64
	3/16/1999	ND<2	64
	9/23/1999	ND<2	64
	3/14/2000	10	137
	9/23/2003	ND<2	64
	3/10/2004	ND<2	64
	10/12/2004	ND<2	64
	4/1/2005	ND<2	64
	10/26/2005	ND<2	64
	6/19/2006	ND<2	64
	11/18/2006	ND<2	64
	6/2/2007	1.05 J	128
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	10.8	138

Rank Sum = 1171
Rank Mean = 78.0667

LMW-8	1/16/1998	ND<2	64
	3/16/1999	ND<2	64
	9/23/1999	ND<2	64
	3/14/2000	ND<2	64
	9/23/2003	ND<2	64
	3/10/2004	ND<2	64
	10/12/2004	ND<2	64
	4/1/2005	ND<2	64
	10/26/2005	ND<2	64
	6/19/2006	ND<2	64
	11/18/2006	ND<2	64
	6/2/2007	ND<2	64
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 960
Rank Mean = 64

LMW-10	3/14/2000	23	142
	9/23/2003	ND<2	64
	3/10/2004	25	143
	10/12/2004	ND<2	64
	4/1/2005	ND<2	64
	10/26/2005	ND<2	64
	6/19/2006	ND<2	64
	11/18/2006	ND<2	64
	6/2/2007	1.15 J	133

	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 994
Rank Mean = 82.8333

LMW-11	3/14/2000	12	139
	9/23/2003	ND<2	64
	3/10/2004	18	141
	10/12/2004	ND<2	64
	4/1/2005	ND<2	64
	10/26/2005	ND<2	64
	6/19/2006	ND<2	64
	6/2/2007	ND<2	64
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 856
Rank Mean = 77.8182

LMW-12	3/14/2000	57	144
	9/23/2003	ND<2	64
	3/10/2004	ND<2	64
	10/12/2004	ND<2	64
	4/1/2005	ND<2	64
	10/26/2005	ND<2	64
	6/19/2006	ND<2	64
	6/2/2007	ND<2	64
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 784
Rank Mean = 71.2727

LMW-13	3/14/2000	16	140
	9/23/2003	ND<2	64
	3/10/2004	ND<2	64
	10/12/2004	ND<2	64
	4/1/2005	ND<2	64
	10/26/2005	ND<2	64
	6/19/2006	ND<2	64
	6/2/2007	ND<2	64
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 780
Rank Mean = 70.9091

LMW-15	11/18/2006	ND<2	64
	6/2/2007	ND<2	64
	11/15/2007	ND<2	64
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 512
Rank Mean = 64

LMW-16	11/18/2006	ND<2	64
	6/2/2007	2.13	134
	11/15/2007	ND<2	64

	5/20/2008	ND<2	64
	11/20/2008	9.27	136

Rank Sum = 462
Rank Mean = 92.4

LMW-3S	11/18/2006	ND<2	64
	6/2/2007	ND<2	64
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	ND<2	64

Rank Sum = 320
Rank Mean = 64

LMW-14R	6/2/2007	1.11 J	130
	11/15/2007	ND<2	64
	5/20/2008	ND<2	64
	11/20/2008	9.08	135

Rank Sum = 393
Rank Mean = 98.25

Calculation Results:

Kruskal-Wallis H Statistic = 5.89045
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 18.7588
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
5.89045 < 21.0261 indicating no significant group difference at 5% significance level
18.7588 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Barium, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<10	36
	3/16/1999	20	110
	9/23/1999	8 J	83
	3/14/2000	ND<10	36
	9/23/2003	ND<10	36
	3/10/2004	ND<10	36
	10/12/2004	ND<10	36
	4/1/2005	14.2	105
	10/26/2005	12.5	97
	6/19/2006	10	89
	11/18/2006	13.6	103
	6/2/2007	24.7	121
	11/15/2007	13	99
	5/20/2008	11.2	91
	11/20/2008	14.7	107

Rank Sum = 1185
Rank Mean = 79

Background Rank Sum = 1185
Background Rank Mean = 79

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<10	36
	3/24/1997	ND<10	36
	1/16/1998	ND<10	36
	3/16/1999	8 J	84
	9/23/1999	7 J	79
	3/14/2000	ND<10	36
	9/23/2003	ND<10	36
	3/10/2004	ND<10	36
	10/12/2004	ND<10	36
	4/1/2005	ND<10	36
	10/26/2005	7.2 J	81
	6/19/2006	5 J	72
	11/18/2006	7.4 J	82
	6/2/2007	5.33	73
	11/15/2007	ND<10	36
	5/20/2008	5.47 J	74
	11/20/2008	5.8 J	76

Rank Sum = 945
Rank Mean = 55.5882

LMW-6	1/16/1998	ND<10	36

	3/16/1999	8 J	85
	9/23/1999	18	108
	3/14/2000	ND<10	36
	9/23/2003	ND<10	36
	3/10/2004	ND<10	36
	10/12/2004	ND<10	36
	4/1/2005	9.5 J	87
	10/26/2005	12.3	96
	6/19/2006	20	111
	11/18/2006	33.9	128
	6/2/2007	52.4	142
	11/15/2007	42	139
	5/20/2008	49.2	141
	11/20/2008	73.7	143

Rank Sum = 1360
Rank Mean = 90.6667

LMW-7	1/16/1998	ND<10	36
	3/16/1999	20	112
	9/23/1999	22	116
	3/14/2000	ND<10	36
	9/23/2003	ND<10	36
	3/10/2004	ND<10	36
	10/12/2004	ND<10	36
	4/1/2005	31.7	126
	10/26/2005	30	125
	6/19/2006	20	113
	11/18/2006	11.6	92
	6/2/2007	27.4	123
	11/15/2007	6 J	78
	5/20/2008	5.48 J	75
	11/20/2008	7 J	80

Rank Sum = 1220
Rank Mean = 81.3333

LMW-8	1/16/1998	ND<10	36
	3/16/1999	10	90
	9/23/1999	109	144
	3/14/2000	ND<10	36
	9/23/2003	ND<10	36
	3/10/2004	ND<10	36
	10/12/2004	ND<10	36
	4/1/2005	48.5	140
	10/26/2005	38.1	134
	6/19/2006	40	136
	11/18/2006	32	127
	6/2/2007	34	129
	11/15/2007	41	137
	5/20/2008	34.9	130
	11/20/2008	29	124

Rank Sum = 1471
Rank Mean = 98.0667

LMW-10	3/14/2000	ND<10	36
	9/23/2003	ND<10	36
	3/10/2004	ND<10	36
	10/12/2004	ND<10	36
	4/1/2005	13.5	102
	10/26/2005	ND<10	36
	6/19/2006	20	114
	11/18/2006	11.9	93
	6/2/2007	21.3	115

	11/15/2007	ND<10	36
	5/20/2008	12	94
	11/20/2008	12.7	98

Rank Sum = 832
Rank Mean = 69.3333

LMW-11	3/14/2000	ND<10	36
	9/23/2003	ND<10	36
	3/10/2004	ND<10	36
	10/12/2004	ND<10	36
	4/1/2005	ND<10	36
	10/26/2005	ND<10	36
	6/19/2006	ND<10	36
	6/2/2007	ND<10	36
	11/15/2007	ND<10	36
	5/20/2008	ND<10	36
	11/20/2008	ND<10	36

Rank Sum = 396
Rank Mean = 36

LMW-12	3/14/2000	ND<10	36
	9/23/2003	ND<10	36
	3/10/2004	ND<10	36
	10/12/2004	ND<10	36
	4/1/2005	ND<10	36
	10/26/2005	ND<10	36
	6/19/2006	ND<10	36
	6/2/2007	ND<10	36
	11/15/2007	ND<10	36
	5/20/2008	ND<10	36
	11/20/2008	ND<10	36

Rank Sum = 396
Rank Mean = 36

LMW-13	3/14/2000	ND<10	36
	9/23/2003	ND<10	36
	3/10/2004	ND<10	36
	10/12/2004	ND<10	36
	4/1/2005	ND<10	36
	10/26/2005	ND<10	36
	6/19/2006	ND<10	36
	6/2/2007	ND<10	36
	11/15/2007	ND<10	36
	5/20/2008	ND<10	36
	11/20/2008	ND<10	36

Rank Sum = 396
Rank Mean = 36

LMW-15	11/18/2006	37.4	132
	6/2/2007	38.5	135
	11/15/2007	27	122
	11/15/2007	ND<10	36
	5/20/2008	ND<10	36
	5/20/2008	24.3	120
	11/20/2008	ND<10	36
	11/20/2008	38	133

Rank Sum = 750
Rank Mean = 93.75

LMW-16	11/18/2006	23.1	119
	6/2/2007	41.3	138
	11/15/2007	35	131

	5/20/2008	22.9	117
	11/20/2008	23	118

Rank Sum = 623
Rank Mean = 124.6

LMW-3S	11/18/2006	5.95 J	77
	6/2/2007	18.7	109
	11/15/2007	13	100
	5/20/2008	8.86 J	86
	11/20/2008	13.8	104

Rank Sum = 476
Rank Mean = 95.2

LMW-14R	6/2/2007	14.6	106
	11/15/2007	12	95
	5/20/2008	9.72 J	88
	11/20/2008	13	101

Rank Sum = 390
Rank Mean = 97.5

Calculation Results:

Kruskal-Wallis H Statistic = 50.4409
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 57.3091
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
50.4409 > 21.0261 indicating a significant group difference at 5% significance level
57.3091 > 21.0261 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 79

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	55.5882	-23.4118	34.3758
LMW-6	90.6667	11.6667	35.4338
LMW-7	81.3333	2.33333	35.4338
LMW-8	98.0667	19.0667	35.4338
LMW-10	69.3333	-9.66667	37.5832
LMW-11	36	-43	38.5206
LMW-12	36	-43	38.5206
LMW-13	36	-43	38.5206
LMW-15	93.75	14.75	42.4836
LMW-16	124.6	45.6	50.1109
LMW-3S	95.2	16.2	50.1109
LMW-14R	97.5	18.5	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 79

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	55.5882	-23.4118	39.1893
LMW-6	90.6667	11.6667	40.3954
LMW-7	81.3333	2.33333	40.3954
LMW-8	98.0667	19.0667	40.3954
LMW-10	69.3333	-9.66667	42.8458
LMW-11	36	-43	43.9144
LMW-12	36	-43	43.9144
LMW-13	36	-43	43.9144
LMW-15	93.75	14.75	48.4324

LMW-16	124.6	45.6	57.1277
LMW-3S	95.2	16.2	57.1277
LMW-14R	97.5	18.5	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Cadmium, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	4.36	142
	3/16/1999	ND<20	64
	9/23/1999	ND<20	64
	3/14/2000	3 J	139
	9/23/2003	ND<20	64
	3/10/2004	ND<20	64
	10/12/2004	ND<20	64
	4/1/2005	ND<20	64
	10/26/2005	ND<20	64
	6/19/2006	ND<20	64
	11/18/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 1113
Rank Mean = 74.2

Background Rank Sum = 1113
Background Rank Mean = 74.2

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<20	64
	3/24/1997	ND<20	64
	1/16/1998	ND<20	64
	3/16/1999	ND<20	64
	9/23/1999	ND<20	64
	3/14/2000	2 J	135
	9/23/2003	ND<20	64
	3/10/2004	ND<20	64
	10/12/2004	ND<20	64
	4/1/2005	ND<20	64
	10/26/2005	ND<20	64
	6/19/2006	ND<20	64
	11/18/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 1159
Rank Mean = 68.1765

LMW-6	1/16/1998	ND<20	64

	3/16/1999	ND<20	64
	9/23/1999	ND<20	64
	3/14/2000	1 J	131
	9/23/2003	31	143
	3/10/2004	ND<20	64
	10/12/2004	ND<20	64
	4/1/2005	ND<20	64
	10/26/2005	ND<20	64
	6/19/2006	ND<20	64
	11/18/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 1106
Rank Mean = 73.7333

LMW-7	1/16/1998	38.9	144
	3/16/1999	ND<20	64
	9/23/1999	ND<20	64
	3/14/2000	3 J	140
	9/23/2003	ND<20	64
	3/10/2004	ND<20	64
	10/12/2004	1.4 J	134
	4/1/2005	ND<20	64
	10/26/2005	0.701 J	129
	6/19/2006	0.57 J	128
	11/18/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 1315
Rank Mean = 87.6667

LMW-8	1/16/1998	2.1 J	137
	3/16/1999	ND<20	64
	9/23/1999	ND<20	64
	3/14/2000	ND<20	64
	9/23/2003	ND<20	64
	3/10/2004	ND<20	64
	10/12/2004	ND<20	64
	4/1/2005	ND<20	64
	10/26/2005	ND<20	64
	6/19/2006	ND<20	64
	11/18/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 1033
Rank Mean = 68.8667

LMW-10	3/14/2000	1 J	132
	9/23/2003	ND<20	64
	3/10/2004	ND<20	64
	10/12/2004	ND<20	64
	4/1/2005	ND<20	64
	10/26/2005	ND<20	64
	6/19/2006	0.94 J	130
	11/18/2006	ND<20	64
	6/2/2007	ND<20	64

	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 902
Rank Mean = 75.1667

LMW-11	3/14/2000	ND<20	64
	9/23/2003	ND<20	64
	3/10/2004	ND<20	64
	10/12/2004	2.3 J	138
	4/1/2005	ND<20	64
	10/26/2005	ND<20	64
	6/19/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 778
Rank Mean = 70.7273

LMW-12	3/14/2000	4 J	141
	9/23/2003	ND<20	64
	3/10/2004	ND<20	64
	10/12/2004	ND<20	64
	4/1/2005	ND<20	64
	10/26/2005	ND<20	64
	6/19/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 781
Rank Mean = 71

LMW-13	3/14/2000	1 J	133
	9/23/2003	ND<20	64
	3/10/2004	ND<20	64
	10/12/2004	ND<20	64
	4/1/2005	ND<20	64
	10/26/2005	ND<20	64
	6/19/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 773
Rank Mean = 70.2727

LMW-15	11/18/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 512
Rank Mean = 64

LMW-16	11/18/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64

	5/20/2008	ND<20	64
	11/20/2008	2 J	136

Rank Sum = 392
Rank Mean = 78.4

LMW-3S	11/18/2006	ND<20	64
	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 320
Rank Mean = 64

LMW-14R	6/2/2007	ND<20	64
	11/15/2007	ND<20	64
	5/20/2008	ND<20	64
	11/20/2008	ND<20	64

Rank Sum = 256
Rank Mean = 64

Calculation Results:

Kruskal-Wallis H Statistic = 3.23787
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 10.3114
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
3.23787 < 21.0261 indicating no significant group difference at 5% significance level
10.3114 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Chromium, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	345	144
	3/16/1999	ND<20	57.5
	9/23/1999	ND<20	57.5
	3/14/2000	87	141
	9/23/2003	ND<20	57.5
	3/10/2004	120	143
	10/12/2004	ND<20	57.5
	4/1/2005	10.8 J	123
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	21.7	132
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 1258
Rank Mean = 83.8667

Background Rank Sum = 1258
Background Rank Mean = 83.8667

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<20	57.5
	3/24/1997	ND<20	57.5
	1/16/1998	ND<20	57.5
	3/16/1999	ND<20	57.5
	9/23/1999	ND<20	57.5
	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 977.5
Rank Mean = 57.5

LMW-6	1/16/1998	13 J	126

	3/16/1999	ND<20	57.5
	9/23/1999	6 J	119
	3/14/2000	34	137
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	4.74 J	116
	11/15/2007	ND<20	57.5
	5/20/2008	7.82 J	122
	11/20/2008	ND<20	57.5

Rank Sum = 1195
Rank Mean = 79.6667

LMW-7	1/16/1998	10.8 J	124
	3/16/1999	ND<20	57.5
	9/23/1999	5 J	117
	3/14/2000	34	138
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	19 J	128
	10/26/2005	23.2	133
	6/19/2006	ND<20	57.5
	11/18/2006	5.28 J	118
	6/2/2007	24.7	134
	11/15/2007	ND<20	57.5
	5/20/2008	7.18 J	121
	11/20/2008	ND<20	57.5

Rank Sum = 1415.5
Rank Mean = 94.3667

LMW-8	1/16/1998	ND<20	57.5
	3/16/1999	6 J	120
	9/23/1999	13 J	127
	3/14/2000	21	131
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 1068
Rank Mean = 71.2

LMW-10	3/14/2000	28	136
	9/23/2003	ND<20	57.5
	3/10/2004	36	139
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	2.72	115

	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 907.5
Rank Mean = 75.625

LMW-11	3/14/2000	20	129
	9/23/2003	ND<20	57.5
	3/10/2004	40	140
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 786.5
Rank Mean = 71.5

LMW-12	3/14/2000	93	142
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 717
Rank Mean = 65.1818

LMW-13	3/14/2000	27	135
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 710
Rank Mean = 64.5455

LMW-15	11/18/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 460
Rank Mean = 57.5

LMW-16	11/18/2006	ND<20	57.5
	6/2/2007	20.7	130
	11/15/2007	ND<20	57.5

	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 360
Rank Mean = 72

LMW-3S	11/18/2006	ND<20	57.5
	6/2/2007	11.6	125
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 355
Rank Mean = 71

LMW-14R	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 230
Rank Mean = 57.5

Calculation Results:

Kruskal-Wallis H Statistic = 10.2626
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 20.3684
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
10.2626 < 21.0261 indicating no significant group difference at 5% significance level
20.3684 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Cobalt, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<20	68.5
	3/16/1999	ND<20	68.5
	9/23/1999	ND<20	68.5
	3/14/2000	ND<20	68.5
	9/23/2003	ND<20	68.5
	3/10/2004	ND<20	68.5
	10/12/2004	ND<20	68.5
	4/1/2005	ND<20	68.5
	10/26/2005	ND<20	68.5
	6/19/2006	ND<20	68.5
	11/18/2006	ND<20	68.5
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	ND<20	68.5
	11/20/2008	ND<20	68.5

Rank Sum = 1027.5
Rank Mean = 68.5

Background Rank Sum = 1027.5
Background Rank Mean = 68.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<20	68.5
	3/24/1997	ND<20	68.5
	1/16/1998	ND<20	68.5
	3/16/1999	ND<20	68.5
	9/23/1999	ND<20	68.5
	3/14/2000	ND<20	68.5
	9/23/2003	ND<20	68.5
	3/10/2004	ND<20	68.5
	10/12/2004	ND<20	68.5
	4/1/2005	ND<20	68.5
	10/26/2005	ND<20	68.5
	6/19/2006	ND<20	68.5
	11/18/2006	ND<20	68.5
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	ND<20	68.5
	11/20/2008	ND<20	68.5

Rank Sum = 1164.5
Rank Mean = 68.5

LMW-6	1/16/1998	ND<20	68.5

	3/16/1999	ND<20	68.5
	9/23/1999	11 J	144
	3/14/2000	ND<20	68.5
	9/23/2003	ND<20	68.5
	3/10/2004	ND<20	68.5
	10/12/2004	ND<20	68.5
	4/1/2005	ND<20	68.5
	10/26/2005	ND<20	68.5
	6/19/2006	ND<20	68.5
	11/18/2006	0.734 J	140
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	0.925 J	142
	11/20/2008	ND<20	68.5

Rank Sum = 1248
Rank Mean = 83.2

LMW-7	1/16/1998	ND<20	68.5
	3/16/1999	ND<20	68.5
	9/23/1999	ND<20	68.5
	3/14/2000	ND<20	68.5
	9/23/2003	ND<20	68.5
	3/10/2004	ND<20	68.5
	10/12/2004	ND<20	68.5
	4/1/2005	ND<20	68.5
	10/26/2005	ND<20	68.5
	6/19/2006	ND<20	68.5
	11/18/2006	1.03 J	143
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	ND<20	68.5
	11/20/2008	ND<20	68.5

Rank Sum = 1102
Rank Mean = 73.4667

LMW-8	1/16/1998	ND<20	68.5
	3/16/1999	ND<20	68.5
	9/23/1999	ND<20	68.5
	3/14/2000	ND<20	68.5
	9/23/2003	ND<20	68.5
	3/10/2004	ND<20	68.5
	10/12/2004	ND<20	68.5
	4/1/2005	ND<20	68.5
	10/26/2005	ND<20	68.5
	6/19/2006	ND<20	68.5
	11/18/2006	ND<20	68.5
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	0.831 J	141
	11/20/2008	ND<20	68.5

Rank Sum = 1100
Rank Mean = 73.3333

LMW-10	3/14/2000	ND<20	68.5
	9/23/2003	ND<20	68.5
	3/10/2004	ND<20	68.5
	10/12/2004	ND<20	68.5
	4/1/2005	ND<20	68.5
	10/26/2005	ND<20	68.5
	6/19/2006	ND<20	68.5
	11/18/2006	ND<20	68.5
	6/2/2007	ND<20	68.5

	11/15/2007	ND<20	68.5
	5/20/2008	ND<20	68.5
	11/20/2008	ND<20	68.5

Rank Sum = 822
Rank Mean = 68.5

LMW-11	3/14/2000	ND<20	68.5
	9/23/2003	ND<20	68.5
	3/10/2004	ND<20	68.5
	10/12/2004	ND<20	68.5
	4/1/2005	ND<20	68.5
	10/26/2005	ND<20	68.5
	6/19/2006	ND<20	68.5
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	ND<20	68.5
	11/20/2008	ND<20	68.5

Rank Sum = 753.5
Rank Mean = 68.5

LMW-12	3/14/2000	ND<20	68.5
	9/23/2003	ND<20	68.5
	3/10/2004	ND<20	68.5
	10/12/2004	ND<20	68.5
	4/1/2005	ND<20	68.5
	10/26/2005	ND<20	68.5
	6/19/2006	ND<20	68.5
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	ND<20	68.5
	11/20/2008	ND<20	68.5

Rank Sum = 753.5
Rank Mean = 68.5

LMW-13	3/14/2000	ND<20	68.5
	9/23/2003	ND<20	68.5
	3/10/2004	ND<20	68.5
	10/12/2004	ND<20	68.5
	4/1/2005	ND<20	68.5
	10/26/2005	ND<20	68.5
	6/19/2006	ND<20	68.5
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	ND<20	68.5
	11/20/2008	ND<20	68.5

Rank Sum = 753.5
Rank Mean = 68.5

LMW-15	11/18/2006	ND<20	68.5
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	ND<20	68.5
	5/20/2008	0.652 J	139
	11/20/2008	ND<20	68.5
	11/20/2008	ND<20	68.5

Rank Sum = 618.5
Rank Mean = 77.3125

LMW-16	11/18/2006	ND<20	68.5
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5

	5/20/2008	ND<20	68.5
	11/20/2008	ND<20	68.5

Rank Sum = 342.5
Rank Mean = 68.5

LMW-3S	11/18/2006	ND<20	68.5
	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	0.527 J	138
	11/20/2008	ND<20	68.5

Rank Sum = 412
Rank Mean = 82.4

LMW-14R	6/2/2007	ND<20	68.5
	11/15/2007	ND<20	68.5
	5/20/2008	0.514 J	137
	11/20/2008	ND<20	68.5

Rank Sum = 342.5
Rank Mean = 85.625

Calculation Results:

Kruskal-Wallis H Statistic = 2.53918
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 16.1132
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
2.53918 < 21.0261 indicating no significant group difference at 5% significance level
16.1132 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Copper, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	73.2	144
	3/16/1999	ND<20	57.5
	9/23/1999	ND<20	57.5
	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	8.06 J	136
	11/15/2007	5 J	120
	5/20/2008	8.8 J	137
	11/20/2008	ND<20	57.5

Rank Sum = 1169.5
Rank Mean = 77.9667

Background Rank Sum = 1169.5
Background Rank Mean = 77.9667

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<20	57.5
	3/24/1997	ND<20	57.5
	1/16/1998	4.23 J	119
	3/16/1999	ND<20	57.5
	9/23/1999	ND<20	57.5
	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	9 J	138
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 1119.5
Rank Mean = 65.8529

LMW-6	1/16/1998	18.5 J	142

	3/16/1999	ND<20	57.5
	9/23/1999	ND<20	57.5
	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	7.78 J	134
	11/15/2007	7 J	132
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 1098
Rank Mean = 73.2

LMW-7	1/16/1998	20.9	143
	3/16/1999	5 J	121
	9/23/1999	5 J	122
	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	10.8 J	140
	10/26/2005	11.1 J	141
	6/19/2006	10 J	139
	11/18/2006	ND<20	57.5
	6/2/2007	6.05 J	131
	11/15/2007	8 J	135
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 1474.5
Rank Mean = 98.3

LMW-8	1/16/1998	2.52 J	115
	3/16/1999	5 J	123
	9/23/1999	ND<20	57.5
	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	6 J	128
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 1056
Rank Mean = 70.4

LMW-10	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	11/18/2006	ND<20	57.5
	6/2/2007	ND<20	57.5

	11/15/2007	ND<20	57.5
	5/20/2008	2.79 J	117
	11/20/2008	ND<20	57.5

Rank Sum = 749.5
Rank Mean = 62.4583

LMW-11	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 632.5
Rank Mean = 57.5

LMW-12	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 632.5
Rank Mean = 57.5

LMW-13	3/14/2000	ND<20	57.5
	9/23/2003	ND<20	57.5
	3/10/2004	ND<20	57.5
	10/12/2004	ND<20	57.5
	4/1/2005	ND<20	57.5
	10/26/2005	ND<20	57.5
	6/19/2006	ND<20	57.5
	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 632.5
Rank Mean = 57.5

LMW-15	11/18/2006	3.66 J	118
	6/2/2007	5.33 J	127
	11/15/2007	5 J	124
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5
	11/20/2008	5 J	125

Rank Sum = 724
Rank Mean = 90.5

LMW-16	11/18/2006	ND<20	57.5
	6/2/2007	7.37 J	133
	11/15/2007	6 J	129

	5/20/2008	ND<20	57.5
	11/20/2008	5 J	126

Rank Sum = 503
Rank Mean = 100.6

LMW-3S	11/18/2006	2.54 J	116
	6/2/2007	ND<20	57.5
	11/15/2007	6 J	130
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 418.5
Rank Mean = 83.7

LMW-14R	6/2/2007	ND<20	57.5
	11/15/2007	ND<20	57.5
	5/20/2008	ND<20	57.5
	11/20/2008	ND<20	57.5

Rank Sum = 230
Rank Mean = 57.5

Calculation Results:

Kruskal-Wallis H Statistic = 16.0688
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 31.8922
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
16.0688 < 21.0261 indicating no significant group difference at 5% significance level
31.8922 > 21.0261 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 77.9667

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	65.8529	-12.1137	34.3758
LMW-6	73.2	-4.76667	35.4338
LMW-7	98.3	20.3333	35.4338
LMW-8	70.4	-7.56667	35.4338
LMW-10	62.4583	-15.5083	37.5832
LMW-11	57.5	-20.4667	38.5206
LMW-12	57.5	-20.4667	38.5206
LMW-13	57.5	-20.4667	38.5206
LMW-15	90.5	12.5333	42.4836
LMW-16	100.6	22.6333	50.1109
LMW-3S	83.7	5.73333	50.1109
LMW-14R	57.5	-20.4667	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 77.9667

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	65.8529	-12.1137	39.1893
LMW-6	73.2	-4.76667	40.3954
LMW-7	98.3	20.3333	40.3954
LMW-8	70.4	-7.56667	40.3954
LMW-10	62.4583	-15.5083	42.8458
LMW-11	57.5	-20.4667	43.9144
LMW-12	57.5	-20.4667	43.9144
LMW-13	57.5	-20.4667	43.9144
LMW-15	90.5	12.5333	48.4324

LMW-16	100.6	22.6333	57.1277
LMW-3S	83.7	5.73333	57.1277
LMW-14R	57.5	-20.4667	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Lead, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	17.8	133
	3/16/1999	ND<1	54
	9/23/1999	9	129
	3/14/2000	ND<1	54
	9/23/2003	ND<1	54
	3/10/2004	25	138
	10/12/2004	ND<1	54
	4/1/2005	ND<1	54
	10/26/2005	ND<1	54
	6/19/2006	ND<1	54
	11/18/2006	0.644 J	111
	6/2/2007	3.52	123
	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 1174
Rank Mean = 78.2667

Background Rank Sum = 1174
Background Rank Mean = 78.2667

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	54
	3/24/1997	11	130
	1/16/1998	ND<1	54
	3/16/1999	ND<1	54
	9/23/1999	8	128
	3/14/2000	ND<1	54
	9/23/2003	ND<1	54
	3/10/2004	ND<1	54
	10/12/2004	ND<1	54
	4/1/2005	ND<1	54
	10/26/2005	ND<1	54
	6/19/2006	ND<1	54
	11/18/2006	ND<1	54
	6/2/2007	ND<1	54
	11/15/2007	1.17	115
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 1129
Rank Mean = 66.4118

LMW-6	1/16/1998	ND<1	54

	3/16/1999	ND<1	54
	9/23/1999	16	131
	3/14/2000	ND<1	54
	9/23/2003	ND<1	54
	3/10/2004	ND<1	54
	10/12/2004	ND<1	54
	4/1/2005	ND<1	54
	10/26/2005	ND<1	54
	6/19/2006	ND<1	54
	11/18/2006	ND<1	54
	6/2/2007	0.839 J	113
	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 946
Rank Mean = 63.0667

LMW-7	1/16/1998	ND<1	54
	3/16/1999	ND<1	54
	9/23/1999	18	134
	3/14/2000	16	132
	9/23/2003	ND<1	54
	3/10/2004	ND<1	54
	10/12/2004	ND<1	54
	4/1/2005	3.11	120
	10/26/2005	3.07	119
	6/19/2006	3.37	121
	11/18/2006	1.81	117
	6/2/2007	3.51	122
	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 1297
Rank Mean = 86.4667

LMW-8	1/16/1998	ND<1	54
	3/16/1999	ND<1	54
	9/23/1999	21	137
	3/14/2000	ND<1	54
	9/23/2003	ND<1	54
	3/10/2004	ND<1	54
	10/12/2004	ND<1	54
	4/1/2005	ND<1	54
	10/26/2005	ND<1	54
	6/19/2006	ND<1	54
	11/18/2006	ND<1	54
	6/2/2007	ND<1	54
	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 893
Rank Mean = 59.5333

LMW-10	3/14/2000	50	143
	9/23/2003	ND<1	54
	3/10/2004	130	144
	10/12/2004	ND<1	54
	4/1/2005	ND<1	54
	10/26/2005	ND<1	54
	6/19/2006	0.78 J	112
	11/18/2006	ND<1	54
	6/2/2007	4.15	125

	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	0.524 J	108

Rank Sum = 1010
Rank Mean = 84.1667

LMW-11	3/14/2000	19	136
	9/23/2003	ND<1	54
	3/10/2004	46	141
	10/12/2004	ND<1	54
	4/1/2005	ND<1	54
	10/26/2005	ND<1	54
	6/19/2006	ND<1	54
	6/2/2007	ND<1	54
	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 763
Rank Mean = 69.3636

LMW-12	3/14/2000	49	142
	9/23/2003	ND<1	54
	3/10/2004	18	135
	10/12/2004	ND<1	54
	4/1/2005	ND<1	54
	10/26/2005	ND<1	54
	6/19/2006	ND<1	54
	6/2/2007	ND<1	54
	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 763
Rank Mean = 69.3636

LMW-13	3/14/2000	44	140
	9/23/2003	ND<1	54
	3/10/2004	35	139
	10/12/2004	ND<1	54
	4/1/2005	ND<1	54
	10/26/2005	ND<1	54
	6/19/2006	ND<1	54
	6/2/2007	ND<1	54
	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 765
Rank Mean = 69.5455

LMW-15	11/18/2006	0.559 J	109
	6/2/2007	ND<1	54
	11/15/2007	ND<1	54
	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54
	11/20/2008	1.08	114

Rank Sum = 547
Rank Mean = 68.375

LMW-16	11/18/2006	0.643 J	110
	6/2/2007	5.28	127
	11/15/2007	2.6	118

	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 463
Rank Mean = 92.6

LMW-3S	11/18/2006	ND<1	54
	6/2/2007	3.71	124
	11/15/2007	1.47	116
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 402
Rank Mean = 80.4

LMW-14R	6/2/2007	4.42	126
	11/15/2007	ND<1	54
	5/20/2008	ND<1	54
	11/20/2008	ND<1	54

Rank Sum = 288
Rank Mean = 72

Calculation Results:

Kruskal-Wallis H Statistic = 7.08436
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 12.0124
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
7.08436 < 21.0261 indicating no significant group difference at 5% significance level
12.0124 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Mercury

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	65
	3/16/1999	ND<1	65
	9/23/1999	ND<1	65
	3/14/2000	ND<1	65
	9/23/2003	ND<1	65
	3/10/2004	ND<1	65
	10/12/2004	ND<1	65
	4/1/2005	ND<1	65
	10/26/2005	ND<1	65
	6/19/2006	ND<1	65
	11/18/2006	ND<1	65
	6/2/2007	0.3	142
	11/15/2007	0.128 J	134
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 1121
Rank Mean = 74.7333

Background Rank Sum = 1121
Background Rank Mean = 74.7333

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	65
	3/24/1997	ND<1	65
	1/16/1998	ND<1	65
	3/16/1999	ND<1	65
	9/23/1999	ND<1	65
	3/14/2000	ND<1	65
	9/23/2003	ND<1	65
	3/10/2004	ND<1	65
	10/12/2004	ND<1	65
	4/1/2005	ND<1	65
	10/26/2005	ND<1	65
	6/19/2006	ND<1	65
	11/18/2006	ND<1	65
	6/2/2007	0.24	141
	11/15/2007	ND<1	65
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 1181
Rank Mean = 69.4706

LMW-6	1/16/1998	ND<1	65

	3/16/1999	ND<1	65
	9/23/1999	ND<1	65
	3/14/2000	ND<1	65
	9/23/2003	ND<1	65
	3/10/2004	ND<1	65
	10/12/2004	ND<1	65
	4/1/2005	ND<1	65
	10/26/2005	ND<1	65
	6/19/2006	ND<1	65
	11/18/2006	ND<1	65
	6/2/2007	ND<1	65
	11/15/2007	ND<1	65
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 975
Rank Mean = 65

LMW-7	1/16/1998	ND<1	65
	3/16/1999	ND<1	65
	9/23/1999	ND<1	65
	3/14/2000	ND<1	65
	9/23/2003	ND<1	65
	3/10/2004	ND<1	65
	10/12/2004	ND<1	65
	4/1/2005	ND<1	65
	10/26/2005	ND<1	65
	6/19/2006	ND<1	65
	11/18/2006	ND<1	65
	6/2/2007	0.38	143
	11/15/2007	ND<1	65
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 1053
Rank Mean = 70.2

LMW-8	1/16/1998	ND<1	65
	3/16/1999	ND<1	65
	9/23/1999	ND<1	65
	3/14/2000	ND<1	65
	9/23/2003	ND<1	65
	3/10/2004	1.2	144
	10/12/2004	ND<1	65
	4/1/2005	ND<1	65
	10/26/2005	ND<1	65
	6/19/2006	ND<1	65
	11/18/2006	ND<1	65
	6/2/2007	0.2	138
	11/15/2007	0.113 J	130
	5/20/2008	0.191 J	137
	11/20/2008	ND<1	65

Rank Sum = 1264
Rank Mean = 84.2667

LMW-10	3/14/2000	ND<1	65
	9/23/2003	ND<1	65
	3/10/2004	ND<1	65
	10/12/2004	ND<1	65
	4/1/2005	ND<1	65
	10/26/2005	ND<1	65
	6/19/2006	ND<1	65
	11/18/2006	ND<1	65
	6/2/2007	ND<1	65

	11/15/2007	ND<1	65
	5/20/2008	0.149 J	136
	11/20/2008	ND<1	65

Rank Sum = 851
Rank Mean = 70.9167

LMW-11	3/14/2000	ND<1	65
	9/23/2003	ND<1	65
	3/10/2004	ND<1	65
	10/12/2004	ND<1	65
	4/1/2005	ND<1	65
	10/26/2005	ND<1	65
	6/19/2006	ND<1	65
	6/2/2007	ND<1	65
	11/15/2007	ND<1	65
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 715
Rank Mean = 65

LMW-12	3/14/2000	ND<1	65
	9/23/2003	ND<1	65
	3/10/2004	ND<1	65
	10/12/2004	ND<1	65
	4/1/2005	ND<1	65
	10/26/2005	ND<1	65
	6/19/2006	ND<1	65
	6/2/2007	ND<1	65
	11/15/2007	ND<1	65
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 715
Rank Mean = 65

LMW-13	3/14/2000	ND<1	65
	9/23/2003	ND<1	65
	3/10/2004	ND<1	65
	10/12/2004	ND<1	65
	4/1/2005	ND<1	65
	10/26/2005	ND<1	65
	6/19/2006	ND<1	65
	6/2/2007	ND<1	65
	11/15/2007	ND<1	65
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 715
Rank Mean = 65

LMW-15	11/18/2006	ND<1	65
	6/2/2007	0.12 J	131
	11/15/2007	0.146 J	135
	11/15/2007	ND<1	65
	5/20/2008	ND<1	65
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 656
Rank Mean = 82

LMW-16	11/18/2006	ND<1	65
	6/2/2007	0.22	139
	11/15/2007	ND<1	65

	5/20/2008	0.125 J	132
	11/20/2008	ND<1	65

Rank Sum = 466
Rank Mean = 93.2

LMW-3S	11/18/2006	ND<1	65
	6/2/2007	0.22	140
	11/15/2007	ND<1	65
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 400
Rank Mean = 80

LMW-14R	6/2/2007	ND<1	65
	11/15/2007	0.126 J	133
	5/20/2008	ND<1	65
	11/20/2008	ND<1	65

Rank Sum = 328
Rank Mean = 82

Calculation Results:

Kruskal-Wallis H Statistic = 4.9562
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 17.6323
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
4.9562 < 21.0261 indicating no significant group difference at 5% significance level
17.6323 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Nickel, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<30	58.5
	3/16/1999	ND<30	58.5
	9/23/1999	ND<30	58.5
	3/14/2000	ND<30	58.5
	9/23/2003	ND<30	58.5
	3/10/2004	ND<30	58.5
	10/12/2004	ND<30	58.5
	4/1/2005	ND<30	58.5
	10/26/2005	ND<30	58.5
	6/19/2006	ND<30	58.5
	11/18/2006	1.6 J	122
	6/2/2007	6.98	142
	11/15/2007	3 J	130
	5/20/2008	5.38 J	139
	11/20/2008	ND<30	58.5

Rank Sum = 1176.5
Rank Mean = 78.4333

Background Rank Sum = 1176.5
Background Rank Mean = 78.4333

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<30	58.5
	3/24/1997	ND<30	58.5
	1/16/1998	ND<30	58.5
	3/16/1999	ND<30	58.5
	9/23/1999	ND<30	58.5
	3/14/2000	ND<30	58.5
	9/23/2003	ND<30	58.5
	3/10/2004	ND<30	58.5
	10/12/2004	ND<30	58.5
	4/1/2005	ND<30	58.5
	10/26/2005	ND<30	58.5
	6/19/2006	ND<30	58.5
	11/18/2006	ND<30	58.5
	6/2/2007	ND<30	58.5
	11/15/2007	ND<30	58.5
	5/20/2008	1.12 J	118
	11/20/2008	ND<30	58.5

Rank Sum = 1054
Rank Mean = 62

LMW-6	1/16/1998	ND<30	58.5

	3/16/1999	ND<30	58.5
	9/23/1999	ND<30	58.5
	3/14/2000	ND<30	58.5
	9/23/2003	ND<30	58.5
	3/10/2004	ND<30	58.5
	10/12/2004	ND<30	58.5
	4/1/2005	ND<30	58.5
	10/26/2005	ND<30	58.5
	6/19/2006	ND<30	58.5
	11/18/2006	1.13 J	120
	6/2/2007	5.53	140
	11/15/2007	ND<30	58.5
	5/20/2008	2.06 J	126
	11/20/2008	ND<30	58.5

Rank Sum = 1088
Rank Mean = 72.5333

LMW-7	1/16/1998	ND<30	58.5
	3/16/1999	ND<30	58.5
	9/23/1999	ND<30	58.5
	3/14/2000	ND<30	58.5
	9/23/2003	ND<30	58.5
	3/10/2004	ND<30	58.5
	10/12/2004	ND<30	58.5
	4/1/2005	18.9 J	144
	10/26/2005	ND<30	58.5
	6/19/2006	ND<30	58.5
	11/18/2006	4.23 J	135
	6/2/2007	7.73	143
	11/15/2007	5 J	137
	5/20/2008	2.42 J	129
	11/20/2008	3 J	131

Rank Sum = 1345.5
Rank Mean = 89.7

LMW-8	1/16/1998	ND<30	58.5
	3/16/1999	6 J	141
	9/23/1999	ND<30	58.5
	3/14/2000	ND<30	58.5
	9/23/2003	ND<30	58.5
	3/10/2004	ND<30	58.5
	10/12/2004	ND<30	58.5
	4/1/2005	ND<30	58.5
	10/26/2005	ND<30	58.5
	6/19/2006	ND<30	58.5
	11/18/2006	1.72 J	123
	6/2/2007	ND<30	58.5
	11/15/2007	ND<30	58.5
	5/20/2008	1.76 J	124
	11/20/2008	ND<30	58.5

Rank Sum = 1090
Rank Mean = 72.6667

LMW-10	3/14/2000	ND<30	58.5
	9/23/2003	ND<30	58.5
	3/10/2004	ND<30	58.5
	10/12/2004	ND<30	58.5
	4/1/2005	ND<30	58.5
	10/26/2005	ND<30	58.5
	6/19/2006	ND<30	58.5
	11/18/2006	ND<30	58.5
	6/2/2007	ND<30	58.5

