

FINAL
ANNUAL GROUNDWATER MONITORING REPORT 2006-2007
BUILDING LCH-4015

NCDENR Incident Number: 85352
Marine Corps Base
Camp Lejeune, North Carolina

14 June 2007

Prepared for:



Mr. David T. Cleland, P.G.
Marine Corps North Carolina IPT
Naval Facilities Engineering Command Mid-Atlantic
6506 Hampton Blvd
Norfolk, VA 23508-1278



Mr. Andrew Smith
I&E/EMD/EQB
Building 12, Post Lane
MCB Camp Lejeune, NC 28542

Prepared by:



Sovereign Consulting Inc.
405 Oakmeads Crescent, Suite 1
Virginia Beach, Virginia 23462

Contract Number: N62470-04-D-0205
Task Order: 0016

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1.0 TITLE PAGE	3
2.0 INTRODUCTION	4
3.0 SITE HISTORY	4
4.0 REMEDIATION SYSTEM OPERATION AND MAINTENANCE	5
5.0 GAUGING AND SAMPLING RESULTS	6
5.1 WELL GAUGING	6
5.2 GROUNDWATER SAMPLING	6
6.0 RECEPTOR SURVEY	8
7.0 CONCLUSIONS AND RECOMMENDATIONS	9
8.0 REFERENCES	10

TABLES

TABLE 1	WELL CONSTRUCTION INFORMATION
TABLE 2	GROUNDWATER ELEVATION DATA
TABLE 3	PRODUCT THICKNESS DATA
TABLE 4	SUMMARY OF GROUNDWATER SAMPLING RESULTS – EPA METHOD 602
TABLE 5	SUMMARY OF GROUNDWATER SAMPLING RESULTS – EPA METHOD 625
TABLE 6	SUMMARY OF GROUNDWATER SAMPLING RESULTS – EPA METHOD 3030C

FIGURES

FIGURE 1	GENERAL VICINITY TOPOGRAPHIC SITE MAP
FIGURE 2	SITE MAP WITH MONITORING WELL LOCATIONS
FIGURE 3	SHALLOW WELL GROUNDWATER ELEVATIONS – OCTOBER 2006

FIGURES (Continued)

FIGURE 4	INTERMEDIATE WELL GROUNDWATER ELEVATIONS – OCTOBER 2006
FIGURE 5	SHALLOW WELL GROUNDWATER ELEVATIONS – FEBRUARY 2007
FIGURE 6	INTERMEDIATE WELL GROUNDWATER ELEVATIONS – FEBRUARY 2007
FIGURE 7	SITE MAP WITH 2006-2007 GROUNDWATER RESULTS – EPA METHOD 602
FIGURE 8	SITE MAP WITH 2006-2007 GROUNDWATER RESULTS – EPA METHOD 625
FIGURE 9	SITE MAP WITH 2006-2007 GROUNDWATER RESULTS – EPA METHOD 3030C
FIGURE 10	TOTAL BTEX TREND AT MW01
FIGURE 11	TOTAL BTEX TREND AT MW02
FIGURE 12	TOTAL BTEX TREND AT MW03
FIGURE 13	TOTAL BTEX TREND AT MW11

APPENDICES

APPENDIX A	HISTORICAL GROUNDWATER QUALITY DATA
APPENDIX B	LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION FROM 2006-2007 SAMPLING EVENTS
APPENDIX C	FIELD DATA

LIST OF ACRONYMS

2000 Guidelines	Groundwater Section Guidelines for Investigation and Remediation of Soil and Groundwater
2001 Guidelines	Guidelines for Assessment and Corrective Action, North Carolina Underground Storage Tank Section (Effective July 1, 2001)
2L GWQS	NCAC T15A:02L Groundwater Quality Standards
AS	Air Sparge
AST	Aboveground Storage Tank
BDL	Below Detection Limit
BN	Base/Neutral (extractables)
BNA	Base/Neutral/Acid (extractables)
BQL	Below Quantitation Limit
BLS	Below Land Surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CAP	Corrective Action Plan
CFR	Code of Federal Regulations
Cr	Chromium
CSA	Comprehensive Site Assessment
DIPE	Di-isopropyl Ether
DO	Dissolved Oxygen
DOD	Department of Defense
DPT	Direct Push Technology
DWQ	Division of Water Quality
DWM	Division of Waste Management
DTW	Depth to Water
EDB	Ethylene di-bromide
EMD	Environmental Management Division
EPA	Environmental Protection Agency
EPH	Extractable Petroleum Hydrocarbons
EQB	Environmental Quality Branch
Fe	Iron
FID	Flame Ionization Detector
FT	Feet
GCL	Gross Contaminant Level
GIS	Geographic Information System
GPS	Global Positioning System
Guidelines Vol. II	Groundwater Section Guidelines for Investigation and Remediation of Soil and Groundwater, Volume II, Petroleum Underground Storage Tanks (January 2, 1998)
HDPE	High Density Polyethylene
I/C	Industrial/Commercial
ID	Identification
I&E	Installations and Environment Department
IGWQS	Interim Groundwater Quality Standards
IPE	Isopropyl Ether
LSA	Limited Site Assessment
LUST	Leaking Underground Storage Tank
m	Meter
MADEP	Massachusetts Department of Environmental Protection
MCAS	Marine Corps Air Station

MCB	Marine Corps Base
MDL	Method Detection Limit
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
MSCC	Maximum Soil Contaminant Concentration
MSL	Mean Sea Level
MTBE	Methyl tertiary butyl ether
µg/Kg	Micrograms per Kilogram
µg/L	Micrograms per Liter
NA	Not Analyzed
N/A	Not Applicable
NAVFAC	Naval Facilities Engineering Command Atlantic
NC	North Carolina
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources
NE	None Established
NM	Not Measured
NMT	No Measurable Thickness
NS	Not Sampled
OVA	Organic Vapor Analyzer
PAH	Polynuclear Aromatic Hydrocarbons
Pb	Lead
PPB	Parts Per Billion
PPM	Parts Per Million
PID	Photo Ionization Detector
PQL	Practical Quantitation Limit
PVC	Polyvinyl chloride
RBCA	Risk-Based Corrective Action
RCRA	Resource Conservation and Recovery Act
Res	Residential
SOW	Scope of Work
STGW	Soil-to-Groundwater
SVE	Soil Vapor Extraction
SVOC	Semi Volatile Organic Compound
TCLP	Toxicity Characteristic Leaching Procedure
TIC	Tentatively Identified Compound
TOC	Top of Casing
TPH	Total Petroleum Hydrocarbons
US	United States
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compounds
VPH	Volatile Petroleum Hydrocarbons
WiRO	NCDENR Wilmington Regional Office

EXECUTIVE SUMMARY

The site is located aboard MCB Camp Lejeune in Onslow County, North Carolina. The project site is located within the Midway Park Community Center area and consists of the community center building (LCH-4014), former fueling and maintenance area (LCH-4015, removed), Marine Corps Exchange Convenience Store (LCH-4034), and the former fuel tank farm. The site is located at the intersection of North Carolina Highway 24 and the Butler Drive entrance to Midway Park.

A former aboveground storage tank (AST) system began operation in 1945 at the site. The AST system consisted of two 14,000-gallon gasoline tanks that supplied fuel to four gasoline dispensers located on a pump island to the north of former Building LCH-4015, one 14,000-gallon diesel tank that supplied fuel to a dispenser located on the north side of Building LCH-4015, and one 3,000-gallon Number 2 fuel oil tank that supplied fuel oil to a boiler contained within Building LCH-4014. A number of smaller storage tanks were also located at the site. Fuel was distributed through a number of underground product piping systems. In 1990, the ASTs at former Building LCH-4015 were emptied of product, and the three 14,000-gallon ASTs were removed and relocated for use at other locations on the base.

Site assessments were performed from 1994 – 1996 by R.E. Wright Associates, Inc., and Law Engineering and Environmental Services, Inc. Groundwater samples from the monitoring wells and soil samples in the vicinity of the former AST system contained evidence of petroleum impact exceeding North Carolina State standards. In 1996, a corrective action plan (CAP) was prepared for the site, which recommended installation of a biosparge and soil vapor extraction (BS/SVE) system for the remedial action at the site. The treatment system was constructed and began operation in November 1998.

Various remediation contractors have maintained and operated the site since 1998 including J.A. Jones Environmental Services, Inc. (J.A. Jones), Shaw Environmental and Infrastructure, Inc. (Shaw), and Engineering and Environment, Inc. (EEI). During this monitoring period, June 2006 – May 2007, Sovereign Consulting Inc. (Sovereign) operated and maintained the remediation system and conducted monitoring well gauging and sampling of site wells. Monitoring wells MW01-MW24 were gauged on a semi-annual basis, with the exception of MW17. This well was previously lost during construction activities and has not been reinstalled. Groundwater samples from site monitoring wells (MW01, MW02, MW03, MW05, MW08, MW11, MW13, MW14, MW18, MW19, MW20, MW21, MW22, MW23, and MW24) were also collected. Analyses run included EPA Methods 602 + Xylenes, 625 + 10 largest non-target peaks, and 3030C for lead in accordance with the program scope of work.

No measurable free product was identified during the 2006-2007 monitoring period. One volatile and four semi-volatile compounds were detected at the site above North Carolina Groundwater Quality Standards (NCGWQSs). Those contaminants were benzene, bis(2-ethylhexyl)phthalate, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. All other target analytes were below 2L standards. Exceedences were in shallow (MW01, MW02, MW03, and MW24) and intermediate (MW21 and MW23) monitoring wells.

Petroleum constituent concentrations, while above NCGWQSs, have decreased over time, indicating that operation of the biosparge/soil vapor extraction system benefited groundwater quality at the site. Based on findings of this report, however, Sovereign recommends MCB Camp Lejeune discontinue system operation beginning in June 2007. All site monitoring wells should be gauged and sampled in July 2007, August 2007, and December 2007 to monitor for the recurrence of free product and groundwater contamination.

Groundwater samples should be analyzed for volatile organic compounds, semi-volatile organic compounds, and lead via EPA Methods 602 + xylenes, 625 + the 10 largest non-target peaks (to include 1 and 2-methylnaphthalene), and Standard Method 3030C, respectively.

Findings and recommendations should be summarized and submitted in a monitoring report to include an evaluation of potential remedial alternatives, as needed. If free product accumulates or contaminant concentrations rebound, appropriate remedial actions should be immediately implemented.

1.0 TITLE PAGE

DATE OF REPORT: June 14, 2007

Facility I.D.: N/A

NCDENR Incident Number: 85352

Site Name: LCH 4015

Site Location: Marine Corps Base Camp Lejeune, North Carolina

Nearest City/Town: Camp Lejeune County: Onslow

Property Owner: Commanding Officer – MCB Camp Lejeune

I&E/EMD/EQB

PSC Box 20004

Address: MCB Camp Lejeune, NC 28542-0004

Phone: (910) 451-5068

Tank Owner: Same as above

Address: Same as above

Phone: Same as above

Property Occupant: Same as above

Address: MCB Camp Lejeune, NC

Phone: None

Consultant/Contractor: Sovereign Consulting Inc.

Address: 405 Oakmeads Crescent, Suite 1

Virginia Beach, VA 23462

Phone: (757) 456-5093

Release Information

Date Discovered: 1994

Estimated Quantity of Release: Unknown

Cause of Release: Leaking aboveground storage tank system

Source of Release (Piping/AST): AST

Sizes and contents of UST system(s) from which the release occurred: The former system was two 14,000-gallon gasoline aboveground storage tanks, one 14,000-gallon diesel oil aboveground storage tank, one 3,000-gallon No.2 fuel oil AST, a number of smaller tanks, and associated underground product piping.



I, Nicole L. Hall a Professional Engineer for Sovereign Consulting Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

2.0 INTRODUCTION

The purpose of this report is to summarize data from recent groundwater gauging and sampling events at the LCH-4015 remediation site aboard MCB Camp Lejeune, North Carolina. This data was collected for the reporting period of June 2006 through May 2007. The project's scope of work entailed semi-annual gauging of 23 site monitoring wells (each are preceded by the prefix USTLCH4015) - MW01-MW24 (MW-17 cannot be located for monitoring). Groundwater samples from wells (MW01, MW02, MW03, MW05, MW08, MW11, MW13, MW14, MW18, MW19, MW20, MW21, MW22, MW23, and MW24) were also collected. Analyses run included EPA Methods 602 + Xylenes, 625 + TICs, and 3030C for Lead. The results of Sovereign's 2006-2007 gauging and sampling events are presented in this report.

3.0 SITE HISTORY

The site is located aboard MCB Camp Lejeune in Onslow County, North Carolina (Figure 1). The project site consists of the Community Center Building (LCH-4014), former fueling and maintenance area (LCH-4015, removed), Marine Corps Exchange Convenience Store (LCH-4034), and the former fuel tank farm. The site is located at the intersection of North Carolina Highway 24 and the Butler Drive entrance to Midway Park.

A former aboveground storage tank (AST) system began operation in 1945 at the site. The AST system consisted of two 14,000-gallon gasoline tanks that supplied fuel to four gasoline dispensers located on a pump island to the north of former Building LCH-4015, one 14,000-gallon diesel tank that supplied fuel to a dispenser located on the north side of Building LCH-4015, and one 3,000-gallon Number 2 fuel oil tank that supplied fuel oil to a boiler contained within Building LCH-4014. A number of smaller storage tanks were also located at the site. Fuel was distributed through a number of underground product piping systems. In 1990, the ASTs at former Building LCH-4015 were emptied of product, and the three 14,000-gallon ASTs were removed and relocated for use at other locations on the base.

Site assessments were performed from 1994 – 1996 by R.E. Wright Associates, Inc., and Law Engineering and Environmental Services, Inc. Groundwater samples from the monitoring wells and soil samples in the vicinity of the former AST system contained evidence of petroleum impact exceeding North Carolina state standards.

In 1996, a corrective action plan (CAP) was prepared for the site by Law Engineering and Environmental Services, Inc. The CAP identified target clean-up levels for soil of 40 milligrams per kilogram (mg/kg) for Total Petroleum Hydrocarbons as Gasoline (TPH-GRO) and 160 mg/kg for Total Petroleum Hydrocarbons as Diesel (TPH-DRO). Groundwater target clean-up levels were set at the North Carolina Groundwater Quality Standards (NCGWQSs). The CAP recommended installation of a BS/SVE system for the remedial action at the site.

The treatment system was constructed by J.A. Jones and began remediation activities in November 1998. The groundwater treatment system has operated continuously since 1998, with the exception of occasional maintenance repairs and groundwater sampling events. Presently, 23 monitoring wells are included in gauging and sampling events.

Additional assessment work has been conducted at the site in the last several years. First, NCDENR requested that three intermediate depth wells (MW21 – MW23) be installed to further delineate the vertical extent of groundwater contamination. Well installation took place in June 2001. In addition, three underground storage tanks were removed from the site in 2002. Subsequent soil and groundwater assessment work in the former

UST area concluded that soils did not require remediation as contaminant levels were below residential MSCCs. Affected soils were also within the influence of the current SVE system.

In addition, there was no free product. Groundwater contamination near the former UST basin was also within the influence of the current system layout; therefore, additional groundwater remediation was not recommended. The former UST basin assessment was conducted as a result of recommendations made in an optimization report conducted by CATLIN in 2004. Results are contained in the CATLIN Report of Findings (ROF) for Soil and Free Phase Product dated December 2004. NCDENR requested that groundwater be delineated in a NORR letter dated June 14, 2004. Data from the ROF report was used to evaluate where to install additional wells that would define the groundwater contamination. As a result, one shallow monitoring well (MW-24) was installed in the immediate vicinity of former USTs LCH-4034-1, LCH 4034-2, and LCH 4034-3 in February 2005. The well was subsequently incorporated into the monitoring program. Overall, the 2004 optimization report concluded that the system has been effective in reducing petroleum constituent concentrations in the upper portion of the contaminant plume and should continue operation in order to maintain influence.

Monitoring and maintenance of the groundwater treatment system at the LCH 4015 site has continued from installation in 1998 to the present. This report outlines and describes such activities as performed by Sovereign from June 2006 – May 2007.

4.0 REMEDIATION SYSTEM OPERATION AND MAINTENANCE

The LCH-4015 remediation system includes 38 vertical biosparge wells and five soil vapor extraction wells. The biosparge wells reportedly were installed with a 1.5 to 3.5 feet screen interval ranging from 4.5 to 8.0 feet bgs. The soil vapor extraction wells consist of a two-inch diameter 0.02-inch slot width PVC horizontal well screen reportedly to be installed slightly above the shallow groundwater table. The system has been operational since it was installed in 1998. Figure 2 illustrates the current remedial system layout.

The system generally operated continuously except during equipment servicing/repair, power outages, and high level water alarms. The remediation system was temporarily deactivated prior to each groundwater gauging and sampling event and then re-started following field activities. There were no non-routine service calls made for the system during this monitoring period.

System monitoring and maintenance was performed regularly, with site visits conducted at a minimum of three times per week. Instrument readings conducted during the site visits included BS flow rates, BS/SVE pressures/vacuums, temperatures, tank liquid levels, electricity usage, and motor run times. Servicing (oil changes, belt re-tensioning or replacement, filter changes, etc.) was conducted as per manufacturer's instructions or as needed upon system inspection. Emptying of the polyethylene holding tank was also conducted as needed.

Photoionization detector (PID) readings were recorded weekly during the monitoring period. PID readings taken of system exhaust air have been 0.0 parts per million throughout the year. Vapor velocity readings, vapor temperature, and vapor vacuum/pressure were also documented at the time the PID readings were recorded. The exhaust stack (SVE) was sampled monthly through April 2006. The air samples were submitted for laboratory analysis via Modified EPA Method 18; however, the collection of air samples ceased after April 2006, by direction of the Navy Technical Representative.

Well purge water, development water, and equipment decontamination water generated during field events were contained in a portable holding tank. Water that accumulated in the SVE system polyethylene hold tank was removed and transported in the portable holding tank and processed through a groundwater treatment system located at Lot 203 on MCB Camp Lejeune.

5.0 GAUGING AND SAMPLING RESULTS

The field program for the LCH-4015 site consisted of semi-annual gauging, as well as groundwater sampling. Activities were conducted in accordance with NCDENR guidance.

5.1 WELL GAUGING

Monitoring wells MW01 through MW24 (MW17 cannot be located) were gauged semi-annually from June 2006 through May 2007. Gauging data is summarized in Tables 2 and 3. Note that MW16 was not gauged during the February 2007 event, as access to the well was blocked. Wells were gauged using an interface probe to measure the depth to water and depth to product (if present). No measurable free product was detected at any site well designated for gauging during the 2006-2007 monitoring program.

Top of casing elevations and DTW values were used to obtain groundwater elevations at the site, as shown in Figures 3-6. From the shallow groundwater well maps, overall groundwater flow is into the site from the east and away to the north and west, which is generally consistent with previous site data. The westerly direction of flow away from the site during this monitoring period, however, was slightly different, as compared to a southwesterly direction in previous years. Areas of relatively elevated groundwater are observed in the central and southeastern portion of the site. Intermediate well groundwater elevation maps show a southwesterly flow, which is opposite of that seen in recent years.

5.2 GROUNDWATER SAMPLING

Semi-annual groundwater sampling was also conducted at the site. Samples were collected during sampling events in October 2006 and February/March 2007. Monitoring wells MW01, MW02, MW03, MW13, MW19, MW20, MW21, MW22, MW23, and MW24 were sampled in October 2006 per the contract task order scope of work. The February/March 2007 events included monitoring wells MW01, MW02, MW03, MW05, MW08, MW11, MW13, MW14, MW18, MW19, MW20, MW21, MW22, MW23, and MW24. Five additional wells were added to the sampling event to accommodate the wells as listed in the NCDENR/DWQ review letter dated August 16, 2006.

Prior to sampling, wells were purged until water quality parameters (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) stabilized. Sampling was conducted using a peristaltic pump with connected polyethylene discharge tubing and a low flow purging and sampling procedure.

Water quality indicator parameters (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) were measured and recorded. If a well purged to dryness, the well was allowed to recharge before sampling. Samples were collected using the laboratory-prepared sample bottles, placed on ice, and shipped under proper chain of custody to SGS-Paradigm Analytical Laboratories Inc. (SGS-Paradigm) in Wilmington, North Carolina (NC Certification Number 481). Analyses run included EPA Methods 602 + Xylenes, 625 + 10 largest non-target peaks, and 3030C for Lead. Laboratory reports and chain of custody documentation are included in Appendix B.

Sovereign Monitoring Data 2006-2007

One volatile compound was detected above groundwater standards – benzene. Noncompliant benzene concentrations were detected in (shallow and intermediate) monitoring wells MW01, MW02, MW21, MW23, and MW24. Benzene was also detected in MW03, MW19, and MW20 at concentrations below the NCGWQS of 1 µg/L. Monitoring wells MW19 and MW20 are both deep zone monitoring wells and have not exhibited detectable benzene concentrations prior to this monitoring period. Groundwater at the site also exhibited DIPE, ethylbenzene, MTBE, toluene, and total xylenes; however, the detected concentrations were all well below the NCGWQSs. EPA Method 602 results are summarized in Table 4.

Nine semi-volatile contaminants, acenaphthene, acenaphthylene, bis(2-ethylhexyl)phthalate, diethylphthalate, di-n-octylphthalate, fluorene, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected at the site. Only four of those nine compounds were detected above their applicable groundwater quality standards – bis(2-ethylhexyl)phthalate, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. Bis(2-ethylhexyl)phthalate was present above the groundwater quality standard in monitoring wells MW01 and MW03. Bis(2-ethylhexyl)phthalate is not typical of petroleum contamination and is widely used as a plasticizer in manufacturing of PVC. The compound may have leached into the water that was in contact with the plastic in the monitoring well. The compound 1-methylnaphthalene was found in only MW01 during only the October 2006 sampling event. This compound was last detected at the site in June 2006 in MW11. There is no established groundwater quality standard for 1-methylnaphthalene, so any detection is considered reportable. The compound 2-methylnaphthalene was also detected in only MW01. The well exhibited a noncompliant concentration of 16.4 µg/L in October 2006 and a concentration of 4.00J µg/L in February 2007. The NCGWQS for the compound is 14 µg/L. Finally, naphthalene was present above the groundwater quality standard (21 µg/L) in monitoring wells MW01 and MW21 during both the October and February events.

Although TICs were present in each of the monitoring wells, not all TICs are identified and quantitated using individual standards. Additionally, many TICs are reported as compound isomers or unknown because they cannot be identified as specific compounds with match probabilities. Due to the uncertainties associated with TICs, it is impossible to draw any conclusions based upon their presence. The laboratory reports in Appendix B contain TIC summaries for each monitoring well. Table 5 summarizes semi-volatile lab results.

Monitoring wells MW01, MW02, MW18, MW19, MW20, MW21, and MW24 exhibited low concentrations of lead. None of the detections, however, were above the NCGWQS of 15 µg/L. Lead was last detected above the NCGWQS in monitoring well MW21 (November 2005) at 18.8 µg/L. Lead results can be found in Table 6.

Historical Data Synopsis

Historical information, summarized in the 2004 CATLIN optimization report, coupled with recent (2004-2007) data shows that groundwater contamination continues to decrease at the site. Benzene, bis(2-ethylhexyl)phthalate, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene are present in site groundwater just above their applicable standards. In the following tables, maximum contaminant concentrations detected at the site are compared over time. An over all decrease in contaminant concentrations is observed, with the exception of the 2006-2007 deep well benzene concentration. The maximum concentration increased by one order of magnitude. Note that **BOLD** text indicates NCGWQS exceedences.

**Maximum Concentrations (µg/L)
Type II Monitoring Wells**

Compound	NCGWQS (µg/L)	GCL (µg/L)	1995 (CAP)	2003	2004	2005	2006	2006- 2007
Benzene	1	5,000	8,850	297	131	48.1	45.5	12.0
Ethylbenzene	550	84,500	2,070	420	439	270	179	118
Total Xylenes	530	87,500	9,960	1,070	704	659	370	191.2
Toluene	1,000	257,500	256	95.3	27.5	14.8	10.1	5.21
Naphthalene	21	15,500	677	170	216	165	111	45.5
1-Methylnaphthalene	NE	NE	271	36.8	34.5	23.1	7.9¹	11.1
2-Methylnaphthalene	14	12,500	345	47	49	34.2	<10 ¹	16.4
Lead	15	15,000	42.7	NA	7.7	<10	0.6	2.33J

¹Note = 2006 data only from MW08 and MW11

**Maximum Concentrations (µg/L)
Type III Monitoring Wells**

Compound	NCGWQS (µg/L)	GCL (µg/L)	1995 (CAP)	2003	2004	2005	2006	2006- 2007
Benzene	1	5,000	0.4	33.8	73.9	47.1	25.9	122
Ethylbenzene	550	84,500	0.5	505E	5	4.2	3.05	3.51J
Total Xylenes	530	87,500	1.9	16.9	2.7J	<3.0	0.632J	5.74J
Toluene	1,000	257,500	1.0	2.1	2.0	1.1	<1.00	5.17
Naphthalene	21	15,500	ND	<5.1	15.3	32.3	31.7	54.3
1-Methylnaphthalene	NE	NE	3.8	< 5.1	< 5.1	2.6J	NR	BQL
2-Methylnaphthalene	14	12,500	ND	<5.1	2.1J	2.8J	NR	BQL
Lead	15	15,000	20.6	NA	7.7	18.8	2.28	1.90J

1995 and 2003 data from 2004 Catlin optimization report

2004-2005 data from EEI Annual Monitoring Report

BQL = Below Quantitation Limit

ND = Not Detected

NE = Not Established

NR = Not Reported

E = Estimated concentration above the linear quantitation range

J = Estimated concentration less than reporting limit

Figures 10-13 show total BTEX trend graphs for monitoring wells MW01, MW02, MW03 and MW11. The graphs provide a general representation and demonstrate the overall decline of total BTEX concentrations at the site over time, as well as leveling out of contaminant concentrations. Historical groundwater quality data is located in Appendix A.

6.0 RECEPTOR SURVEY

Sovereign reassessed site conditions and concluded that the receptor survey previously completed by CATLIN in the RAO & RCAP dated May 6, 2004 still applies. There has been no change in receptor impact, and there have been no changes to land use of the site or the surrounding areas.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on historical data and fieldwork and laboratory analytical data gathered during the 2006-2007 monitoring period, the following conclusions and recommendations are presented:

1. Previous investigations indicate petroleum constituent concentrations in vadose zone soils at the site do not require additional remediation at this time.
2. Shallow surficial groundwater aquifer flow is into the site from the east and away from the site to the north and west. Intermediate well groundwater elevation maps show a southwesterly flow.
3. No measurable free product was observed at any site well during the monitoring period.
4. VOCs and semi-VOCs are present in shallow and intermediate groundwater monitoring wells at concentrations above NCGWQSs.
5. Petroleum constituent concentrations, while above NCGWQSs, have decreased over time and have generally leveled out.
6. PID readings of system exhaust indicate 0.0 ppm when measuring for volatile organic compounds.

Based on findings of this report, Sovereign recommends that the system be shut down beginning June 1, 2007. Groundwater contaminant concentrations are relatively low, and system parameters indicate that operation of the system may not be contributing to the removal of contaminants at this point in the remediation phase.

Once the system is shut down, Sovereign recommends that all site monitoring wells (23 total) are monitored for the recurrence of free product and rebound of groundwater contamination over three groundwater gauging and sampling events - in July 2007, August 2007, and December 2007. Depth to free product (if present) and depth to groundwater from the top of each well casing should be measured and recorded in order to generate water table elevation information. In addition, groundwater samples should be analyzed using EPA Methods 602 plus Xylenes, 625 plus the 10 largest non-target peaks (to include the reporting of 1 and 2-methylnaphthalene), and Standard Method 3030C (lead). Findings and recommendations should be summarized and submitted in a monitoring report, which will include an evaluation of potential remedial alternatives to meet the 2L standards, if needed. If free product accumulates or contaminant concentrations rebound, appropriate remedial actions should be immediately implemented.

8.0 REFERENCES

AH Environmental Consultants, *Final Report, Wellhead Protection Plan – 2002 Update, Marine Corps Base, Camp Lejeune*, August 2002.

CATLIN Engineers and Scientists, *Remedial Action Optimization and Revised Corrective Action Plan, LCH 4015, Marine Corps Base Camp, Lejeune, North Carolina*, May 2004.

CATLIN Engineers and Scientists, *Report of Findings for Soil and Free Phase Product Assessment for LCH-4015 and LCH-4034, Marine Corps Base Camp, Lejeune, North Carolina*, December 2004.

Engineering and Environment, Inc., *Annual Groundwater Monitoring Report 2003-2005, LCH 4015 Site, Camp Lejeune, North Carolina*, January 2006.

J.A. Jones Environmental Services, Inc., *Underground Storage Tank Closure Report, UST LCH 4034-1, LCH 4034-2, LCH 4034-3, Building LCH-4015, Marine Corps Base Camp Lejeune, North Carolina*, June 23, 2002. .

Law Engineering and Environmental Services, Inc., *Comprehensive Site Assessment Report, Building LCH-4015, Marine Corps Base Camp Lejeune, North Carolina*, June 1996.

Law Engineering and Environmental Resources, Inc., *Corrective Action Plan for the Restoration of Petroleum Contaminated Soil and Groundwater, Building LCH-4015, Marine Corps Base Camp Lejeune, North Carolina*, August 27, 1996.

North Carolina Department of Environment and Natural Resources, Division of Waste Management, Underground Storage Tank Section, *Guidelines for Assessment and Corrective Action*, April 2001.

R.E. Wright Associates, Inc., *Five Well Site Check, Marine Corps Base, Camp Lejeune, North Carolina, LCH-4015 AST Fuel Farm*, February 1995.

Shaw Environmental and Infrastructure, Inc., *Final Annual Monitoring Report, August 2000 – August 2001, Soil and Groundwater Remediation, Building LCH-4015, Marine Corps Base Camp Lejeune, North Carolina*, February 2004.

Sovereign Consulting Inc., *FINAL Annual Groundwater Monitoring Report 2005-2006, LCH 4015, Marine Corps Base, Camp Lejeune, North Carolina*, July 21, 2006

TABLES

TABLE 1
WELL CONSTRUCTION INFORMATION
Incident Number and Name: 85352, Building LCH 4015

Monitoring Well	Date Installed	Measured Well Depth (feet below TOC)	Top of Casing Elevation (feet)	Hydrogeologic Zone
LCH4015-MW01	11/1/1994	14.87	32.53	Shallow
LCH4015-MW02	11/1/1994	12.23	31.69	Shallow
LCH4015-MW03	11/1/1994	15.31	34.70	Shallow
LCH4015-MW04	11/1/1994	15.39	35.29	Shallow
LCH4015-MW05	11/2/1994	11.05	20.56	Shallow
LCH4015-MW06	6/14/1995	12.12	31.80	Shallow
LCH4015-MW07	6/14/1995	12.10	32.38	Shallow
LCH4015-MW08	6/14/1995	12.47	31.38	Shallow
LCH4015-MW09	6/13/1995	12.12	30.91	Shallow
LCH4015-MW10	6/14/1995	12.03	30.89	Shallow
LCH4015-MW11	6/14/1995	12.00	31.77	Shallow
LCH4015-MW12	6/28/1995	11.75	31.87	Shallow
LCH4015-MW13	6/26/1995	47.62	31.97	Deep
LCH4015-MW14	6/28/1995	11.88	32.04	Shallow
LCH4015-MW15	6/28/1995	11.90	31.90	Shallow
LCH4015-MW16	6/28/1995	11.64	32.26	Shallow
LCH4015-MW17	6/29/1995	Well Lost	Well Lost	Shallow
LCH4015-MW18	6/15/1995	12.03	32.60	Shallow
LCH4015-MW19	6/15/1995	51.00	32.62	Deep
LCH4015-MW20	6/20/1995	47.90	31.83	Deep
LCH4015-MW21	6/6/2001	30.20	32.64	Intermediate
LCH4015-MW22	6/7/2001	31.95	31.72	Intermediate
LCH4015-MW23	6/6/2001	32.05	32.55	Intermediate
LCH4015-MW24	2/25/2005	14.40	31.24	Shallow

TOC Elevations taken from Sovereign Consulting Monitoring Well Survey Database – January 2007

TABLE 2
GROUNDWATER ELEVATION DATA
REPORTING PERIOD: JUNE 2006 – MAY 2007
Incident Number and Name: 85352 – Building LCH 4015

Monitoring Well	Top of Casing Elevation (feet)	Groundwater Elevation (feet)	
		10/11/2006	2/7/2007
LCH4015-MW01	32.53	29.72	30.45
LCH4015-MW02	31.69	30.30	30.82
LCH4015-MW03	34.70	29.90	30.44
LCH4015-MW04	35.29	30.28	30.84
LCH4015-MW05	20.56	18.36	18.58
LCH4015-MW06	31.80	29.27	29.50
LCH4015-MW07	32.38	30.28	31.98
LCH4015-MW08	31.38	30.18	30.03
LCH4015-MW09	30.91	29.98	29.77
LCH4015-MW10	30.89	30.02	30.10
LCH4015-MW11	31.77	28.45	28.78
LCH4015-MW12	31.87	27.62	28.40
LCH4015-MW13	31.97	9.87	11.89
LCH4015-MW14	32.04	27.63	28.37
LCH4015-MW15	31.90	28.75	28.91
LCH4015-MW16	32.26	31.29	Not Calculated
LCH4015-MW17	Well Lost	Not Calculated	Not Calculated
LCH4015-MW18	32.60	31.72	30.90
LCH4015-MW19	32.62	9.82	11.92
LCH4015-MW20	31.83	10.03	11.96
LCH4015-MW21	32.64	10.04	12.14
LCH4015-MW22	31.72	9.74	11.91
LCH4015-MW23	32.55	9.83	12.00
LCH4015-MW24	31.24	29.68	30.43

Not Calculated = Elevation not calculated due to insufficient data; MW-17 LOST.

