

ANNUAL MONITORING REPORT

BUILDING AS-840

NCDENR Incident Number: 87399
Marine Corps Air Station New River
Jacksonville, North Carolina

September 4, 2007

Prepared for:



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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 Building AS-840 project site is located aboard the Marine Corps Air Station (MCAS) New River, Jacksonville, North Carolina. The project area is in the vicinity of Building AS-840 and the Building AS-840 Radar Tower Area (Building SAS-839). An existing 2,900-gallon capacity aboveground storage tank (AST) located south of Building AS-840 supplies diesel fuel to a boiler system located within the building, and an underground pipeline is utilized to transfer fuel from the AST to the boiler system.

In the spring of 2000, Building AS-840 personnel reported observing petroleum sheen in water puddles on the ground surface following periods of heavy rain. Subsequently, J.A. Jones Environmental Services (J.A. Jones) investigated the integrity of the fuel transfer system by excavation and confirmed a leak in the pipeline in April 2000. The leaking pipeline was removed from the subsurface, and a new, self-contained, double-walled fuel distribution line was installed.

Law Engineering and Environmental Services, Inc. (Law) was retained to complete a Comprehensive Site Assessment (CSA) at the site. The findings of this investigation were summarized in a report dated August 14, 2002. CATLIN Engineers and Scientists (CATLIN) subsequently completed a Comprehensive Site Assessment Addendum (CSAA) report dated January 6, 2004 to summarize additional site information. The site assessments indicated the presence of soil contamination, free-phase product, and dissolved phase groundwater contamination in excess of applicable state action levels.

CATLIN prepared a corrective action plan (CAP) for the site, which proposed soil excavation with accelerated natural attenuation to address the soil and groundwater contamination. The goals of the implemented remedial action were to remove soil contamination by excavation, remediate free-phase product to a thickness of less than 1/8 inch by excavation, and remediate groundwater contaminant concentrations to below 2L GWQS by accelerated natural attenuation.

Sovereign Consulting Inc. (Sovereign) was tasked to implement the CAP as presented in the CATLIN April 2005 CAP report. Sovereign performed a pre-excavation gauging and sampling event of the site monitoring wells (MW01 – MW08) in March 2006. Free phase product and dissolved phase groundwater contamination was identified. Monitoring well MW02 was abandoned after the event in preparation of the soil excavation activities.

Soil excavation was then performed by Sovereign in April and May 2006. Approximately 474 tons of soil was removed from a final excavation, which measured approximately 25 feet long, 25 feet wide, and seven (7) feet deep. Confirmation soil samples were obtained and analyzed for total petroleum hydrocarbons (TPH). Diesel and gasoline range organics (DRO, GRO) were removed to below North Carolina Department of Environment and Natural Resources (NCDENR) action levels from the South, East and West sidewalls. The North sidewall confirmation samples, however, indicated the presence of TPH-DRO and TPH-GRO at concentrations above action levels. Excavation activities were hindered on the north sidewall due to the presence of underground utilities, and as a result, additional excavation was not performed. Per CAP recommendations, oxygen releasing compound (ORC[®]) was added to the excavation prior to backfilling with clean soil.

Once excavation activities were complete, Sovereign replaced MW02 (renamed MW09) and conducted a post excavation groundwater gauging and sampling event in June 2006. No measurable free product was detected at the site. Groundwater contaminant concentrations, however, were detected in monitoring wells MW09 (which replaced MW02), MW03, MW05, MW06, and MW07. Bis(2-ethylhexyl)phthalate and Massachusetts Department of Environmental Protection (MADEP) C₉-C₂₂ Aromatics were detected above their established groundwater quality standards.

As a result of utility constraints, petroleum contaminants along the north sidewall of the April/May 2006 excavation were not able to be excavated below NCDENR action levels. Additional soil remediation activities were conducted by Sovereign on September 11, 2006 as approved by MCB Camp Lejeune. Approximately 218 tons of petroleum impacted soils were removed from the north side of the water line at AS840. This excavation measured approximately 21 feet wide by 33 feet long and 5 feet deep. Six (6) confirmation soil samples were obtained from the sidewalls of the excavation and analyzed for total petroleum hydrocarbons (TPH). Subsequent laboratory analysis indicated that there were no gasoline range organics (GRO) or diesel range organics (DRO) present above the established North Carolina Department of Environment and Natural Resources (NCDENR) action levels of 10 mg/kg and 40 mg/kg. The area was backfilled with clean soil and the site was restored to pre-excavation condition.

Based on the recommendation made in the Sovereign Consulting Inc. Soil Cleanup Addendum Report issued in December 2006 groundwater sampling of all site monitoring wells occurred quarterly for the past year (June 2006 to April 2007) to track contaminant concentrations at the site. Samples were analyzed per EPA Methods 602 and 625 parameters, as well as MADEP EPH/VPH. For four consecutive quarterly monitoring events each of the site monitoring wells sampled contained contaminant concentrations below the applicable 2L NCGWQs.

Based on the findings of this investigation and previous reports, and since groundwater contaminants were not detected above 2L NCGWQs, this site qualifies for No Further Action as outlined in 15A NCAC 2L .0407(d).

1.0 TITLE PAGE

Date of Report: August 27, 2007

Facility I.D.: N/A

NCDENR Incident Number: **87399**

Site Name: Building AS-840

Site Location: Marine Corps Air Station New River, Jacksonville, North Carolina

Nearest City/Town: Jacksonville County: Onslow

AST Owner: Commanding Officer – MCB Camp Lejeune

I&E/EMD/EQB

PSC Box 20004

Address: MCB Camp Lejeune, NC 28542-0004

Phone: (910) 451-5068

AST Operator: Same as above

Address: Same as above

Phone: Same as above

Property 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: April 2000

Latitude: 34° 42' 40" N **Longitude:** 77° 25' 59" W

Estimated Quantity of Release: Unknown

Cause of Release: Unknown

Source of Release (Piping/AST): Failed underground piping

Sizes and contents of the AST system(s): Underground piping associated with an existing 2,900-gallon capacity diesel fuel AST located south of Building AS-840.

*I, **Kevin P. Wheeler**, a Professional Geologist representing 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

Sovereign was authorized to perform this work by Naval Facilities Engineering Command Mid-Atlantic Marine Corp North Carolina IPT Division under Navy Contract N62470-04-D-0205, Task Order No. 0016.

The purpose of this report is to summarize data from recent groundwater monitoring and sampling events conducted in the vicinity of Building AS-840 and the Building AS-840 Radar Tower Area (Building SAS-839). An existing 2,900-gallon capacity aboveground storage tank (AST), located south of Building AS-840, supplies diesel fuel to a boiler system located within Building AS-840. An evaluation for site closure was also performed for the site.

The project's scope of work entailed quarterly gauging and monitoring of 8 site monitoring wells: MW01 and MW03 through MW09 (Figure 2). It should be noted that UST840-MW09 is the replacement well for MW02 and was installed in the Spring of 2006 following excavation activities at the site. Quarterly gauging was conducted to measure and record the depth to free product (if present) and depth to groundwater. The quarterly sampling events were conducted to analyze the site groundwater for petroleum constituents using USEPA Methods 602, 625, and the Massachusetts Department of Environmental Protection (MADEP) methods. Data for Sovereign Consulting Inc.'s (Sovereign) sampling and gauging events are presented in this report.

3.0 SITE HISTORY

Building AS-840 is located aboard MCAS New River in Jacksonville, North Carolina. The subject site is a result of the former underground piping associated with an existing 2,900 gallon-capacity diesel fuel AST, which is located to the south of Building AS-840. The piping transferred diesel fuel from the AST to a boiler within Building AS-840. The former pipeline ran underground east from the AST then made a right-angle turn toward the north and Building AS-840.

MCAS personnel noticed a petroleum-sheen on puddles of surface-water after heavy rains in the area of the underground piping. As a result, EMD initiated an investigation into the cause of the sheen. J.A. Jones excavated the area along the piping and found a leak in the line. They subsequently removed the leaking pipeline in April 2000. A new doubled-walled fuel distribution line from the AST to Building AS-840 was installed in place of the former leaking line.

J. A. Jones collected ten soil samples along the former piping location on April 5, 2000 for laboratory analysis. The ten soil samples were analyzed for gasoline-range and diesel-range total petroleum hydrocarbons (TPH). Six of these soil samples exhibited gasoline-range and diesel-range TPH concentrations in excess of their respective State Action Levels. Appendix A has the J.A. Jones presenting the soil analytical results.

A CSA and CSA addendum were conducted at the site by Law and CATLIN, respectively. Findings of the assessments were detailed in reports dated August 2002 and January 2004. Soil samples collected during CSA activities were analyzed for volatile organic compounds, semi-volatile organic compounds, and MADEP constituents. Laboratory analysis revealed

concentrations of benzene, 2-methylnaphthalene, naphthalene, and C₉-C₂₂ Aromatics in excess of NCDENR STGW MSCCs at a portion of the locations sampled.

Groundwater samples were also collected during the CSA activities and were analyzed for selected volatile organic compounds, semi-volatile organic compounds, and MADEP hydrocarbon fractions. Laboratory analysis revealed concentrations of benzene, ethylbenzene, naphthalene, C₅-C₈ Aliphatics, and C₉-C₂₂ Aromatics in excess of the North Carolina Administrative Code (NCAC) Title 15A, Subchapter 2L Groundwater Quality Standards (2L GWQS).

Assessment work also documented the presence of free phase product. Occurrence was generally in the area of MW02. OHM/IT Remediation Services Corporation, now known as Shaw Environmental, Inc. (Shaw), was contracted to periodically recover free phase product at the project site by use of AFVR events. Shaw reportedly completed 58 AFVR events from July 2001 through November 17, 2004, which recovered approximately 600 gallons of free-phase product as vapor and liquid. Available AFVR data is located in Appendix A.

CATLIN conducted an additional sampling event on November 18, 2004 in order to evaluate natural attenuation parameters at the AS-840 project site. As part of this evaluation, additional groundwater samples were collected from selected monitoring wells and analyzed for volatile organic compounds and semi-volatile organic compounds. Laboratory analysis revealed a concentration of benzene in excess of the 2L GWQS.

Once assessments of the site were complete, CATLIN was then directed to prepare a CAP, dated April 28, 2005, based on the findings and recommendations of the CSA and CSA Addendum. The CATLIN CAP report evaluated various remedial approaches to address the presence of free phase product, soil contamination, and groundwater contamination. CATLIN proposed the use of excavation, application of oxygen releasing compound (ORC[®]), and natural attenuation as the recommended remedial approach for the site.

Sovereign was tasked to carry out the excavation of contaminated soils and apply the ORC[®] as detailed in the CAP. Sovereign also conducted pre and post-excavation groundwater sampling at the site. Upon completion of the April and May 2006 remedial action, it was recommended by Sovereign that additional soil excavation be performed to the north of the water line that limited the extent of the initial excavation. Confirmatory soil samples indicated that petroleum contaminants in the vicinity of the water line were above MSCCs. Therefore additional soil excavation was conducted on September 10, 2006 in order to bring soil contaminants at the site below MSCCs.

From June 2006 to January 2007, the site scope of work entailed quarterly gauging and monitoring of 8 site monitoring wells: MW01 and MW03 through MW09. Quarterly gauging was conducted to measure and record the depth to free product (if present) and depth to groundwater. The quarterly sampling events were conducted to analyze the site groundwater for petroleum constituents using USEPA Methods 602, 625, and the Massachusetts Department of Environmental Protection (MADEP) methods.

4.0 GAUGING AND SAMPLING RESULTS

The 2006-2007 field program for the AS840 site consisted of quarterly gauging and sampling of eight site wells (MW01, MW03, MW04, MW05, MW06, MW07, MW08 and MW09(02R)). Activities were conducted in accordance with NCDENR guidance.

4.1 WELL GAUGING

Site monitoring wells were gauged quarterly on June 14, 2006; November 6, 2006; January 18, 2007; and April 12, 2007. Gauging data is summarized in Table 2. 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. Depth to water across the site ranged from 3.62 feet to 8.29 feet from TOC. Based on the groundwater elevations, the groundwater at the site generally flows towards the northeast in the direction of the New River. Current monitoring period data correlates well with data from previous studies.

4.2 GROUNDWATER SAMPLING

The quarterly groundwater sampling events were conducted in June 2006, November 2006, January 2007, and April 2007. For each of the sampling events, groundwater was collected from the site monitoring wells using low-flow purging and sampling methods. Samples were collected after water quality indicator parameters (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen and turbidity) were recorded and had stabilized and at least one well volume had been purged. Samples were collected in laboratory-prepared glassware via polyethylene discharge tubing. The samples were placed in an iced cooler and sent under chain of custody to SGS/Paradigm Analytical Laboratories Inc. (SGS) in Wilmington, NC (NC Certification Number 481). The samples were analyzed via EPA Method 602, 625 plus the 10 largest peaks, and MADEP VPH/EPH. It should be noted that MADEP Method VPH/EPH was discontinued as of February 2007.

The laboratory reports and chain of custody documentation for the sampling events are included in Appendix B. The analytical data is summarized in Table 3 through Table 6 where specific contaminant concentrations are presented. The detected contaminants for each analytical method are represented in Figures 7, 8 and 9 and are outlined below.

VOCS - EPA METHOD 602

The analytical results reveal that BTEX constituents and methyltertiarybutylether (MTBE) were detected in site groundwater samples. The following bullets identify the parameters detected in the wells for each sampling event. None of the VOCs present were above 2L NCGWQS; and were also below the corresponding GCLs.

- June 2006
 - o Ethylbenzene – MW07 and MW09(02R)
 - o Toluene – MW06
 - o Xylenes MW06 and MW09(02R)

- November 2006
 - o Benzene – MW09(02R)
 - o Ethylbenzene – MW07 and MW09(02R)
 - o Methyl Tert Butyl Ether – MW09(02R)
 - o Toluene – MW05 and MW08
 - o Xylenes – MW08
- January 2007
 - o Benzene – MW09(02R)
 - o Ethylbenzene – MW07 and MW09(02R)
 - o Toluene – MW01, MW03, MW04, MW05, MW06, MW07, and MW09(02R)
 - o Total Xylenes – MW01
- April 2007
 - o None detected

SEMI-VOCS - EPA METHOD 625

The analytical results reveal that acenaphthene, bis(2-ethylhexyl)phthalate, fluorene, naphthalene, and phenanthrene and tentatively identified compounds (TICs) were detected in several of the groundwater samples. None of the VOCs present were above 2L NCGWQS; and were also below the corresponding GCLs. The following bullets identify the parameters detected in the wells for each sampling event.

- June 2006
 - o Acenaphthene – MW07
 - o Bis(2-ethylhexyl)phthalate – MW03 and MW05
 - o Fluorene –
 - o Naphthalene – MW02
 - o Phenanthrene – MW04
- November 2006
 - o Acenaphthene – MW07 and MW09(02R)
 - o Bis(2-ethylhexyl)phthalate – MW03 and MW07
 - o Fluorene – MW07 and MW09(02R)
 - o Naphthalene – MW07, MW08, and MW09(02R)
 - o Phenanthrene – MW07 and MW09(02R)
- January 2007
 - o Acenaphthene – MW07
 - o Fluorene – MW07
 - o Naphthalene – MW07
 - o Phenanthrene – MW07
- April 2007
 - o Acenaphthene – MW09(02R)

- o Bis(2-ethylhexyl)phthalate – MW03 and MW09(02R)
- o Fluorene – MW09(02R)

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 or from sampling and laboratory cross contamination.

Although TICs were present, 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.

MADEP METHODS

The analytical results reveal that C₉ – C₁₂ aliphatics and C₁₁ – C₂₂ aromatics were detected in several of the groundwater samples. The following bullets identify the parameters detected in the wells for each sampling event.

- June 2006
 - o C₉ – C₁₂ aliphatics – not detected
 - o C₁₁ – C₂₂ aromatics – MW07 and MW09(02R)
- November 2006
 - o C₉ – C₁₂ aliphatics – not detected
 - o C₁₁ – C₂₂ aromatics – not detected
- January 2007
 - o C₉ – C₁₂ aliphatics – MW07
 - o C₁₁ – C₂₂ aromatics – not detected

No aliphatics or aromatics were detected in monitoring wells MW02 above the applicable 2L standards. No GCLS have been established for these compounds.

5.0 RECEPTOR SURVEY

Sovereign reassessed site conditions and concluded that the receptor surveys previously completed in the Law CSA (August 2002) and CATLIN CAP (April 2005) reports still apply. There have been no changes in receptor impact, and there have been no changes to land use of the sites or the surrounding areas. Receptor survey information is located in Appendix A.