	11/15/2007	ND<30	58.5
	5/20/2008	1.53 J	121
	11/20/2008	ND<30	58.5

Rank Sum = 764.5
Rank Mean = 63.7083

LMW-11	3/14/2000	ND<30	58.5
	9/23/2003	ND<30	58.5
	3/10/2004	ND<30	58.5
	10/12/2004	ND<30	58.5
	4/1/2005	ND<30	58.5
	10/26/2005	ND<30	58.5
	6/19/2006	ND<30	58.5
	6/2/2007	ND<30	58.5
	11/15/2007	ND<30	58.5
	5/20/2008	ND<30	58.5
	11/20/2008	ND<30	58.5

Rank Sum = 643.5
Rank Mean = 58.5

LMW-12	3/14/2000	ND<30	58.5
	9/23/2003	ND<30	58.5
	3/10/2004	ND<30	58.5
	10/12/2004	ND<30	58.5
	4/1/2005	ND<30	58.5
	10/26/2005	ND<30	58.5
	6/19/2006	ND<30	58.5
	6/2/2007	ND<30	58.5
	11/15/2007	ND<30	58.5
	5/20/2008	ND<30	58.5
	11/20/2008	ND<30	58.5

Rank Sum = 643.5
Rank Mean = 58.5

LMW-13	3/14/2000	ND<30	58.5
	9/23/2003	ND<30	58.5
	3/10/2004	ND<30	58.5
	10/12/2004	ND<30	58.5
	4/1/2005	ND<30	58.5
	10/26/2005	ND<30	58.5
	6/19/2006	ND<30	58.5
	6/2/2007	ND<30	58.5
	11/15/2007	ND<30	58.5
	5/20/2008	ND<30	58.5
	11/20/2008	ND<30	58.5

Rank Sum = 643.5
Rank Mean = 58.5

LMW-15	11/18/2006	1.8 J	125
	6/2/2007	ND<30	58.5
	11/15/2007	ND<30	58.5
	11/15/2007	ND<30	58.5
	5/20/2008	ND<30	58.5
	5/20/2008	1.12 J	119
	11/20/2008	ND<30	58.5
	11/20/2008	ND<30	58.5

Rank Sum = 595
Rank Mean = 74.375

LMW-16	11/18/2006	1.03 J	117
	6/2/2007	ND<30	58.5
	11/15/2007	ND<30	58.5

	5/20/2008	ND<30	58.5
	11/20/2008	ND<30	58.5

Rank Sum = 351
Rank Mean = 70.2

LMW-3S	11/18/2006	2.41 J	128
	6/2/2007	4.92 J	136
	11/15/2007	5 J	138
	5/20/2008	3.72 J	134
	11/20/2008	3.7 J	133

Rank Sum = 669
Rank Mean = 133.8

LMW-14R	6/2/2007	ND<30	58.5
	11/15/2007	ND<30	58.5
	5/20/2008	2.39 J	127
	11/20/2008	3 J	132

Rank Sum = 376
Rank Mean = 94

Calculation Results:

Kruskal-Wallis H Statistic = 20.0735
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 42.0588
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
20.0735 < 21.0261 indicating no significant group difference at 5% significance level
42.0588 > 21.0261 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 78.4333

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	62	-16.4333	34.3758
LMW-6	72.5333	-5.9	35.4338
LMW-7	89.7	11.2667	35.4338
LMW-8	72.6667	-5.76667	35.4338
LMW-10	63.7083	-14.725	37.5832
LMW-11	58.5	-19.9333	38.5206
LMW-12	58.5	-19.9333	38.5206
LMW-13	58.5	-19.9333	38.5206
LMW-15	74.375	-4.05833	42.4836
LMW-16	70.2	-8.23333	50.1109
LMW-3S	133.8	55.3667	50.1109
LMW-14R	94	15.5667	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 78.4333

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	62	-16.4333	39.1893
LMW-6	72.5333	-5.9	40.3954
LMW-7	89.7	11.2667	40.3954
LMW-8	72.6667	-5.76667	40.3954
LMW-10	63.7083	-14.725	42.8458
LMW-11	58.5	-19.9333	43.9144
LMW-12	58.5	-19.9333	43.9144
LMW-13	58.5	-19.9333	43.9144
LMW-15	74.375	-4.05833	48.4324

LMW-16	70.2	-8.23333	57.1277
LMW-3S	133.8	55.3667	57.1277
LMW-14R	94	15.5667	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Selenium, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<2	65.5
	3/16/1999	ND<2	65.5
	9/23/1999	ND<2	65.5
	3/14/2000	ND<2	65.5
	9/23/2003	ND<2	65.5
	3/10/2004	ND<2	65.5
	10/12/2004	ND<2	65.5
	4/1/2005	ND<2	65.5
	10/26/2005	ND<2	65.5
	6/19/2006	ND<2	65.5
	11/18/2006	ND<2	65.5
	6/2/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 982.5
Rank Mean = 65.5

Background Rank Sum = 982.5
Background Rank Mean = 65.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<2	65.5
	3/24/1997	ND<2	65.5
	1/16/1998	ND<2	65.5
	3/16/1999	ND<2	65.5
	9/23/1999	ND<2	65.5
	3/14/2000	ND<2	65.5
	9/23/2003	ND<2	65.5
	3/10/2004	ND<2	65.5
	10/12/2004	ND<2	65.5
	4/1/2005	ND<2	65.5
	10/26/2005	ND<2	65.5
	6/19/2006	ND<2	65.5
	11/18/2006	ND<2	65.5
	6/2/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 1113.5
Rank Mean = 65.5

LMW-6	1/16/1998	ND<2	65.5

	3/16/1999	ND<2	65.5
	9/23/1999	ND<2	65.5
	3/14/2000	ND<2	65.5
	9/23/2003	ND<2	65.5
	3/10/2004	ND<2	65.5
	10/12/2004	ND<2	65.5
	4/1/2005	ND<2	65.5
	10/26/2005	1.8 J	134
	6/19/2006	2.12	136
	11/18/2006	2.83	138
	6/2/2007	2.93	140
	11/15/2007	4.3	144
	5/20/2008	2.99	141
	11/20/2008	2.87	139

Rank Sum = 1496
Rank Mean = 99.7333

LMW-7	1/16/1998	ND<2	65.5
	3/16/1999	ND<2	65.5
	9/23/1999	ND<2	65.5
	3/14/2000	ND<2	65.5
	9/23/2003	ND<2	65.5
	3/10/2004	ND<2	65.5
	10/12/2004	ND<2	65.5
	4/1/2005	ND<2	65.5
	10/26/2005	ND<2	65.5
	6/19/2006	ND<2	65.5
	11/18/2006	ND<2	65.5
	6/2/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 982.5
Rank Mean = 65.5

LMW-8	1/16/1998	ND<2	65.5
	3/16/1999	ND<2	65.5
	9/23/1999	ND<2	65.5
	3/14/2000	ND<2	65.5
	9/23/2003	ND<2	65.5
	3/10/2004	ND<2	65.5
	10/12/2004	ND<2	65.5
	4/1/2005	3.28	142
	10/26/2005	1.67 J	132
	6/19/2006	1.87 J	135
	11/18/2006	1.67 J	133
	6/2/2007	1.04 J	131
	11/15/2007	3.73	143
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 1405.5
Rank Mean = 93.7

LMW-10	3/14/2000	ND<2	65.5
	9/23/2003	ND<2	65.5
	3/10/2004	ND<2	65.5
	10/12/2004	ND<2	65.5
	4/1/2005	ND<2	65.5
	10/26/2005	ND<2	65.5
	6/19/2006	ND<2	65.5
	11/18/2006	ND<2	65.5
	6/2/2007	ND<2	65.5

	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 786
Rank Mean = 65.5

LMW-11	3/14/2000	ND<2	65.5
	9/23/2003	ND<2	65.5
	3/10/2004	ND<2	65.5
	10/12/2004	ND<2	65.5
	4/1/2005	ND<2	65.5
	10/26/2005	ND<2	65.5
	6/19/2006	ND<2	65.5
	6/2/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 720.5
Rank Mean = 65.5

LMW-12	3/14/2000	ND<2	65.5
	9/23/2003	ND<2	65.5
	3/10/2004	ND<2	65.5
	10/12/2004	ND<2	65.5
	4/1/2005	ND<2	65.5
	10/26/2005	ND<2	65.5
	6/19/2006	ND<2	65.5
	6/2/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 720.5
Rank Mean = 65.5

LMW-13	3/14/2000	ND<2	65.5
	9/23/2003	ND<2	65.5
	3/10/2004	ND<2	65.5
	10/12/2004	ND<2	65.5
	4/1/2005	ND<2	65.5
	10/26/2005	ND<2	65.5
	6/19/2006	ND<2	65.5
	6/2/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 720.5
Rank Mean = 65.5

LMW-15	11/18/2006	ND<2	65.5
	6/2/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 524
Rank Mean = 65.5

LMW-16	11/18/2006	ND<2	65.5
	6/2/2007	ND<2	65.5
	11/15/2007	2.2	137

	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 399
Rank Mean = 79.8

LMW-3S	11/18/2006	ND<2	65.5
	6/2/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 327.5
Rank Mean = 65.5

LMW-14R	6/2/2007	ND<2	65.5
	11/15/2007	ND<2	65.5
	5/20/2008	ND<2	65.5
	11/20/2008	ND<2	65.5

Rank Sum = 262
Rank Mean = 65.5

Calculation Results:

Kruskal-Wallis H Statistic = 13.4907
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 51.0554
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
13.4907 < 21.0261 indicating no significant group difference at 5% significance level
51.0554 > 21.0261 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 65.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	65.5	0	34.3758
LMW-6	99.7333	34.2333	35.4338
LMW-7	65.5	0	35.4338
LMW-8	93.7	28.2	35.4338
LMW-10	65.5	0	37.5832
LMW-11	65.5	0	38.5206
LMW-12	65.5	0	38.5206
LMW-13	65.5	0	38.5206
LMW-15	65.5	0	42.4836
LMW-16	79.8	14.3	50.1109
LMW-3S	65.5	0	50.1109
LMW-14R	65.5	0	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 65.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	65.5	0	39.1893
LMW-6	99.7333	34.2333	40.3954
LMW-7	65.5	0	40.3954
LMW-8	93.7	28.2	40.3954
LMW-10	65.5	0	42.8458
LMW-11	65.5	0	43.9144
LMW-12	65.5	0	43.9144
LMW-13	65.5	0	43.9144
LMW-15	65.5	0	48.4324

LMW-16	79.8	14.3	57.1277
LMW-3S	65.5	0	57.1277
LMW-14R	65.5	0	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Silver, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<50	72.5
	3/16/1999	ND<50	72.5
	9/23/1999	ND<50	72.5
	3/14/2000	ND<50	72.5
	9/23/2003	ND<50	72.5
	3/10/2004	ND<50	72.5
	10/12/2004	ND<50	72.5
	4/1/2005	ND<50	72.5
	10/26/2005	ND<50	72.5
	6/19/2006	ND<50	72.5
	11/18/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

Background Rank Sum = 1087.5
Background Rank Mean = 72.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<50	72.5
	3/24/1997	ND<50	72.5
	1/16/1998	ND<50	72.5
	3/16/1999	ND<50	72.5
	9/23/1999	ND<50	72.5
	3/14/2000	ND<50	72.5
	9/23/2003	ND<50	72.5
	3/10/2004	ND<50	72.5
	10/12/2004	ND<50	72.5
	4/1/2005	ND<50	72.5
	10/26/2005	ND<50	72.5
	6/19/2006	ND<50	72.5
	11/18/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 1232.5
Rank Mean = 72.5

LMW-6	1/16/1998	ND<50	72.5

	3/16/1999	ND<50	72.5
	9/23/1999	ND<50	72.5
	3/14/2000	ND<50	72.5
	9/23/2003	ND<50	72.5
	3/10/2004	ND<50	72.5
	10/12/2004	ND<50	72.5
	4/1/2005	ND<50	72.5
	10/26/2005	ND<50	72.5
	6/19/2006	ND<50	72.5
	11/18/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-7	1/16/1998	ND<50	72.5
	3/16/1999	ND<50	72.5
	9/23/1999	ND<50	72.5
	3/14/2000	ND<50	72.5
	9/23/2003	ND<50	72.5
	3/10/2004	ND<50	72.5
	10/12/2004	ND<50	72.5
	4/1/2005	ND<50	72.5
	10/26/2005	ND<50	72.5
	6/19/2006	ND<50	72.5
	11/18/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-8	1/16/1998	ND<50	72.5
	3/16/1999	ND<50	72.5
	9/23/1999	ND<50	72.5
	3/14/2000	ND<50	72.5
	9/23/2003	ND<50	72.5
	3/10/2004	ND<50	72.5
	10/12/2004	ND<50	72.5
	4/1/2005	ND<50	72.5
	10/26/2005	ND<50	72.5
	6/19/2006	ND<50	72.5
	11/18/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-10	3/14/2000	ND<50	72.5
	9/23/2003	ND<50	72.5
	3/10/2004	ND<50	72.5
	10/12/2004	ND<50	72.5
	4/1/2005	ND<50	72.5
	10/26/2005	ND<50	72.5
	6/19/2006	ND<50	72.5
	11/18/2006	ND<50	72.5
	6/2/2007	ND<50	72.5

	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 870
Rank Mean = 72.5

LMW-11	3/14/2000	ND<50	72.5
	9/23/2003	ND<50	72.5
	3/10/2004	ND<50	72.5
	10/12/2004	ND<50	72.5
	4/1/2005	ND<50	72.5
	10/26/2005	ND<50	72.5
	6/19/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-12	3/14/2000	ND<50	72.5
	9/23/2003	ND<50	72.5
	3/10/2004	ND<50	72.5
	10/12/2004	ND<50	72.5
	4/1/2005	ND<50	72.5
	10/26/2005	ND<50	72.5
	6/19/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-13	3/14/2000	ND<50	72.5
	9/23/2003	ND<50	72.5
	3/10/2004	ND<50	72.5
	10/12/2004	ND<50	72.5
	4/1/2005	ND<50	72.5
	10/26/2005	ND<50	72.5
	6/19/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-15	11/18/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 580
Rank Mean = 72.5

LMW-16	11/18/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5

	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 362.5
Rank Mean = 72.5

LMW-3S	11/18/2006	ND<50	72.5
	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 362.5
Rank Mean = 72.5

LMW-14R	6/2/2007	ND<50	72.5
	11/15/2007	ND<50	72.5
	5/20/2008	ND<50	72.5
	11/20/2008	ND<50	72.5

Rank Sum = 290
Rank Mean = 72.5

Calculation Results:

Kruskal-Wallis H Statistic = 0
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 0
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0 < 21.0261 indicating no significant group difference at 5% significance level
0 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Thallium, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	72.5
	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

Background Rank Sum = 1087.5
Background Rank Mean = 72.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	72.5
	3/24/1997	ND<1	72.5
	1/16/1998	ND<1	72.5
	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1232.5
Rank Mean = 72.5

LMW-6	1/16/1998	ND<1	72.5

	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-7	1/16/1998	ND<1	72.5
	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-8	1/16/1998	ND<1	72.5
	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-10	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5

	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 870
Rank Mean = 72.5

LMW-11	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-12	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-13	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-15	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 580
Rank Mean = 72.5

LMW-16	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5

	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 362.5
Rank Mean = 72.5

LMW-3S	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 362.5
Rank Mean = 72.5

LMW-14R	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 290
Rank Mean = 72.5

Calculation Results:

Kruskal-Wallis H Statistic = 0
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 0
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0 < 21.0261 indicating no significant group difference at 5% significance level
0 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Vanadium

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<20	65
	3/16/1999	ND<20	65
	9/23/1999	ND<20	65
	3/14/2000	ND<20	65
	9/23/2003	ND<20	65
	3/10/2004	ND<20	65
	10/12/2004	ND<20	65
	4/1/2005	ND<20	65
	10/26/2005	ND<20	65
	6/19/2006	ND<20	65
	11/18/2006	ND<20	65
	6/2/2007	15.8	141
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 1051
Rank Mean = 70.0667

Background Rank Sum = 1051
Background Rank Mean = 70.0667

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<20	65
	3/24/1997	ND<20	65
	1/16/1998	ND<20	65
	3/16/1999	ND<20	65
	9/23/1999	ND<20	65
	3/14/2000	ND<20	65
	9/23/2003	ND<20	65
	3/10/2004	ND<20	65
	10/12/2004	ND<20	65
	4/1/2005	ND<20	65
	10/26/2005	ND<20	65
	6/19/2006	ND<20	65
	11/18/2006	ND<20	65
	6/2/2007	ND<20	65
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 1105
Rank Mean = 65

LMW-6	1/16/1998	ND<20	65

	3/16/1999	ND<20	65
	9/23/1999	ND<20	65
	3/14/2000	ND<20	65
	9/23/2003	ND<20	65
	3/10/2004	ND<20	65
	10/12/2004	ND<20	65
	4/1/2005	ND<20	65
	10/26/2005	ND<20	65
	6/19/2006	ND<20	65
	11/18/2006	ND<20	65
	6/2/2007	3.7	133
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 1043
Rank Mean = 69.5333

LMW-7	1/16/1998	ND<20	65
	3/16/1999	7 J	134
	9/23/1999	49	144
	3/14/2000	ND<20	65
	9/23/2003	ND<20	65
	3/10/2004	ND<20	65
	10/12/2004	ND<20	65
	4/1/2005	12.6 J	139
	10/26/2005	18.5 J	142
	6/19/2006	8 J	136
	11/18/2006	3.56 J	132
	6/2/2007	14.8	140
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 1487
Rank Mean = 99.1333

LMW-8	1/16/1998	ND<20	65
	3/16/1999	ND<20	65
	9/23/1999	7 J	135
	3/14/2000	ND<20	65
	9/23/2003	ND<20	65
	3/10/2004	ND<20	65
	10/12/2004	ND<20	65
	4/1/2005	ND<20	65
	10/26/2005	ND<20	65
	6/19/2006	ND<20	65
	11/18/2006	ND<20	65
	6/2/2007	ND<20	65
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 1045
Rank Mean = 69.6667

LMW-10	3/14/2000	ND<20	65
	9/23/2003	ND<20	65
	3/10/2004	ND<20	65
	10/12/2004	ND<20	65
	4/1/2005	ND<20	65
	10/26/2005	ND<20	65
	6/19/2006	8 J	137
	11/18/2006	ND<20	65
	6/2/2007	3.12 J	131

	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 918
Rank Mean = 76.5

LMW-11	3/14/2000	ND<20	65
	9/23/2003	ND<20	65
	3/10/2004	ND<20	65
	10/12/2004	ND<20	65
	4/1/2005	ND<20	65
	10/26/2005	ND<20	65
	6/19/2006	ND<20	65
	6/2/2007	ND<20	65
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 715
Rank Mean = 65

LMW-12	3/14/2000	ND<20	65
	9/23/2003	ND<20	65
	3/10/2004	ND<20	65
	10/12/2004	ND<20	65
	4/1/2005	ND<20	65
	10/26/2005	ND<20	65
	6/19/2006	ND<20	65
	6/2/2007	ND<20	65
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 715
Rank Mean = 65

LMW-13	3/14/2000	ND<20	65
	9/23/2003	ND<20	65
	3/10/2004	ND<20	65
	10/12/2004	ND<20	65
	4/1/2005	ND<20	65
	10/26/2005	ND<20	65
	6/19/2006	ND<20	65
	6/2/2007	ND<20	65
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 715
Rank Mean = 65

LMW-15	11/18/2006	ND<20	65
	6/2/2007	ND<20	65
	11/15/2007	ND<20	65
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 520
Rank Mean = 65

LMW-16	11/18/2006	ND<20	65
	6/2/2007	41.9	143
	11/15/2007	ND<20	65

	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 403
Rank Mean = 80.6

LMW-3S	11/18/2006	ND<20	65
	6/2/2007	9.91	138
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 398
Rank Mean = 79.6

LMW-14R	6/2/2007	2.3 J	130
	11/15/2007	ND<20	65
	5/20/2008	ND<20	65
	11/20/2008	ND<20	65

Rank Sum = 325
Rank Mean = 81.25

Calculation Results:

Kruskal-Wallis H Statistic = 8.80581
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 31.3277
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
8.80581 < 21.0261 indicating no significant group difference at 5% significance level
31.3277 > 21.0261 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 70.0667

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	65	-5.06667	34.3758
LMW-6	69.5333	-0.533333	35.4338
LMW-7	99.1333	29.0667	35.4338
LMW-8	69.6667	-0.4	35.4338
LMW-10	76.5	6.43333	37.5832
LMW-11	65	-5.06667	38.5206
LMW-12	65	-5.06667	38.5206
LMW-13	65	-5.06667	38.5206
LMW-15	65	-5.06667	42.4836
LMW-16	80.6	10.5333	50.1109
LMW-3S	79.6	9.53333	50.1109
LMW-14R	81.25	11.1833	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 70.0667

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	65	-5.06667	39.1893
LMW-6	69.5333	-0.533333	40.3954
LMW-7	99.1333	29.0667	40.3954
LMW-8	69.6667	-0.4	40.3954
LMW-10	76.5	6.43333	42.8458
LMW-11	65	-5.06667	43.9144
LMW-12	65	-5.06667	43.9144
LMW-13	65	-5.06667	43.9144
LMW-15	65	-5.06667	48.4324

LMW-16	80.6	10.5333	57.1277
LMW-3S	79.6	9.53333	57.1277
LMW-14R	81.25	11.1833	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Zinc, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<60	54
	3/16/1999	50 J	139
	9/23/1999	ND<60	54
	3/14/2000	ND<60	54
	9/23/2003	ND<60	54
	3/10/2004	ND<60	54
	10/12/2004	ND<60	54
	4/1/2005	ND<60	54
	10/26/2005	ND<60	54
	6/19/2006	ND<60	54
	11/18/2006	11.1 J	114
	6/2/2007	47	137
	11/15/2007	ND<60	54
	5/20/2008	15.3 J	118
	11/20/2008	ND<60	54

Rank Sum = 1102
Rank Mean = 73.4667

Background Rank Sum = 1102
Background Rank Mean = 73.4667

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<60	54
	3/24/1997	ND<60	54
	1/16/1998	ND<60	54
	3/16/1999	20 J	125
	9/23/1999	ND<60	54
	3/14/2000	ND<60	54
	9/23/2003	ND<60	54
	3/10/2004	ND<60	54
	10/12/2004	ND<60	54
	4/1/2005	ND<60	54
	10/26/2005	ND<60	54
	6/19/2006	ND<60	54
	11/18/2006	6.46 J	109
	6/2/2007	ND<60	54
	11/15/2007	66	142
	5/20/2008	12 J	115
	11/20/2008	ND<60	54

Rank Sum = 1193
Rank Mean = 70.1765

LMW-6	1/16/1998	ND<60	54

	3/16/1999	30 J	131
	9/23/1999	53 J	141
	3/14/2000	ND<60	54
	9/23/2003	ND<60	54
	3/10/2004	ND<60	54
	10/12/2004	ND<60	54
	4/1/2005	ND<60	54
	10/26/2005	ND<60	54
	6/19/2006	20 J	126
	11/18/2006	7.63 J	110
	6/2/2007	17.3 J	123
	11/15/2007	27 J	129
	5/20/2008	10.1 J	111
	11/20/2008	ND<60	54

Rank Sum = 1303
Rank Mean = 86.8667

LMW-7	1/16/1998	ND<60	54
	3/16/1999	20 J	127
	9/23/1999	40 J	134
	3/14/2000	ND<60	54
	9/23/2003	ND<60	54
	3/10/2004	ND<60	54
	10/12/2004	ND<60	54
	4/1/2005	27.5 J	130
	10/26/2005	31.4 J	132
	6/19/2006	40 J	135
	11/18/2006	21.6 J	128
	6/2/2007	51	140
	11/15/2007	ND<60	54
	5/20/2008	10.9 J	113
	11/20/2008	ND<60	54

Rank Sum = 1417
Rank Mean = 94.4667

LMW-8	1/16/1998	ND<60	54
	3/16/1999	90	144
	9/23/1999	ND<60	54
	3/14/2000	ND<60	54
	9/23/2003	ND<60	54
	3/10/2004	ND<60	54
	10/12/2004	ND<60	54
	4/1/2005	ND<60	54
	10/26/2005	ND<60	54
	6/19/2006	ND<60	54
	11/18/2006	ND<60	54
	6/2/2007	ND<60	54
	11/15/2007	ND<60	54
	5/20/2008	5.2 J	108
	11/20/2008	ND<60	54

Rank Sum = 954
Rank Mean = 63.6

LMW-10	3/14/2000	ND<60	54
	9/23/2003	ND<60	54
	3/10/2004	ND<60	54
	10/12/2004	ND<60	54
	4/1/2005	ND<60	54
	10/26/2005	ND<60	54
	6/19/2006	ND<60	54
	11/18/2006	ND<60	54
	6/2/2007	ND<60	54

	11/15/2007	ND<60	54
	5/20/2008	40.8 J	136
	11/20/2008	ND<60	54

Rank Sum = 730
Rank Mean = 60.8333

LMW-11	3/14/2000	ND<60	54
	9/23/2003	ND<60	54
	3/10/2004	ND<60	54
	10/12/2004	ND<60	54
	4/1/2005	ND<60	54
	10/26/2005	ND<60	54
	6/19/2006	ND<60	54
	6/2/2007	ND<60	54
	11/15/2007	ND<60	54
	5/20/2008	ND<60	54
	11/20/2008	ND<60	54

Rank Sum = 594
Rank Mean = 54

LMW-12	3/14/2000	ND<60	54
	9/23/2003	ND<60	54
	3/10/2004	ND<60	54
	10/12/2004	ND<60	54
	4/1/2005	ND<60	54
	10/26/2005	ND<60	54
	6/19/2006	ND<60	54
	6/2/2007	ND<60	54
	11/15/2007	ND<60	54
	5/20/2008	ND<60	54
	11/20/2008	ND<60	54

Rank Sum = 594
Rank Mean = 54

LMW-13	3/14/2000	ND<60	54
	9/23/2003	ND<60	54
	3/10/2004	ND<60	54
	10/12/2004	ND<60	54
	4/1/2005	ND<60	54
	10/26/2005	ND<60	54
	6/19/2006	ND<60	54
	6/2/2007	ND<60	54
	11/15/2007	ND<60	54
	5/20/2008	ND<60	54
	11/20/2008	ND<60	54

Rank Sum = 594
Rank Mean = 54

LMW-15	11/18/2006	14 J	116
	6/2/2007	ND<60	54
	11/15/2007	ND<60	54
	11/15/2007	ND<60	54
	5/20/2008	ND<60	54
	5/20/2008	39.3 J	133
	11/20/2008	ND<60	54
	11/20/2008	ND<60	54

Rank Sum = 573
Rank Mean = 71.625

LMW-16	11/18/2006	ND<60	54
	6/2/2007	16.5 J	121
	11/15/2007	69	143

	5/20/2008	15.8 J	120
	11/20/2008	ND<60	54

Rank Sum = 492
Rank Mean = 98.4

LMW-3S	11/18/2006	10.1 J	112
	6/2/2007	16.6 J	122
	11/15/2007	48 J	138
	5/20/2008	15.2 J	117
	11/20/2008	ND<60	54

Rank Sum = 543
Rank Mean = 108.6

LMW-14R	6/2/2007	15.4 J	119
	11/15/2007	ND<60	54
	5/20/2008	18.2 J	124
	11/20/2008	ND<60	54

Rank Sum = 351
Rank Mean = 87.75

Calculation Results:

Kruskal-Wallis H Statistic = 20.323
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 34.4603
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
20.323 < 21.0261 indicating no significant group difference at 5% significance level
34.4603 > 21.0261 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 73.4667

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	70.1765	-3.2902	34.3758
LMW-6	86.8667	13.4	35.4338
LMW-7	94.4667	21	35.4338
LMW-8	63.6	-9.86667	35.4338
LMW-10	60.8333	-12.6333	37.5832
LMW-11	54	-19.4667	38.5206
LMW-12	54	-19.4667	38.5206
LMW-13	54	-19.4667	38.5206
LMW-15	71.625	-1.84167	42.4836
LMW-16	98.4	24.9333	50.1109
LMW-3S	108.6	35.1333	50.1109
LMW-14R	87.75	14.2833	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 73.4667

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	70.1765	-3.2902	39.1893
LMW-6	86.8667	13.4	40.3954
LMW-7	94.4667	21	40.3954
LMW-8	63.6	-9.86667	40.3954
LMW-10	60.8333	-12.6333	42.8458
LMW-11	54	-19.4667	43.9144
LMW-12	54	-19.4667	43.9144
LMW-13	54	-19.4667	43.9144
LMW-15	71.625	-1.84167	48.4324

LMW-16	98.4	24.9333	57.1277
LMW-3S	108.6	35.1333	57.1277
LMW-14R	87.75	14.2833	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Nitrate

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	11/18/2006	50	38
	6/2/2007	643000	64
	11/15/2007	ND<10	19
	5/20/2008	369	50
	11/20/2008	ND<10	19

Rank Sum = 190
Rank Mean = 38

Background Rank Sum = 190
Background Rank Mean = 38

Compliance Wells

Well ID	Date	Result	Rank
LMW-10	11/18/2006	551	57
	6/2/2007	1020	59
	11/15/2007	ND<10	19
	5/20/2008	406	54
	11/20/2008	ND<10	19

Rank Sum = 208
Rank Mean = 41.6

LMW-15	11/18/2006	4780	63
	6/2/2007	1400	61
	11/15/2007	ND<10	19
	11/15/2007	ND<10	19
	5/20/2008	ND<10	19
	5/20/2008	ND<10	19
	11/20/2008	ND<10	19
	11/20/2008	ND<10	19

Rank Sum = 238
Rank Mean = 29.75

LMW-16	11/18/2006	52	39
	6/2/2007	166	42
	11/15/2007	ND<10	19
	5/20/2008	377	52
	11/20/2008	ND<10	19

Rank Sum = 171
Rank Mean = 34.2

LMW-3	11/18/2006	333	49
	6/2/2007	209	44
	11/15/2007	ND<10	19

	5/20/2008	515	55
	11/20/2008	ND<10	19

Rank Sum = 186
Rank Mean = 37.2

LMW-3S	11/18/2006	321	47
	6/2/2007	196	43
	11/15/2007	ND<10	19
	5/20/2008	546	56
	11/20/2008	ND<10	19

Rank Sum = 184
Rank Mean = 36.8

LMW-6	11/18/2006	1150	60
	6/2/2007	ND<10	19
	11/15/2007	ND<10	19
	5/20/2008	1410	62
	11/20/2008	ND<10	19

Rank Sum = 179
Rank Mean = 35.8

LMW-7	11/18/2006	119	40
	6/2/2007	295	46
	11/15/2007	ND<10	19
	5/20/2008	128	41
	11/20/2008	ND<10	19

Rank Sum = 165
Rank Mean = 33

LMW-8	11/18/2006	216	45
	6/2/2007	398	53
	11/15/2007	ND<10	19
	5/20/2008	570	58
	11/20/2008	ND<10	19

Rank Sum = 194
Rank Mean = 38.8

LMW-11	6/2/2007	ND<10	19
	11/15/2007	ND<10	19
	5/20/2008	ND<10	19
	11/20/2008	ND<10	19

Rank Sum = 76
Rank Mean = 19

LMW-12	6/2/2007	ND<10	19
	11/15/2007	ND<10	19
	5/20/2008	ND<10	19
	11/20/2008	ND<10	19

Rank Sum = 76
Rank Mean = 19

LMW-13	6/2/2007	ND<10	19
	11/15/2007	ND<10	19
	5/20/2008	ND<10	19
	11/20/2008	ND<10	19

Rank Sum = 76
Rank Mean = 19

LMW-14R	6/2/2007	326	48
	11/15/2007	ND<10	19
	5/20/2008	371	51

11/20/2008	ND<10	19

Rank Sum = 137
Rank Mean = 34.25

Calculation Results:

Kruskal-Wallis H Statistic = 9.50928
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 11.7854
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
9.50928 < 21.0261 indicating no significant group difference at 5% significance level
11.7854 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Nitrate,Nitrite

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	11/18/2006	ND<50	18.5
	6/2/2007	643000	64
	11/15/2007	107	39
	5/20/2008	ND<50	18.5
	11/20/2008	44 J	38

Rank Sum = 178
Rank Mean = 35.6

Background Rank Sum = 178
Background Rank Mean = 35.6

Compliance Wells

Well ID	Date	Result	Rank
LMW-10	11/18/2006	ND<50	18.5
	6/2/2007	1020	58
	11/15/2007	ND<50	18.5
	5/20/2008	ND<50	18.5
	11/20/2008	513	52

Rank Sum = 165.5
Rank Mean = 33.1

LMW-15	11/18/2006	ND<50	18.5
	6/2/2007	1400	60
	11/15/2007	1710	62
	11/15/2007	ND<50	18.5
	5/20/2008	ND<50	18.5
	5/20/2008	ND<50	18.5
	11/20/2008	ND<50	18.5
	11/20/2008	1460	61

Rank Sum = 275.5
Rank Mean = 34.4375

LMW-16	11/18/2006	ND<50	18.5
	6/2/2007	166	43
	11/15/2007	1020	59
	5/20/2008	ND<50	18.5
	11/20/2008	33 J	37

Rank Sum = 176
Rank Mean = 35.2

LMW-3	11/18/2006	ND<50	18.5
	6/2/2007	209	45
	11/15/2007	140	41

	5/20/2008	ND<50	18.5
	11/20/2008	5220	63

Rank Sum = 186
Rank Mean = 37.2

LMW-3S	11/18/2006	ND<50	18.5
	6/2/2007	196	44
	11/15/2007	228	46
	5/20/2008	ND<50	18.5
	11/20/2008	343	49

Rank Sum = 176
Rank Mean = 35.2

LMW-6	11/18/2006	ND<50	18.5
	6/2/2007	ND<50	18.5
	11/15/2007	964	57
	5/20/2008	ND<50	18.5
	11/20/2008	908	55

Rank Sum = 167.5
Rank Mean = 33.5

LMW-7	11/18/2006	ND<50	18.5
	6/2/2007	295	47
	11/15/2007	528	54
	5/20/2008	ND<50	18.5
	11/20/2008	113	40

Rank Sum = 178
Rank Mean = 35.6

LMW-8	11/18/2006	ND<50	18.5
	6/2/2007	398	50
	11/15/2007	527	53
	5/20/2008	ND<50	18.5
	11/20/2008	466	51

Rank Sum = 191
Rank Mean = 38.2

LMW-11	6/2/2007	ND<50	18.5
	11/15/2007	ND<50	18.5
	5/20/2008	ND<50	18.5
	11/20/2008	ND<50	18.5

Rank Sum = 74
Rank Mean = 18.5

LMW-12	6/2/2007	ND<50	18.5
	11/15/2007	ND<50	18.5
	5/20/2008	ND<50	18.5
	11/20/2008	ND<50	18.5

Rank Sum = 74
Rank Mean = 18.5

LMW-13	6/2/2007	ND<50	18.5
	11/15/2007	ND<50	18.5
	5/20/2008	ND<50	18.5
	11/20/2008	ND<50	18.5

Rank Sum = 74
Rank Mean = 18.5

LMW-14R	6/2/2007	326	48
	11/15/2007	143	42
	5/20/2008	ND<50	18.5

11/20/2008	960	56

Rank Sum = 164.5
Rank Mean = 41.125

Calculation Results:

Kruskal-Wallis H Statistic = 9.02392
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 10.9765
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
9.02392 < 21.0261 indicating no significant group difference at 5% significance level
10.9765 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Nitrite

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	11/18/2006	ND<10	32.5
	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 162.5
Rank Mean = 32.5

Background Rank Sum = 162.5
Background Rank Mean = 32.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-10	11/18/2006	ND<10	32.5
	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 162.5
Rank Mean = 32.5

LMW-15	11/18/2006	ND<10	32.5
	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 260
Rank Mean = 32.5

LMW-16	11/18/2006	ND<10	32.5
	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 162.5
Rank Mean = 32.5

LMW-3	11/18/2006	ND<10	32.5
	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5

	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 162.5
Rank Mean = 32.5

LMW-3S	11/18/2006	ND<10	32.5
	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 162.5
Rank Mean = 32.5

LMW-6	11/18/2006	ND<10	32.5
	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 162.5
Rank Mean = 32.5

LMW-7	11/18/2006	ND<10	32.5
	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 162.5
Rank Mean = 32.5

LMW-8	11/18/2006	ND<10	32.5
	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 162.5
Rank Mean = 32.5

LMW-11	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 130
Rank Mean = 32.5

LMW-12	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 130
Rank Mean = 32.5

LMW-13	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5
	11/20/2008	ND<10	32.5

Rank Sum = 130
Rank Mean = 32.5

LMW-14R	6/2/2007	ND<10	32.5
	11/15/2007	ND<10	32.5
	5/20/2008	ND<10	32.5

	11/20/2008	ND<10	32.5

Rank Sum = 130
Rank Mean = 32.5

Calculation Results:

Kruskal-Wallis H Statistic = 0
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 0
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0 < 21.0261 indicating no significant group difference at 5% significance level
0 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: 1,2,3-Trichlorobenzene

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

Background Rank Sum = 346.5
Background Rank Mean = 49.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-10	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-11	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-12	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-13	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-14R	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-15	10/26/2005	ND<2	49.5
	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 693
Rank Mean = 49.5

LMW-16	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-3	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-3S	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5

	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-6	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-7	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-8	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

Calculation Results:

Kruskal-Wallis H Statistic = 0
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 0
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0 < 21.0261 indicating no significant group difference at 5% significance level
0 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: 1,2,4-Trimethylbenzene

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

Background Rank Sum = 996
Background Rank Mean = 83

Compliance Wells

Well ID	Date	Result	Rank
LMW-10	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

LMW-11	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83

	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

LMW-12	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

LMW-13	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

LMW-14R	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

LMW-15	9/23/1999	ND<2	83
	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83

	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83
	11/20/2008	0.3 J	168

Rank Sum = 2077
Rank Mean = 86.5417

LMW-16	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

LMW-3	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	0.23 J	167

Rank Sum = 1080
Rank Mean = 90

LMW-3S	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

LMW-6	9/23/1999	ND<2	83

	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	0.21 J	166

Rank Sum = 1079
Rank Mean = 89.9167

LMW-7	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

LMW-8	9/23/1999	ND<2	83
	3/14/2000	ND<2	83
	9/23/2003	ND<2	83
	3/10/2004	ND<2	83
	10/12/2004	ND<2	83
	4/1/2005	ND<2	83
	10/26/2005	ND<2	83
	6/19/2006	ND<2	83
	11/18/2006	ND<2	83
	6/2/2007	ND<2	83
	11/15/2007	ND<2	83
	11/20/2008	ND<2	83

Rank Sum = 996
Rank Mean = 83

Calculation Results:

Kruskal-Wallis H Statistic = 0.458633
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 8.71565
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0.458633 < 21.0261 indicating no significant group difference at 5% significance level
8.71565 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: 1,3-Dichloropropane

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

Background Rank Sum = 346.5
Background Rank Mean = 49.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-10	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-11	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-12	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-13	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-14R	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-15	10/26/2005	ND<2	49.5
	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 693
Rank Mean = 49.5

LMW-16	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-3	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-3S	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5

	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-6	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-7	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-8	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

Calculation Results:

Kruskal-Wallis H Statistic = 0
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 0
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0 < 21.0261 indicating no significant group difference at 5% significance level
0 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Acetone

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	71
	3/16/1999	ND<1	71
	9/23/1999	ND<1	71
	3/14/2000	ND<1	71
	9/23/2003	ND<1	71
	3/10/2004	ND<1	71
	10/12/2004	ND<1	71
	4/1/2005	ND<1	71
	10/26/2005	ND<1	71
	6/19/2006	ND<1	71
	11/18/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 1065
Rank Mean = 71

Background Rank Sum = 1065
Background Rank Mean = 71

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	71
	3/24/1997	ND<1	71
	1/16/1998	ND<1	71
	3/16/1999	ND<1	71
	9/23/1999	ND<1	71
	3/14/2000	ND<1	71
	9/23/2003	ND<1	71
	3/10/2004	ND<1	71
	10/12/2004	ND<1	71
	4/1/2005	ND<1	71
	10/26/2005	ND<1	71
	6/19/2006	ND<1	71
	11/18/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 1207
Rank Mean = 71

LMW-6	1/16/1998	ND<1	71

	3/16/1999	ND<1	71
	9/23/1999	ND<1	71
	3/14/2000	ND<1	71
	9/23/2003	ND<1	71
	3/10/2004	ND<1	71
	10/12/2004	ND<1	71
	4/1/2005	ND<1	71
	10/26/2005	ND<1	71
	6/19/2006	ND<1	71
	11/18/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	4.69	143
	11/20/2008	ND<1	71

Rank Sum = 1137
Rank Mean = 75.8

LMW-7	1/16/1998	ND<1	71
	3/16/1999	ND<1	71
	9/23/1999	ND<1	71
	3/14/2000	ND<1	71
	9/23/2003	ND<1	71
	3/10/2004	ND<1	71
	10/12/2004	ND<1	71
	4/1/2005	ND<1	71
	10/26/2005	ND<1	71
	6/19/2006	ND<1	71
	11/18/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	282	144
	11/20/2008	4.22	142

Rank Sum = 1209
Rank Mean = 80.6

LMW-8	1/16/1998	ND<1	71
	3/16/1999	ND<1	71
	9/23/1999	ND<1	71
	3/14/2000	ND<1	71
	9/23/2003	ND<1	71
	3/10/2004	ND<1	71
	10/12/2004	ND<1	71
	4/1/2005	ND<1	71
	10/26/2005	ND<1	71
	6/19/2006	ND<1	71
	11/18/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 1065
Rank Mean = 71

LMW-10	3/14/2000	ND<1	71
	9/23/2003	ND<1	71
	3/10/2004	ND<1	71
	10/12/2004	ND<1	71
	4/1/2005	ND<1	71
	10/26/2005	ND<1	71
	6/19/2006	ND<1	71
	11/18/2006	ND<1	71
	6/2/2007	ND<1	71

	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 852
Rank Mean = 71

LMW-11	3/14/2000	ND<1	71
	9/23/2003	ND<1	71
	3/10/2004	ND<1	71
	10/12/2004	ND<1	71
	4/1/2005	ND<1	71
	10/26/2005	ND<1	71
	6/19/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 781
Rank Mean = 71