TABLE 3
PRODUCT THICKNESS DATA
REPORTING PERIOD: JUNE 2006 – MAY 2007
Incident Number and Name: 85352 – Building LCH 4015

Monitoring Well	Top of Casing Elevation (feet)	Product Thickness (feet)	
		10/11/2006	2/7/2007
LCH4015-MW01	32.53	--	--
LCH4015-MW02	31.69	--	--
LCH4015-MW03	34.70	--	--
LCH4015-MW04	35.29	--	--
LCH4015-MW05	20.56	--	--
LCH4015-MW06	31.80	--	--
LCH4015-MW07	32.38	--	--
LCH4015-MW08	31.38	--	--
LCH4015-MW09	30.91	--	--
LCH4015-MW10	30.89	--	--
LCH4015-MW11	31.77	--	--
LCH4015-MW12	31.87	--	--
LCH4015-MW13	31.97	--	--
LCH4015-MW14	32.04	--	--
LCH4015-MW15	31.90	--	--
LCH4015-MW16	32.26	--	NM
LCH4015-MW17	Well Lost	NM	NM
LCH4015-MW18	32.60	--	--
LCH4015-MW19	32.62	--	--
LCH4015-MW20	31.83	--	--
LCH4015-MW21	32.64	--	--
LCH4015-MW22	31.72	--	--
LCH4015-MW23	32.55	--	--
LCH4015-MW24	31.24	--	--

NM = Well not measured during monitoring event – MW16 blocked by vehicle and MW17 lost.

TABLE 4
SUMMARY OF GROUNDWATER SAMPLING RESULTS
2006 - 2007
Incident Number and Name: 85352 – Building LCH 4015
Facility ID#: N/A
Analytical Method: EPA Method 602

Contaminant of Concern			Benzene	Diisopropyl ether (DIPE)	Ethylbenzene	Methyl-tert butyl ether (MTBE)	Toluene	Total Xylenes
Well ID	Sample ID	Date Collected						
USTLCH4015-MW01	USTLCH4015-MW01	10/12/2006 2/6/2007	12.0 6.80	7.23 0.809J	118 23.7	21.1 19.5	5.21 1.57	191.2 26.26
USTLCH4015-MW02	USTLCH4015-MW02	10/11/2006 2/7/2007	5.70 BQL	BQL BQL	6.34 BQL	14.1 14.2	1.94 BQL	82.18 BQL
USTLCH4015-MW03	USTLCH4015-MW03	10/12/2006 2/7/2007	BQL 0.965J	BQL BQL	0.367J BQL	0.786J BQL	0.831J BQL	0.924J BQL
USTLCH4015-MW05	USTLCH4015-MW05	3/6/2007	BQL	BQL	BQL	BQL	0.321J	BQL
USTLCH4015-MW08	USTLCH4015-MW08	3/6/2007	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW11	USTLCH4015-MW11	3/6/2007	BQL	BQL	7.40	BQL	0.857J	BQL
USTLCH4015-MW13	USTLCH4015-MW13	10/12/2006 2/6/2007	BQL BQL	BQL BQL	0.202J BQL	BQL BQL	0.785J BQL	BQL BQL
USTLCH4015-MW14	USTLCH4015-MW14	3/6/2007	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW18	USTLCH4015-MW18	2/6/2007	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW19	USTLCH4015-MW19	10/11/2006 2/6/2007	0.329J BQL	BQL BQL	0.832J BQL	BQL BQL	3.76 BQL	4.56 BQL
USTLCH4015-MW20	USTLCH4015-MW20	10/11/2006 2/7/2007	0.383J BQL	BQL BQL	0.731J BQL	BQL BQL	2.99 BQL	4.39 BQL
USTLCH4015-MW21	USTLCH4015-MW21	10/11/2006 2/6/2007	13.2 21.1	0.692J 0.513J	2.59 1.80	15.7 21.3	3.86 0.465J	4.80J BQL
USTLCH4015-MW22	USTLCH4015-MW22	10/11/2006 2/7/2007	BQL BQL	BQL BQL	0.705J BQL	9.31 8.34	3.09 BQL	2.57 BQL
USTLCH4015-MW23	USTLCH4015-MW23	10/11/2006 2/6/2007	116 122	7.05 4.50	3.51J BQL	84.4 77.5	5.17 BQL	5.74J BQL
USTLCH4015-MW24	USTLCH4015-MW24	10/11/2006 2/7/2007	1.34 BQL	1.53 0.770J	0.760J BQL	1.39J BQL	2.16 BQL	3.21J BQL
Duplicate	Duplicate	10/11/2006 2/6/2007	6.03 BQL	0.602J BQL	6.60 BQL	14.6 BQL	2.13 BQL	88.67 BQL
2L Standard (µg/l)			1	70	550	200	1,000	530

- Duplicate sample taken from MW02 in October 2006 and from MW19 in February 2007.
- All results reported in µg/l
- µg/L =micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits
- **BOLD** and shaded = detected concentration above applicable standard
- **J** = Detected below quantitation limits

TABLE 5
SUMMARY OF GROUNDWATER SAMPLING RESULTS
2006 - 2007
Incident Number and Name: 85352 – Building LCH 4015
Facility ID#: N/A
Analytical Method: EPA Method 625

Contaminant of Concern			Acenaphthene	Acenaphthylene	Bis(2-ethylhexyl)phthalate	Diethylphthalate	Di-n-octylphthalate	Fluorene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Tentatively Identified Compounds (TICs)	All Other Compounds
Well ID	Sample ID	Date Collected											
USTLCH4015-MW01	USTLCH4015-MW01	10/12/2006 2/6/2007	BQL BQL	BQL BQL	10.7 55.1	BQL BQL	BQL BQL	BQL BQL	11.1 BQL	16.4 4.00J	45.5 17.1	938.4 712.2	BQL BQL
USTLCH4015-MW02	USTLCH4015-MW02	10/11/2006 2/7/2007	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	9.40J BQL	395.9 125.93	BQL BQL
USTLCH4015-MW03	USTLCH4015-MW03	10/12/2006 2/7/2007	BQL BQL	BQL BQL	BQL 5.80J	BQL BQL	BQL 20.2	BQL BQL	BQL BQL	BQL BQL	BQL BQL	67.74 106.39	BQL BQL
USTLCH4015-MW05	USTLCH4015-MW05	3/6/2007	BQL	BQL	BQL	213	BQL	BQL	BQL	BQL	BQL	12	BQL
USTLCH4015-MW08	USTLCH4015-MW08	3/6/2007	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	13.8	BQL
USTLCH4015-MW11	USTLCH4015-MW11	3/6/2007	2.90J	2.60J	2.10J	6.70J	BQL	5.10J	BQL	BQL	6.80J	619.7	BQL
USTLCH4015-MW13	USTLCH4015-MW13	10/12/2006 2/6/2007	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	170.07 10.6	BQL BQL
USTLCH4015-MW14	USTLCH4015-MW14	3/6/2007	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.0	BQL
USTLCH4015-MW18	USTLCH4015-MW18	2/6/2007	2.10J	BQL	BQL	BQL	BQL	2.70J	BQL	BQL	BQL	16.7	BQL
USTLCH4015-MW19	USTLCH4015-MW19	10/11/2006 2/6/2007	1.40J 1.40J	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	78.35 21.9	BQL BQL
USTLCH4015-MW20	USTLCH4015-MW20	10/11/2006 2/7/2007	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	8.01 8.99	BQL BQL
USTLCH4015-MW21	USTLCH4015-MW21	10/11/2006 2/6/2007	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	44.0 54.3	96.69 111.5	BQL BQL
USTLCH4015-MW22	USTLCH4015-MW22	10/11/2006 2/7/2007	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	9.56 27.7	BQL BQL
USTLCH4015-MW23	USTLCH4015-MW23	10/24/2006 2/6/2007	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	50.0 110.8	BQL BQL
USTLCH4015-MW24	USTLCH4015-MW24	10/11/2006 2/7/2007	2.10J BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	2.60J BQL	BQL BQL	BQL BQL	4.80J BQL	225.67 213.47	BQL BQL
Duplicate	Duplicate	10/11/2006 2/6/2007	BQL 1.50J	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	9.80J BQL	187.55 12.3	BQL BQL
2L Standard (µg/l)			80	210	2.5	5,000	140	280	NE	14	21	NE	Varies

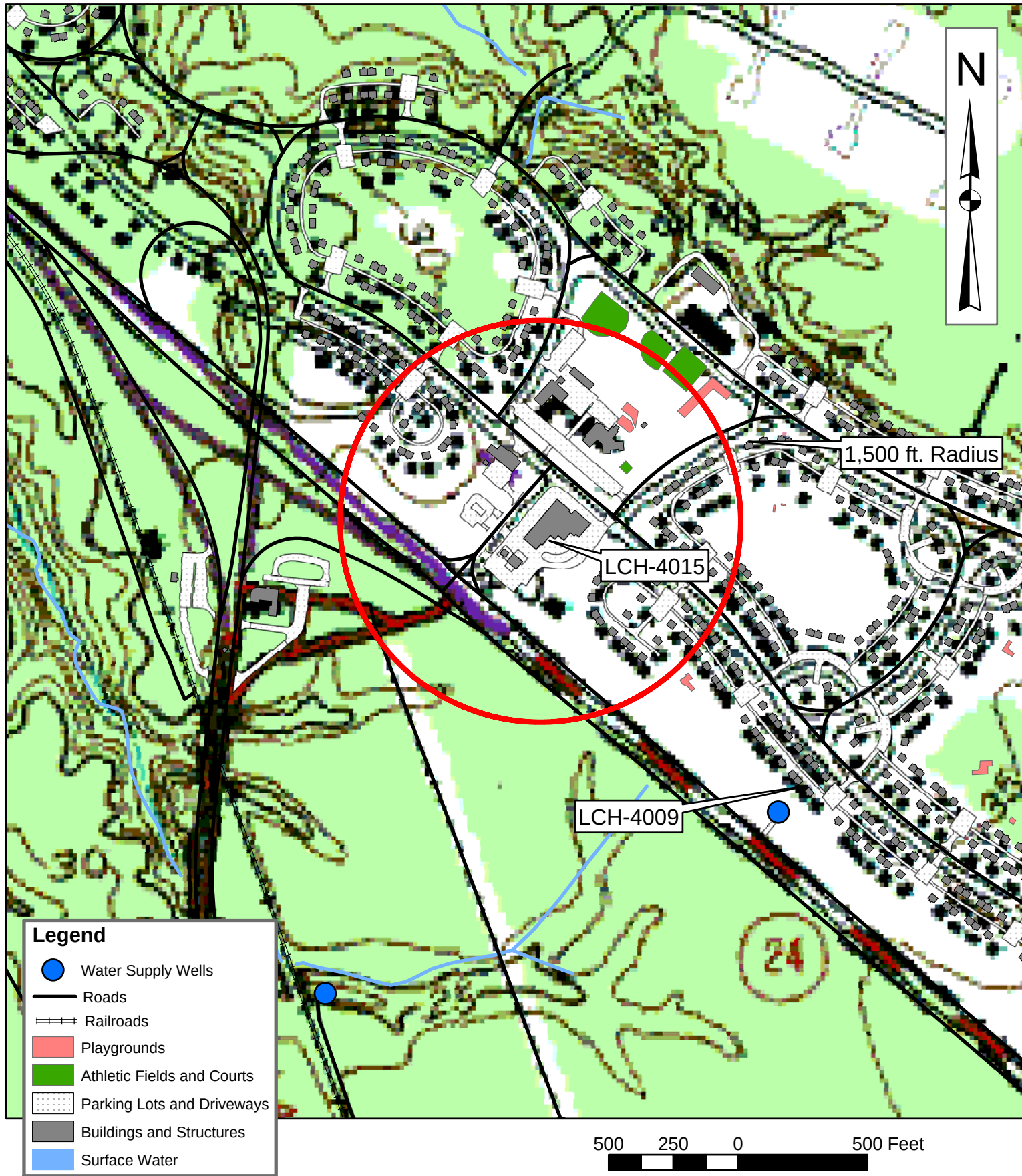
- Duplicate sample taken from MW02 in October 2006 and from MW19 in February 2007.
- All results reported in µg/l
- µg/L =micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits
- NE = Not Established; standard therefore compared to the reporting limit.
- J = Detected below quantitation limits.

TABLE 6
SUMMARY OF GROUNDWATER SAMPLING RESULTS
2006 - 2007
Incident Number and Name: 85352 – Building LCH 4015
Facility ID#: N/A
Analytical Method: Standard Method 3030C

Contaminant of Concern			Lead
Well ID	Sample ID	Date Collected	
USTLCH4015-MW01	USTLCH4015-MW01	10/12/2006 2/6/2007	0.875J 1.53J
USTLCH4015-MW02	USTLCH4015-MW02	10/11/2006 2/7/2007	0.500J 0.500J
USTLCH4015-MW03	USTLCH4015-MW03	10/12/2006 2/7/2007	BQL BQL
USTLCH4015-MW05	USTLCH4015-MW05	3/6/2007	BQL
USTLCH4015-MW08	USTLCH4015-MW08	3/6/2007	BQL
USTLCH4015-MW11	USTLCH4015-MW11	3/6/2007	BQL
USTLCH4015-MW13	USTLCH4015-MW13	10/12/2006 2/6/2007	BQL BQL
USTLCH4015-MW14	USTLCH4015-MW14	3/6/2007	BQL
USTLCH4015-MW18	USTLCH4015-MW18	2/6/2007	1.57J
USTLCH4015-MW19	USTLCH4015-MW19	10/11/2006 2/6/2007	BQL 0.525J
USTLCH4015-MW20	USTLCH4015-MW20	10/11/2006 2/7/2007	0.800J 1.02J
USTLCH4015-MW21	USTLCH4015-MW21	10/11/2006 2/6/2007	1.90J 0.650J
USTLCH4015-MW22	USTLCH4015-MW22	10/11/2006 2/7/2007	BQL BQL
USTLCH4015-MW23	USTLCH4015-MW23	10/11/2006 2/6/2007	BQL BQL
USTLCH4015-MW24	USTLCH4015-MW24	10/11/2006 2/7/2007	1.33J BQL
Duplicate	Duplicate	10/11/2006 2/6/2007	2.33J BQL
2L Standard (µg/l)			15

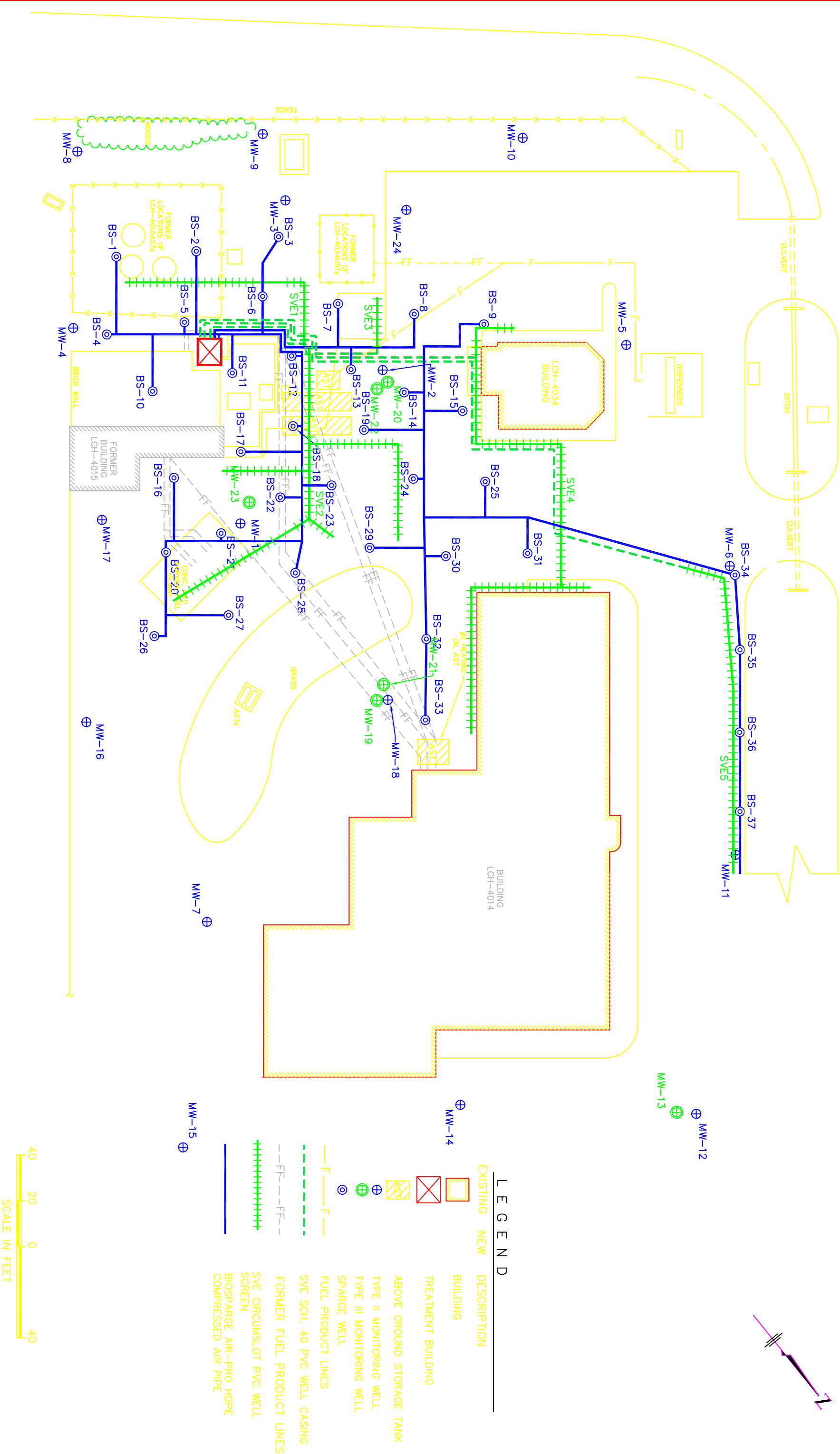
- Duplicate sample taken from MW02 in October 2006 and from MW19 in February 2007.
- All results reported in µg/l
- µg/L =micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits; laboratory limit of 5.00 µg/l

FIGURES



Data Sources: Data Layers provided by MCB Camp Lejeune GIS Office.

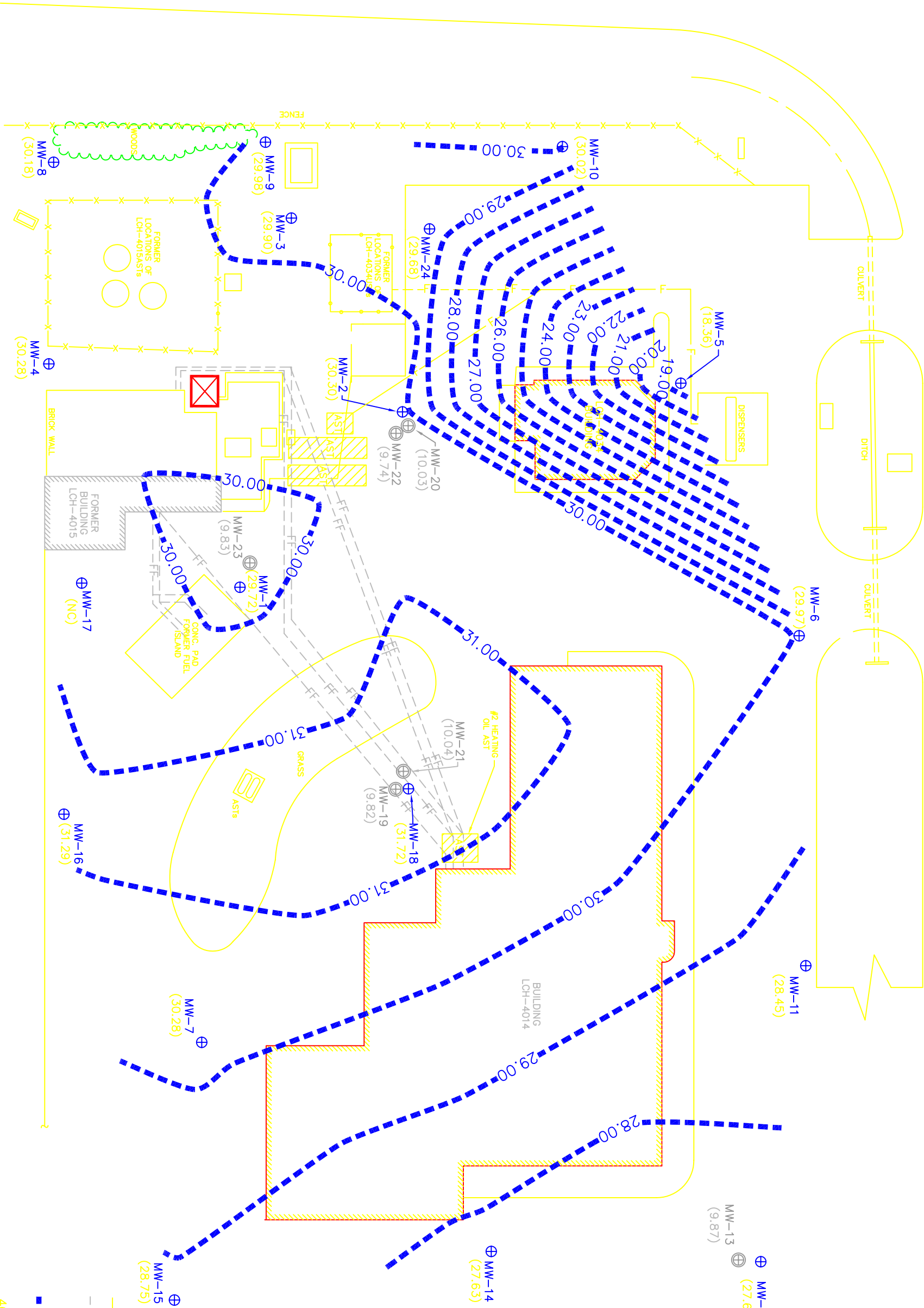
 SOVEREIGN CONSULTING INC. VIRGINIA BEACH, VIRGINIA	PROJECT LCH-4015 ANNUAL MONITORING REPORT MARINE CORPS BASE CAMP LEJEUNE, NC		TITLE GENERAL VICINITY TOPOGRAPHIC SITE MAP			FIGURE
	JOB NO. 206-063	DATE MAY 2007	SCALE AS SHOWN	DRAWN BY KAWS	CHECKED BY JAC	1



NOTE:
1. DRAWING ADAPTED FROM SITE MAP/REMEDIAL SYSTEM LAYOUT BY
J.A. JONES ENVIRONMENTAL SERVICES, DATED 10/14/98.

		PROJECT		TITLE		FIGURE			
SOVEREIGN CONSULTING INC. VIRGINIA BEACH, VIRGINIA		BUILDING LCH-4015 ANNUAL MONITORING REPORT MARINE CORPS BASE CAMP LEJEUNE, NC		SITE MAP WITH MONITORING WELL LOCATIONS		2			
JOB NO.	206-063	DATE	APRIL 2007	SCALE	1" = 40'	DRAWN BY	KAWS	CHECKED BY	JAC

206063-LCH-4015-FIGURE-2



LEGEND

EXISTING

NEW

DESCRIPTION

BUILDING

TREATMENT BUILDING

ABOVE GROUND STORAGE TANK

TYPE II MONITORING WELL (SHALLOW)

TYPE III MONITORING WELL (DEEP AND INTERMEDIATE)

FUEL PRODUCT LINES

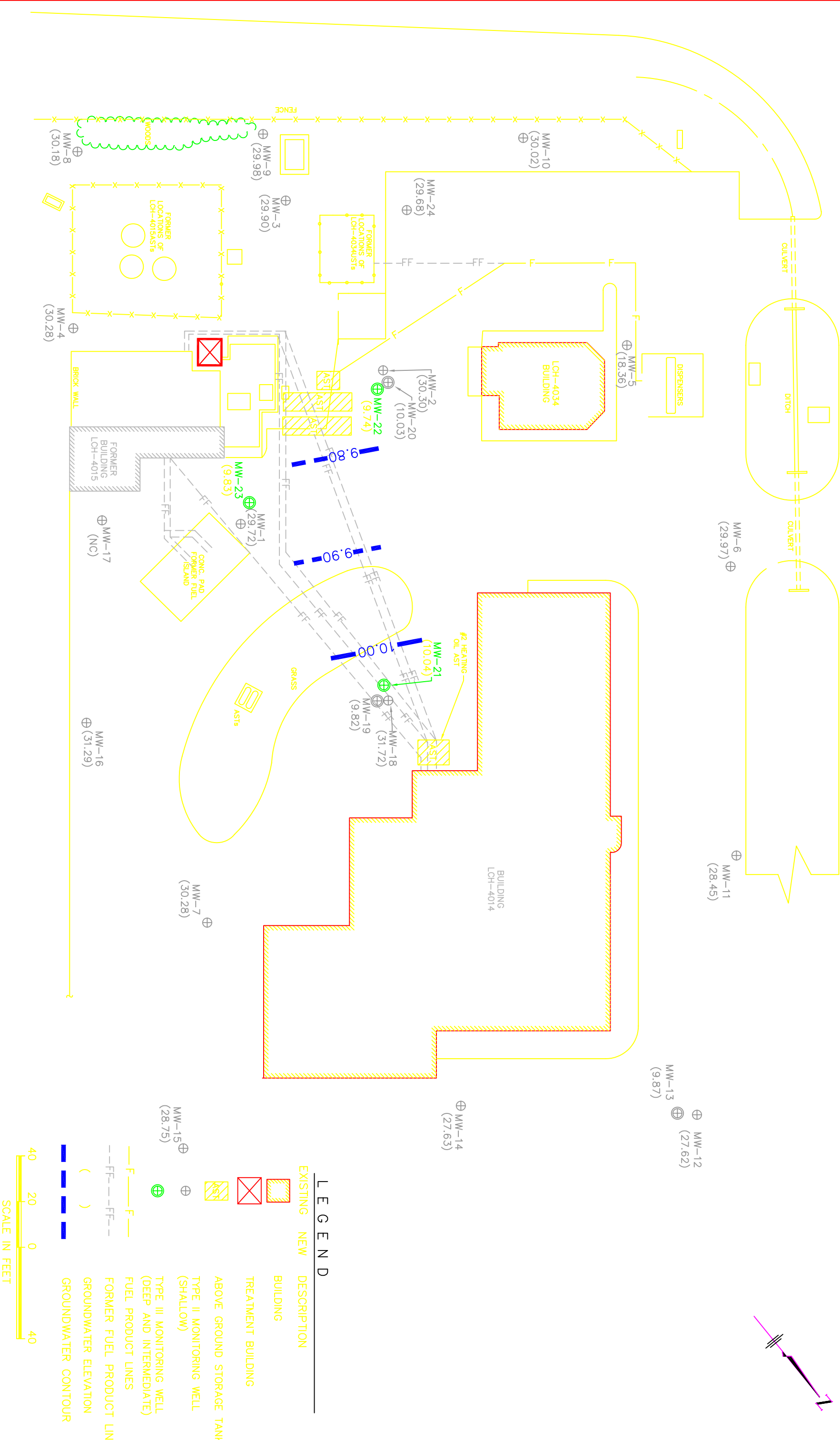
FORMER FUEL PRODUCT LINES

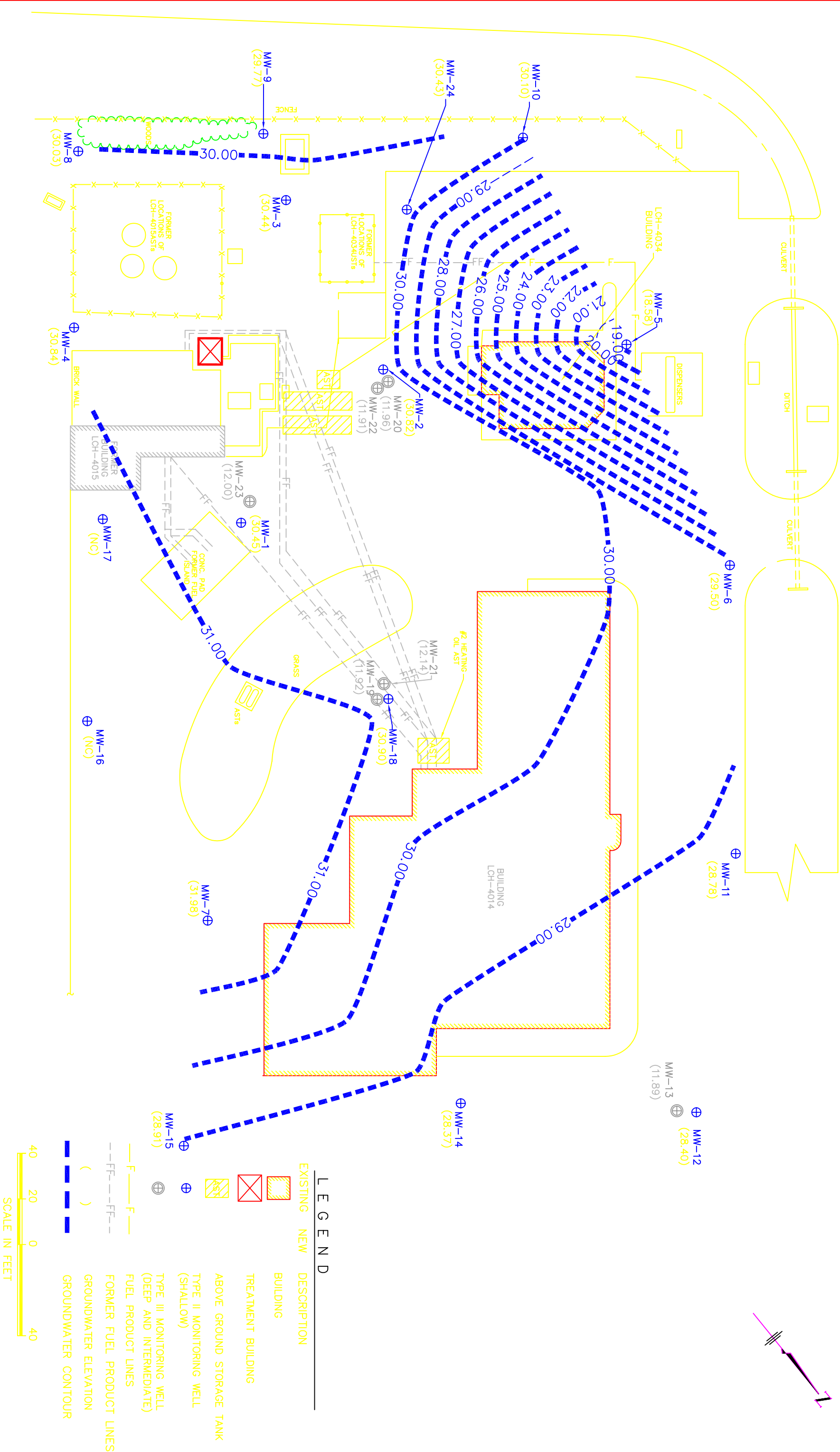
GROUNDWATER ELEVATION

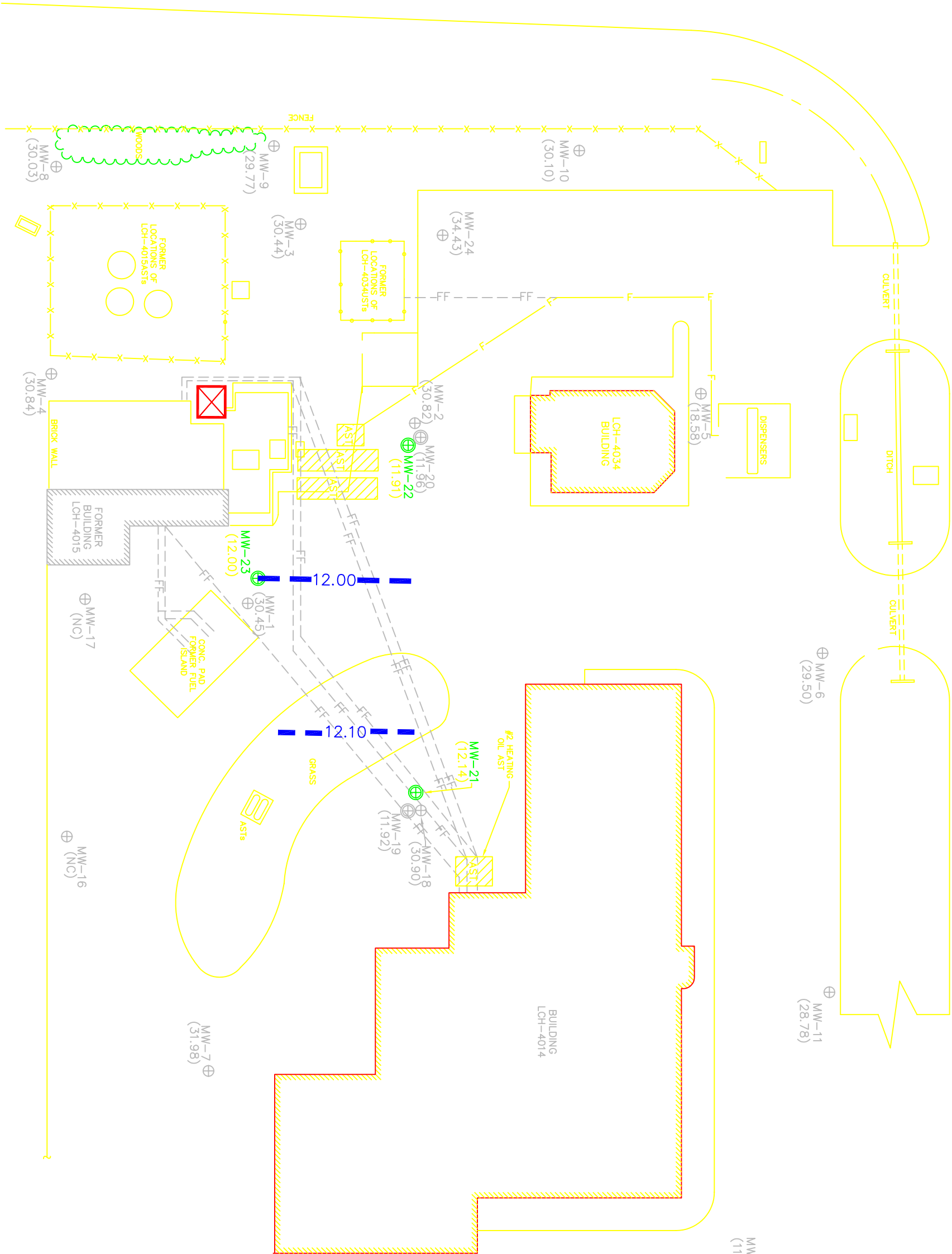
GROUNDWATER CONTOUR

SCALE IN FEET

NOTE:
1. DRAWING ADAPTED FROM SITE MAP/REMEDIAL SYSTEM LAYOUT BY J.A. JONES ENVIRONMENTAL SERVICES, DATED 10/14/98.
2. TYPE III MONITORING WELLS (DEEP AND INTERMEDIATE) HAVE BEEN OMITTED FROM CONTOURING.
3. CONTOUR INTERVAL = 1 FT.
4. NC = NOT CALCULATED.