6.0 CONCLUSIONS

Based on fieldwork and laboratory analytical data gathered in the 2006-2007 monitoring period, during historical site assessments, and the Sovereign September 2006 excavation, the following conclusions are presented:

1. Soil samples collected during underground transfer line removal confirmed the presence of soil contamination above NCDENR TPH action levels.
2. Free product was identified at the site during comprehensive site assessment activities. Subsequent remedial efforts included AFVR events, which collected approximately 600 gallons of free product as vapor and liquid.
3. Groundwater samples collected at AS840 during the CSA and subsequent assessments contained contaminants above 2L standards.
4. Sovereign conducted additional soil excavation activities at AS840 in April and May 2006. Approximately 474 tons of contaminated soil was removed and properly disposed.
5. Sovereign took sidewall confirmation soil samples from the AS840 excavation area at a depth of 5-6 feet and analyzed them for TPH-DRO and TPH-GRO constituents. Soil contaminants were below quantitation limits in the final confirmation samples along the South, East, and West sidewalls. The North sidewall contained 5,620 ppm and 586 ppm of TPH-DRO and TPH-GRO, respectively. Re-excavation of the North sidewall was not performed due to utility constraints.
6. Groundwater conditions were monitored at AS840 both before and after remedial action implementation. Samples were collected for groundwater analysis per EPA Methods 602 and 625 parameters and MADEP EPH/VPH parameters to confirm contamination degradation and attenuation. Contamination was noted in monitoring wells MW03, MW05, MW06, MW07 and MW09 (the replacement well for MW02) during the post excavation sampling event (June 2006). Monitoring wells MW05, MW07, and MW09 contained contaminants above their applicable NCGWQSs - bis(2-ethylhexyl)phthalate and MADEP C₉-C₂₂ Aromatics.
7. Free product was not detected at the site during the June 2006 gauging and sampling event.
8. Sovereign conducted additional soil excavation on the north side of the utility line at AS840 in September 2006 in order to remove the remaining vadose zone contamination. Approximately 218 tons of contaminated soil was removed and properly disposed.
9. Sovereign took sidewall confirmation soil samples from the AS840 September 2006 excavation area at the depth of 5 feet and analyzed them for TPH-DRO and TPH-GRO constituents. TPH levels were below quantitation limits for all confirmation samples.

Groundwater at the AS840 site continues to exhibit low levels of petroleum impact; however, post remedial action groundwater sampling showed that contamination is degrading and attenuating. Sovereign recommended that MCB Camp Lejeune implement the proposed CAP monitoring schedule in order to track plume migration and the attenuation/degradation of the contaminants. Specifically, groundwater sampling of all site monitoring wells occurred quarterly for one year (June 2006 to April 2007) to track contaminant concentrations. Samples were analyzed per EPA Methods 602 and 625 parameters; as well as, MADEP EPH/VPH. For four consecutive quarterly monitoring events (June 2006, November 2006, January 2007, and April

2007) each of the site monitoring wells sampled contained contaminant concentrations below the applicable 2L NCGWQSs with the exception of bis(2-ethylhexyl)phthalate.

However, 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 or from sampling and laboratory cross contamination.

Based on the findings of this investigation and previous reports, and since groundwater contaminants were not detected above 2L NCGWQSs, this site qualifies for No Further Action as outlined in 15A NCAC 2L .0407(d).

8.0 REFERENCES

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

CATLIN Engineers and Scientists, *Comprehensive Site Assessment Addendum for Building AS-840, Aircraft Hangar Facility, Aboveground Storage Tank Distribution Fuel Line Release, Marine Corps Air Station New River, North Carolina*, January 6, 2004.

CATLIN Engineers and Scientists, *Corrective Action Plan (CAP) Report for AS840, Marine Corps Air Station New River, North Carolina*, April 28, 2005.

LAW Engineering and Environmental Services, *Comprehensive Site Assessment Report, Aboveground Storage Tank Fuel Distribution Line Release, Building AS-840, Aircraft Hangar Facility, Marine Corps Air Station New River, North Carolina*, August 14, 2002.

North Carolina Department of Environment and Natural Resources, Division of Water Quality, Groundwater Section, *Groundwater Section Guidelines for the Investigation and Remediation Of Soil and Groundwater*, July 2000.

Sovereign Consulting Inc., *Soil Cleanup Report Building AS840, Marine Corps Air Station New River, North Carolina*, August 2006.

Sovereign Consulting Inc., *Soil Cleanup Addendum Report Building AS840, Marine Corps Air Station New River, North Carolina*, December 2006.

TABLES

TABLE 1
WELL CONSTRUCTION INFORMATION
Incident Number and Name: 87399 and AS840

Monitoring Well	Date Installed	Measured Well Depth (Feet below TOC)	Top of Casing Elevation (feet)	Hydrogeologic Zone
UST840-MW01	6/19/2001	18.35	12.75	Intermediate
UST840-MW03	6/19/2001	27.81	13.27	Intermediate
UST840-MW04	6/20/2001	18.31	14.08	Intermediate
UST840-MW05	6/20/2001	18.45	13.49	Intermediate
UST840-MW06	6/20/2001	18.00	13.15	Intermediate
UST840-MW07	10/6/2003	14.03	14.20	Intermediate
UST840-MW08	10/6/2003	13.62	14.31	Intermediate
UST840-MW09(02R)	6/8/2006	16.21	13.28	Intermediate

- TOC Elevations taken from Sovereign Well Survey Database January 2007

TABLE 2
GROUNDWATER ELEVATION DATA
2006-2007

Incident Number and Name: 87399 and AS840

Monitoring Well	Top of Casing Elevation (feet)	Groundwater Elevation (feet)			
		6/14/2006	11/6/2006	1/18/2007	4/12/2007
UST840-MW01	12.75	8.44	7.40	9.13	7.21
UST840-MW03	13.27	7.77	6.70	7.77	6.48
UST840-MW04	14.08	7.93	6.76	7.78	6.40
UST840-MW05	13.49	7.19	6.36	7.32	6.09
UST840-MW06	13.15	7.57	6.57	7.60	6.34
UST840-MW07	14.20	6.94	6.59	7.96	6.28
UST840-MW08	14.31	7.49	6.76	7.81	6.02
UST840-MW09(02R)	13.28	7.68	6.71	7.78	6.47

- NM = Well not measured; either not accessible or not designated as part of gauging program.
- Not Calculated due to insufficient data or well not measured.
- TOC Elevations taken from Sovereign Well Survey Database January 2007; MW07 relocated.

TABLE 3 SUMMARY OF GROUNDWATER SAMPLING RESULTS

Date: June 2006 to June 2007

Incident Number and Name: 87399 and AS840

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						
AST840-MW01	AST840-MW01	6/14/2006	BQL	BQL	BQL	BQL	BQL	BQL
		11/6/2006	BQL	BQL	BQL	BQL	BQL	BQL
		1/18/2007	BQL	BQL	BQL	BQL	0.627	0.377
		4/12/2007	BQL	BQL	BQL	BQL	BQL	BQL
AST840-GW03	AST840-GW03	6/14/2006	BQL	BQL	BQL	BQL	BQL	BQL
		11/7/2006	BQL	BQL	BQL	BQL	BQL	BQL
		1/18/2007	BQL	BQL	BQL	BQL	0.896	BQL
		4/12/2007	BQL	BQL	BQL	BQL	BQL	BQL
AST840-GW04	AST840-GW04	6/14/2006	BQL	BQL	BQL	BQL	BQL	BQL
		11/6/2006	BQL	BQL	BQL	BQL	BQL	BQL
		1/18/2007	BQL	BQL	BQL	BQL	0.471	BQL
		4/12/2007	BQL	BQL	BQL	BQL	BQL	BQL
AST840-GW05	AST840-GW05	6/14/2006	BQL	BQL	BQL	BQL	BQL	BQL
		11/6/2006	BQL	BQL	BQL	BQL	0.256	BQL
		1/18/2007	BQL	BQL	BQL	BQL	0.625	BQL
		4/12/2007	BQL	BQL	BQL	BQL	BQL	BQL
AST840-GW06	AST840-GW06	6/14/2006	BQL	BQL	BQL	BQL	2.03	2.15
		11/7/2006	BQL	BQL	BQL	BQL	BQL	BQL
		1/18/2007	BQL	BQL	BQL	BQL	0.644	BQL
		4/13/2007	BQL	BQL	BQL	BQL	BQL	BQL
AST840-MW07	AST840-MW07	6/14/2006	BQL	BQL	1.95	BQL	BQL	BQL
		11/6/2006	BQL	BQL	0.581	BQL	BQL	BQL
		1/18/2007	BQL	BQL	0.743	BQL	0.656	BQL
		4/12/2007	BQL	BQL	BQL	BQL	BQL	BQL
AST840-MW08	AST840-MW08	6/14/2006	BQL	BQL	BQL	BQL	BQL	BQL
		11/6/2006	BQL	BQL	BQL	BQL	0.308	3.99
		1/18/2007	NS	NS	NS	NS	NS	NS
		4/12/2007	BQL	BQL	BQL	BQL	BQL	BQL
AST840-MW09	AST840-MW09(02R)	6/14/2006	BQL	BQL	3.74	BQL	BQL	2.29
		11/7/2006	0.909	BQL	1.13	0.828	BQL	BQL
		1/18/2007	0.612	BQL	0.622	BQL	0.554	BQL
		4/12/2007	BQL	BQL	BQL	BQL	BQL	BQL
2L Standard (µg/l)			1	70	550	200	1,000	530
GCL (µg/l)			5,000	70,000	84,500	200,000	257,500	87,500

- All results reported in µg/l
- µg/L =micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits

- **BOLDED** = detected concentration
- **BOLDED** and shaded = detected concentration above NCGWQSs
- NS = Not sampled
- MW09 is the replacement well for MW02.

TABLE 4
SUMMARY OF GROUNDWATER SAMPLING RESULTS

Date: June 2006 to June 2007

Incident Number and Name: 87399 and AS840

Facility ID#: N/A

Analytical Method: EPA Method 625 plus 10 largest TICS¹

Contaminant of Concern			Acenaphthene	Fluorene	Naphthalene	Phenanthrene	Bis(2-ethylhexyl)phthalate
Well ID	Sample ID	Date Collected					
AST840-MW01	AST840-MW01	6/14/2006	BQL	BQL	BQL	BQL	BQL
		11/6/2006	BQL	BQL	BQL	BQL	BQL
		1/18/2007	BQL	BQL	BQL	BQL	BQL
		4/13/2007	BQL	BQL	BQL	BQL	BQL
AST840-GW03	AST840-GW03	6/14/2006	BQL	BQL	BQL	BQL	1.50
		11/7/2006	BQL	BQL	BQL	BQL	10.2
		1/18/2007	BQL	BQL	BQL	BQL	BQL
		4/12/2007	BQL	BQL	BQL	BQL	1.60
AST840-GW04	AST840-GW04	6/14/2006	BQL	BQL	BQL	BQL	BQL
		11/6/2006	BQL	BQL	BQL	BQL	BQL
		1/18/2007	BQL	BQL	BQL	BQL	BQL
		4/12/2007	BQL	BQL	BQL	BQL	BQL
AST840-GW05	AST840-GW05	6/14/2006	BQL	BQL	BQL	BQL	19.5
		11/6/2006	BQL	BQL	BQL	BQL	BQL
		1/18/2007	BQL	BQL	BQL	BQL	BQL
		4/12/2007	BQL	BQL	BQL	BQL	BQL
AST840-GW06	AST840-GW06	6/14/2006	BQL	BQL	BQL	BQL	BQL
		11/7/2006	BQL	BQL	BQL	BQL	BQL
		1/18/2007	BQL	BQL	BQL	BQL	BQL
		4/13/2007	BQL	BQL	BQL	BQL	BQL
AST840-MW07	AST840-MW07	6/14/2006	1.80	1.80	6.10	BQL	BQL
		11/6/2006	1.70	2.20	8.00	2.90	3.30
		1/18/2007	2.70	2.50	6.30	2.90	BQL
		4/12/2007	BQL	BQL	BQL	BQL	BQL
AST840-MW08	AST840-MW08	6/14/2006	BQL	BQL	BQL	BQL	BQL
		11/6/2006	BQL	BQL	6.00	BQL	BQL
		1/18/2007	NS	NS	NS	NS	NS
		4/12/2007	BQL	BQL	BQL	BQL	BQL
AST840-MW09	AST840-MW09(02R)	6/14/2006	BQL	BQL	BQL	BQL	BQL
		11/7/2006	2.50	2.90	6.40	2.60	BQL
		1/18/2007	BQL	BQL	BQL	BQL	BQL
		4/12/2007	2.40	2.90	BQL	BQL	1.70
2L Standard (µg/l)			80	280	21	210	2.5
GCL (µg/l)			2,120	950	15,500	410	2,500

- Note – TICS = Tentatively Identified Compounds
- All results reported in µg/l
- µg/L =micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits
- J = detected below the quantitation limit
- **BOLDED** = detected concentration
- **BOLDED** and **SHADED** = detected concentration exceeds NCGWQS
- NS = Not sampled
- MW09 is the replacement well for MW02.

TABLE 5
SUMMARY OF GROUNDWATER SAMPLING RESULTS

Date: June 2006 to January 2007

Incident Number and Name: 87399 and AS840

Facility ID#: N/A

Analytical Method: MADEP Method VPH/EPH

Contaminant of Concern								
Well ID	Sample ID	Date Collected	C ₅ -C ₈ Aliphatics	C ₉ -C ₁₂ Aliphatics	C ₉ -C ₁₀ Aromatics	C ₉ -C ₁₈ Aliphatics	C ₁₉ -C ₃₆ Aliphatics	C ₁₁ -C ₂₂ Aromatics
AST840-MW01	AST840-MW01	6/14/2006	<100	<100	<100	<100	<100	<100
		11/6/2006	<100	<100	<100	<100	<100	<100
		1/18/2007	<100	<100	<100	<100	<100	<100
AST840-GW03	AST840-GW03	6/14/2006	<100	<100	<100	<100	<100	<100
		11/7/2006	<100	<100	<100	<100	<100	<100
		1/18/2007	<100	<100	<100	<100	<100	<100
AST840-GW04	AST840-GW04	6/14/2006	<100	<100	<100	<100	<100	<100
		11/6/2006	<100	<100	<100	<100	<100	<100
		1/18/2007	<100	<100	<100	<100	<100	<100
AST840-GW05	AST840-GW05	6/14/2006	<100	<100	<100	<100	<100	<100
		11/6/2006	<100	<100	<100	<100	<100	<100
		1/18/2007	<100	<100	<100	<100	<100	<100
AST840-GW06	AST840-GW06	6/14/2006	<100	<100	<100	<100	<100	<100
		11/7/2006	<100	<100	<100	<100	<100	<100
		1/18/2007	<100	<100	<100	<100	<100	<100
AST840-MW07	AST840-MW07	6/14/2006	<100	<100	<100	<100	<100	170
		11/6/2006	<100	<100	<100	<100	<100	<100
		1/18/2007	<100	130	<100	<100	<100	<100
AST840-MW08	AST840-MW08	6/14/2006	<100	<100	<100	<100	<100	<100
		11/6/2006	<100	<100	<100	<100	<100	<100
		1/18/2007	NS	NS	NS	NS	NS	NS
AST840-MW09	AST840-MW09(02R)	6/14/2006	<100	<100	<100	<100	<100	130
		11/7/2006	<100	<100	<100	<100	<100	<100
		1/18/2007	<100	<100	<100	<100	<100	<100

- All results reported in µg/l
- µg/L =micrograms per liter
- GCL = gross contamination level
- NS = Not sampled
- MW09 is the replacement well for MW02.

TABLE 6
SUMMARY OF GROUNDWATER SAMPLING RESULTS

Date: June 2006 to January 2007

Incident Number and Name: 87399 and AS840

Facility ID#: N/A

Analytical Method: MADEP Method VPH/EPH as compared to NCDENR 2L Interim GWQS

Contaminant of Concern →			C ₅ -C ₈ Aliphatics	C ₉ -C ₁₈ Aliphatics	C ₉ -C ₂₂ Aromatics	C ₁₉ -C ₃₆ Aliphatics
Well ID	Sample ID	Date Collected				
AST840-MW01	AST840-MW01	6/14/2006	<100	<200	<200	<100
		11/6/2006	<100	<200	<200	<100
		1/18/2007	<100	<200	<200	<100
AST840-GW03	AST840-GW03	6/14/2006	<100	<200	<200	<100
		11/7/2006	<100	<200	<200	<100
		1/18/2007	<100	<200	<200	<100
AST840-GW04	AST840-GW04	6/14/2006	<100	<200	<200	<100
		11/6/2006	<100	<200	<200	<100
		1/18/2007	<100	<200	<200	<100
AST840-GW05	AST840-GW05	6/14/2006	<100	<200	<200	<100
		11/6/2006	<100	<200	<200	<100
		1/18/2007	<100	<200	<200	<100
AST840-GW06	AST840-GW06	6/14/2006	<100	<200	<200	<100
		11/7/2006	<100	<200	<200	<100
		1/18/2007	<100	<200	<200	<100
AST840-MW07	AST840-MW07	6/14/2006	<100	<200	170	<100
		11/6/2006	<100	<200	<200	<100
		1/18/2007	<100	130	<200	<100
AST840-MW08	AST840-MW08	6/14/2006	<100	<200	<200	<100
		11/6/2006	<100	<200	<200	<100
		1/18/2007	NS	NS	NS	NS
AST840-MW09	AST840-MW09(02R)	6/14/2006	<100	<200	130	<100
		11/7/2006	<100	<200	<200	<100
		1/18/2007	<100	<200	<200	<100
2L Standard (µg/l)			420	4,200	210	42,000

- All results reported in µg/l
- µg/L = micrograms per liter
- GCL = Gross Contaminant Level
- NE = Not Established
- **BOLDED** = detected concentration
- **BOLDED** and **SHADED** = detected concentration exceeds NCGWQS
- NS = Not sampled
- MW09 is the replacement well for MW02.