LMW-12	3/14/2000	ND<1	71
	9/23/2003	ND<1	71
	3/10/2004	ND<1	71
	10/12/2004	ND<1	71
	4/1/2005	ND<1	71
	10/26/2005	ND<1	71
	6/19/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 781
Rank Mean = 71

LMW-13	3/14/2000	ND<1	71
	9/23/2003	ND<1	71
	3/10/2004	ND<1	71
	10/12/2004	ND<1	71
	4/1/2005	ND<1	71
	10/26/2005	ND<1	71
	6/19/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 781
Rank Mean = 71

LMW-15	11/18/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 568
Rank Mean = 71

LMW-16	11/18/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71

	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 355
Rank Mean = 71

LMW-3S	11/18/2006	ND<1	71
	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 355
Rank Mean = 71

LMW-14R	6/2/2007	ND<1	71
	11/15/2007	ND<1	71
	5/20/2008	ND<1	71
	11/20/2008	ND<1	71

Rank Sum = 284
Rank Mean = 71

Calculation Results:

Kruskal-Wallis H Statistic = 0.806897
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 13.1827
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0.806897 < 21.0261 indicating no significant group difference at 5% significance level
13.1827 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: cis-1,2-Dichloroethene (-ethylene)

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1057.5
Rank Mean = 70.5

Background Rank Sum = 1057.5
Background Rank Mean = 70.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	70.5
	3/24/1997	ND<1	70.5
	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1198.5
Rank Mean = 70.5

LMW-6	1/16/1998	ND<1	70.5

	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1057.5
Rank Mean = 70.5

LMW-7	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1057.5
Rank Mean = 70.5

LMW-8	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	0.27 J	141
	6/19/2006	0.43 J	144
	11/18/2006	0.3 J	142
	6/2/2007	ND<1	70.5
	11/15/2007	0.35 J	143
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1345.5
Rank Mean = 89.7

LMW-10	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5

	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 846
Rank Mean = 70.5

LMW-11	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 775.5
Rank Mean = 70.5

LMW-12	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 775.5
Rank Mean = 70.5

LMW-13	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 775.5
Rank Mean = 70.5

LMW-15	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 564
Rank Mean = 70.5

LMW-16	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5

	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 352.5
Rank Mean = 70.5

LMW-3S	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 352.5
Rank Mean = 70.5

LMW-14R	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 282
Rank Mean = 70.5

Calculation Results:

Kruskal-Wallis H Statistic = 2.8469
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 35.1284
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
2.8469 < 21.0261 indicating no significant group difference at 5% significance level
35.1284 > 21.0261 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 70.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	70.5	0	34.3758
LMW-6	70.5	0	35.4338
LMW-7	70.5	0	35.4338
LMW-8	89.7	19.2	35.4338
LMW-10	70.5	0	37.5832
LMW-11	70.5	0	38.5206
LMW-12	70.5	0	38.5206
LMW-13	70.5	0	38.5206
LMW-15	70.5	0	42.4836
LMW-16	70.5	0	50.1109
LMW-3S	70.5	0	50.1109
LMW-14R	70.5	0	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 70.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	70.5	0	39.1893
LMW-6	70.5	0	40.3954
LMW-7	70.5	0	40.3954
LMW-8	89.7	19.2	40.3954
LMW-10	70.5	0	42.8458
LMW-11	70.5	0	43.9144
LMW-12	70.5	0	43.9144
LMW-13	70.5	0	43.9144
LMW-15	70.5	0	48.4324

LMW-16	70.5	0	57.1277
LMW-3S	70.5	0	57.1277
LMW-14R	70.5	0	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Chloroform

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	78	144
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1131
Rank Mean = 75.4

Background Rank Sum = 1131
Background Rank Mean = 75.4

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	70.5
	3/24/1997	ND<1	70.5
	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	0.27 J	141
	11/20/2008	0.27 J	142

Rank Sum = 1340.5
Rank Mean = 78.8529

LMW-6	1/16/1998	6	143

	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1130
Rank Mean = 75.3333

LMW-7	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1057.5
Rank Mean = 70.5

LMW-8	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1057.5
Rank Mean = 70.5

LMW-10	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5

	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 846
Rank Mean = 70.5

LMW-11	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 775.5
Rank Mean = 70.5

LMW-12	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 775.5
Rank Mean = 70.5

LMW-13	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 775.5
Rank Mean = 70.5

LMW-15	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 564
Rank Mean = 70.5

LMW-16	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5

	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 352.5
Rank Mean = 70.5

LMW-3S	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 352.5
Rank Mean = 70.5

LMW-14R	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 282
Rank Mean = 70.5

Calculation Results:

Kruskal-Wallis H Statistic = 0.759014
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 9.36563
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0.759014 < 21.0261 indicating no significant group difference at 5% significance level
9.36563 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Chloromethane

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	72
	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 1080
Rank Mean = 72

Background Rank Sum = 1080
Background Rank Mean = 72

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	72
	3/24/1997	ND<1	72
	1/16/1998	ND<1	72
	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 1224
Rank Mean = 72

LMW-6	1/16/1998	ND<1	72

	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 1080
Rank Mean = 72

LMW-7	1/16/1998	ND<1	72
	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	0.5 J	144

Rank Sum = 1152
Rank Mean = 76.8

LMW-8	1/16/1998	ND<1	72
	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 1080
Rank Mean = 72

LMW-10	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72

	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 864
Rank Mean = 72

LMW-11	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 792
Rank Mean = 72

LMW-12	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 792
Rank Mean = 72

LMW-13	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 792
Rank Mean = 72

LMW-15	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 576
Rank Mean = 72

LMW-16	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72

	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 360
Rank Mean = 72

LMW-3S	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 360
Rank Mean = 72

LMW-14R	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 288
Rank Mean = 72

Calculation Results:

Kruskal-Wallis H Statistic = 0.177931
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 8.6
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0.177931 < 21.0261 indicating no significant group difference at 5% significance level
8.6 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Dibromochloromethane

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	72
	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 1080
Rank Mean = 72

Background Rank Sum = 1080
Background Rank Mean = 72

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	72
	3/24/1997	ND<1	72
	1/16/1998	ND<1	72
	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 1224
Rank Mean = 72

LMW-6	1/16/1998	ND<1	72

	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 1080
Rank Mean = 72

LMW-7	1/16/1998	ND<1	72
	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	0.71 J	144
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 1152
Rank Mean = 76.8

LMW-8	1/16/1998	ND<1	72
	3/16/1999	ND<1	72
	9/23/1999	ND<1	72
	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 1080
Rank Mean = 72

LMW-10	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	11/18/2006	ND<1	72
	6/2/2007	ND<1	72

	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 864
Rank Mean = 72

LMW-11	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 792
Rank Mean = 72

LMW-12	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 792
Rank Mean = 72

LMW-13	3/14/2000	ND<1	72
	9/23/2003	ND<1	72
	3/10/2004	ND<1	72
	10/12/2004	ND<1	72
	4/1/2005	ND<1	72
	10/26/2005	ND<1	72
	6/19/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 792
Rank Mean = 72

LMW-15	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 576
Rank Mean = 72

LMW-16	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72

	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 360
Rank Mean = 72

LMW-3S	11/18/2006	ND<1	72
	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 360
Rank Mean = 72

LMW-14R	6/2/2007	ND<1	72
	11/15/2007	ND<1	72
	5/20/2008	ND<1	72
	11/20/2008	ND<1	72

Rank Sum = 288
Rank Mean = 72

Calculation Results:

Kruskal-Wallis H Statistic = 0.177931
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 8.6
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0.177931 < 21.0261 indicating no significant group difference at 5% significance level
8.6 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Dichlorodifluoromethane

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	63
	3/16/1999	ND<1	63
	9/23/1999	ND<1	63
	3/14/2000	ND<1	63
	9/23/2003	ND<1	63
	3/10/2004	ND<1	63
	10/12/2004	ND<1	63
	4/1/2005	ND<1	63
	10/26/2005	ND<1	63
	6/19/2006	0.57 J	128
	11/18/2006	0.92 J	132
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	0.71 J	130
	11/20/2008	1.2	135

Rank Sum = 1218
Rank Mean = 81.2

Background Rank Sum = 1218
Background Rank Mean = 81.2

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	63
	3/24/1997	ND<1	63
	1/16/1998	ND<1	63
	3/16/1999	ND<1	63
	9/23/1999	ND<1	63
	3/14/2000	ND<1	63
	9/23/2003	ND<1	63
	3/10/2004	ND<1	63
	10/12/2004	ND<1	63
	4/1/2005	ND<1	63
	10/26/2005	ND<1	63
	6/19/2006	ND<1	63
	11/18/2006	ND<1	63
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	0.45 J	126
	11/20/2008	0.48 J	127

Rank Sum = 1198
Rank Mean = 70.4706

LMW-6	1/16/1998	ND<1	63

	3/16/1999	ND<1	63
	9/23/1999	ND<1	63
	3/14/2000	ND<1	63
	9/23/2003	ND<1	63
	3/10/2004	ND<1	63
	10/12/2004	ND<1	63
	4/1/2005	ND<1	63
	10/26/2005	ND<1	63
	6/19/2006	0.93 J	133
	11/18/2006	2.67	139
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	0.83 J	131
	11/20/2008	0.97 J	134

Rank Sum = 1230
Rank Mean = 82

LMW-7	1/16/1998	ND<1	63
	3/16/1999	ND<1	63
	9/23/1999	ND<1	63
	3/14/2000	ND<1	63
	9/23/2003	ND<1	63
	3/10/2004	ND<1	63
	10/12/2004	ND<1	63
	4/1/2005	ND<1	63
	10/26/2005	ND<1	63
	6/19/2006	ND<1	63
	11/18/2006	ND<1	63
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	ND<1	63
	11/20/2008	ND<1	63

Rank Sum = 945
Rank Mean = 63

LMW-8	1/16/1998	ND<1	63
	3/16/1999	ND<1	63
	9/23/1999	ND<1	63
	3/14/2000	ND<1	63
	9/23/2003	ND<1	63
	3/10/2004	ND<1	63
	10/12/2004	ND<1	63
	4/1/2005	ND<1	63
	10/26/2005	ND<1	63
	6/19/2006	ND<1	63
	11/18/2006	ND<1	63
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	ND<1	63
	11/20/2008	ND<1	63

Rank Sum = 945
Rank Mean = 63

LMW-10	3/14/2000	ND<1	63
	9/23/2003	ND<1	63
	3/10/2004	ND<1	63
	10/12/2004	ND<1	63
	4/1/2005	ND<1	63
	10/26/2005	ND<1	63
	6/19/2006	2.02	136
	11/18/2006	9.35	143
	6/2/2007	2.5	138

	11/15/2007	ND<1	63
	5/20/2008	4.66	142
	11/20/2008	2.95	141

Rank Sum = 1141
Rank Mean = 95.0833

LMW-11	3/14/2000	ND<1	63
	9/23/2003	ND<1	63
	3/10/2004	ND<1	63
	10/12/2004	ND<1	63
	4/1/2005	ND<1	63
	10/26/2005	ND<1	63
	6/19/2006	ND<1	63
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	ND<1	63
	11/20/2008	ND<1	63

Rank Sum = 693
Rank Mean = 63

LMW-12	3/14/2000	ND<1	63
	9/23/2003	ND<1	63
	3/10/2004	ND<1	63
	10/12/2004	ND<1	63
	4/1/2005	ND<1	63
	10/26/2005	ND<1	63
	6/19/2006	ND<1	63
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	ND<1	63
	11/20/2008	ND<1	63

Rank Sum = 693
Rank Mean = 63

LMW-13	3/14/2000	ND<1	63
	9/23/2003	ND<1	63
	3/10/2004	ND<1	63
	10/12/2004	ND<1	63
	4/1/2005	ND<1	63
	10/26/2005	ND<1	63
	6/19/2006	ND<1	63
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	ND<1	63
	11/20/2008	ND<1	63

Rank Sum = 693
Rank Mean = 63

LMW-15	11/18/2006	ND<1	63
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	ND<1	63
	5/20/2008	ND<1	63
	11/20/2008	ND<1	63
	11/20/2008	ND<1	63

Rank Sum = 504
Rank Mean = 63

LMW-16	11/18/2006	ND<1	63
	6/2/2007	ND<1	63
	11/15/2007	ND<1	63

	5/20/2008	ND<1	63
	11/20/2008	ND<1	63

Rank Sum = 315
Rank Mean = 63

LMW-3S	11/18/2006	12.6	144
	6/2/2007	ND<1	63
	11/15/2007	2.08	137
	5/20/2008	0.62 J	129
	11/20/2008	2.89	140

Rank Sum = 613
Rank Mean = 122.6

LMW-14R	6/2/2007	ND<1	63
	11/15/2007	ND<1	63
	5/20/2008	ND<1	63
	11/20/2008	ND<1	63

Rank Sum = 252
Rank Mean = 63

Calculation Results:

Kruskal-Wallis H Statistic = 16.3501
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 47.2667
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
16.3501 < 21.0261 indicating no significant group difference at 5% significance level
47.2667 > 21.0261 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 81.2

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	70.4706	-10.7294	34.3758
LMW-6	82	0.8	35.4338
LMW-7	63	-18.2	35.4338
LMW-8	63	-18.2	35.4338
LMW-10	95.0833	13.8833	37.5832
LMW-11	63	-18.2	38.5206
LMW-12	63	-18.2	38.5206
LMW-13	63	-18.2	38.5206
LMW-15	63	-18.2	42.4836
LMW-16	63	-18.2	50.1109
LMW-3S	122.6	41.4	50.1109
LMW-14R	63	-18.2	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 81.2

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	70.4706	-10.7294	39.1893
LMW-6	82	0.8	40.3954
LMW-7	63	-18.2	40.3954
LMW-8	63	-18.2	40.3954
LMW-10	95.0833	13.8833	42.8458
LMW-11	63	-18.2	43.9144
LMW-12	63	-18.2	43.9144
LMW-13	63	-18.2	43.9144
LMW-15	63	-18.2	48.4324

LMW-16	63	-18.2	57.1277
LMW-3S	122.6	41.4	57.1277
LMW-14R	63	-18.2	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Methylene Chloride

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	71.5
	3/16/1999	ND<1	71.5
	9/23/1999	ND<1	71.5
	3/14/2000	ND<1	71.5
	9/23/2003	ND<1	71.5
	3/10/2004	ND<1	71.5
	10/12/2004	ND<1	71.5
	4/1/2005	ND<1	71.5
	10/26/2005	ND<1	71.5
	6/19/2006	ND<1	71.5
	11/18/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 1072.5
Rank Mean = 71.5

Background Rank Sum = 1072.5
Background Rank Mean = 71.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	71.5
	3/24/1997	ND<1	71.5
	1/16/1998	ND<1	71.5
	3/16/1999	ND<1	71.5
	9/23/1999	ND<1	71.5
	3/14/2000	ND<1	71.5
	9/23/2003	ND<1	71.5
	3/10/2004	ND<1	71.5
	10/12/2004	ND<1	71.5
	4/1/2005	ND<1	71.5
	10/26/2005	ND<1	71.5
	6/19/2006	ND<1	71.5
	11/18/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 1215.5
Rank Mean = 71.5

LMW-6	1/16/1998	ND<1	71.5

	3/16/1999	ND<1	71.5
	9/23/1999	ND<1	71.5
	3/14/2000	ND<1	71.5
	9/23/2003	ND<1	71.5
	3/10/2004	ND<1	71.5
	10/12/2004	ND<1	71.5
	4/1/2005	ND<1	71.5
	10/26/2005	ND<1	71.5
	6/19/2006	ND<1	71.5
	11/18/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 1072.5
Rank Mean = 71.5

LMW-7	1/16/1998	ND<1	71.5
	3/16/1999	ND<1	71.5
	9/23/1999	ND<1	71.5
	3/14/2000	ND<1	71.5
	9/23/2003	ND<1	71.5
	3/10/2004	ND<1	71.5
	10/12/2004	ND<1	71.5
	4/1/2005	ND<1	71.5
	10/26/2005	ND<1	71.5
	6/19/2006	ND<1	71.5
	11/18/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 1072.5
Rank Mean = 71.5

LMW-8	1/16/1998	ND<1	71.5
	3/16/1999	ND<1	71.5
	9/23/1999	ND<1	71.5
	3/14/2000	ND<1	71.5
	9/23/2003	ND<1	71.5
	3/10/2004	ND<1	71.5
	10/12/2004	ND<1	71.5
	4/1/2005	ND<1	71.5
	10/26/2005	ND<1	71.5
	6/19/2006	ND<1	71.5
	11/18/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 1072.5
Rank Mean = 71.5

LMW-10	3/14/2000	ND<1	71.5
	9/23/2003	ND<1	71.5
	3/10/2004	ND<1	71.5
	10/12/2004	ND<1	71.5
	4/1/2005	ND<1	71.5
	10/26/2005	ND<1	71.5
	6/19/2006	ND<1	71.5
	11/18/2006	ND<1	71.5
	6/2/2007	ND<1	71.5

	11/15/2007	ND<1	71.5
	5/20/2008	0.63 J	144
	11/20/2008	0.49 J	143

Rank Sum = 1002
Rank Mean = 83.5

LMW-11	3/14/2000	ND<1	71.5
	9/23/2003	ND<1	71.5
	3/10/2004	ND<1	71.5
	10/12/2004	ND<1	71.5
	4/1/2005	ND<1	71.5
	10/26/2005	ND<1	71.5
	6/19/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 786.5
Rank Mean = 71.5

LMW-12	3/14/2000	ND<1	71.5
	9/23/2003	ND<1	71.5
	3/10/2004	ND<1	71.5
	10/12/2004	ND<1	71.5
	4/1/2005	ND<1	71.5
	10/26/2005	ND<1	71.5
	6/19/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 786.5
Rank Mean = 71.5

LMW-13	3/14/2000	ND<1	71.5
	9/23/2003	ND<1	71.5
	3/10/2004	ND<1	71.5
	10/12/2004	ND<1	71.5
	4/1/2005	ND<1	71.5
	10/26/2005	ND<1	71.5
	6/19/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 786.5
Rank Mean = 71.5

LMW-15	11/18/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 572
Rank Mean = 71.5

LMW-16	11/18/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5

	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 357.5
Rank Mean = 71.5

LMW-3S	11/18/2006	ND<1	71.5
	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 357.5
Rank Mean = 71.5

LMW-14R	6/2/2007	ND<1	71.5
	11/15/2007	ND<1	71.5
	5/20/2008	ND<1	71.5
	11/20/2008	ND<1	71.5

Rank Sum = 286
Rank Mean = 71.5

Calculation Results:

Kruskal-Wallis H Statistic = 0.910345
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 22.1538
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0.910345 < 21.0261 indicating no significant group difference at 5% significance level
22.1538 > 21.0261 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 71.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	71.5	0	34.3758
LMW-6	71.5	0	35.4338
LMW-7	71.5	0	35.4338
LMW-8	71.5	0	35.4338
LMW-10	83.5	12	37.5832
LMW-11	71.5	0	38.5206
LMW-12	71.5	0	38.5206
LMW-13	71.5	0	38.5206
LMW-15	71.5	0	42.4836
LMW-16	71.5	0	50.1109
LMW-3S	71.5	0	50.1109
LMW-14R	71.5	0	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 71.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	71.5	0	39.1893
LMW-6	71.5	0	40.3954
LMW-7	71.5	0	40.3954
LMW-8	71.5	0	40.3954
LMW-10	83.5	12	42.8458
LMW-11	71.5	0	43.9144
LMW-12	71.5	0	43.9144
LMW-13	71.5	0	43.9144
LMW-15	71.5	0	48.4324

LMW-16	71.5	0	57.1277
LMW-3S	71.5	0	57.1277
LMW-14R	71.5	0	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Methyl-Tert-Butyl Ether

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

Background Rank Sum = 346.5
Background Rank Mean = 49.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-10	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-11	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-12	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-13	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-14R	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-15	10/26/2005	ND<2	49.5
	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 693
Rank Mean = 49.5

LMW-16	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-3	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-3S	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5

	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-6	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-7	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

LMW-8	10/26/2005	ND<2	49.5
	6/19/2006	ND<2	49.5
	11/18/2006	ND<2	49.5
	6/2/2007	ND<2	49.5
	11/15/2007	ND<2	49.5
	5/20/2008	ND<2	49.5
	11/20/2008	ND<2	49.5

Rank Sum = 346.5
Rank Mean = 49.5

Calculation Results:

Kruskal-Wallis H Statistic = 0
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 0
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0 < 21.0261 indicating no significant group difference at 5% significance level
0 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Napththalene

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

Background Rank Sum = 339.5
Background Rank Mean = 48.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-10	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

LMW-11	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

LMW-12	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

LMW-13	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

LMW-14R	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

LMW-15	4/1/2005	ND<10	48.5
	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 679
Rank Mean = 48.5

LMW-16	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

LMW-3	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

LMW-3S	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5

	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	0.53 J	97
	11/20/2008	ND<10	48.5

Rank Sum = 388
Rank Mean = 55.4286

LMW-6	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	0.59 J	98
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 389
Rank Mean = 55.5714

LMW-7	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

LMW-8	4/1/2005	ND<10	48.5
	10/26/2005	ND<10	48.5
	11/18/2006	ND<10	48.5
	6/2/2007	ND<10	48.5
	11/15/2007	ND<10	48.5
	5/20/2008	ND<10	48.5
	11/20/2008	ND<10	48.5

Rank Sum = 339.5
Rank Mean = 48.5

Calculation Results:

Kruskal-Wallis H Statistic = 0.727361
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 12.1252
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0.727361 < 21.0261 indicating no significant group difference at 5% significance level
12.1252 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Tetrachloroethene (-ethylene)

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1057.5
Rank Mean = 70.5

Background Rank Sum = 1057.5
Background Rank Mean = 70.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	70.5
	3/24/1997	ND<1	70.5
	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1198.5
Rank Mean = 70.5

LMW-6	1/16/1998	ND<1	70.5

	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1057.5
Rank Mean = 70.5

LMW-7	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 1057.5
Rank Mean = 70.5

LMW-8	1/16/1998	ND<1	70.5
	3/16/1999	ND<1	70.5
	9/23/1999	ND<1	70.5
	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	0.6 J	144
	6/19/2006	ND<1	70.5
	11/18/2006	0.37 J	143
	6/2/2007	ND<1	70.5
	11/15/2007	0.22 J	141
	5/20/2008	ND<1	70.5
	11/20/2008	0.22 J	142

Rank Sum = 1345.5
Rank Mean = 89.7

LMW-10	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5

	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 846
Rank Mean = 70.5

LMW-11	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 775.5
Rank Mean = 70.5

LMW-12	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 775.5
Rank Mean = 70.5

LMW-13	3/14/2000	ND<1	70.5
	9/23/2003	ND<1	70.5
	3/10/2004	ND<1	70.5
	10/12/2004	ND<1	70.5
	4/1/2005	ND<1	70.5
	10/26/2005	ND<1	70.5
	6/19/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 775.5
Rank Mean = 70.5

LMW-15	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 564
Rank Mean = 70.5

LMW-16	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5

	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 352.5
Rank Mean = 70.5

LMW-3S	11/18/2006	ND<1	70.5
	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 352.5
Rank Mean = 70.5

LMW-14R	6/2/2007	ND<1	70.5
	11/15/2007	ND<1	70.5
	5/20/2008	ND<1	70.5
	11/20/2008	ND<1	70.5

Rank Sum = 282
Rank Mean = 70.5

Calculation Results:

Kruskal-Wallis H Statistic = 2.8469
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 35.1284
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
2.8469 < 21.0261 indicating no significant group difference at 5% significance level
35.1284 > 21.0261 indicating a significant group difference at 5% significance level when adjusted for ties

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634
Mean background rank is 70.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	70.5	0	34.3758
LMW-6	70.5	0	35.4338
LMW-7	70.5	0	35.4338
LMW-8	89.7	19.2	35.4338
LMW-10	70.5	0	37.5832
LMW-11	70.5	0	38.5206
LMW-12	70.5	0	38.5206
LMW-13	70.5	0	38.5206
LMW-15	70.5	0	42.4836
LMW-16	70.5	0	50.1109
LMW-3S	70.5	0	50.1109
LMW-14R	70.5	0	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 70.5

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	70.5	0	39.1893
LMW-6	70.5	0	40.3954
LMW-7	70.5	0	40.3954
LMW-8	89.7	19.2	40.3954
LMW-10	70.5	0	42.8458
LMW-11	70.5	0	43.9144
LMW-12	70.5	0	43.9144
LMW-13	70.5	0	43.9144
LMW-15	70.5	0	48.4324

LMW-16	70.5	0	57.1277
LMW-3S	70.5	0	57.1277
LMW-14R	70.5	0	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Toluene

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	65.5
	3/16/1999	ND<1	65.5
	9/23/1999	ND<1	65.5
	3/14/2000	ND<1	65.5
	9/23/2003	ND<1	65.5
	3/10/2004	ND<1	65.5
	10/12/2004	ND<1	65.5
	4/1/2005	0.33 J	139
	10/26/2005	ND<1	65.5
	6/19/2006	ND<1	65.5
	11/18/2006	0.47 J	141
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	0.25 J	134

Rank Sum = 1200
Rank Mean = 80

Background Rank Sum = 1200
Background Rank Mean = 80

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	65.5
	3/24/1997	ND<1	65.5
	1/16/1998	ND<1	65.5
	3/16/1999	ND<1	65.5
	9/23/1999	ND<1	65.5
	3/14/2000	ND<1	65.5
	9/23/2003	ND<1	65.5
	3/10/2004	ND<1	65.5
	10/12/2004	ND<1	65.5
	4/1/2005	ND<1	65.5
	10/26/2005	ND<1	65.5
	6/19/2006	ND<1	65.5
	11/18/2006	ND<1	65.5
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	0.3 J	137

Rank Sum = 1185
Rank Mean = 69.7059

LMW-6	1/16/1998	ND<1	65.5

	3/16/1999	ND<1	65.5
	9/23/1999	ND<1	65.5
	3/14/2000	ND<1	65.5
	9/23/2003	ND<1	65.5
	3/10/2004	ND<1	65.5
	10/12/2004	ND<1	65.5
	4/1/2005	ND<1	65.5
	10/26/2005	ND<1	65.5
	6/19/2006	ND<1	65.5
	11/18/2006	ND<1	65.5
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	0.3 J	138

Rank Sum = 1055
Rank Mean = 70.3333

LMW-7	1/16/1998	ND<1	65.5
	3/16/1999	ND<1	65.5
	9/23/1999	ND<1	65.5
	3/14/2000	ND<1	65.5
	9/23/2003	ND<1	65.5
	3/10/2004	ND<1	65.5
	10/12/2004	ND<1	65.5
	4/1/2005	1.07	143
	10/26/2005	ND<1	65.5
	6/19/2006	ND<1	65.5
	11/18/2006	0.85 J	142
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	ND<1	65.5

Rank Sum = 1136.5
Rank Mean = 75.7667

LMW-8	1/16/1998	ND<1	65.5
	3/16/1999	ND<1	65.5
	9/23/1999	ND<1	65.5
	3/14/2000	ND<1	65.5
	9/23/2003	ND<1	65.5
	3/10/2004	ND<1	65.5
	10/12/2004	ND<1	65.5
	4/1/2005	ND<1	65.5
	10/26/2005	ND<1	65.5
	6/19/2006	ND<1	65.5
	11/18/2006	ND<1	65.5
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	0.39 J	140

Rank Sum = 1057
Rank Mean = 70.4667

LMW-10	3/14/2000	ND<1	65.5
	9/23/2003	ND<1	65.5
	3/10/2004	ND<1	65.5
	10/12/2004	ND<1	65.5
	4/1/2005	0.26 J	135
	10/26/2005	ND<1	65.5
	6/19/2006	ND<1	65.5
	11/18/2006	ND<1	65.5
	6/2/2007	ND<1	65.5

	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	0.24 J	132

Rank Sum = 922
Rank Mean = 76.8333

LMW-11	3/14/2000	ND<1	65.5
	9/23/2003	ND<1	65.5
	3/10/2004	ND<1	65.5
	10/12/2004	ND<1	65.5
	4/1/2005	ND<1	65.5
	10/26/2005	ND<1	65.5
	6/19/2006	ND<1	65.5
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	ND<1	65.5

Rank Sum = 720.5
Rank Mean = 65.5

LMW-12	3/14/2000	ND<1	65.5
	9/23/2003	ND<1	65.5
	3/10/2004	ND<1	65.5
	10/12/2004	ND<1	65.5
	4/1/2005	ND<1	65.5
	10/26/2005	ND<1	65.5
	6/19/2006	ND<1	65.5
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	ND<1	65.5

Rank Sum = 720.5
Rank Mean = 65.5

LMW-13	3/14/2000	ND<1	65.5
	9/23/2003	ND<1	65.5
	3/10/2004	ND<1	65.5
	10/12/2004	ND<1	65.5
	4/1/2005	ND<1	65.5
	10/26/2005	ND<1	65.5
	6/19/2006	ND<1	65.5
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	ND<1	65.5

Rank Sum = 720.5
Rank Mean = 65.5

LMW-15	11/18/2006	ND<1	65.5
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	ND<1	65.5
	11/20/2008	0.29 J	136

Rank Sum = 594.5
Rank Mean = 74.3125

LMW-16	11/18/2006	0.24 J	133
	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5

	5/20/2008	ND<1	65.5
	11/20/2008	ND<1	65.5

Rank Sum = 395
Rank Mean = 79

LMW-3S	11/18/2006	ND<1	65.5
	6/2/2007	1.4	144
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	0.22 J	131

Rank Sum = 471.5
Rank Mean = 94.3

LMW-14R	6/2/2007	ND<1	65.5
	11/15/2007	ND<1	65.5
	5/20/2008	ND<1	65.5
	11/20/2008	ND<1	65.5

Rank Sum = 262
Rank Mean = 65.5

Calculation Results:

Kruskal-Wallis H Statistic = 3.40289
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 12.8782
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
3.40289 < 21.0261 indicating no significant group difference at 5% significance level
12.8782 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Total Xylenes

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	70
	3/16/1999	ND<1	70
	9/23/1999	ND<1	70
	3/14/2000	ND<1	70
	9/23/2003	ND<1	70
	3/10/2004	ND<1	70
	10/12/2004	ND<1	70
	4/1/2005	ND<1	70
	10/26/2005	0.25 J	142
	6/19/2006	ND<1	70
	11/18/2006	0.23 J	140
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 1192
Rank Mean = 79.4667

Background Rank Sum = 1192
Background Rank Mean = 79.4667

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	70
	3/24/1997	ND<1	70
	1/16/1998	ND<1	70
	3/16/1999	ND<1	70
	9/23/1999	ND<1	70
	3/14/2000	ND<1	70
	9/23/2003	ND<1	70
	3/10/2004	ND<1	70
	10/12/2004	ND<1	70
	4/1/2005	ND<1	70
	10/26/2005	ND<1	70
	6/19/2006	ND<1	70
	11/18/2006	ND<1	70
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	0.44 J	143

Rank Sum = 1263
Rank Mean = 74.2941

LMW-6	1/16/1998	ND<1	70

	3/16/1999	ND<1	70
	9/23/1999	ND<1	70
	3/14/2000	ND<1	70
	9/23/2003	ND<1	70
	3/10/2004	ND<1	70
	10/12/2004	ND<1	70
	4/1/2005	ND<1	70
	10/26/2005	ND<1	70
	6/19/2006	ND<1	70
	11/18/2006	ND<1	70
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 1050
Rank Mean = 70

LMW-7	1/16/1998	ND<1	70
	3/16/1999	ND<1	70
	9/23/1999	ND<1	70
	3/14/2000	ND<1	70
	9/23/2003	ND<1	70
	3/10/2004	ND<1	70
	10/12/2004	ND<1	70
	4/1/2005	ND<1	70
	10/26/2005	ND<1	70
	6/19/2006	ND<1	70
	11/18/2006	0.23 J	141
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 1121
Rank Mean = 74.7333

LMW-8	1/16/1998	ND<1	70
	3/16/1999	ND<1	70
	9/23/1999	ND<1	70
	3/14/2000	ND<1	70
	9/23/2003	ND<1	70
	3/10/2004	ND<1	70
	10/12/2004	ND<1	70
	4/1/2005	ND<1	70
	10/26/2005	ND<1	70
	6/19/2006	ND<1	70
	11/18/2006	ND<1	70
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 1050
Rank Mean = 70

LMW-10	3/14/2000	ND<1	70
	9/23/2003	ND<1	70
	3/10/2004	ND<1	70
	10/12/2004	ND<1	70
	4/1/2005	ND<1	70
	10/26/2005	ND<1	70
	6/19/2006	ND<1	70
	11/18/2006	ND<1	70
	6/2/2007	ND<1	70

	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 840
Rank Mean = 70

LMW-11	3/14/2000	ND<1	70
	9/23/2003	ND<1	70
	3/10/2004	ND<1	70
	10/12/2004	ND<1	70
	4/1/2005	ND<1	70
	10/26/2005	ND<1	70
	6/19/2006	ND<1	70
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 770
Rank Mean = 70

LMW-12	3/14/2000	ND<1	70
	9/23/2003	ND<1	70
	3/10/2004	ND<1	70
	10/12/2004	ND<1	70
	4/1/2005	ND<1	70
	10/26/2005	ND<1	70
	6/19/2006	ND<1	70
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 770
Rank Mean = 70

LMW-13	3/14/2000	ND<1	70
	9/23/2003	ND<1	70
	3/10/2004	ND<1	70
	10/12/2004	ND<1	70
	4/1/2005	ND<1	70
	10/26/2005	ND<1	70
	6/19/2006	ND<1	70
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 770
Rank Mean = 70

LMW-15	11/18/2006	ND<1	70
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70
	11/20/2008	0.71 J	144

Rank Sum = 634
Rank Mean = 79.25

LMW-16	11/18/2006	ND<1	70
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70

	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 350
Rank Mean = 70

LMW-3S	11/18/2006	ND<1	70
	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 350
Rank Mean = 70

LMW-14R	6/2/2007	ND<1	70
	11/15/2007	ND<1	70
	5/20/2008	ND<1	70
	11/20/2008	ND<1	70

Rank Sum = 280
Rank Mean = 70

Calculation Results:

Kruskal-Wallis H Statistic = 1.02201
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 10.1597
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
1.02201 < 21.0261 indicating no significant group difference at 5% significance level
10.1597 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: trans-1,3-Dichloropropene (-propylene)

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	72.5
	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

Background Rank Sum = 1087.5
Background Rank Mean = 72.5

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	72.5
	3/24/1997	ND<1	72.5
	1/16/1998	ND<1	72.5
	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1232.5
Rank Mean = 72.5

LMW-6	1/16/1998	ND<1	72.5

	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-7	1/16/1998	ND<1	72.5
	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-8	1/16/1998	ND<1	72.5
	3/16/1999	ND<1	72.5
	9/23/1999	ND<1	72.5
	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 1087.5
Rank Mean = 72.5

LMW-10	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5

	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 870
Rank Mean = 72.5

LMW-11	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-12	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-13	3/14/2000	ND<1	72.5
	9/23/2003	ND<1	72.5
	3/10/2004	ND<1	72.5
	10/12/2004	ND<1	72.5
	4/1/2005	ND<1	72.5
	10/26/2005	ND<1	72.5
	6/19/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 797.5
Rank Mean = 72.5

LMW-15	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 580
Rank Mean = 72.5

LMW-16	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5

	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 362.5
Rank Mean = 72.5

LMW-3S	11/18/2006	ND<1	72.5
	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 362.5
Rank Mean = 72.5

LMW-14R	6/2/2007	ND<1	72.5
	11/15/2007	ND<1	72.5
	5/20/2008	ND<1	72.5
	11/20/2008	ND<1	72.5

Rank Sum = 290
Rank Mean = 72.5

Calculation Results:

Kruskal-Wallis H Statistic = 0
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 0
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
0 < 21.0261 indicating no significant group difference at 5% significance level
0 < 21.0261 indicating no significant group difference at 5% significance level when adjusted for ties

Kruskal-Wallis Non-Parametric Test

Parameter: Trichloroethene (-ethylene)

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	69
	3/16/1999	ND<1	69
	9/23/1999	ND<1	69
	3/14/2000	ND<1	69
	9/23/2003	ND<1	69
	3/10/2004	ND<1	69
	10/12/2004	ND<1	69
	4/1/2005	ND<1	69
	10/26/2005	ND<1	69
	6/19/2006	ND<1	69
	11/18/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 1035
Rank Mean = 69

Background Rank Sum = 1035
Background Rank Mean = 69

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	69
	3/24/1997	ND<1	69
	1/16/1998	ND<1	69
	3/16/1999	ND<1	69
	9/23/1999	ND<1	69
	3/14/2000	ND<1	69
	9/23/2003	ND<1	69
	3/10/2004	ND<1	69
	10/12/2004	ND<1	69
	4/1/2005	ND<1	69
	10/26/2005	ND<1	69
	6/19/2006	ND<1	69
	11/18/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 1173
Rank Mean = 69

LMW-6	1/16/1998	ND<1	69

	3/16/1999	ND<1	69
	9/23/1999	ND<1	69
	3/14/2000	ND<1	69
	9/23/2003	ND<1	69
	3/10/2004	ND<1	69
	10/12/2004	ND<1	69
	4/1/2005	ND<1	69
	10/26/2005	ND<1	69
	6/19/2006	ND<1	69
	11/18/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 1035
Rank Mean = 69

LMW-7	1/16/1998	ND<1	69
	3/16/1999	ND<1	69
	9/23/1999	ND<1	69
	3/14/2000	ND<1	69
	9/23/2003	ND<1	69
	3/10/2004	ND<1	69
	10/12/2004	ND<1	69
	4/1/2005	ND<1	69
	10/26/2005	ND<1	69
	6/19/2006	ND<1	69
	11/18/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 1035
Rank Mean = 69

LMW-8	1/16/1998	ND<1	69
	3/16/1999	ND<1	69
	9/23/1999	ND<1	69
	3/14/2000	ND<1	69
	9/23/2003	ND<1	69
	3/10/2004	ND<1	69
	10/12/2004	ND<1	69
	4/1/2005	ND<1	69
	10/26/2005	0.24 J	139
	6/19/2006	0.23 J	138
	11/18/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 1174
Rank Mean = 78.2667

LMW-10	3/14/2000	ND<1	69
	9/23/2003	ND<1	69
	3/10/2004	ND<1	69
	10/12/2004	ND<1	69
	4/1/2005	0.39 J	140
	10/26/2005	0.56 J	142
	6/19/2006	0.91 J	144
	11/18/2006	0.44 J	141
	6/2/2007	ND<1	69

	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	0.58 J	143

Rank Sum = 1193
Rank Mean = 99.4167

LMW-11	3/14/2000	ND<1	69
	9/23/2003	ND<1	69
	3/10/2004	ND<1	69
	10/12/2004	ND<1	69
	4/1/2005	ND<1	69
	10/26/2005	ND<1	69
	6/19/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 759
Rank Mean = 69

LMW-12	3/14/2000	ND<1	69
	9/23/2003	ND<1	69
	3/10/2004	ND<1	69
	10/12/2004	ND<1	69
	4/1/2005	ND<1	69
	10/26/2005	ND<1	69
	6/19/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 759
Rank Mean = 69

LMW-13	3/14/2000	ND<1	69
	9/23/2003	ND<1	69
	3/10/2004	ND<1	69
	10/12/2004	ND<1	69
	4/1/2005	ND<1	69
	10/26/2005	ND<1	69
	6/19/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 759
Rank Mean = 69

LMW-15	11/18/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 552
Rank Mean = 69

LMW-16	11/18/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69

	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 345
Rank Mean = 69

LMW-3S	11/18/2006	ND<1	69
	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 345
Rank Mean = 69

LMW-14R	6/2/2007	ND<1	69
	11/15/2007	ND<1	69
	5/20/2008	ND<1	69
	11/20/2008	ND<1	69

Rank Sum = 276
Rank Mean = 69

Calculation Results:

Kruskal-Wallis H Statistic = 6.10698
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 43.9783
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
6.10698 < 21.0261 indicating no significant group difference at 5% significance level
43.9783 > 21.0261 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 69

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	69	0	34.3758
LMW-6	69	0	35.4338
LMW-7	69	0	35.4338
LMW-8	78.2667	9.26667	35.4338
LMW-10	99.4167	30.4167	37.5832
LMW-11	69	0	38.5206
LMW-12	69	0	38.5206
LMW-13	69	0	38.5206
LMW-15	69	0	42.4836
LMW-16	69	0	50.1109
LMW-3S	69	0	50.1109
LMW-14R	69	0	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 69

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	69	0	39.1893
LMW-6	69	0	40.3954
LMW-7	69	0	40.3954
LMW-8	78.2667	9.26667	40.3954
LMW-10	99.4167	30.4167	42.8458
LMW-11	69	0	43.9144
LMW-12	69	0	43.9144
LMW-13	69	0	43.9144
LMW-15	69	0	48.4324

LMW-16	69	0	57.1277
LMW-3S	69	0	57.1277
LMW-14R	69	0	62.2535

Kruskal-Wallis Non-Parametric Test

Parameter: Trichlorofluoromethane

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Kruskal Wallis Ranks

Background Wells

Well ID	Date	Result	Rank
LMW-4	1/16/1998	ND<1	57.5
	3/16/1999	ND<1	57.5
	9/23/1999	ND<1	57.5
	3/14/2000	ND<1	57.5
	9/23/2003	ND<1	57.5
	3/10/2004	ND<1	57.5
	10/12/2004	ND<1	57.5
	4/1/2005	2.37	134
	10/26/2005	0.68 J	125
	6/19/2006	2.53	137
	11/18/2006	2.37	135
	6/2/2007	3.1	139
	11/15/2007	ND<1	57.5
	5/20/2008	3.79	141
	11/20/2008	2.14	133