LEGEND

EXISTING

NEW

DESCRIPTION

BUILDING

TREATMENT BUILDING

ABOVE GROUND STORAGE TANK

TYPE II MONITORING WELL (SHALLOW)

TYPE III MONITORING WELL (DEEP AND INTERMEDIATE)

FUEL PRODUCT LINES

FORMER FUEL PRODUCT LINES

GROUNDWATER ELEVATION

GROUNDWATER CONTOUR

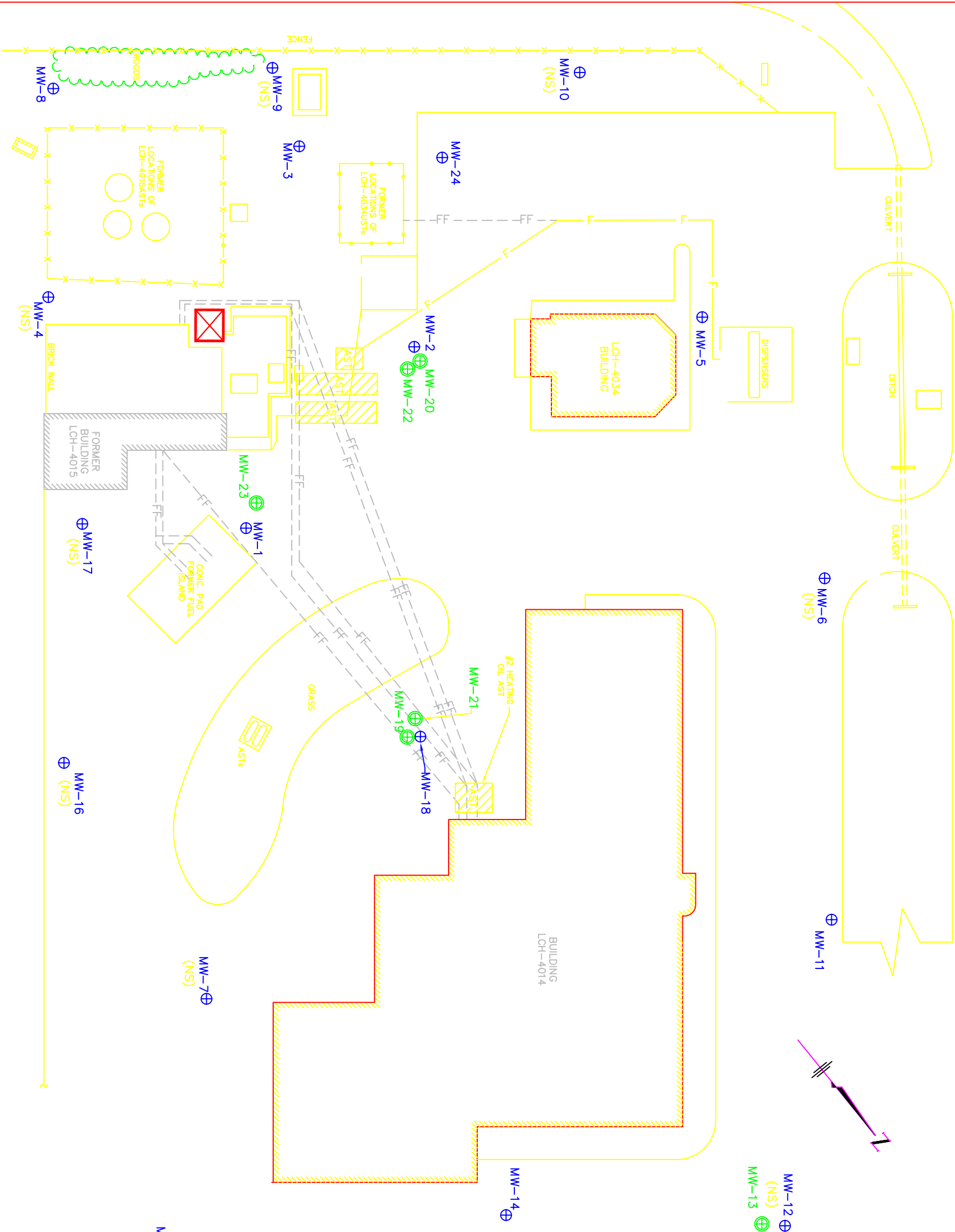
SCALE IN FEET

NOTE:

- DRAWING ADAPTED FROM SITE MAP/REMEDIAL SYSTEM LAYOUT BY J.A. JONES ENVIRONMENTAL SERVICES, DATED 10/14/98.
- TYPE II (SHALLOW) AND TYPE III MONITORING WELLS (DEEP) WERE NOT INCLUDED IN CONTOURING.
- CONTOUR INTERVAL = .10 FT.
- NC = NOT CALCULATED

Analytical Method: EPA Method 602										
Contaminant of Concern										
Well ID	Sample ID	Date Collected	Benzene	Diisopropyl ether (DIPE)	Ethylbenzene	Methyltert butyl ether (MTBE)	Toluene	Total Xylenes		
USTLCH4015 -MW01	USTLCH4015 -MW01	10/12/2006	12.0	7.23	118	21.1	5.21	191.2		
		2/6/2007	6.80	0.8091	23.7	19.5	1.57	26.26		
USTLCH4015 -MW02	USTLCH4015 -MW02	10/11/2006	5.20	BOL	6.34	14.1	1.94	82.18		
		2/7/2007	BOL	BOL	BOL	14.2	BOL	BOL		
USTLCH4015 -MW03	USTLCH4015 -MW03	10/12/2006	BOL	BOL	0.3674	0.7864	0.8314	0.9241		
		2/7/2007	0.9651	BOL	BOL	BOL	BOL	BOL		
USTLCH4015 -MW05	USTLCH4015 -MW05	3/6/2007	BOL	BOL	BOL	BOL	0.3211	BOL		
		3/6/2007	BOL	BOL	BOL	BOL	BOL	BOL		
USTLCH4015 -MW08	USTLCH4015 -MW08	3/6/2007	BOL	BOL	7.40	BOL	0.8571	BOL		
		10/12/2006	BOL	BOL	0.2021	BOL	0.7851	BOL		
USTLCH4015 -MW13	USTLCH4015 -MW13	2/6/2007	BOL	BOL	BOL	BOL	BOL	BOL		
USTLCH4015 -MW14	USTLCH4015 -MW14	3/6/2007	BOL	BOL	BOL	BOL	BOL	BOL		
USTLCH4015 -MW18	USTLCH4015 -MW18	2/6/2007	BOL	BOL	BOL	BOL	BOL	BOL		
USTLCH4015 -MW19	USTLCH4015 -MW19	10/11/2006	0.3291	BOL	0.8321	BOL	3.76	4.56		
		2/6/2007	BOL	BOL	BOL	BOL	BOL	BOL		
USTLCH4015 -MW20	USTLCH4015 -MW20	10/11/2006	0.3831	BOL	0.7311	BOL	2.99	4.39		
		2/7/2007	BOL	BOL	BOL	BOL	BOL	BOL		
USTLCH4015 -MW21	USTLCH4015 -MW21	10/11/2006	13.2	0.6921	2.59	15.7	3.86	4.80		
		2/6/2007	21.1	0.5131	1.80	21.3	0.4651	BOL		
USTLCH4015 -MW22	USTLCH4015 -MW22	10/11/2006	BOL	BOL	0.7051	9.31	3.09	2.57		
		2/7/2007	BOL	BOL	BOL	8.34	BOL	BOL		
USTLCH4015 -MW23	USTLCH4015 -MW23	10/11/2006	116	7.05	3.51	84.4	5.17	5.74		
		2/6/2007	122	4.50	BOL	77.5	BOL	BOL		
USTLCH4015 -MW24	USTLCH4015 -MW24	10/11/2006	1.34	1.53	0.7601	1.391	2.16	3.21		
		2/7/2007	0.7701	BOL	BOL	BOL	BOL	BOL		
Duplicate	Duplicate	10/11/2006	6.03	0.6021	6.60	14.6	2.13	88.67		
		2/6/2007	BOL	BOL	BOL	BOL	BOL	BOL		
21. Standard (µg/l)			1	70	550	200	1,000	530		

- Duplicate sample taken from MW02 in October 2006 and from MW19 in February 2007
- All results reported in µg/l
- BOL = micrograms per liter
- BOL = below laboratory reporting limit
- **BOLD** = detected concentration above the laboratory reporting limit
- J = Detected below quantitation limit
- Shaded concentrations exceed 2L GWQS.



NOTE:
1. DRAWING ADAPTED FROM SITE MAP/REMEDIAL SYSTEM LAYOUT BY
J.A. JONES ENVIRONMENTAL SERVICES, DATED 10/14/98.
2. NS = NOT SAMPLED



SOVEREIGN CONSULTING INC.
VIRGINIA BEACH, VIRGINIA

PROJECT
BUILDING LCH-4015
ANNUAL MONITORING REPORT

JOB NO. 206-063
DATE: APRIL 2007

TITLE
SITE MAP WITH 2006-2007
GROUNDWATER RESULTS -
EPA METHOD 602

SCALE: 1" = 40'
DRAWN BY: KAWS
CHECKED BY: JAC

FIGURE
7



EXISTING NEW

BUILDING

TREATMENT BUILDING

ABOVE GROUND STORAGE TANK

TYPE II MONITORING WELL (SHALLOW)

TYPE III MONITORING WELL (DEEP AND INTERMEDIATE)

FUEL PRODUCT LINES

FORMER FUEL PRODUCT LINES

Contaminant of Concern					Date Collected	Sample ID	Well ID
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW01	MW01	MW01	MW01	MW01	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW02	MW02	MW02	MW02	MW02	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW03	MW03	MW03	MW03	MW03	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW05	MW05	MW05	MW05	MW05	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW08	MW08	MW08	MW08	MW08	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW11	MW11	MW11	MW11	MW11	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW13	MW13	MW13	MW13	MW13	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW14	MW14	MW14	MW14	MW14	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW18	MW18	MW18	MW18	MW18	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW19	MW19	MW19	MW19	MW19	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW20	MW20	MW20	MW20	MW20	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW21	MW21	MW21	MW21	MW21	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW22	MW22	MW22	MW22	MW22	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW23	MW23	MW23	MW23	MW23	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
MW24	MW24	MW24	MW24	MW24	BOL	BOL	BOL
USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	USTLCH4015 -	BOL	BOL	BOL
Duplicate	Duplicate	Duplicate	Duplicate	Duplicate	BOL	BOL	BOL
21. Standard (µg/l)	21. Standard (µg/l)	21. Standard (µg/l)	21. Standard (µg/l)	21. Standard (µg/l)	80	210	2.5
					5,000	140	280
					NE	14	21
					NE	NE	NE
					Varies		

- Duplicate sample taken from MW02 in October 2006 and from MW19 in February 2007
- All results reported in µg/l
- µg/L = micrograms per liter
- BOL = Below Quantitation Limits
- NE = Not Established; standard therefore compared to the reporting limit
- J = Detected below quantitation limits
- Shaded concentrations exceed 2L GWOS
- Bold = detected concentrations above the laboratory reporting limit.

LEGEND

EXISTING

NEW

DESCRIPTION

BUILDING

TREATMENT BUILDING

ABOVE GROUND STORAGE TANK

TYPE II MONITORING WELL (SHALLOW)

TYPE III MONITORING WELL (DEEP AND INTERMEDIATE)

FUEL PRODUCT LINES

FORMER FUEL PRODUCT LINES

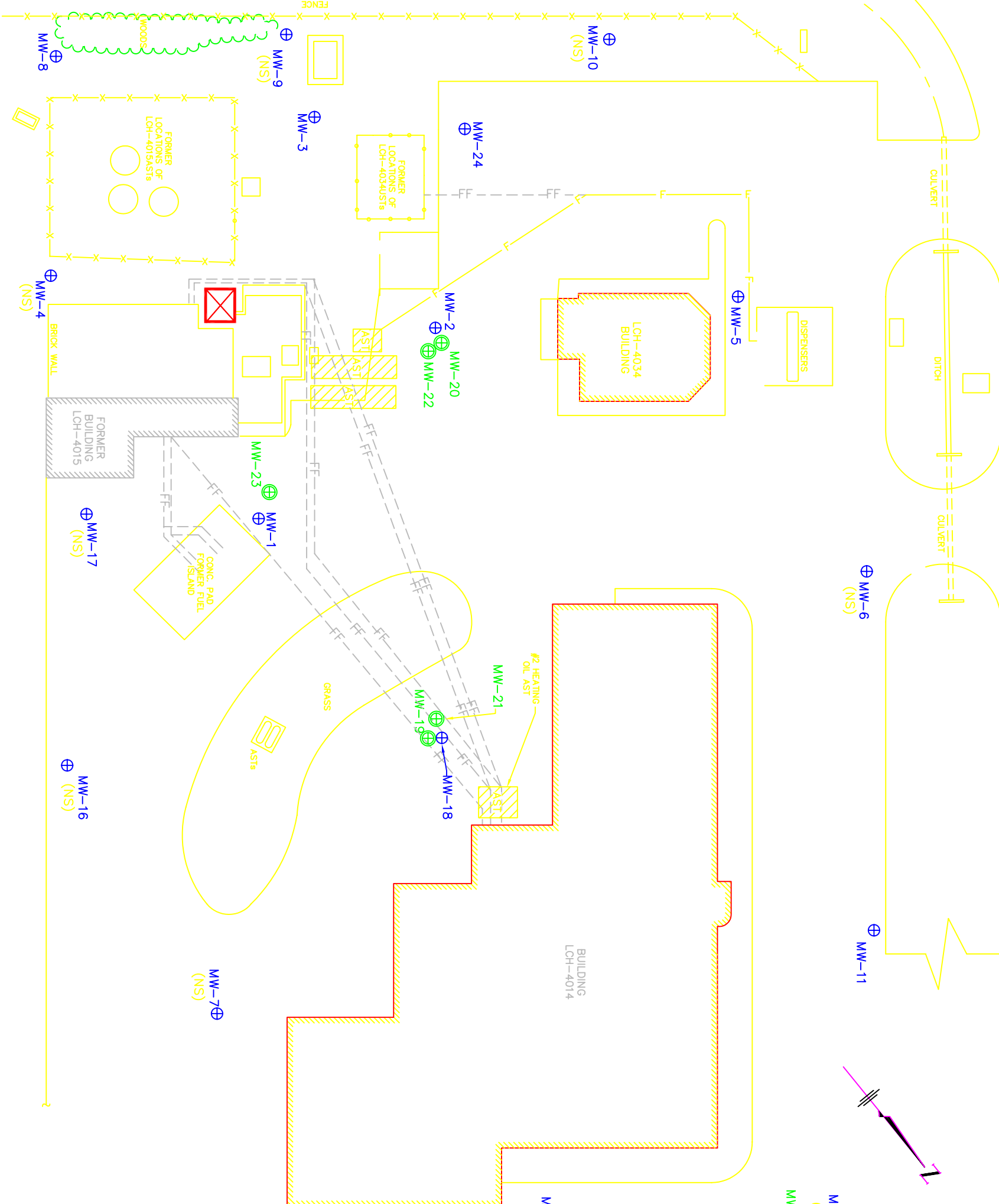
40

20

0

40

SCALE IN FEET



NOTE:
1. DRAWING ADAPTED FROM SITE MAP/REMEDIAL SYSTEM LAYOUT BY J.A. JONES ENVIRONMENTAL SERVICES, DATED 10/14/98.
2. NS = NOT SAMPLED

Analytical Method: EPA Method 3030C

Contaminant of Concern			
Well ID	Sample ID	Date Collected	Lead
USTLCH4015-MW01	USTLCH4015-MW01	10/12/2006 2/6/2007	0.875J 1.53J
USTLCH4015-MW02	USTLCH4015-MW02	10/11/2006 2/7/2007	0.500J 0.500J
USTLCH4015-MW03	USTLCH4015-MW03	10/12/2006 2/7/2007	BQL BQL
USTLCH4015-MW05	USTLCH4015-MW05	3/6/2007	BQL
USTLCH4015-MW08	USTLCH4015-MW08	3/6/2007	BQL
USTLCH4015-MW11	USTLCH4015-MW11	3/6/2007	BQL
USTLCH4015-MW13	USTLCH4015-MW13	10/12/2006 2/6/2007	BQL BQL
USTLCH4015-MW14	USTLCH4015-MW14	3/6/2007	BQL
USTLCH4015-MW18	USTLCH4015-MW18	2/6/2007	1.57J
USTLCH4015-MW19	USTLCH4015-MW19	10/11/2006 2/6/2007	BQL 0.525J
USTLCH4015-MW20	USTLCH4015-MW20	10/11/2006 2/7/2007	0.800J 1.02J
USTLCH4015-MW21	USTLCH4015-MW21	10/11/2006 2/6/2007	1.90J 0.650J
USTLCH4015-MW22	USTLCH4015-MW22	10/11/2006 2/7/2007	BQL BQL
USTLCH4015-MW23	USTLCH4015-MW23	10/11/2006 2/6/2007	BQL 1.33J
USTLCH4015-MW24	USTLCH4015-MW24	10/11/2006 2/7/2007	BQL 2.33J
Duplicate	Duplicate	10/11/2006 2/6/2007	BQL
2L Standard (µg/l)			15

- Duplicate sample taken from MW02 in October 2006 and from MW19 in February 2007
- All results reported in µg/l
- µg/L = micrograms per liter
- BQL = Below Quantitation Limits; laboratory limit of 5.00 µg/l
- Shaded concentrations exceed 2L GWQS.
- **Bold** = detected concentration above the laboratory reporting limit
- J = Detected below quantitation limits

LEGEND

- EXISTING

NEW

DESCRIPTION
- BUILDING
- TREATMENT BUILDING
- ABOVE GROUND STORAGE TANK
- TYPE II MONITORING WELL (SHALLOW)
- TYPE III MONITORING WELL (DEEP AND INTERMEDIATE)
- FUEL PRODUCT LINES
- FORMER FUEL PRODUCT LINES



SOVEREIGN CONSULTING INC.
VIRGINIA BEACH, VIRGINIA

PROJECT
BUILDING LCH-4015
ANNUAL MONITORING REPORT
MARINE CORPS BASE
CAMP LEJEUNE, NC

DATE
APRIL 2007

TITLE
SITE MAP WITH 2006-2007
GROUNDWATER RESULTS -
EPA METHOD 3030C

SCALE: 1" = 40'

DRAWN BY: KAWS
CHECKED BY: JAC

FIGURE

9

NOTE:
1. DRAWING ADAPTED FROM SITE MAP/REMEDIAL SYSTEM LAYOUT BY
J.A. JONES ENVIRONMENTAL SERVICES, DATED 10/14/98.
2. NS = NOT SAMPLED

FIGURE 10
Total BTEX Trend at MW01
LCH-4015

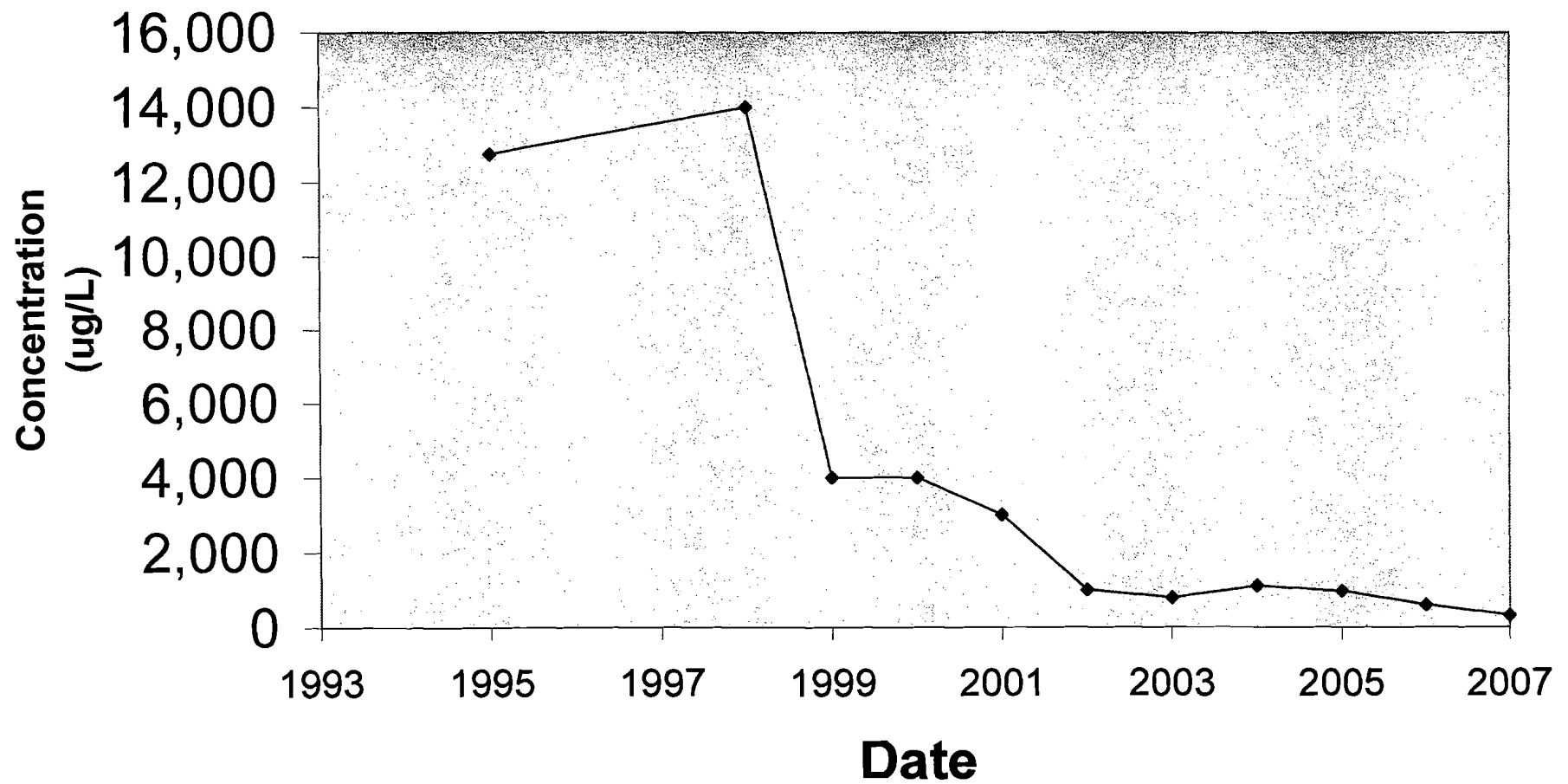


FIGURE 11
Total BTEX Trend at MW02
LCH-4015

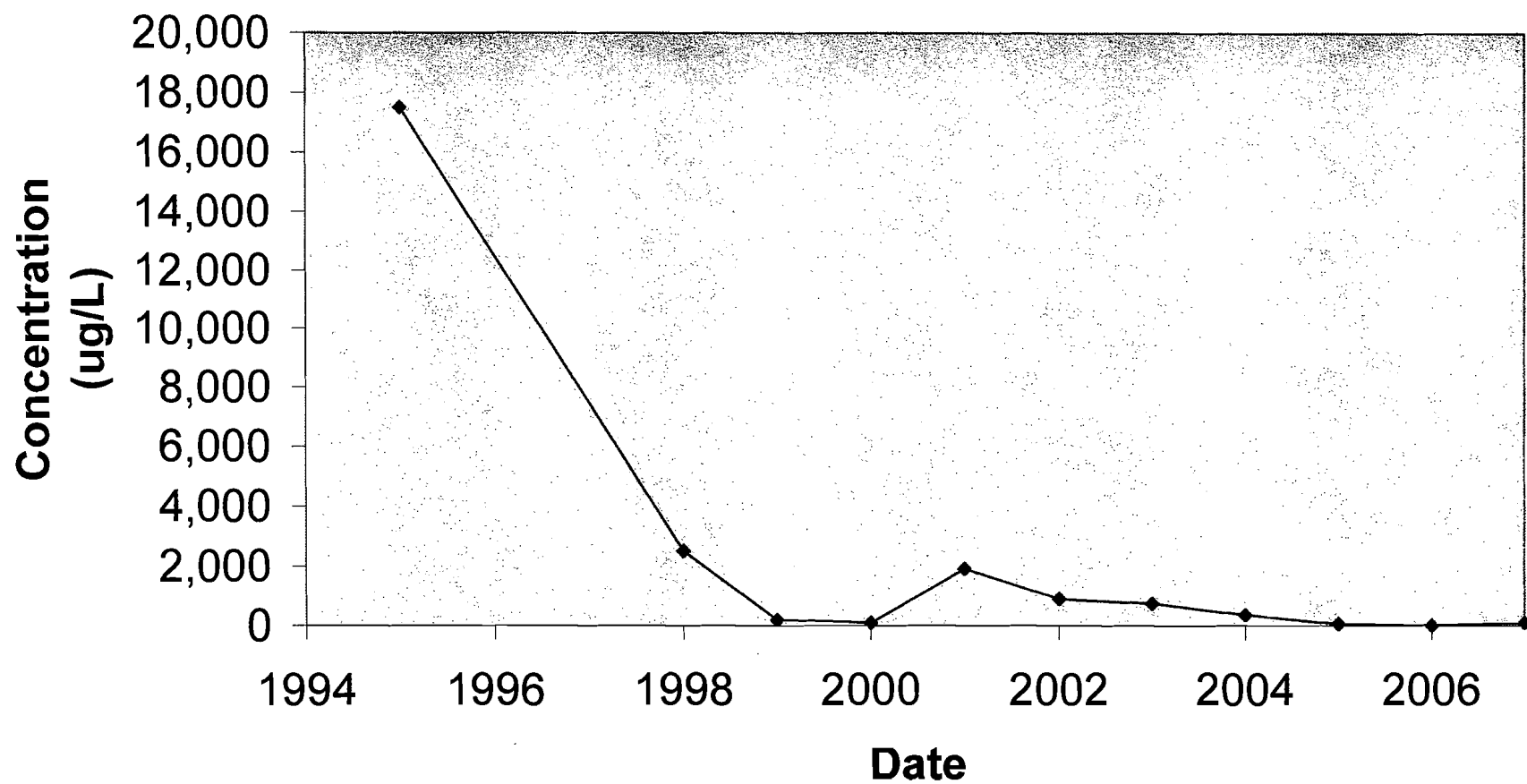


FIGURE 12
Total BETX Trend at MW3
LCH-4015

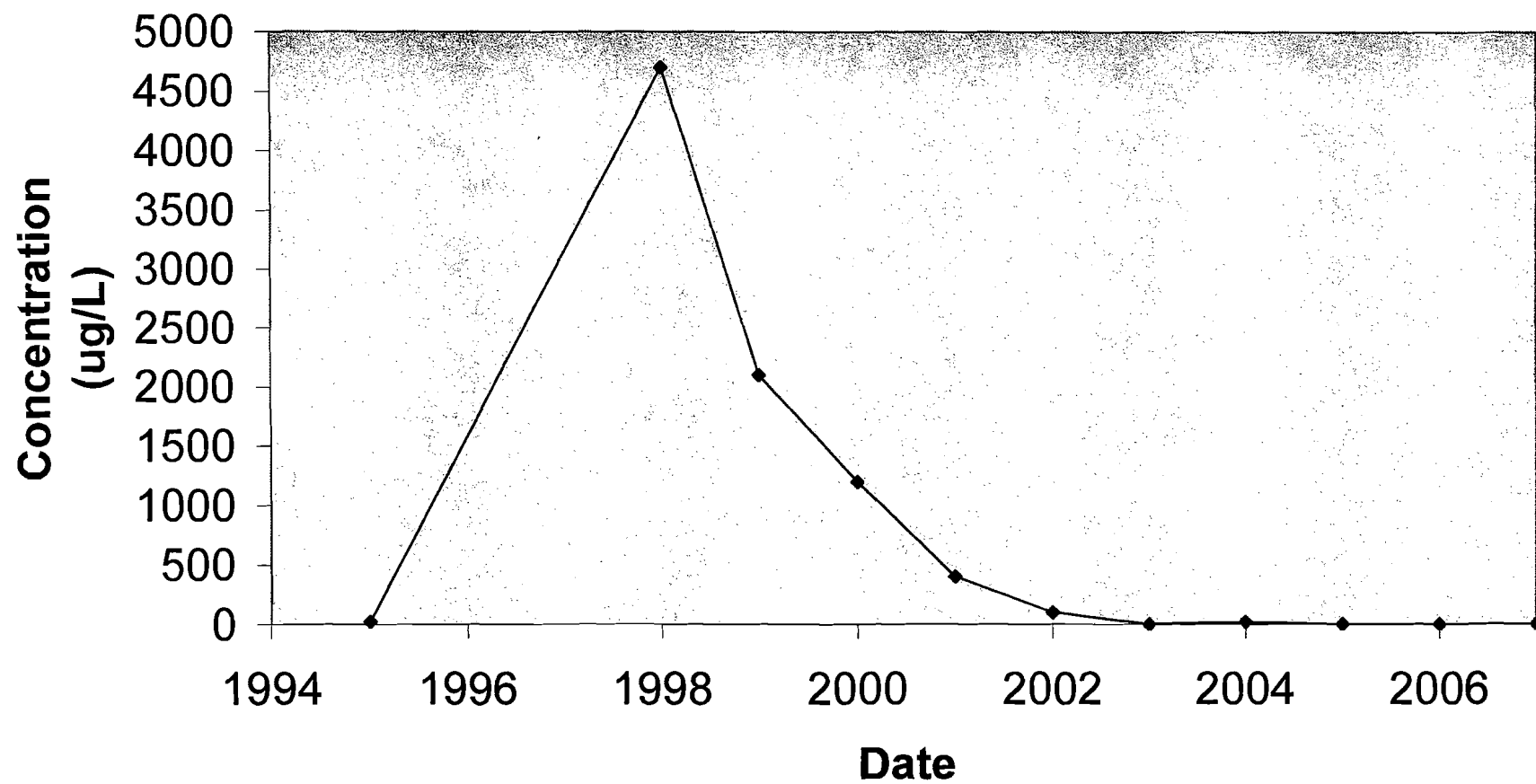
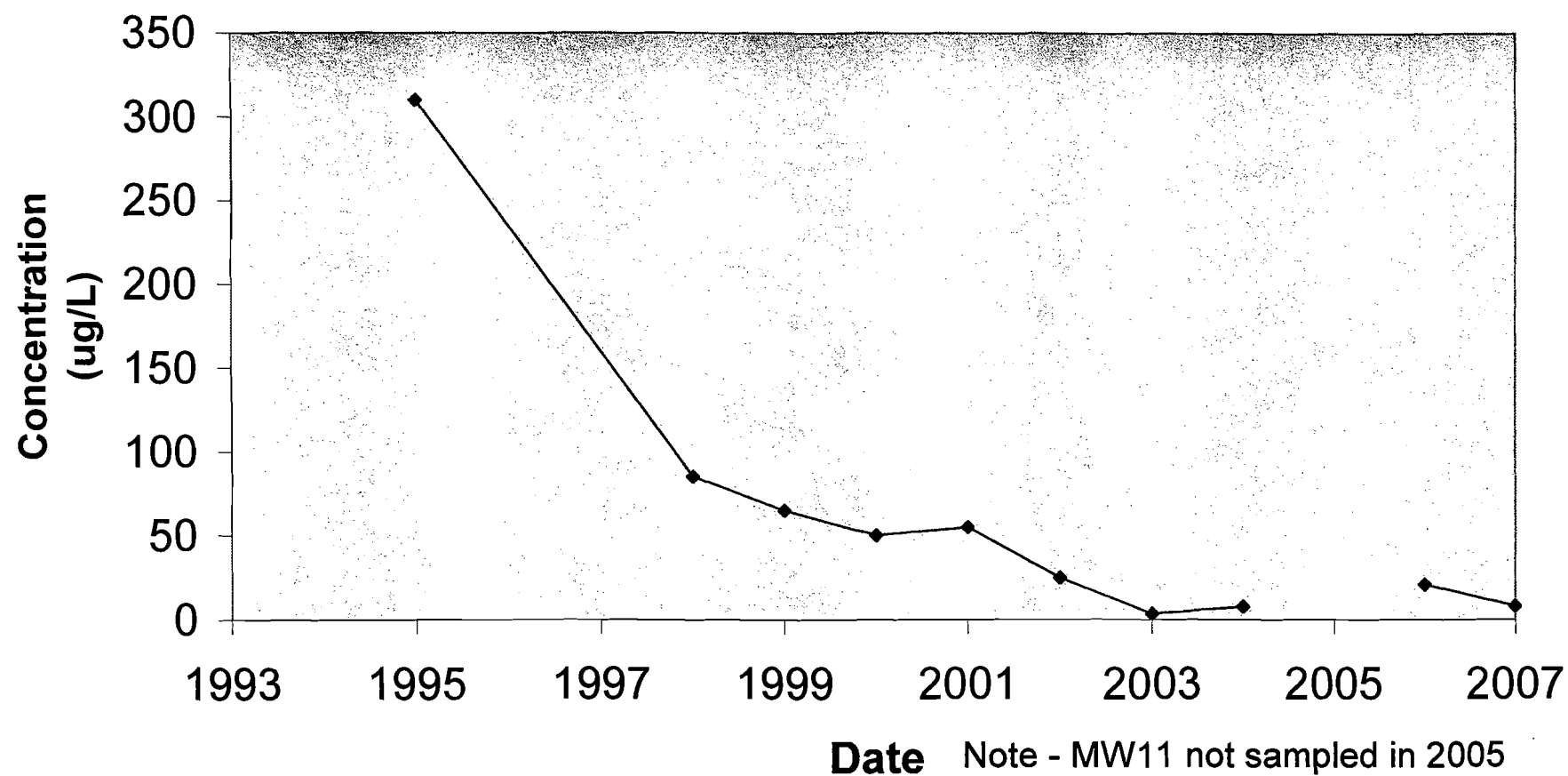