FIGURES



500 250 0 500
Feet

SCALE

From: USGS Jacksonville South, NC. Topographic Quadrangle (Dated 1997)



SOVEREIGN CONSULTING INC.
VIRGINIA BEACH, VIRGINIA

PROJECT

BUILDING AS840
CLEAN UP SOIL REPORT
MARINE CORPS BASE
CAMP LEJEUNE, N.C.

TITLE

**GENERAL VICINITY
TOPOGRAPHIC MAP**

FIGURE

1

JOB NO.

206-063

DATE

AUG 2006

SCALE

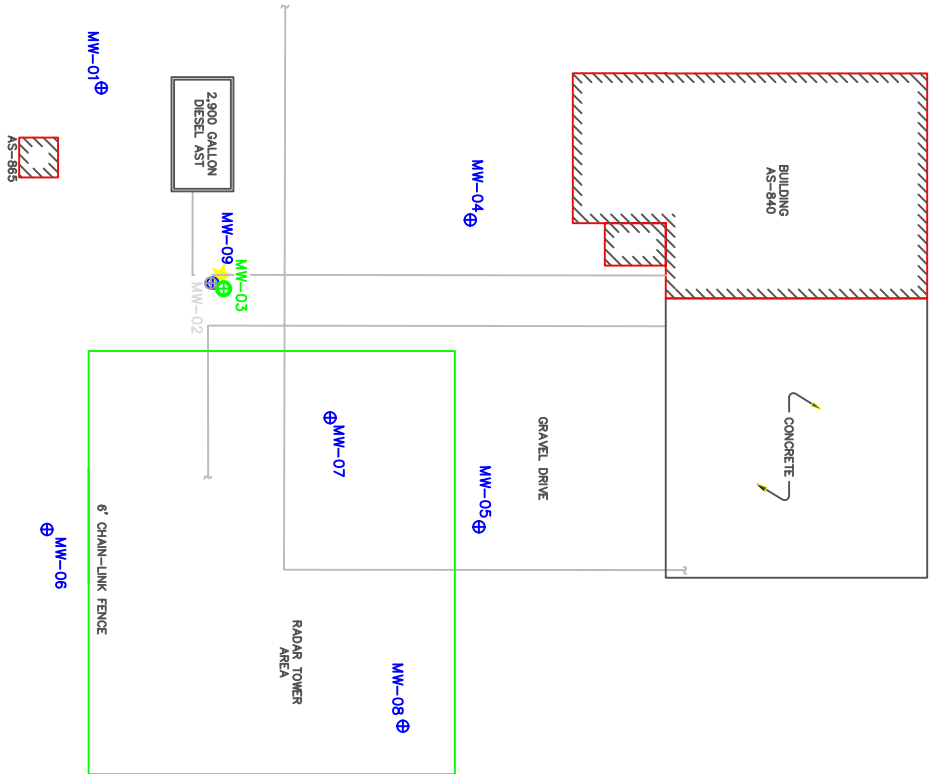
1"=500'

DRAWN BY

KAWS

CHECKED BY

JKB

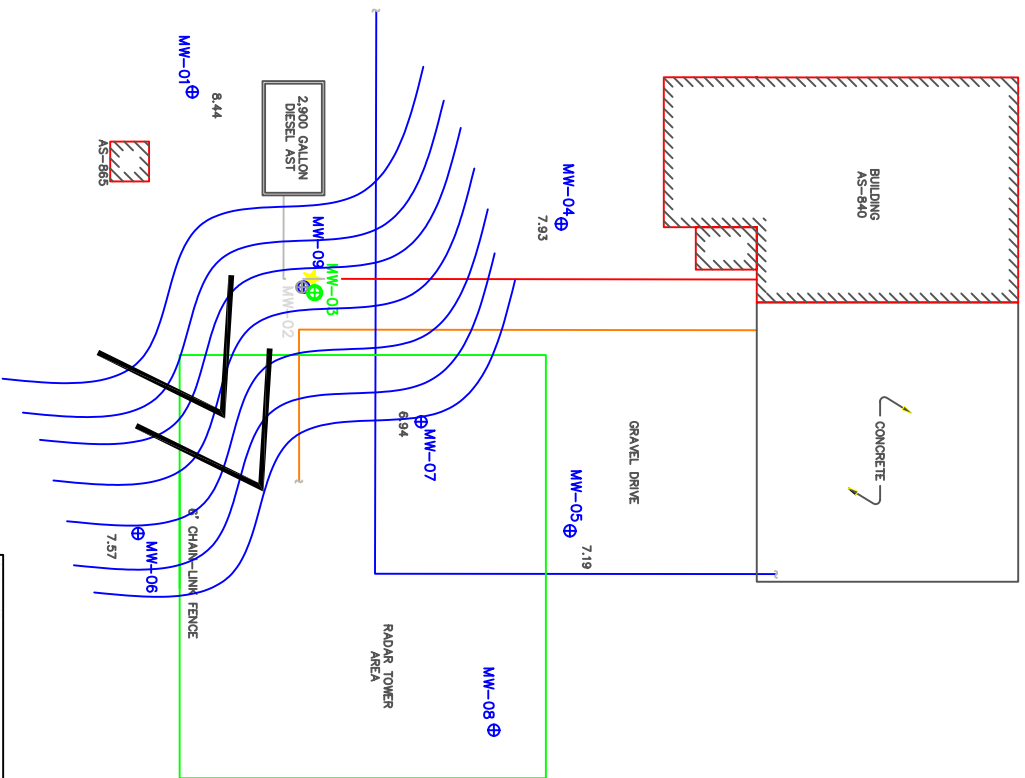


LEGEND	
EXISTING	DESCRIPTION
	BUILDING
	APPROXIMATE POINT OF DIESEL FUEL RELEASE
	TYPE II MONITORING WELL
	ABANDONED TYPE II MONITORING WELL
	TYPE III MONITORING WELL
	FORMER FUEL DISTRIBUTION LINE
	WATER LINE
	UNKNOWN UTILITY



NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

	PROJECT BUILDING AS-840		TITLE		FIGURE
	ANNUAL MONITORING REPORT MARINE CORPS AIR STATION NEW RIVER, NC		WITH MONITORING WELL LOCATIONS		
SOVEREIGN CONSULTING INC. VIRGINIA BEACH, VIRGINIA		DATE AUG 2007	SCALE 1" = 30'	DRAWN BY: KAWS	ORDERED BY: JKB
JOB NO. 2006-063		2006-05-04-02			



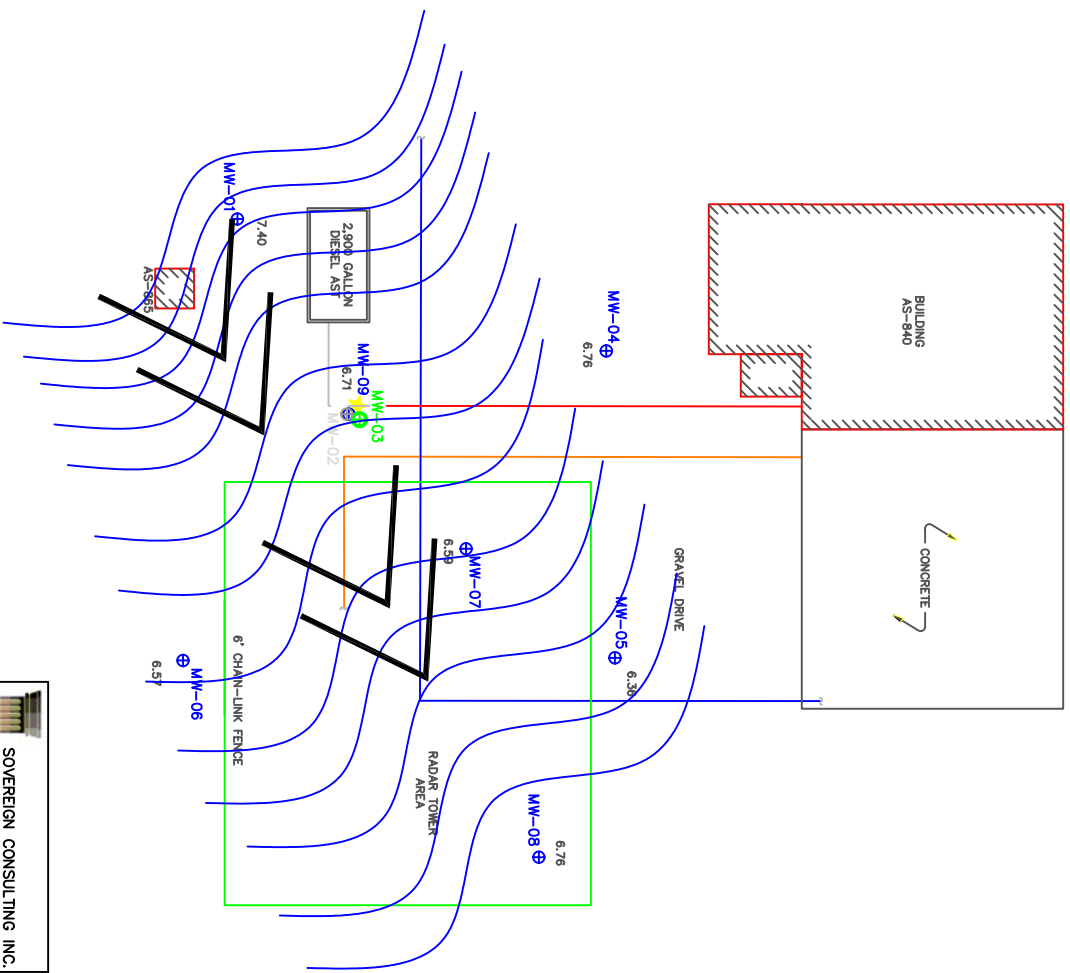
LEGEND

EXISTING	DESCRIPTION
	BUILDING
	APPROXIMATE POINT OF DIESEL FUEL RELEASE
	TYPE II MONITORING WELL
	ABANDONED TYPE II MONITORING WELL
	TYPE III MONITORING WELL
	FORMER FUEL DISTRIBUTION LINE
	WATER LINE
	UNKNOWN UTILITY



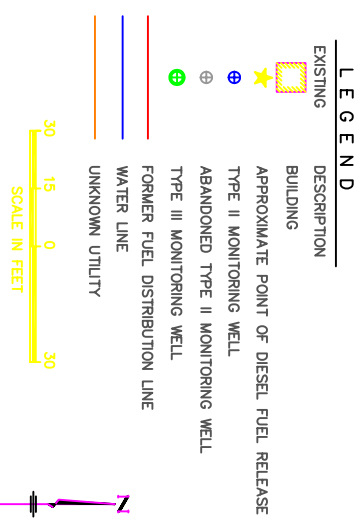
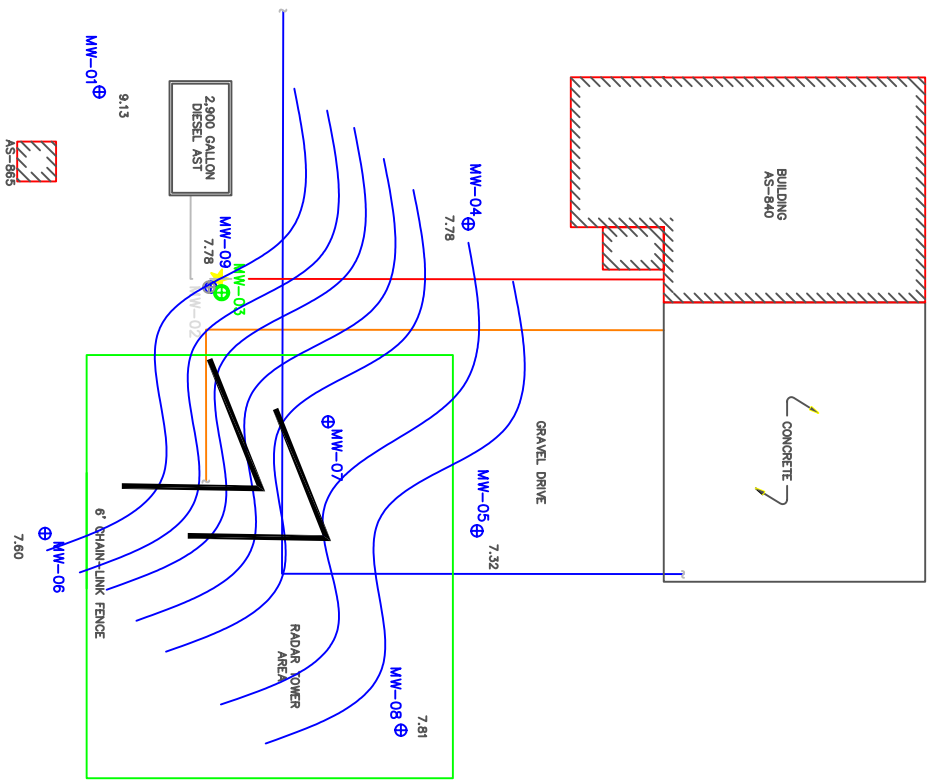
NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

	PROJECT: BUILDING AS-840 ANNUAL MONITORING REPORT MARINE CORPS AIR STATION NEW RIVER, NC	TITLE: SITE MAP GW CONTOURS - JUNE 2006	FIGURE: 3
JOB NO. 206-063	DRAWN BY: KAWS	CHECKED BY: JKB	200606-AS-840-02



NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

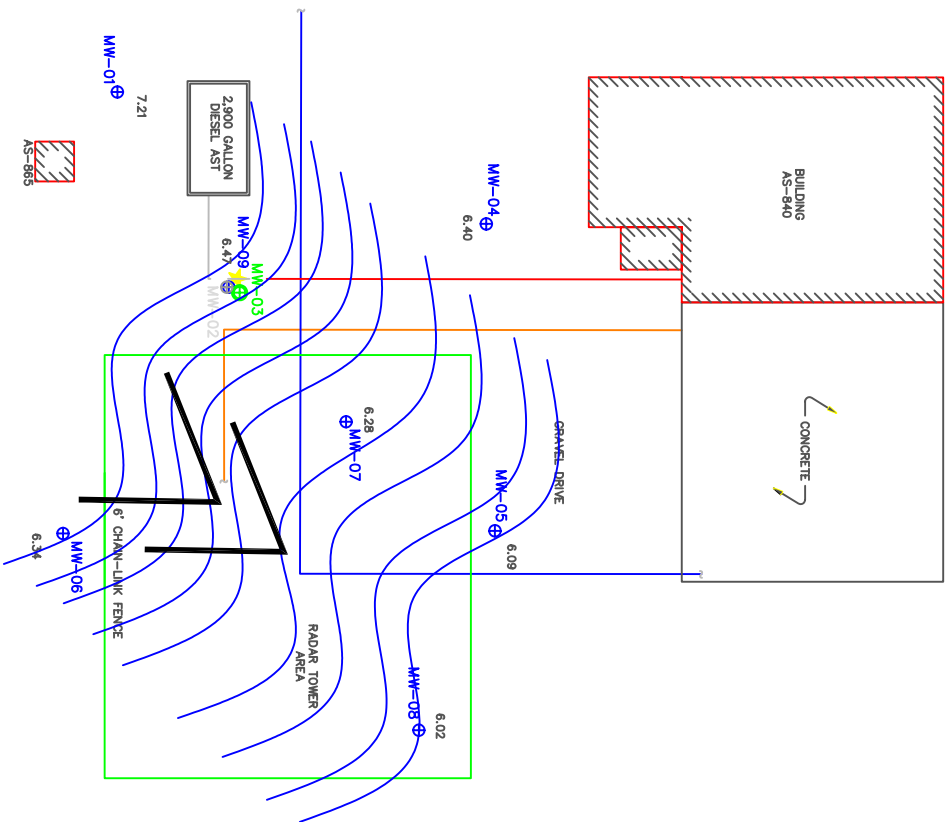
		SOVEREIGN CONSULTING INC. VIRGINIA BEACH, VIRGINIA		PROJECT BUILDING AS-840 ANNUAL MONITORING REPORT MARINE CORPS AIR STATION NEW RIVER, NC		TITLE SITE MAP GW CONTOURS - NOVEMBER 2006		FIGURE	
JOB NO. 206-063		DATE AUG 2007		SCALE 1"=30'		DRAWN BY: KAWS		CHECKED BY: JKB	
								4	
								200603-15-840-02	



NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

PROJECT: BUILDING AS-840 ANNUAL MONITORING REPORT MARINE CORPS AIR STATION NEW RIVER, NC	TITLE: SITE MAP GW CONTOURS - JANUARY 2007	FIGURE: 5