Rank Sum = 1404
Rank Mean = 93.6

Background Rank Sum = 1404
Background Rank Mean = 93.6

Compliance Wells

Well ID	Date	Result	Rank
LMW-3	11/19/1996	ND<1	57.5
	3/24/1997	ND<1	57.5
	1/16/1998	ND<1	57.5
	3/16/1999	ND<1	57.5
	9/23/1999	ND<1	57.5
	3/14/2000	ND<1	57.5
	9/23/2003	ND<1	57.5
	3/10/2004	ND<1	57.5
	10/12/2004	ND<1	57.5
	4/1/2005	0.25 J	115
	10/26/2005	0.34 J	118
	6/19/2006	0.52 J	120
	11/18/2006	ND<1	57.5
	6/2/2007	ND<1	57.5
	11/15/2007	0.25 J	116
	5/20/2008	0.74 J	127
	11/20/2008	0.63 J	123

Rank Sum = 1351.5
Rank Mean = 79.5

LMW-6	1/16/1998	ND<1	57.5

	3/16/1999	ND<1	57.5
	9/23/1999	ND<1	57.5
	3/14/2000	ND<1	57.5
	9/23/2003	ND<1	57.5
	3/10/2004	ND<1	57.5
	10/12/2004	ND<1	57.5
	4/1/2005	0.63 J	124
	10/26/2005	1.54	131
	6/19/2006	1.13	129
	11/18/2006	ND<1	57.5
	6/2/2007	ND<1	57.5
	11/15/2007	0.59 J	122
	5/20/2008	1.22	130
	11/20/2008	0.51 J	119

Rank Sum = 1272.5
Rank Mean = 84.8333

LMW-7	1/16/1998	ND<1	57.5
	3/16/1999	ND<1	57.5
	9/23/1999	ND<1	57.5
	3/14/2000	ND<1	57.5
	9/23/2003	ND<1	57.5
	3/10/2004	ND<1	57.5
	10/12/2004	ND<1	57.5
	4/1/2005	ND<1	57.5
	10/26/2005	ND<1	57.5
	6/19/2006	ND<1	57.5
	11/18/2006	ND<1	57.5
	6/2/2007	2.5	136
	11/15/2007	4.79	142
	5/20/2008	ND<1	57.5
	11/20/2008	ND<1	57.5

Rank Sum = 1025.5
Rank Mean = 68.3667

LMW-8	1/16/1998	ND<1	57.5
	3/16/1999	ND<1	57.5
	9/23/1999	ND<1	57.5
	3/14/2000	ND<1	57.5
	9/23/2003	ND<1	57.5
	3/10/2004	ND<1	57.5
	10/12/2004	ND<1	57.5
	4/1/2005	ND<1	57.5
	10/26/2005	ND<1	57.5
	6/19/2006	ND<1	57.5
	11/18/2006	ND<1	57.5
	6/2/2007	ND<1	57.5
	11/15/2007	ND<1	57.5
	5/20/2008	ND<1	57.5
	11/20/2008	ND<1	57.5

Rank Sum = 862.5
Rank Mean = 57.5

LMW-10	3/14/2000	ND<1	57.5
	9/23/2003	ND<1	57.5
	3/10/2004	ND<1	57.5
	10/12/2004	ND<1	57.5
	4/1/2005	ND<1	57.5
	10/26/2005	0.26 J	117
	6/19/2006	2.07	132
	11/18/2006	7.01	143
	6/2/2007	3.3	140

	11/15/2007	ND<1	57.5
	5/20/2008	10.6	144
	11/20/2008	3.05	138

Rank Sum = 1159
Rank Mean = 96.5833

LMW-11	3/14/2000	ND<1	57.5
	9/23/2003	ND<1	57.5
	3/10/2004	ND<1	57.5
	10/12/2004	ND<1	57.5
	4/1/2005	ND<1	57.5
	10/26/2005	ND<1	57.5
	6/19/2006	ND<1	57.5
	6/2/2007	ND<1	57.5
	11/15/2007	ND<1	57.5
	5/20/2008	ND<1	57.5
	11/20/2008	ND<1	57.5

Rank Sum = 632.5
Rank Mean = 57.5

LMW-12	3/14/2000	ND<1	57.5
	9/23/2003	ND<1	57.5
	3/10/2004	ND<1	57.5
	10/12/2004	ND<1	57.5
	4/1/2005	ND<1	57.5
	10/26/2005	ND<1	57.5
	6/19/2006	ND<1	57.5
	6/2/2007	ND<1	57.5
	11/15/2007	ND<1	57.5
	5/20/2008	ND<1	57.5
	11/20/2008	ND<1	57.5

Rank Sum = 632.5
Rank Mean = 57.5

LMW-13	3/14/2000	ND<1	57.5
	9/23/2003	ND<1	57.5
	3/10/2004	ND<1	57.5
	10/12/2004	ND<1	57.5
	4/1/2005	ND<1	57.5
	10/26/2005	ND<1	57.5
	6/19/2006	ND<1	57.5
	6/2/2007	ND<1	57.5
	11/15/2007	ND<1	57.5
	5/20/2008	ND<1	57.5
	11/20/2008	ND<1	57.5

Rank Sum = 632.5
Rank Mean = 57.5

LMW-15	11/18/2006	ND<1	57.5
	6/2/2007	ND<1	57.5
	11/15/2007	ND<1	57.5
	11/15/2007	ND<1	57.5
	5/20/2008	ND<1	57.5
	5/20/2008	ND<1	57.5
	11/20/2008	ND<1	57.5
	11/20/2008	ND<1	57.5

Rank Sum = 460
Rank Mean = 57.5

LMW-16	11/18/2006	ND<1	57.5
	6/2/2007	ND<1	57.5
	11/15/2007	ND<1	57.5

	5/20/2008	ND<1	57.5
	11/20/2008	ND<1	57.5

Rank Sum = 287.5
Rank Mean = 57.5

LMW-3S	11/18/2006	ND<1	57.5
	6/2/2007	ND<1	57.5
	11/15/2007	1.03	128
	5/20/2008	0.52 J	121
	11/20/2008	0.68 J	126

Rank Sum = 490
Rank Mean = 98

LMW-14R	6/2/2007	ND<1	57.5
	11/15/2007	ND<1	57.5
	5/20/2008	ND<1	57.5
	11/20/2008	ND<1	57.5

Rank Sum = 230
Rank Mean = 57.5

Calculation Results:

Kruskal-Wallis H Statistic = 20.0491
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 39.7919
95% Confidence comparison value is 21.0261 at 12 degrees of freedom
20.0491 < 21.0261 indicating no significant group difference at 5% significance level
39.7919 > 21.0261 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 93.6

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	79.5	-14.1	34.3758
LMW-6	84.8333	-8.76667	35.4338
LMW-7	68.3667	-25.2333	35.4338
LMW-8	57.5	-36.1	35.4338
LMW-10	96.5833	2.98333	37.5832
LMW-11	57.5	-36.1	38.5206
LMW-12	57.5	-36.1	38.5206
LMW-13	57.5	-36.1	38.5206
LMW-15	57.5	-36.1	42.4836
LMW-16	57.5	-36.1	50.1109
LMW-3S	98	4.4	50.1109
LMW-14R	57.5	-36.1	54.6071

Individual Well Comparisons at Groupwise 5% Significance Level (0.416667% Significance Level per comparison)

0.416667% Z score is 2.65209
Mean background rank is 93.6

Well	Mean Rank	Dif from Bkg	Critical Value
LMW-3	79.5	-14.1	39.1893
LMW-6	84.8333	-8.76667	40.3954
LMW-7	68.3667	-25.2333	40.3954
LMW-8	57.5	-36.1	40.3954
LMW-10	96.5833	2.98333	42.8458
LMW-11	57.5	-36.1	43.9144
LMW-12	57.5	-36.1	43.9144
LMW-13	57.5	-36.1	43.9144
LMW-15	57.5	-36.1	48.4324

LMW-16	57.5	-36.1	57.1277
LMW-3S	98	4.4	57.1277
LMW-14R	57.5	-36.1	62.2535

Mann-Kendall Trend Analysis

Parameter: Barium, total
Location: LMW-3

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<10	ND<10	0	0	0
ND<10	ND<10	0	0	0
8 J	ND<10	-2	0	1
7 J	ND<10	-3	0	2
ND<10	ND<10	0	0	2
ND<10	ND<10	0	0	2
ND<10	ND<10	0	0	2
ND<10	ND<10	0	0	2
ND<10	ND<10	0	0	2
7.2 J	ND<10	-2.8	0	3
5 J	ND<10	-5	0	4
7.4 J	ND<10	-2.6	0	5
5.33	ND<10	-4.67	0	6
ND<10	ND<10	0	0	6
5.47 J	ND<10	-4.53	0	7
5.8 J	ND<10	-4.2	0	8
ND<10	ND<10	0	0	8
8 J	ND<10	-2	0	9
7 J	ND<10	-3	0	10
ND<10	ND<10	0	0	10
ND<10	ND<10	0	0	10
ND<10	ND<10	0	0	10
ND<10	ND<10	0	0	10
ND<10	ND<10	0	0	10
7.2 J	ND<10	-2.8	0	11
5 J	ND<10	-5	0	12
7.4 J	ND<10	-2.6	0	13
5.33	ND<10	-4.67	0	14
ND<10	ND<10	0	0	14
5.47 J	ND<10	-4.53	0	15
5.8 J	ND<10	-4.2	0	16
8 J	ND<10	-2	0	17
7 J	ND<10	-3	0	18
ND<10	ND<10	0	0	18
ND<10	ND<10	0	0	18
ND<10	ND<10	0	0	18
ND<10	ND<10	0	0	18
ND<10	ND<10	0	0	18
7.2 J	ND<10	-2.8	0	19
5 J	ND<10	-5	0	20
7.4 J	ND<10	-2.6	0	21
5.33	ND<10	-4.67	0	22
ND<10	ND<10	0	0	22
5.47 J	ND<10	-4.53	0	23
5.8 J	ND<10	-4.2	0	24

7 J	8 J	-1	0	25
ND<10	8 J	2	1	25
ND<10	8 J	2	2	25
ND<10	8 J	2	3	25
ND<10	8 J	2	4	25
ND<10	8 J	2	5	25
7.2 J	8 J	-0.8	5	26
5 J	8 J	-3	5	27
7.4 J	8 J	-0.6	5	28
5.33	8 J	-2.67	5	29
ND<10	8 J	2	6	29
5.47 J	8 J	-2.53	6	30
5.8 J	8 J	-2.2	6	31
ND<10	7 J	3	7	31
ND<10	7 J	3	8	31
ND<10	7 J	3	9	31
ND<10	7 J	3	10	31
ND<10	7 J	3	11	31
7.2 J	7 J	0.2	12	31
5 J	7 J	-2	12	32
7.4 J	7 J	0.4	13	32
5.33	7 J	-1.67	13	33
ND<10	7 J	3	14	33
5.47 J	7 J	-1.53	14	34
5.8 J	7 J	-1.2	14	35
ND<10	ND<10	0	14	35
ND<10	ND<10	0	14	35
ND<10	ND<10	0	14	35
ND<10	ND<10	0	14	35
7.2 J	ND<10	-2.8	14	36
5 J	ND<10	-5	14	37
7.4 J	ND<10	-2.6	14	38
5.33	ND<10	-4.67	14	39
ND<10	ND<10	0	14	39
5.47 J	ND<10	-4.53	14	40
5.8 J	ND<10	-4.2	14	41
ND<10	ND<10	0	14	41
ND<10	ND<10	0	14	41
ND<10	ND<10	0	14	41
7.2 J	ND<10	-2.8	14	42
5 J	ND<10	-5	14	43
7.4 J	ND<10	-2.6	14	44
5.33	ND<10	-4.67	14	45
ND<10	ND<10	0	14	45
5.47 J	ND<10	-4.53	14	46
5.8 J	ND<10	-4.2	14	47
ND<10	ND<10	0	14	47
ND<10	ND<10	0	14	47
7.2 J	ND<10	-2.8	14	48
5 J	ND<10	-5	14	49
7.4 J	ND<10	-2.6	14	50
5.33	ND<10	-4.67	14	51
ND<10	ND<10	0	14	51
5.47 J	ND<10	-4.53	14	52
5.8 J	ND<10	-4.2	14	53

ND<10	ND<10	0	14	53
7.2 J	ND<10	-2.8	14	54
5 J	ND<10	-5	14	55
7.4 J	ND<10	-2.6	14	56
5.33	ND<10	-4.67	14	57
ND<10	ND<10	0	14	57
5.47 J	ND<10	-4.53	14	58
5.8 J	ND<10	-4.2	14	59
7.2 J	ND<10	-2.8	14	60
5 J	ND<10	-5	14	61
7.4 J	ND<10	-2.6	14	62
5.33	ND<10	-4.67	14	63
ND<10	ND<10	0	14	63
5.47 J	ND<10	-4.53	14	64
5.8 J	ND<10	-4.2	14	65
5 J	7.2 J	-2.2	14	66
7.4 J	7.2 J	0.2	15	66
5.33	7.2 J	-1.87	15	67
ND<10	7.2 J	2.8	16	67
5.47 J	7.2 J	-1.73	16	68
5.8 J	7.2 J	-1.4	16	69
7.4 J	5 J	2.4	17	69
5.33	5 J	0.33	18	69
ND<10	5 J	5	19	69
5.47 J	5 J	0.47	20	69
5.8 J	5 J	0.8	21	69
5.33	7.4 J	-2.07	21	70
ND<10	7.4 J	2.6	22	70
5.47 J	7.4 J	-1.93	22	71
5.8 J	7.4 J	-1.6	22	72
ND<10	5.33	4.67	23	72
5.47 J	5.33	0.14	24	72
5.8 J	5.33	0.47	25	72
5.47 J	ND<10	-4.53	25	73
5.8 J	ND<10	-4.2	25	74
5.8 J	5.47 J	0.33	26	74

S Statistic = 26 - 74 = -48

Tied Group	Value	Members
1	10	9

Time Period	Observations
11/19/1996	1
3/24/1997	1
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

There are 0 time periods with multiple data

A = 1656
B = 0
C = 504
D = 0
E = 72
F = 0
a = 10608
b = 36720
c = 544
Group Variance = 497.333
Z-Score = -2.10753
Comparison Level at 95% confidence level = 1.65463 (upward trend)
-2.10753 <= 1.65463 indicating no evidence of an upward trend

Mann-Kendall Trend Analysis

Parameter: Barium, total
Location: LMW-4

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
20	ND<10	10	1	0
8 J	ND<10	-2	1	1
ND<10	ND<10	0	1	1
ND<10	ND<10	0	1	1
ND<10	ND<10	0	1	1
ND<10	ND<10	0	1	1
14.2	ND<10	4.2	2	1
12.5	ND<10	2.5	3	1
10	ND<10	0	3	1
13.6	ND<10	3.6	4	1
24.7	ND<10	14.7	5	1
13	ND<10	3	6	1
11.2	ND<10	1.2	7	1
14.7	ND<10	4.7	8	1
8 J	20	-12	8	2
ND<10	20	-10	8	3
ND<10	20	-10	8	4
ND<10	20	-10	8	5
ND<10	20	-10	8	6
14.2	20	-5.8	8	7
12.5	20	-7.5	8	8
10	20	-10	8	9
13.6	20	-6.4	8	10
24.7	20	4.7	9	10
13	20	-7	9	11
11.2	20	-8.8	9	12
14.7	20	-5.3	9	13
ND<10	8 J	2	10	13
ND<10	8 J	2	11	13
ND<10	8 J	2	12	13
ND<10	8 J	2	13	13
14.2	8 J	6.2	14	13
12.5	8 J	4.5	15	13
10	8 J	2	16	13
13.6	8 J	5.6	17	13
24.7	8 J	16.7	18	13
13	8 J	5	19	13
11.2	8 J	3.2	20	13
14.7	8 J	6.7	21	13
ND<10	ND<10	0	21	13
ND<10	ND<10	0	21	13
ND<10	ND<10	0	21	13
14.2	ND<10	4.2	22	13
12.5	ND<10	2.5	23	13

10	ND<10	0	23	13
13.6	ND<10	3.6	24	13
24.7	ND<10	14.7	25	13
13	ND<10	3	26	13
11.2	ND<10	1.2	27	13
14.7	ND<10	4.7	28	13
ND<10	ND<10	0	28	13
ND<10	ND<10	0	28	13
14.2	ND<10	4.2	29	13
12.5	ND<10	2.5	30	13
10	ND<10	0	30	13
13.6	ND<10	3.6	31	13
24.7	ND<10	14.7	32	13
13	ND<10	3	33	13
11.2	ND<10	1.2	34	13
14.7	ND<10	4.7	35	13
ND<10	ND<10	0	35	13
14.2	ND<10	4.2	36	13
12.5	ND<10	2.5	37	13
10	ND<10	0	37	13
13.6	ND<10	3.6	38	13
24.7	ND<10	14.7	39	13
13	ND<10	3	40	13
11.2	ND<10	1.2	41	13
14.7	ND<10	4.7	42	13
14.2	ND<10	4.2	43	13
12.5	ND<10	2.5	44	13
10	ND<10	0	44	13
13.6	ND<10	3.6	45	13
24.7	ND<10	14.7	46	13
13	ND<10	3	47	13
11.2	ND<10	1.2	48	13
14.7	ND<10	4.7	49	13
12.5	14.2	-1.7	49	14
10	14.2	-4.2	49	15
13.6	14.2	-0.6	49	16
24.7	14.2	10.5	50	16
13	14.2	-1.2	50	17
11.2	14.2	-3	50	18
14.7	14.2	0.5	51	18
10	12.5	-2.5	51	19
13.6	12.5	1.1	52	19
24.7	12.5	12.2	53	19
13	12.5	0.5	54	19
11.2	12.5	-1.3	54	20
14.7	12.5	2.2	55	20
13.6	10	3.6	56	20
24.7	10	14.7	57	20
13	10	3	58	20
11.2	10	1.2	59	20
14.7	10	4.7	60	20
24.7	13.6	11.1	61	20
13	13.6	-0.6	61	21
11.2	13.6	-2.4	61	22

14.7	13.6	1.1	62	22
13	24.7	-11.7	62	23
11.2	24.7	-13.5	62	24
14.7	24.7	-10	62	25
11.2	13	-1.8	62	26
14.7	13	1.7	63	26
14.7	11.2	3.5	64	26

S Statistic = 64 - 26 = 38

Tied Group	Value	Members
1	10	6

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

There are 0 time periods with multiple data

A = 510
B = 0
C = 120
D = 0
E = 30
F = 0
a = 7350
b = 24570
c = 420
Group Variance = 380
Z-Score = 1.89806
Comparison Level at 95% confidence level = 1.65463 (upward trend)
1.89806 > 1.65463 indicating an upward trend

Mann-Kendall Trend Analysis

Parameter: Barium, total
Location: LMW-6

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
8 J	ND<10	-2	0	1
18	ND<10	8	1	1
ND<10	ND<10	0	1	1
ND<10	ND<10	0	1	1
ND<10	ND<10	0	1	1
ND<10	ND<10	0	1	1
9.5 J	ND<10	-0.5	1	2
12.3	ND<10	2.3	2	2
20	ND<10	10	3	2
33.9	ND<10	23.9	4	2
52.4	ND<10	42.4	5	2
42	ND<10	32	6	2
49.2	ND<10	39.2	7	2
73.7	ND<10	63.7	8	2
18	8 J	10	9	2
ND<10	8 J	2	10	2
ND<10	8 J	2	11	2
ND<10	8 J	2	12	2
ND<10	8 J	2	13	2
9.5 J	8 J	1.5	14	2
12.3	8 J	4.3	15	2
20	8 J	12	16	2
33.9	8 J	25.9	17	2
52.4	8 J	44.4	18	2
42	8 J	34	19	2
49.2	8 J	41.2	20	2
73.7	8 J	65.7	21	2
ND<10	18	-8	21	3
ND<10	18	-8	21	4
ND<10	18	-8	21	5
ND<10	18	-8	21	6
9.5 J	18	-8.5	21	7
12.3	18	-5.7	21	8
20	18	2	22	8
33.9	18	15.9	23	8
52.4	18	34.4	24	8
42	18	24	25	8
49.2	18	31.2	26	8
73.7	18	55.7	27	8
ND<10	ND<10	0	27	8
ND<10	ND<10	0	27	8
ND<10	ND<10	0	27	8
9.5 J	ND<10	-0.5	27	9
12.3	ND<10	2.3	28	9

20	ND<10	10	29	9
33.9	ND<10	23.9	30	9
52.4	ND<10	42.4	31	9
42	ND<10	32	32	9
49.2	ND<10	39.2	33	9
73.7	ND<10	63.7	34	9
ND<10	ND<10	0	34	9
ND<10	ND<10	0	34	9
9.5 J	ND<10	-0.5	34	10
12.3	ND<10	2.3	35	10
20	ND<10	10	36	10
33.9	ND<10	23.9	37	10
52.4	ND<10	42.4	38	10
42	ND<10	32	39	10
49.2	ND<10	39.2	40	10
73.7	ND<10	63.7	41	10
ND<10	ND<10	0	41	10
9.5 J	ND<10	-0.5	41	11
12.3	ND<10	2.3	42	11
20	ND<10	10	43	11
33.9	ND<10	23.9	44	11
52.4	ND<10	42.4	45	11
42	ND<10	32	46	11
49.2	ND<10	39.2	47	11
73.7	ND<10	63.7	48	11
9.5 J	ND<10	-0.5	48	12
12.3	ND<10	2.3	49	12
20	ND<10	10	50	12
33.9	ND<10	23.9	51	12
52.4	ND<10	42.4	52	12
42	ND<10	32	53	12
49.2	ND<10	39.2	54	12
73.7	ND<10	63.7	55	12
12.3	9.5 J	2.8	56	12
20	9.5 J	10.5	57	12
33.9	9.5 J	24.4	58	12
52.4	9.5 J	42.9	59	12
42	9.5 J	32.5	60	12
49.2	9.5 J	39.7	61	12
73.7	9.5 J	64.2	62	12
20	12.3	7.7	63	12
33.9	12.3	21.6	64	12
52.4	12.3	40.1	65	12
42	12.3	29.7	66	12
49.2	12.3	36.9	67	12
73.7	12.3	61.4	68	12
33.9	20	13.9	69	12
52.4	20	32.4	70	12
42	20	22	71	12
49.2	20	29.2	72	12
73.7	20	53.7	73	12
52.4	33.9	18.5	74	12
42	33.9	8.1	75	12
49.2	33.9	15.3	76	12

73.7	33.9	39.8	77	12
42	52.4	-10.4	77	13
49.2	52.4	-3.2	77	14
73.7	52.4	21.3	78	14
49.2	42	7.2	79	14
73.7	42	31.7	80	14
73.7	49.2	24.5	81	14

S Statistic = 81 - 14 = 67

Tied Group	Value	Members
1	10	5

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

There are 0 time periods with multiple data

A = 300
B = 0
C = 60
D = 0
E = 20
F = 0
a = 7350
b = 24570
c = 420
Group Variance = 391.667
Z-Score = 3.33492
Comparison Level at 95% confidence level = 1.65463 (upward trend)
3.33492 > 1.65463 indicating an upward trend

Mann-Kendall Trend Analysis

Parameter: Barium, total
Location: LMW-7

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
20	ND<10	10	1	0
22	ND<10	12	2	0
ND<10	ND<10	0	2	0
ND<10	ND<10	0	2	0
ND<10	ND<10	0	2	0
ND<10	ND<10	0	2	0
31.7	ND<10	21.7	3	0
30	ND<10	20	4	0
20	ND<10	10	5	0
11.6	ND<10	1.6	6	0
27.4	ND<10	17.4	7	0
6 J	ND<10	-4	7	1
5.48 J	ND<10	-4.52	7	2
7 J	ND<10	-3	7	3
22	20	2	8	3
ND<10	20	-10	8	4
ND<10	20	-10	8	5
ND<10	20	-10	8	6
ND<10	20	-10	8	7
31.7	20	11.7	9	7
30	20	10	10	7
20	20	0	10	7
11.6	20	-8.4	10	8
27.4	20	7.4	11	8
6 J	20	-14	11	9
5.48 J	20	-14.52	11	10
7 J	20	-13	11	11
ND<10	22	-12	11	12
ND<10	22	-12	11	13
ND<10	22	-12	11	14
ND<10	22	-12	11	15
31.7	22	9.7	12	15
30	22	8	13	15
20	22	-2	13	16
11.6	22	-10.4	13	17
27.4	22	5.4	14	17
6 J	22	-16	14	18
5.48 J	22	-16.52	14	19
7 J	22	-15	14	20
ND<10	ND<10	0	14	20
ND<10	ND<10	0	14	20
ND<10	ND<10	0	14	20
31.7	ND<10	21.7	15	20
30	ND<10	20	16	20

20	ND<10	10	17	20
11.6	ND<10	1.6	18	20
27.4	ND<10	17.4	19	20
6 J	ND<10	-4	19	21
5.48 J	ND<10	-4.52	19	22
7 J	ND<10	-3	19	23
ND<10	ND<10	0	19	23
ND<10	ND<10	0	19	23
31.7	ND<10	21.7	20	23
30	ND<10	20	21	23
20	ND<10	10	22	23
11.6	ND<10	1.6	23	23
27.4	ND<10	17.4	24	23
6 J	ND<10	-4	24	24
5.48 J	ND<10	-4.52	24	25
7 J	ND<10	-3	24	26
ND<10	ND<10	0	24	26
31.7	ND<10	21.7	25	26
30	ND<10	20	26	26
20	ND<10	10	27	26
11.6	ND<10	1.6	28	26
27.4	ND<10	17.4	29	26
6 J	ND<10	-4	29	27
5.48 J	ND<10	-4.52	29	28
7 J	ND<10	-3	29	29
31.7	ND<10	21.7	30	29
30	ND<10	20	31	29
20	ND<10	10	32	29
11.6	ND<10	1.6	33	29
27.4	ND<10	17.4	34	29
6 J	ND<10	-4	34	30
5.48 J	ND<10	-4.52	34	31
7 J	ND<10	-3	34	32
30	31.7	-1.7	34	33
20	31.7	-11.7	34	34
11.6	31.7	-20.1	34	35
27.4	31.7	-4.3	34	36
6 J	31.7	-25.7	34	37
5.48 J	31.7	-26.22	34	38
7 J	31.7	-24.7	34	39
20	30	-10	34	40
11.6	30	-18.4	34	41
27.4	30	-2.6	34	42
6 J	30	-24	34	43
5.48 J	30	-24.52	34	44
7 J	30	-23	34	45
11.6	20	-8.4	34	46
27.4	20	7.4	35	46
6 J	20	-14	35	47
5.48 J	20	-14.52	35	48
7 J	20	-13	35	49
27.4	11.6	15.8	36	49
6 J	11.6	-5.6	36	50
5.48 J	11.6	-6.12	36	51

7 J	11.6	-4.6	36	52
6 J	27.4	-21.4	36	53
5.48 J	27.4	-21.92	36	54
7 J	27.4	-20.4	36	55
5.48 J	6 J	-0.52	36	56
7 J	6 J	1	37	56
7 J	5.48 J	1.52	38	56

S Statistic = 38 - 56 = -18

Tied Group	Value	Members
1	10	5
2	20	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

There are 0 time periods with multiple data

A = 318
B = 0
C = 60
D = 0
E = 22
F = 0
a = 7350
b = 24570
c = 420
Group Variance = 390.667
Z-Score = -0.860094
Comparison Level at 95% confidence level = 1.65463 (upward trend)
-0.860094 <= 1.65463 indicating no evidence of an upward trend

Mann-Kendall Trend Analysis

Parameter: Barium, total
Location: LMW-8

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
10	ND<10	0	0	0
109	ND<10	99	1	0
ND<10	ND<10	0	1	0
ND<10	ND<10	0	1	0
ND<10	ND<10	0	1	0
ND<10	ND<10	0	1	0
48.5	ND<10	38.5	2	0
38.1	ND<10	28.1	3	0
40	ND<10	30	4	0
32	ND<10	22	5	0
34	ND<10	24	6	0
41	ND<10	31	7	0
34.9	ND<10	24.9	8	0
29	ND<10	19	9	0
109	10	99	10	0
ND<10	10	0	10	0
ND<10	10	0	10	0
ND<10	10	0	10	0
ND<10	10	0	10	0
48.5	10	38.5	11	0
38.1	10	28.1	12	0
40	10	30	13	0
32	10	22	14	0
34	10	24	15	0
41	10	31	16	0
34.9	10	24.9	17	0
29	10	19	18	0
ND<10	109	-99	18	1
ND<10	109	-99	18	2
ND<10	109	-99	18	3
ND<10	109	-99	18	4
48.5	109	-60.5	18	5
38.1	109	-70.9	18	6
40	109	-69	18	7
32	109	-77	18	8
34	109	-75	18	9
41	109	-68	18	10
34.9	109	-74.1	18	11
29	109	-80	18	12
ND<10	ND<10	0	18	12
ND<10	ND<10	0	18	12
ND<10	ND<10	0	18	12
48.5	ND<10	38.5	19	12
38.1	ND<10	28.1	20	12

40	ND<10	30	21	12
32	ND<10	22	22	12
34	ND<10	24	23	12
41	ND<10	31	24	12
34.9	ND<10	24.9	25	12
29	ND<10	19	26	12
ND<10	ND<10	0	26	12
ND<10	ND<10	0	26	12
48.5	ND<10	38.5	27	12
38.1	ND<10	28.1	28	12
40	ND<10	30	29	12
32	ND<10	22	30	12
34	ND<10	24	31	12
41	ND<10	31	32	12
34.9	ND<10	24.9	33	12
29	ND<10	19	34	12
ND<10	ND<10	0	34	12
48.5	ND<10	38.5	35	12
38.1	ND<10	28.1	36	12
40	ND<10	30	37	12
32	ND<10	22	38	12
34	ND<10	24	39	12
41	ND<10	31	40	12
34.9	ND<10	24.9	41	12
29	ND<10	19	42	12
48.5	ND<10	38.5	43	12
38.1	ND<10	28.1	44	12
40	ND<10	30	45	12
32	ND<10	22	46	12
34	ND<10	24	47	12
41	ND<10	31	48	12
34.9	ND<10	24.9	49	12
29	ND<10	19	50	12
38.1	48.5	-10.4	50	13
40	48.5	-8.5	50	14
32	48.5	-16.5	50	15
34	48.5	-14.5	50	16
41	48.5	-7.5	50	17
34.9	48.5	-13.6	50	18
29	48.5	-19.5	50	19
40	38.1	1.9	51	19
32	38.1	-6.1	51	20
34	38.1	-4.1	51	21
41	38.1	2.9	52	21
34.9	38.1	-3.2	52	22
29	38.1	-9.1	52	23
32	40	-8	52	24
34	40	-6	52	25
41	40	1	53	25
34.9	40	-5.1	53	26
29	40	-11	53	27
34	32	2	54	27
41	32	9	55	27
34.9	32	2.9	56	27

29	32	-3	56	28
41	34	7	57	28
34.9	34	0.9	58	28
29	34	-5	58	29
34.9	41	-6.1	58	30
29	41	-12	58	31
29	34.9	-5.9	58	32

S Statistic = 58 - 32 = 26

Tied Group	Value	Members
1	10	6

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

There are 0 time periods with multiple data

A = 510
B = 0
C = 120
D = 0
E = 30
F = 0
a = 7350
b = 24570
c = 420
Group Variance = 380
Z-Score = 1.28247
Comparison Level at 95% confidence level = 1.65463 (upward trend)
1.28247 <= 1.65463 indicating no evidence of an upward trend

Mann-Kendall Trend Analysis

Parameter: Barium, total
Location: LMW-10

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<10	ND<10	0	0	0
ND<10	ND<10	0	0	0
ND<10	ND<10	0	0	0
13.5	ND<10	3.5	1	0
ND<10	ND<10	0	1	0
20	ND<10	10	2	0
11.9	ND<10	1.9	3	0
21.3	ND<10	11.3	4	0
ND<10	ND<10	0	4	0
12	ND<10	2	5	0
12.7	ND<10	2.7	6	0
ND<10	ND<10	0	6	0
ND<10	ND<10	0	6	0
13.5	ND<10	3.5	7	0
ND<10	ND<10	0	7	0
20	ND<10	10	8	0
11.9	ND<10	1.9	9	0
21.3	ND<10	11.3	10	0
ND<10	ND<10	0	10	0
12	ND<10	2	11	0
12.7	ND<10	2.7	12	0
ND<10	ND<10	0	12	0
13.5	ND<10	3.5	13	0
ND<10	ND<10	0	13	0
20	ND<10	10	14	0
11.9	ND<10	1.9	15	0
21.3	ND<10	11.3	16	0
ND<10	ND<10	0	16	0
12	ND<10	2	17	0
12.7	ND<10	2.7	18	0
13.5	ND<10	3.5	19	0
ND<10	ND<10	0	19	0
20	ND<10	10	20	0
11.9	ND<10	1.9	21	0
21.3	ND<10	11.3	22	0
ND<10	ND<10	0	22	0
12	ND<10	2	23	0
12.7	ND<10	2.7	24	0
ND<10	13.5	-3.5	24	1
20	13.5	6.5	25	1
11.9	13.5	-1.6	25	2
21.3	13.5	7.8	26	2
ND<10	13.5	-3.5	26	3

12	13.5	-1.5	26	4
12.7	13.5	-0.8	26	5
20	ND<10	10	27	5
11.9	ND<10	1.9	28	5
21.3	ND<10	11.3	29	5
ND<10	ND<10	0	29	5
12	ND<10	2	30	5
12.7	ND<10	2.7	31	5
11.9	20	-8.1	31	6
21.3	20	1.3	32	6
ND<10	20	-10	32	7
12	20	-8	32	8
12.7	20	-7.3	32	9
21.3	11.9	9.4	33	9
ND<10	11.9	-1.9	33	10
12	11.9	0.1	34	10
12.7	11.9	0.8	35	10
ND<10	21.3	-11.3	35	11
12	21.3	-9.3	35	12
12.7	21.3	-8.6	35	13
12	ND<10	2	36	13
12.7	ND<10	2.7	37	13
12.7	12	0.7	38	13

S Statistic = 38 - 13 = 25

Tied Group	Value	Members
1	10	6

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

There are 0 time periods with multiple data

A = 510
B = 0
C = 120
D = 0
E = 30
F = 0
a = 3828
b = 11880
c = 264

Group Variance = 184.333
Z-Score = 1.7677
Comparison Level at 95% confidence level = 1.65463 (upward trend)
1.7677 > 1.65463 indicating an upward trend

Mann-Kendall Trend Analysis

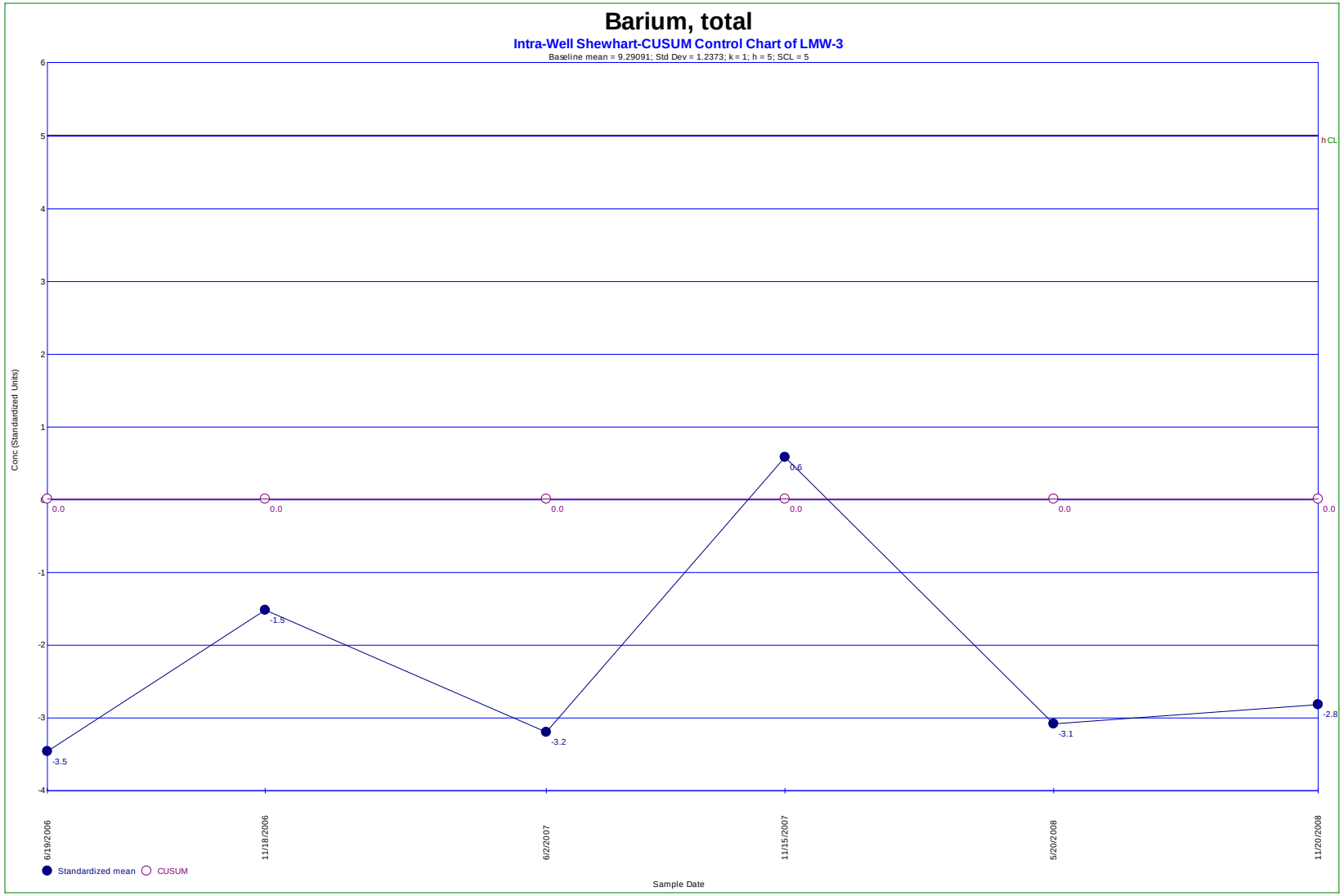
Parameter: Nickel, total
Location: LMW-3S

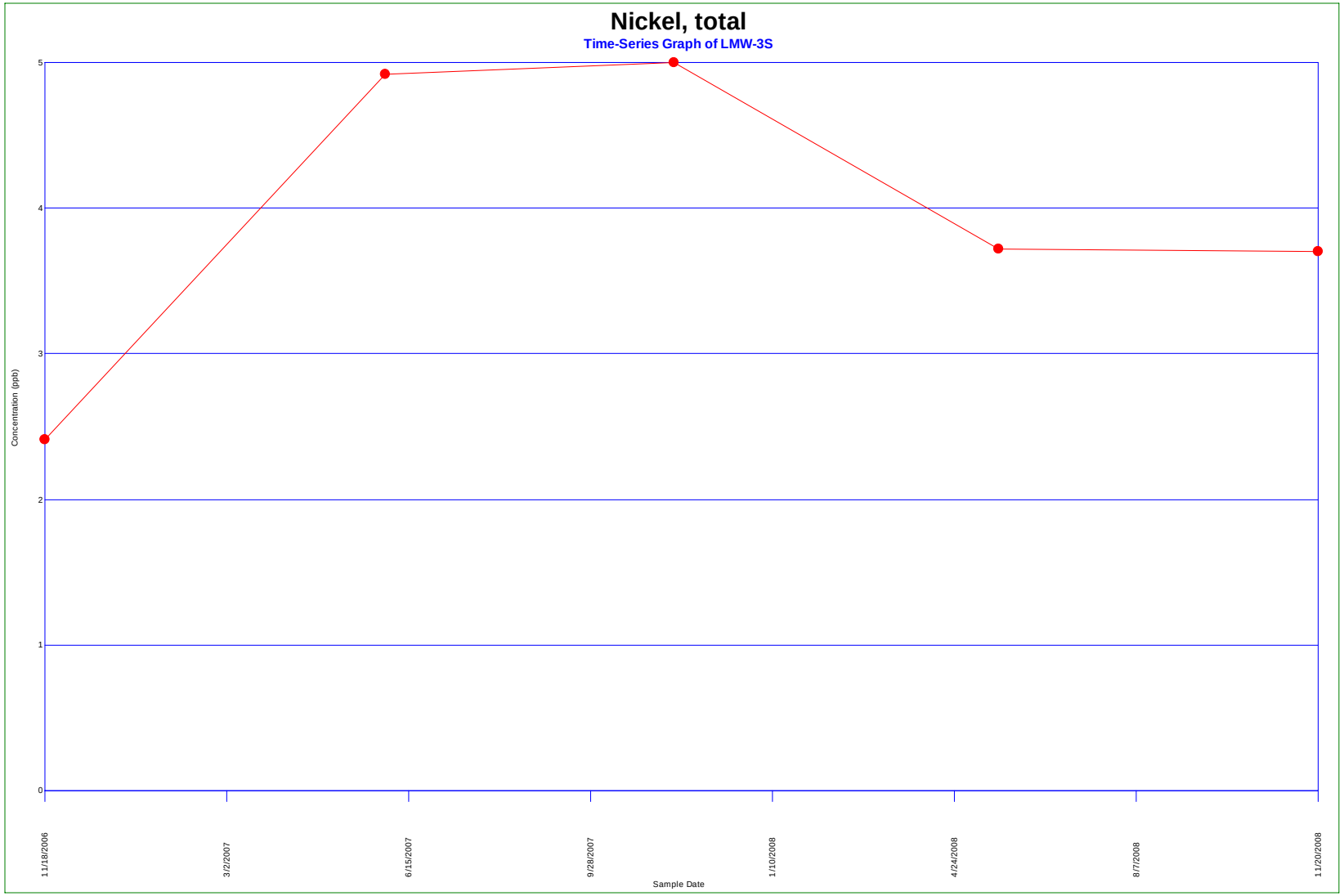
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