FIGURE 13
Total BTEX Trend at MW11
LCH-4015



APPENDIX A

HISTORICAL GROUNDWATER QUALITY DATA

Table
Historical Groundwater Analytical Data
September 2003 Sampling Event
LCH4015

Parameter	NCGWQS	GCL	MW-01	Duplicate	MW-02	MW-03	MW-05	MW-09	MW-11
VOCs by EPA Method 6210D (µg/L)									
Benzene	1	5,000	141	138	60.1	1	<1.0	<1.0	<1.0
Ethylbenzene	29	29,000	371	368	62.9	0.8 J	1.9	0.63 J	3.6
Toluene	1,000	257,500	17.5	14.8	7.2	<1.0	<1.0	0.66 J	<1.0
Xylenes (total)	530	87,500	269	226	612	<3.0	6.9	<3.0	<3.0
Methyl-tert butyl ether (MTBE)	200		5.8	4.8	7.5	<1.0	3.8	10.7	<1.0
Total BTEX			798.5	746.8	742.2	1.8	8.8	1.29	3.6
SVOCs by EPA Method 610 (µg/L)									
Acenaphthene	80		<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Acenaphthylene	210		<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Anthracene	2100		<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Benzo(a)anthracene	0.05		<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Flouranthene	280		<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Flourene	280		<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
1-Methylnaphthalene	RL		29	23.3	7.1	<5.2	<5.1	<5.0	<5.1
2-Methylnaphthalene	14		43.7	36.2	7.6	<5.2	<5.1	<5.0	<5.1
Naphthalene	21		170	138	59.9	<5.2	<5.1	4.2 J	<5.1
Phenanthrene	210		<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Pyrene	210		<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1

Bold type indicates detectable concentrations

Bold and highlighted indicates detectable concentrations above the GCL

NCGWQS - North Carolina Groundwater Quality Standard

GCL - Gross Contaminant Level

<# - not detected at the indicated reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

mg/L - milligrams per liter

ug/L - micrograms per liter

NE - Not established

RL - the NCGWQS for the constituent is the reporting limit

ND - None detected (no summed constituents were detected)

J - estimated concentration between minimum detection limit and reporting limit

NA - Not analyzed; laboratory quantitation for the indicated analyte was not conducted

NS - Not sampled; the indicated location was not designated for sampling during the event

E - estimated concentration above the linear quantitation range

Table
Historical Groundwater Analytical Data
November 2003 Sampling Event
LCH4015

Sample Location	NCGWQS	MW-01 11/19/03	MW-02 11/18/03	MW-03 11/18/03	MW-03D 11/18/03	MW-05 11/18/03	MW-06 11/19/03	MW-07 11/18/03	MW-08 11/18/03	MW-09 11/18/03
EPA 602 (µg/L)										
Benzene	1	139	22.4	1.3	1.5	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	377	31.9	1.3	1.4	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	8.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	147	62.5	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	10.1	24.0	2.6	2.7	3.3	<1.0	<1.0	<1.0	7.5
Total BTEX		671	118.7	2.6	2.9	ND	ND	ND	ND	ND
EPA 610 (µg/L)										
Acenaphthene	80	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Acenaphthylene	210	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Anthracene	2100	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Benzo(a)anthracene	0.05	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Fluoranthene	280	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Fluorene	280	<5.4	<5.4	2.5 J	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
1-Methylnaphthalene	RL	28.1	5.1 J	<5.0	<5.0	<5.0	<5.1	<5.0	2.9 J	<5.1
2-Methylnaphthalene	14	47.0	2.9 J	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Naphthalene	21	169	47.8	<5.0	<5.0	<5.0	<5.1	<5.0	2.3 J	<5.1
Phenanthrene	210	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Pyrene	210	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1

Sample Location	NCGWQS	MW-10 11/18/03	MW-11 12/11/03	MW-12 11/19/03	MW-14 11/19/03	MW-15 11/18/03	MW-16 11/18/03	MW-18 11/19/03	MW-19 11/19/03
EPA 602 (µg/L)									
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	0.86 J	<1.0
Toluene	1000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	5.6	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0
Total BTEX		ND	2.5	ND	ND	ND	ND	0.86	ND
EPA 610 (µg/L)									
Acenaphthene	80	<5.6	3.1 J	<5.2	<5.1	<5.1	<5.0	<5.2	2.4 J
Acenaphthylene	210	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1
Anthracene	2100	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1
Benzo(a)anthracene	0.05	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1
Fluoranthene	280	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1
Fluorene	280	<5.6	9.0	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1
1-Methylnaphthalene	RL	<5.6	36.8	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1
2-Methylnaphthalene	14	<5.6	6.3	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1
Naphthalene	21	<5.6	5.8	<5.2	<5.1	<5.1	<5.0	<5.2	3.2 J
Phenanthrene	210	<5.6	5.7	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1
Pyrene	210	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1

MW-03D is a duplicate sample collected at well MW-03

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: Detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table
Historical Groundwater Analytical Data
February 2004 Sampling Event
LCH4015

Parameter	NCGWQS	GCL	MW-01	MW-02	MW-03	MW-05	Duplicate	MW-09	MW-11
VOCs by EPA Method 621/0D (µg/L)									
Benzene	1	5,000	131	19.1	10.5	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	29,000	439	14.5	3.7	<1.0	<1.0	<1.0	3.9
Toluene	1,000	257,500	27.5	1.3	0.68 J	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	87,500	514	76.9	3.6	<3.0	<3.0	<3.0	<3.0
Methyl-tert butyl ether (MTBE)	200		8.1	94.4	7	5.5	5.5	8.0	<1.0
Total BTEX			1111.5	111.8	18.48	ND	ND	ND	3.9
SVOCs by EPA Method 610 (µg/L)									
Acenaphthene	80		<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Acenaphthylene	210		<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Anthracene	2100		<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Benzo(a)anthracene	0.05		<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Flouranthene	280		<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Flourene	280		<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	5.1
1-Methylnaphthalene	RL		26.9	3.5 J	<5.1	<5.0	<5.0	<5.0	4.6 J
2-Methylnaphthalene	14		38.7	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Naphthalene	21		15.7	15.7	2.3 J	<5.0	<5.0	<5.0	<5.1
Phenanthrene	210		<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Pyrene	210		<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1

Bold type indicates detectable concentrations

Bold and highlighted indicates detectable concentrations above the GCL

NCGWQS - North Carolina Groundwater Quality Standard

GCL - Gross Contaminant Level

<# - not detected at the indicated reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

mg/L - milligrams per liter

ug/L - micrograms per liter

NE - Not established

RL - the NCGWQS for the constituent is the reporting limit

ND - None detected (no summed constituents were detected)

J - estimated concentration between minimum detection limit and reporting limit

NA - Not analyzed; laboratory quantitation for the indicated analyte was not conducted

NS - Not sampled; the indicated location was not designated for sampling during the event

E - estimated concentration above the linear quantitation range

Table
Historical Groundwater Analytical Data
May 2004 Sampling Event
LCH4015

Parameter	NCGWQS	GCL	MW-01	MW-02	MW-03 ⁽¹⁾	Duplicate	MW-05	MW-06	MW-07	MW-08	MW-09	MW-10	MW-11	MW-12	MW-14	MW-15	MW-16	MW-18 ⁽¹⁾	MW-19
VOCs by EPA Method 6210D (µg/L)																			
Benzene	1	5,000	28.4	30.9	1.6	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	29,000	31.9	14.6	1.7	2	<1.0	<1.0	<1.0	<1.0	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1,000	257,500	13	1.8	<1.0	<1.0	<1.0	<1.0	0.52 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	87,500	704	85.3	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl-tert butyl ether (MTBE)	200		4.0 J	25.9	<1.0	<1.0	2.7	6.2	<1.0	<1.0	<1.0	9.8	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0
Total BTEX			1064.4	132.6	3.3	3.8	ND	ND	0.52	ND	3.5	ND	ND	ND	ND	ND	ND	ND	ND
SVOCs by EPA Method 610 (µg/L)																			
Acenaphthene	80		<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	4.3 J	<5.3	<5.1	<5.0	<5.1	<5.1	3.7 J
Acenaphthylene	210		<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0
Anthracene	2100		<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0
Benzo(a)anthracene	0.05		<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0
Flouranthene	280		<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0
Flourene	280		<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	8.0	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0
1-Methylnaphthalene	RL		25.3	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	29.5	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0
2-Methylnaphthalene	14		34.3	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	5.9	<5.3	<5.1	<5.0	<5.1	<5.1	2.1 J
Naphthalene	21		102	15.7	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	3.8 J	<5.3	<5.1	<5.0	<5.1	<5.1	2.1 J
Phenanthrene	210		<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0
Pyrene	210		<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0

⁽¹⁾ At well MW-03, 1,3-Dichlorobenzene was reported in the primary and duplicate samples at estimated concentrations of 0.69 µg/L and 0.78 µg/L, respectively, at well MW-18, 1,3-Dichlorobenzene was reported at a concentration of 1.6 µg/L, the NCGWQS for 1,3-Dichlorobenzene is 620 µg/L.

Bold type indicates detectable concentrations

Bold and highlighted indicates detectable concentrations above the GCL

NCGWQS - North Carolina Groundwater Quality Standard

GCL - Gross Contaminant Level

<# - not detected at the indicated reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

mg/L - milligrams per liter

ug/L - micrograms per liter

NE - Not established

RL - the NCGWQS for the constituent is the reporting limit

ND - None detected (no summed constituents were detected)

J - estimated concentration between minimum detection limit and reporting limit

NA - Not analyzed; laboratory quantitation for the indicated analyte was not conducted

NS - Not sampled; the indicated location was not designated for sampling during the event

E - estimated concentration above the linear quantitation range

Table
Historical Groundwater Analytical Data
August 2004 Sampling Event
LCH4015

Sample Location	NCGWQS	MW-01	DUP (MW-01)	MW-02	MW-03	MW-05	MW-09	MW-11
Date Sampled		08/11/04	08/11/04	08/11/04	08/11/04	08/11/04	08/11/04	08/11/04
EPA 602 (µg/L)								
Benzene	1	53.3	70.4	0.90 J	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	225	208	2.4	<1.0	<1.0	<1.0	5.4
Toluene	1000	8.6	13.3	<1.0	0.52 J	<1.0	0.50 J	0.63 J
Xylenes (total)	530	314	<3.0	13.3	<3.0	<3.0	<3.0	1.8 J
Methyl Tert Butyl Ether	200	<5.0	317	20.0	1.9	0.76 J	6.9	<1.0
Total BTEX		600.9	291.7	16.6	0.52	ND	0.5	7.83
EPA 610 (µg/L)								
Acenaphthene	80	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Acenaphthylene	210	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Anthracene	2100	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Benzo(a)anthracene	0.05	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Fluoranthene	280	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Fluorene	280	<48	<48	<4.8	3.3 J	<4.8	<4.8	16.4
1-Methylnaphthalene	RL	34.4 J	34.5 J	2.9 J	<4.8	<4.8	<4.8	38.2
2-Methylnaphthalene	14	49.0	48.6	3.2 J	<4.8	<4.8	<4.8	6.6 J
Naphthalene	21	207	216	45.2	<4.8	<4.8	<4.8	3.8 J
Phenanthrene	210	<48	<48	<4.8	<4.8	<4.8	<4.8	6.5 J
Pyrene	210	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5

DUP is a duplicate sample collected at well MW-01

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table
Historical Groundwater Analytical Data
November 2004 Sampling Event
LCH4015

Sample Location	NCGWQS	MW-01	MW-02*	MW-03	DUP (MW-03)	MW-13	MW-18
Date Sampled		11/22/04	11/22/04	11/22/04	11/23/04	11/23/04	11/23/04
EPA 602 (µg/L)							
Benzene	1	29.1	84.6	0.56 J	0.61 J	<1.0	<1.0
Ethylbenzene	29	189	64.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	4.6 J	6.7	<1.0	<1.0	<1.0	0.51 J
Xylenes (total)	530	390	220	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	<5.0	8.3	<1.0	<1.0	<1.0	<1.0
Total BTEX		612.7	375.3	0.56	0.61	ND	0.51
EPA 610 (µg/L)							
Acenaphthene	80	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.8	<4.8	2.3 J	2.1 J	<4.8	5.8
1-Methylnaphthalene	RL	17.3	7.6	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	25.7	5.2	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	88.1	94.5	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
MADEP VPH (µg/L)							
C5-C8 Aliphatics	420	296	197	65.7 J	154 J	<190	312
C9-C12 Aliphatics		195	<190	129	<190	<190	<190
C9-C10 Aromatics		<190	<190	106	<190	<190	<190
MADEP EPH (µg/L)							
C9-C18 Aliphatics		925	487	<190	55 J	<75	<75
C19-C36 Aliphatics	42000	2030	363	<190	131	<55	68.4
C11-C22 Aromatics		1150	222	169 J	106	<20	40.9
MADEP VPH + EPH (µg/L)							
C9-C12 + C9-C18 Aliphatics	4200	1120	487	129	55 J	<265	<265
C9-C10 + C11-C22 Aromatics	210	<1150	222	275 J	106	<210	40.9
SW 6010B* (µg/L)							
Lead	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Sample Location	NCGWQS	MW-19	MW-20	MW-21	MW-22	MW-23
Date Sampled		11/23/04	11/22/04	11/23/04	11/22/04	11/23/04
EPA 602 (µg/L)						
Benzene	1	<1.0	<1.0	20.8	<1.0	73.9
Ethylbenzene	29	<1.0	<1.0	5.2	<1.0	1.3
Toluene	1000	<1.0	<1.0	2.0	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	2.7 J	<3.0	1.3 J
Methyl Tert Butyl Ether	200	<1.0	<1.0	21.3	<1.0	34.3
Total BTEX		ND	ND	30.7	ND	76.5
EPA 610 (µg/L)						
Acenaphthene	80	<4.8	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.8	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.8	<4.8	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	<4.8	14.9	15.3	<4.8	<4.8
Phenanthrene	210	<4.8	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<4.8	<4.8	<4.8	<4.8
MADEP VPH (µg/L)						
C5-C8 Aliphatics	420	<190	143 J	<190	<190	149
C9-C12 Aliphatics		<190	<190	<190	<190	<190
C9-C10 Aromatics		<190	<190	<190	<190	<190
MADEP EPH (µg/L)						
C9-C18 Aliphatics		<75	<75	<75	<75	<75
C19-C36 Aliphatics	42000	<55	<55	119	<55	<55
C11-C22 Aromatics		<20	<20	95.8	<20	<20
MADEP VPH + EPH (µg/L)						
C9-C12 + C9-C18 Aliphatics	4200	<265	<265	<265	<265	<265
C9-C10 + C11-C22 Aromatics	210	<210	<210	95.8	<210	<210
SW 6010B/3030C (µg/L)						
Lead	15	<5.0	7.7	<40	<5.0	<50

* At well MW-02, Chlorobenzene was detected at a concentration of 3.0 ug/L (NCGWQS of 50 ug/L)

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table
Historical Groundwater Analytical Data
March 2005 Sampling Event
LCH4015

Sample Location	NCGWQS	MW-24
Date Sampled		03/07/05
EPA 602 (µg/L)		
Benzene	1	4.38
Ethylbenzene	29	0.785 J
Toluene	1000	0.418 J
m,p-Xylene (1)		1.11 J
o-Xylene (1)		0.978 J
Total Xylenes (1)	530	2.088 J
1,2-Dichlorobenzene	620	15.8
1,3-Dichlorobenzene	620	<1.00
1,4-Dichlorobenzene	75	0.799 J
Naphthalene	21	19.3
Methyl-tert butyl ether	200	1.89 J
Diisopropyl ether	70	3.97
EPA 610 (µg/L)		
Acenaphthene	80	1.40 J
Bis(2-ethylhexyl)phthalate	3	1.40 J
Dimethylphthalate	RL	1.50 J
Fluorene	280	1.70 J
Naphthalene	21	11.1
TICs (total)		241.21 J
MADEP VPH (µg/L)		
C5-C8 Aliphatics	420	220
C9-C12 Aliphatics		130
C9-C10 Aromatics		300
MADEP EPH (µg/L)		
C9-C18 Aliphatics		<100
C19-C36 Aliphatics	42000	<100
C11-C22 Aromatics		140
MADEP VPH + EPH (µg/L)		
C9-C12 + C9-C18 Aliphatics	4200	130
C9-C10 + C11-C22 Aromatics	210	440
SW 6010B* (µg/L)		
Lead	15	<5.0

* At well MW-02, Chlorobenzene was detected at a concentration

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent

Total BTEX: Sum of detected concentrations of benzene, toluene

ND: None detected; no benzene, toluene, ethylbenzene, or xylene

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the I

Table
Historical Groundwater Analytical Data
May 2005 Sampling Event
LCH4015

Sample Location	NCGWQS	MW-01	MW-02	MW-03	DUP (MW-03)	MW-13	MW-18
Date Sampled		05/10/05	05/10/05	05/10/05	05/10/05	05/11/05	05/11/05
EPA 602 (µg/L)							
Benzene	1	30.1	13.1	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	270	13.5	<1.0	<1.0	<1.0	<1.0
Toluene	1000	14.8	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	659	32.6	<3.0	<3.0	<3.0	<3.0
Chlorobenzene	50	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	50.7	10.0	7.7	7.0	<1.0	2.4
1,3-Dichlorobenzene	620	<5.0	<1.0	0.83 J	0.59 J	<1.0	1.3
1,4-Dichlorobenzene	75	<5.0	<1.0	0.59 J	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	7.8	52.5	<1.0	<1.0	<1.0	<1.0
Total BTEX		973.9	59.2	ND	ND	ND	ND
EPA 625 (µg/L)							
Acenaphthene	80	<4.9	<4.8	1.3 J	1.2 J	<4.8	2.3 J
Acenaphthylene	210	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Anthracene	2100	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Benzo(a)anthracene	0.05	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Fluoranthene	280	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Fluorene	280	<4.9	<4.8	1.4 J	1.2 J	<4.8	3.1 J
1-Methylnaphthalene	RL	23.1	<4.8	<4.8	<5.0	<4.8	<5.0
2-Methylnaphthalene	14	34.2	<4.8	<4.8	<5.0	<4.8	<5.0
Naphthalene	21	165	11.5	1.6 J	<5.0	<4.8	<5.0
Phenanthrene	210	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Pyrene	210	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
SW 6010B* (µg/L)							
Lead	15	<5.0	<10	<5.0	<5.0	<5.0	<5.0

Sample Location	NCGWQS	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24
Date Sampled		05/11/05	05/10/05	05/11/05	05/10/05	05/11/05	05/10/05
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	17.5	<1.0	47.1	2.3
Ethylbenzene	29	<1.0	<1.0	4.2	<1.0	0.79 J	<1.0
Toluene	1000	<1.0	<1.0	1.1	0.96 J	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	1.1 J	<3.0	<3.0	<3.0
Chlorobenzene	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	22.1
1,3-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	28.8	1.2	31.9	3.0
Total BTEX		ND	ND	23.9	0.96	47.89	2.3
EPA 625 (µg/L)							
Acenaphthene	80	2.6 J	<4.8	<4.8	<4.8	<4.8	1.5 J
Acenaphthylene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluorene	280	1.1 J	<4.8	<4.8	<4.8	<4.8	1.8 J
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<4.8	<4.8	2.6 J
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<4.8	<4.8	2.8 J
Naphthalene	21	<4.8	24.8	20.4	<4.8	<4.8	<4.8
Phenanthrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
SW 6010B/3030C (µg/L)							
Lead	15	<5.0	<5.0	<50	<5.0	<50	<5.0

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table
Historical Groundwater Analytical Data
November 2005 Sampling Event
LCH4015

Sample Location	NCGWQS	MW-01	MW-02	MW-03	DUP (MW-02)	MW-13	MW-18
Date Sampled		11/14/05	11/14/05	11/14/05	11/14/05	11/14/05	11/14/05
EPA 602 (µg/L)							
Benzene	1	48.1	1.5	<1.0	1.9	<1.0	<1.0
Ethylbenzene	29	143	2.0	<1.0	2.3	<1.0	<1.0
Toluene	1000	4.9	<1.0	<1.0	<1.0	0.54 J	0.59 J
Xylenes (total)	530	268	5.6	<3.0	10.7	<3.0	<3.0
Chlorobenzene	50	2.1	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<32	<120	<10	<120	<3.0	<3.0
1,3-Dichlorobenzene	620	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	75	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	7.2	49.6	1.1	50.1	<1.0	<1.0
Total BTEX		464	9.1	ND	14.9	0.54	0.59
EPA 625 (µg/L)							
Acenaphthene	80	<4.9	<5.0	1.6 J	<5.0	<5.3	3 J
Acenaphthylene	210	<4.9	<5.0	<5.0	<5.0	<5.3	<5.3
Anthracene	2100	<4.9	<5.0	<5.0	<5.0	<5.3	<5.3
Benzo(a)anthracene	0.05	<4.9	<5.0	<5.0	<5.0	<5.3	<5.3
Fluoranthene	280	<4.9	<5.0	<5.0	<5.0	<5.3	<5.3
Fluorene	280	<4.9	<5.0	1.6 J	<5.0	<5.3	4.3 J
1-Methylnaphthalene	RL	23.1	15	5.2	<5.0	<4.8	<5.0
2-Methylnaphthalene	14	34.2	5.5	7.9	<5.0	<4.8	<5.0
Naphthalene	21	105	2.3 J	<5.0	2.1 J	<5.3	<5.3
Phenanthrene	210	<4.9	<5.0	<5.0	<5.0	<5.3	<5.3
Pyrene	210	<4.9	<5.0	<5.0	<5.0	<5.3	<5.3
SW 6010B* (µg/L)							
Lead	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Sample Location	NCGWQS	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24
Date Sampled		11/14/05	11/14/05	11/14/05	11/14/05	11/14/05	11/14/05
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	10.9	<1.0	4.2	1.8
Ethylbenzene	29	<1.0	<1.0	1.9	<1.0	0.66 J	<1.0
Toluene	1000	0.63 J	<1.0	0.7 J	0.89 J	0.71 J	0.57 J
Xylenes (total)	530	<3.0	<3.0	1.3 J	<3.0	1.3 J	<3.0
Chlorobenzene	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<15
1,3-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	26.1	1.9	17.9	1.7
Total BTEX		0.63	ND	14.76	0.89	6.87	2.37
EPA 625 (µg/L)							
Acenaphthene	80	<5.0	<4.8	<5.3	<5.3	<4.8	1.9 J
Acenaphthylene	210	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Anthracene	2100	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Benzo(a)anthracene	0.05	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Fluoranthene	280	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Fluorene	280	<5.0	<4.8	<5.3	<5.3	<4.8	2.1 J
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<4.8	<4.8	2.6 J
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<4.8	<4.8	2.8 J
Naphthalene	21	<5.0	9.2	32.3	<5.3	<4.8	4.4 J
Phenanthrene	210	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Pyrene	210	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
SW 6010B/3030C (µg/L)							
Lead	15	<5.0	<5.0	18.8	<5.0	10.1	<5.0

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table
Historical Groundwater Analytical Data
January 2006 Sampling Event
LCH4015

Parameter	NCGWQS	GCL	MW-01	MW-02	MW-03	MW-13	Duplicate	MW-19	MW-20	MW-21	MW-22	MW-23
VOCs by EPA Method 6210D (µg/L)												
All Compounds	Varies	Varies	<16.0	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Benzene	1	5,000	45.5	3.63	<1.00	<1.00	<1.00	<1.00	<1.00	20.2	<1.00	25.9
Diisopropyl ether (DIPE)			<8.00	<1.00	0.651	<1.00	<1.00	<1.00	<1.00	0.670	<1.00	1.81
Ethylbenzene	29	29,000	179	6.10	<1.00	<1.00	<1.00	<1.00	<1.00	3.05	<1.00	0.400
Methyl-tert butyl ether (MTBE)	200		4.98	16.7	0.949	<2.00	<2.00	<2.00	<2.00	15.4	<2.00	15.0
Toluene	1,000	257,500	10.1	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
m/p-Xylene			333	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
o-Xylene			37.5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	0.632	<2.00	<2.00
Xylenes (total)	530	87,500	<32.0	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
SVOCs by EPA Method 625 (µg/L)												
Bis(2-ethylhexyl)phthalate			8.70	<10.0	<10.0	<10.0	<10.0	2.80	<10.0	<10.0	<10.0	4.90
Flourene	280	950	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Naphthalene	21	15,500	111	2.10	<10.0	<10.0	<10.0	<10.0	<10.0	31.7	<10.0	<10.0
Phenol			<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
TICs (total)			835.4	143.25	54.91	<10.0	<10.0	<10.0	<10.0	89.7	<10.0	<10.0
All other Compounds	Varies	Varies	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Metals by EPA Method SW-6010B/3030C (µg/L)												
Lead	15	15,000	0.600	<5.0	<5.0	<5.0	<5.0	0.675	2.28	<5.0	<5.0	<5.0

Bold type indicates detectable concentrations

Bold and highlighted indicates detectable concentrations above the GCL

NCGWQS - North Carolina Groundwater Quality Standard

GCL - Gross Contaminant Level

<# - not detected at the indicated reporting limit

mg/L - milligrams per liter

ug/L - micrograms per liter

NE - Not established

RL - the NCGWQS for the constituent is the reporting limit

ND - None detected (no summed constituents were detected)

J - estimated concentration between minimum detection limit and reporting limit

NA - Not analyzed; laboratory quantitation for the indicated analyte was not conducted

NS - Not sampled; the indicated location was not designated for sampling during the event

E - estimated concentration above the linear quantitation range

Table
Historical Groundwater Analytical Data
October 2006 Sampling Event
LCH4015

Parameter	NCGWQS	MW-01	MW-02	MW-03	MW-13	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	Duplicate
VOCs by EPA Method 602 (ug/L)												
Benzene	1	12	5.70	<1.00	<1.00	0.329 J	0.383 J	13.2	<1.00	116	1.34	6.03
Diisopropyl ether (DIPE)	70	7.23	<1.00	<1.00	<1.00	<1.00	<1.00	0.692 J	<1.00	7.05	1.53	0.602 J
Ethylbenzene	29	118	6.34	0.367 J	0.202 J	0.832 J	0.731 J	2.59	0.705 J	3.51 J	0.760 J	6.06
Toluene	1,000	5.21	1.94	0.831 J	0.785 J	3.76	2.99	3.86	3.09	5.17	2.16	2.13
Xylenes (total)	530	191.20	82.18	0.924 J	<2.00	4.56	4.39	4.80 J	2.57	5.74 J	3.21 J	88.67
Methyl-tert butyl ether (MTBE)	200	21.1	14.1	0.768 J	<2.00	<2.00	<2.00	15.7	9.31	84.4	1.39 J	14.6
Total BTEX		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SVOCs by EPA Method 625 (ug/L)												
Acenaphthene	80	<10.0	<10.0	<10.0	<10.0	1.40 J	<10.0	<10.0	<10.0	<10.0	2.10 J	<10.0
Acenaphthylene	210	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bis(2-ethylhexyl)phthalate	3	10.7	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Diethylphthalate	5,000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Di-n-octylphthalate	140	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Anthracene	2100	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Benzo(a)anthracene	0.05	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Flouranthene	280	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Flourene	280	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	2.60 J	<10.0
1-Methylnaphthalene	RL	11.1	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Methylnaphthalene	14	16.4	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene	21	45.5	9.40 J	<10.0	<10.0	<10.0	<10.0	44.0	<10.0	<10.0	4.80 J	9.80 J
Phenanthrene	210	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
TIC's		938.4	395.9	67.74	170.07	78.35	8.01	96.69	9.56	50.0	225.67	187.55
Pyrene	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA 200.7 / SM 3030C (ug/L)												
Lead (EPA 6010B / SM 3030C) (ug/L)	15	0.875 J	0.500 J	< 5.0	< 5.0	< 5.0	0.800 J	1.90 J	< 5.0	< 5.0	1.33 J	2.33 J

Bold type indicates detectable contaminant concentrations

Bold and shaded indicates detectable concentrations above the NCGWQS

Bold and shaded indicates detectable concentrations above the GCL

NCGWQS - North Carolina Groundwater Quality Standard

GCL - Gross Contaminant Level

<# - not detected at the indicated reporting limit

ug/L - micrograms per liter

NE - Not established

RL - the NCGWQS for the constituent is the reporting limit

ND - None detected (no summed constituents were detected)

J - estimated concentration between minimum detection limit and reporting limit

B - Amount in prep blank > MDL

Table
Historical Groundwater Analytical Data
February 2007 Sampling Event
LCH4015

Parameter	NCGWQS	MW-01	MW-02	MW-03	MW-13	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	Duplicate
VOCs by EPA Method 602 (ug/L)													
Benzene	1	6.80	<1.00	0.965 J	<1.00	<1.00	<1.00	<1.00	21.1	<1.00	122	<1.00	<1.00
Diisopropyl ether (DIPE)	70	0.809 J	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0.513 J	<1.00	4.50	0.770 J	<1.00
Ethylbenzene	29	23.7	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.80	<1.00	<1.00	<1.00	<1.00
Toluene	1,000	1.57	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	0.465 J	<1.00	<1.00	<1.00	<1.00
Xylenes (total)	530	26.26	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Methyl-tert butyl ether (MTBE)	200	19.5	14.2	<2.00	<2.00	<2.00	<2.00	<2.00	21.3	8.34	77.5	<2.00	<2.00
Total BTEX		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SVOCs by EPA Method 625 (ug/L)													
Acenaphthene	80	<10.0	<10.0	<10.0	<10.0	2.10 J	1.40 J	<10.0	<10.0	<10.0	<10.0	<10.0	1.50 J
Acenaphthylene	210	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bis(2-ethylhexyl)phthalate	3	55.1	<10.0	5.80 J	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Diethylphthalate	5,000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Di-n-octylphthalate	140	<10.0	<10.0	20.2	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Anthracene	2100	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Benzo(a)anthracene	0.05	< 4.9	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Flouranthene	280	< 4.9	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Flourene	280	<10.0	<10.0	<10.0	<10.0	2.70 J	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
1-Methylnaphthalene	RL	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Methylnaphthalene	14	4.00 J	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene	21	17.1	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	54.3	<10.0	<10.0	<10.0	<10.0
Phenanthrene	210	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
TIC's		712.2	125.93	106.39	10.6	16.7	21.9	9.0	111.5	27.7	110.8	213.47	12.3
Pyrene	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA 200.7 / SM 3030C (ug/L)													
Lead (EPA 6010B / SM 3030C) (ug/L)	15	1.53 J	0.500 J	< 5.0	< 5.0	1.57 J	0.525 J	1.02 J	0.650 J	< 5.0	< 5.0	< 5.0	< 5.0

Bold type indicates detectable contaminant concentrations

Bold and shaded indicates detectable concentrations above the NCGWQS

Bold and shaded indicates detectable concentrations above the GCL

NCGWQS - North Carolina Groundwater Quality Standard

GCL - Gross Contaminant Level

<# - not detected at the indicated reporting limit

ug/L - micrograms per liter

NE - Not established

RL - the NCGWQS for the constituent is the reporting limit

ND - None detected (no summed constituents were detected)

J - estimated concentration between minimum detection limit and reporting limit

B - Amount in prep blank > MDL

APPENDIX B

LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION FROM 2006-2007 SAMPLING EVENTS



Mr. Chris Murray
Sovereign Consulting
405 Oakmeads Crescent
Suite 1
Virginia Beach VA 23462
Report Number: G650-85

Client Project: NV016
Report Revised: March 10, 2007

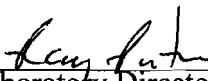
Dear Mr. Murray:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS/Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS/Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS/Paradigm Analytical Laboratories, Inc.