206-206-063 DATE: AUG 2007 SCALE: 1"=30' DRAWN BY: KAWS CHECKED BY: JKB 200603-AS-840-02



LEGEND

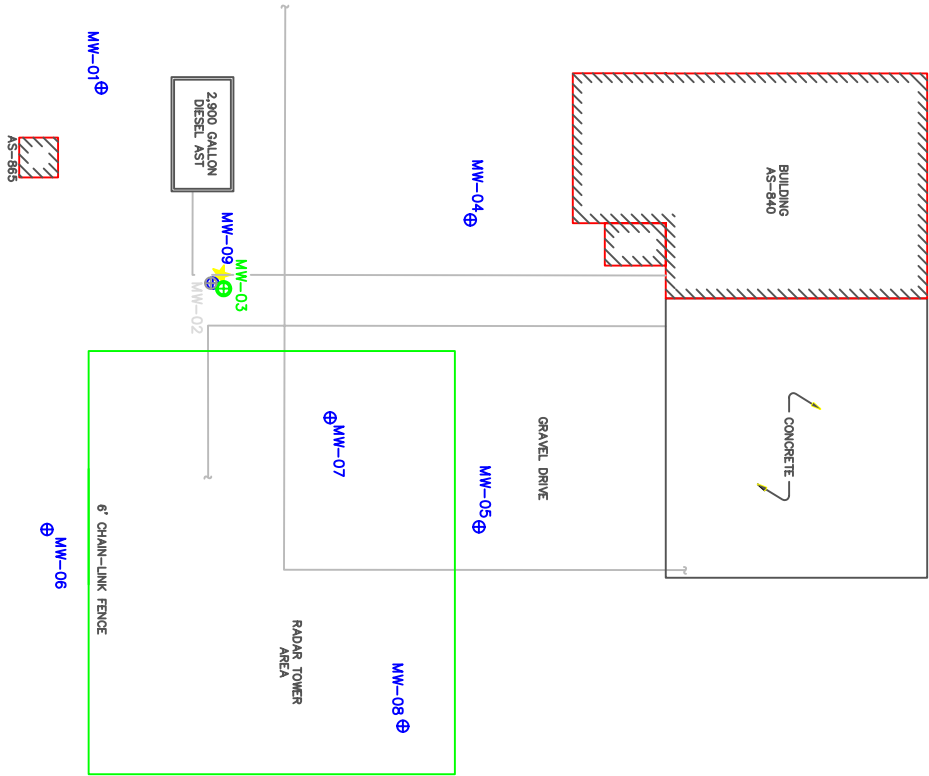
EXISTING	DESCRIPTION
	BUILDING
	APPROXIMATE POINT OF DIESEL FUEL RELEASE
	TYPE II MONITORING WELL
	ABANDONED TYPE II MONITORING WELL
	FORMER FUEL DISTRIBUTION LINE
	WATER LINE
	UNKNOWN UTILITY



NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

	PROJECT BUILDING AS-840 ANNUAL MONITORING REPORT MARINE CORPS AIR STATION NEW RIVER, NC	TITLE SITE MAP GW CONTOURS - APRIL 2007	FIGURE 6
206 NC 206-063	DRAWN BY: KAWS	SCALE: 1"=30'	200603-15-840-02

Contaminant of Concern												
Well ID	Sample ID	Date Collected										
			C ₅ -C ₈ Aliphatics	C ₉ -C ₁₂ Aliphatics	C ₉ -C ₁₀ Aromatics	C ₉ -C ₁₈ Aliphatics	C ₁₀ -C ₃₆ Aliphatics	C ₁₁ -C ₂₂ Aromatics				
AST840-MW01	AST840-MW01	6/14/2006 11/6/2006 1/18/2007	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100				
AST840-GW03	AST840-GW03	6/14/2006 11/7/2006 1/18/2007	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100				
AST840-GW04	AST840-GW04	6/14/2006 11/6/2006 1/18/2007	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100				
AST840-GW05	AST840-GW05	6/14/2006 11/6/2006 1/18/2007	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100				
AST840-GW06	AST840-GW06	6/14/2006 11/7/2006 1/18/2007	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100				
AST840-MW07	AST840-MW07	6/14/2006 11/6/2006 1/18/2007	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100				
AST840-MW08	AST840-MW08	6/14/2006 11/6/2006 1/18/2007	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100				
AST840-MW09	AST840-MW09(02R)	6/14/2006 11/7/2006 1/18/2007	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100	<100 <100 <100				



NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

SOVEREIGN CONSULTING INC.
VIRGINIA BEACH, VIRGINIA

PROJECT: BUILDING AS-840
ANNUAL MONITORING REPORT
MARINE CORPS AIR STATION
NEW RIVER, NC

DATE: AUG 2007

TITLE: SITE MAP
GW RESULTS - EPA METHOD VPH/EPH

SCALE: 1"=30' **DRAWN BY: KAWS** **CHECKED BY: JKB**

FIGURE 9

LEGEND

EXISTING

BUILDING

APPROXIMATE POINT OF DIESEL FUEL RELEASE

TYPE II MONITORING WELL

ABANDONED TYPE II MONITORING WELL

TYPE III MONITORING WELL

FORMER FUEL DISTRIBUTION LINE

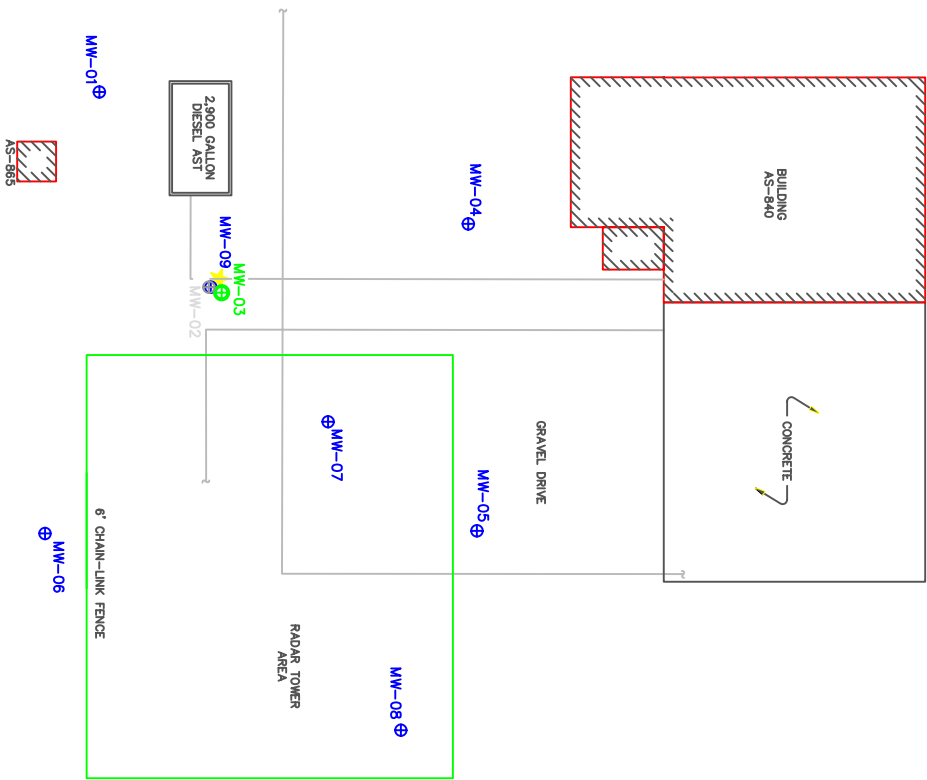
WATER LINE

UNKNOWN UTILITY

SCALE IN FEET

30 15 0 30

Contaminant of Concern →						
Well ID	Sample ID	Date Collected				
AST840-MW01	AST840-MW01	6/14/2006 11/6/2006 1/18/2007	C ₅ -C ₈ Aliphatics	C ₉ -C ₁₈ Aliphatics	C ₉ -C ₂₂ Aromatics	C ₁₉ -C ₃₆ Aliphatics
AST840-GW03	AST840-GW03	6/14/2006 11/7/2006 1/18/2007	<100	<200 <200 <200	<200 <200 <200	<100 <100 <100
AST840-GW04	AST840-GW04	6/14/2006 11/6/2006 1/18/2007	<100	<200 <200 <200	<200 <200 <200	<100 <100 <100
AST840-GW05	AST840-GW05	6/14/2006 11/6/2006 1/18/2007	<100	<200 <200 <200	<200 <200 <200	<100 <100 <100
AST840-GW06	AST840-GW06	6/14/2006 11/7/2006 1/18/2007	<100	<200 <200 <200	<200 <200 <200	<100 <100 <100
AST840-MW07	AST840-MW07	6/14/2006 11/6/2006 1/18/2007	<100	<200 <200 140	<200 <200 <200	<100 <100 <100
AST840-MW08	AST840-MW08	6/14/2006 11/6/2006 1/18/2007	<100	<200 <200 NS	<200 <200 NS	<100 <100 NS
AST840-MW09	AST840-MW09(02R)	6/14/2006 11/7/2006 1/18/2007	<100	<200 <200 <200	130 <200 <200	<100 <100 <100
2L Standard (µg/l)			420	4,200	210	42,000



NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

SOVEREIGN CONSULTING INC.
VIRGINIA BEACH, VIRGINIA

PROJECT: BUILDING AS-840
ANNUAL MONITORING REPORT
MARINE CORPS AIR STATION
NEW RIVER, NC

DATE: 206-063
DATE: AUG 2007

TITLE: SITE MAP
GW RESULTS – EPA METHOD VP/EPH COMPARED TO 2L NCGWSS

SCALE: 1"=30'
DRAWN BY: KAWS
CHECKED BY: JKB

FIGURE: 10

200603-15-840-02

LEGEND

EXISTING

BUILDING

APPROXIMATE POINT OF DIESEL FUEL RELEASE

TYPE II MONITORING WELL

ABANDONED TYPE II MONITORING WELL

TYPE III MONITORING WELL

FORMER FUEL DISTRIBUTION LINE

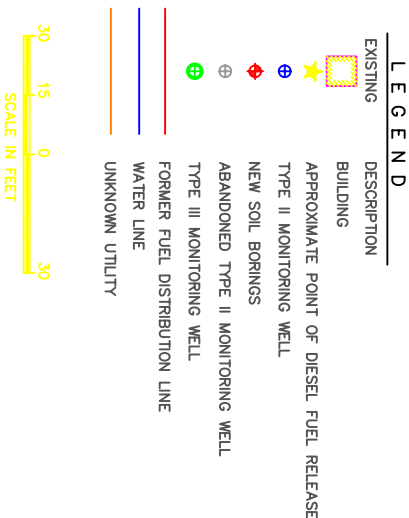
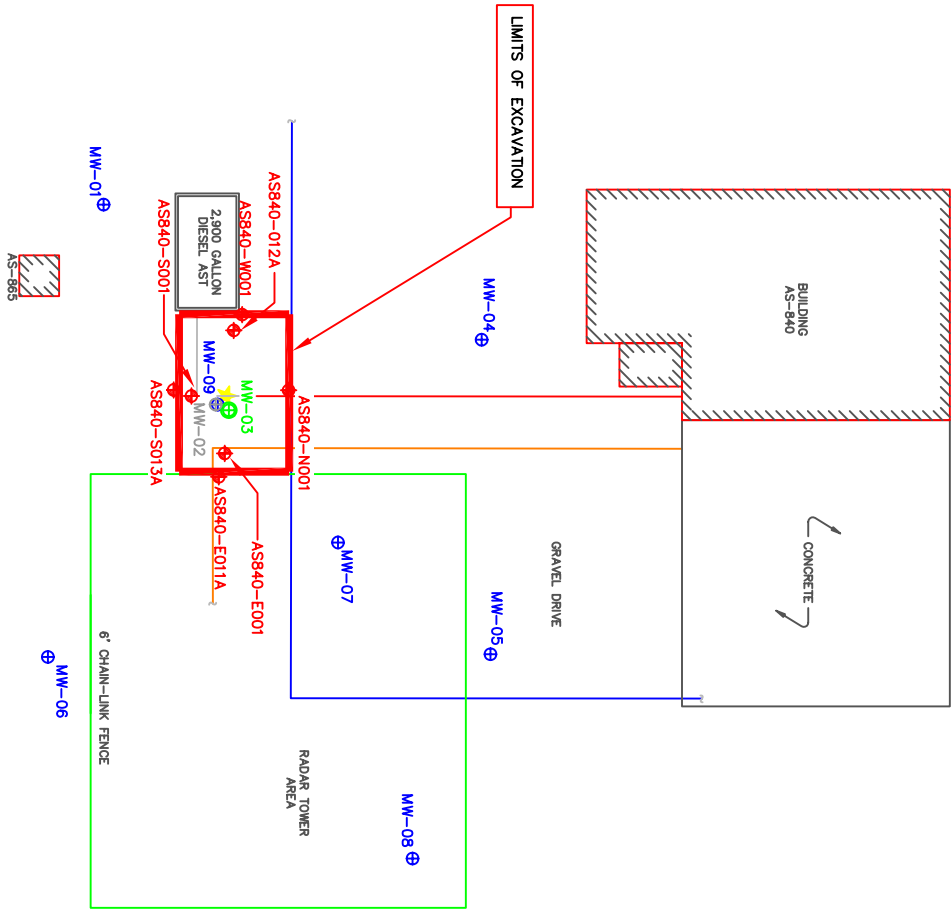
WATER LINE

UNKNOWN UTILITY

SCALE IN FEET

Comment	Sample ID	Contaminant of Concern →		TPH-DRO	TPH-GRO
		Date Collected (mm/dd/yy)	Sample Depth (ft BGS)		
Initial Confirmation Sample North Silewall	AS840-N001	5-2-2006	5-6	5,620	586
Initial Confirmation Sample South Silewall	AS840-S001	5-2-2006	5-6	1,340	BOL
Second Confirmation Sample South Silewall	AS840-S013A	5-19-2006	5-6	BOL	BOL
Initial Confirmation Sample East Silewall	AS840-E001	5-2-2006	5-6	1,180	BOL
Second Confirmation Sample East Silewall	AS840-E011A	5-19-2006	5-6	BOL	BOL
Initial Confirmation Sample West Silewall	AS840-W001	5-2-2006	5-6	225	BOL
Second Confirmation Sample West Silewall	AS840-W012A	5-19-2006	5-6	BOL	BOL
NCDENR Action Level (mg/kg)				40	10

- MSOC = maximum soil contamination concentration
- Results reported in mg/kg
- BOL = Below Observation Limit
- BGL = Below Ground Level
- BGLCD and BGLCDL = detected concentration above MCHZPNE action level
- Note - Second confirmation soil samples were taken after re-contamination initiated in which Sovereign's attempted to remove the contamination identified in the initial confirmation soil samples.
- BGS = feet below ground surface



NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

SOVEREIGN CONSULTING INC.
VIRGINIA BEACH, VIRGINIA

PROJECT BUILDING AS-840
ANNUAL MONITORING REPORT
MARINE CORPS AIR STATION
NEW RIVER, NC

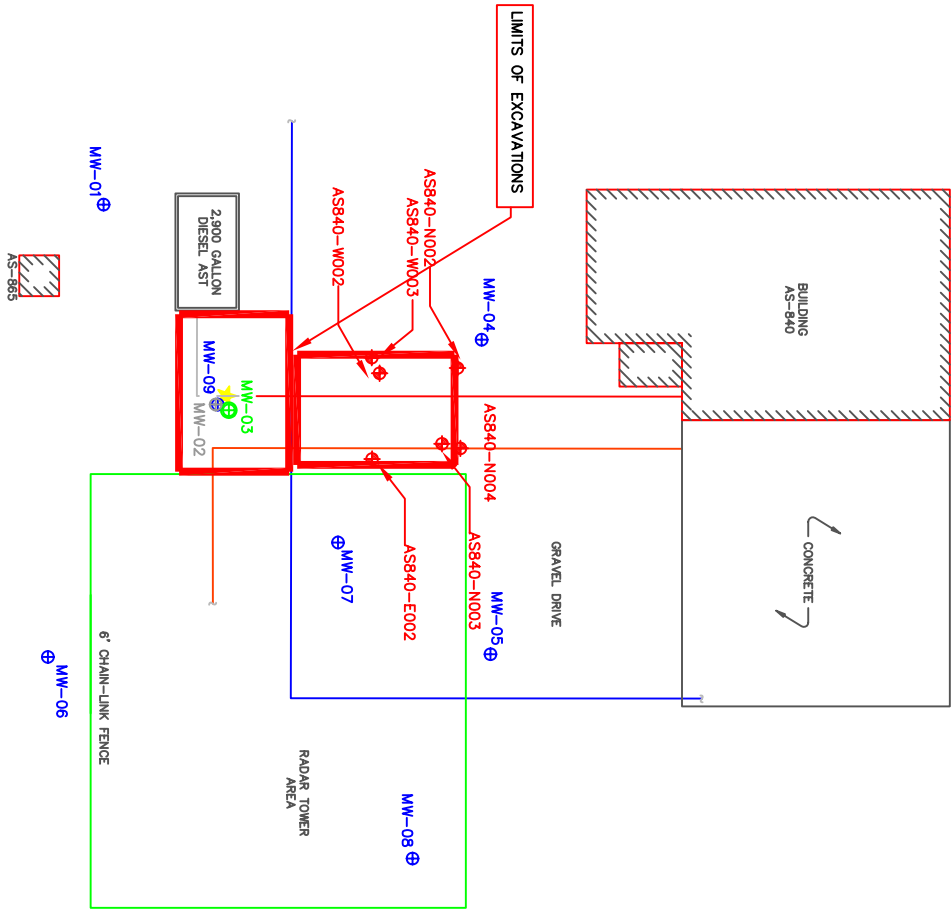
TITLE
FINAL EXCAVATION WITH 2006 SOIL
SAMPLE RESULTS

FIGURE
11

JOB NO. 206-063 **DATE** AUG 2006 **SCALE** 1"=30' **Updated by** CRM **DESIGNED BY** -- **200603-AS-840-03**

Comment	Sample ID	Contaminant of Concern	
		Date Collected (mm/dd/yy)	Sample Depth (ft BGS)
Initial Confirmation Sample North Sidewall	AS840-N002	9-13-2006	5
Initial Confirmation Sample North Sidewall	AS840-N003	9-13-2006	5
Second Confirmation Sample North Sidewall	AS840-N004	9-18-2006	5
Initial Confirmation Sample East Sidewall	AS840-E002	9-13-2006	5
Initial Confirmation Sample West Sidewall	AS840-W002	9-13-2006	5
Second Confirmation Sample West Sidewall	AS840-W003	9-18-2006	5
NCDEMR Action Level (mg/kg)			
			40
			10