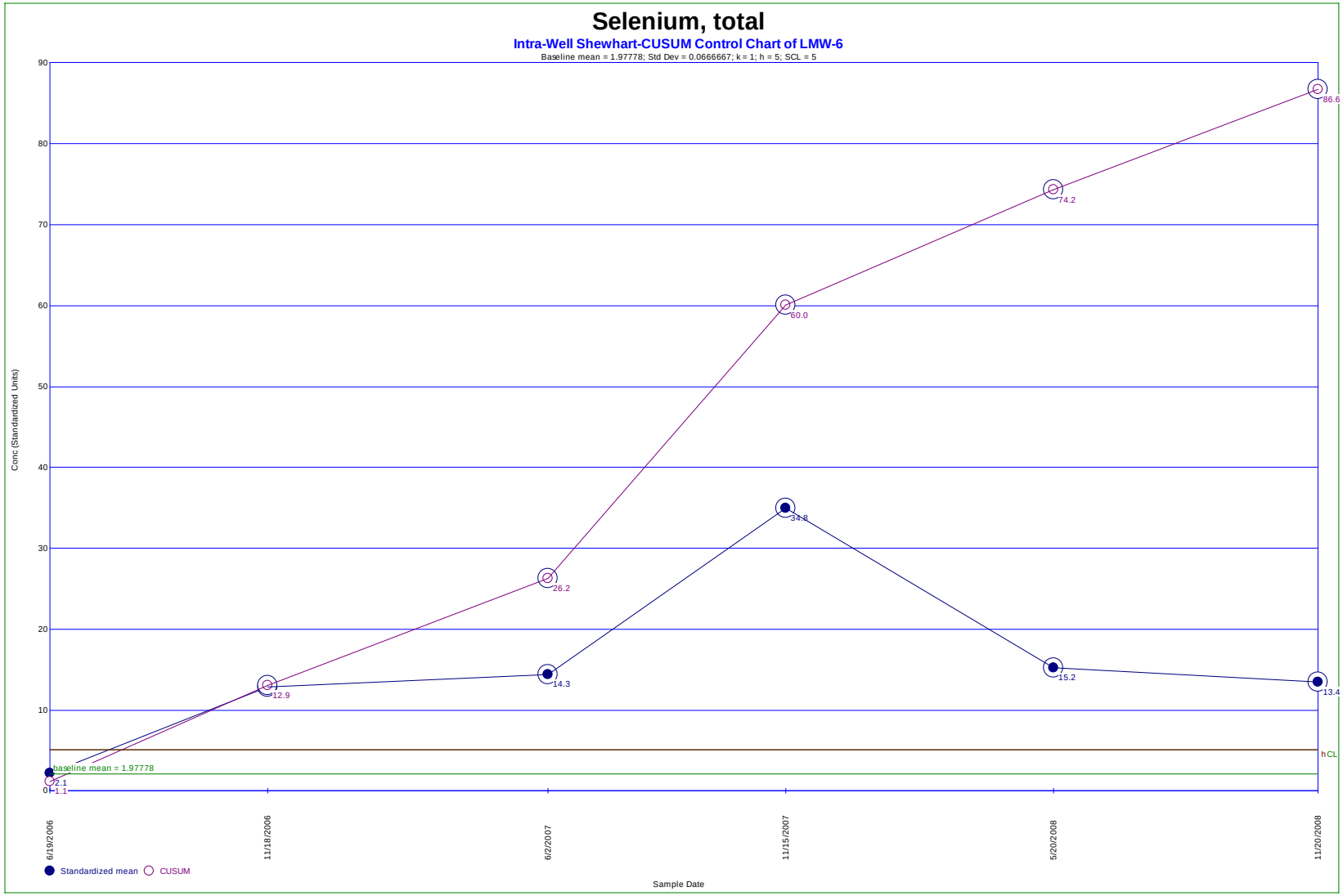
95% Confidence Level

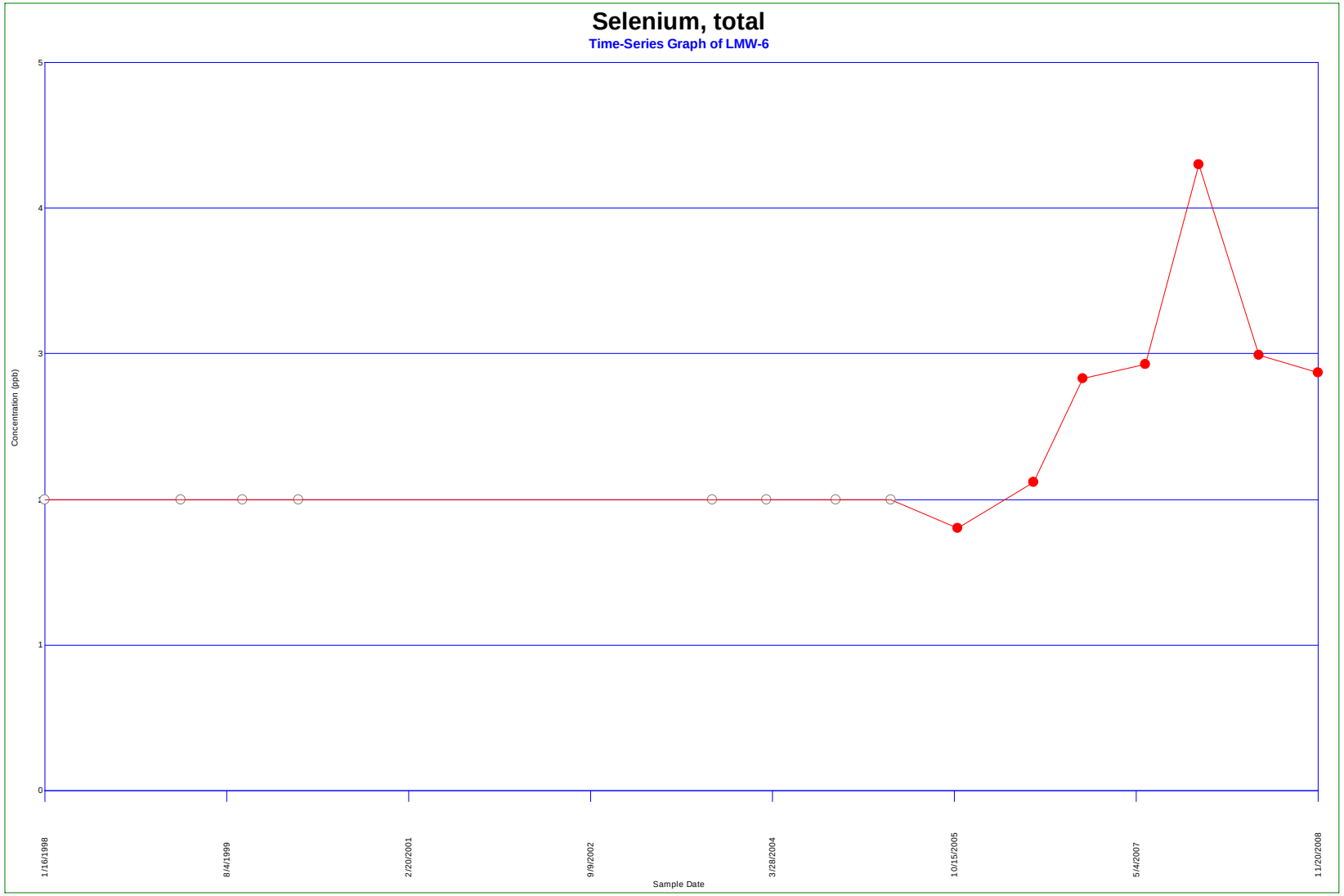
Xj	Xk	Xj - Xk	Positives	Negatives
4.92 J	2.41 J	2.51	1	0
5 J	2.41 J	2.59	2	0
3.72 J	2.41 J	1.31	3	0
3.7 J	2.41 J	1.29	4	0
5 J	4.92 J	0.08	5	0
3.72 J	4.92 J	-1.2	5	1
3.7 J	4.92 J	-1.22	5	2
3.72 J	5 J	-1.28	5	3
3.7 J	5 J	-1.3	5	4
3.7 J	3.72 J	-0.02	5	5

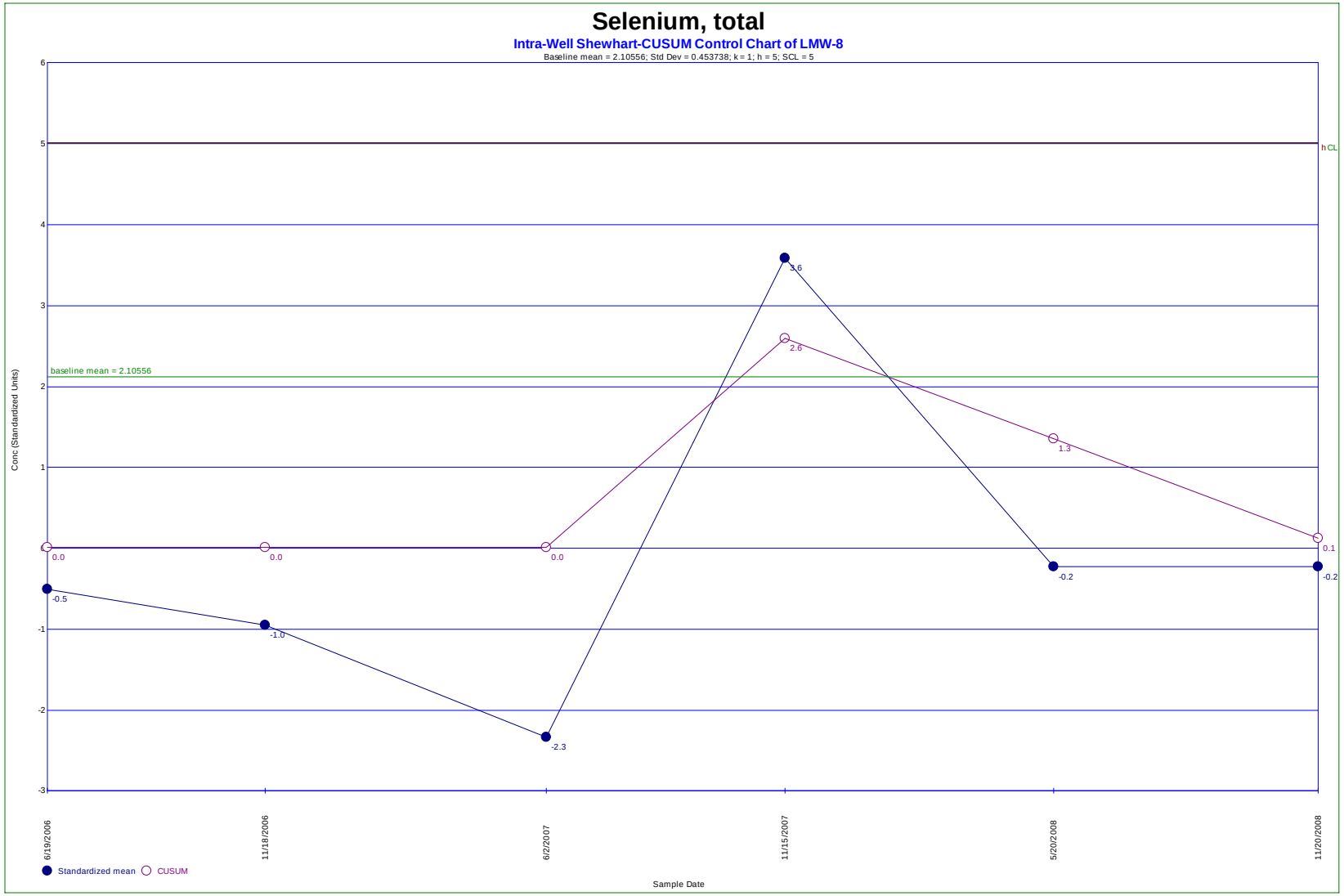
S Statistic = 5 - 5 = 0
Comparing at 95% confidence level (upward trend)
Probability of obtaining S >= 0 is 0.592
S < 0 or 0.592 >= 0.05 indicating no evidence of an upward trend

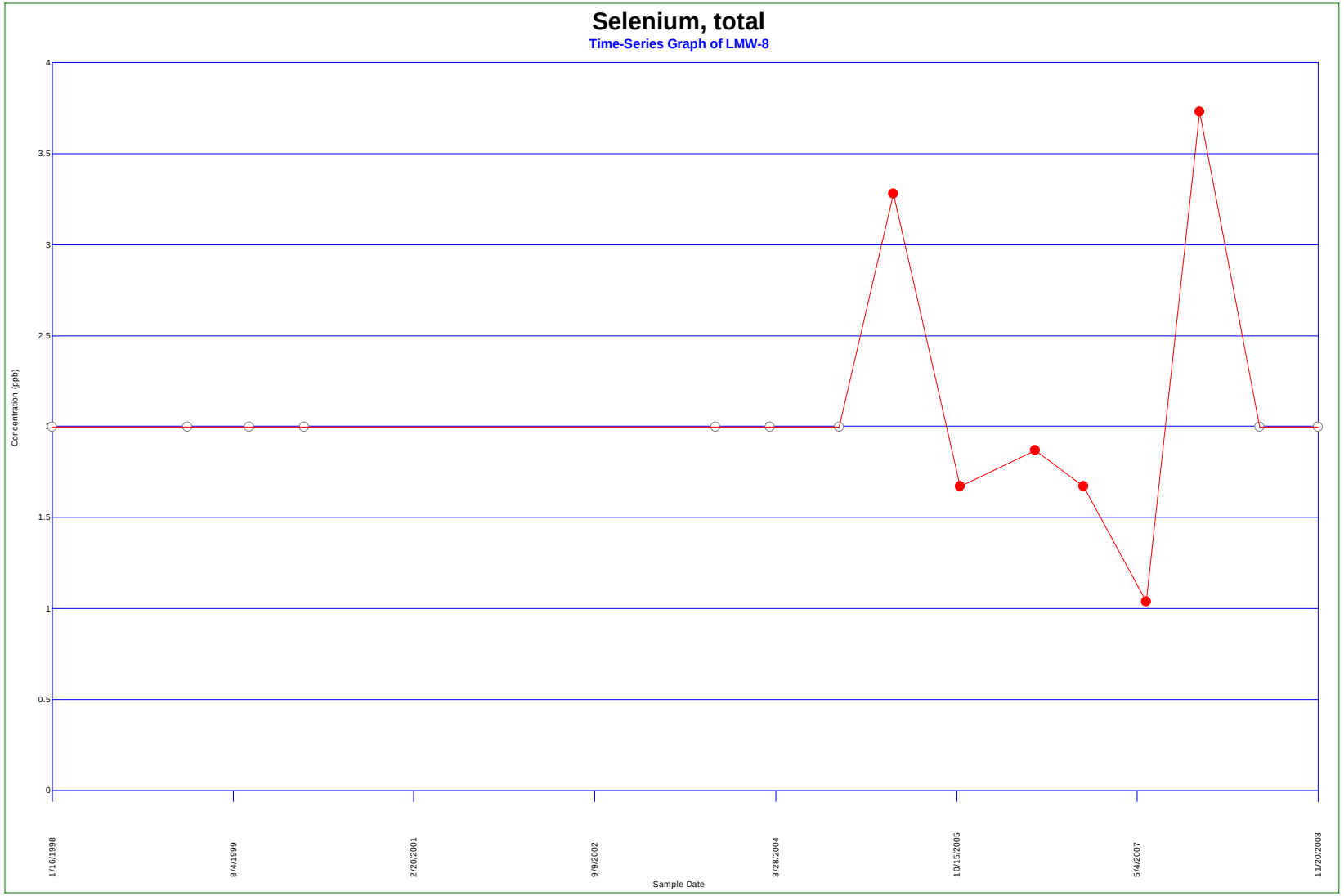

Barium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-3
Baseline mean = 9.29091; Std Dev = 1.2373; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
-3
-4
h CL
0.0
0.0
0.0
0.0
0.0
0.0
-3.5
-1.5
-3.2
0.6
-3.1
-2.8
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

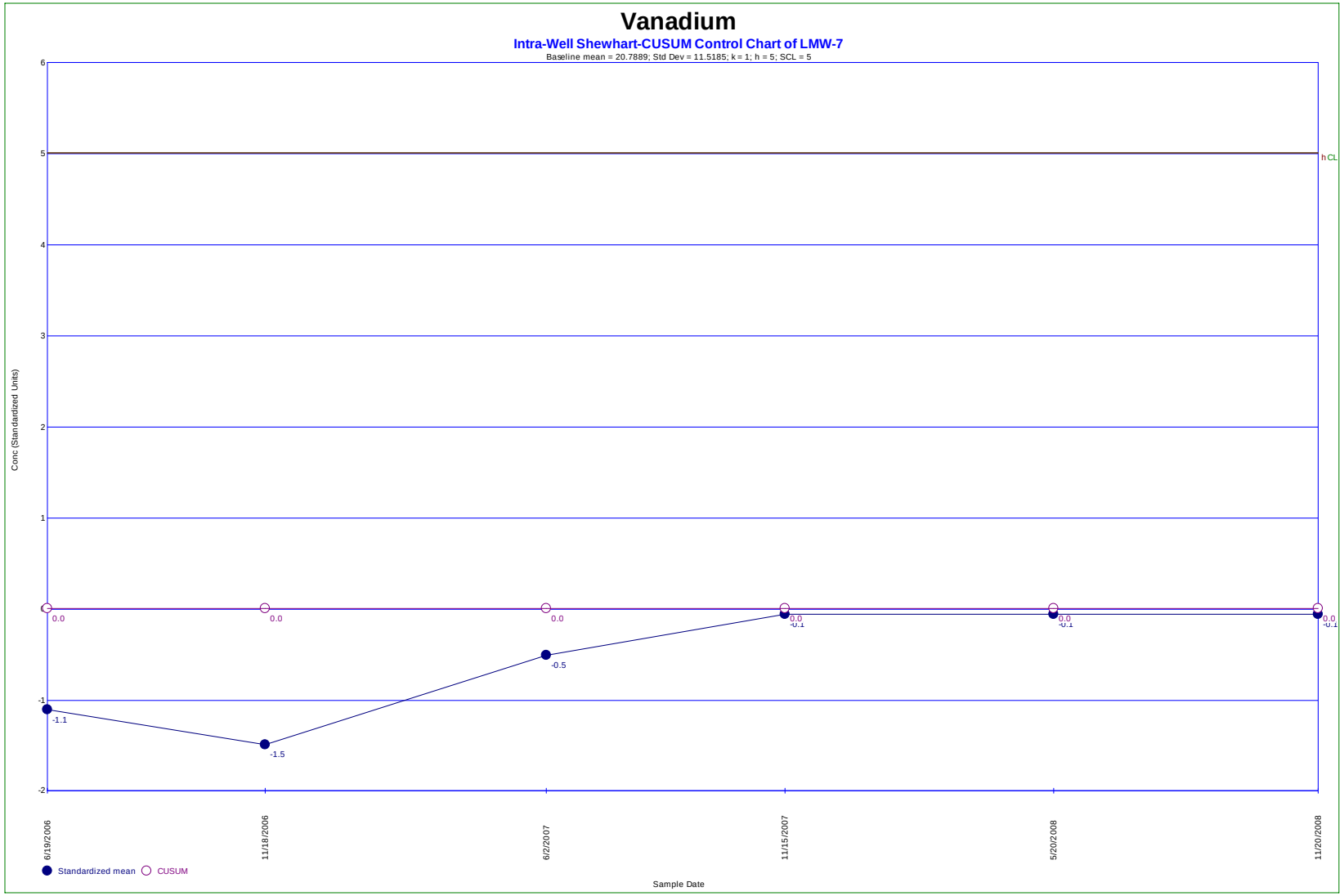

Nickel, total
Time-Series Graph of LMW-3S
Concentration (ppb)
5
4
3
2
1
0
11/18/2006
3/2/2007
6/15/2007
9/28/2007
1/10/2008
4/24/2008
8/7/2008
11/20/2008
Sample Date

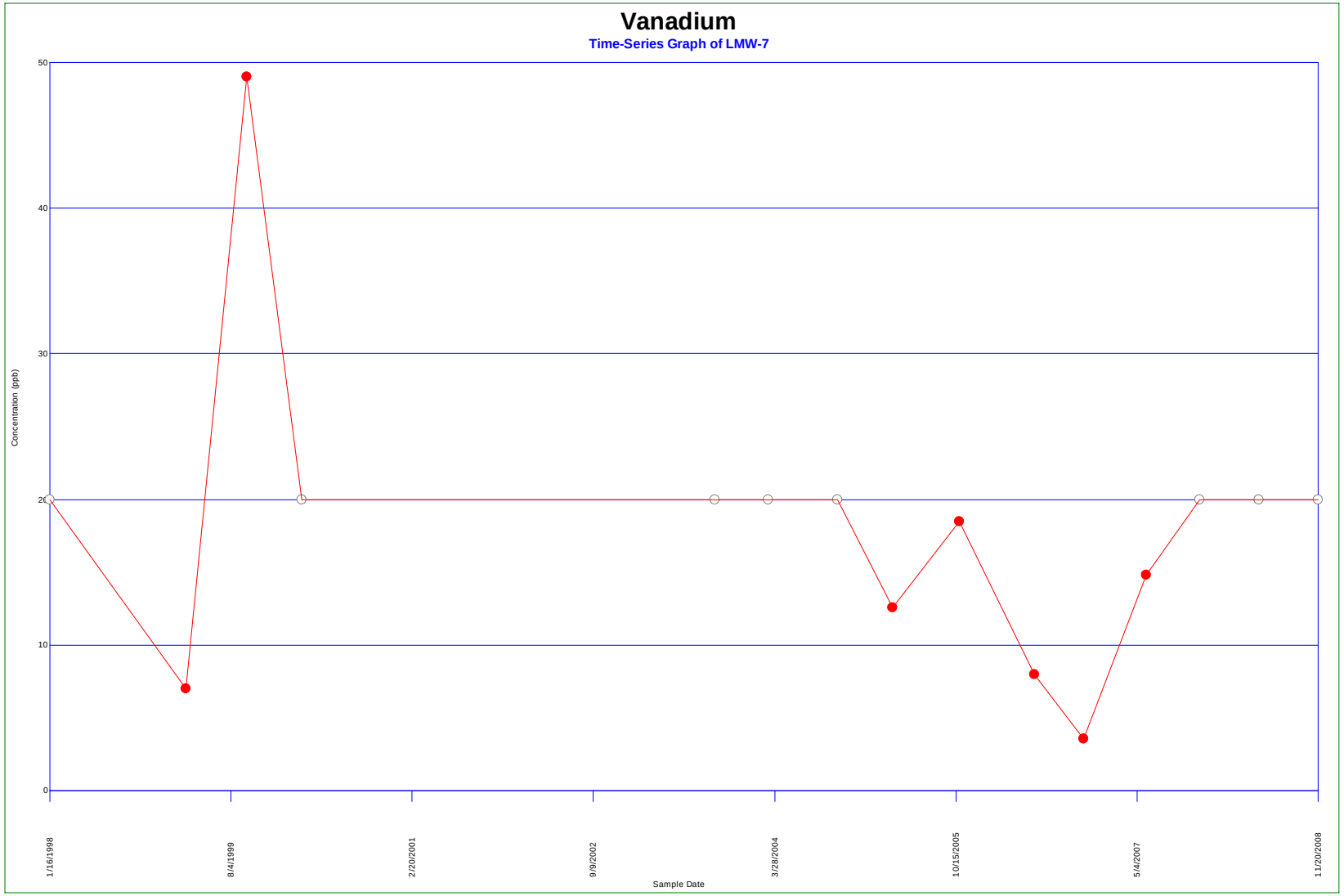

Selenium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-6
Baseline mean = 1.97778; Std Dev = 0.0666667; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
90
80
70
60
50
40
30
20
10
0
86.6
74.2
60.0
26.2
12.9
34.8
14.3
15.2
13.4
2.1
1.1
hCL
baseline mean = 1.97778
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

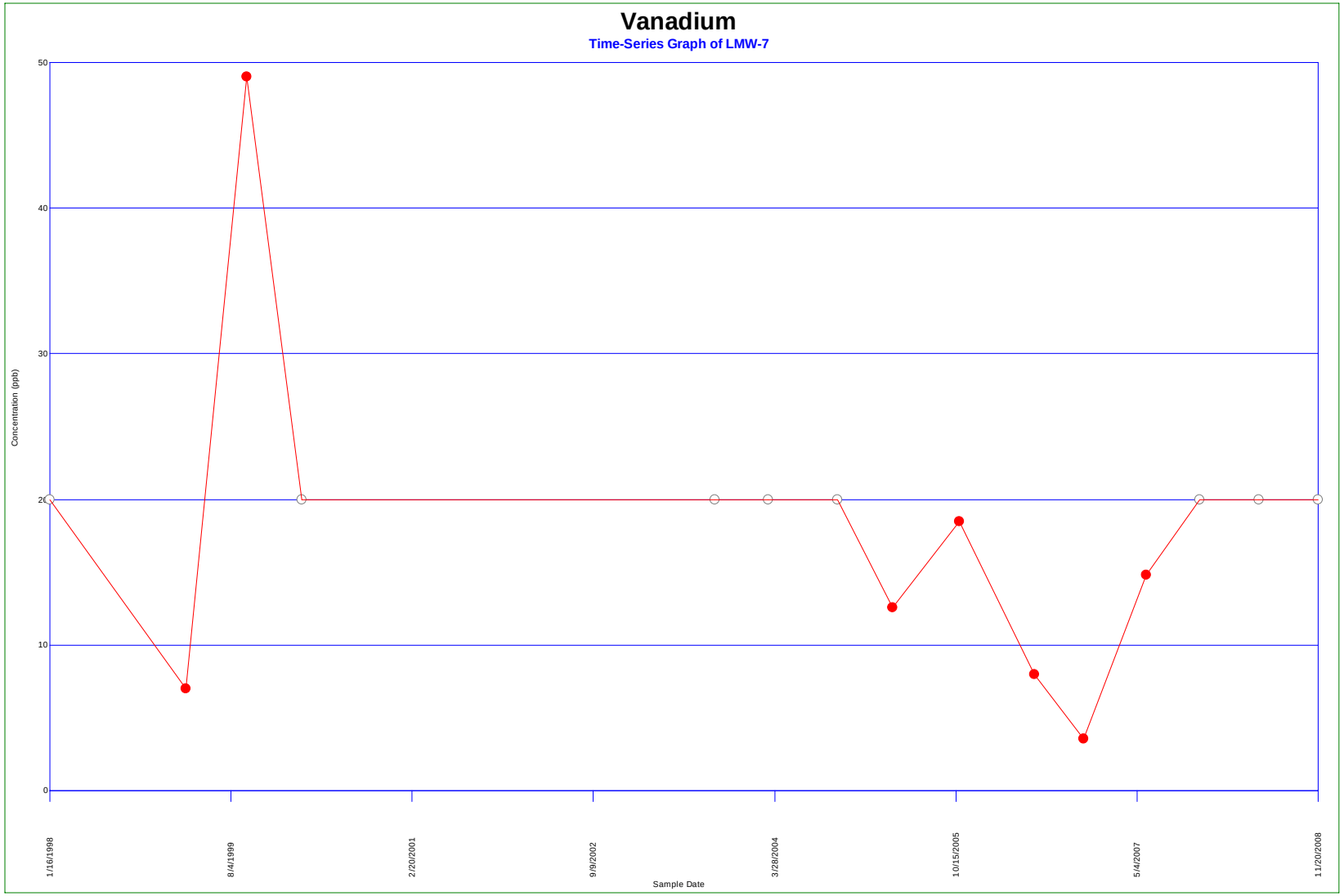

Selenium, total
Time-Series Graph of LMW-6
Concentration (ppb)
5
4
3
2
1
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date

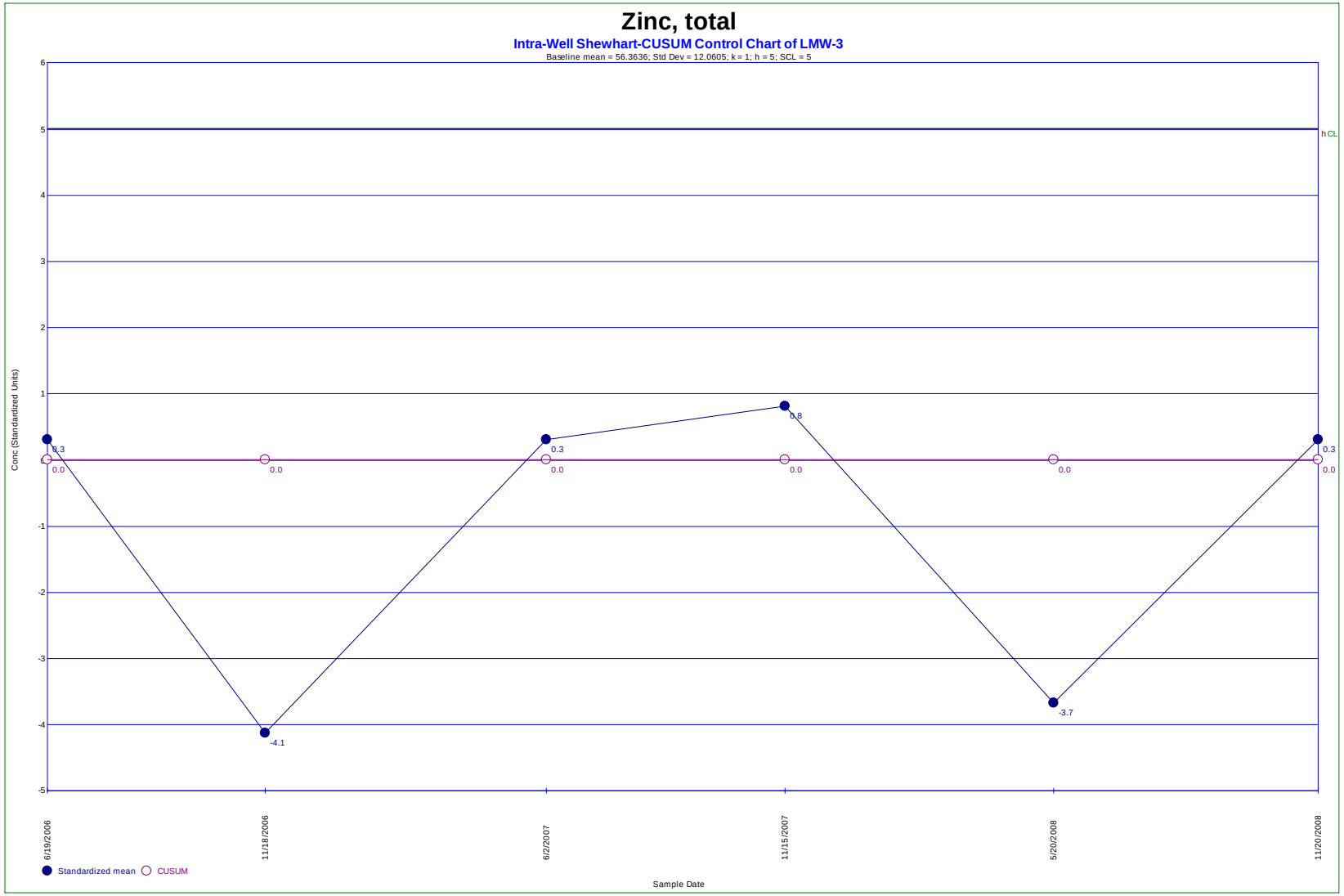

Selenium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-8
Baseline mean = 2.10556; Std Dev = 0.453738; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
-3
h CL
baseline mean = 2.10556
3.6
2.6
1.3
0.1
0.0
0.0
0.0
-0.5
-1.0
-2.3
-0.2
-0.2
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

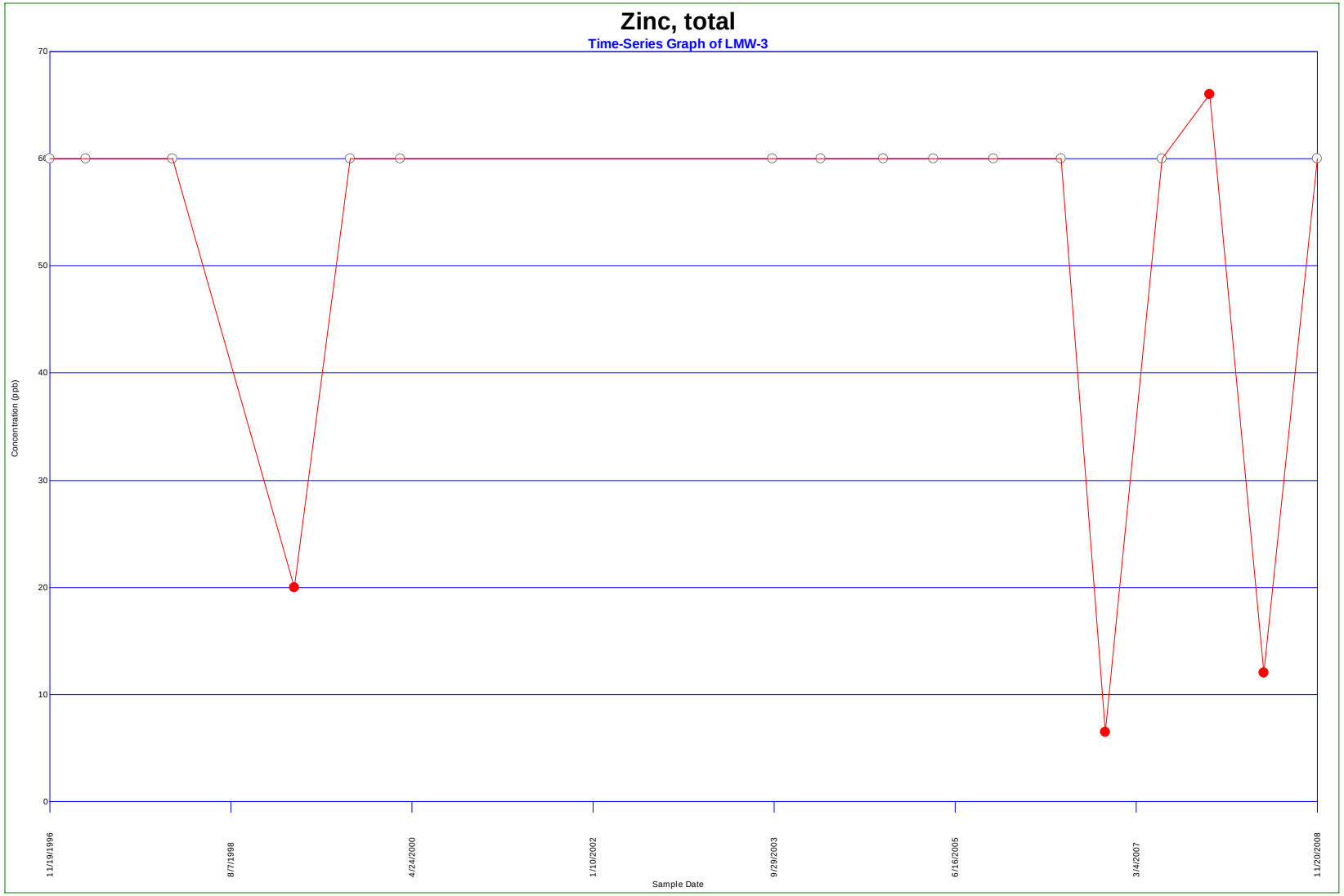

Selenium, total
Time-Series Graph of LMW-8
Concentration (ppb)
4
3.5
3
2.5
2
1.5
1
0.5
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date

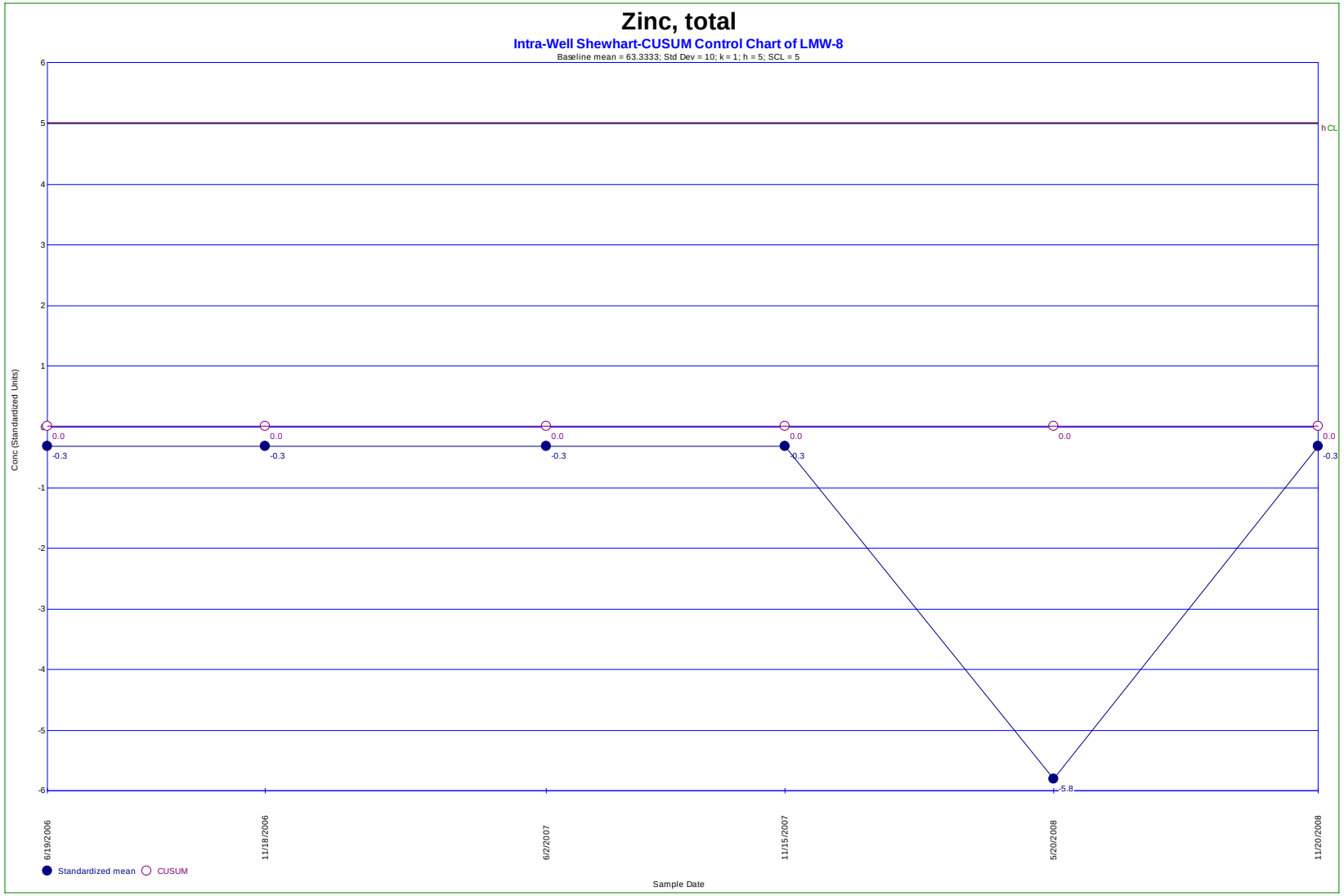

Vanadium
Intra-Well Shewhart-CUSUM Control Chart of LMW-7
Baseline mean = 20.7889; Std Dev = 11.5185; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
h CL
0.0
0.0
0.0
0.0
0.0
0.0
-1.1
-1.5
-0.5
-0.1
-0.1
-0.1
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

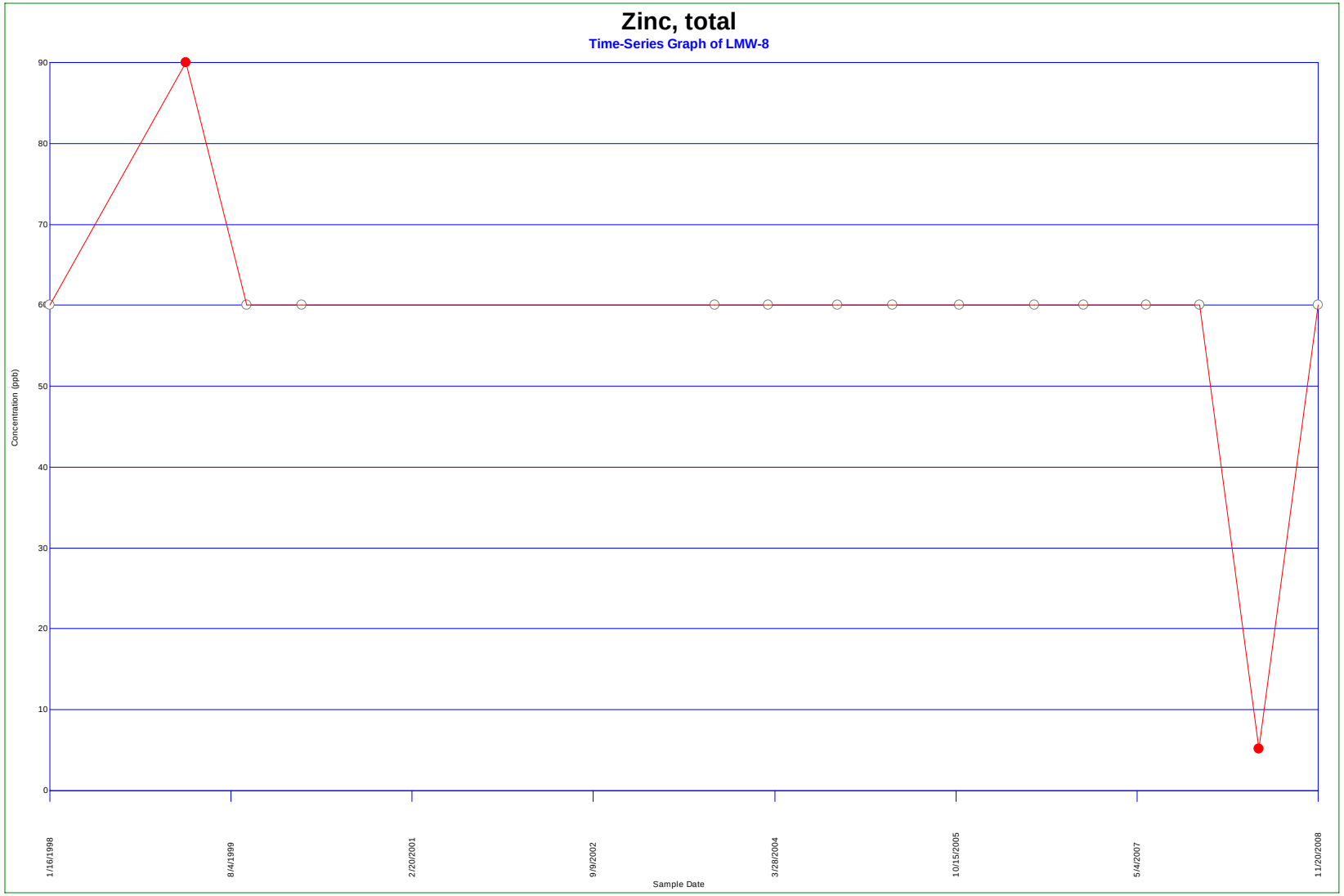

Vanadium
Time-Series Graph of LMW-7
Concentration (ppb)
50
40
30
20
10
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date