Laboratory Director
J. Patrick Weaver

3/10/2007

Date



CASE NARRATIVE

Date: October 30, 2006

Sovereign Consulting Project ID: LCH4015
SGS Environmental Services ID: G650-85

Eleven water samples and a trip blank were received at the laboratory October 13 for analysis as indicated on the chain of custody. The samples were received in good condition, within temperature and holding time limits.

With one exception the samples were extracted and analyzed within holding time and without quality control problems.

Sample MW-23 was originally extracted within the 7-day holding time limit for semi-volatiles by 625. During transfer of the extract to the analytical machine the sample extract was destroyed due to an accident.

The 625 for sample MW-23 was recollected and received at the lab on October 24 where it was extracted and analyzed without quality control exception.

The 602 and 3030C lead for MW-23 are reported in SGS Project ID G650-85. The 625 for MW-23 is reported in SGS Project ID G650-87.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW01

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/12/2006 12:00

Lab Sample ID: G650-85-1A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	12.0	5.00	0.99	5	10/18/2006	
Diisopropyl ether (DIPE)	7.23	5.00	0.785	5	10/18/2006	
Ethylbenzene	118	5.00	0.86	5	10/18/2006	
Methyl-tert butyl ether (MTBE)	21.1	10.0	2.03	5	10/18/2006	
Toluene	5.21	5.00	0.795	5	10/18/2006	
m/p-Xylene	167	10.0	1.63	5	10/18/2006	
o-Xylene	24.2	10.0	1.43	5	10/18/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	45.3	113

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.

Reviewed By: CLP

GC_LIMS_v3.0



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW02

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/11/2006 13:38

Lab Sample ID: G650-85-2A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	5.70	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	10/18/2006	
Ethylbenzene	6.34	1.00	0.172	1	10/18/2006	
Methyl-tert butyl ether (MTBE)	14.1	2.00	0.405	1	10/18/2006	
Toluene	1.94	1.00	0.159	1	10/18/2006	
m/p-Xylene	80.4	2.00	0.326	1	10/18/2006	
o-Xylene	1.78	2.00	0.285	1	10/18/2006	J

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	44.6	112

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW03

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/12/2006 10:45

Lab Sample ID: G650-85-3A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	10/18/2006	
Ethylbenzene	0.367	1.00	0.172	1	10/18/2006	J
Methyl-tert butyl ether (MTBE)	0.786	2.00	0.405	1	10/18/2006	J
Toluene	0.831	1.00	0.159	1	10/18/2006	J
m/p-Xylene	0.924	2.00	0.326	1	10/18/2006	J
o-Xylene	BQL	2.00	0.285	1	10/18/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	44.7	112

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: CLP

GC_LIMS_v3.0



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW13

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/12/2006 12:30

Lab Sample ID: G650-85-4A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	10/18/2006	
Ethylbenzene	0.202	1.00	0.172	1	10/18/2006	J
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	10/18/2006	
Toluene	0.785	1.00	0.159	1	10/18/2006	J
m/p-Xylene	BQL	2.00	0.326	1	10/18/2006	
o-Xylene	BQL	2.00	0.285	1	10/18/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.7	109

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW19

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/11/2006 11:20

Lab Sample ID: G650-85-5A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	0.329	1.00	0.198	1	10/18/2006	J
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	10/18/2006	
Ethylbenzene	0.832	1.00	0.172	1	10/18/2006	J
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	10/18/2006	
Toluene	3.76	1.00	0.159	1	10/18/2006	
m/p-Xylene	2.99	2.00	0.326	1	10/18/2006	
o-Xylene	1.57	2.00	0.285	1	10/18/2006	J

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.9	110

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW20

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/11/2006 13:10

Lab Sample ID: G650-85-6A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	0.383	1.00	0.198	1	10/19/2006	J
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	10/19/2006	
Ethylbenzene	0.731	1.00	0.172	1	10/19/2006	J
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	10/19/2006	
Toluene	2.99	1.00	0.159	1	10/19/2006	
m/p-Xylene	2.68	2.00	0.326	1	10/19/2006	
o-Xylene	1.71	2.00	0.285	1	10/19/2006	J

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	44.0	110

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v3.0



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW21

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/11/2006 11:05

Lab Sample ID: G650-85-7A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	13.2	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	0.692	1.00	0.157	1	10/18/2006	J
Ethylbenzene	2.59	1.00	0.172	1	10/18/2006	
Methyl-tert butyl ether (MTBE)	15.7	2.00	0.405	1	10/18/2006	
Toluene	3.86	1.00	0.159	1	10/18/2006	
m/p-Xylene	2.90	2.00	0.326	1	10/18/2006	
o-Xylene	1.90	2.00	0.285	1	10/18/2006	J

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.8	110

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v3.0



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW22

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/11/2006 14:05

Lab Sample ID: G650-85-8A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	10/18/2006	
Ethylbenzene	0.705	1.00	0.172	1	10/18/2006	J
Methyl-tert butyl ether (MTBE)	9.31	2.00	0.405	1	10/18/2006	
Toluene	3.09	1.00	0.159	1	10/18/2006	
m/p-Xylene	2.57	2.00	0.326	1	10/18/2006	
o-Xylene	BQL	2.00	0.285	1	10/18/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.6	109

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v3.0



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW23

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/11/2006 15:30

Lab Sample ID: G650-85-9A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	116	5.00	0.99	5	10/19/2006	
Diisopropyl ether (DIPE)	7.05	5.00	0.785	5	10/19/2006	
Ethylbenzene	3.51	5.00	0.86	5	10/19/2006	J
Methyl-tert butyl ether (MTBE)	84.4	10.0	2.03	5	10/19/2006	
Toluene	5.17	5.00	0.795	5	10/19/2006	
m/p-Xylene	3.71	10.0	1.63	5	10/19/2006	J
o-Xylene	2.03	10.0	1.43	5	10/19/2006	J

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.9	110

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v3.0



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW24

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/11/2006 14:53

Lab Sample ID: G650-85-10A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	1.34	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	1.53	1.00	0.157	1	10/18/2006	
Ethylbenzene	0.760	1.00	0.172	1	10/18/2006	J
Methyl-tert butyl ether (MTBE)	1.39	2.00	0.405	1	10/18/2006	J
Toluene	2.16	1.00	0.159	1	10/18/2006	
m/p-Xylene	1.94	2.00	0.326	1	10/18/2006	J
o-Xylene	1.27	2.00	0.285	1	10/18/2006	J

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	45.0	112

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-Duplicate

Analyzed By: CLP

Client Project ID: NV016

Date Collected: 10/11/2006 0:00

Lab Sample ID: G650-85-11A

Date Received: 10/13/2006

Lab Project ID: G650-85

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	6.03	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	0.602	1.00	0.157	1	10/18/2006	J
Ethylbenzene	6.60	1.00	0.172	1	10/18/2006	
Methyl-tert butyl ether (MTBE)	14.6	2.00	0.405	1	10/18/2006	
Toluene	2.13	1.00	0.159	1	10/18/2006	
m/p-Xylene	86.3	2.00	0.326	1	10/18/2006	
o-Xylene	2.37	2.00	0.285	1	10/18/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	45.0	112

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles
by GC 602

Client Sample ID: Trip Blank
Client Project ID: NV016
Lab Sample ID: G650-85-12A
Lab Project ID: G650-85

Analyzed By: CLP
Date Collected: 10/11/2006 0:00
Date Received: 10/13/2006
Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	10/18/2006	
Ethylbenzene	BQL	1.00	0.172	1	10/18/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	10/18/2006	
Toluene	BQL	1.00	0.159	1	10/18/2006	
m/p-Xylene	BQL	2.00	0.326	1	10/18/2006	
o-Xylene	BQL	2.00	0.285	1	10/18/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	44.1	110

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.



Results for Volatiles
by GC 602

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK3101806A
Lab Project ID:

Analyzed By: CLP
Date Collected:
Date Received:
Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	10/18/2006	
Ethylbenzene	BQL	1.00	0.172	1	10/18/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	10/18/2006	
Toluene	BQL	1.00	0.159	1	10/18/2006	
m/p-Xylene	BQL	2.00	0.326	1	10/18/2006	
o-Xylene	BQL	2.00	0.285	1	10/18/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.8	110

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.



Control Limits for QC Check / Laboratory Control Spike

Method: 602 Spike[ppb]: 10
Instrument: gc3
Filename: 101806\005r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	10.4	104.4	77.0	123.0	104	39	160
Chlorobenzene	10.5	104.5	80.5	119.5	105	55	136
1,2-Dichlorobenzene	10.3	102.8	68.0	132.0	103	37	164
1,3-Dichlorobenzene	10.3	103.0	72.5	127.5	103	50	141
1,4-Dichlorobenzene	10.4	104.1	69.5	130.5	104	42	143
• Diisopropyl ether	10.4	103.5	43.1	166.9	104	30	170
Ethylbenzene	10.1	101.3	63.0	137.0	101	32	160
• MTBE	10.6	105.7	46.8	163.2	106	35	165
Toluene	10.4	103.8	77.5	127.0	104	46	148
• m,p-Xylene	20.6	102.8	11.2	188.8	103	D	239
• o-Xylene	10.3	103.0	47.6	152.4	103	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected

Reviewed by: *RS*



Control Limits for MS-MSD

Method: 602 Spike[ppb]: 10
Instrument : gc3
Sample : 101806\017r0101.txt
MS : 101806\019r0101.txt
MSD : 101806\020r0101.txt

Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	9.9	22.2	22.5	123	126	38	150
Chlorobenzene	ND	12.6	12.9	124	127	55	135
1,2-Dichlorobenzene	ND	12.7	13.1	119	122	37	154
1,3-Dichlorobenzene	ND	12.3	12.7	120	124	50	141
1,4-Dichlorobenzene	1.9	12.0	12.3	101	104	42	143
• Diisopropyl ether	6.5	21.3	21.5	148	150	30	170
Ethylbenzene	20.0	32.7	33.0	127	130	32	160
• MTBE	ND	12.8	13.0	123	126	35	165
Toluene	8.9	21.5	21.4	126	125	46	148
• m,p-Xylene	25.0	49.8	50.3	124	126	D	239
• o-Xylene	10.5	22.9	22.7	124	122	36	164

Flags :

- + = out of QC limits.
- ♦ = lab generated limits.
- D = Detected
- ND = None Detected

Reviewed by:



Results for Volatiles

by GC 602

Client Sample ID: Method Blank

Analyzed By: CLP

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3101806B

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	10/18/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	10/18/2006	
Ethylbenzene	BQL	1.00	0.172	1	10/18/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	10/18/2006	
Toluene	BQL	1.00	0.159	1	10/18/2006	
m/p-Xylene	BQL	2.00	0.326	1	10/18/2006	
o-Xylene	BQL	2.00	0.285	1	10/18/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	44.0	110

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Control Limits for QC Check / Laboratory Control Spike

Method: 602 Spike[ppb]: 10
Instrument: gc3
Filename: 101806\023r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	11.5	115.1	77.0	123.0	115	39	150
Chlorobenzene	11.5	114.9	80.5	119.5	115	55	135
1,2-Dichlorobenzene	11.1	110.7	68.0	132.0	111	37	154
1,3-Dichlorobenzene	11.2	111.9	72.5	127.5	112	50	141
1,4-Dichlorobenzene	11.3	112.9	69.5	130.5	113	42	143
• Diisopropyl ether	11.4	114.1	43.1	156.9	114	30	170
Ethylbenzene	11.1	111.0	63.0	137.0	111	32	160
• MTBE	11.6	116.1	46.8	153.2	116	35	165
Toluene	11.4	114.2	77.5	127.0	114	46	148
• m,p-Xylene	22.4	112.2	11.2	188.8	112	D	239
• o-Xylene	11.3	112.8	47.6	152.4	113	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected

Reviewed by: Pv



Control Limits for MS-MSD

Method: 602 Spike[ppb]: 10
Instrument: gc3
Sample: 101806\035r0101.txt
MS: 101806\037r0101.txt
MSD: 101806\038r0101.txt

Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	1.1	13.9	12.5	128	114	39	150
Chlorobenzene	ND	13.0	12.0	128	118	55	135
1,2-Dichlorobenzene	ND	12.6	11.8	120	112	37	154
1,3-Dichlorobenzene	ND	12.7	11.7	123	114	50	141
1,4-Dichlorobenzene	2.6	12.3	11.4	97	88	42	143
• Diisopropyl ether	1.3	14.1	13.1	128	118	30	170
Ethylbenzene	8.7	21.6	20.5	129	118	32	160
• MTBE	ND	12.9	11.9	128	118	35	165
Toluene	22.9	35.7	34.8	128	119	46	148
• m,p-Xylene	38.9	64.8	63.1	129	121	D	239
• o-Xylene	9.4	22.2	21.2	128	118	36	164

Flags :

+ = out of QC limits.
• = lab generated limits.
D = Detected
ND = None Detected

Reviewed by: *lv*



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW01
Client Project ID: NV016
Lab Sample ID: G650-85-1H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/12/2006 12:00
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	10.7	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	11.1	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	16.4	10.0	1.89	1	10/26/2006	
Naphthalene	45.5	10.0	1.08	1	10/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW01
Client Project ID: NV016
Lab Sample ID: G650-85-1H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/12/2006 12:00
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	6.9	69		
2-Fluorophenol		10	8.1	81		
Nitrobenzene-d5		10	8	80		
Phenol-d6		10	8.1	81		
2,4,6-Tribromophenol		10	9.2	92		
4-Terphenyl-d14		10	8.3	83		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: RV



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW01
Client Project ID: NV016
Lab Sample ID: G650-85-1H
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/12/2006 12:00
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Benzene, 1,2,3-trimethyl-	6.05	000526-73-8	95	222
2	Benzoic acid, 2,4,6-trimethyl-	10.44	000480-63-7	91	218
3	Benzene, 1-ethyl-3,5-dimethyl-	6.78	000934-74-7	93	98.6
4	Indane	6.54	000496-11-7	93	94.2
5	Benzene, 1,2,3-trimethyl-	5.75	000526-73-8	95	65
6	2,3-Dihydro-1-methylindene	7.80	027133-93-3	95	56
7	Unknown	6.18			55.2
8	Benzene, 1,2,3-trimethyl-	6.38	000526-73-8	95	49
9	Benzene, 1-ethyl-2-methyl-	5.65	000611-14-3	95	40.4
10	Benzene, 1-ethyl-2-methyl-	5.69	000611-14-3	91	40

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: EW



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW02
Client Project ID: NV016
Lab Sample ID: G650-85-2H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 13:38
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	9.40	10.0	1.08	1	10/26/2006	J
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW02
Client Project ID: NV016
Lab Sample ID: G650-85-2H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 13:38
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	7.7	77		
2-Fluorophenol		10	8.2	82		
Nitrobenzene-d5		10	8.3	83		
Phenol-d6		10	8.3	83		
2,4,6-Tribromophenol		10	10.4	104		
4-Terphenyl-d14		10	9	90		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EAW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW02
Client Project ID: NV016
Lab Sample ID: G650-85-2H
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/11/2006 13:38
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Cyclohexene	2.15	000110-83-8	91	200
2	Aromatic, Unknown	6.54			86.3
3	Unknown	6.18			34.7
4	Benzene, 1,2,3-trimethyl-	6.06	000526-73-8	95	23.7
5	Indan, 1-methyl-	7.80	000767-58-8	91	12
6	Unknown	11.51			12
7	Benzo[c]thiophene	8.29	000270-82-6	95	8.9
8	Unknown	7.68			7.92
9	Benzene, 1-ethyl-3-methyl-	5.65	000620-14-4	94	5.24
10	1H-Inden-1-one, 2,3-dihydro-3-methyl-	9.47	006072-57-7	90	5.14

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by:



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW03
Client Project ID: NV016
Lab Sample ID: G650-85-3H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/12/2006 10:45
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	BQL	10.0	1.08	1	10/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW03
Client Project ID: NV016
Lab Sample ID: G650-85-3H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/12/2006 10:45
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8	80		
2-Fluorophenol		10	7.7	77		
Nitrobenzene-d5		10	8.3	83		
Phenol-d6		10	8.3	83		
2,4,6-Tribromophenol		10	10.8	108		
4-Terphenyl-d14		10	9.6	96		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: JY



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW03
Client Project ID: NV016
Lab Sample ID: G650-85-3H
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/12/2006 10:45
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	6.54			25.8
2	Indan, 1-methyl-	7.80	000767-58-8	94	15.5
3	Unknown	11.50			8.82
4	Cyclohexane, 1,2-dichloro-, trans-	6.96	000822-86-6	90	7.45
5	Naphthalene, 1,2,3,4-tetrahydro-6-methyl-	9.23	001680-51-9	95	5.94
6	Ketone, Unknown	10.43			4.23
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: rmp



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW13
Client Project ID: NV016
Lab Sample ID: G650-85-4H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/12/2006 12:30
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	BQL	10.0	1.08	1	10/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW13
Client Project ID: NV016
Lab Sample ID: G650-85-4H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/12/2006 12:30
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.2	82		
2-Fluorophenol		10	8.8	88		
Nitrobenzene-d5		10	9	90		
Phenol-d6		10	8.9	89		
2,4,6-Tribromophenol		10	10.5	105		
4-Terphenyl-d14		10	10.2	102		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: ew



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW13
Client Project ID: NV016
Lab Sample ID: G650-85-4H
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/12/2006 12:30
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	11.10			163
2	Alkene, Unknown	5.47	021400-25-9	78	7.07
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *FW*



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV016
Lab Sample ID: G650-85-5I
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 11:20
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	1.40	10.0	1.22	1	10/26/2006	J
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	BQL	10.0	1.08	1	10/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV016
Lab Sample ID: G650-85-5I
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 11:20
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.3	83		
2-Fluorophenol		10	8.2	82		
Nitrobenzene-d5		10	8.8	88		
Phenol-d6		10	8.4	84		
2,4,6-Tribromophenol		10	10.2	102		
4-Terphenyl-d14		10	10.2	102		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: *By*



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV016
Lab Sample ID: G650-85-51
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/11/2006 11:20
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	19.22			15.9
2	Unknown	19.80			15.3
3	Unknown	18.63			11.9
4	Unknown	20.46			11.1
5	Unknown	21.24			9.21
6	Unknown	11.50			8.68
7	Cyclohexane, 1,2-dichloro-, trans-	6.95	000822-86-6	90	6.26
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *mv*



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW20
Client Project ID: NV016
Lab Sample ID: G650-85-6H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 13:10
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	BQL	10.0	1.08	1	10/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW20
Client Project ID: NV016
Lab Sample ID: G650-85-6H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 13:10
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.3	83		
2-Fluorophenol		10	8.5	85		
Nitrobenzene-d5		10	8.7	87		
Phenol-d6		10	8.4	84		
2,4,6-Tribromophenol		10	9.8	98		
4-Terphenyl-d14		10	10.6	106		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EAW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW20
Client Project ID: NV016
Lab Sample ID: G650-85-6H
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/11/2006 13:10
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	11.50			8.01
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *EW*



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW21
Client Project ID: NV016
Lab Sample ID: G650-85-7H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 11:05
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	44.0	10.0	1.08	1	10/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW21
Client Project ID: NV016
Lab Sample ID: G650-85-7H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 11:05
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8	80
2-Fluorophenol	10	8.2	82
Nitrobenzene-d5	10	8.6	86
Phenol-d6	10	8.3	83
2,4,6-Tribromophenol	10	9.8	98
4-Terphenyl-d14	10	10.2	102

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: R



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW21
Client Project ID: NV016
Lab Sample ID: G650-85-7H
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/11/2006 11:05
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Indane	6.54	000496-11-7	93	87.2
2	Unknown	11.50			9.49
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *ml*



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW22
Client Project ID: NV016
Lab Sample ID: G650-85-8H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 14:05
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	BQL	10.0	1.08	1	10/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW22
Client Project ID: NV016
Lab Sample ID: G650-85-8H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 14:05
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.2	82		
2-Fluorophenol		10	8.2	82		
Nitrobenzene-d5		10	8.8	88		
Phenol-d6		10	8.4	84		
2,4,6-Tribromophenol		10	10.2	102		
4-Terphenyl-d14		10	9.7	97		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: *EL*



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW22
Client Project ID: NV016
Lab Sample ID: G650-85-8H
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/11/2006 14:05
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	11.50			9.56
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: RW



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW24
Client Project ID: NV016
Lab Sample ID: G650-85-10H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 14:53
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	2.10	10.0	1.22	1	10/26/2006	J
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	2.60	10.0	1.22	1	10/26/2006	J
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	4.80	10.0	1.08	1	10/26/2006	J
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW24
Client Project ID: NV016
Lab Sample ID: G650-85-10H
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 14:53
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.2	82		
2-Fluorophenol		10	8.4	84		
Nitrobenzene-d5		10	8.9	89		
Phenol-d6		10	8.7	87		
2,4,6-Tribromophenol		10	10.8	108		
4-Terphenyl-d14		10	10	100		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: RW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW24
Client Project ID: NV016
Lab Sample ID: G650-85-10H
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/11/2006 14:53
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	6.54			78.8
2	2,3-Dihydro-1-methylindene	7.80	027133-93-3	94	51.8
3	1H-Indene, 2,3-dihydro-1,6-dimethyl-	8.28	017059-48-2	94	18.5
4	Aromatic, Unknown	9.23			16.8
5	Benzene, 1,2,4,5-tetramethyl-	7.44	000095-93-2	97	12.7
6	Benzene, 1,2-diethyl-	6.80	000135-01-3	95	10.9
7	Unknown	8.65			10.4
8	Unknown	11.50			9.44
9	Benzene, 1,3-diethyl-	6.67	000141-93-5	97	8.54
10	Aromatic, Unknown	11.90			7.79

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: ELW



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-85-111
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 0:00
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	9.80	10.0	1.08	1	10/26/2006	J
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-85-111
Lab Project ID: G650-85

Analyzed By: EAW
Date Collected: 10/11/2006 0:00
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.2	82
2-Fluorophenol	10	7.9	79
Nitrobenzene-d5	10	8.7	87
Phenol-d6	10	8.2	82
2,4,6-Tribromophenol	10	10.9	109
4-Terphenyl-d14	10	8.7	87

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EAW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-85-111
Lab Project ID: G650-85
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/11/2006 0:00
Date Received: 10/13/2006
Date Extracted: 10/18/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	6.54			91.9
2	Benzene, 1,2,3-trimethyl-	6.05	000526-73-8	95	23.6
3	Unknown	6.17			22.2
4	Unknown	11.50			10.5
5	Benzo[c]thiophene	8.28	000270-82-6	95	9.48
6	Cyclohexane, 1,2-dichloro-, trans-	6.95	000822-86-6	90	7.49
7	Unknown	5.79			6.27
8	Alcohol, Unknown	10.65			5.67
9	1H-Inden-1-one, 2,3-dihydro-3-methyl-	9.47	006072-57-7	91	5.63
10	Maneb	15.22	012427-38-2	90	4.81

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *and*



Results for Semivolatiles
by GCMS 625

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB6488
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 10/18/2006
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	BQL	10.0	1.08	1	10/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB6488
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 10/18/2006
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.4	84		
2-Fluorophenol		10	9.2	92		
Nitrobenzene-d5		10	8.8	88		
Phenol-d6		10	8.8	88		
2,4,6-Tribromophenol		10	7.7	77		
4-Terphenyl-d14		10	10.6	106		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EW



**Results For Matrix Spike / Matrix Spike Duplicate and Laboratory Control Standard (MS/MSD/LCS)
by GCMS**

Client Sample ID: Batch QC

Client Project ID:

Lab Sample ID: Batch-6488-MS/MSD/LCS

Lab Project ID:

Matrix: WATER

Prep Method: 3520

Date Collected:

Date Received:

Date Extracted: 10/18/06

Date Analyzed: 10/20/06

Analyzed By: MRC

Dilution: 1

	Sample Amount (µg/L)	MS Spike (µg/L)	MS Conc. (µg/L)	MS Spike % Rec.	MSD Spike (µg/L)	MSD Conc. (µg/L)	MSD Conc. % Rec.	RPD	QC Limits	
									RPD	% Rec.
Acenaphthylene	BQL	1000	1010	101	1000	1020	102.0	1.09	30	62.0-119
4-Chloro-3-methylphenol	BQL	1000	985	98.5	1000	980	98.0	0.509	30	67.0-109
2-Chlorophenol	BQL	1000	910	91.0	1000	884	88.4	2.90	30	59.0-95.0
1,4-Dichlorobenzene	BQL	1000	760	76.0	1000	763	76.3	0.394	30	29.0-86.0
2,4-Dinitrotoluene	BQL	1000	965	96.5	1000	963	96.3	0.207	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	1000	1010	101	1000	1010	101.0	0.595	30	67.0-107
4-Nitrophenol	BQL	1000	95.0	9.50*	1000	92.0	9.20*	3.21	30	49.0-146
Pentachlorophenol	BQL	1000	812	81.2	1000	807	80.7	0.618	30	43.0-106
Phenol	BQL	1000	887	88.7	1000	869	86.9	2.05	30	61.0-100
Pyrene	BQL	1000	1100	110	1000	1110	111.0	0.632	30	41.0-123
1,2,4-Trichlorobenzene	BQL	1000	890	89.0	1000	887	88.7	0.338	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits
				% Rec.
Acenaphthylene	100	95.1	95.1	72.9-127
4-Chloro-3-methylphenol	100	91.9	91.9	61.6-113
2-Chlorophenol	100	85.0	85.0	52.3-104
1,4-Dichlorobenzene	100	65.7	65.7	27.3-85.0
2,4-Dinitrotoluene	100	90.5	90.5	66.5-117
N-Nitrosodi-n-propylamine	100	96.0	96.0	54.4-119
4-Nitrophenol	100	88.7	88.7	32.4-150
Pentachlorophenol	100	61.7	61.7	23.9-115
Phenol	100	87.8	87.8	54.5-106
Pyrene	100	101	101	63.5-126
1,2,4-Trichlorobenzene	100	81.5	81.5	49.1-98.5

Comments:

Concentrations reflect the spiked sample amounts.

Sample contained non-target interferences in the x5 or higher range.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By:



Results for Metals

Client Sample ID: USTLCH4015-MW01
Client Project ID: NV016
Lab Sample ID: G650-85-1
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/12/2006 12:00
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	0.875	5.00	0.470	25	UG/L	6020	10/17/2006	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: PN
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-MW02
Client Project ID: NV016
Lab Sample ID: G650-85-2
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/11/2006 13:38
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	0.500	5.00	0.470	25	UG/L	6020	10/17/2006	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: en
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-MW03
Client Project ID: NV016
Lab Sample ID: G650-85-3
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/12/2006 10:45
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	10/17/2006	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: PSW
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-MW13
Client Project ID: NV016
Lab Sample ID: G650-85-4
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/12/2006 12:30
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	10/17/2006	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: PSW
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV016
Lab Sample ID: G650-85-5
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/11/2006 11:20
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	10/17/2006	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-MW20
Client Project ID: NV016
Lab Sample ID: G650-85-6
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/11/2006 13:10
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	0.800	5.00	0.470	25	UG/L	6020	10/17/2006	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 20
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-MW21
Client Project ID: NV016
Lab Sample ID: G650-85-7
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/11/2006 11:05
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	1.90	5.00	0.470	25	UG/L	6020	10/17/2006	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: PSW
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-MW22
Client Project ID: NV016
Lab Sample ID: G650-85-8
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/11/2006 14:05
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	10/17/2006	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: PSW
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-85-9
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/11/2006 15:30
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	10/17/2006	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: PSW
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-MW24
Client Project ID: NV016
Lab Sample ID: G650-85-10
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/11/2006 14:53
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	1.33	5.00	0.470	25	UG/L	6020	10/17/2006	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: PSW
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: USTLCH4015-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-85-11
Lab Project ID: G650-85
Batch ID: 6457

Analyzed By: PSW
Date Collected: 10/11/2006 0:00
Date Received: 10/13/2006
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	2.33	5.00	0.470	25	UG/L	6020	10/17/2006	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By:
MET_LIMS_4.1.XLS



Results for Metals

Client Sample ID: Lab Blank
Client Project ID:
Lab Sample ID: pb6457
Lab Project ID:
Batch ID: 6457

Analyzed By: PSW
Date Collected:
Date Received:
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	10/17/2006	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4.1.XLS



MS/MSD Results for METALS

Lab ID: G650-85-5
MS Lab ID: G650-85-5
MSD Lab ID: G650-85-5
ICP Batch: 6457
HG Batch:
Other:

Analyzed By: PSW
Matrix: Water
Units: MG/L

								Limit			
Analyte	Sample Result	SA MS	MS Result	MS %REC	SA MSD	MSD Result	MSD %REC	Lower	Upper	RPD	RPD Limit
Lead	BQL	0.400	0.414	104	0.400	0.417	104	75	125	0.722	20

Comments

*=Out of Limits

NA = Not applicable, due to sample concentration greater than three times spike concentration

Reviewed By: 22



METALS Results for LCS/LCD

ICP Batch: 6457

HG Batch:

Other:

Matrix: WATER

Units: MG/L

Analyte	TRUE Value	LCS	LCS %REC	LCD	LCD %REC	Limit		RPD	RPD Limit
						Lower	Upper		
Lead	0.400	0.398	99.5	0.402	101	80	120	1.00	20

Reviewed By:



List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.



CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide
• Alaska • Hawaii
• Louisiana • Maryland
• New Jersey • North Carolina
• West Virginia
www.us.sgs.com

054



1 CLIENT: SOVEREIGN CONSULTING					SGS Reference: 6650-85					PAGE 1 OF 1	
CONTACT: THERESA ELLERMAN PHONE NO: (910) 526 3941					NO CONTAINERS					Preservatives Used: HCl, None, H ₂ O ₂	
PROJECT: NVOIL SITE/PWSID#: LCH4015										Analysis Required: ③	
REPORTS TO: C. Murray @ sovercon.com										C= COMP	
FAX NO.: (757) 456-5095										G= GRAB	
INVOICE TO: Chris Murray QUOTE # 405 OAKMEARS CRESTVIEW STS 1											
VIRGINIA BEACH VA 23462 P.O. NUMBER NVOIL											
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX							REMARKS
	UST LCH4015-MW01	10/12/06	1200	W	5			X	X	X	
	UST LCH4015-MW02	10/11/06	1338	W	5			X	X	X	
	UST LCH4015-MW03	10/12/06	1045	W	5			X	X	X	
	UST LCH4015-MW13	10/12/06	1230	W	5			X	X	X	
	UST LCH4015-MW19	10/11/06	1120	W	5			X	X	X	
	UST LCH4015-MW20	10/11/06	1310	W	5			X	X	X	
	UST LCH4015-MW21	10/11/06	1105	W	5			X	X	X	
	UST LCH4015-MW22	10/11/06	1405	W	5			X	X	X	
	UST LCH4015-MW23	10/11/06	1530	W	5			X	X	X	
	UST LCH4015-MW24	10/11/06	1453	W	5			X	X	X	MW23 625 lost in lab accident. Resampled + reported in 6650-87 10/30/06
5 Collected/Relinquished By: (1) [Signature] Date 1500 10/12/06					4 Shipping Carrier: FEDEX 8567 8745 3857 Shipping Ticket No: 3868					Samples Received Cold? (Circle) YES NO	
Relinquished By: (2) [Signature] Date 10/13/06 Time 1000					Received By: Amy Doherty					Temperature (C): 4.7, 4.5°C	
Relinquished By: (3)					Received By:					Special Deliverable Requirements: EDD FORMAT	
Relinquished By: (4)					Received By:					Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT	
Requested Turnaround Time and Special Instructions: STANDARD TURN Email results in "EDD Format" to nhall@sovercon.com + C. Murray@sovercon.com											



Mr. Chris Murray
Sovereign Consulting
405 Oakmeads Crescent
Suite 1
Virginia Beach VA 23462
Report Number: G650-87

Client Project: NV016
Report Revised: March 10, 2007

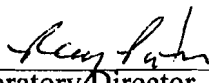
Dear Mr. Murray:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS/Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS/Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS/Paradigm Analytical Laboratories, Inc.