- MSOC = maximum soil contamination concentration
- Results reported in mg/kg
- BQCLD = background level
- BQCLD and standard = detected concentration above background and level
- Note - Second confirmation soil samples were taken after re-contamination initiated in which Sovereign's damaged to remove the contamination identified in the initial confirmation soil samples.
- BGS = feet below ground surface



NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

SOVEREIGN CONSULTING INC.
VIRGINIA BEACH, VIRGINIA

PROJECT: BUILDING AS-840
ANNUAL MONITORING REPORT
MARINE CORPS AIR STATION
NEW RIVER, NC

TITLE: SECOND EXCAVATION WITH 2006 SOIL SAMPLE RESULTS

FIGURE: 12

JOB NO. 206-063 | DATE: AUG 2006

SCALE: 1"=30'

Updated by: CRM

DESIGNED BY: ---

200603-AS-840-03

APPENDIX A
HISTORICAL GROUNDWATER QUALITY DATA

TABLE 1
SUMMARY OF SOIL CONFIRMATION SAMPLING RESULTS

Date: May 2006
Incident Number and Name: Pending and AS840
Facility ID#: N/A

Analytical Method: EPA Method 3550 and 5030

Comment	Sample ID	Contaminant of Concern →		TPH-DRO	TPH-GRO
		Date Collected (mm/dd/yy)	Sample Depth (ft BGS)		
Initial Confirmation Sample North Sidewall	AS840-N001	5-2-2006	5-6	5,620	586
Initial Confirmation Sample South Sidewall	AS840-S001	5-2-2006	5-6	1,340	BQL
Second Confirmation Sample South Sidewall	AS840-S013A	5-19-2006	5-6	BQL	BQL
Initial Confirmation Sample East Sidewall	AS840-E001	5-2-2006	5-6	1,180	BQL
Second Confirmation Sample East Sidewall	AS840-E011A	5-19-2006	5-6	BQL	BQL
Initial Confirmation Sample West Sidewall	AS840-W001	5-2-2006	5-6	225	BQL
Second Confirmation Sample West Sidewall	AS840-W012A	5-19-2006	5-6	BQL	BQL
NCDENR Action Level (mg/kg)				40	10

- MSCC = maximum soil contamination concentration
- Results reported in mg/kg
- mg/kg = milligrams per kilogram
- **BOLDED** = detected concentration
- **BOLDED** and **shaded** = detected concentration above NCDENR action level.
- Note – Second confirmation soil samples were taken after re-excavation activities in which Sovereign attempted to remove the contamination identified in the initial confirmation soil samples.
- ft. BGS = feet below ground surface

TABLE 2
SUMMARY OF GROUNDWATER SAMPLING RESULTS

Date: March 27, 2006 and June 14, 2006
Incident Number and Name: Pending and AS840
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						
UST840-MW01	UST840-MW01	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL
UST840-MW02 UST840-MW09	UST840-MW02 UST840-MW09	3/27/2006 6/14/2006	NS BQL	NS BQL	NS 3.74	NS BQL	NS BQL	NS 2.29
UST840-MW03	UST840-MW03	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL
UST840-MW04	UST840-MW04	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL
UST840-MW05	UST840-MW05	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL
UST840-MW06	UST840-MW06	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL 2.03	BQL 2.15
UST840-MW07	UST840-MW07	3/27/2006 6/14/2006	1.32 BQL	BQL BQL	1.58 1.95	1.99 BQL	BQL BQL	BQL BQL
UST840-MW08	UST840-MW08	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL
2L Standard (µg/l)			1	70	550	200	1,000	530
GCL (µg/l)			5,000	70,000	84,500	200,000	257,500	87,500

- All results reported in µg/l
- µg/L = micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits
- **BOLDED** = detected concentration
- **BOLDED and shaded** = detected concentration above NCGWQSS
- NS = Not sampled due to the presence of free product
- MW09 is the replacement well for MW02.

Table 3
SUMMARY OF GROUNDWATER SAMPLING RESULTS

Date: March 27, 2006 and June 14, 2006
Incident Number and Name: Pending and AS840
Facility ID#: N/A

Analytical Method: EPA Method 625 plus 10 largest TICS¹

Contaminant of Concern			Acenaphthene	Fluorene	Naphthalene	Phenanthrene	Bis(2-ethylhexyl)phthalate
Well ID	Sample ID	Date Collected					
UST840-MW01	UST840-MW01	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL
UST840-MW02	UST840-MW02	3/27/2006	NS	NS	NS	NS	NS
UST840-MW09	UST840-MW09	6/14/2006	BQL	BQL	BQL	BQL	BQL
UST840-MW03	UST840-MW03	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	2.00 1.50
UST840-MW04	UST840-MW04	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL
UST840-MW05	UST840-MW05	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL 19.5
UST840-MW06	UST840-MW06	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL
UST840-MW07	UST840-MW07	3/27/2006 6/14/2006	2.60 1.80	2.60 1.80	8.70 6.10	2.70 BQL	BQL BQL
UST840-MW08	UST840-MW08	3/27/2006 6/14/2006	BQL BQL	BQL BQL	BQL BQL	BQL BQL	BQL BQL
2L Standard (µg/l)			80	280	21	210	2.5
GCL (µg/l)			2,120	280	15,500	410	2,500

- ¹ Note – TICS identified in MW05, MW07, MW08, and MW09 during June 2006 event.
- All results reported in µg/l
- µg/L = micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits
- J = detected below the quantitation limit
- BOLDED** = detected concentration
- BOLDED** and **SHADED** = detected concentration exceeds NCGWQS
- NS = Not sampled due to the presence of free product
- MW09 is the replacement well for MW02.

TABLE 4
SUMMARY OF GROUNDWATER SAMPLING RESULTS

Date: March 27, 2006 and June 14, 2006
Incident Number and Name: Pending and AS840
Facility ID#: N/A

Analytical Method: MADEP Method VPH/EPH

Contaminant of Concern			C ₃ -C ₈ Aliphatics	C ₉ -C ₁₂ Aliphatics	C ₉ -C ₁₀ Aromatics	C ₉ -C ₁₈ Aliphatics	C ₁₉ -C ₃₆ Aliphatics	C ₁₁ -C ₂₂ Aromatics
Well ID	Sample ID	Date Collected						
UST840-MW01	UST840-MW01	3/27/2006 6/14/2006	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100
UST840-MW02 UST840-MW09	UST840-MW02 UST840-MW09	3/27/2006 6/14/2006	NS <100	NS <100	NS <100	NS <100	NS <100	NS 130
UST840-MW03	UST840-MW03	3/27/2006 6/14/2006	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100
UST840-MW04	UST840-MW04	3/27/2006 6/14/2006	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100
UST840-MW05	UST840-MW05	3/27/2006 6/14/2006	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100
UST840-MW06	UST840-MW06	3/27/2006 6/14/2006	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100
UST840-MW07	UST840-MW07	3/27/2006 6/14/2006	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100	450 170
UST840-MW08	UST840-MW08	3/27/2006 6/14/2006	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100	<100 <100

- All results reported in µg/l
- µg/L =micrograms per liter
- GCL = gross contamination level
- NS = Not sampled due to the presence of free product
- MW09 is the replacement well for MW02.

TABLE 5
SUMMARY OF GROUNDWATER SAMPLING RESULTS

Date: March 27, 2006 and June 14, 2006
Incident Number and Name: Pending and AS840
Facility ID#: N/A

Analytical Method: MADEP Method VPH/EPH as compared to NCDENR 2L Interim GWQS

Contaminant of Concern →			C ₅ -C ₈ Aliphatics	C ₉ -C ₁₈ Aliphatics	C ₉ -C ₂₂ Aromatics	C ₁₉ -C ₃₆ Aliphatics
Well ID	Sample ID	Date Collected				
UST840-MW01	UST840-MW01	3/27/2006	<100	<200	<200	<100
		6/14/2006	<100	<200	<200	<100
UST840-MW02 UST840-MW09	UST840-MW02 UST840-MW09	3/27/2006	NS	NS	NS	NS
		6/14/2006	<100	<200	<230	<100
UST840-MW03	UST840-MW03	3/27/2006	<100	<200	<200	<100
		6/14/2006	<100	<200	<200	<100
UST840-MW04	UST840-MW04	3/27/2006	<100	<200	<200	<100
		6/14/2006	<100	<200	<200	<100
UST840-MW05	UST840-MW05	3/27/2006	<100	<200	<200	<100
		6/14/2006	<100	<200	<200	<100
UST840-MW06	UST840-MW06	3/27/2006	<100	<200	<200	<100
		6/14/2006	<100	<200	<200	<100
UST840-MW07	UST840-MW07	3/27/2006	<100	<200	<550	<100
		6/14/2006	<100	<200	<270	<100
UST840-MW08	UST840-MW08	3/27/2006	<100	<200	<200	<100
		6/14/2006	<100	<200	<200	<100
2L Standard (µg/l)			420	4,200	210	42,000

- All results reported in µg/l
- µg/L = micrograms per liter
- GCL = Gross Contaminant Level
- NE = Not Established
- **BOLDED** = detected concentration
- **BOLDED** and **SHADED** = detected concentration exceeds NCGWQS
- NS = Not sampled due to the presence of free product
- MW09 is the replacement well for MW02.

JAJones/LAW CSA Data

Table 3
Date: 12/06/01

Summary of Soil Sampling Results: Comprehensive Site Assessment (Page 1 of 2)
Incident No. and Name: No. Pending, MCAS Building AS 840

Facility ID#: Not Applicable

Analytical Method →				Volatile Organic Compounds by EPA Method 8260												Total Xylenes		
Probe ID	Sample ID	Date Collected	Sample Depth (ft./in.)	Contaminant of Concern →												n-Propylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
				Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	4-Isopropyltoluene	Methyl-tert-butyl-ether (MTBE)	Naphthalene							
SB01	ASTAS840-SB01-01	4/19/01	1-2	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.012	
SB01	ASTAS840-SB01-03	4/19/01	5-6	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.014	
SB02	ASTAS840-SB02-02	4/19/01	3-4	<0.0069	<0.0069	<0.0069	0.0071	<0.0069	<0.0069	<0.0069	<0.0069	0.0018	0.017	<0.0069	0.0084	0.02		
SB02	ASTAS840-SB02-03	4/19/01	5-6	<0.007	<0.007	<0.007	0.014	<0.007	<0.007	<0.007	<0.007	0.054	0.11	<0.007	0.031	0.016		
SB03	ASTAS840-SB03-02	4/19/01	3-4	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0064	<0.006	<0.006	<0.006		
SB03	ASTAS840-SB03-03	4/19/01	5-6	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	0.017	<0.0071	<0.0071	<0.0071		
SB04	ASTAS840-SB04-02	4/19/01	3-4	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	0.014	<0.0055	0.0058	<0.011		
SB04	ASTAS840-SB04-03	4/19/01	5-6	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	0.058	<0.0068	0.010	<0.014		
SB05	ASTAS840-SB05-01	4/19/01	1-2	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.011		
SB05	ASTAS840-SB05-03	4/19/01	5-6		<0.0073	0.011	0.045	0.0075	0.014	0.0075	0.0044	0.19	0.024	0.15	0.035	0.039		
SB06	ASTAS840-SB06-01	4/19/01	1-2	<0.0057	<0.0057	0.01	0.016	0.0082	0.0082	0.0089	<0.0057	0.06	0.012	0.08	0.03	0.096		
SB06	ASTAS840-SB06-03	4/19/01	5-6		<0.0072	0.012	0.057	0.0015	0.0015	0.0083	0.047	0.22	0.025	0.15	0.037	0.163		
SB07	ASTAS840-SB07-02	4/19/01	3-4	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.012		
SB07	ASTAS840-SB07-03	4/19/01	5-6	<0.0072	0.0092	0.017	0.042	0.016	0.016	0.013	0.029	0.28	0.031	0.21	0.05	0.124		
SB08	ASTAS840-SB08-02	4/19/01	3-4	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.013		
SB08	ASTAS840-SB08-03	4/19/01	5-6	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	0.076	<0.0071	0.032	<0.0071	0.011		
Soil-to-Groundwater MSCC →				0.0056	4	3	0.24	2	*	*	0.92	0.58	2	156	782	7	5	
Residential MSCC →				22	156	156	1,560	1,564	*	*	156	63	156	782	782	782	32,000	

All laboratory results and Maximum Soil Contaminant Concentrations (MSCCs) are reported in milligrams per kilogram (mg/kg).

Unshaded cells listing laboratory detection limit indicate compound not detected.

Shaded cell indicates concentration identified above laboratory detection limit.

Shaded cell with bold numbers indicate detected concentration exceeds the Soil to Groundwater MSCC.

* A soil to groundwater MSCC for 4-isopropyltoluene cannot be determined because an octanol-water partitioning coefficient has not been established for this compound. Similarly, residential or commercial/industrial MSCCs cannot be established for this compound due to a lack of health-based risk information (reference dose or cancer slope factor) for 4-isopropyltoluene.

ft. lbs = Feet below land surface

Prepared By: L.V. Date: 4/16/01
Checked By: W.B.D. Date: 12/6/01

0681BB12

Table 3

Date: 12/06/01

Summary of Soil Sampling Results: Comprehensive Site Assessment (Page 2 of 2)

Incident No. and Name: No. Pending, MCAS Building AS 840

Facility ID#: Not Applicable

DATE: 12/06/01				Semi-Volatile Organic Compounds, Base Neutral Acid Extractables by EPA Method 8270										Hydrocarbon Fractions by the Massachusetts Department of Environmental Protection (MADEP) Method																								
Analytical Method				Acenaphthene					2-Methylnaphthalene					Naphthalene					Phenanthrene					Pyrene					MADEP VPH Compounds					MADEP EPH Compounds				
Probe ID	Sample ID	Concentration of Contaminant		Fluorene	Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics	C9-C18 Aliphatics	C19-C26 Aliphatics	C11-C22 Aromatics	C9-C18 Aliphatics	C9-C22 Aromatics																						
		Time Collected	Sample Depth (ft. bsl)																																			
SB01	ASTAS840-SB01-01	4/19/01	1-2	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34																						
SB01	ASTAS840-SB01-03	4/19/01	5-6	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53																						
SB02	ASTAS840-SB02-02	4/19/01	3-4	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47																						
SB02	ASTAS840-SB02-03	4/19/01	5-6	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49																						
SB03	ASTAS840-SB03-02	4/19/01	3-4	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37																						
SB03	ASTAS840-SB03-03	4/19/01	5-6	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47																						
SB04	ASTAS840-SB04-02	4/19/01	3-4	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34																						
SB04	ASTAS840-SB04-03	4/19/01	5-6	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41																						
SB05	ASTAS840-SB05-01	4/19/01	1-2	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34																						
SB05	ASTAS840-SB05-03	4/19/01	5-6	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44																						
SB06	ASTAS840-SB06-01	4/19/01	1-2	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35																						
SB06	ASTAS840-SB06-03	4/19/01	5-6	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51																						
SB07	ASTAS840-SB07-02	4/19/01	3-4	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37																						
SB07	ASTAS840-SB07-03	4/19/01	5-6	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44																						
SB08	ASTAS840-SB08-02	4/19/01	3-4	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40																						
SB08	ASTAS840-SB08-03	4/19/01	5-6	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44																						
Soil to Groundwater MSOC				8	44	620	63	63	63	63	63	63	63	63	63	63																						
Groundwater MSOC				940	940	940	940	940	940	940	940	940	940	940	940	940																						
See combined totals				72	939	939	939	939	939	939	939	939	939	939	939	939																						
See combined totals				3255	9386	9386	9386	9386	9386	9386	9386	9386	9386	9386	9386	9386																						

All laboratory results and Maximum Soil Contaminant Concentrations (MSCCs) are reported in milligrams per kilogram (mg/kg)

Unshaded cells listing laboratory detection limit indicate compound not detected

Shaded cell indicates concentration identified above laboratory detection limit

VPH = Volatile Petroleum Hydrocarbons

EPH = Extractable Petroleum Hydrocarbons

HBL = Health Based Level

ft. bsl = Feet below land surface

Prepared By: *ef* Date: 11/16/01Checked By: *ef* Date: 12/16/01

Table 4
Date: 12/06/01
Summary of Groundwater Sampling Results: Comprehensive Site Assessment (Page 1 of 1)

Analytical Method		Purgeable Aromatic Hydrocarbons modified to include Xylenes by EPA Method 602				Semi-Volatile Organic Compounds, Base/Neural Extractables by EPA Method 625		TICs		MADEP VPH Compounds				MADEP EPH Compounds				Combined MADEP Compound Totals	
Well ID	Sample ID	Container of Concern	Benzene	Ethylbenzene	Methyl-tert-butyl-ether (MTBE)	Toluene	Total Xylenes	Acenaphthene	Fluorene	Naphthalene	Known	Unknown	CS-C3 Aliphatics	CS-C12 Aliphatics	CS-C10 Aromatics	CS-C18 Aliphatics	CS-C19 Aromatics	CS-C22 Aromatics	CS-C22 Aromatics
PZ01	ASTAS840-PZ01-01B	4/20/01	<1	<1	<2	<1	<2	<10	<10	<10			<100	<100	<100	<100	<100	<100	<100
PZ02	ASTAS840-PZ02-01B	4/20/01	2	2	<2	<1	4	<10	<10	17			<100	<100	<100	<100	<100	<100	<100
PZ03	ASTAS840-PZ03-01B	4/20/01			<16	160	230	11	12					2,500	620		400	2,500	1,750
PZ04	ASTAS840-PZ04-01B	4/20/01	<1	1	<2	<1	3	<10	<10	<10			<100	<100	<100	<100	<100	<100	<100
PZ06	ASTAS840-PZ06-01B	4/20/01	<1	<1	<2	<1	<2	<10	<10	<10			<100	<100	<100	<100	<100	<100	<100
PZ07	ASTAS840-PZ07-01B	4/20/01	<1	<1	<2	<1	<2	<10	<10	<10			<100	<100	<100	<100	<100	<100	<100
PZ08	ASTAS840-PZ08-01B	4/20/01	<1	2	<2	<1	3	<10	<10	<10			<100	<100	<100	<100	<100	<100	<100
MW01	ASTAS840-GW01-01B	6/22/01	<1	<1	<2	<1	<2	<10	<10	<10	NCD	NCD	<100	<100	<100	<100	<100	<100	<100
MW03	ASTAS840-GW03-01B	6/22/01	<1	<1	<2	<1	<2	<10	<10	<10	NCD	NCD	<100	<100	<100	<100	<100	<100	<100
MW04	ASTAS840-GW04-01B	6/22/01	<1	3	<2	<1	<2	<10	<10	<10	22.8	54.8	<100	<100	<100	230	120	200	330
MW05	ASTAS840-GW05-01B	6/22/01	<1	<1	<2	<1	<2	<10	<10	<10	NCD	NCD	<100	<100	<100	<100	<100	<100	<100
MW06	ASTAS840-GW06-01B	6/22/01	<1	<1	<2	<1	<2	<10	<10	<10	NCD	NCD	<100	<100	<100	<100	<100	<100	<100
2L Standard			1	29	200	1,000	530	80	280	21	Not Established		420	See Totals	See Totals	See Totals	See Totals	See Totals	210

All laboratory results, 2L Standards, and Gross Contamination Levels (GCLs) are reported in micrograms per liter (µg/L).