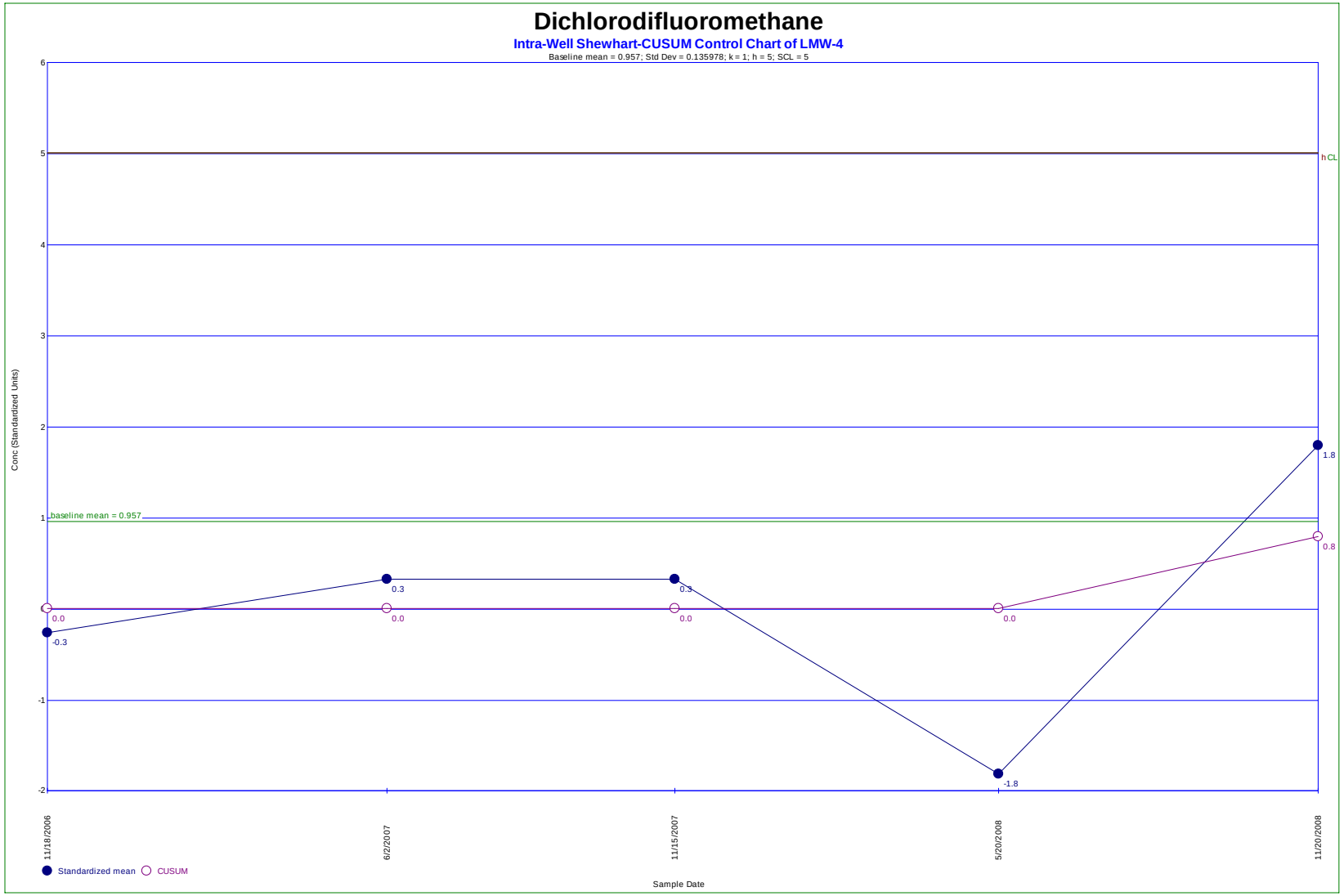

Vanadium
Time-Series Graph of LMW-7
Concentration (ppb)
50
40
30
20
10
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date

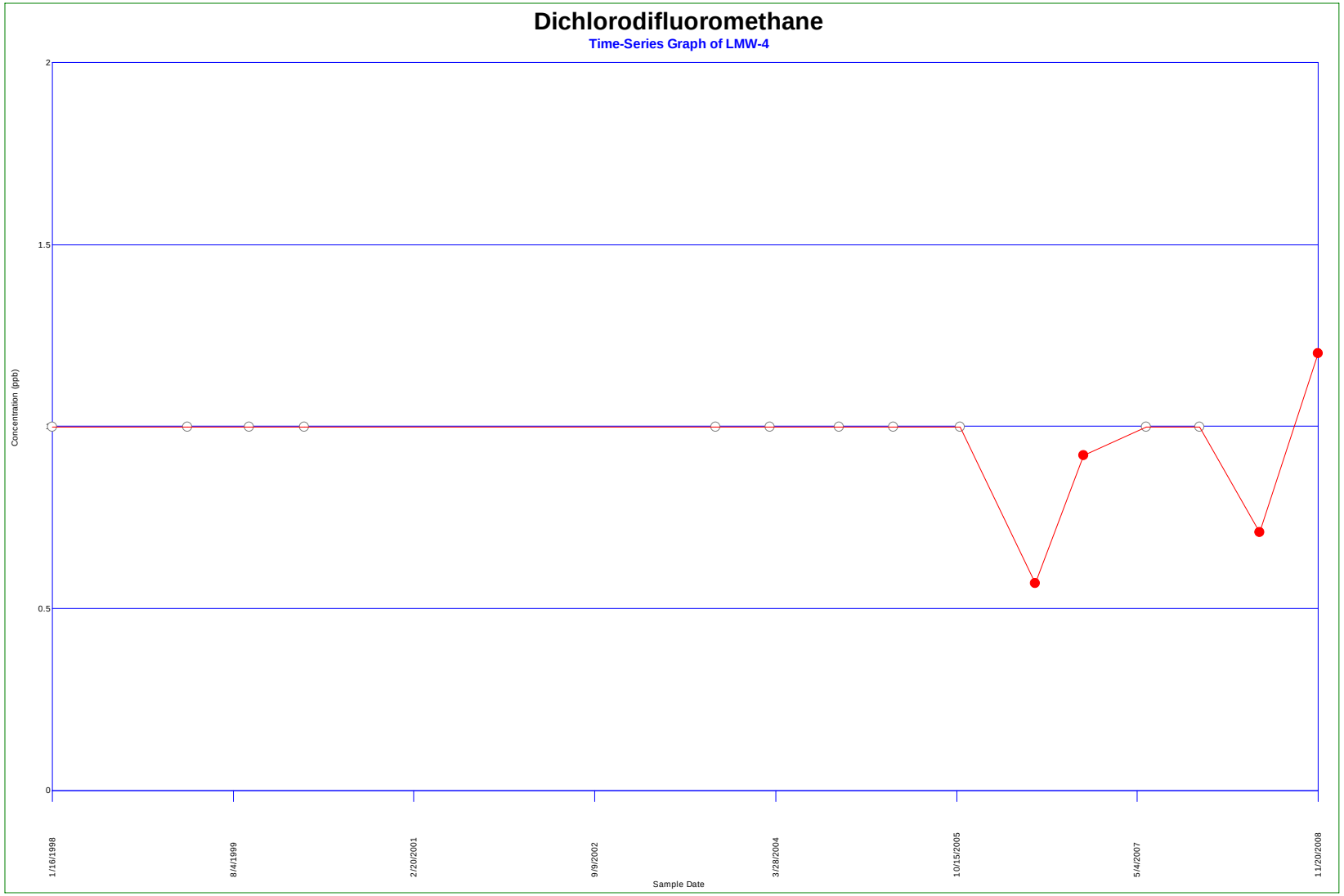

Zinc, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-3
Baseline mean = 56.3636; Std Dev = 12.0605; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
-3
-4
-5
h CL
0.3
0.0
-4.1
0.0
0.3
0.0
0.8
0.0
-3.7
0.0
0.3
0.0
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

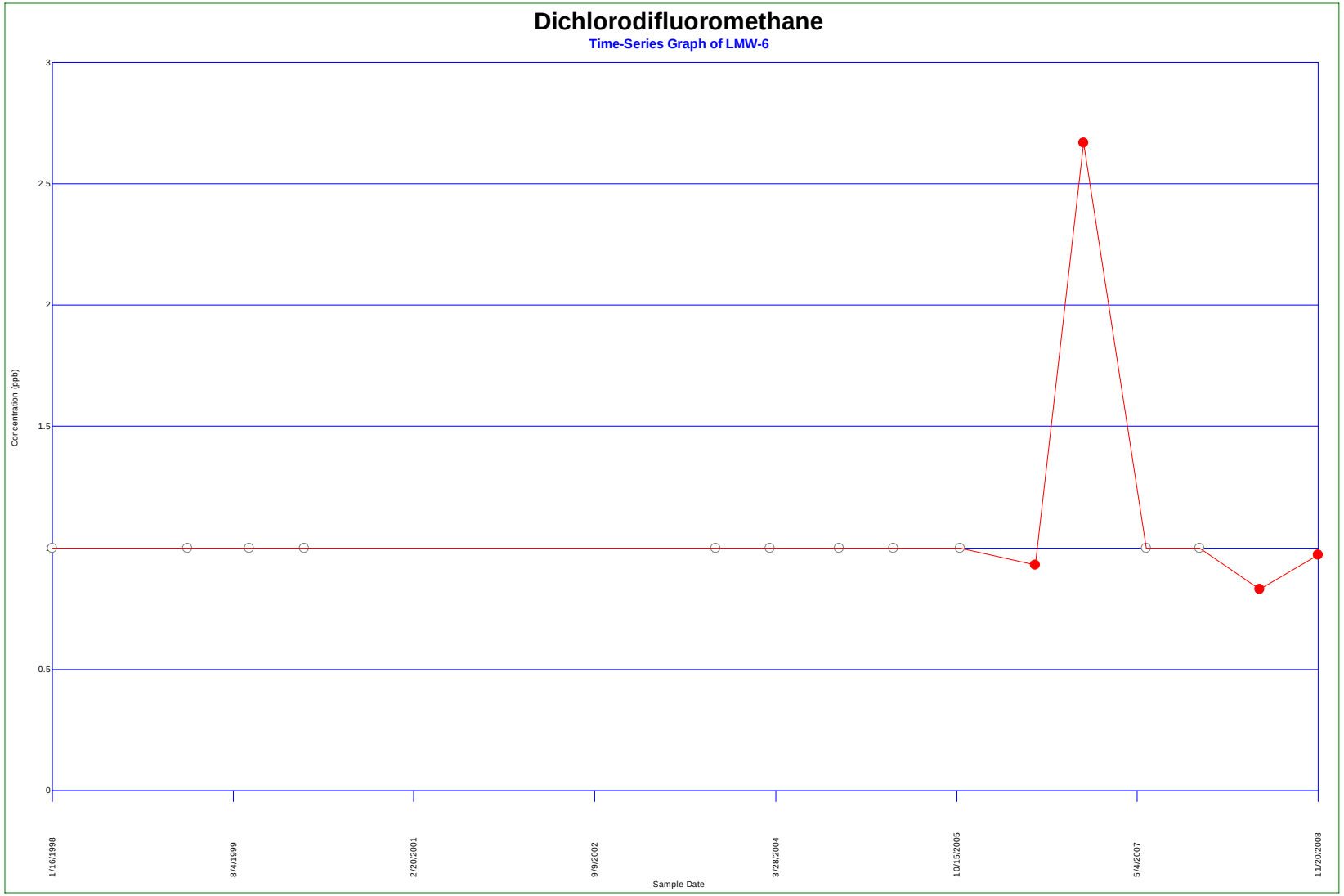

Zinc, total
Time-Series Graph of LMW-3
Concentration (ppb)
70
60
50
40
30
20
10
0
11/19/1996
8/7/1998
4/24/2000
1/10/2002
9/29/2003
6/16/2005
3/4/2007
11/20/2008
Sample Date

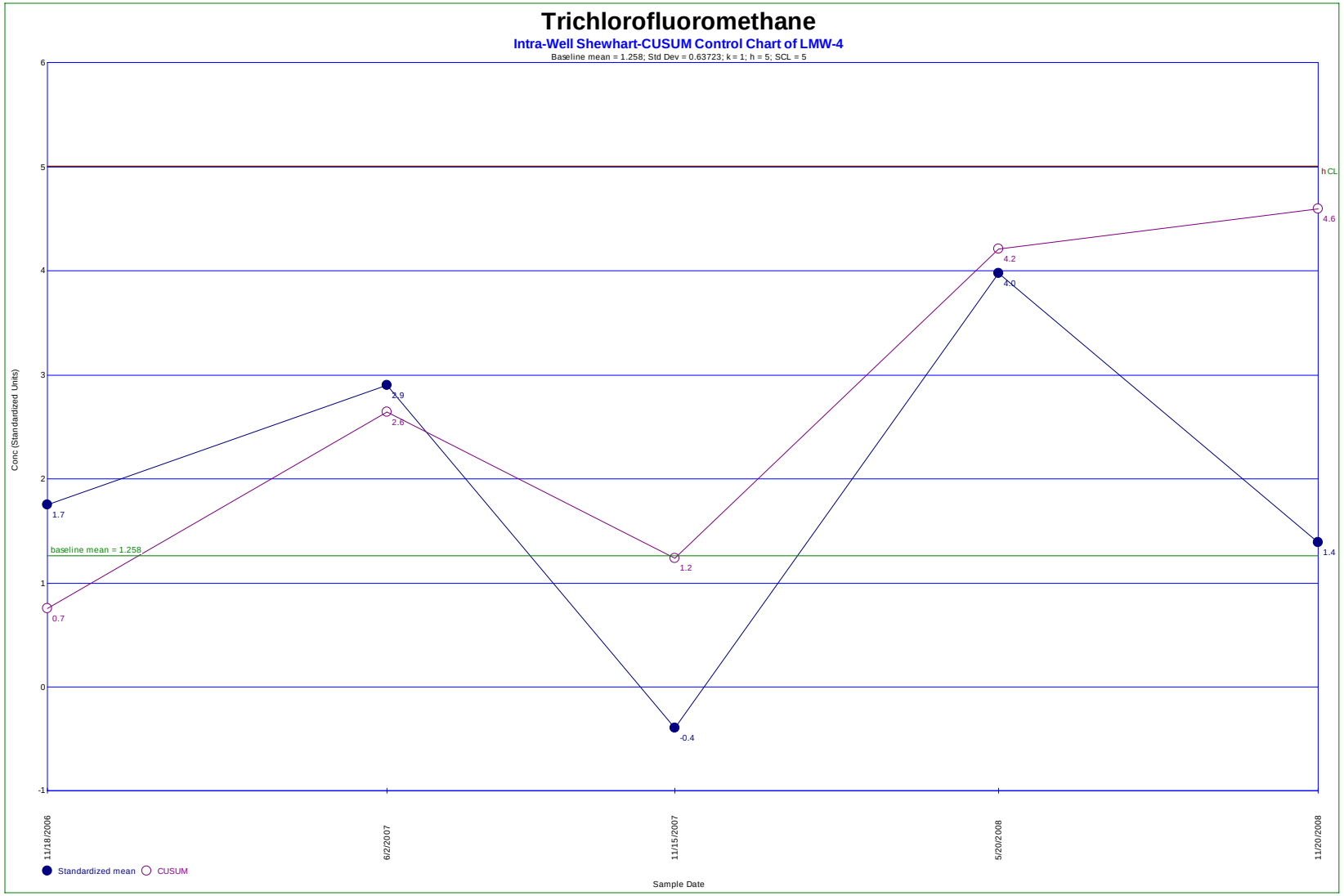

Zinc, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-8
Baseline mean = 63.3333; Std Dev = 10; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
-3
-4
-5
-6
h CL
0.0
-0.3
-5.8
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

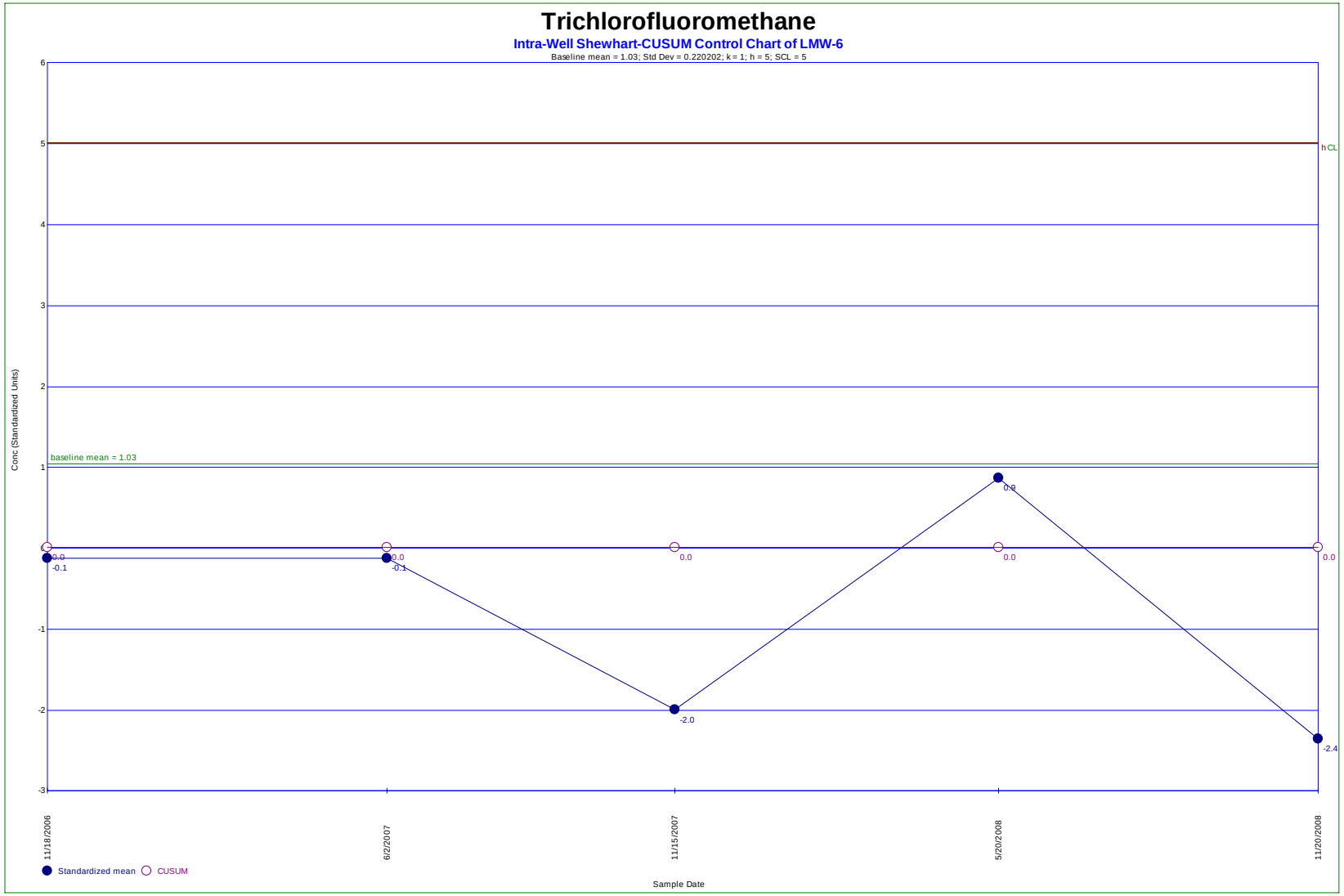

Zinc, total
Time-Series Graph of LMW-8
Concentration (ppb)
90
80
70
60
50
40
30
20
10
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date

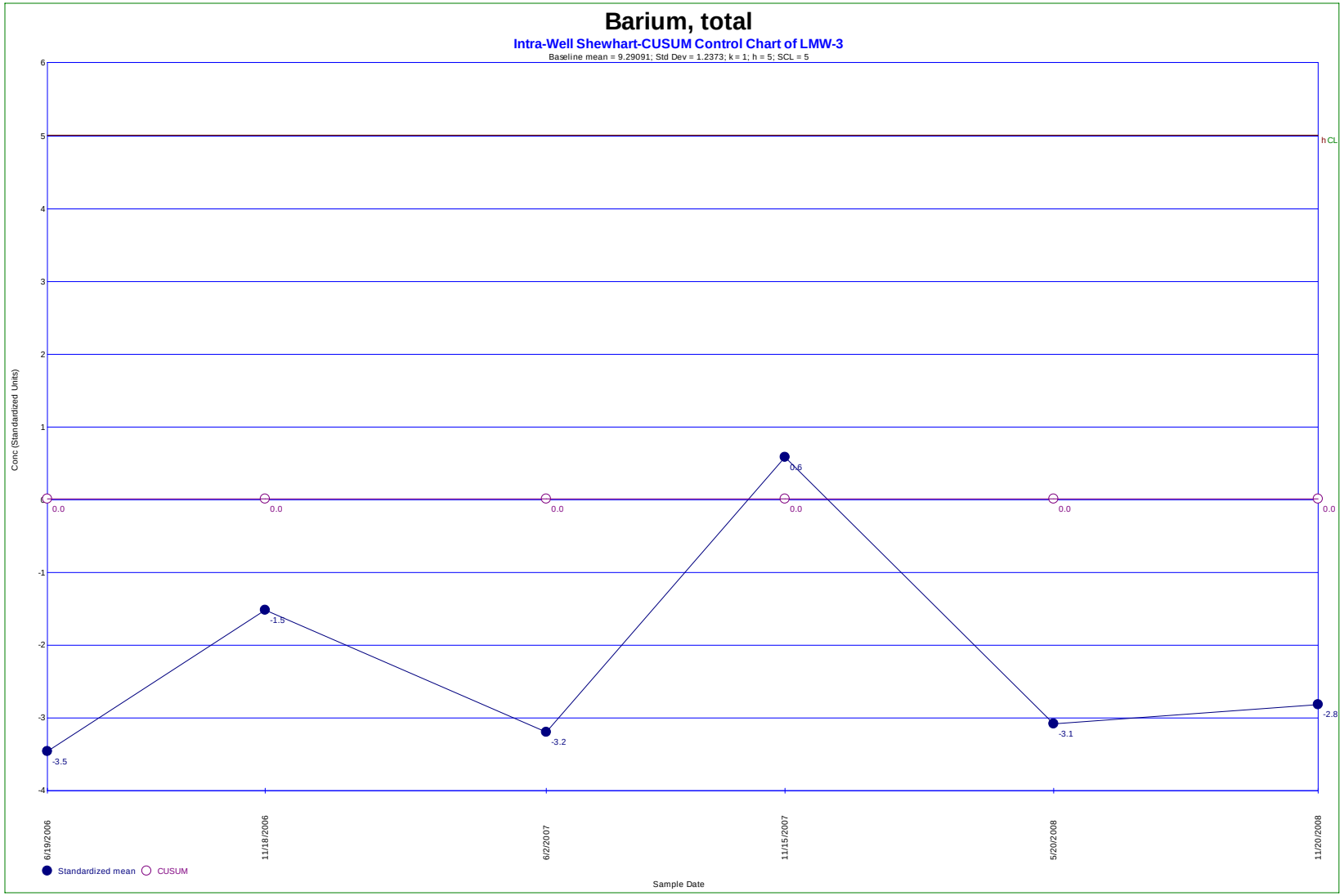

Dichlorodifluoromethane
Intra-Well Shewhart-CUSUM Control Chart of LMW-4
Baseline mean = 0.957; Std Dev = 0.135978; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
h CL
baseline mean = 0.957
0.3
0.3
1.8
0.8
0.0
0.0
0.0
0.0
-0.3
-1.8
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

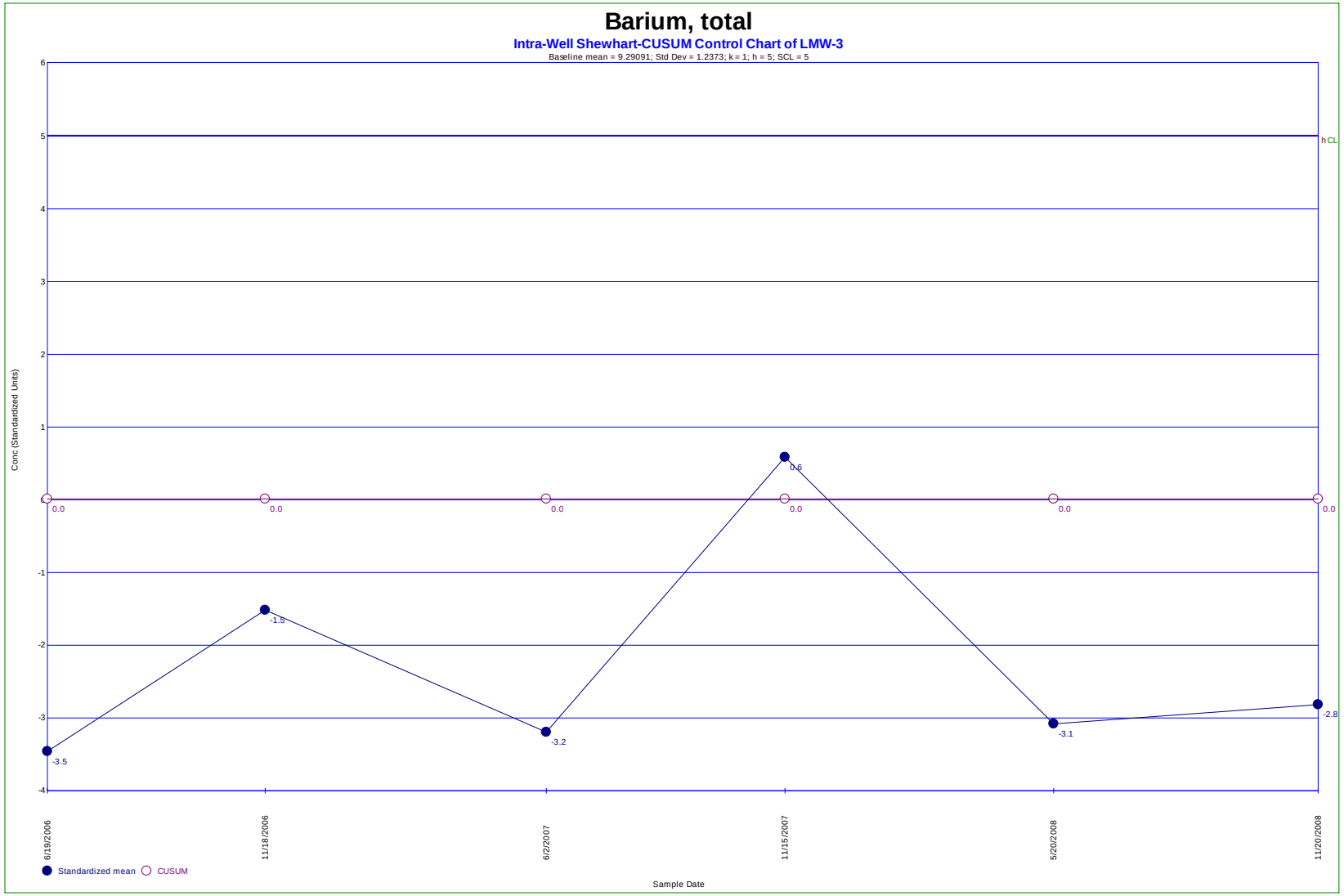

Dichlorodifluoromethane
Time-Series Graph of LMW-4
Concentration (ppb)
2
1.5
1
0.5
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date

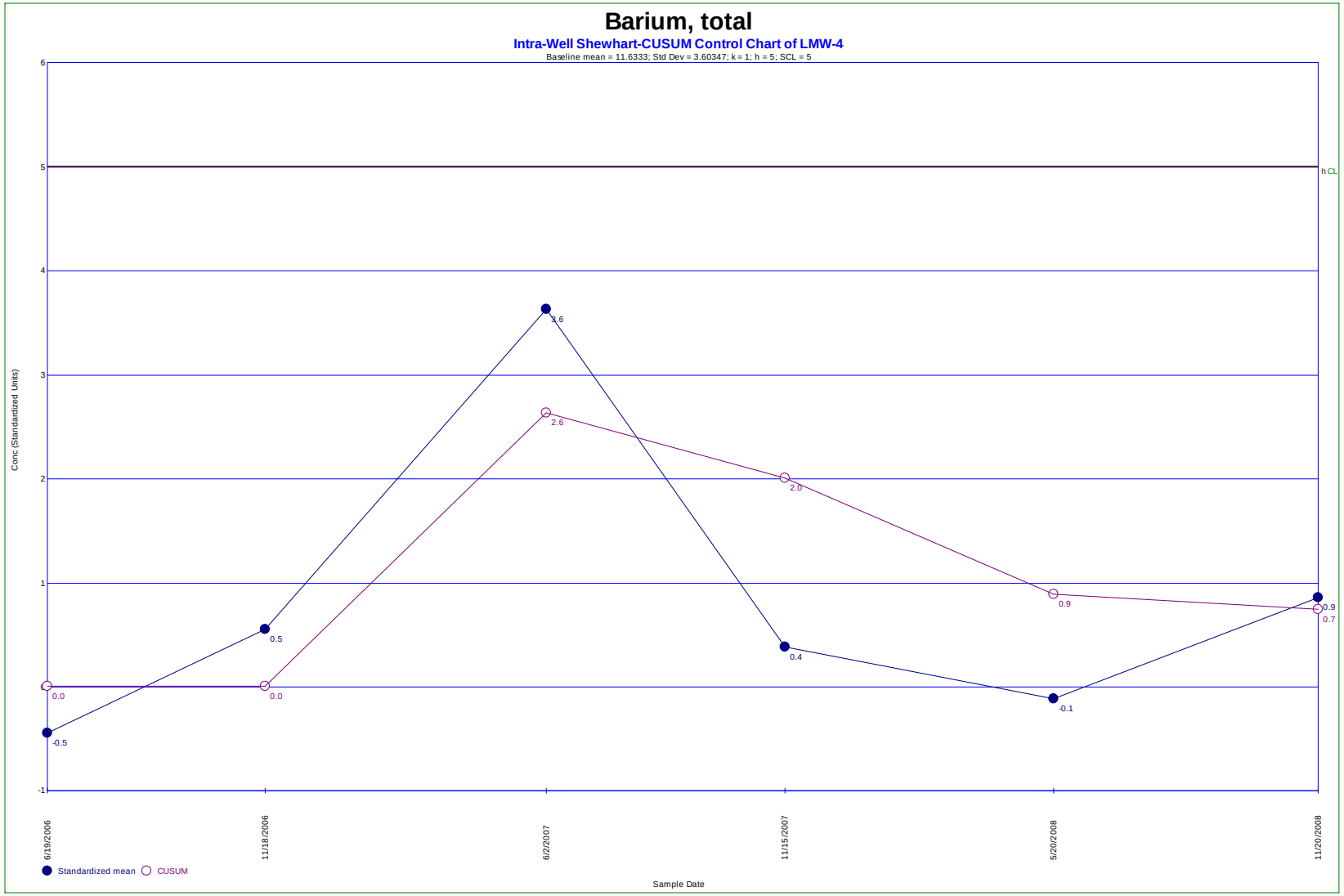

Dichlorodifluoromethane
Time-Series Graph of LMW-6
Concentration (ppb)
3
2.5
2
1.5
1
0.5
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date

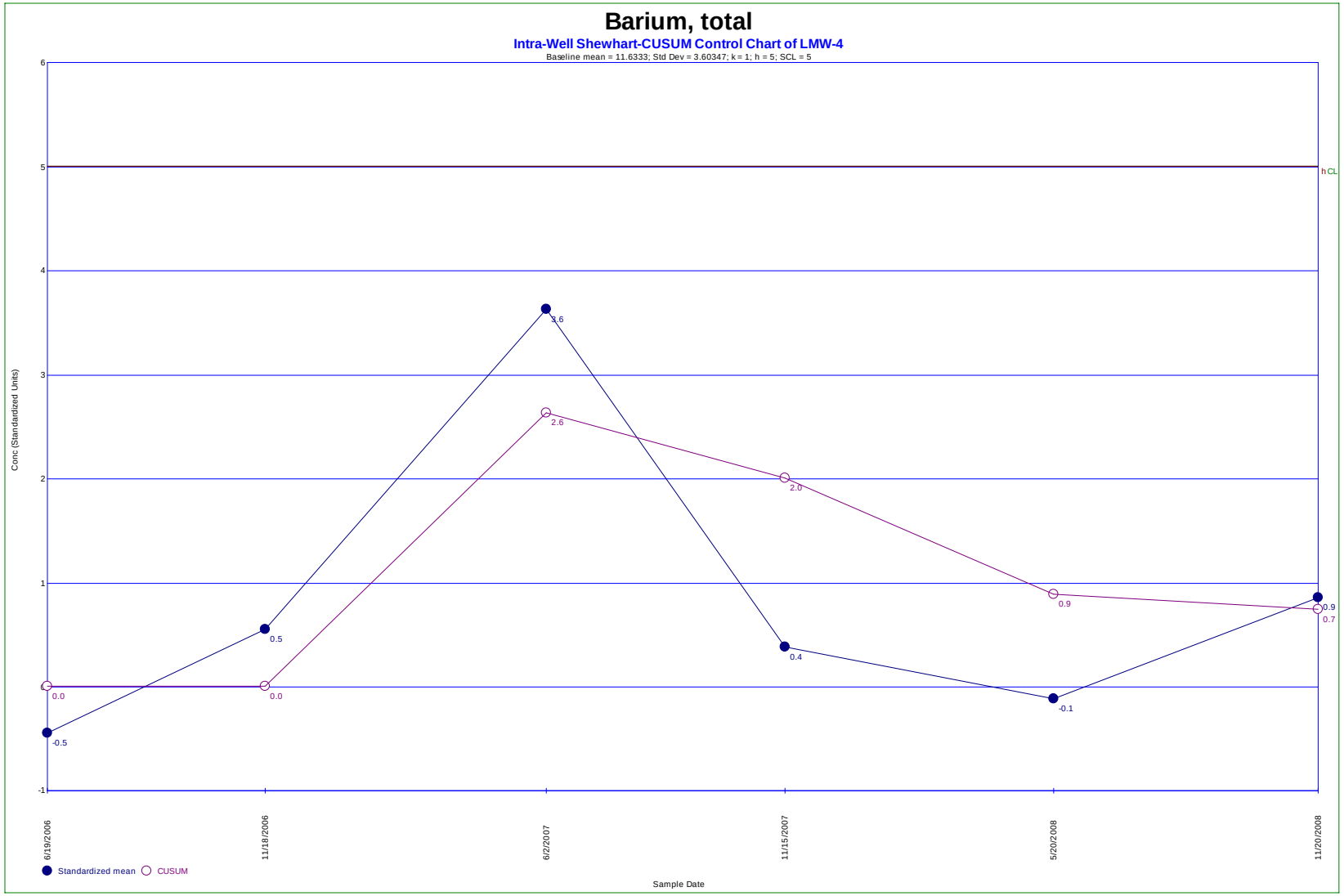

Trichlorofluoromethane
Intra-Well Shewhart-CUSUM Control Chart of LMW-4
Baseline mean = 1.258; Std Dev = 0.63723; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
h CL
baseline mean = 1.258
1.7
2.9
-0.4
4.0
1.4
0.7
2.6
1.2
4.2
4.6
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

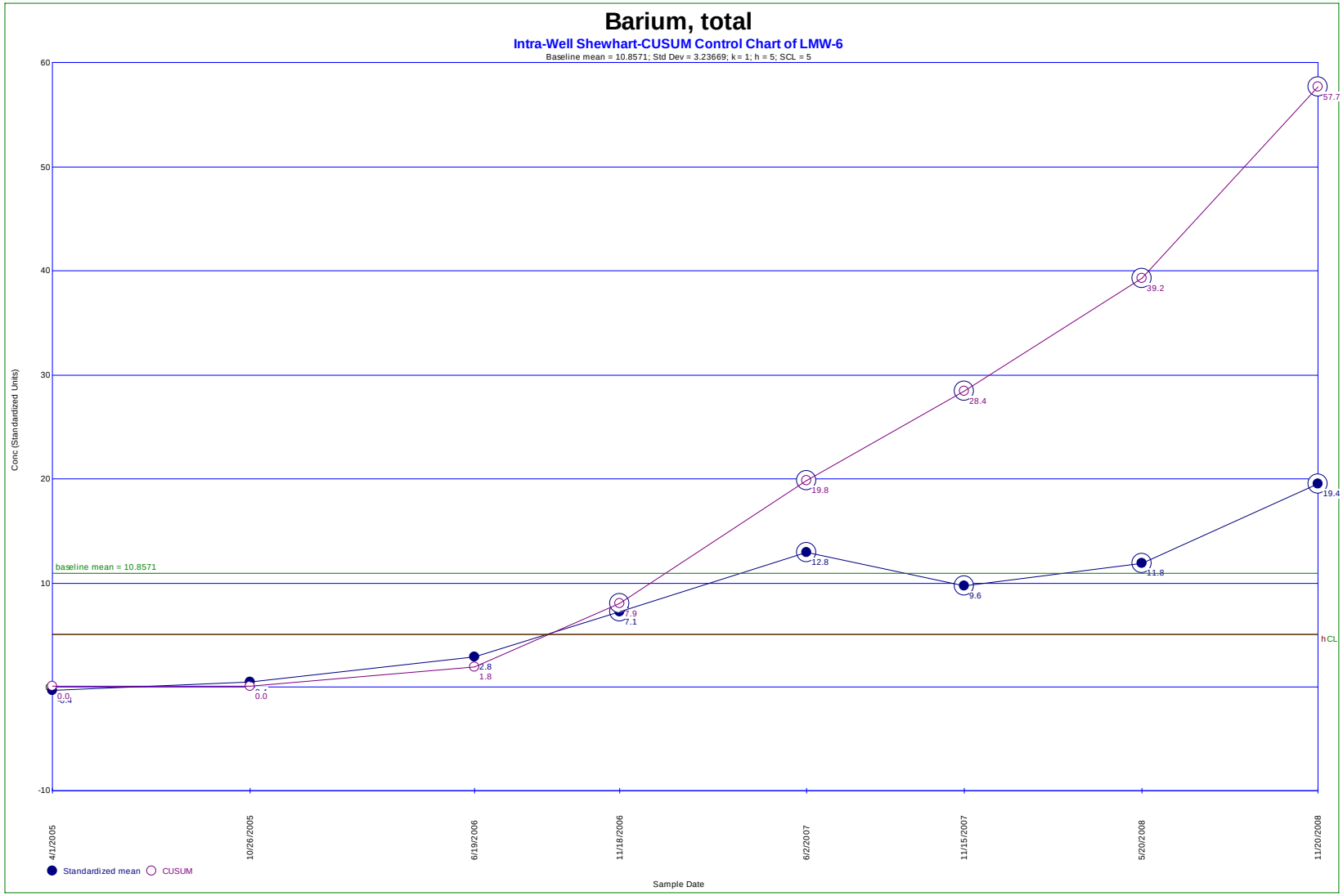

Trichlorofluoromethane
Intra-Well Shewhart-CUSUM Control Chart of LMW-6
Baseline mean = 1.03; Std Dev = 0.220202; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
-3
h CL
baseline mean = 1.03
0.0
-0.1
0.0
-0.1
0.0
-2.0
0.0
0.0
0.0
-2.4
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