Laboratory Director
J. Patrick Weaver

3/10/2007

Date



CASE NARRATIVE

Date: October 30, 2006

Sovereign Consulting Project ID: LCH4015
SGS Environmental Services ID: G650-87

Eleven water samples and a trip blank were received at the laboratory October 13 for analysis as indicated on the chain of custody. The samples were received in good condition, within temperature and holding time limits.

With one exception the samples were extracted and analyzed within holding time and without quality control problems.

Sample MW-23 was originally extracted within the 7-day holding time limit for semi-volatiles by 625. During transfer of the extract to the analytical machine the sample extract was destroyed due to an accident.

The 625 for sample MW-23 was recollected and received at the lab on October 24 where it was extracted and analyzed without quality control exception.

The 602 and 3030C lead for MW-23 are reported in SGS Project ID G650-85. The 625 for MW-23 is reported in SGS Project ID G650-87.



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-87-1B
Lab Project ID: G650-87

Analyzed By: EAW
Date Collected: 10/24/2006 19:25
Date Received: 10/24/2006
Date Extracted: 10/25/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
1-Methylnaphthalene	BQL	10.0	2.25	1	10/26/2006	
2-Methylnaphthalene	BQL	10.0	1.89	1	10/26/2006	
Naphthalene	BQL	10.0	1.08	1	10/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-87-1B
Lab Project ID: G650-87

Analyzed By: EAW
Date Collected: 10/24/2006 19:25
Date Received: 10/24/2006
Date Extracted: 10/25/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	6.2	62		
2-Fluorophenol		10	5.9	59		
Nitrobenzene-d5		10	6.1	61		
Phenol-d6		10	6.1	61		
2,4,6-Tribromophenol		10	8.5	85		
4-Terphenyl-d14		10	7.8	78		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: gsl



Mr. Chris Murray
Sovereign Consulting
405 Oakmeads Crescent
Suite 1
Virginia Beach VA 23462
Report Number: G650-87
Client Project: NV016

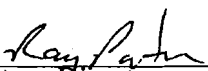
Dear Mr. Murray:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS/Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS/Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS/Paradigm Analytical Laboratories, Inc.



Laboratory Director
J. Patrick Weaver

10/30/2006

Date



CASE NARRATIVE

Date: October 30, 2006

Sovereign Consulting Project ID: LCH4015

SGS Environmental Services ID: G650-87

Eleven water samples and a trip blank were received at the laboratory October 13 for analysis as indicated on the chain of custody. The samples were received in good condition, within temperature and holding time limits.

With one exception the samples were extracted and analyzed within holding time and without quality control problems.

Sample MW-23 was originally extracted within the 7-day holding time limit for semi-volatiles by 625. During transfer of the extract to the analytical machine the sample extract was destroyed due to an accident.

The 625 for sample MW-23 was recollected and received at the lab on October 24 where it was extracted and analyzed without quality control exception.

The 602 and 3030C lead for MW-23 are reported in SGS Project ID G650-85. The 625 for MW-23 is reported in SGS Project ID G650-87.



Results for Semivolatiles
by GCMS 625

USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-87-1B
Lab Project ID: G650-87

Analyzed By: EAW
Date Collected: 10/24/2006 19:25
Date Received: 10/24/2006
Date Extracted: 10/25/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	10/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	10/26/2006	
Anthracene	BQL	10.0	1.75	1	10/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	10/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	10/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	10/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	10/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	10/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	10/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	10/26/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	10/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	10/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	10/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	10/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	10/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	10/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	10/26/2006	
Chrysene	BQL	10.0	1.11	1	10/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	10/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	10/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	10/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	10/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	10/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	10/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	10/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	10/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	10/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	10/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	10/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	10/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	10/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	10/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	10/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	10/26/2006	
Fluoranthene	BQL	10.0	1.41	1	10/26/2006	
Fluorene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	10/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	10/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	10/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	10/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	10/26/2006	
Isophorone	BQL	10.0	1.27	1	10/26/2006	
Naphthalene	BQL	10.0	1.08	1	10/26/2006	



Results for Semivolatiles
by GCMS 625

USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-87-1B
Lab Project ID: G650-87

Analyzed By: EAW
Date Collected: 10/24/2006 19:25
Date Received: 10/24/2006
Date Extracted: 10/25/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	10/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	10/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	10/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	10/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	10/26/2006	
Phenanthrene	BQL	10.0	1.38	1	10/26/2006	
Phenol	BQL	10.0	3.38	1	10/26/2006	
Pyrene	BQL	10.0	2.08	1	10/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	10/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	10/26/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.2	62
2-Fluorophenol	10	5.9	59
Nitrobenzene-d5	10	6.1	61
Phenol-d6	10	6.1	61
2,4,6-Tribromophenol	10	8.5	85
4-Terphenyl-d14	10	7.8	78

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EL



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-87-1B
Lab Project ID: G650-87
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 10/24/2006 19:25
Date Received: 10/24/2006
Date Extracted: 10/25/2006
Date Analyzed: 10/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Sulfur, mol. (S8)	15.23	010544-50-0	94	37.9
2	Unknown	11.50			12.1
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *rel*



Results for Semivolatiles
by GCMS 625

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB6541
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 10/25/2006
Matrix: WATER

Compound	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Acenaphthene	BQL	10.0	1	10/28/2006
Acenaphthylene	BQL	10.0	1	10/28/2006
Anthracene	BQL	10.0	1	10/28/2006
Benzo[a]anthracene	BQL	10.0	1	10/28/2006
Benzo[a]pyrene	BQL	10.0	1	10/28/2006
Benzo[b]fluoranthene	BQL	10.0	1	10/28/2006
Benzo[g,h,i]perylene	BQL	10.0	1	10/28/2006
Benzo[k]fluoranthene	BQL	10.0	1	10/28/2006
Bis(2-chloroethoxy)methane	BQL	10.0	1	10/28/2006
Bis(2-chloroethyl)ether	BQL	10.0	1	10/28/2006
Bis(2-chloroisopropyl)ether	BQL	10.0	1	10/28/2006
Bis(2-ethylhexyl)phthalate	BQL	10.0	1	10/28/2006
4-bromophenyl phenyl ether	BQL	10.0	1	10/28/2006
Butylbenzylphthalate	BQL	10.0	1	10/28/2006
2-Chloronaphthalene	BQL	10.0	1	10/28/2006
2-Chlorophenol	BQL	10.0	1	10/28/2006
4-Chloro-3-methylphenol	BQL	10.0	1	10/28/2006
4-Chlorophenyl phenyl ether	BQL	10.0	1	10/28/2006
Chrysene	BQL	10.0	1	10/28/2006
Dibenzo[a,h]anthracene	BQL	10.0	1	10/28/2006
Di-n-Butylphthalate	BQL	10.0	1	10/28/2006
1,2-Dichlorobenzene	BQL	10.0	1	10/28/2006
1,3-Dichlorobenzene	BQL	10.0	1	10/28/2006
1,4-Dichlorobenzene	BQL	10.0	1	10/28/2006
3,3'-Dichlorobenzidine	BQL	20.0	1	10/28/2006
2,4-Dichlorophenol	BQL	10.0	1	10/28/2006
Diethylphthalate	BQL	10.0	1	10/28/2006
Dimethylphthalate	BQL	10.0	1	10/28/2006
2,4-Dimethylphenol	BQL	10.0	1	10/28/2006
Di-n-octylphthalate	BQL	10.0	1	10/28/2006
4,6-Dinitro-2-methylphenol	BQL	50.0	1	10/28/2006
2,4-Dinitrophenol	BQL	50.0	1	10/28/2006
2,4-Dinitrotoluene	BQL	10.0	1	10/28/2006
2,6-Dinitrotoluene	BQL	10.0	1	10/28/2006
Diphenylamine *	BQL	10.0	1	10/28/2006
Fluoranthene	BQL	10.0	1	10/28/2006
Fluorene	BQL	10.0	1	10/28/2006
Hexachlorobenzene	BQL	10.0	1	10/28/2006
Hexachlorobutadiene	BQL	10.0	1	10/28/2006
Hexachlorocyclopentadiene	BQL	20.0	1	10/28/2006
Hexachloroethane	BQL	10.0	1	10/28/2006
Indeno(1,2,3-c,d)pyrene	BQL	10.0	1	10/28/2006
Isophorone	BQL	10.0	1	10/28/2006
Naphthalene	BQL	10.0	1	10/28/2006



Results for Semivolatiles
by GCMS 625

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB6541
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 10/25/2006
Matrix: WATER

Compound	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Nitrobenzene	BQL	10.0	1	10/28/2006
2-Nitrophenol	BQL	10.0	1	10/28/2006
4-Nitrophenol	BQL	50.0	1	10/28/2006
N-Nitrosodi-n-propylamine	BQL	10.0	1	10/28/2006
Pentachlorophenol	BQL	50.0	1	10/28/2006
Phenanthrene	BQL	10.0	1	10/28/2006
Phenol	BQL	10.0	1	10/28/2006
Pyrene	BQL	10.0	1	10/28/2006
1,2,4-Trichlorobenzene	BQL	10.0	1	10/28/2006
2,4,6-Trichlorophenol	BQL	10.0	1	10/28/2006

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.3	93
2-Fluorophenol	10	9.9	99
Nitrobenzene-d5	10	9.1	91
Phenol-d6	10	9.4	94
2,4,6-Tribromophenol	10	9.3	93
4-Terphenyl-d14	10	11.4	114

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

Reviewed By: P



**Results For Matrix Spike / Matrix Spike Duplicate and Laboratory Control Standard (MS/MSD/LCS)
by GCMS**

Client Sample ID: Batch QC

Client Project ID:

Lab Sample ID: Batch-6541-MS/MSD/LCS

Lab Project ID:

Matrix: WATER

Prep Method: 3520

Date Collected:

Date Received:

Date Extracted: 10/25/06

Date Analyzed: 10/26/06

Analyzed By: MRC

Dilution: 1

	Sample Amount (µg/L)	MS Spike (µg/L)	MS Conc. (µg/L)	MS Spike % Rec.	MSD Spike (µg/L)	MSD Conc. (µg/L)	MSD Conc. % Rec.	RPD	QC Limits	
									RPD	% Rec.
Acenaphthylene	BQL	213	208	97.6	213	216	101.0	3.82	30	62.0-119
4-Chloro-3-methylphenol	BQL	213	209	98.0	213	210	98.6	0.610	30	67.0-109
2-Chlorophenol	BQL	213	189	88.7	213	187	88.0	0.792	30	59.0-95.0
1,4-Dichlorobenzene	BQL	213	121	56.9	213	133	62.6	9.54	30	29.0-86.0
2,4-Dinitrotoluene	BQL	213	200	94.1	213	210	98.7	4.77	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	213	204	96.0	213	210	98.7	2.77	30	67.0-107
4-Nitrophenol	BQL	213	256	120	213	274	129.0	6.67	30	49.0-146
Pentachlorophenol	BQL	213	246	116*	213	275	129*	11.0	30	43.0-106
Phenol	BQL	213	187	87.7	213	187	88.0	0.341	30	61.0-100
Pyrene	BQL	213	237	112	213	243	114.0	2.22	30	41.0-123
1,2,4-Trichlorobenzene	BQL	213	160	75.4	213	175	82.4	8.87	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	100	101	101	72.9-127
4-Chloro-3-methylphenol	100	98.5	98.5	61.6-113
2-Chlorophenol	100	92.6	92.6	52.3-104
1,4-Dichlorobenzene	100	89.1	89.1*	27.3-85.0
2,4-Dinitrotoluene	100	99.1	99.1	66.5-117
N-Nitrosodi-n-propylamine	100	99.8	99.8	54.4-119
4-Nitrophenol	100	116	116	32.4-150
Pentachlorophenol	100	108	108	23.9-115
Phenol	100	89.4	89.4	54.5-106
Pyrene	100	109	109	63.5-126
1,2,4-Trichlorobenzene	100	90.3	90.3	49.1-98.5

Comments:

Concentrations reflect the spiked sample amounts.

Sample contained non-target interferences in the x5 or higher range.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: *RMF*



List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.

2) Uncertainty for all reported data is less than or equal to 30 percent.

SGS

CHAIN OF CUSTODY RECORD SGS Environmental Services Inc.

Locations Nationwide
• Alaska • Hawaii
• Louisiana • Maryland
• New Jersey • North Carolina
• West Virginia
www.us.sgs.com

06/12/08

SGS

1 CLIENT: <u>SOVEREIGN CONSULTING</u>					SGS Reference: <u>65087</u>					PAGE <u>1</u>				
CONTACT: <u>Theresa Elkan</u> PHONE NO: <u>(915) 526-3741</u>					NO CONTAINERS					Preservatives Used <u>None</u> Analysis Required <u>③</u> <u>6.5 x 10.5</u>				
PROJECT: <u>NVO16</u> SITE/PWSID#: <u>LH4015</u>														
REPORTS TO: <u>Chris Murray</u> E-MAIL: <u>cmurray@sovercon.com</u> <u>nhall@sovercon.com</u> FAX NO: ()														
INVOICE TO: <u>Chris Murray</u> QUOTE # <u>1</u> <u>405 OAKMOUNT CRES</u> P.O. NUMBER <u>NVO16</u> <u>VIRGINIA BEACH VA 23462</u>														
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	REMARKS									
	<u>157 LH4015-MW23</u>	<u>10/24/06</u>	<u>0905</u>	<u>W</u>	<u>72 hr. Rm</u> <u>10/25/06</u>									
5 Collected/Relinquished By: (1) <u>[Signature]</u> Date <u>10/24/06</u> Time <u>10:00</u>					4 Shipping Carrier: <u>HAND DELIVERED</u>					Samples Received Cold? (Circle) <u>YES</u> NO				
Relinquished By: (2) <u>[Signature]</u> Date <u>10/24/06</u> Time <u>10:10</u>					Received By: <u>Amy D. Laney</u>					Shipping Ticket No: <u>DELIVERED</u> Temperature (C): <u>5.9</u>				
Relinquished By: (3)					Received By:					Special Deliverable Requirements: <u>EDD Format</u> Chain of Custody Seal: (Circle) <u>INTACT</u> <u>BROKEN</u> <u>ABSENT</u>				
Relinquished By: (4)					Received By:					Requested Turnaround Time and Special Instructions: <u>Standard Turnaround</u> <u>EMAIL RESULTS IN "EDD Format" TO nhall@sovercon.com + cmurray@sovercon.com</u>				

10 of 10



Mr. Chris Murray
Sovereign Consulting
405 Oakmeads Crescent
Suite 1
Virginia Beach VA 23462
Report Number: G650-110

Client Project: NV016
Report Revised: 3/23/2007

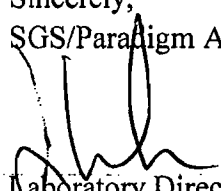
Dear Mr. Murray:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS/Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS/Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS/Paradigm Analytical Laboratories, Inc.


Laboratory Director
J. Patrick Weaver

3/23/2007
Date



CASE NARRATIVE

Date: March 23, 2007

Sovereign Consulting Project ID: NV016 LCH4015
SGS Environmental ID: G650-110

Four water samples were submitted to the laboratory for analysis by methods 602, 625+Tics (including 1- and 2-Methyl Naphthalene) and Pb by 3030c. The samples were received in good condition, within temperature and holding time limits.

All analyses were completed within holding time and without quality control problems with one exception.

The 625 for sample USTLCH4015-MW08 was extracted in holding time. However, five of the six surrogates recovered below the control limit in this extraction. The sample was re-extracted and all surrogates passed recovery limits. However, the re-extraction was performed outside of the 7-day holding time limit.

Results for both extractions of this sample are included in the following summary report.



Results for Volatiles
by GC 602

Client Sample ID: USTLCH4015-MW05

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 3/6/2007 14:26

Lab Sample ID: G650-110-1B

Date Received: 3/7/2007

Lab Project ID: G650-110

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	3/12/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	3/12/2007	
Ethylbenzene	BQL	1.00	0.181	1	3/12/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	3/12/2007	
Toluene	0.321	1.00	0.157	1	3/12/2007	J
m/p-Xylene	BQL	2.00	0.481	1	3/12/2007	
o-Xylene	BQL	2.00	0.584	1	3/12/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	38.9	97.2

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW08

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 3/6/2007 13:35

Lab Sample ID: G650-110-2B

Date Received: 3/7/2007

Lab Project ID: G650-110

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	3/12/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	3/12/2007	
Ethylbenzene	BQL	1.00	0.181	1	3/12/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	3/12/2007	
Toluene	BQL	1.00	0.157	1	3/12/2007	
m/p-Xylene	BQL	2.00	0.481	1	3/12/2007	
o-Xylene	BQL	2.00	0.584	1	3/12/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	38.9	97.2

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW11

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 3/6/2007 15:12

Lab Sample ID: G650-110-3B

Date Received: 3/7/2007

Lab Project ID: G650-110

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	3/12/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	3/12/2007	
Ethylbenzene	7.40	1.00	0.181	1	3/12/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	3/12/2007	
Toluene	0.857	1.00	0.157	1	3/12/2007	J
m/p-Xylene	BQL	2.00	0.481	1	3/12/2007	
o-Xylene	BQL	2.00	0.584	1	3/12/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	39.6	98.9

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: full
GC-VOA_WA



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW14

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 3/6/2007 16:02

Lab Sample ID: G650-110-4D

Date Received: 3/7/2007

Lab Project ID: G650-110

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	3/12/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	3/12/2007	
Ethylbenzene	BQL	1.00	0.181	1	3/12/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	3/12/2007	
Toluene	BQL	1.00	0.157	1	3/12/2007	
m/p-Xylene	BQL	2.00	0.481	1	3/12/2007	
o-Xylene	BQL	2.00	0.584	1	3/12/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	38.9	97.2

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: full
GC-VQA_WA



Results for Volatiles

by GC 602

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK1031207A
Lab Project ID:

Analyzed By: RSB
Date Collected:
Date Received:
Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	3/12/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	3/12/2007	
Ethylbenzene	BQL	1.00	0.181	1	3/12/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	3/12/2007	
Toluene	BQL	1.00	0.157	1	3/12/2007	
m/p-Xylene	BQL	2.00	0.481	1	3/12/2007	
o-Xylene	BQL	2.00	0.584	1	3/12/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	39.4	98.4

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.



Summary Results for Laboratory Control Spike

Method: 602

Filename : 031207/004r

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	10.3	102.6	39	150
Chlorobenzene	10.0	10.0	99.9	55	135
1,2-Dichlorobenzene	20.0	20.1	100.6	37	154
1,3-Dichlorobenzene	10.0	10.1	100.7	50	141
1,4-Dichlorobenzene	20.0	19.5	97.4	42	143
• Diisopropyl ether	10.0	9.5	95.3	30	170
Ethylbenzene	10.0	10.2	102.3	32	160
• MTBE	20.0	20.3	101.6	35	165
Toluene	10.0	10.2	102.0	46	148
• m,p-Xylene	20.0	20.3	101.3	0	239
• o-Xylene	20.0	20.5	102.4	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- SA = Spiked Amount



Summary Results for Laboratory Control Spike

Method: 602

Filename : 031207/005r

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	10.0	100.3	39	150
Chlorobenzene	10.0	9.7	97.5	55	135
1,2-Dichlorobenzene	20.0	19.8	98.2	37	154
1,3-Dichlorobenzene	10.0	9.8	98.1	50	141
1,4-Dichlorobenzene	20.0	19.3	96.3	42	143
• Diisopropyl ether	10.0	9.2	92.2	30	170
Ethylbenzene	10.0	10.0	100.1	32	160
• MTBE	20.0	19.8	98.8	35	165
Toluene	10.0	10.0	99.6	46	148
• m,p-Xylene	20.0	19.9	99.5	0	239
• o-Xylene	20.0	20.0	99.8	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- SA = Spiked Amount



Summary Results for MS-MSD

Method: 12

Sample: 031207/017F::031207/017R

MS : 031207/019f::031207/019R

MSD : 031207/020F::031207/020R

Compound	SA	Sam.	µg/L		REC(%)		REC Limits	
			MS	MSD	MS	MSD	Lower	Upper
Benzene	2.5	ND	2.6	2.6	104	104	39	150
Chlorobenzene	2.5	ND	2.6	2.6	103	103	55	135
1,2-Dichlorobenzene	5.0	ND	5.4	5.3	108	108	37	154
1,3-Dichlorobenzene	2.5	ND	2.6	2.6	105	105	50	141
1,4-Dichlorobenzene	5.0	ND	5.1	4.9	102	102	42	143
• Diisopropyl ether	2.5	ND	2.4	2.4	95	95	30	170
Ethylbenzene	2.5	ND	2.6	2.6	105	105	32	160
• MTBE	5.0	ND	5.2	5.2	103	103	35	165
Toluene	2.5	ND	2.6	2.6	105	105	46	148
• m,p-Xylene	5.0	ND	5.2	5.1	103	103	D	239
• o-Xylene	5.0	ND	5.2	5.2	104	104	36	164

Flags :

spiked with soil qc, changed SA to reflect changes

+ = out of QC limits.

• = lab generated limits.

D = Detected

ND = None Detected

SA= Spike Added



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW05
Client Project ID: NV016
Lab Sample ID: G650-110-11
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 14:26
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	20.0	2.44	2	3/15/2007	
Acenaphthylene	BQL	20.0	2.24	2	3/15/2007	
Anthracene	BQL	20.0	3.50	2	3/15/2007	
Benzo[a]anthracene	BQL	20.0	2.72	2	3/15/2007	
Benzo[a]pyrene	BQL	20.0	2.54	2	3/15/2007	
Benzo[b]fluoranthene	BQL	20.0	2.86	2	3/15/2007	
Benzo[g,h,i]perylene	BQL	20.0	9.14	2	3/15/2007	
Benzo[k]fluoranthene	BQL	20.0	2.18	2	3/15/2007	
Bis(2-chloroethoxy)methane	BQL	20.0	2.22	2	3/15/2007	
Bis(2-chloroethyl)ether	BQL	20.0	2.18	2	3/15/2007	
Bis(2-chloroisopropyl)ether	BQL	20.0	3.14	2	3/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	20.0	2.66	2	3/15/2007	
4-bromophenyl phenyl ether	BQL	20.0	3.98	2	3/15/2007	
Butylbenzylphthalate	BQL	20.0	3.06	2	3/15/2007	
2-Chloronaphthalene	BQL	20.0	2.50	2	3/15/2007	
2-Chlorophenol	BQL	20.0	8.44	2	3/15/2007	
4-Chloro-3-methylphenol	BQL	20.0	6.52	2	3/15/2007	
4-Chlorophenyl phenyl ether	BQL	20.0	2.84	2	3/15/2007	
Chrysene	BQL	20.0	2.22	2	3/15/2007	
Dibenzo[a,h]anthracene	BQL	20.0	9.74	2	3/15/2007	
Di-n-Butylphthalate	BQL	20.0	3.30	2	3/15/2007	
1,2-Dichlorobenzene	BQL	20.0	2.50	2	3/15/2007	
1,3-Dichlorobenzene	BQL	20.0	2.48	2	3/15/2007	
1,4-Dichlorobenzene	BQL	20.0	2.40	2	3/15/2007	
3,3'-Dichlorobenzidine	BQL	40.0	8.20	2	3/15/2007	
2,4-Dichlorophenol	BQL	20.0	7.50	2	3/15/2007	
Diethylphthalate	213	20.0	2.96	2	3/15/2007	
Dimethylphthalate	BQL	20.0	2.08	2	3/15/2007	
2,4-Dimethylphenol	BQL	20.0	18.5	2	3/15/2007	
Di-n-octylphthalate	BQL	20.0	2.32	2	3/15/2007	
4,6-Dinitro-2-methylphenol	BQL	100	7.42	2	3/15/2007	
2,4-Dinitrophenol	BQL	100	8.40	2	3/15/2007	
2,4-Dinitrotoluene	BQL	20.0	3.04	2	3/15/2007	
2,6-Dinitrotoluene	BQL	20.0	2.82	2	3/15/2007	
Diphenylamine *	BQL	20.0	3.06	2	3/15/2007	
Fluoranthene	BQL	20.0	2.82	2	3/15/2007	
Fluorene	BQL	20.0	2.44	2	3/15/2007	
Hexachlorobenzene	BQL	20.0	2.44	2	3/15/2007	
Hexachlorobutadiene	BQL	20.0	3.16	2	3/15/2007	
Hexachlorocyclopentadiene	BQL	40.0	40.0	2	3/15/2007	
Hexachloroethane	BQL	20.0	3.16	2	3/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	20.0	9.14	2	3/15/2007	
Isophorone	BQL	20.0	2.54	2	3/15/2007	
1-Methylnaphthalene	BQL	20.0	2.16	2	3/14/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW05
Client Project ID: NV016
Lab Sample ID: G650-110-11
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 14:26
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
2-Methylnaphthalene	BQL	20.0	2.16	2	3/14/2007	
Naphthalene	BQL	20.0	2.16	2	3/15/2007	
Nitrobenzene	BQL	20.0	2.64	2	3/15/2007	
2-Nitrophenol	BQL	20.0	7.04	2	3/15/2007	
4-Nitrophenol	BQL	100	6.34	2	3/15/2007	
N-Nitrosodi-n-propylamine	BQL	20.0	3.74	2	3/15/2007	
Pentachlorophenol	BQL	100	5.66	2	3/15/2007	
Phenanthrene	BQL	20.0	2.76	2	3/15/2007	
Phenol	BQL	20.0	6.76	2	3/15/2007	
Pyrene	BQL	20.0	4.16	2	3/15/2007	
1,2,4-Trichlorobenzene	BQL	20.0	2.66	2	3/15/2007	
2,4,6-Trichlorophenol	BQL	20.0	5.84	2	3/15/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	5	4.6	92
2-Fluorophenol	5	4.4	88
Nitrobenzene-d5	5	4.1	82
Phenol-d6	5	4.1	82
2,4,6-Tribromophenol	5	5.1	102
4-Terphenyl-d14	5	5.6	112

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW05
Client Project ID: NV016
Lab Sample ID: G650-110-11
Lab Project ID: G650-110
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 3/6/2007 14:26
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Date Analyzed: 3/14/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.51			12
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: AME



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW08
Client Project ID: NV016
Lab Sample ID: G650-110-2G
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 13:35
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	3/14/2007	
Acenaphthylene	BQL	10.0	1.12	1	3/14/2007	
Anthracene	BQL	10.0	1.75	1	3/14/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	3/14/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	3/14/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	3/14/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	3/14/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	3/14/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	3/14/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	3/14/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	3/14/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	3/14/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	3/14/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	3/14/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	3/14/2007	
2-Chlorophenol	BQL	10.0	4.22	1	3/14/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	3/14/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	3/14/2007	
Chrysene	BQL	10.0	1.11	1	3/14/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	3/14/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	3/14/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	3/14/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	3/14/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	3/14/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	3/14/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	3/14/2007	
Diethylphthalate	BQL	10.0	1.48	1	3/14/2007	
Dimethylphthalate	BQL	10.0	1.04	1	3/14/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	3/14/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	3/14/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	3/14/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	3/14/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	3/14/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	3/14/2007	
Diphenylamine *	BQL	10.0	1.53	1	3/14/2007	
Fluoranthene	BQL	10.0	1.41	1	3/14/2007	
Fluorene	BQL	10.0	1.22	1	3/14/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	3/14/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	3/14/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	3/14/2007	
Hexachloroethane	BQL	10.0	1.58	1	3/14/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	3/14/2007	
Isophorone	BQL	10.0	1.27	1	3/14/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW08
Client Project ID: NV016
Lab Sample ID: G650-110-2G
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 13:35
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
2-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	
Naphthalene	BQL	10.0	1.08	1	3/14/2007	
Nitrobenzene	BQL	10.0	1.32	1	3/14/2007	
2-Nitrophenol	BQL	10.0	3.52	1	3/14/2007	
4-Nitrophenol	BQL	50.0	3.17	1	3/14/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	3/14/2007	
Pentachlorophenol	BQL	50.0	2.83	1	3/14/2007	
Phenanthrene	BQL	10.0	1.38	1	3/14/2007	
Phenol	BQL	10.0	3.38	1	3/14/2007	
Pyrene	BQL	10.0	2.08	1	3/14/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	3/14/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	3/14/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	1.8	18 #
2-Fluorophenol	10	1.4	14 #
Nitrobenzene-d5	10	1.7	17 #
Phenol-d6	10	1.7	17 #
2,4,6-Tribromophenol	10	1.9	19 #
4-Terphenyl-d14	10	2.4	24

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.
Sample being re-analyzed due to low surrogate recoveries.

Flags:

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: fm



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW08
Client Project ID: NV016
Lab Sample ID: G650-110-2H
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 13:35
Date Received: 3/7/2007
Date Extracted: 3/14/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	3/17/2007	
Acenaphthylene	BQL	10.0	1.12	1	3/17/2007	
Anthracene	BQL	10.0	1.75	1	3/17/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	3/17/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	3/17/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	3/17/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	3/17/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	3/17/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	3/17/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	3/17/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	3/17/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	3/17/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	3/17/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	3/17/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	3/17/2007	
2-Chlorophenol	BQL	10.0	4.22	1	3/17/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	3/17/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	3/17/2007	
Chrysene	BQL	10.0	1.11	1	3/17/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	3/17/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	3/17/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	3/17/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	3/17/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	3/17/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	3/17/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	3/17/2007	
Diethylphthalate	BQL	10.0	1.48	1	3/17/2007	
Dimethylphthalate	BQL	10.0	1.04	1	3/17/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	3/17/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	3/17/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	3/17/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	3/17/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	3/17/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	3/17/2007	
Diphenylamine *	BQL	10.0	1.53	1	3/17/2007	
Fluoranthene	BQL	10.0	1.41	1	3/17/2007	
Fluorene	BQL	10.0	1.22	1	3/17/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	3/17/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	3/17/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	3/17/2007	
Hexachloroethane	BQL	10.0	1.58	1	3/17/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	3/17/2007	
Isophorone	BQL	10.0	1.27	1	3/17/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW08
Client Project ID: NV016
Lab Sample ID: G650-110-2H
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 13:35
Date Received: 3/7/2007
Date Extracted: 3/14/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
2-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	
Naphthalene	BQL	10.0	1.08	1	3/17/2007	
Nitrobenzene	BQL	10.0	1.32	1	3/17/2007	
2-Nitrophenol	BQL	10.0	3.52	1	3/17/2007	
4-Nitrophenol	BQL	50.0	3.17	1	3/17/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	3/17/2007	
Pentachlorophenol	BQL	50.0	2.83	1	3/17/2007	
Phenanthrene	BQL	10.0	1.38	1	3/17/2007	
Phenol	BQL	10.0	3.38	1	3/17/2007	
Pyrene	BQL	10.0	2.08	1	3/17/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	3/17/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	3/17/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9	90
2-Fluorophenol	10	5.1	51
Nitrobenzene-d5	10	8.9	89
Phenol-d6	10	8.9	89
2,4,6-Tribromophenol	10	10	100
4-Terphenyl-d14	10	12.7	127

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.
Sample was extracted out of protocol.