Unshaded cells listing laboratory detection limit indicate compound not detected.

Shaded cell indicates concentration identified above laboratory detection limit.

Blank space indicates that the sample was not analyzed by the referenced method.

NCD = No compounds detected.

VPH = Volatile Petroleum Hydrocarbons.

EPH = Extractable Petroleum Hydrocarbons.

HBL = Health Based Level.

Table 5 **Free Product Recovery Results**
Date: 1/08/02 **Incident No. and Name: No. Pending, MCAS Building AS-840 Facility ID#: NA**
Free Product Recovery Method: Aggressive Fluid Vapor Recovery
Method of Measurement: Interface Probe and Flame Ionization Detector

Well ID	Product Type	Date of Recovery (m/dd/yy)	Well Casing Diameter (inches)	Product Thickness before Recovery (feet)	Product Thickness after Recovery (feet)	Product Recovered as Vapor (gallons)	Product Recovered as Liquid (gallons)	Total Estimated Product Recovered (gallons)	Depth to Water (feet)
MW02	Diesel	7/31/01	2	2.70	Non Detect	8.9	4.0	12.9	8.81
MW02	Diesel	8/08/01	2	1.51	Non Detect	8.6	3.0	11.6	7.93
MW02	Diesel	8/13/01	2	0.61	Non Detect	8.9	3.0	11.9	7.24
MW02	Diesel	8/21/01	2	0.60	Non Detect	8.8	4.0	12.8	7.53
MW02	Diesel	8/27/01	2	0.82	Non Detect	10.0	4.0	14.0	7.70
MW02	Diesel	9/07/01	2	0.86	Non Detect	8.8	3.0	11.8	7.48
MW02	Diesel	9/25/01	2	1.83	Non Detect	8.9	4.0	12.9	8.21
MW02	Diesel	10/11/01	2	0.26	Non Detect	9.1	2.0	11.1	8.45
MW02	Diesel	10/23/01	2	0.43	Non Detect	9.0	3.0	12.0	8.61
MW02	Diesel	10/30/01	2	1.59	Non Detect	9.0	3.5	12.5	9.41
MW02	Diesel	11/03/01	2	0.23	Non Detect	4.7	0.5	5.2	8.24
MW02	Diesel	11/16/01	2	0.44	Non Detect	5.7	1.0	6.7	8.69
MW02	Diesel	12/11/01	2	0.35	Non Detect	6.0	0.5	6.5	9.24
MW02	Diesel	1/13/02	2	1.56	Non Detect	4.6	1.0	5.6	9.55
MW02	Diesel	1/24/02	2	1.41	Non Detect	4.4	1.2	5.6	8.17
MW02	Diesel	2/5/02	2	0.28	Non Detect	5.9	0.5	6.4	7.43
MW02	Diesel	2/25/02	2	0.95	Non Detect	5.9	1.0	6.9	7.62
MW02	Diesel	3/5/02	2	0.49	Non Detect	6.2	0.5	6.7	7.33
MW02	Diesel	3/15/02	2	0.87	Non Detect	5.7	0.8	6.5	6.10
MW02	Diesel	3/26/02	2	1.19	Non Detect	7.0	1.5	8.5	7.42
MW02	Diesel	4/9/02	2	0.84	Non Detect	7.3	1.0	8.3	7.40
MW02	Diesel	4/19/02	2	0.85	Non Detect	8.4	1.3	9.7	7.92
MW02	Diesel	4/29/02	2	0.72	Non Detect	7.2	1.0	8.2	7.78
MW02	Diesel	5/13/02	2	0.87	Non Detect	10.6	1.2	11.8	8.03
MW02	Diesel	5/20/02	2	0.87	Non Detect	11.3	1.2	12.5	8.38
MW02	Diesel	5/28/02	2	0.56	Non Detect	8.6	0.7	9.3	8.44
MW02	Diesel	6/4/02	2	0.48	Non Detect	9.7	0.5	10.2	8.37
MW02	Diesel	6/14/02	2	0.43	Non Detect	9.5	0.5	10.0	8.49
MW02	Diesel	6/25/02	2	0.56	Non Detect	10.7	0.8	11.5	8.70
MW02	Diesel	7/12/02	2	0.70	Non Detect	10.9	1.0	11.9	8.43
MW02	Diesel	7/23/02	2	0.65	Non Detect	10.9	1.0	11.9	8.36
Total Gallons of Product Recovered to through July 2002						251.2	51.5	302.7	

CATLIN CAP Data

TABLE 3A SUMMARY OF GROUNDWATER LABORATORY RESULTS

Date: November 2004 Incident Number and Name: Pending - AS-840

Analytical Method: EPA Method 602

Well ID	Contaminant of Concern		Benzene	Ethylbenzene	All Other Analytes
	Sample ID	Date Collected			
2L GWQS (µg/L)					
ASTAS840-MW01	MW-01	11/23/2004	<1.00	<1.00	BQL
ASTAS840-MW01 DUP	MW-01 DUP	11/23/2004	<1.00	<1.00	BQL
ASTAS840-MW04	MW-04	11/23/2004	<1.00	<1.00	BQL
ASTAS840-MW07	MW-07	11/23/2004	1.99	1.39	BQL

All results in µg/L

BQL = Below Quantitation Limit

Shading indicates concentration in excess of NCAC 2L GWQS.

TABLE 3B SUMMARY OF GROUNDWATER LABORATORY RESULTS
 Date: November 2004
 Incident Number and Name: Pending - AS-840

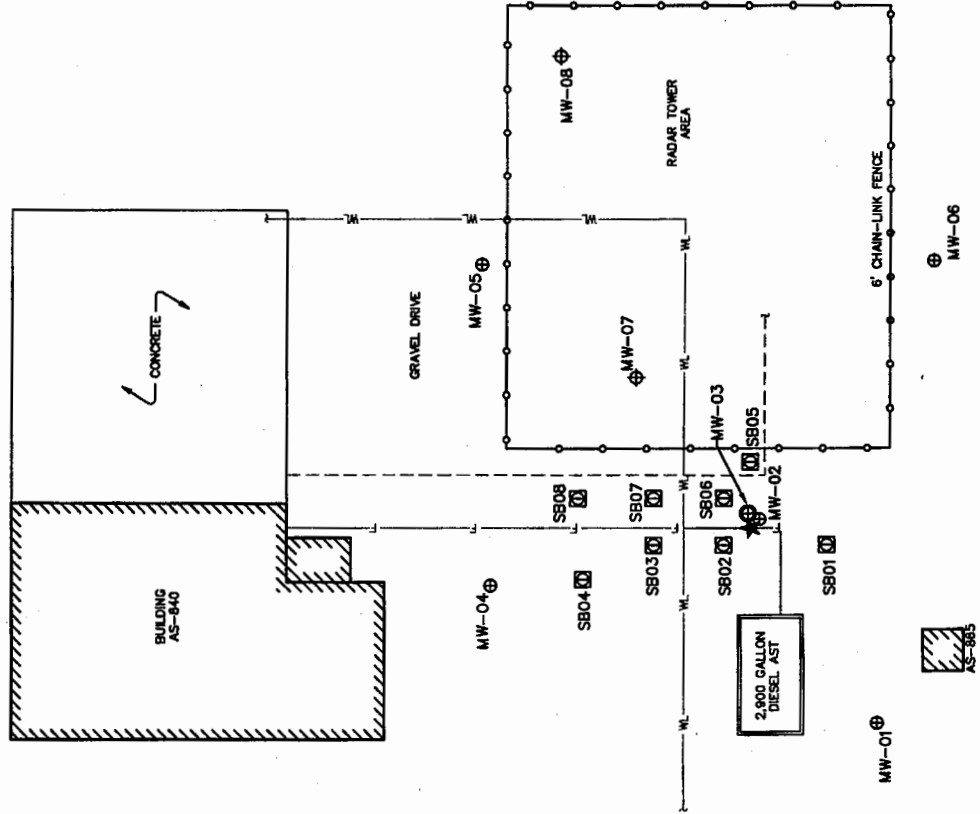
Analytical Method: EPA Method 625

Well ID	Contaminant of Concern		All Analytes
	Sample ID	Date Collected	
	2L GWQS (µg/L)		Varies
ASTAS840-MW01	MW-01	11/23/2004	BQL
ASTAS840-MW04	MW-04	11/23/2004	BQL
ASTAS840-MW07	MW-07	11/23/2004	BQL

All results in µg/L

BQL = Below Quantitation Limit

Shading indicates concentration in excess of NCAC 2L GWQS.



LEGEND

EXISTING	DESCRIPTION
	BUILDING
	APPROXIMATE POINT OF DIESEL FUEL RELEASE
	TYPE II MONITORING WELL
	TYPE III MONITORING WELL
	SOIL BORING (OPT)
	FORMER FUEL DISTRIBUTION LINE
	WATER LINE
	UNKNOWN UTILITY



PROJECT
CORRECTIVE ACTION PLAN
BUILDING AS-840
MARINE CORPS AIR STATION
NEW RIVER, NC

DATE 204-045 **DATE** JAN 2005

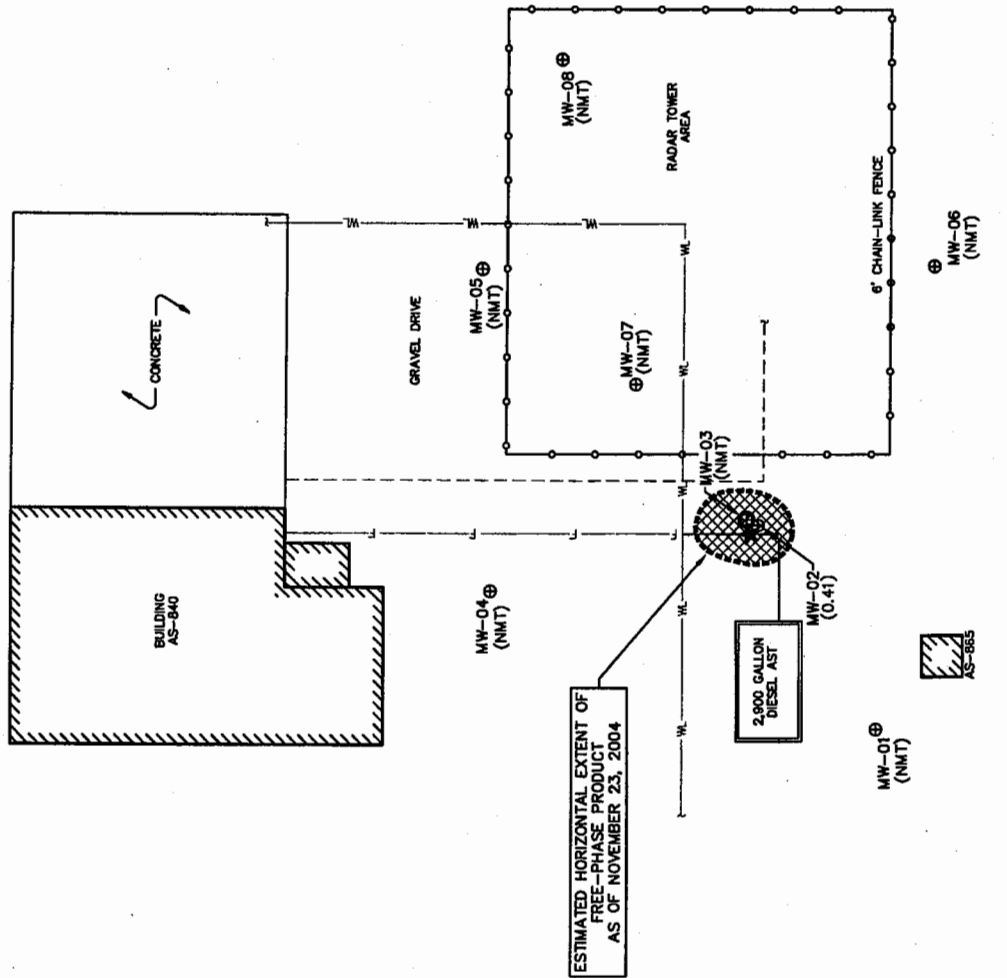
FIGURE
2

TITLE
SOIL BORING, MONITORING WELL AND
POWER PROBE LOCATION
MAP

SCALE 1"=30' **DESIGNED BY** HCS **CHECKED BY** JKB

CALEDON
ENGINEERING SERVICES
WILMINGTON, NORTH CAROLINA

NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.



NOTE:
 1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.
 2. ESTIMATED HORIZONTAL EXTENT BASED ON FIELD DATA COLLECTED AS PART OF THE CAP ON NOVEMBER 23, 2004.