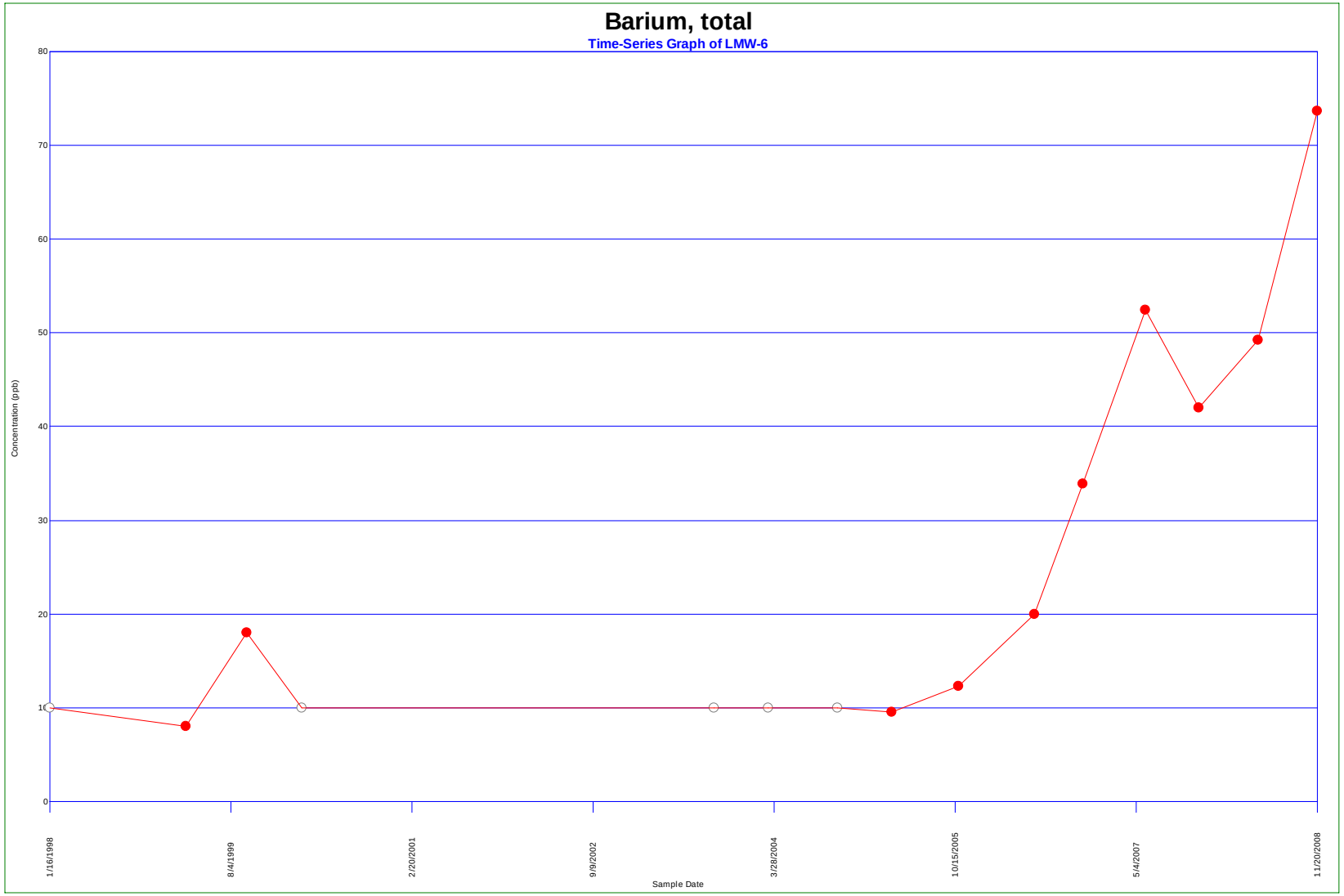

Barium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-3
Baseline mean = 9.29091; Std Dev = 1.2373; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
-3
-4
h CL
0.0
0.0
0.0
0.0
0.0
0.0
0.6
-1.5
-3.5
-3.2
-3.1
-2.8
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

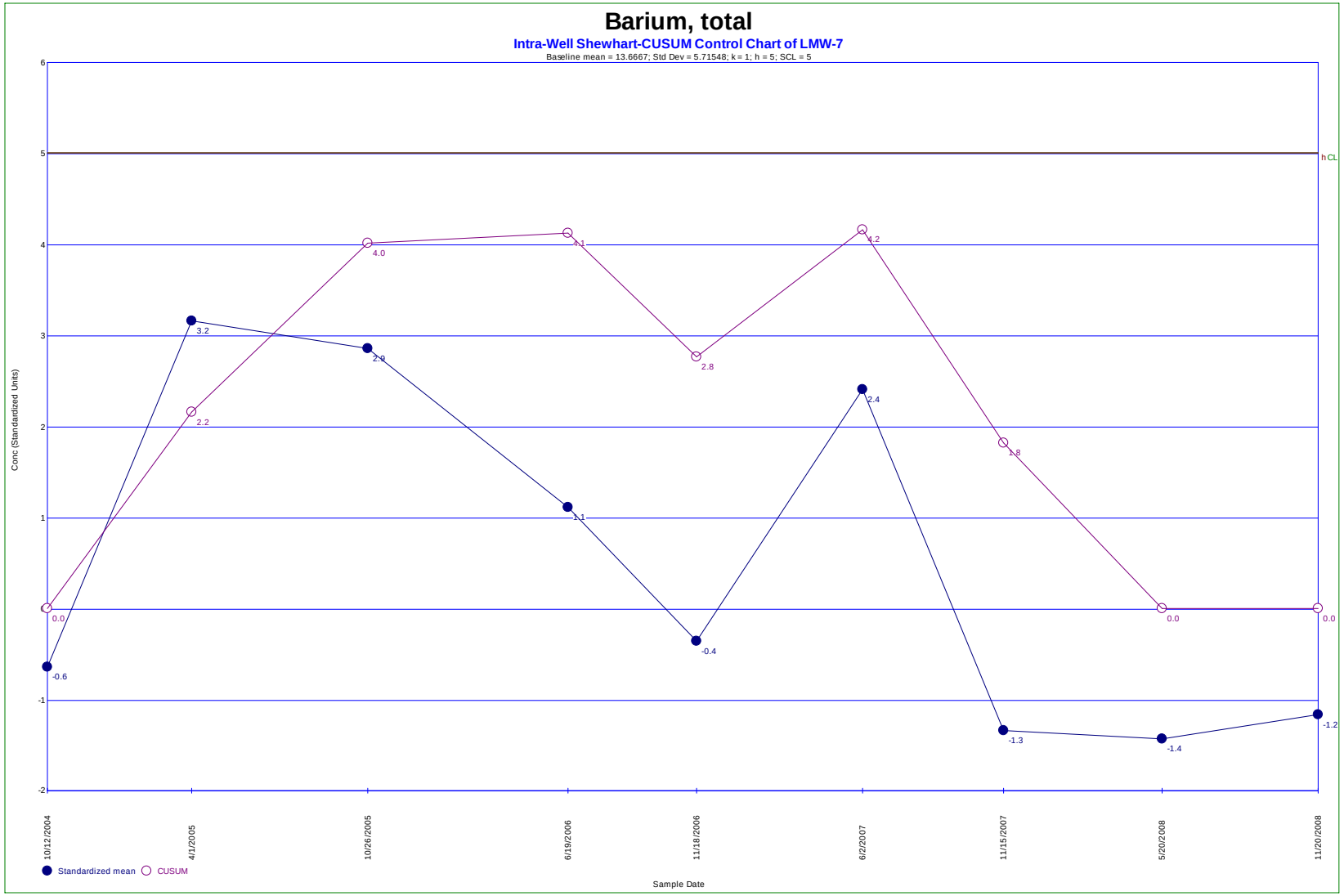

Barium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-3
Baseline mean = 9.29091; Std Dev = 1.2373; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
-3
-4
h CL
0.0
0.0
0.0
0.0
0.0
0.0
0.6
-1.5
-3.5
-3.2
-3.1
-2.8
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

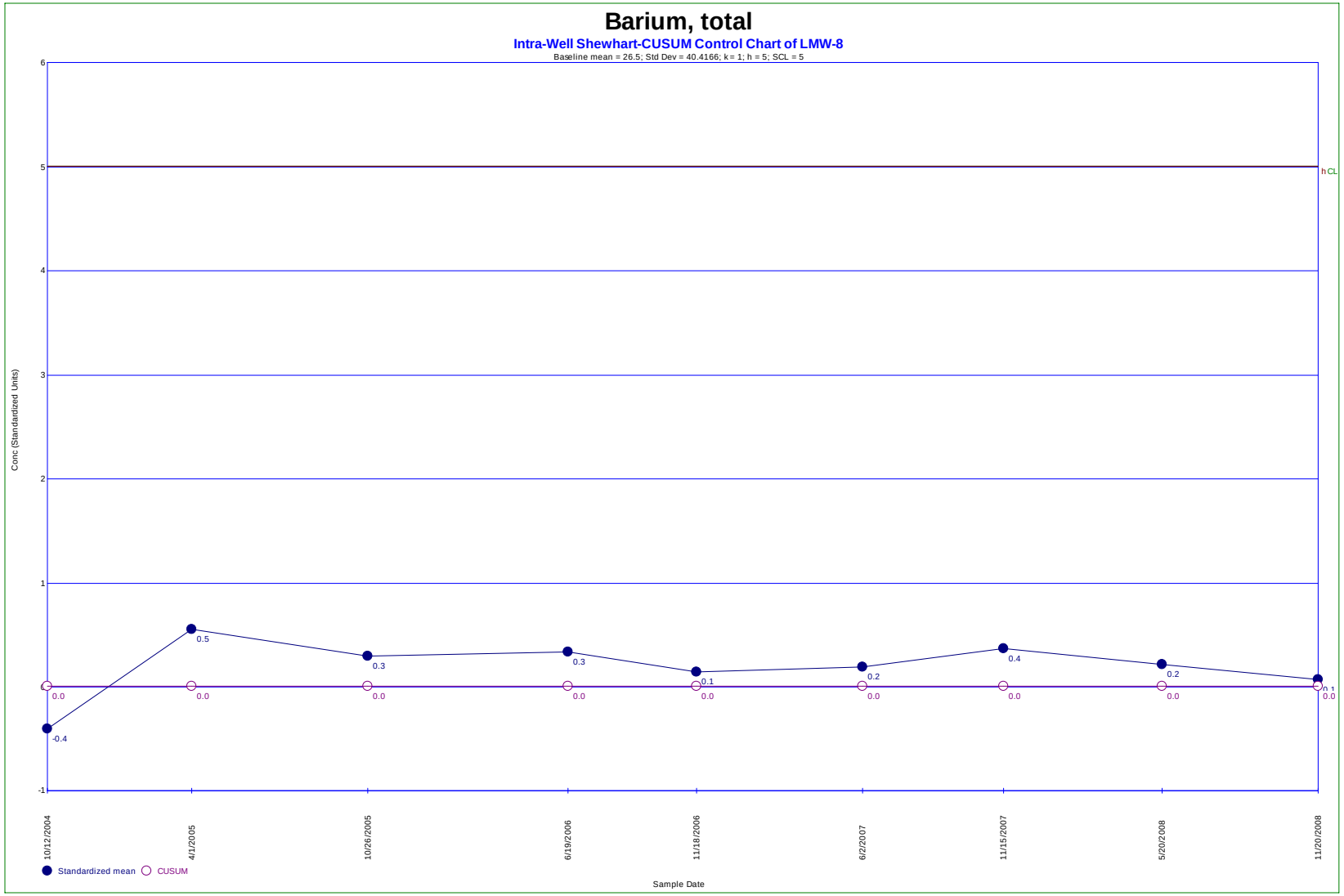

Barium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-4
Baseline mean = 11.6333; Std Dev = 3.60347; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
h CL
3.6
2.6
2.0
0.9
0.9
0.7
0.5
0.4
0.0
0.0
-0.1
-0.5
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

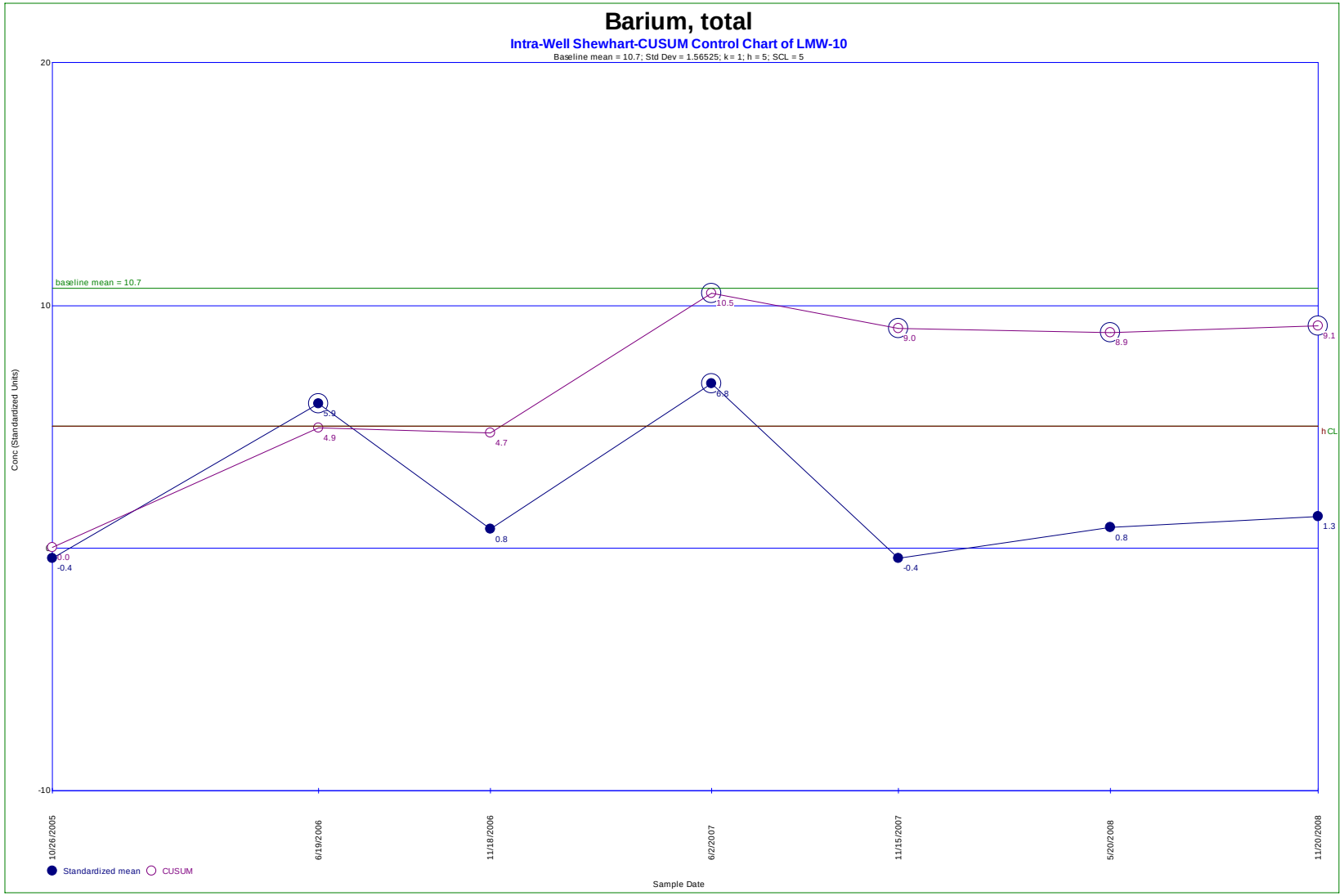

Barium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-4
Baseline mean = 11.6333; Std Dev = 3.60347; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
-1
h CL
3.6
2.6
2.0
0.9
0.9
0.7
0.5
0.4
0.0
0.0
-0.1
-0.5
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

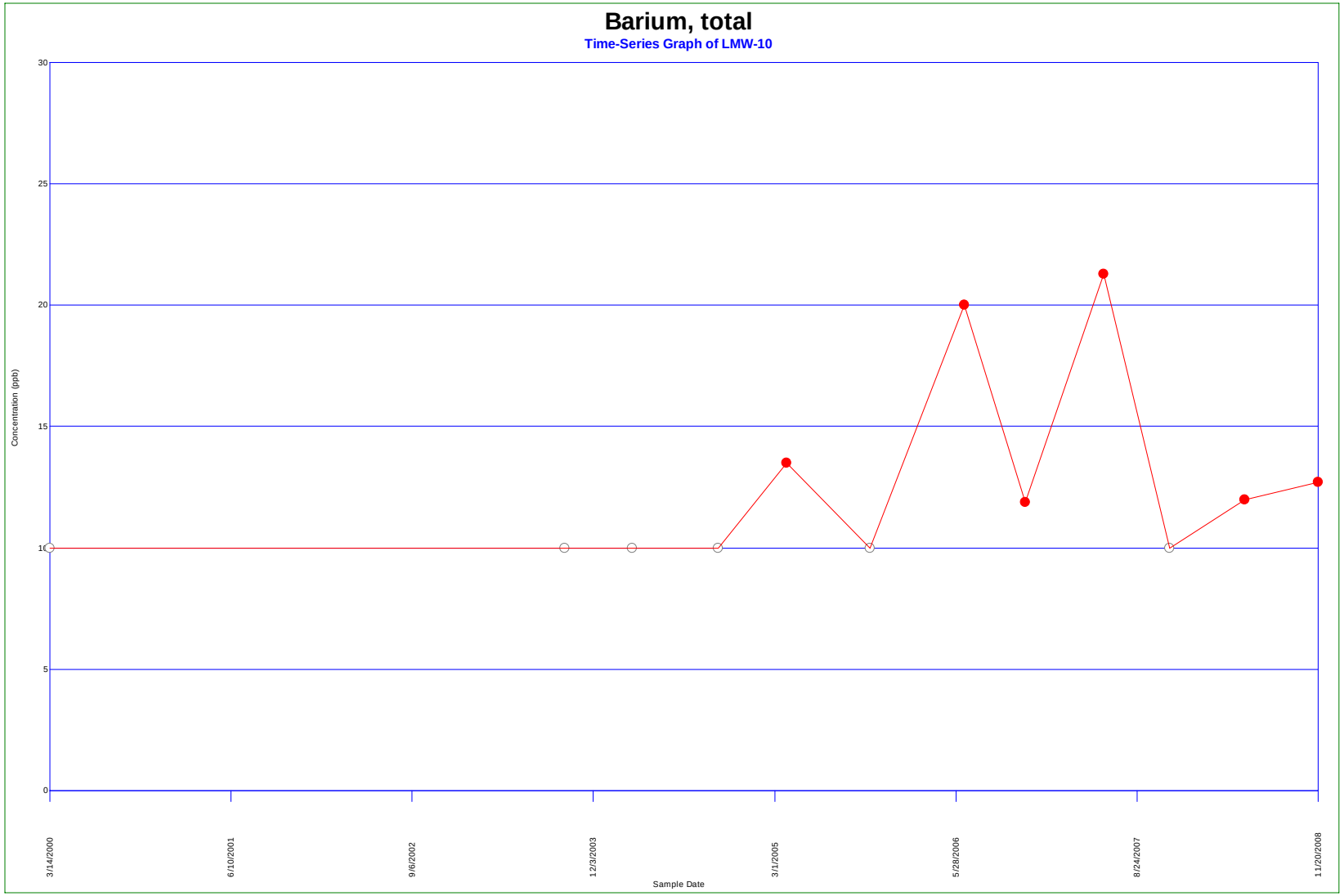

Barium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-6
Baseline mean = 10.8571; Std Dev = 3.23669; k= 1; h = 5; SCL = 5
Conc (Standardized Units)
60
50
40
30
20
10
-10
baseline mean = 10.8571
hCL
57.7
39.2
28.4
19.8
19.4
12.8
11.8
9.6
7.9
7.1
2.8
1.8
0.0
0.0
4/1/2005
10/26/2005
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

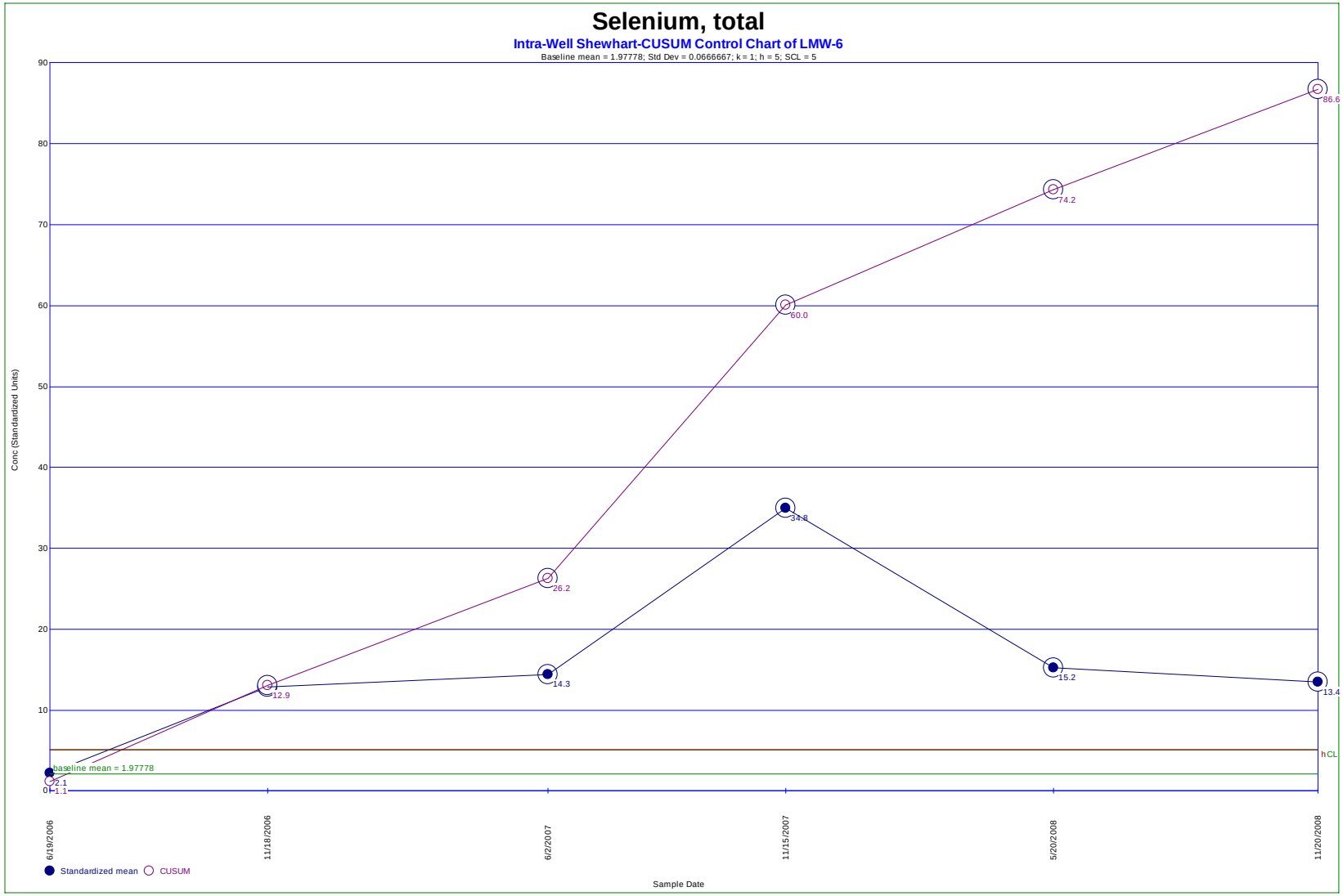

Barium, total
Time-Series Graph of LMW-6
Concentration (ppb)
80
70
60
50
40
30
20
10
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date

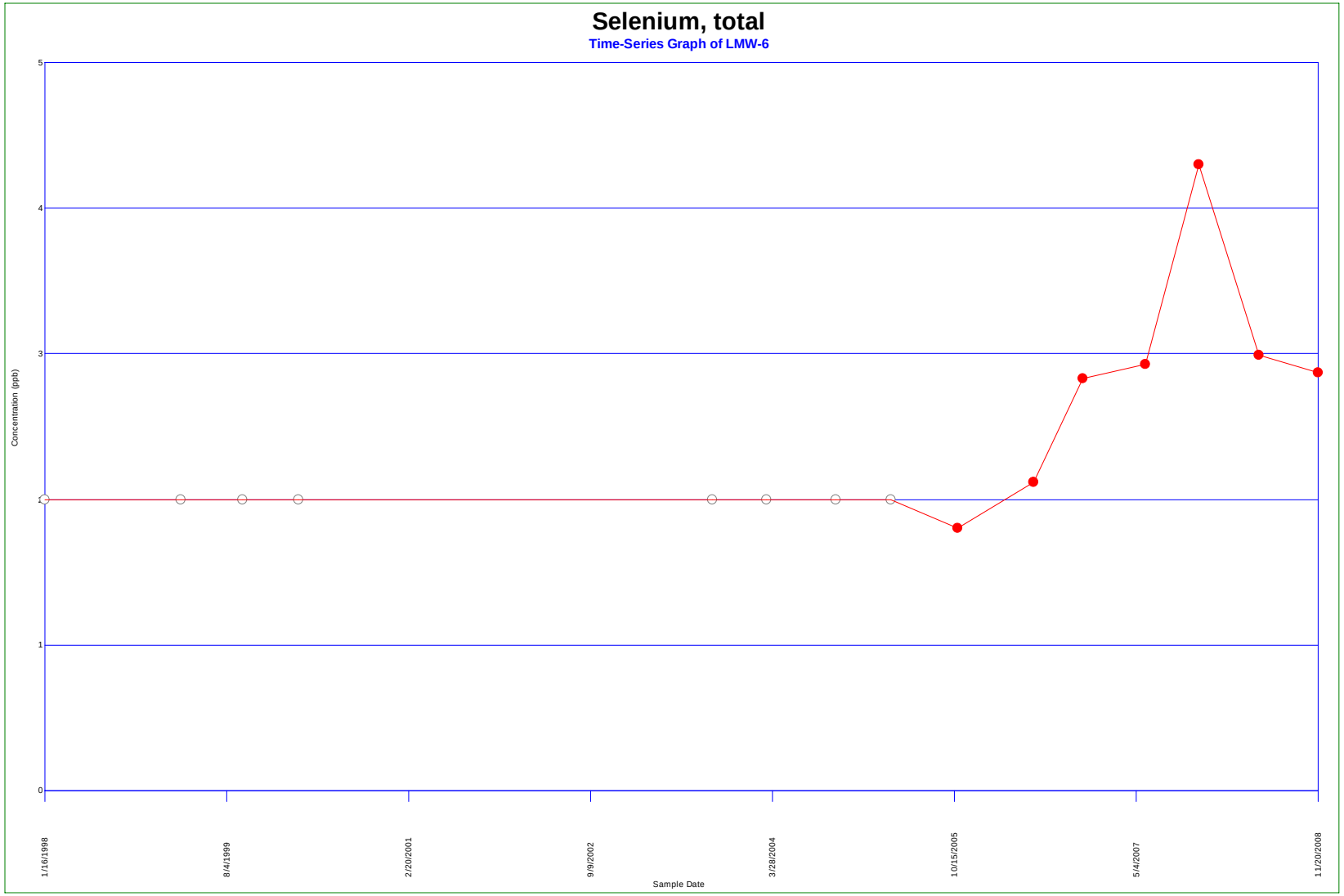

Barium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-7
Baseline mean = 13.6667; Std Dev = 5.71548; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
h CL
3.2
2.9
1.1
-0.4
2.4
-1.3
-1.4
-1.2
-0.6
0.0
2.2
4.0
4.1
2.8
4.2
1.8
0.0
0.0
10/12/2004
4/1/2005
10/26/2005
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

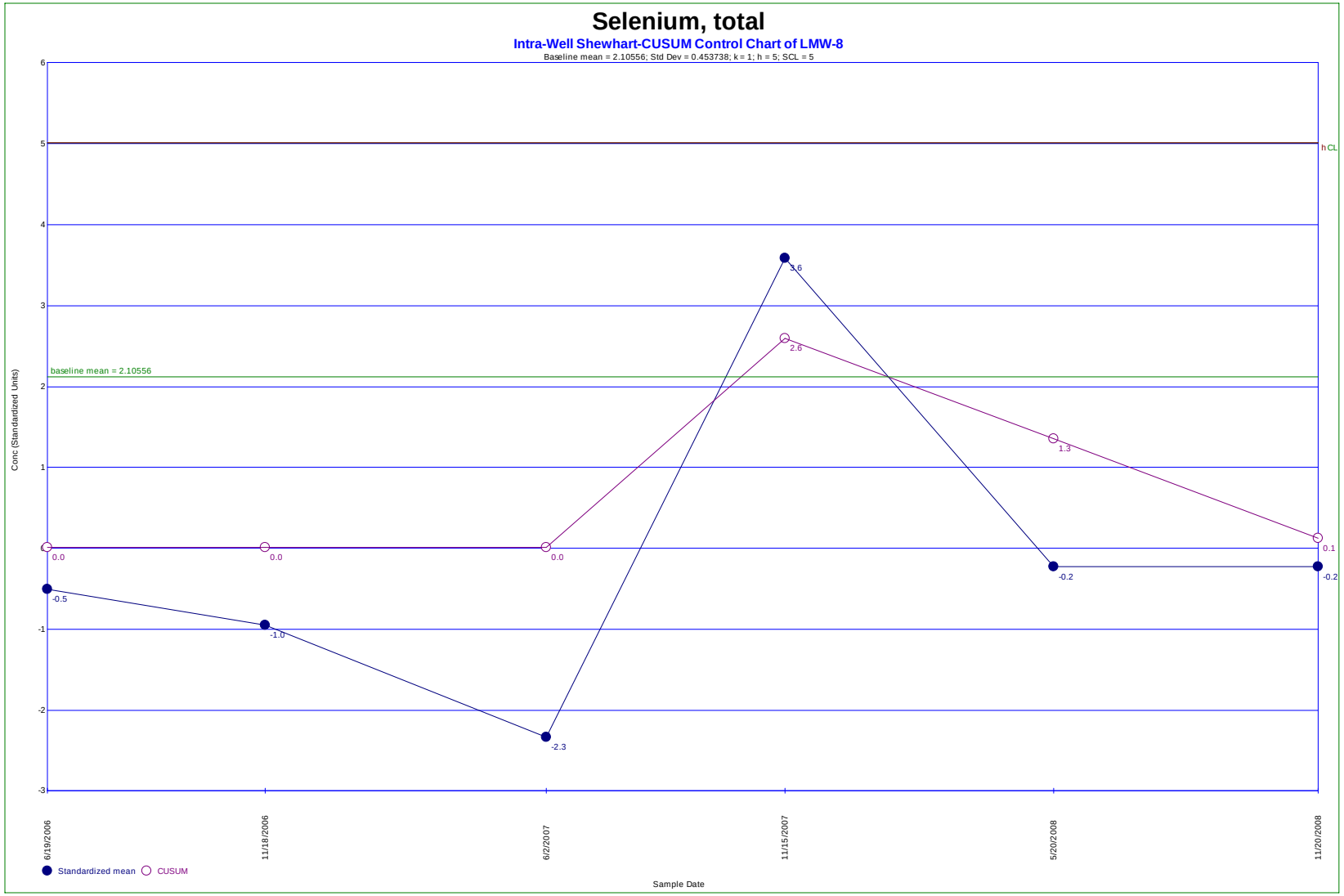

Barium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-8
Baseline mean = 26.5; Std Dev = 40.4166; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
h CL
-0.4
0.5
0.3
0.3
0.1
0.2
0.4
0.2
0.1
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
10/12/2004
4/1/2005
10/26/2005
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

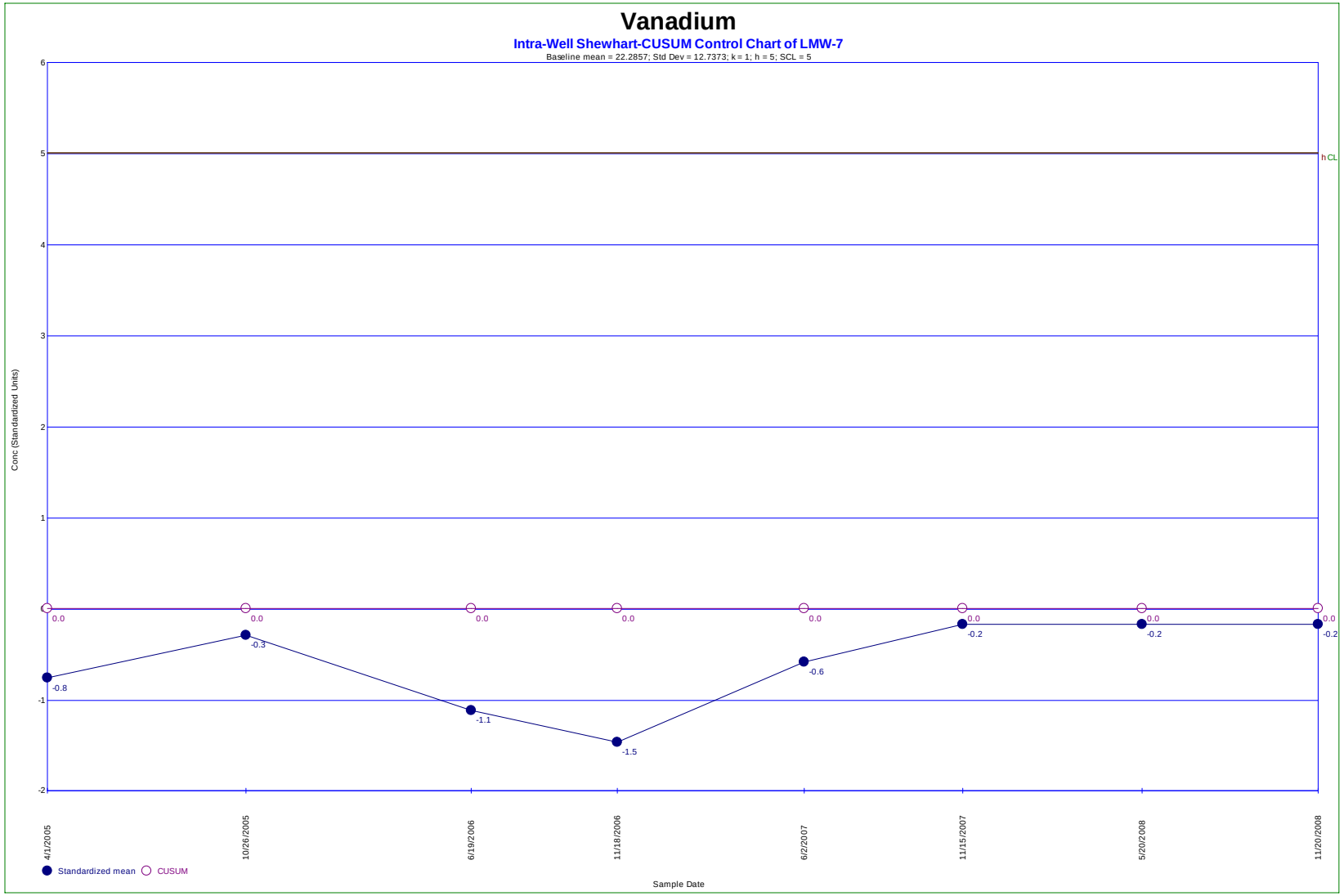

Barium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-10
Baseline mean = 10.7; Std Dev = 1.56525; k = 1; h = 5; SCL = 5
baseline mean = 10.7
h CL
Conc (Standardized Units)
20
10
-10
10.5
9.0
8.9
9.1
5.9
4.9
4.7
6.8
0.8
1.0
-0.4
-0.4
0.8
1.3
10/26/2005
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

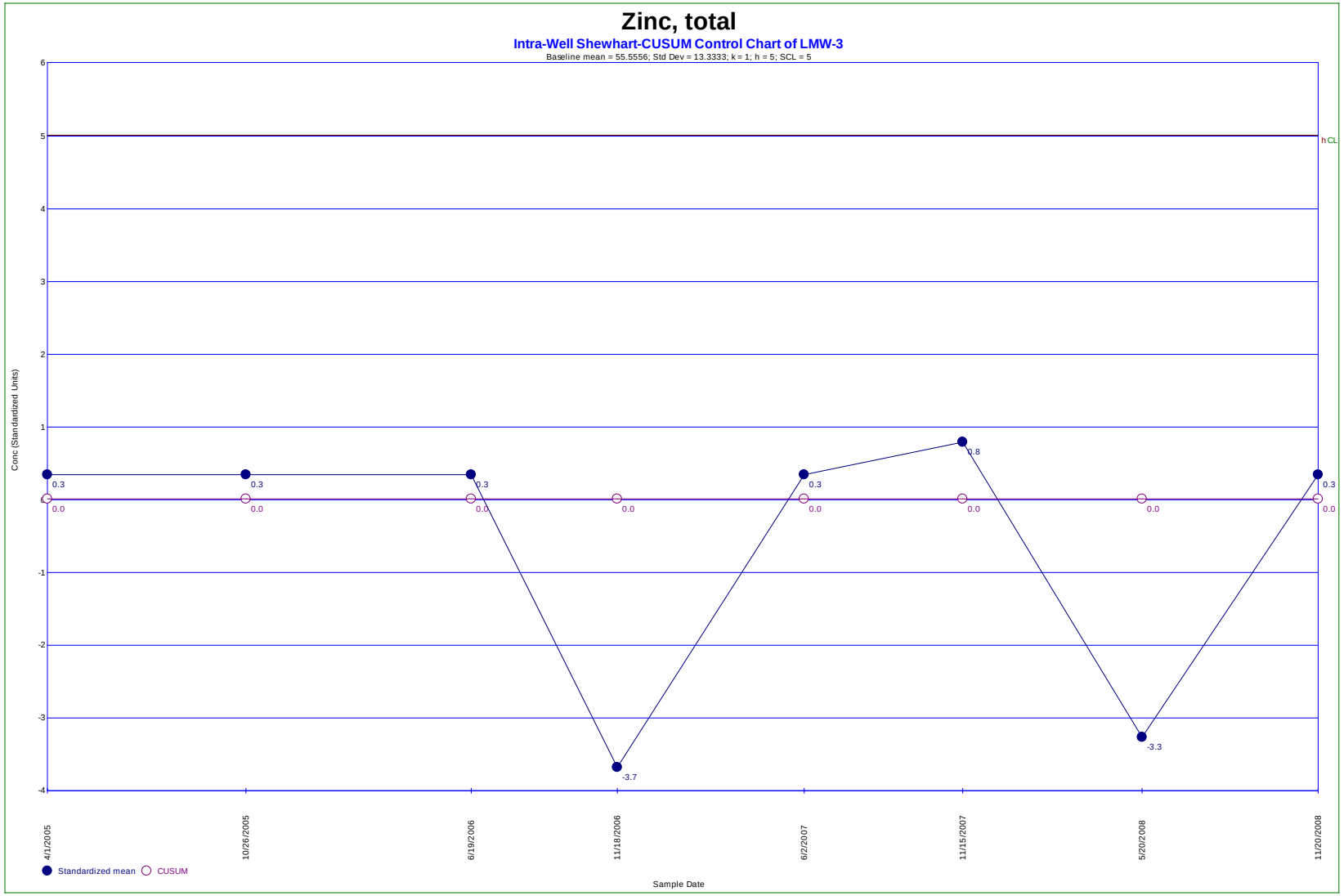

Barium, total
Time-Series Graph of LMW-10
Concentration (ppb)
30
25
20
15
10
5
0
3/14/2000
6/10/2001
9/6/2002
12/3/2003
3/1/2005
5/28/2006
8/24/2007
11/20/2008
Sample Date

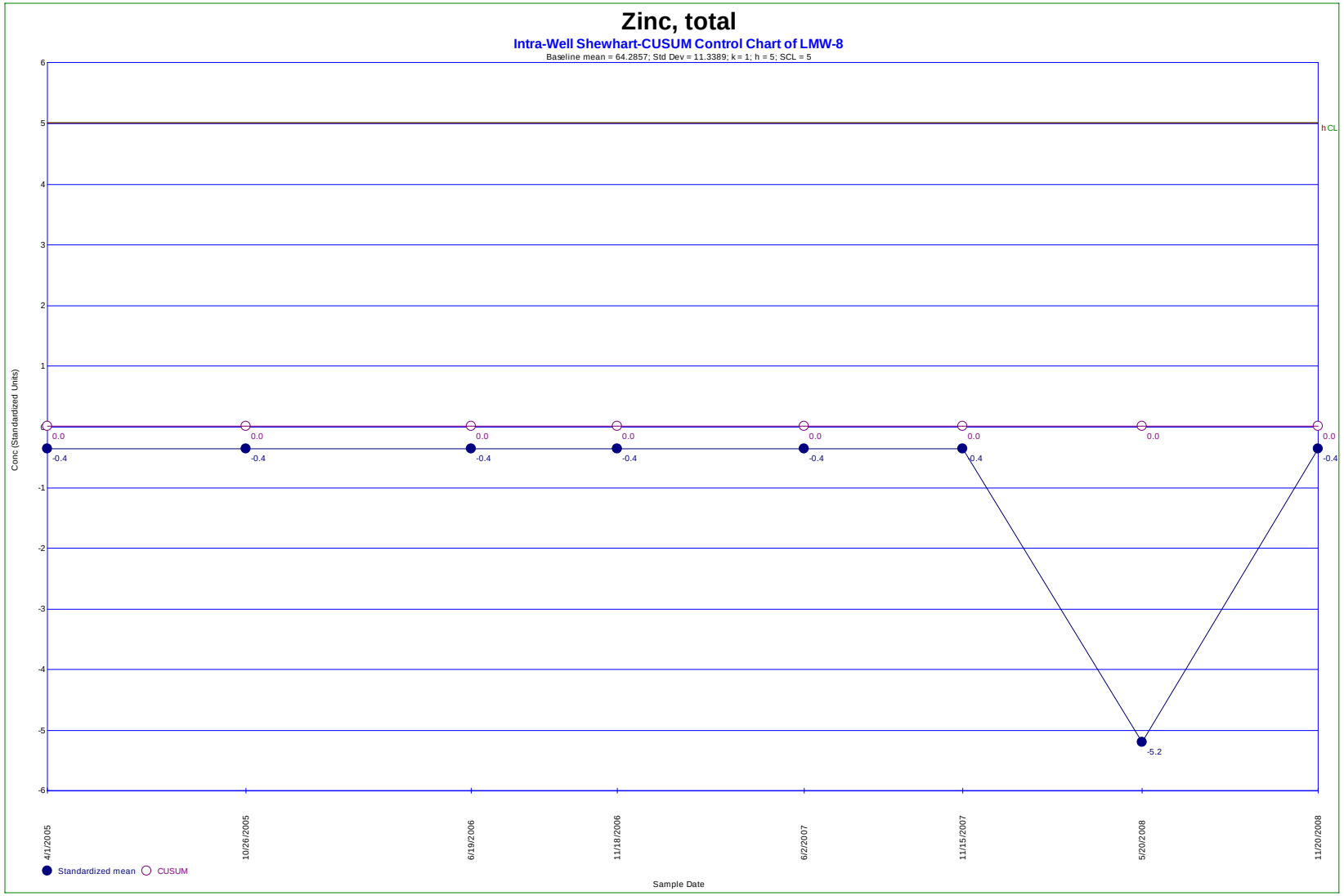

Selenium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-6
Baseline mean = 1.97778; Std Dev = 0.0666667; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
90
80
70
60
50
40
30
20
10
0
86.6
74.2
60.0
26.2
12.9
34.8
14.3
15.2
13.4
hCL
baseline mean = 1.97778
2.1
1.1
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