Flags:

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: hml



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW08
Client Project ID: NV016
Lab Sample ID: G650-110-2G
Lab Project ID: G650-110
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 3/6/2007 13:35
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Date Analyzed: 3/14/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.51			13.8
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: AW



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW11
Client Project ID: NV016
Lab Sample ID: G650-110-3G
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 15:12
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	2.90	10.0	1.22	1	3/15/2007	J
Acenaphthylene	2.60	10.0	1.12	1	3/15/2007	J
Anthracene	BQL	10.0	1.75	1	3/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	3/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	3/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	3/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	3/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	3/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	3/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	3/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	3/15/2007	
Bis(2-ethylhexyl)phthalate	2.10	10.0	1.33	1	3/15/2007	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	3/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	3/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	3/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	3/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	3/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	3/15/2007	
Chrysene	BQL	10.0	1.11	1	3/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	3/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	3/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	3/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	3/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	3/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	3/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	3/15/2007	
Diethylphthalate	6.70	10.0	1.48	1	3/15/2007	J
Dimethylphthalate	BQL	10.0	1.04	1	3/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	3/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	3/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	3/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	3/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	3/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	3/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	3/15/2007	
Fluoranthene	BQL	10.0	1.41	1	3/15/2007	
Fluorene	5.10	10.0	1.22	1	3/15/2007	J
Hexachlorobenzene	BQL	10.0	1.22	1	3/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	3/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	3/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	3/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	3/15/2007	
Isophorone	BQL	10.0	1.27	1	3/15/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW11
Client Project ID: NV016
Lab Sample ID: G650-110-3G
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 15:12
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
2-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	
Naphthalene	6.80	10.0	1.08	1	3/15/2007	J
Nitrobenzene	BQL	10.0	1.32	1	3/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	3/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	3/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	3/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	3/15/2007	
Phenanthrene	BQL	10.0	1.38	1	3/15/2007	
Phenol	BQL	10.0	3.38	1	3/15/2007	
Pyrene	BQL	10.0	2.08	1	3/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	3/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	3/15/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.1	81
2-Fluorophenol	10	7.7	77
Nitrobenzene-d5	10	8.6	86
Phenol-d6	10	9.1	91
2,4,6-Tribromophenol	10	11.4	114
4-Terphenyl-d14	10	8.5	85

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: AW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW11
Client Project ID: NV016
Lab Sample ID: G650-110-3G
Lab Project ID: G650-110
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 3/6/2007 15:12
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Date Analyzed: 3/14/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	8.16			154
2	1H-Inden-1-one, 2,3-dihydro-3,3-dimethyl-	10.71	026465-81-6	91	78.8
3	Unknown	12.46			72.4
4	Unknown	11.17			56.9
5	Benzene, 2-ethenyl-1,4-dimethyl-	8.80	002039-89-6	95	50.1
6	Unknown	11.61			44.2
7	Unknown	12.61			42.8
8	Unknown	13.89			42.7
9	Unknown	13.05			41.8
10	1(2H)-Naphthalenone, 3,4-dihydro-	11.05	000529-34-0	94	36

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: fm



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW14
Client Project ID: NV016
Lab Sample ID: G650-110-4H
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 16:02
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	3/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	3/15/2007	
Anthracene	BQL	10.0	1.75	1	3/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	3/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	3/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	3/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	3/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	3/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	3/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	3/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	3/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	3/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	3/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	3/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	3/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	3/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	3/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	3/15/2007	
Chrysene	BQL	10.0	1.11	1	3/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	3/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	3/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	3/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	3/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	3/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	3/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	3/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	3/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	3/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	3/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	3/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	3/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	3/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	3/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	3/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	3/15/2007	
Fluoranthene	BQL	10.0	1.41	1	3/15/2007	
Fluorene	BQL	10.0	1.22	1	3/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	3/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	3/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	3/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	3/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	3/15/2007	
Isophorone	BQL	10.0	1.27	1	3/15/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW14
Client Project ID: NV016
Lab Sample ID: G650-110-4H
Lab Project ID: G650-110

Analyzed By: EAW
Date Collected: 3/6/2007 16:02
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
2-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	
Naphthalene	BQL	10.0	1.08	1	3/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	3/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	3/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	3/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	3/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	3/15/2007	
Phenanthrene	BQL	10.0	1.38	1	3/15/2007	
Phenol	BQL	10.0	3.38	1	3/15/2007	
Pyrene	BQL	10.0	2.08	1	3/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	3/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	3/15/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9	90
2-Fluorophenol	10	7.7	77
Nitrobenzene-d5	10	9.1	91
Phenol-d6	10	8.8	88
2,4,6-Tribromophenol	10	10.3	103
4-Terphenyl-d14	10	9.2	92

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: AW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW14
Client Project ID: NV016
Lab Sample ID: G650-110-4H
Lab Project ID: G650-110
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 3/6/2007 16:02
Date Received: 3/7/2007
Date Extracted: 3/13/2007
Date Analyzed: 3/14/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: AME



Results for Semivolatiles
by GCMS 625

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB7597
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 3/13/2007
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	3/16/2007	
Acenaphthylene	BQL	10.0	1.12	1	3/16/2007	
Anthracene	BQL	10.0	1.75	1	3/16/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	3/16/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	3/16/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	3/16/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	3/16/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	3/16/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	3/16/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	3/16/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	3/16/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	3/16/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	3/16/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	3/16/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	3/16/2007	
2-Chlorophenol	BQL	10.0	4.22	1	3/16/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	3/16/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	3/16/2007	
Chrysene	BQL	10.0	1.11	1	3/16/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	3/16/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	3/16/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	3/16/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	3/16/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	3/16/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	3/16/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	3/16/2007	
Diethylphthalate	BQL	10.0	1.48	1	3/16/2007	
Dimethylphthalate	BQL	10.0	1.04	1	3/16/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	3/16/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	3/16/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	3/16/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	3/16/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	3/16/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	3/16/2007	
Diphenylamine *	BQL	10.0	1.53	1	3/16/2007	
Fluoranthene	BQL	10.0	1.41	1	3/16/2007	
Fluorene	BQL	10.0	1.22	1	3/16/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	3/16/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	3/16/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	3/16/2007	
Hexachloroethane	BQL	10.0	1.58	1	3/16/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	3/16/2007	
Isophorone	BQL	10.0	1.27	1	3/16/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB7597
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 3/13/2007
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
2-Methylnaphthalene	BQL	10.0	1.08	1	3/14/2007	
Naphthalene	BQL	10.0	1.08	1	3/16/2007	
Nitrobenzene	BQL	10.0	1.32	1	3/16/2007	
2-Nitrophenol	BQL	10.0	3.52	1	3/16/2007	
4-Nitrophenol	BQL	50.0	3.17	1	3/16/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	3/16/2007	
Pentachlorophenol	BQL	50.0	2.83	1	3/16/2007	
Phenanthrene	BQL	10.0	1.38	1	3/16/2007	
Phenol	BQL	10.0	3.38	1	3/16/2007	
Pyrene	BQL	10.0	2.08	1	3/16/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	3/16/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	3/16/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8	80
2-Fluorophenol	10	7.2	72
Nitrobenzene-d5	10	8.1	81
Phenol-d6	10	8.1	81
2,4,6-Tribromophenol	10	8.2	82
4-Terphenyl-d14	10	10.6	105

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: fm



**Results For Matrix Spike / Matrix Spike Duplicate and Laboratory Control Standard (MS/MSD/LCS)
by GCMS**

Client Sample ID: Batch QC

Client Project ID:

Lab Sample ID: Batch-7597-MS/MSD/LCS

Lab Project ID: G135-329-9F

Matrix: WATER

Prep Method: 3520

Date Collected:

Date Received:

Date Extracted: 03/13/07

Date Analyzed: 03/16/07

Analyzed By: EAW

Dilution: 1

	Sample Amount (µg/L)	MS Spike (µg/L)	MS Conc. (µg/L)	MS Spike % Rec.	MSD Spike (µg/L)	MSD Conc. (µg/L)	MSD Conc. % Rec.	QC Limits		
								RPD	RPD	% Rec.
Acenaphthylene	BQL	370	349	94.2	370	206	55.5*	51.7*	30	62.0-119
4-Chloro-3-methylphenol	BQL	370	331	89.4	370	193	52.2*	52.5*	30	67.0-109
2-Chlorophenol	BQL	370	304	82.2	370	167	45.0*	58.5*	30	59.0-95.0
1,4-Dichlorobenzene	BQL	370	266	71.7	370	183	49.5	36.6*	30	29.0-86.0
2,4-Dinitrotoluene	BQL	370	364	98.4	370	219	59.1*	49.9*	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	370	372	101	370	175	47.3*	72.0*	30	67.0-107
4-Nitrophenol	BQL	370	386	104	370	211	57.1	58.4*	30	49.0-146
Pentachlorophenol	BQL	370	319	86.1	370	176	47.5	57.8*	30	43.0-106
Phenol	BQL	370	325	87.7	370	183	49.3*	56.1*	30	61.0-100
Pyrene	BQL	370	390	105	370	223	60.1	54.6*	30	41.0-123
1,2,4-Trichlorobenzene	BQL	370	320	86.3	370	197	53.1	47.6*	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits
				% Rec.
Acenaphthylene	100	72.9	72.9	72.9-127
4-Chloro-3-methylphenol	100	72.4	72.4	61.6-113
2-Chlorophenol	100	61.7	61.7	52.3-104
1,4-Dichlorobenzene	100	48.0	48.0	27.3-85.0
2,4-Dinitrotoluene	100	77.0	77.0	66.5-117
N-Nitrosodi-n-propylamine	100	75.7	75.7	54.4-119
4-Nitrophenol	100	75.4	75.4	32.4-150
Pentachlorophenol	100	59.7	59.7	23.9-115
Phenol	100	65.8	65.8	54.5-106
Pyrene	100	88.0	88.0	63.5-126
1,2,4-Trichlorobenzene	100	65.9	65.9	49.1-98.5

Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: EW



Results for Metals

Client Sample ID: USTLCH4015-MW05
Client Project ID: NV016
Lab Sample ID: G650-110-1
Lab Project ID: G650-110
Batch ID: 7545

Analyzed By: AEC
Date Collected: 3/6/07 14:26
Date Received: 3/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	3/9/07	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B = Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_41



Results for Metals

Client Sample ID: USTLCH4015-MW08
Client Project ID: NV016
Lab Sample ID: G650-110-2
Lab Project ID: G650-110
Batch ID: 7545

Analyzed By: AEC
Date Collected: 3/6/07 13:35
Date Received: 3/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	3/9/07	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: fm
MET_LIMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-MW11
Client Project ID: NV016
Lab Sample ID: G650-110-3
Lab Project ID: G650-110
Batch ID: 7545

Analyzed By: AEC
Date Collected: 3/6/07 15:12
Date Received: 3/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	3/9/07	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-MW14
Client Project ID: NV016
Lab Sample ID: G650-110-4
Lab Project ID: G650-110
Batch ID: 7545

Analyzed By: AEC
Date Collected: 3/6/07 16:02
Date Received: 3/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	3/9/07	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: RM
MET_LIMS_4.1



Results for Metals

Client Sample ID: Lab Blank
Client Project ID:
Lab Sample ID: pb7545
Lab Project ID:
Batch ID: 7545

Analyzed By: AEC
Date Collected:
Date Received:
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	3/9/07	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B = Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: fm
MET_LIMS_4.1



METALS Results for LCS/LCD

ICP Batch: 7545

HG Batch:

Other:

Matrix: WATER

Units: MG/L

Analyte	TRUE Value	LCS	LCS %REC	LCD	LCD %REC	Limit		RPD	RPD Limit
						Lower	Upper		
Lead	0.4	0.381	95.250	0.374	93.500	80	120	1.85	20

Reviewed By: Am



MS/MSD Results for METALS

Lab ID: G650-110-1

MS Lab ID: G650-110-1

MSD Lab ID: G650-110-1

ICP Batch: 7545

HG Batch:

Other:

Analyzed By: AEC

Matrix: Water

Units: MG/L

Analyte	Sample Result	SA MS	MS Result	MS %REC	SA MSD	MSD Result	MSD %REC	Limit		RPD	RPD Limit
								Lower	Upper		
Lead	BQL	0.400	0.384	96.0	0.400	0.392	98.0	75	125	2.06	20

Comments

*=Out of Limits

NA = Not applicable, due to sample concentration greater than three times spike concentration

Reviewed By: me



List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.

2) Uncertainty for all reported data is less than or equal to 30 percent.



Mr. Chris Murray
Sovereign Consulting
405 Oakmears Crescent
Suite 1
Virginia Beach VA 23462
Report Number: G650-107

Client Project: NV016
Report Revised: March 10, 2007

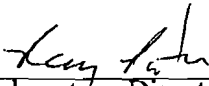
Dear Mr. Murray:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS/Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS/Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS/Paradigm Analytical Laboratories, Inc.



Laboratory Director
J. Patrick Weaver

3/10/2007

Date



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW01

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/6/2007 14:15

Lab Sample ID: G650-107-1A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	6.80	1.00	0.183	1	2/13/2007	
Diisopropyl ether (DIPE)	0.809	1.00	0.229	1	2/13/2007	J
Ethylbenzene	23.7	1.00	0.181	1	2/13/2007	
Methyl-tert butyl ether (MTBE)	19.5	2.00	0.359	1	2/13/2007	
Toluene	1.57	1.00	0.157	1	2/13/2007	
m/p-Xylene	20.4	2.00	0.481	1	2/13/2007	
o-Xylene	5.86	2.00	0.584	1	2/13/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.3	106

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 
GC-VOA-WA



Results for Volatiles
by GC 602

Client Sample ID: USTLCH4015-MW02

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/7/2007 13:27

Lab Sample ID: G650-107-2A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/14/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/14/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/14/2007	
Methyl-tert butyl ether (MTBE)	14.2	2.00	0.359	1	2/14/2007	
Toluene	BQL	1.00	0.157	1	2/14/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/14/2007	
o-Xylene	BQL	2.00	0.584	1	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.0	100

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW03

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/7/2007 10:45

Lab Sample ID: G650-107-3A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	0.965	1.00	0.183	1	2/14/2007	J
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/14/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/14/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/14/2007	
Toluene	BQL	1.00	0.157	1	2/14/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/14/2007	
o-Xylene	BQL	2.00	0.584	1	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.3	103

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW13

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/6/2007 17:53

Lab Sample ID: G650-107-4A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/13/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/13/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/13/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/13/2007	
Toluene	BQL	1.00	0.157	1	2/13/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/13/2007	
o-Xylene	BQL	2.00	0.584	1	2/13/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.4	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW18

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/6/2007 16:47

Lab Sample ID: G650-107-5A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/14/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/14/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/14/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/14/2007	
Toluene	BQL	1.00	0.157	1	2/14/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/14/2007	
o-Xylene	BQL	2.00	0.584	1	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.2	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW19

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/6/2007 16:05

Lab Sample ID: G650-107-6A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/14/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/14/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/14/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/14/2007	
Toluene	BQL	1.00	0.157	1	2/14/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/14/2007	
o-Xylene	BQL	2.00	0.584	1	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.4	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW20

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/7/2007 12:10

Lab Sample ID: G650-107-7A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/14/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/14/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/14/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/14/2007	
Toluene	BQL	1.00	0.157	1	2/14/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/14/2007	
o-Xylene	BQL	2.00	0.584	1	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	39.6	99.1

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: RSB
GC-VOA WA



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW21

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/6/2007 15:35

Lab Sample ID: G650-107-8A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	21.1	1.00	0.183	1	2/14/2007	
Diisopropyl ether (DIPE)	0.513	1.00	0.229	1	2/14/2007	J
Ethylbenzene	1.80	1.00	0.181	1	2/14/2007	
Methyl-tert butyl ether (MTBE)	21.3	2.00	0.359	1	2/14/2007	
Toluene	0.465	1.00	0.157	1	2/14/2007	J
m/p-Xylene	BQL	2.00	0.481	1	2/14/2007	
o-Xylene	BQL	2.00	0.584	1	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.2	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW22

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/7/2007 11:45

Lab Sample ID: G650-107-9A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/14/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/14/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/14/2007	
Methyl-tert butyl ether (MTBE)	8.34	2.00	0.359	1	2/14/2007	
Toluene	BQL	1.00	0.157	1	2/14/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/14/2007	
o-Xylene	BQL	2.00	0.584	1	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	39.7	99.3

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW23

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/6/2007 13:40

Lab Sample ID: G650-107-10A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	122	5.00	0.915	5	2/14/2007	
Diisopropyl ether (DIPE)	4.50	5.00	1.15	5	2/14/2007	J
Ethylbenzene	BQL	5.00	0.905	5	2/14/2007	
Methyl-tert butyl ether (MTBE)	77.5	10.0	1.8	5	2/14/2007	
Toluene	BQL	5.00	0.785	5	2/14/2007	
m/p-Xylene	BQL	10.0	2.41	5	2/14/2007	
o-Xylene	BQL	10.0	2.92	5	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	39.9	99.7

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles
by GC 602

Client Sample ID: USTLCH4015-MW24

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/7/2007 10:23

Lab Sample ID: G650-107-11A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/14/2007	
Diisopropyl ether (DIPE)	0.770	1.00	0.229	1	2/14/2007	J
Ethylbenzene	BQL	1.00	0.181	1	2/14/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/14/2007	
Toluene	BQL	1.00	0.157	1	2/14/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/14/2007	
o-Xylene	BQL	2.00	0.584	1	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.5	109

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-Duplicate

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 2/6/2007 0:00

Lab Sample ID: G650-107-12A

Date Received: 2/7/2007

Lab Project ID: G650-107

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/14/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/14/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/14/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/14/2007	
Toluene	BQL	1.00	0.157	1	2/14/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/14/2007	
o-Xylene	BQL	2.00	0.584	1	2/14/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.1	100

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: TRIP BLANK
Client Project ID: NV016
Lab Sample ID: G650-107-13A
Lab Project ID: G650-107

Analyzed By: RSB
Date Collected: 2/7/2007 0:00
Date Received: 2/7/2007
Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/13/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/13/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/13/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/13/2007	
Toluene	BQL	1.00	0.157	1	2/13/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/13/2007	
o-Xylene	BQL	2.00	0.584	1	2/13/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.0	100

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.



Results for Volatiles
by GC 602

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK3021207B
Lab Project ID:

Analyzed By: RSB
Date Collected:
Date Received:
Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/13/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/13/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/13/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/13/2007	
Toluene	BQL	1.00	0.157	1	2/13/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/13/2007	
o-Xylene	BQL	2.00	0.584	1	2/13/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.0	100

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.

Summary Results for MS-MSD

Sample : 021307/035F::021307/035R
 MS : 021307/037F::021307/037R
 MSD : 021307/038F::021307/038R

Compound	SA	µg/L			REC(%)		REC Limits	
		Sam.	MS	MSD	MS	MSD	Lower	Upper
Bromodichloromethane	10.0	ND	11.6	11.7	116	117	42	172
Bromoform	10.0	ND	10.2	11.0	102	110	13	169
Bromomethane	10.0	ND	7.7	9.4	77	94	D	144
Carbon tetrachloride	20.0	ND	22.0	21.4	110	107	43	143
Chlorobenzene	10.0	ND	10.4	10.0	104	100	38	160
Chloroethane	10.0	ND	10.6	11.3	106	113	46	137
Chloroform	10.0	ND	10.7	10.4	117	113	49	133
Chloromethane	10.0	ND	10.0	11.0	100	110	D	193
Dibromochloromethane	10.0	ND	10.4	10.9	104	109	24	191
• 1,2-Dibromoethane	10.0	ND	11.0	10.7	110	107	D	206
1,2-Dichlorobenzene	10.0	ND	10.6	10.4	106	104	D	208
1,3-Dichlorobenzene	10.0	ND	10.4	10.1	104	101	7	187
1,4-Dichlorobenzene	10.0	ND	10.6	10.4	106	104	42	143
1,1-Dichloroethane	10.0	ND	10.4	10.2	104	102	47	132
1,2-Dichloroethane	20.0	ND	11.0	10.7	66	64	51	147
1,1-Dichloroethene	10.0	ND	10.8	10.5	112	109	28	167
• cis-1,2-Dichloroethene	20.0	ND	20.8	20.7	111	111	19	181
trans-1,2-Dichloroethene	10.0	ND	10.8	10.6	116	113	38	166
1,2-Dichloropropane	10.0	ND	10.7	10.6	118	116	44	166
cis-1,3-Dichloropropene	10.0	ND	10.4	10.1	104	101	22	178
trans-1,3-Dichloropropene	10.0	ND	10.6	10.2	106	103	22	178
Methylene Chloride	10.0	ND	10.6	10.6	112	110	25	162
1,1,2,2-Tetrachloroethane	20.0	ND	19.2	18.8	96	94	8	184
Tetrachloroethane	20.0	13.04	32.7	32.7	98	98	26	162
1,1,1-Trichloroethane	10.0	ND	10.7	10.4	116	112	41	138
1,1,2-Trichloroethane	10.0	ND	10.9	10.7	109	107	39	136
Trichloroethene	10.0	ND	11.0	10.7	114	111	35	146
Trichlorofluoromethane	10.0	ND	10.3	11.2	103	112	21	166
Vinyl Chloride	10.0	ND	9.9	11.1	106	118	28	163

Method: 602

Compound	SA	µg/L			P(%)		P Limits	
		Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	10.0	ND	10.9	10.2	112	106	39	150
Chlorobenzene	10.0	ND	10.4	9.9	104	99	66	135
1,2-Dichlorobenzene	10.0	ND	20.6	19.8	212 +	206 +	37	154
1,3-Dichlorobenzene	10.0	ND	10.2	9.8	102	98	60	141
1,4-Dichlorobenzene	20.0	ND	20.6	19.6	102	98	42	143
• Diisopropyl ether	10.0	ND	10.2	9.7	102	97	30	170
Ethylbenzene	10.0	ND	10.8	10.3	108	103	32	160
• MTBE	20.0	ND	21.7	20.6	108	103	35	165
Toluene	10.0	ND	10.7	10.2	107	102	46	148
• m,p-Xylene	20.0	ND	21.6	20.6	108	103	D	239
• o-Xylene	20.0	ND	21.3	20.3	107	102	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- ND = None Detected
- SA = Spike Added

Summary Results for Laboratory Control Spike

Method : 601

Filename : 021307/021f

Compound	SA	Result	Rec	F	LCS Limits	
	ug/L	ug/L	(%)		Lower	Upper
Bromodichloromethane	10.0	10.8	108.3		42	172
Bromoform	10.0	9.6	96.2		13	159
Bromomethane	10.0	7.4	74.2		0	144
Carbon tetrachloride	20.0	20.3	101.3		43	143
Chlorobenzene	10.0	9.5	95.4		38	160
Chloroethane	10.0	8.6	86.1		46	137
Chloroform	10.0	8.8	97.5		49	133
Chloromethane	10.0	8.5	84.7		0	193
Dibromochloromethane	10.0	9.8	98.3		24	191
• 1,2-Dibromoethane	10.0	9.8	98.2		0	206
1,2-Dichlorobenzene	10.0	9.7	97.0		0	208
1,3-Dichlorobenzene	10.0	9.6	96.0		7	187
1,4-Dichlorobenzene	10.0	9.9	99.0		42	143
1,1-Dichloroethane	10.0	9.8	97.7		47	132
1,2-Dichloroethane	10.0	9.9	99.3		51	147
1,1-Dichloroethene	10.0	9.9	98.5		28	167
• cis-1,2-Dichloroethene	20.0	20.0	100.2		19	181
trans-1,2-Dichloroethene	10.0	10.1	101.2		38	165
1,2-Dichloropropane	10.0	9.9	98.7		44	166
cis-1,3-Dichloropropene	10.0	9.7	97.3		22	178
trans-1,3-Dichloropropene	10.0	9.8	97.8		22	178
Methylene Chloride	10.0	9.8	98.3		25	162
1,1,2,2-Tetrachloroethane	20.0	17.1	85.3		8	184
Tetrachloroethane	10.0	9.9	99.5		26	162
1,1,1-Trichloroethane	10.0	9.7	97.2		41	138
1,1,2-Trichloroethane	10.0	10.0	100.0		39	136
Trichloroethene	10.0	9.8	98.0		35	146
Trichlorofluoromethane	10.0	8.9	88.6		21	156
Vinyl Chloride	10.0	8.7	87.4		28	163

Method: 602

Filename : 021307/021r

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	9.7	97.4	39	160
Chlorobenzene	10.0	9.5	94.9	55	136
1,2-Dichlorobenzene	20.0	19.1	95.7	37	164
1,3-Dichlorobenzene	10.0	9.4	93.7	50	141
1,4-Dichlorobenzene	20.0	18.8	93.8	42	143
• Diisopropyl ether	10.0	9.3	92.6	30	170
Ethylbenzene	10.0	9.8	98.4	32	160
• MTBE	20.0	19.6	97.9	35	165
Toluene	10.0	9.8	97.8	46	148
• m,p-Xylene	20.0	19.8	99.2	0	239
• o-Xylene	20.0	19.3	96.7	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- SA = Spiked Amount



Summary Results for Laboratory Control Spike

Method: 601

Filename: 021307/022f

Compound	SA	Result	Rec	F	LCS Limits	
	ug/L	ug/L	(%)		Lower	Upper
Bromodichloromethane	10.0	11.6	116.1		42	172
Bromoform	10.0	10.3	102.6		13	169
Bromomethane	10.0	9.8	97.7		0	144
Carbon tetrachloride	20.0	21.6	108.2		43	143
Chlorobenzene	10.0	10.1	101.3		38	160
Chloroethane	10.0	10.9	109.1		46	137
Chloroform	10.0	10.6	104.7		49	133
Chloromethane	10.0	10.8	108.6		0	193
Dibromochloromethane	10.0	10.6	106.3		24	191
• 1,2-Dibromoethane	10.0	10.6	106.4		0	206
1,2-Dichlorobenzene	10.0	10.6	104.6		0	208
1,3-Dichlorobenzene	10.0	10.6	106.0		7	187
1,4-Dichlorobenzene	10.0	10.8	107.7		42	143
1,1-Dichloroethane	10.0	10.2	101.6		47	132
1,2-Dichloroethane	10.0	10.6	106.6		51	147
1,1-Dichloroethene	10.0	10.6	106.7		28	167
• cis-1,2-Dichloroethene	20.0	21.4	106.8		19	181
trans-1,2-Dichloroethene	10.0	10.6	106.1		38	155
1,2-Dichloropropane	10.0	10.9	108.6		44	156
cis-1,3-Dichloropropene	10.0	10.6	104.8		22	178
trans-1,3-Dichloropropene	10.0	10.6	106.2		22	178
Methylene Chloride	10.0	10.3	103.6		25	162
1,1,2,2-Tetrachloroethane	20.0	19.3	96.6		8	184
Tetrachloroethane	10.0	10.6	106.1		26	162
1,1,1-Trichloroethane	10.0	10.4	103.8		41	138
1,1,2-Trichloroethane	10.0	11.0	109.7		39	136
Trichloroethene	10.0	10.6	106.1		36	146
Trichlorofluoromethane	10.0	11.0	109.8		21	156
Vinyl Chloride	10.0	11.1	111.2		28	163

Method: 602

Filename: 021307/022r

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	10.4	103.7	39	160
Chlorobenzene	10.0	10.0	100.4	55	136
1,2-Dichlorobenzene	20.0	20.4	102.1	37	164
1,3-Dichlorobenzene	10.0	10.0	99.6	50	141
1,4-Dichlorobenzene	20.0	19.9	99.7	42	143
• Diisopropyl ether	10.0	9.7	97.4	30	170
Ethylbenzene	10.0	10.4	104.3	32	160
• MTBE	20.0	20.7	103.6	35	166
Toluene	10.0	10.4	103.6	46	148
• m,p-Xylene	20.0	21.0	105.0	0	239
• o-Xylene	20.0	20.6	102.7	36	164

Flags:

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- SA = Spiked Amount



Results for Volatiles
by GC 602

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK1021407A
Lab Project ID:

Analyzed By: RSB
Date Collected:
Date Received:
Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	2/13/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	2/13/2007	
Ethylbenzene	BQL	1.00	0.181	1	2/13/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	2/13/2007	
Toluene	BQL	1.00	0.157	1	2/13/2007	
m/p-Xylene	BQL	2.00	0.481	1	2/13/2007	
o-Xylene	BQL	2.00	0.584	1	2/13/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	39.7	99.3

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.



Summary Results for MS-MSD

Method: 602

Sample: 021407/017F::021407/017R

MSF: 021407/019F::021407/019R

MSD: 021407/020F::021407/020R

Compound	SA	µg/L			REC(%)		REC Limits	
		Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	10.0	2.6	11.6	10.1	116	116	39	150
Chlorobenzene	10.0	ND	11.4	9.9	114	114	55	135
1,2-Dichlorobenzene	10.0	6.3	23.8	20.3	238 +	238 +	37	154
1,3-Dichlorobenzene	10.0	ND	12.1	10.5	121	121	50	141
1,4-Dichlorobenzene	10.0	ND	22.4	19.3	224 +	224 +	42	143
Diisopropyl ether	10.0	1.8	16.2	14.5	162	162	30	170
Ethylbenzene	10.0	24.9	11.5	9.5	115	115	32	160
MTBE	20.0	2.1	23.1	20.0	116	116	35	165
Toluene	10.0	58.5	9.0	6.5	90	90	46	148
m,p-Xylene	20.0	84.7	20.1	15.8	101	101	D	239
o-Xylene	20.0	33.4	22.5	18.7	113	113	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- ND = None Detected
- SA= Spike Added



Summary Results for Laboratory Control Spike

Method: 602

Filename : 021307/034r

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	11.1	111.1	39	150
Chlorobenzene	10.0	11.0	109.9	55	135
1,2-Dichlorobenzene	20.0	22.9	114.7	37	154
1,3-Dichlorobenzene	10.0	11.4	113.9	50	141
1,4-Dichlorobenzene	20.0	23.3	116.3	42	143
• Diisopropyl ether	10.0	10.2	101.8	30	170
Ethylbenzene	10.0	11.5	115.1	32	160
• MTBE	20.0	21.3	106.4	35	165
Toluene	10.0	11.2	111.5	46	148
• m,p-Xylene	20.0	23.0	114.8	0	239
• o-Xylene	20.0	23.0	114.8	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- SA = Spiked Amount



Summary Results for Laboratory Control Spike

Method: 602

Filename : 021307/035r

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	10.5	105.1	39	150
Chlorobenzene	10.0	10.4	104.4	55	135
1,2-Dichlorobenzene	20.0	20.8	104.0	37	154
1,3-Dichlorobenzene	10.0	10.4	104.1	50	141
1,4-Dichlorobenzene	20.0	21.2	105.9	42	143
• Diisopropyl ether	10.0	9.6	96.4	30	170
Ethylbenzene	10.0	10.9	108.9	32	160
• MTBE	20.0	20.2	101.1	35	165
Toluene	10.0	10.7	107.2	46	148
• m,p-Xylene	20.0	21.8	109.1	0	239
• o-Xylene	20.0	21.4	107.2	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- SA = Spiked Amount



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW01
Client Project ID: NV016
Lab Sample ID: G650-107-1H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 14:15
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	55.1	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	4.00	10.0	1.89	1	2/15/2007	J
Naphthalene	17.1	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW01
Client Project ID: NV016
Lab Sample ID: G650-107-1H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 14:15
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.5	85		
2-Fluorophenol		10	7.7	77		
Nitrobenzene-d5		10	8.5	85		
Phenol-d6		10	8.8	88		
2,4,6-Tribromophenol		10	11.1	111		
4-Terphenyl-d14		10	10.4	104		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: p1



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW01
Client Project ID: NV016
Lab Sample ID: G650-107-1H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/6/2007 14:15
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2005
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Benzoic acid, 2,4,6-trimethyl-	11.61	000480-63-7	90	266
2	Unknown	12.06			69.4
3	Benzene, 1,3,5-trimethyl-	7.26	000108-67-8	97	69
4	Aromatic, Unknown	7.76			61.3
5	Unknown	7.35			55.9
6	Aromatic, Unknown	12.87			51.2
7	Aromatic, Unknown	10.72			38.4
8	2,3-Dihydro-1-methylindene	9.03	027133-93-3	94	37.2
9	Unknown	12.14			32
10	Benzene, 1,3-diethyl-	7.87	000141-93-5	94	31.8

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by:



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW02
Client Project ID: NV016
Lab Sample ID: G650-107-2H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 13:27
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW02
Client Project ID: NV016
Lab Sample ID: G650-107-2H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 13:27
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.9	89		
2-Fluorophenol		10	9	90		
Nitrobenzene-d5		10	9.5	95		
Phenol-d6		10	9.5	95		
2,4,6-Tribromophenol		10	10.9	109		
4-Terphenyl-d14		10	11.7	117		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By:



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW02
Client Project ID: NV016
Lab Sample ID: G650-107-2H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/7/2007 13:27
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2005
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	7.76			63.8
2	Unknown	7.34			25
3	Unknown	12.76			15.1
4	Unknown	5.35			14
5	Aromatic acid, Unknown	12.03			8.03
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *RS*



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW03
Client Project ID: NV016
Lab Sample ID: G650-107-3H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 10:45
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	5.80	10.0	1.33	1	2/15/2007	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	20.2	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW03
Client Project ID: NV016
Lab Sample ID: G650-107-3H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 10:45
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.2	92		
2-Fluorophenol		10	9.3	93		
Nitrobenzene-d5		10	9.7	97		
Phenol-d6		10	9.7	97		
2,4,6-Tribromophenol		10	11.2	112		
4-Terphenyl-d14		10	11.7	117		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EAW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW03
Client Project ID: NV016
Lab Sample ID: G650-107-3H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/7/2007 10:45
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2005
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	No library search compounds detected.				
2	Aromatic, Unknown	7.76			44.4
3	Indan, 1-methyl-	9.03	000767-58-8	94	25.8
4	Unknown	12.76			17.7
5	1-Naphthalenecarboxylic acid, 5,6,7,8-tetra	13.43	004242-18-6	95	10.9
6	Naphthalene, 1,2,3,4-tetrahydro-6-methyl-	10.48	001680-51-9	98	7.59
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by:



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW13
Client Project ID: NV016
Lab Sample ID: G650-107-4H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 17:53
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW13
Client Project ID: NV016
Lab Sample ID: G650-107-4H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 17:53
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.2	92		
2-Fluorophenol		10	9.1	91		
Nitrobenzene-d5		10	9.4	94		
Phenol-d6		10	9.5	95		
2,4,6-Tribromophenol		10	10.1	101		
4-Terphenyl-d14		10	14.1	141		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: *EW*



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW13
Client Project ID: NV016
Lab Sample ID: G650-107-4H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/6/2007 17:53
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2005
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.76			10.6
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *EP*



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW18
Client Project ID: NV016
Lab Sample ID: G650-107-5H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 16:47
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	2.10	10.0	1.22	1	2/15/2007	J
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	2.70	10.0	1.22	1	2/15/2007	J
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW18
Client Project ID: NV016
Lab Sample ID: G650-107-5H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 16:47
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.5	85		
2-Fluorophenol		10	8.1	81		
Nitrobenzene-d5		10	8.8	88		
Phenol-d6		10	8.8	88		
2,4,6-Tribromophenol		10	10.4	104		
4-Terphenyl-d14		10	12.1	121		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: RL



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW18
Client Project ID: NV016
Lab Sample ID: G650-107-5H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/6/2007 16:47
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2005
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.76			16.7
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by:



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV016
Lab Sample ID: G650-107-6H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 16:05
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	1.40	10.0	1.22	1	2/15/2007	J
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV016
Lab Sample ID: G650-107-6H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 16:05
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9	90		
2-Fluorophenol		10	8.9	88		
Nitrobenzene-d5		10	9.6	96		
Phenol-d6		10	9.5	95		
2,4,6-Tribromophenol		10	9.5	94		
4-Terphenyl-d14		10	13.2	132		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: Zed