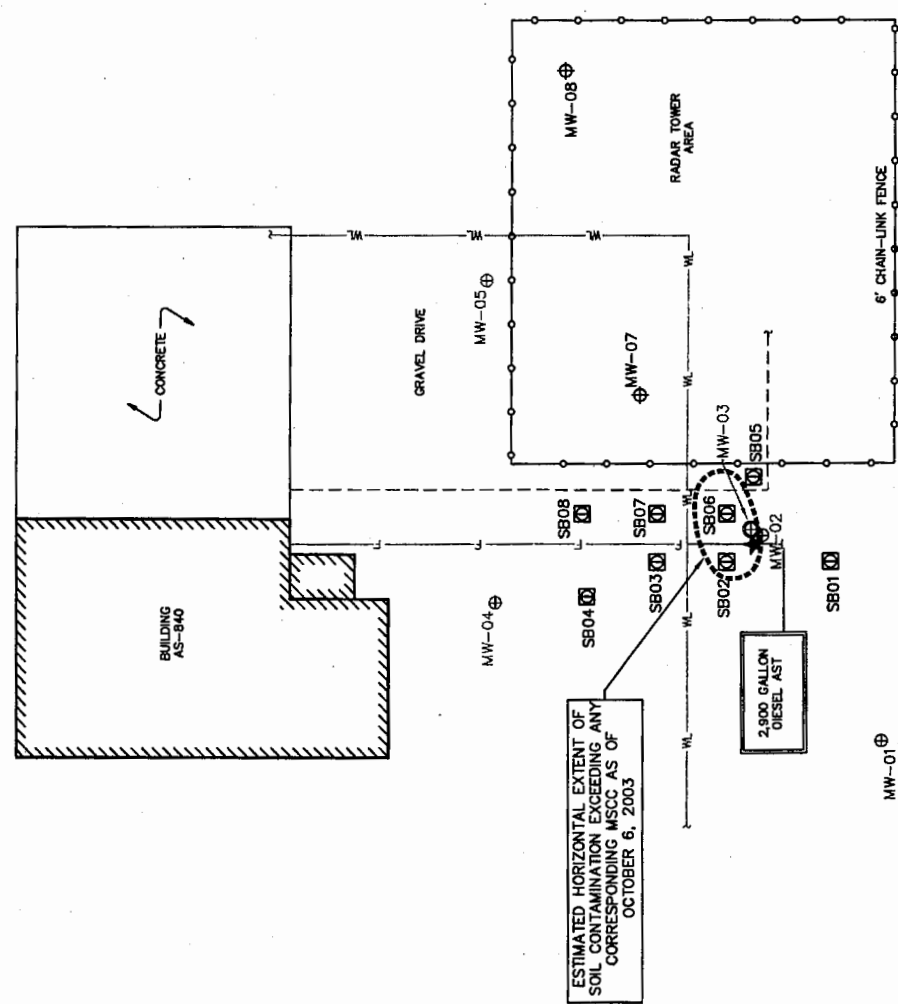
PROJECT: CORRECTIVE ACTION PLAN
 BUILDING AS-840
 MARINE CORPS AIR STATION
 NEW RIVER, NC
 JOB NO: 204-045 DATE: JAN 2005

FIGURE 3
 ESTIMATED EXTENT OF FREE-PHASE PRODUCT AS OF NOVEMBER 23, 2004
 SCALE: 1" = 30'
 DRAWN BY: HCS
 CHECKED BY: JKB



LEGEND

EXISTING	DESCRIPTION
[Hatched Box]	BUILDING
[Star]	APPROXIMATE POINT OF DIESEL FUEL RELEASE
[Circle with cross]	TYPE II MONITORING WELL
[Circle with dot]	TYPE III MONITORING WELL
[Circle with cross and dot]	SOIL BORING (DPT)
[Line with 'F']	FORMER FUEL DISTRIBUTION LINE
[Line with 'W']	WATER LINE
[Dashed line]	UNKNOWN UTILITY



ESTIMATED HORIZONTAL EXTENT OF SOIL CONTAMINATION EXCEEDING ANY CORRESPONDING MSCC AS OF OCTOBER 6, 2003

CAELIN
ENGINEERS AND SCIENTISTS
WASHINGTON, NORTH CAROLINA

PROJECT
CORRECTIVE ACTION PLAN
BUILDING AS-840
MARINE CORPS AIR STATION
NEW RIVER, NC

DATE
JAN 2005

SCALE
1"=30'

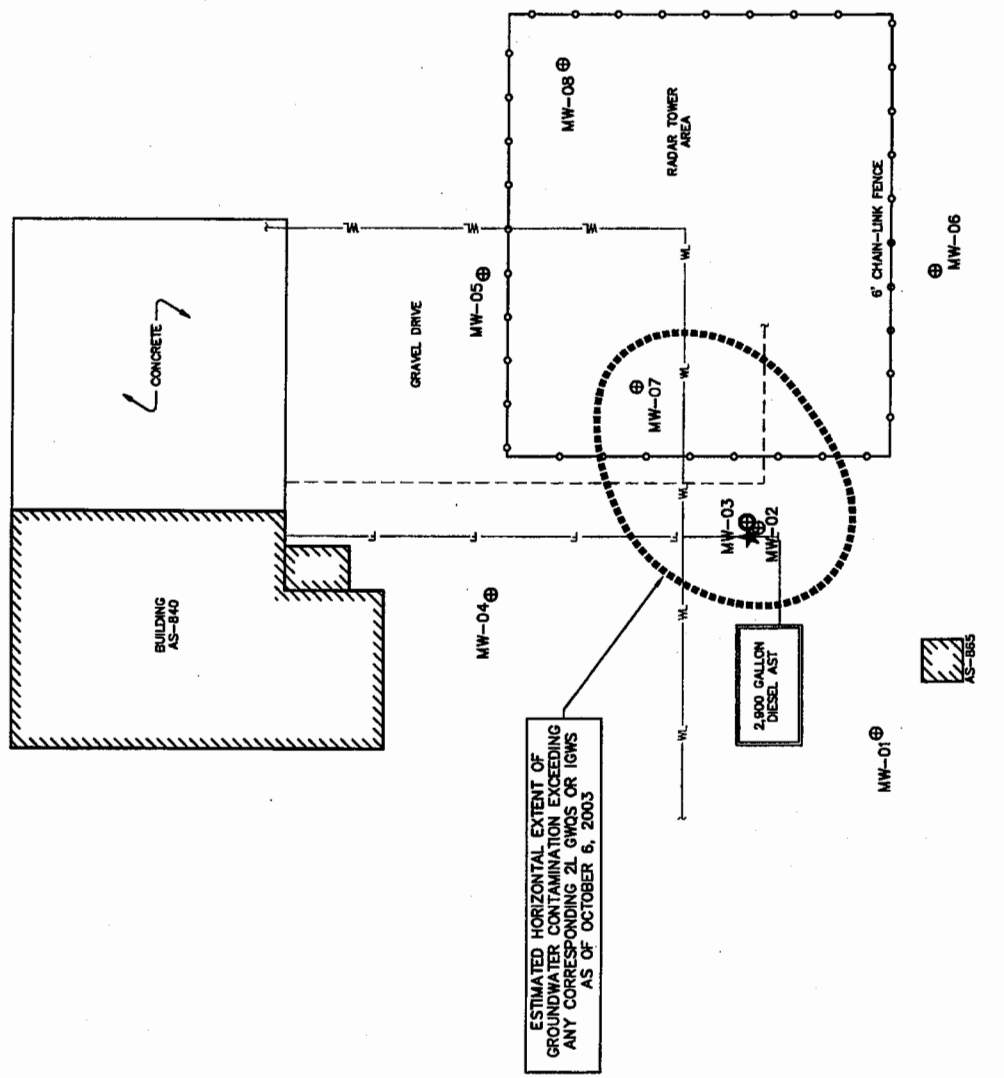
DESIGNED BY
HCS

CHECKED BY
JKB

FIGURE
4

EXTENT OF SOIL CONTAMINATION AS OF OCTOBER 6, 2003

NOTE:
 1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.
 2. ESTIMATED HORIZONTAL EXTENT OF SOIL CONTAMINATION WAS BASED ON DATA OBTAINED FROM FIGURES 3 & 4 OF THE CORRECTIVE ACTION REPORT BY TAYLOR, WISEMAN & TAYLOR, DATED NOVEMBER 2003.
 3. REFER TO THE CSA ADDENDUM REPORT FOR A COMPLETE LIST OF ANALYTES AND RESULTS.



LEGEND	
EXISTING	DESCRIPTION
	BUILDING
	APPROXIMATE POINT OF DIESEL FUEL RELEASE
	TYPE II MONITORING WELL
	TYPE III MONITORING WELL
	FORMER FUEL DISTRIBUTION LINE
	WATER LINE
	UNKNOWN UTILITY



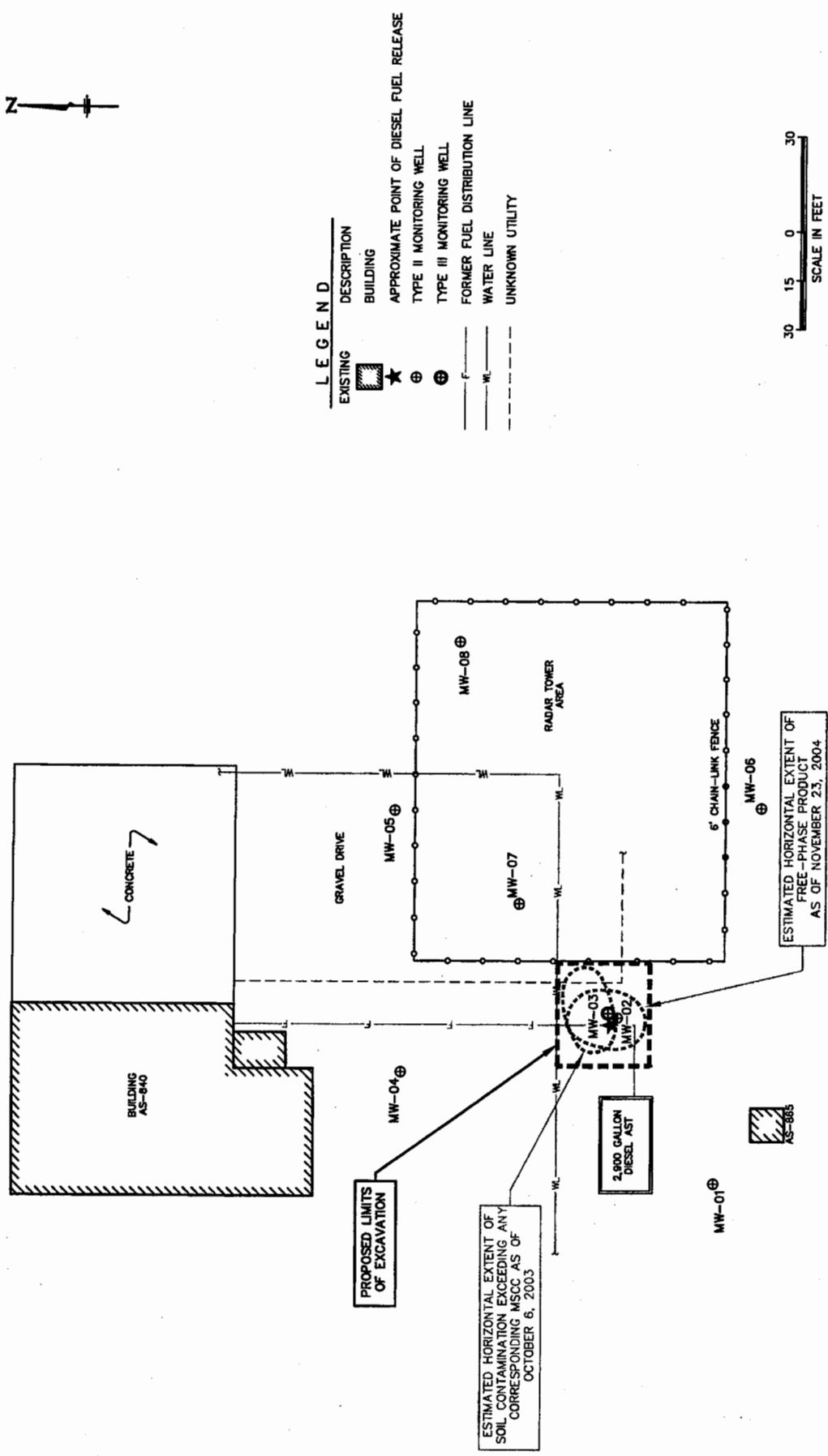
NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISDMAN & TAYLOR, PROVIDED BY LAW ENGINEERING
2. ESTIMATED HORIZONTAL EXTENT OF GROUNDWATER CONTAMINATION WAS BASED ON DATA OBTAINED
FROM FIGURES 6, 7 AND 8 OF THE CSA ADDENDUM REPORT BY CALIN, DATED NOVEMBER 2003.
3. REFER TO THE CSA ADDENDUM REPORT FOR A COMPLETE LIST OF ANALYTES AND RESULTS.

CATALIN
ENGINEERING and CONSTRUCTION
WILMINGTON, NORTH CAROLINA

PROJECT	CORRECTIVE ACTION PLAN	DATE	1" = 30'	HCS	JKB
	BUILDING AS-840				
	MARINE CORPS AIR STATION				
	NEW RIVER, NC				
JOB NO.	204-045	DATE	JAN 2005		

ESTIMATED EXTENT OF
GROUNDWATER CONTAMINATION
AS OF OCTOBER 9, 2003

FIGURE
5



PROJECT: CORRECTIVE ACTION PLAN
BUILDING AS-840
MARINE CORPS AIR STATION
NEW RIVER, NC

DATE: 204-045
DATE: JAN 2005
DATE: JAN 2005

FIGURE
6

**SITE MAP
WITH UTILITIES AND PROPOSED
SOIL EXCAVATION AREA**

SCALE: 1"=30'
DESIGNER: HCS
CHECKED BY: JKB

SABELL
ENGINEERS and ARCHITECTS
WILMINGTON, NORTH CAROLINA

NOTE:
1. MODIFIED FROM ORIGINAL BASE MAP BY TAYLOR, WISEMAN & TAYLOR, PROVIDED BY LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

Shaw AFVR Data

Aggressive Fluid Vapor Recovery (AFVR) Summary of Free Product Recovery Events

TABLE 3

Facility: Building AS-840
 Location: MCB Camp Lejeune, North Carolina
 Date: 6/4/2002

Event #	Date	Rec Prod (lbs)	Rec Prod. (gals)	Total Cum (lbs) to date	Level (ft TOC)	AFVR WELLS		MONITORING WELLS	
						NW-2		MW-3	
17	2/25/2002	43.2	6.9	1044.3	Product level	6.67		0	
					Water level	7.62		6.94	
18	3/5/2002	42.0	6.7	1086.3	Product level	6.84		0	
					Water level	7.33		6.13	
19	3/15/2002	40.8	6.5	1127.1	Product level	5.23		0	
					Water level	6.10		5.74	
20	3/26/2002	53.2	8.5	1180.3	Product level	6.23		0	
					Water level	7.42		6.52	
21	4/9/2002	51.8	8.3	1232.1	Product level	6.56		0	
					Water level	7.40		6.78	
22	4/19/2002	60.6	9.7	1292.7	Product level	7.07		0	
					Water level	7.92		7.41	
23	4/29/2002	51.5	8.2	1344.2	Product level	7.06		0	
					Water level	7.78		7.33	
24	5/13/2002	74.3	11.8	1418.5	Product level	7.16		0	
					Water level	8.03		7.39	
25	5/20/2002	78.6	12.5	1497.1	Product level	7.51		0	
					Water level	8.38		7.54	
26	5/28/2002	58.7	9.3	1555.8	Product level	7.88		0	
					Water level	8.44		8.01	
27	6/4/2002	64.4	10.2	1620.2	Product level	7.89		0	
					Water level	8.37		8.08	

NOTE: N = Not Encountered
 Product type: Gasoline

Aggressive Fluid Vapor Recovery (AFVR) Summary of Free Product Recovery Events

TABLE 3

Facility: Building AS-840
Location: MCB Camp Lejeune, North Carolina
Date: 12/10/2002

Event #	Date	Rec Prod (lbs)	Rec Prod (gals)	Total Cum (lbs) to date	Level (ft TOC)	AFVR WELLS		MONITORING WELLS	
						MW-2		MW-3	
27	6/4/2002	64.4	10.2	1620.2	Product level	7.89		0	
					Water level	8.37		8.08	
28	6/14/2002	64.0	10.0	1682.8	Product level	8.06		0	
					Water level	8.49		8.22	
29	6/25/2002	71.9	11.5	1692.1	Product level	8.14		0	
					Water level	8.70		8.33	
30	7/12/2002	74.6	11.9	1766.7	Product level	7.73		0	
					Water level	8.43		7.91	
31	7/23/2002	74.9	11.9	1841.6	Product level	7.71		0	
					Water level	8.36		7.94	
32	8/2/2002	72.1	11.5	1913.7	Product level	6.71		0	
					Water level	7.28		6.90	
33	8/13/2002	73.1	11.6	1986.8	Product level	7.46		0	
					Water level	8.06		7.95	
34	9/11/2002	71.9	11.4	2058.7	Product level	5.94		0	
					Water level	6.58		6.21	
35	10/4/2002	71.1	11.3	2129.8	Product level	6.14		0	
					Water level	6.68		6.41	
36	11/8/2002	76.7	12.2	2206.5	Product level	6.41		0	
					Water level	7.60		6.78	
37	11/13/2002	53.8	8.6	2260.3	Product level	6.33		0	
					Water level	7.05		6.60	
38	12/10/2002	60.3	9.6	2320.6	Product level	6.89		0	
					Water level	7.40		7.22	

NOTE: N = Not Encountered
Product type: Gasoline

Aggressive Fluid Vapor Recovery (AFVR) Summary of Free Product Recovery Events

TABLE 3

Facility: Building AS-840
 Location: MCB Camp Lejeune, North Carolina
 Date: 11/11/2003

Event #	Date	Rec Prod (lbs)	Rec Prod. (gals)	Total Cum (lbs) to date	Level (ft TOC)	AFVR WELLS			MONITORING WELLS		
						MW-2			MW-3		
35	10/4/2002	71.1	11.3	2129.8	Product level	6.14			0		
					Water level	6.68			6.41		
36	11/8/2002	76.7	12.2	2206.5	Product level	6.41			0		
					Water level	7.60			6.78		
37	11/13/2002	53.8	8.6	2260.3	Product level	6.33			0		
					Water level	7.05			6.60		
38	12/10/2002	60.3	9.6	2320.6	Product level	6.89			0		
					Water level	7.40			7.22		
39	1/3/2003	58.5	9.3	2379.1	Product level	5.09			0		
					Water level	5.58			5.56		
40	1/21/2003	60.7	9.7	2439.8	Product level	6.67			0		
					Water level	7.28			6.94		
41	2/14/2003	59.2	9.4	2499.0	Product level	5.78			0		
					Water level	6.47			6.19		
42	6/6/2003	86.9	13.8	2585.9	Product level	4.79			0		
					Water level	5.59			4.98		
43	7/8/2003	87.9	14.0	2673.8	Product level	5.97			0		
					Water level	6.58			6.24		
44	9/3/2003	86.5	13.8	2760.3	Product level	5.63			0		
					Water level	6.23			5.89		
45	10/3/2003	72.7	11.6	2833.0	Product level	5.77			0.00		
					Water level	6.46			6.07		
46	11/11/2003	66.9	10.7	2899.9	Product level	4.86			0		
					Water level	5.51			5.32		

NOTE: N = Not Encountered
 Product type: Gasoline

Aggressive Fluid Vapor Recovery (AFVR) Summary of Free Product Recovery Events **TABLE 3**

Facility: Building AS-840
 Location: MCB Camp Lejeune, North Carolina
 Date: 11/17/2004

Event #	Date	Rec Prod (lbs)	Rec Prod. (gals)	Total Cum (lbs) to date	Level (ft TOC)	AFVR WELLS		MONITORING WELLS	
						MW-2		MW-3	
47	1/21/2004	68.4	10.9	2968.3	Product level	6.19		0	
					Water level	7.09		6.41	
48	3/14/2004	76.0	12.1	3044.3	Product level	5.73		0	
					Water level	6.45		5.94	
49	4/7/2004	38.5	6.1	3082.8	Product level	6.34		0	
					Water level	6.93		6.40	
50	4/23/2004	39.8	6.3	3122.6	Product level	5.86		0	
					Water level	6.72		6.13	
51	6/18/2004	67.6	10.8	3190.2	Product level	7.02		0	
					Water level	7.98		7.65	
52	6/30/2004	70.8	11.3	3261.0	Product level	7.01		0	
					Water level	7.49		7.26	
53	7/9/2004	72.2	11.5	3333.2	Product level	7.31		0	
					Water level	8.05		7.59	
54	8/20/2004	71.4	11.4	3404.6	Product level	3.96		0	
					Water level	4.53		4.19	
55	9/16/2004	71.0	11.3	3475.6	Product level	4.54		0	
					Water level	5.26		4.76	
56	10/13/2004	71.5	11.4	3547.1	Product level	5.87		0	
					Water level	6.43		6.13	
57	10/29/2004	74.1	11.8	3621.2	Product level	6.65		0	
					Water level	7.16		6.92	
58	11/17/2004	74.0	11.8	3695.2	Product level	7.10		0	
					Water level	7.64		7.33	

NOTE: N = Not Encountered
 Product type: Gasoline

Receptor Survey Data

2.0 RECEPTOR INFORMATION

2.1 Water-Supply Wells

There are no water-supply wells within 1500 feet of the site.