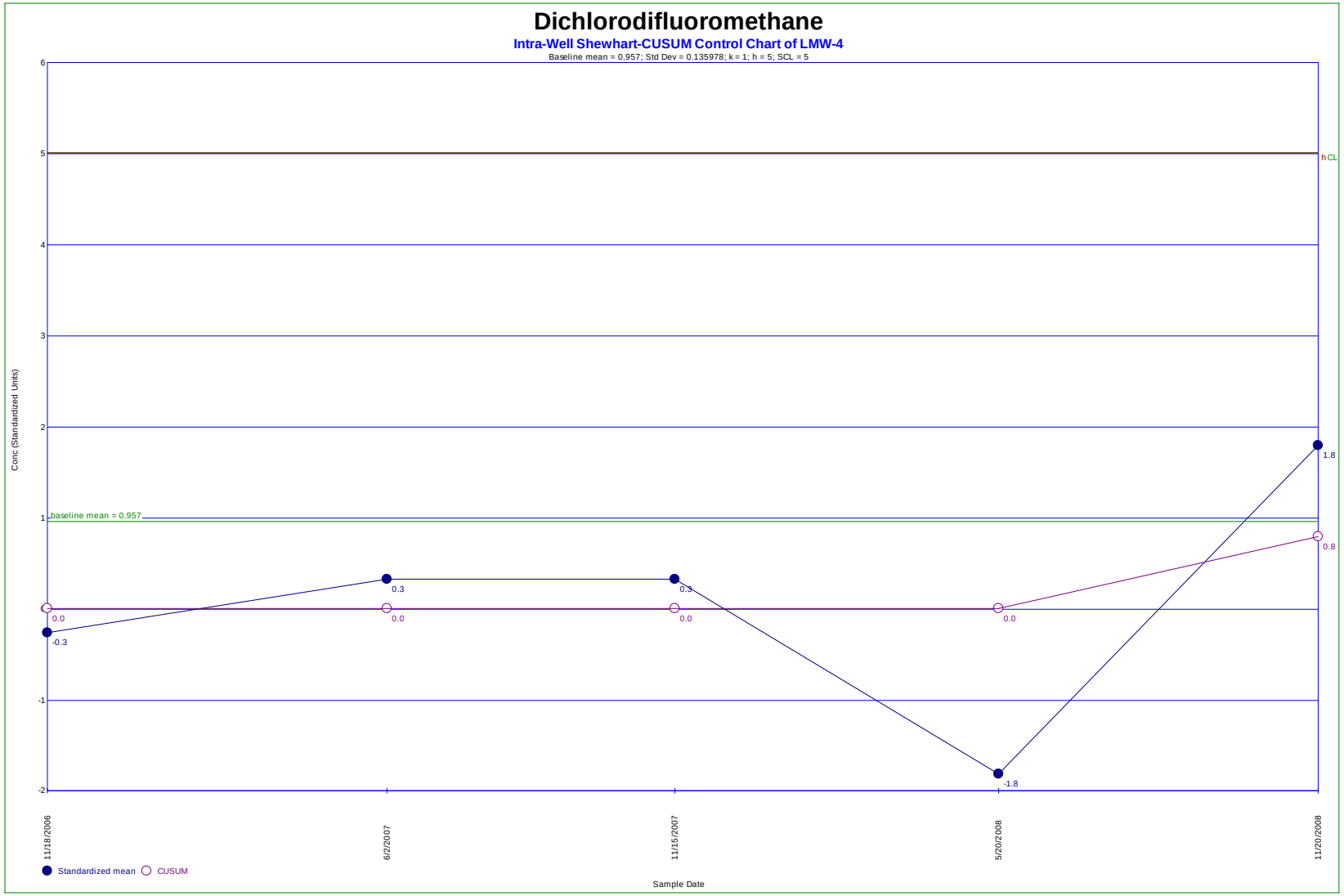

Selenium, total
Time-Series Graph of LMW-6
Concentration (ppb)
5
4
3
2
1
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date

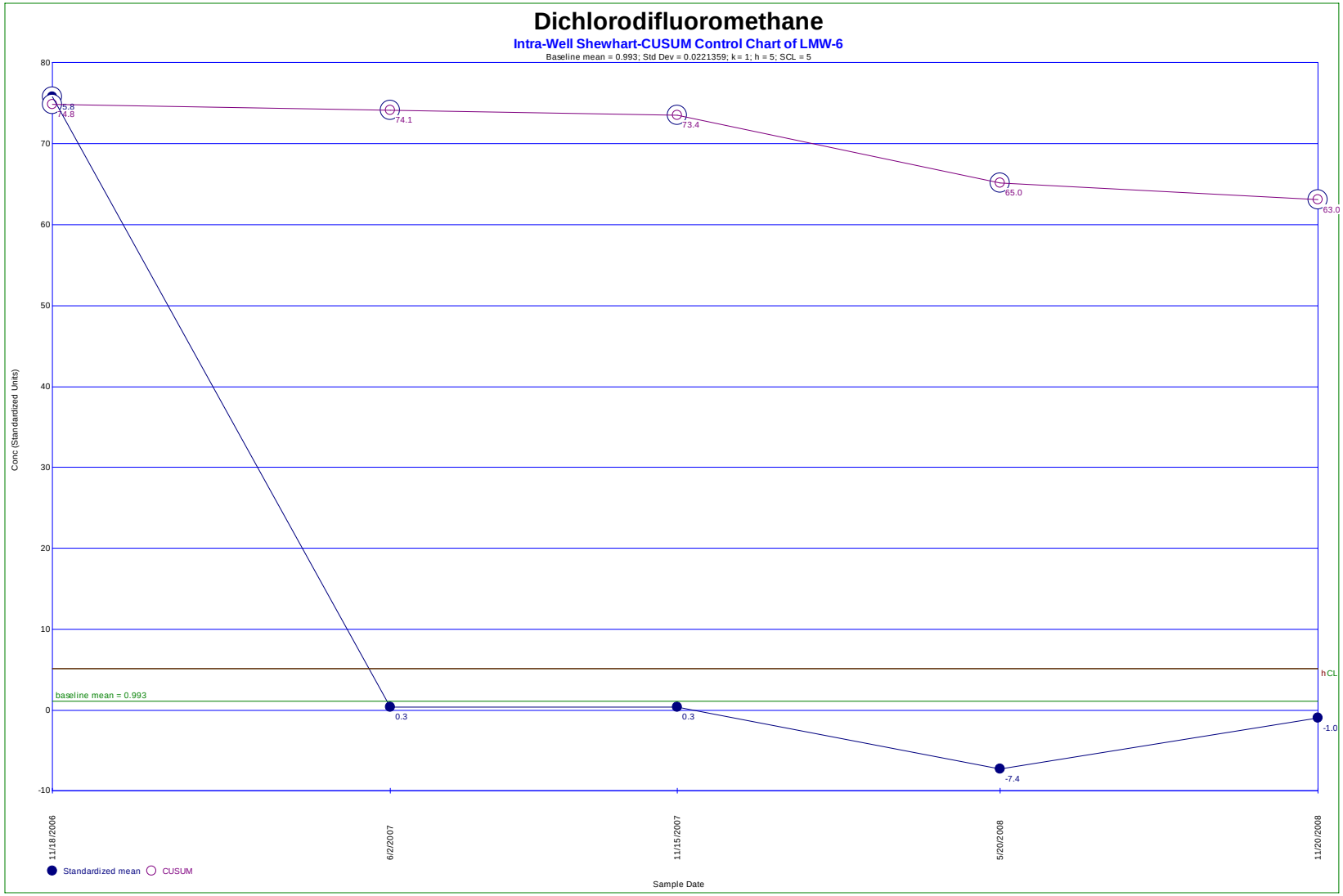

Selenium, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-8
Baseline mean = 2.10556; Std Dev = 0.453738; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
-3
h CL
baseline mean = 2.10556
3.6
2.6
1.3
0.1
0.0
0.0
0.0
-0.5
-1.0
-2.3
-0.2
-0.2
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

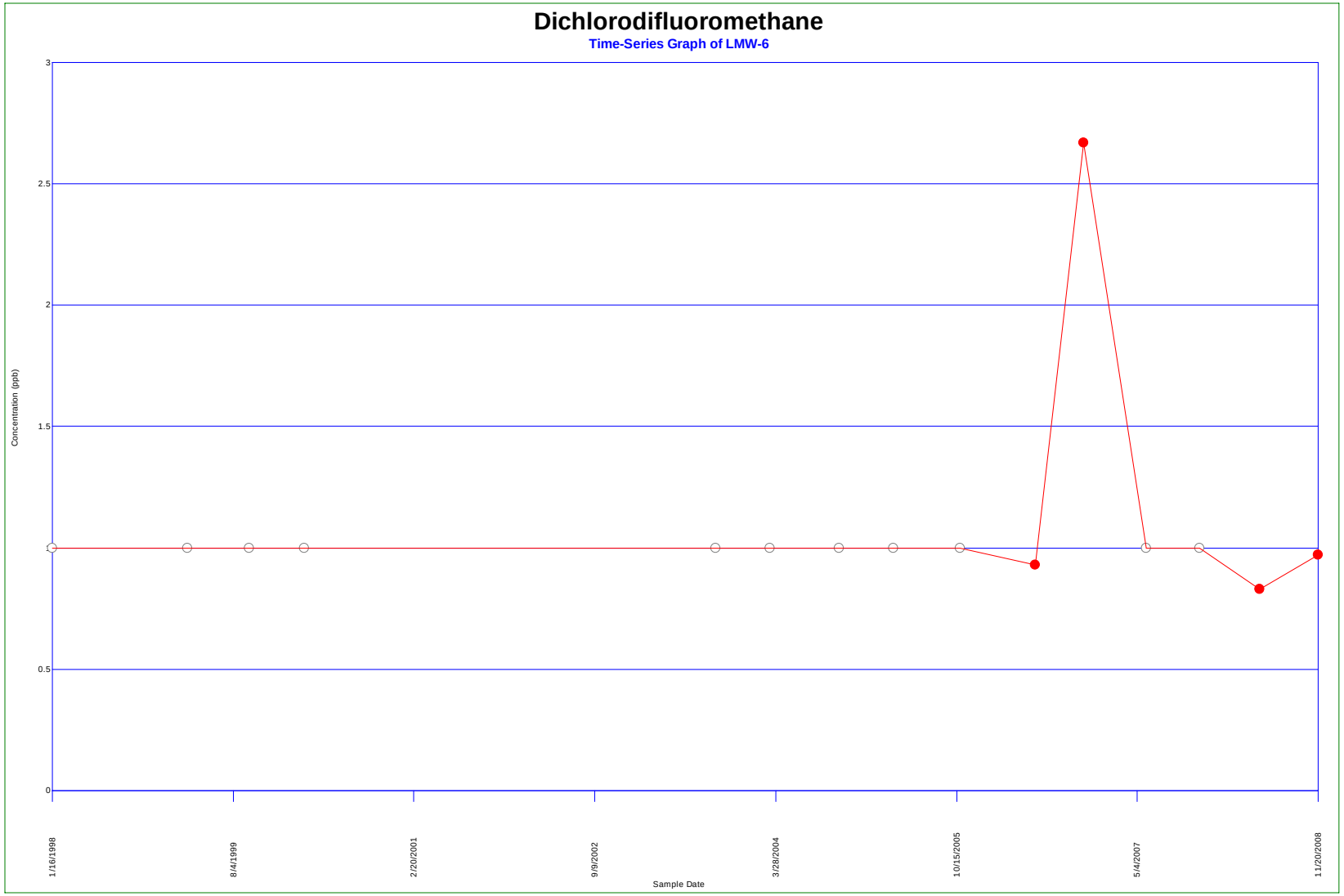

Vanadium
Intra-Well Shewhart-CUSUM Control Chart of LMW-7
Baseline mean = 22.2857; Std Dev = 12.7373; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
h CL
0.0
-0.8
-0.3
-1.1
-1.5
-0.6
-0.2
-0.2
-0.2
4/1/2005
10/26/2005
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

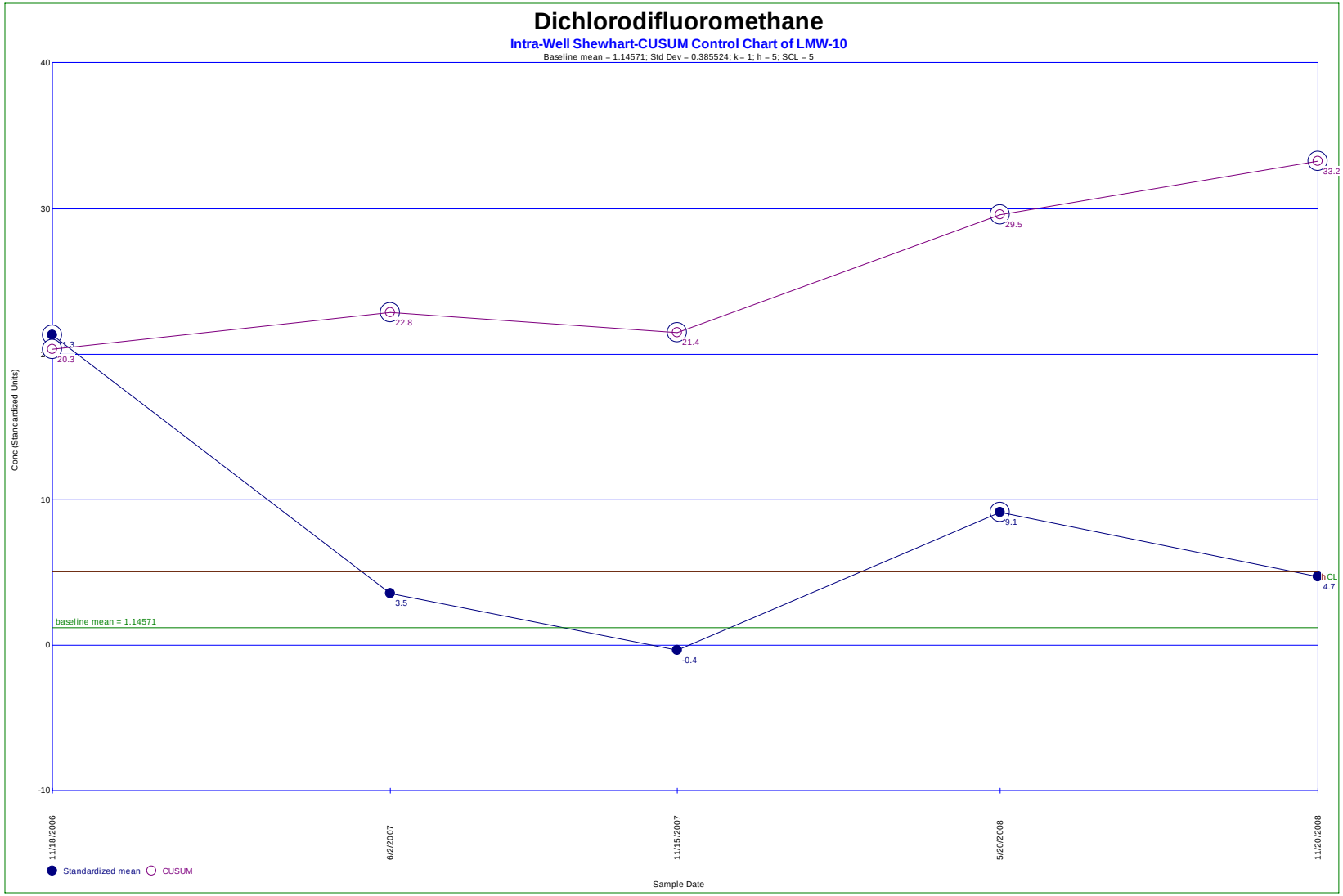

Zinc, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-3
Baseline mean = 55.5556; Std Dev = 13.3333; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
-1
-2
-3
-4
h CL
0.3
0.3
0.3
-3.7
0.3
0.8
-3.3
0.3
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
4/1/2005
10/26/2005
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

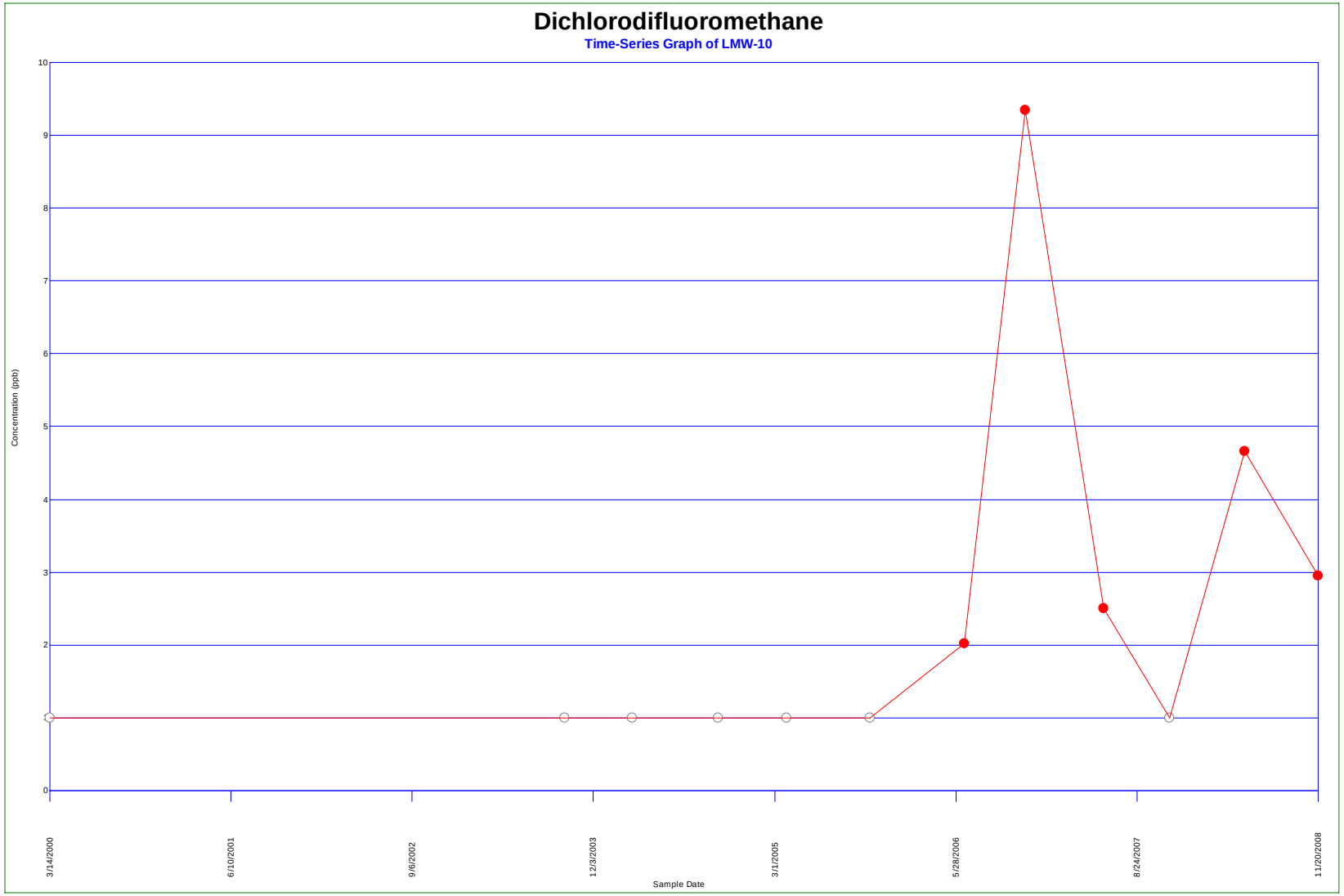

Zinc, total
Intra-Well Shewhart-CUSUM Control Chart of LMW-8
Baseline mean = 64.2857; Std Dev = 11.3389; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
-1
-2
-3
-4
-5
-6
h CL
0.0
-0.4
-5.2
4/1/2005
10/26/2005
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

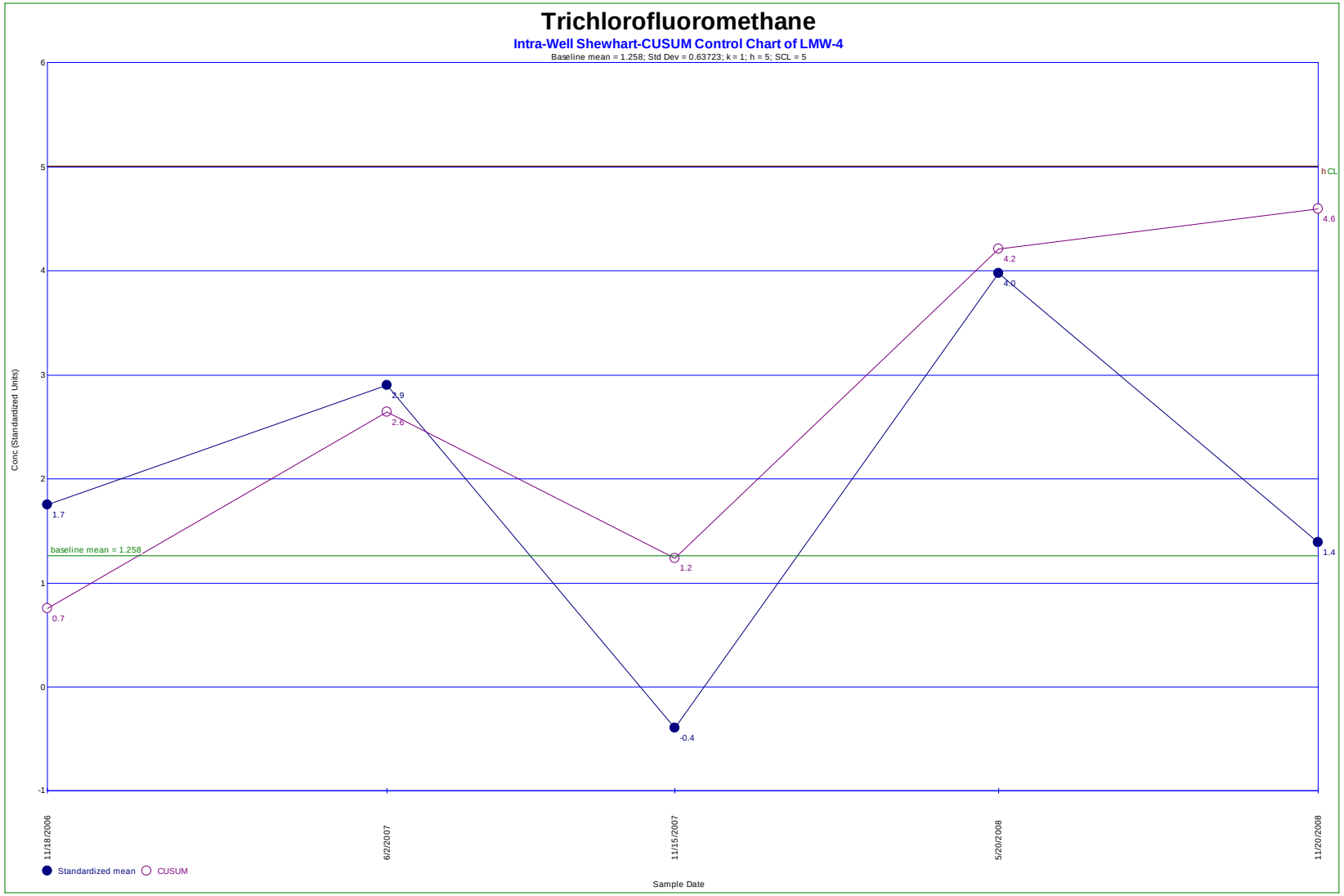

Dichlorodifluoromethane
Intra-Well Shewhart-CUSUM Control Chart of LMW-4
Baseline mean = 0.957; Std Dev = 0.135978; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
h CL
baseline mean = 0.957
1.8
0.8
0.3
0.3
0.0
0.0
0.0
0.0
-0.3
-1.8
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

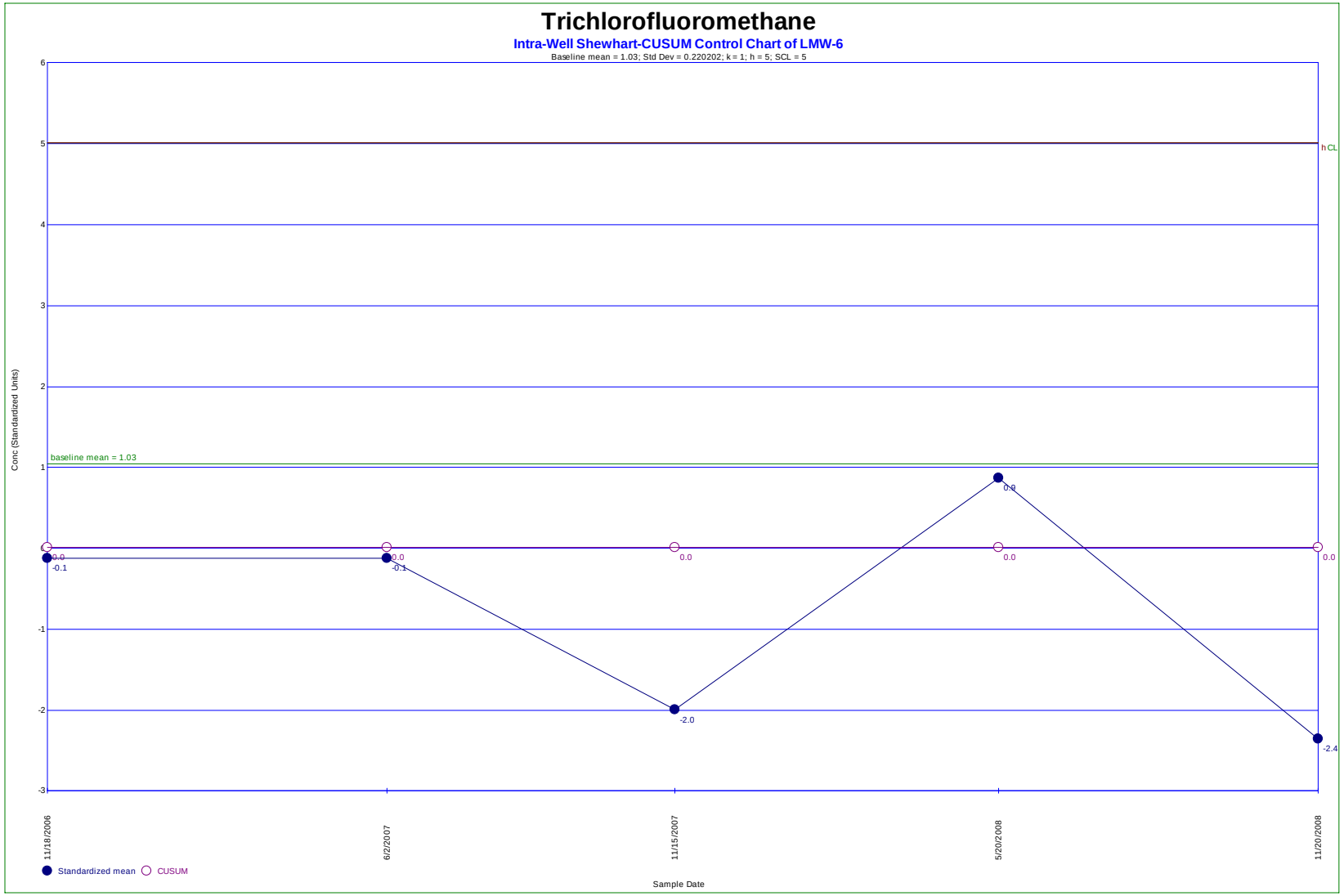

Dichlorodifluoromethane
Intra-Well Shewhart-CUSUM Control Chart of LMW-6
Baseline mean = 0.993; Std Dev = 0.0221359; k= 1; h = 5; SCL = 5
Conc (Standardized Units)
80
70
60
50
40
30
20
10
0
-10
75.8
74.8
74.1
73.4
65.0
63.0
hCL
baseline mean = 0.993
0.3
0.3
-7.4
-1.0
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date


Dichlorodifluoromethane
Time-Series Graph of LMW-6
Concentration (ppb)
3
2.5
2
1.5
1
0.5
0
1/16/1998
8/4/1999
2/20/2001
9/9/2002
3/28/2004
10/15/2005
5/4/2007
11/20/2008
Sample Date


Dichlorodifluoromethane
Intra-Well Shewhart-CUSUM Control Chart of LMW-10
Baseline mean = 1.14571; Std Dev = 0.385524; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
40
30
20
10
0
-10
11.3
20.3
22.8
21.4
29.5
33.2
3.5
-0.4
9.1
4.7
hCL
baseline mean = 1.14571
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date


Dichlorodifluoromethane
Time-Series Graph of LMW-10
Concentration (ppb)
10
9
8
7
6
5
4
3
2
1
0
3/14/2000
6/10/2001
9/6/2002
12/3/2003
3/1/2005
5/28/2006
8/24/2007
11/20/2008
Sample Date

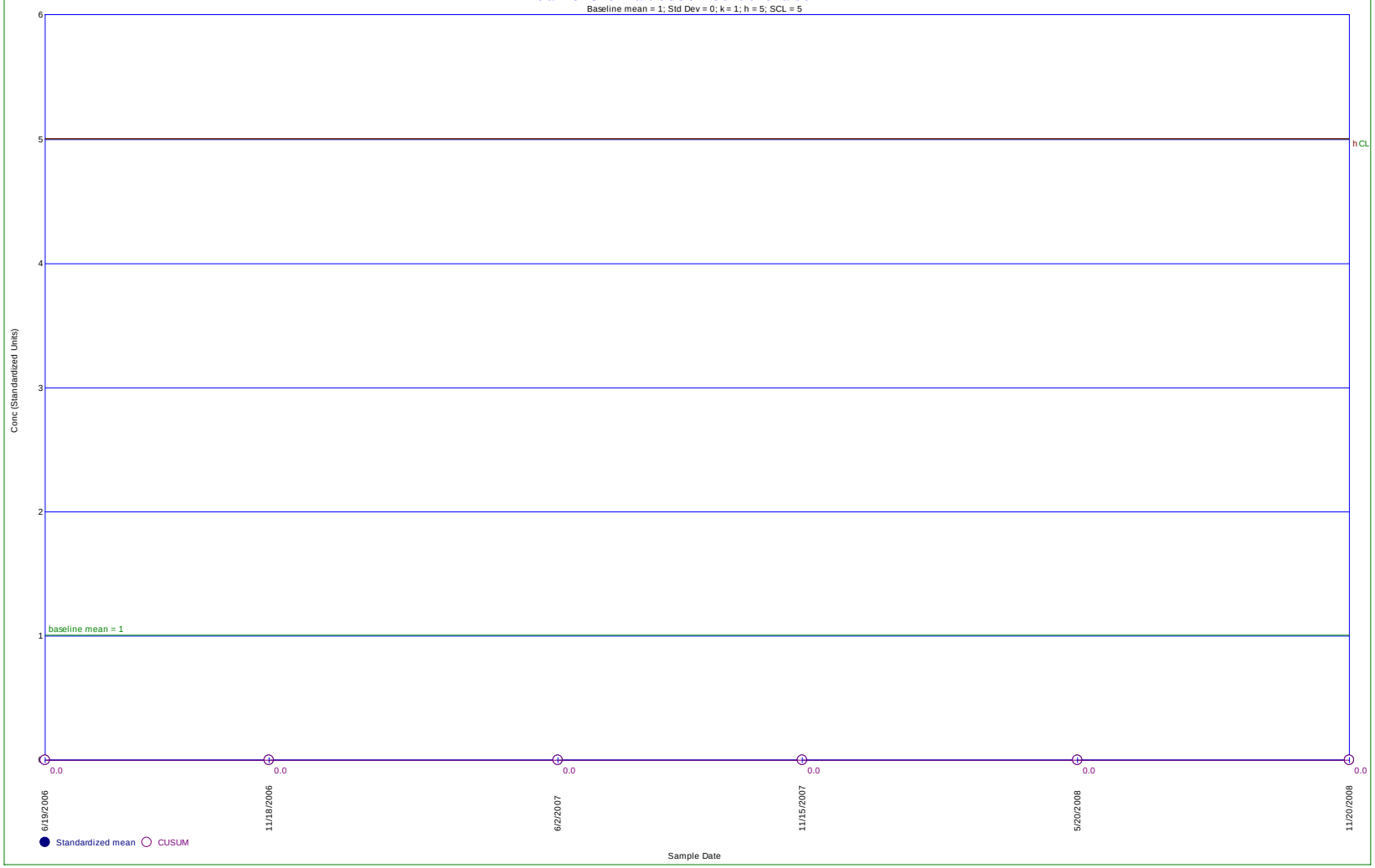

Trichlorofluoromethane
Intra-Well Shewhart-CUSUM Control Chart of LMW-4
Baseline mean = 1.258; Std Dev = 0.63723; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
h CL
baseline mean = 1.258
1.7
2.9
-0.4
4.0
1.4
0.7
2.6
1.2
4.2
4.6
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

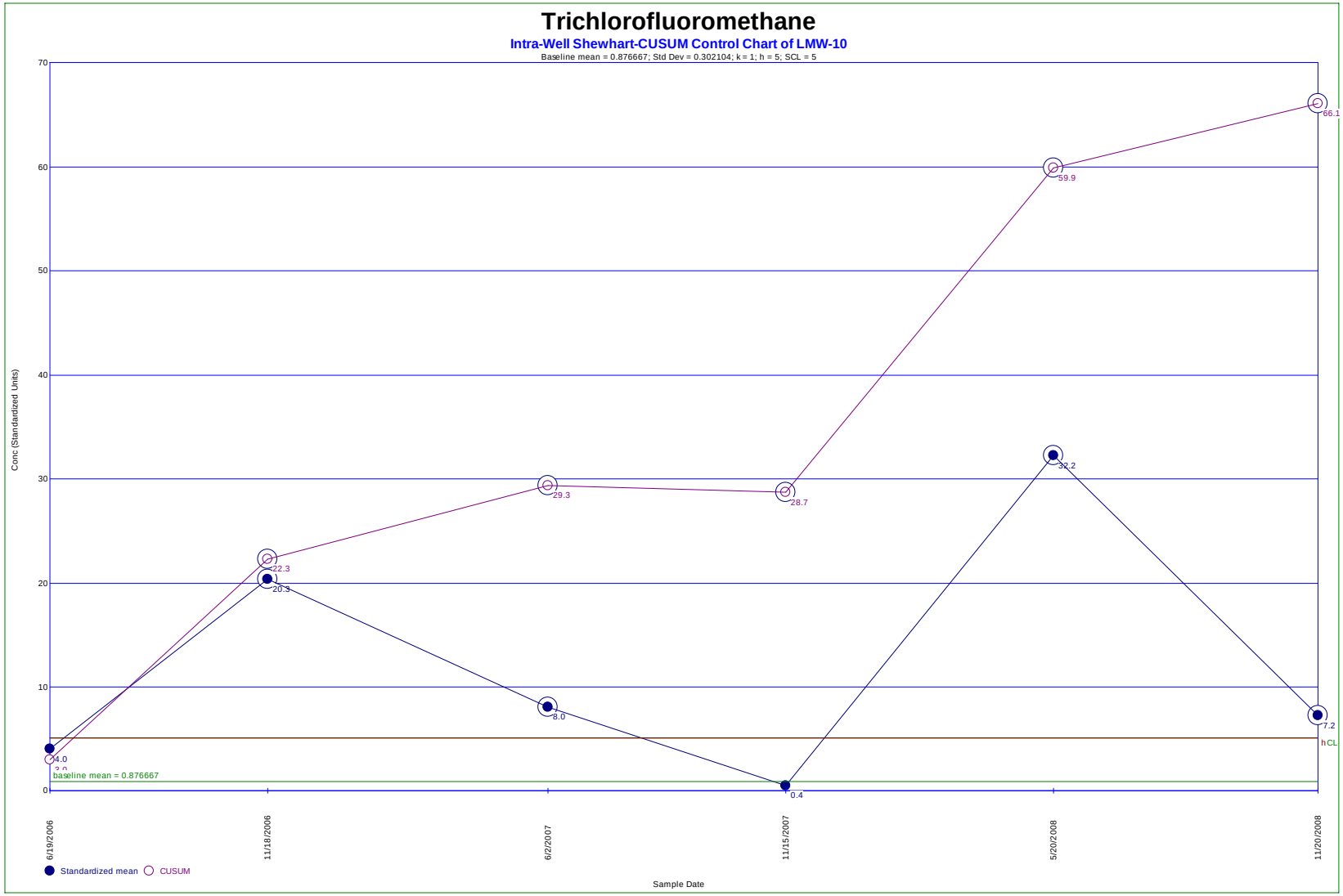

Trichlorofluoromethane
Intra-Well Shewhart-CUSUM Control Chart of LMW-6
Baseline mean = 1.03; Std Dev = 0.220202; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
6
5
4
3
2
1
0
-1
-2
-3
h CL
baseline mean = 1.03
0.0
-0.1
0.0
-0.1
0.0
-2.0
0.0
0.0
0.0
-2.4
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date

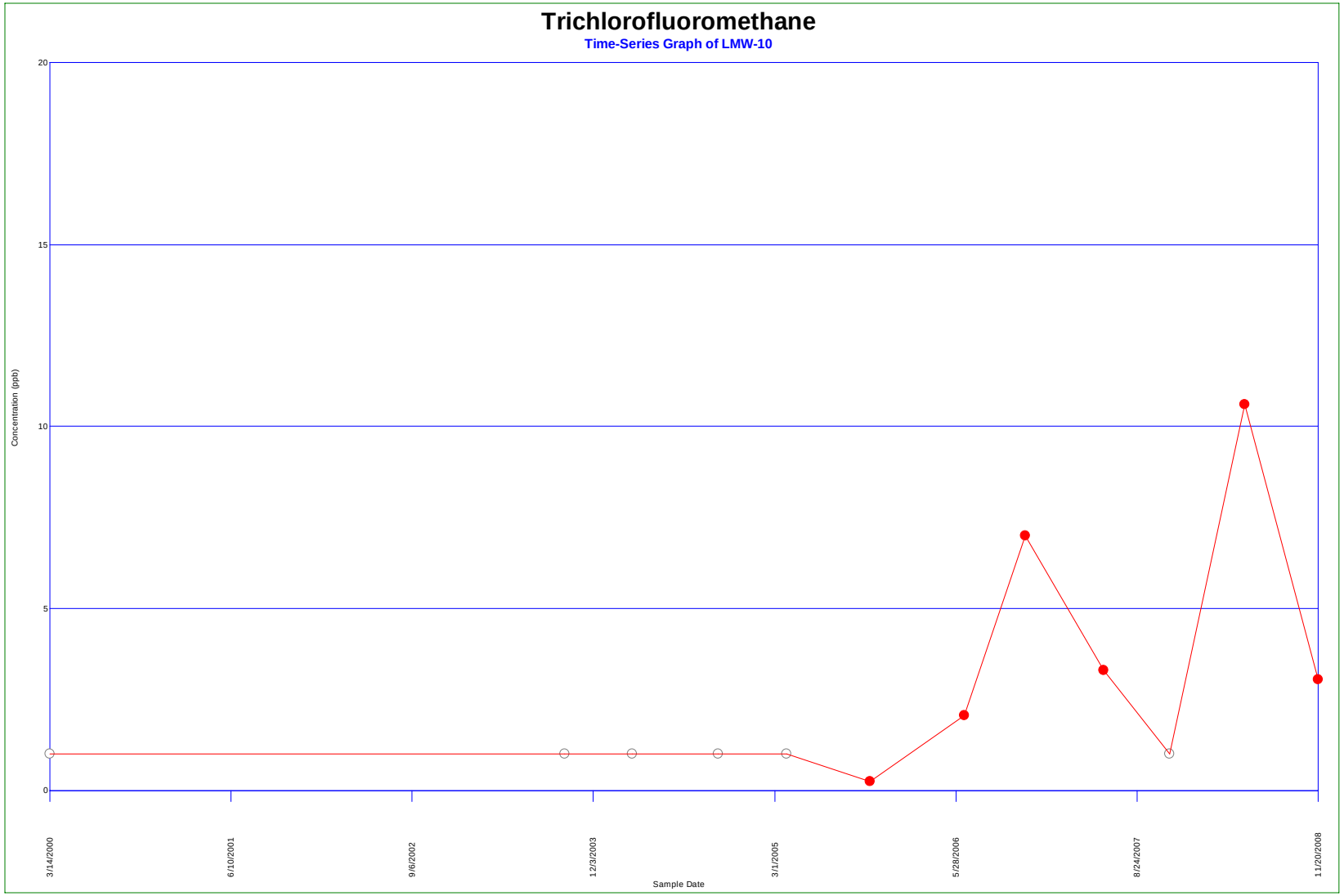
Trichlorofluoromethane

Intra-Well Shewhart-CUSUM Control Chart of LMW-7

Baseline mean = 1; Std Dev = 0; k = 1; h = 5; SCL = 5




Trichlorofluoromethane
Intra-Well Shewhart-CUSUM Control Chart of LMW-10
Baseline mean = 0.876667; Std Dev = 0.302104; k = 1; h = 5; SCL = 5
Conc (Standardized Units)
70
60
50
40
30
20
10
0
4.0
20.3
8.0
0.4
32.2
7.2
22.3
29.3
28.7
59.9
66.1
hCL
baseline mean = 0.876667
6/19/2006
11/18/2006
6/2/2007
11/15/2007
5/20/2008
11/20/2008
Standardized mean
CUSUM
Sample Date


Trichlorofluoromethane
Time-Series Graph of LMW-10
Concentration (ppb)
20
15
10
5
0
3/14/2000
6/10/2001
9/6/2002
12/3/2003
3/1/2005
5/28/2006
8/24/2007
11/20/2008
Sample Date