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV016
Lab Sample ID: G650-107-6H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/6/2007 16:05
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2005
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	1-Propene, 1,1,2-trichloro-	6.66	021400-25-9	78	21.9
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by:



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW20
Client Project ID: NV016
Lab Sample ID: G650-107-7H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 12:10
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW20
Client Project ID: NV016
Lab Sample ID: G650-107-7H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 12:10
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.3	83		
2-Fluorophenol		10	7.8	78		
Nitrobenzene-d5		10	8.7	87		
Phenol-d6		10	8.4	84		
2,4,6-Tribromophenol		10	9.5	95		
4-Terphenyl-d14		10	13.9	139		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW20
Client Project ID: NV016
Lab Sample ID: G650-107-7H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/7/2007 12:10
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.76			8.99
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: RS



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW21
Client Project ID: NV016
Lab Sample ID: G650-107-8H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 15:35
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	54.3	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW21
Client Project ID: NV016
Lab Sample ID: G650-107-8H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 15:35
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.9	89		
2-Fluorophenol		10	9.1	91		
Nitrobenzene-d5		10	9.5	95		
Phenol-d6		10	9.5	95		
2,4,6-Tribromophenol		10	10	100		
4-Terphenyl-d14		10	12.1	121		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: ELW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW21
Client Project ID: NV016
Lab Sample ID: G650-107-8H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/6/2007 15:35
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Indane	7.76	000496-11-7	93	96.3
2	Unknown	12.76			15.2
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *EW*



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW22
Client Project ID: NV016
Lab Sample ID: G650-107-9H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 11:45
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW22
Client Project ID: NV016
Lab Sample ID: G650-107-9H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 11:45
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.4	84		
2-Fluorophenol		10	8.3	83		
Nitrobenzene-d5		10	8.9	89		
Phenol-d6		10	8.8	88		
2,4,6-Tribromophenol		10	9.6	96		
4-Terphenyl-d14		10	13.5	135		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By:



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW22
Client Project ID: NV016
Lab Sample ID: G650-107-9H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/7/2007 11:45
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Alkene, Unknown	6.66			16.2
2	Unknown	12.76			11.5
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by:



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-107-10H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 13:40
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-107-10H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 13:40
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.6	86		
2-Fluorophenol		10	8.9	89		
Nitrobenzene-d5		10	9.4	94		
Phenol-d6		10	9.3	93		
2,4,6-Tribromophenol		10	10.7	107		
4-Terphenyl-d14		10	11.2	112		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-107-10H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/6/2007 13:40
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	7.83			29.4
2	Cyclohexanol, 1-methyl-	6.06	000590-67-0	90	15.5
3	Unknown	12.76			13.7
4	Alcohol, Unknown	5.18			13.7
5	Benzoic acid, 2,3-dimethyl-	10.86	000603-79-2	94	13.5
6	Unknown	7.23			12.9
7	Benzoic acid, 2,4,6-trimethyl-	11.51	000480-63-7	91	12.1
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: *Red*



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW24
Client Project ID: NV016
Lab Sample ID: G650-107-11H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 10:23
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-MW24
Client Project ID: NV016
Lab Sample ID: G650-107-11H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/7/2007 10:23
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.6	86		
2-Fluorophenol		10	8.9	89		
Nitrobenzene-d5		10	9.4	94		
Phenol-d6		10	9.3	93		
2,4,6-Tribromophenol		10	10.7	107		
4-Terphenyl-d14		10	11.2	112		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By:



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW24
Client Project ID: NV016
Lab Sample ID: G650-107-11H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/7/2007 10:23
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	7.76			84.8
2	2,3-Dihydro-1-methylindene	9.03	027133-93-3	97	50.5
3	Unknown	12.76			18.5
4	Benzene, 1,4-diethyl-	7.87	000105-05-5	97	13.9
5	Naphthalene, 1,2,3,4-tetrahydro-5-methyl-	10.48	002809-64-5	94	12.8
6	Benzene, 1,2,4,5-tetramethyl-	8.65	000095-93-2	97	12.7
7	1H-Indene, 2,3-dihydro-1,6-dimethyl-	9.51	017059-48-2	95	12.1
8	Unknown	9.88			8.17
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by:



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-107-12H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 0:00
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	1.50	10.0	1.22	1	2/15/2007	J
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	BQL	10.0	1.48	1	2/15/2007	
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: USTLCH4015-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-107-12H
Lab Project ID: G650-107

Analyzed By: EAW
Date Collected: 2/6/2007 0:00
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.8	88		
2-Fluorophenol		10	8.7	87		
Nitrobenzene-d5		10	9.4	94		
Phenol-d6		10	9.1	91		
2,4,6-Tribromophenol		10	9.7	97		
4-Terphenyl-d14		10	14.1	141		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: EAW



Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-107-12H
Lab Project ID: G650-107
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 2/6/2007 0:00
Date Received: 2/7/2007
Date Extracted: 2/13/2007
Date Analyzed: 2/15/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.76			12.3
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: RJ



Results for Semivolatiles
by GCMS 625

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB7323
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 2/13/2007
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	2/15/2007	
Acenaphthylene	BQL	10.0	1.12	1	2/15/2007	
Anthracene	BQL	10.0	1.75	1	2/15/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	2/15/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	2/15/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	2/15/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	2/15/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	2/15/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	2/15/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	2/15/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	2/15/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	2/15/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	2/15/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	2/15/2007	
2-Chlorophenol	BQL	10.0	4.22	1	2/15/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	2/15/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	2/15/2007	
Chrysene	BQL	10.0	1.11	1	2/15/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	2/15/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	2/15/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	2/15/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	2/15/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	2/15/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	2/15/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	2/15/2007	
Diethylphthalate	2.60	10.0	1.48	1	2/15/2007	J
Dimethylphthalate	BQL	10.0	1.04	1	2/15/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	2/15/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	2/15/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	2/15/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	2/15/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	2/15/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	2/15/2007	
Diphenylamine *	BQL	10.0	1.53	1	2/15/2007	
Fluoranthene	BQL	10.0	1.41	1	2/15/2007	
Fluorene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	2/15/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	2/15/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	2/15/2007	
Hexachloroethane	BQL	10.0	1.58	1	2/15/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	2/15/2007	
Isophorone	BQL	10.0	1.27	1	2/15/2007	
1-Methylnaphthalene	BQL	10.0	2.25	1	2/15/2007	
2-Methylnaphthalene	BQL	10.0	1.89	1	2/15/2007	
Naphthalene	BQL	10.0	1.08	1	2/15/2007	
Nitrobenzene	BQL	10.0	1.32	1	2/15/2007	
2-Nitrophenol	BQL	10.0	3.52	1	2/15/2007	
4-Nitrophenol	BQL	50.0	3.17	1	2/15/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	2/15/2007	
Pentachlorophenol	BQL	50.0	2.83	1	2/15/2007	
Phenanthrene	BQL	10.0	1.38	1	2/15/2007	
Phenol	BQL	10.0	3.38	1	2/15/2007	



Results for Semivolatiles
by GCMS 625

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB7323
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 2/13/2007
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Pyrene	BQL	10.0	2.08	1	2/15/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	2/15/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	2/15/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.1	91		
2-Fluorophenol		10	8.2	82		
Nitrobenzene-d5		10	10.3	103		
Phenol-d6		10	8.9	89		
2,4,6-Tribromophenol		10	9.7	97		
4-Terphenyl-d14		10	11.3	113		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: WJ



Results For Matrix Spike / Matrix Spike Duplicate and Laboratory Control Standard (MS/MSD/LCS)
by GCMS

Client Sample ID: Batch QC

Date Collected:

Client Project ID:

Date Received:

Lab Sample ID: Batch-7323-MS/MSD/LCS

Date Extracted: 02/13/07

Lab Project ID: G650-107-2

Date Analyzed: 02/15/07

Matrix: WATER

Analyzed By: EAW

Prep Method: 3520

Dilution: 1

	Sample Amount (µg/L)	MS Spike (µg/L)	MS Conc. (µg/L)	MS Spike % Rec.	MSD Spike (µg/L)	MSD Conc. (µg/L)	MSD Conc. % Rec.	RPD	QC Limits	
									RPD	% Rec.
Acenaphthylene	BQL	200	209	104	200	214	107.0	2.37	30	62.0-119
4-Chloro-3-methylphenol	BQL	200	179	89.5	200	206	103.0	13.8	30	67.0-109
2-Chlorophenol	BQL	200	167	83.6	200	169	84.5	1.07	30	59.0-95.0
1,4-Dichlorobenzene	BQL	200	173	86.6*	200	158	79.2	8.93	30	29.0-86.0
2,4-Dinitrotoluene	BQL	200	210	105*	200	230	115*	8.91	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	200	175	87.4	200	186	93.2	6.42	30	67.0-107
4-Nitrophenol	BQL	200	147	73.4	200	216	108.0	38.0*	30	49.0-146
Pentachlorophenol	BQL	200	199	99.7	200	230	115*	14.3	30	43.0-106
Phenol	BQL	200	138	68.9	200	154	77.0	11.1	30	61.0-100
Pyrene	BQL	200	170	85.1	200	178	89.0	4.48	30	41.0-123
1,2,4-Trichlorobenzene	BQL	200	196	98.1*	200	189	94.3	3.95	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits
				% Rec.
Acenaphthylene	100	113	113	72.9-127
4-Chloro-3-methylphenol	100	101	101	61.6-113
2-Chlorophenol	100	93.5	93.5	52.3-104
1,4-Dichlorobenzene	100	76.8	76.8	27.3-85.0
2,4-Dinitrotoluene	100	116	116	66.5-117
N-Nitrosodi-n-propylamine	100	101	101	54.4-119
4-Nitrophenol	100	91.4	91.4	32.4-150
Pentachlorophenol	100	103	103	23.9-115
Phenol	100	87.7	87.7	54.5-106
Pyrene	100	90.3	90.3	63.5-126
1,2,4-Trichlorobenzene	100	93.7	93.7	49.1-98.5

Comments: Low surrogate recovery in MS/MSD confirmed by duplicate analysis.
Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: EAW



Results for Metals

Client Sample ID: USTLCH4015-MW01
Client Project ID: NV016
Lab Sample ID: G650-107-1
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/6/07 14:15
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	1.53	5.00	0.470	25	UG/L	6020	2/15/07	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: esl
MET_LIMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-MW02
Client Project ID: NV016
Lab Sample ID: G650-107-2
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/7/07 13:27
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	0.500	5.00	0.470	25	UG/L	6020	2/15/07	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B = Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-MW03
Client Project ID: NV016
Lab Sample ID: G650-107-3
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/7/07 10:45
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	2/15/07	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B = Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 
MET...IMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-MW13
Client Project ID: NV016
Lab Sample ID: G650-107-4
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/6/07 17:53
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	2/15/07	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: PN
MET_LIMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-MW18
Client Project ID: NV016
Lab Sample ID: G650-107-5
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/6/07 16:47
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	1.57	5.00	0.470	25	UG/L	6020	2/15/07	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV016
Lab Sample ID: G650-107-6
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/6/07 16:05
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	0.525	5.00	0.470	25	UG/L	6020	2/15/07	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_41



Results for Metals

Client Sample ID: USTLCH4015-MW20
Client Project ID: NV016
Lab Sample ID: G650-107-7
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/7/07 12:10
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	1.02	5.00	0.470	25	UG/L	6020	2/15/07	J

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B = Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-MW21
Client Project ID: NV016
Lab Sample ID: G650-107-8
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/6/07 15:35
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	0.650	5.00	0.470	25	UG/L	6020	2/15/07	J

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4 1



Results for Metals

Client Sample ID: USTLCH4015-MW22
Client Project ID: NV016
Lab Sample ID: G650-107-9
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/7/07 11:45
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	2/15/07	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 20
MET_LIMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV016
Lab Sample ID: G650-107-10
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/6/07 13:40
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	2/15/07	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: lsl
MET_LIMS_41



Results for Metals

Client Sample ID: USTLCH4015-MW24
Client Project ID: NV016
Lab Sample ID: G650-107-11
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/7/07 10:23
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	2/15/07	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 2/1
MET_LIMS_4.1



Results for Metals

Client Sample ID: USTLCH4015-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-107-12
Lab Project ID: G650-107
Batch ID: 7293

Analyzed By: AEC
Date Collected: 2/6/07 0:00
Date Received: 2/7/07
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	2/15/07	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B = Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By:
MET_LIMS_41



Results for Metals

Client Sample ID: Lab Blank
Client Project ID:
Lab Sample ID: pb7293
Lab Project ID:
Batch ID: 7293

Analyzed By: AEC
Date Collected:
Date Received:
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	2/15/07	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: RL
MET_LIMS_41



METALS Results for LCS/LCD

ICP Batch: 7293

HG Batch:

Other:

Matrix: WATER

Units: MG/L

Analyte	TRUE Value	LCS	LCS %REC	LCD	LCD %REC	Limit		RPD	RPD Limit
						Lower	Upper		
Lead	0.4	0.39	97.500	0.372	93.000	80	120	4.72	20

Reviewed By: RS



MS/MSD Results for METALS

Lab ID: G132-1717-2
MS Lab ID: G132-1717-2
MSD Lab ID: G132-1717-2
ICP Batch: 7293
HG Batch:
Other:

Analyzed By: AEC
Matrix: Water
Units: MG/L

Analyte	Sample Result	SA MS	MS Result	MS %REC	SA MSD	MSD Result	MSD %REC	Limit		RPD	RPD Limit
								Lower	Upper		
Lead	BQL	0.4	0.377	94.25	0.4	0.387	96.75	75	125	2.6178	20

Comments

*=Out of Limits

NA = Not applicable, due to sample concentration greater than three times spike concentration

Reviewed By: Rev



List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.



CHAIN OF CUSTODY STUDY RECORD
SGS Environmental Services Inc.

Locations Nationwide
• Alaska • Hawaii
• Louisiana • Maryland
• New Jersey • North Carolina
• West Virginia
www.us.sgs.com

061



1 CLIENT: Sovereign Consulting Inc
CONTACT: Theresa Elterman PHONE NO: (910) 526 3941
PROJECT: NV016 SITE/PWSID#: LCH 4015
REPORTS TO: Chris Murray E-MAIL: cmurray@sovercon.com
INVOICE TO: Chris Murray QUOTE #
405 OAK MEADOWS CRESCENT STE 1
VIRGINIA BEACH VA 23462 P.O. NUMBER

2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE	Preservatives Used	Analysis Required	REMARKS
	USTLCH4015-MW01	2/6/07	1415	W	5				
	USTLCH4015-MW02	2/7/07	1327	W	5				
	USTLCH4015-MW03	2/7/07	1045	W	5				
	USTLCH4015-MW13	2/6/07	1753	W	5				
	USTLCH4015-MW18	2/6/07	1647	W	5				
	USTLCH4015-MW19	2/6/07	1605	W	5				
	USTLCH4015-MW20	2/7/07	1535	W	5				
	USTLCH4015-MW21	2/6/07	1535	W	5				
	USTLCH4015-MW22	2/7/07	1145	W	5				
	USTLCH4015-MW23	2/6/07	1340	W	5				

3

4

5

Collected/Relinquished By: (1) [Signature] Date 1505 2/7/07 Time 1505 2/7/07 Received By: Amy Dufaney

Relinquished By: (2) Date Time Received By:

Relinquished By: (3) Date Time Received By:

Relinquished By: (4) Date Time Received By:

Shipping Carrier: Shipping Ticket No: Special Deliverable Requirements: EDD FORMAT Requested Turnaround Time and Special Instructions: Standard Turnaround Email Results "EDD Format" to nhali@sovercon.com + cmurray@sovercon.com

Samples Received Cold? (Circle) YES NO Temperature (C): 3.1

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

APPENDIX C

FIELD DATA

GROUNDWATER MONITORING WELL GAUGING DATA
MCB Camp LeJett 1d New River MCAS

Date: 10/11/06
SITE: LCH 4015

Gauged By: TE

WELL NUMBER	DEPTH TO BOTTOM MEASURED FROM TOC		TIME OF GAUGING	DEPTH TO WATER FROM TOP OF CASING	DEPTH TO LNAPL FROM TOP OF CASING	LNAPL THICKNESS	COMMENTS
	Installed	Measured					
USTLCH 4015- MW01		14.81 ~~15.00~~	0955	2.81			
USTLCH 4015- MW02		12.23	0948	1.39			
USTLCH 4015- MW03		15.31	0952	4.80			
USTLCH 4015- MW04		15.39	0954	5.01			
USTLCH 4015- MW05		11.05	1014	2.20			
USTLCH 4015- MW06		12.12	1012	2.53			
USTLCH 4015- MW07		12.10	1021	2.10			
USTLCH 4015- MW08		12.47	1017	1.20			
USTLCH 4015- MW09		12.12	1018	0.93			
USTLCH 4015- MW10		12.03	1016	0.87			
USTLCH 4015- MW11		12.00	1009	3.32			
USTLCH 4015- MW12		11.75	1007	4.25			
USTLCH 4015- MW13		47.62	1006	22.10			
USTLCH 4015- MW14		11.88	1004	4.41			
USTLCH 4015- MW15		11.90	1002	3.15			
USTLCH 4015- MW16		11.64	1000	2.97			
USTLCH 4015- MW17		/					couldn't locate in gravel drive
USTLCH 4015- MW18		12.03	0944	0.88			

10/11/00 UH4015

WELL NUMBER	DEPTH TO BOTTOM MEASURED FROM TOC		TIME OF GAUGING	DEPTH TO WATER FROM TOP OF CASING	DEPTH TO LNAPL FROM TOP OF CASING	LNAPL THICKNESS	COMMENTS
	Installed	Measured					
USTLCH 4015- MW19		51.00	0945	22.80			
USTLCH 4015- MW20		47.90	0950	21.80			
USTLCH 4015- MW21		30.78	0946	22.60			
USTLCH 4015- MW22		31.95	0951	21.98			
USTLCH 4015- MW23		32.05	0956	22.72			
USTLCH 4015- MW24		14.40	0949	1.56			

GROUNDWATER MONITORING WELL GAUGING DATA
MCB Camp LeJeune and New River MCAS

2/7/07
SITE: LCH 4015
Gauged By: TE

WELL NUMBER	DEPTH TO BOTTOM MEASURED FROM TOC		TIME OF GAUGING	DEPTH TO WATER FROM TOP OF CASING	DEPTH TO LNAPL FROM TOP OF CASING	LNAPL THICKNESS	COMMENTS
	Installed	Measured					
USTLCH4015-MW01		14.87	1222	2.08			
USTLCH4015-MW02		12.23	1148	0.87			
USTLCH4015-MW03		15.31	0920	4.26			
USTLCH4015-MW04		15.39	1245	4.45			
USTLCH4015-MW05		11.05	1246	1.98			
USTLCH4015-MW06		12.12	1241	2.30			
USTLCH4015-MW07		12.10	1230	0.40			
USTLCH4015-MW08		12.47	1244	1.35			
USTLCH4015-MW09		12.12	1243	1.14			
USTLCH4015-MW10		12.03	1242	0.79			
USTLCH4015-MW11		12.00	1239	2.99			
USTLCH4015-MW12		11.75	1235	3.47			
USTLCH4015-MW13		47.62	1234	20.08			
USTLCH4015-MW14		11.88	1233	3.67			
USTLCH4015-MW15		11.90	1231	2.99			
USTLCH4015-MW16		11.64	Blocked by vehicle				
USTLCH4015-MW17							Not Located
USTLCH4015-MW18		12.03	1224	1.70			
USTLCH4015-MW19		51.00	1225	20.70			

GROUNDWATER MONITORING WELL GAUGING DATA
MCB Camp LeJeune and New River MCAS

Date: 2/7/07
Site: LCH 4015
Gauged By: TE

WELL NUMBER	DEPTH TO BOTTOM MEASURED FROM TOC		TIME OF GAUGING	DEPTH TO WATER FROM TOP OF CASING	DEPTH TO LNAPL FROM TOP OF CASING	LNAPL THICKNESS	COMMENTS
	Installed	Measured					
USTLCH4015- MW20		47.90	1104	19.87			
USTLCH4015- MW21		30.20	1223	20.50			
USTLCH4015- MW22		31.95	1107	19.81			
USTLCH4015- MW23		32.05	1255	20.55			
USTLCH4015- MW24		14.40	0945	0.81			

Date:
SIT

LCH 4015

Gauged By:

Kurt Markle

WELL NUMBER	DEPTH TO BOTTOM MEASURED FROM TOC		TIME OF GAUGING	DEPTH TO WATER FROM TOP OF CASING	DEPTH TO LNAPL FROM TOP OF CASING	LNAPL THICKNESS	COMMENTS
	Installed	Measured					
USTLCH 4015-MW01		14.87					
USTLCH 4015-MW02		12.23					
USTLCH 4015-MW03		15.31					
USTLCH 4015-MW04		15.39					
USTLCH 4015-MW05		~~11.05~~ 11.71	1248	1.72	—	—	*
USTLCH 4015-MW06		12.12					
USTLCH 4015-MW07		12.10					
USTLCH 4015-MW08		~~12.47~~ 12.53	1300	1.63	—	—	*
USTLCH 4015-MW09		12.12					
USTLCH 4015-MW10		12.03					
USTLCH 4015-MW11		~~12.00~~ 12.03	1255	3.22	—	—	*
USTLCH 4015-MW12		11.75					
USTLCH 4015-MW13		47.62					
USTLCH 4015-MW14		~~11.88~~ 11.71	1252	3.95	—	—	*
USTLCH 4015-MW15		11.90					
USTLCH 4015-MW16		11.64					
USTLCH 4015-MW17			---	---	---	---	Unable to be located
USTLCH 4015-MW18		12.03					
USTLCH 4015-MW19		51.00					
USTLCH 4015-MW20		47.90					
USTLCH 4015-MW21		30.20					
USTLCH 4015-MW22		31.95					
USTLCH 4015-MW23		32.05					
USTLCH 4015-MW24		14.40					

Project Number: NVO16
Project Name: LCH 4015
Date: 10/12/06
Weather: ↑ 70's

Well ID: MW01
Sample ID: USTLCH40K5 - MW01
Well Condition: good

Protective Casing Diameter (inch):	N/A
Inner Casing Diameter (inch):	4 (0.633)
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	2.81
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	14.87

Water Column (feet):	<u>12.06</u>
Casing Volume (gal):	<u>7.87</u>
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	<u>~~0930~~ 1031</u>
Total Volume Purged (gal):	<u>9</u>
Sample Time/Date	<u>1200</u>
Sampler Name:	<u>TF</u>

[illegible]

Project Number: NVOIU
Project Name: LCH4015
Date: 10/12/06
Weather: ↑ 70's

Well ID: MW03
Sample ID: USTLCH4015-MW03
Well Condition: good

Protective Casing Diameter (inch):	NA
Inner Casing Diameter (inch):	4 (0.633)
Depth to Product from TOC (feet):	NA
Initial Depth to Water from TOC (feet):	4.80
Product Thickness (feet):	NA
Total Depth from TOC (feet):	15.31

Water Column (feet):	10.51
Casing Volume (gal):	6.86
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	0930
Total Volume Purged (gal):	8
Sample Time/Date	1045
Sampler Name:	TE

[illegible]

Project Number: NV016
Project Name: LC4405
Date: 10/12/26
Weather: ↑ 70's

Well ID: MW13
Sample ID: USTLH4015-MW13
Well Condition: good

Protective Casing Diameter (inch):	
Inner Casing Diameter (inch):	2" (0.163)
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	22.10
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	47.62

Water Column (feet):	25.52
Casing Volume (gal):	4.15
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	1120
Total Volume Purged (gal):	6
Sample Time/Date	1230
Sampler Name:	TE

[illegible]

Project Number: NV016
Project Name: LCH 4015
Date: 10/11/06
Weather: 70's

Well ID: MW19
Sample ID: USTLCH4015-MW19
Well Condition: Good

Protective Casing Diameter (inch):	N/A
Inner Casing Diameter (inch):	2" (0.163)
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	22.80
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	51.00

Water Column (feet):	28.20
Casing Volume (gal):	4.59
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	0950
Total Volume Purged (gal):	6
Sample Time/Date	1120
Sampler Name:	TE

[illegible]

* Readings would not statistically sample

Project Number: NV016
Project Name: LCH4015
Date: 10/11/06
Weather: ↑ 75.3

Well ID: MW22

Sample ID: USTLCH4015-MW22

Well Condition: good

Protective Casing Diameter (inch):	N/A
Inner Casing Diameter (inch):	2" (0.163)
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	~~21~~ 21
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	~~42~~ 43

Water Column (feet): 9.99

Casing Volume (gal): 1.62

Purge/Sample Method: Low Flow Method

Start Purge Date/Time: 12:30

Total Volume Purged (gal): 3

Sample Time/Date: 1/05

Sampler Name: TE

[illegible]

Project Number: NY94
Project Name: 2CH4015
Date: 10/11/06
Weather: ↑ 70's

Well ID: MW23
Sample ID: USTICH4015-MW23
Well Condition: good

Protective Casing Diameter (inch):	<u>MA 4</u>
Inner Casing Diameter (inch):	<u>2" (0.163)</u>
Depth to Product from TOC (feet):	<u>N/A</u>
Initial Depth to Water from TOC (feet):	<u>22.72</u>
Product Thickness (feet):	<u>N/A</u>
Total Depth from TOC (feet):	<u>32.05</u>

Water Column (feet):	9.33
Casing Volume (gal):	1.52
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	14-10
Total Volume Purged (gal):	3
Sample Time/Date	1530
Sampler Name:	TR

[illegible]

Project Number: NVO16
Project Name: L044015
Date: 10/11/06
Weather: ↑ 70's

Well ID: MW24
Sample ID: UST-4014405-MW24
Well Condition: good

Protective Casing Diameter (inch):	N/A
Inner Casing Diameter (inch):	2" (0.163)
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	1.56
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	14.40

Water Column (feet):	12.84
Casing Volume (gal):	2.09
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	1422
Total Volume Purged (gal):	3
Sample Time/Date	1453
Sampler Name:	TE

[illegible]

Project Number:	NV016
Project Name:	LCH 4015
Date:	2/6/2007
Weather:	30's

Well ID: MW-01
Sample ID: DSTLCH4015-MW-01
Well Condition: GOOD

Protective Casing Diameter (inch):	N/A
Inner Casing Diameter (inch):	4" (0.653)
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	2.20
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	14.87

Water Column (feet):	12.47
Casing Volume (gal):	8.27
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	6/15
Total Volume Purged (gal):	9
Sample Time/Date	1415
Sampler Name:	TF

[illegible]

Project Number:	NV016
Project Name:	LCH 4015
Date:	2/7/2007
Weather:	40's

Well ID: MW02
Sample ID: USLCH 4015 - MW02
Well Condition: Good

Protective Casing Diameter (inch):	N/A
Inner Casing Diameter (inch):	4"
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	0.87
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	12.23

Water Column (feet):	11.36
Casing Volume (gal):	7.41
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	11.48
Total Volume Purged (gal):	9
Sample Time/Date	1327
Sampler Name:	RG

[illegible]

Project Number:	NV016
Project Name:	LCH 4015
Date:	2/7/2007
Weather:	40's

Well ID: MW03
Sample ID: USTLCH405-MW03
Well Condition: Good

Protective Casing Diameter (inch):	<u>N/A</u>
Inner Casing Diameter (inch):	<u>4"</u>
Depth to Product from TOC (feet):	<u>N/A</u>
Initial Depth to Water from TOC (feet):	<u>4.26</u>
Product Thickness (feet):	<u>N/A</u>
Total Depth from TOC (feet):	<u>15.31</u>

Water Column (feet):	11.05
Casing Volume (gal):	7.21
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	0900
Total Volume Purged (gal):	9
Sample Time/Date	1045
Sampler Name:	TE

[illegible]

Project Number	NV016	Well ID:	MW05
Project Name	LCH4015 resample	Sample ID:	USTLCH4015-MW05
Date		Well Condition	
Weather			

Protective Casing Diameter (inch):	4"	Water Column (feet):	10.0
Inner Casing Diameter (inch):	~~3~~ ~~0.07~~ ~~0.08~~	Casing Volume (gal):	6.50
Depth to Product from TOC (feet):	—	Purge/Sample Method:	Low Flow Method
Initial Depth to Water from TOC (feet):	1.72	Start Purge Date/Time:	1358
Product Thickness (feet):	—	Total Volume Purged (gal):	6.50
Total Depth from TOC (feet):	11.05	Sample Time/Date:	1426
	11.71	Sampler Name:	Kurt Marklin

[illegible]

[illegible]

Project Number
Project Name
Date
Weather.

NV016
LCH4015
31d07
Sunny 50°F

Well ID:
Sample ID:
Well Condition:

MW11
VSTLCH4015 MW11
Good

Protective Casing Diameter (inch)

Inner Casing Diameter (inch).

2" (0.163)

Depth to Product from TOC (feet):

Initial Depth to Water from TOC (feet):

Product Thickness (feet):

Total Depth from TOC (feet).

$$\begin{array}{r} \cancel{12.00} - \\ 3.22 \\ \hline 12.00 \\ 12.03 \end{array}$$

Water Column (feet):

Casing Volume (gal):

Purge/Sample Method:

Start Purge Date/Time:

Total Volume Purged (gal)

Sample Time/Date

Sampler Name:

8.81
1.41
Low Flow Method
1445
1.50
1512
Kurt Markle

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	pH	Conductivity ms/cm	Temp (°C)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mv)	Comments
1445	.5 gal/min								
1448		1.50							
1451	100 ml/min		6.04	.421	16.61	.97	1.11	-94.1	
1454	100		6.05	.424	16.60	1.31	1.07	-95.9	
1457	100		6.07	.427	16.80	1.47	1.05	-97.5	
1500	100		6.07	.427	16.83	1.51	1.01	-97.6	
1503	100		6.08	.427	16.85	1.50	1.01	-97.5	
1506	100		6.08	.427	16.88	1.50	.99	-97.4	
1509	100		6.05	.427	16.90	1.51	1.00	-97.5	
1512	Sampling		6.08	.427	16.90	1.51	1.01	-97.6	
1525	Done Sampling Post Purging	5	6.07	.427	16.87	1.50	1.00	-97.3	

Project Number: NV016
Project Name: LCH 4015
Date: 2/7/2008 2/6/07
Weather: 30's

Well ID: MW13
Sample ID: USTLCH4015-MW13
Well Condition: Good

Protective Casing Diameter (inch):	N/A
Inner Casing Diameter (inch):	2"
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	20.32
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	47.102

Water Column (feet):	27.30
Casing Volume (gal):	-1.44
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	11-5-5
Total Volume Purged (gal):	6
Sample Time/Date	1-15-3
Sampler Name:	TF

[illegible]

* Duplicate sample on MW19

Project Number:	NV016
Project Name:	LCH 4015
Date:	2/7/2008
Weather:	40's

Well ID: MW20
Sample ID: OSTLCH4015-MW20
Well Condition: Good

Protective Casing Diameter (inch):	N/A
Inner Casing Diameter (inch):	2"
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	19.87
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	47.90

Water Column (feet):	<u>28.03</u>
Casing Volume (gal):	<u>4.56</u>
Purge/Sample Method:	<u>Low Flow Method</u>
Start Purge Date/Time:	<u>1104</u>
Total Volume Purged (gal):	<u>6</u>
Sample Time/Date	<u>1210</u>
Sampler Name:	<u>TE</u>

[illegible]

Project Number:	NV016
Project Name:	LCH 4015
Date:	2/7/2006
Weather:	40's

Well ID: MW22
Sample ID: CSLCH4015-MW22
Well Condition: GOOD

Protective Casing Diameter (inch):	<u>4</u>
Inner Casing Diameter (inch):	<u>2"</u>
Depth to Product from TOC (feet):	<u>N/A</u>
Initial Depth to Water from TOC (feet):	<u>19.81</u>
Product Thickness (feet):	<u>N/A</u>
Total Depth from TOC (feet):	<u>31.95</u>

Water Column (feet):	<u>12.14</u>
Casing Volume (gal):	<u>1.97</u>
Purge/Sample Method:	<u>Low Flow Method</u>
Start Purge Date/Time:	<u>1107</u>
Total Volume Purged (gal):	<u>3</u>
Sample Time/Date	<u>1145</u>
Sampler Name:	<u>TF</u>

[illegible]

Project Number: NV016
Project Name: LCH 4015
Date: 2/6/2007
Weather: 30's

Well ID: MW23
Sample ID: USTLOH4015-MW23
Well Condition: Good

Protective Casing Diameter (inch):	4
Inner Casing Diameter (inch):	2"
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	20.60
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	31.72

Water Column (feet):	11.12
Casing Volume (gal):	1.81
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	1305
Total Volume Purged (gal):	3
Sample Time/Date	1340
Sampler Name:	TF

[illegible]

Project Number:	NV016
Project Name:	LCH 4015
Date:	2/7/2006
Weather:	40's

Well ID: MMW24
Sample ID: USTLCH4015-MMW-24
Well Condition: Good

Protective Casing Diameter (inch):	N/A
Inner Casing Diameter (inch):	2"
Depth to Product from TOC (feet):	N/A
Initial Depth to Water from TOC (feet):	0.81
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	14.40

Water Column (feet):	13.59
Casing Volume (gal):	2.21
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	09/15
Total Volume Purged (gal):	4
Sample Time/Date	1023
Sampler Name:	TE

[illegible]