2.2 Public Water Supplies

Public water is provided to buildings within 1500 feet of the Building AS-840 site by water mains which carry treated potable water.

The potable water supply used in the area is obtained from the MCAS water treatment plant. Groundwater obtained from the Castle Hayne Aquifer beneath the MCAS is the raw water source that is treated at the plant.

2.3 Surface Water

The closest surface water body to the source area is shown on the USGS topographic map as the New River. The New River is located approximately 1300 feet to the east (See Figures 1 and 2).

2.4 Wellhead Protection Areas

At this time, the state of North Carolina has not designated wellhead protection areas that include Camp Lejeune or the MCAS. Additionally, the source area is not located within an MCB-designated wellhead protection area, according to our review of the Marine Corps Base Geographic Information System and the Wellhead Protection Plan Update (Triangle Environmental, 1999).

2.5 Deep Aquifers in the Coastal Plain Physiographic Region

Aquifers below the surficial aquifer in the area of Building AS-840 include the Castle Hayne Aquifer, the Beaufort Aquifer and the Peedee Aquifer, in order of increasing depth. Both the Beaufort and Peedee aquifers contain saltwater in the Camp Lejeune area and are not used for water supply. The Castle Hayne Aquifer contains freshwater and is the principal aquifer used in the area for water supply. As previously discussed, the subject site is not located within an MCB-designated wellhead protection. Consequently, groundwater contamination at the site is not within the capture zone of major pumping influences on the MCAS. Based on distances from the source area to the MCAS boundary, municipal and private pumping influences in the Jacksonville area would be located miles from the source area.

The thickness of the surficial aquifer, is reported by Cardinell and others (1993), to range from 0 to 73 feet, with an average of approximately 25 feet over most of the MCAS. Based on our boring records, the surficial aquifer extends to the depth of approximately 30 feet bls at the site. LAW previously installed a Type III monitoring well to a depth of 50 feet bls, approximately 1900 feet northwest of the subject site, at Building AS-872. The well boring was advanced into the Castle Hayne confining unit, composed of calcareous, clayey silt containing limestone fragments, between the depths of 28 and 50 feet bls. The Type III well boring apparently did not penetrate the base of the confining unit. Based on this information, the top Castle Hayne Aquifer is a minimum of 50 feet bls at the site. According to Cardinell and others (1993), the surficial aquifer

supplies the primary recharge to the Castle Hayne Aquifer and the water levels in the surficial aquifer are typically 2 to 6 feet higher than those in the Castle Hayne Aquifer.

Cardinell and others (1993) estimate the vertical hydraulic conductivity of the Castle Hayne confining unit to range from 0.0014 to 0.41 feet per day.

2.6 Subsurface Structures

Underground utilities located in the vicinity of the subject AST are shown on Figure 3. We are not aware of other underground structures in the vicinity of Building AS-840.

2.7 Land Use

The immediate area around the subject site is developed with office and maintenance facilities and aircraft taxiways. The adjoining properties consist of offices, supply warehouses, communication facilities, officers club, flight lines and MCAS housing (See Figure 2).

2.8 Property Owners and Occupants

The U.S. Government owns the Building AS-840 property and adjacent properties within the MCAS (See Table 1).

3.0 REGIONAL AND SITE GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology and Hydrogeology

The MCAS lies within the Tidewater Region of the Coastal Plain Physiographic province (Stuckey, 1965). The North Carolina Coastal Plain is approximately 90 to 150 miles wide from the Atlantic Ocean westward to its boundary with the Piedmont Province. The Tidewater region consists of the eastern coastal area of the physiographic province, where large streams and many of their tributaries are affected by ocean tides (Winner and Coble, 1989).

In the Camp Lejeune area, sediments deposited in marine or near-marine environments are about 1,500 feet thick and overlie igneous and metamorphic basement rocks. The MCAS is situated on an eastward thickening wedge consisting of interfingering sands, silts, clays, calcareous clays, shell beds, sandstone and limestone which were deposited in marine or near shore environments (Cardinell and others, 1993).

Seven of the ten aquifers identified to date in the North Carolina Coastal Plain are present beneath the MCAS. In order of increasing depth, these aquifers include the surficial, Castle Hayne, Beaufort, Peedee, Black Creek, and upper and lower Cape Fear aquifers. They consist of predominantly permeable sand or limestone beds and are separated by less-permeable clay and silt beds (confining units) that serve to impede the flow of groundwater between the aquifers (Cardinell and others, 1993; Harned, 1989). The surficial and Castle Hayne aquifers thicken from the northern to the southern portion of the base.

The surficial aquifer is a series of sand, clay, sandy clay, and silt beds with occasional peat and shells. Beds of clay, sandy clay and silt which occur in the surficial aquifer are typically thin, discontinuous, and of

2.0 RECEPTOR INFORMATION

2.1 POTENTIAL RECEPTORS AT RISK

LAW conducted a receptor survey as part of the CSA and identified the following potential receptors within 1,500 feet of the project site:

- Underground utilities were found to exist within the area of concern. These utilities included underground electrical, water, and fuel distribution lines, as well as an unknown utility line.
- The closest surface water body to the source area as shown on Figure 1 is the New River, approximately 1,300 feet to the east of the project site.
- As stated in the CSA, the State of North Carolina had not designated wellhead protection areas that include the MCAS New River. However, the source area is not located within a designated wellhead protection area based on information presented within the Wellhead Protection Plan – 2002 Update by AH Environmental Consultants. The nearest water supply well appears to be PSWA-4150, located approximately 7,000 feet west of the Building AS-840 source area.

Based on information provided by the MCB Camp Lejeune, these potential receptors have not been reported to be impacted by the potentially contaminated soils and/or groundwater.

3.0 OBJECTIVES OF CORRECTIVE ACTION PLAN

3.1 GENERAL DESCRIPTION

The objectives of this CAP are to present a proposed remedial method to address the presence of free-phase product, soil contamination and dissolved-phase groundwater contamination at the Building AS-840 project site. Refer to Table 4 of this report for the site rehabilitation goals and a summary of current maximum contaminant concentrations (or most recent results).

3.1.1 Soil Contamination

One of the remedial objectives presented within this CAP is to describe proposed mechanisms by which contaminated soils above the applicable STGW MSCCs can be removed in order to satisfy the requirements of the NCAC Title 15A, Subchapter 2L, paragraph .0106.

APPENDIX B

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



Mr. Chris Murray
Sovereign Consulting
606 Thimble Shoals Rd.
Suite A1
Newport-News VA 23606
Report Number: G650-61
Client Project: CTO 0012

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 7/6/2006
J. Patrick Weaver Date

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW01

Analyzed By: CLP

Client Project ID: CTO 0012

Date Collected: 6/14/2006 16:40

Lab Sample ID: G650-61-1A

Date Received: 6/15/2006

Lab Project ID: G650-61

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/21/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/21/2006	
Ethylbenzene	BQL	1.00	0.172	1	6/21/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/21/2006	
Toluene	BQL	1.00	0.159	1	6/21/2006	
m/p-Xylene	BQL	2.00	0.326	1	6/21/2006	
o-Xylene	BQL	2.00	0.285	1	6/21/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.9	107

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.1

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW02R

Analyzed By: CLP

Client Project ID: CTO 0012

Date Collected: 6/14/2006 13:45

Lab Sample ID: G650-61-2A

Date Received: 6/15/2006

Lab Project ID: G650-61

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/22/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/22/2006	
Ethylbenzene	3.74	1.00	0.172	1	6/22/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/22/2006	
Toluene	BQL	1.00	0.159	1	6/22/2006	
m/p-Xylene	2.29	2.00	0.326	1	6/22/2006	
o-Xylene	BQL	2.00	0.285	1	6/22/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.2	108

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW03

Analyzed By: CLP

Client Project ID: CTO 0012

Date Collected: 6/14/2006 13:13

Lab Sample ID: G650-61-3A

Date Received: 6/15/2006

Lab Project ID: G650-61

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/22/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/22/2006	
Ethylbenzene	BQL	1.00	0.172	1	6/22/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/22/2006	
Toluene	BQL	1.00	0.159	1	6/22/2006	
m/p-Xylene	BQL	2.00	0.326	1	6/22/2006	
o-Xylene	BQL	2.00	0.285	1	6/22/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.6	107

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW04

Analyzed By: CLP

Client Project ID: CTO 0012

Date Collected: 6/14/2006 14:30

Lab Sample ID: G650-61-4A

Date Received: 6/15/2006

Lab Project ID: G650-61

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/22/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/22/2006	
Ethylbenzene	BQL	1.00	0.172	1	6/22/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/22/2006	
Toluene	BQL	1.00	0.159	1	6/22/2006	
m/p-Xylene	BQL	2.00	0.326	1	6/22/2006	
o-Xylene	BQL	2.00	0.285	1	6/22/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.7	107

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW05

Analyzed By: CLP

Client Project ID: CTO 0012

Date Collected: 6/14/2006 9:35

Lab Sample ID: G650-61-5A

Date Received: 6/15/2006

Lab Project ID: G650-61

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/22/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/22/2006	
Ethylbenzene	BQL	1.00	0.172	1	6/22/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/22/2006	
Toluene	BQL	1.00	0.159	1	6/22/2006	
m/p-Xylene	BQL	2.00	0.326	1	6/22/2006	
o-Xylene	BQL	2.00	0.285	1	6/22/2006	

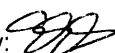
Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.8	107

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.1



Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW06

Analyzed By: CLP

Client Project ID: CTO 0012

Date Collected: 6/14/2006 10:20

Lab Sample ID: G650-61-6A

Date Received: 6/15/2006

Lab Project ID: G650-61

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/22/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/22/2006	
Ethylbenzene	BQL	1.00	0.172	1	6/22/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/22/2006	
Toluene	2.03	1.00	0.159	1	6/22/2006	
m/p-Xylene	2.15	2.00	0.326	1	6/22/2006	
o-Xylene	BQL	2.00	0.285	1	6/22/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.9	107

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

 Reviewed By: 
 GC_LIMS_v2.1

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-MW07

Analyzed By: CLP

Client Project ID: CTO 0012

Date Collected: 6/14/2006 11:20

Lab Sample ID: G650-61-7A

Date Received: 6/15/2006

Lab Project ID: G650-61

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/22/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/22/2006	
Ethylbenzene	1.95	1.00	0.172	1	6/22/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/22/2006	
Toluene	BQL	1.00	0.159	1	6/22/2006	
m/p-Xylene	BQL	2.00	0.326	1	6/22/2006	
o-Xylene	BQL	2.00	0.285	1	6/22/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.2	108

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW08

Analyzed By: CLP

Client Project ID: CTO 0012

Date Collected: 6/14/2006 10:47

Lab Sample ID: G650-61-8A

Date Received: 6/15/2006

Lab Project ID: G650-61

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/22/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/22/2006	
Ethylbenzene	BQL	1.00	0.172	1	6/22/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/22/2006	
Toluene	BQL	1.00	0.159	1	6/22/2006	
m/p-Xylene	BQL	2.00	0.326	1	6/22/2006	
o-Xylene	BQL	2.00	0.285	1	6/22/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.8	107

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_V2.1

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-Duplicate

Analyzed By: CLP

Client Project ID: CTO 0012

Date Collected: 6/14/2006 0:00

Lab Sample ID: G650-61-9A

Date Received: 6/15/2006

Lab Project ID: G650-61

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/22/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/22/2006	
Ethylbenzene	4.31	1.00	0.172	1	6/22/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/22/2006	
Toluene	BQL	1.00	0.159	1	6/22/2006	
m/p-Xylene	2.42	2.00	0.326	1	6/22/2006	
o-Xylene	3.91	2.00	0.285	1	6/22/2006	

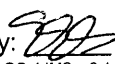
Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.3	108

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.1



Results for Volatiles

by GC 602

Client Sample ID: Trip Blank

Client Project ID: CTO 0012

Lab Sample ID: G650-61-10A

Lab Project ID: G650-61

Analyzed By: CLP

Date Collected: 6/14/2006 0:00

Date Received: 6/15/2006

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/21/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/21/2006	
Ethylbenzene	BQL	1.00	0.172	1	6/21/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/21/2006	
Toluene	BQL	1.00	0.159	1	6/21/2006	
m/p-Xylene	BQL	2.00	0.326	1	6/21/2006	
o-Xylene	BQL	2.00	0.285	1	6/21/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.0	108

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: Method Blank

Analyzed By: CLP

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3062106B

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	0.316	1	6/22/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	6/22/2006	
Ethylbenzene	BQL	1.00	0.299	1	6/22/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	6/22/2006	
Toluene	BQL	1.00	0.302	1	6/22/2006	
m/p-Xylene	BQL	2.00	0.608	1	6/22/2006	
o-Xylene	BQL	2.00	0.596	1	6/22/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.8	107

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 : 062106\023r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	10.7	106.7	77.0	123.0	107	39	150
Chlorobenzene	10.7	106.5	80.5	119.5	107	55	135
1,2-Dichlorobenzene	10.7	107.0	68.0	132.0	107	37	154
1,3-Dichlorobenzene	10.6	106.3	72.5	127.5	106	50	141
1,4-Dichlorobenzene	10.7	106.5	69.5	130.5	107	42	143
• Diisopropyl ether	10.5	105.4	43.1	156.9	105	30	170
Ethylbenzene	11.1	110.6	63.0	137.0	111	32	160
• MTBE	10.6	106.4	46.8	153.2	106	35	165
Toluene	10.6	105.9	77.5	127.0	106	46	148
• m,p-Xylene	21.8	108.8	11.2	188.8	109	D	239
• o-Xylene	10.8	107.6	47.6	152.4	108	36	164

Flags :

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

Reviewed by: 



Control Limits for MS-MSD

Method: 602 Spike[ppb]: 10

Instrument: gc3

Sample: 062106\031r0101.txt

MS: 062106\035r0101.txt

MSD: 062106\036r0101.txt

Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	ND	11.2	11.0	105	103	39	150
Chlorobenzene	ND	10.9	10.7	103	102	55	135
1,2-Dichlorobenzene	1.7	11.8	11.5	101	98	37	154
1,3-Dichlorobenzene	3.3	13.4	13.1	100	98	50	141
1,4-Dichlorobenzene	ND	10.5	10.3	97	95	42	143
• Diisopropyl ether	ND	10.6	10.4	106	104	30	170
Ethylbenzene	2.0	13.1	12.8	111	108	32	160
• MTBE	ND	10.9	10.6	103	101	35	165
Toluene	1.6	12.0	11.8	105	102	46	148
• m,p-Xylene	2.1	23.5	22.8	107	104	D	239
• o-Xylene	ND	12.0	12.1	113	113	36	164

Flags :

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

Reviewed by:



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

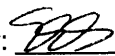
Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW01
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/22/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	86
Surrogate % Recovery - FID	100

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G650-61-1D

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

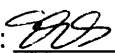
Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW02R
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/22/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	90
Surrogate % Recovery - FID	100

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G650-61-2E

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

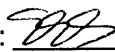
Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW03
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/22/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	85
Surrogate % Recovery - FID	99

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G650-61-3E

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

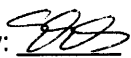
Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW04
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/22/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	87
Surrogate % Recovery - FID	100

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G650-61-4D

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

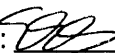
Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW05
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/22/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	86
Surrogate % Recovery - FID	99

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G650-61-5B

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

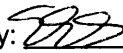
Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW06
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/22/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	85
Surrogate % Recovery - FID	97

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G650-61-6E

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW07
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/22/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	90
Surrogate % Recovery - FID	100

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G650-61-7E

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

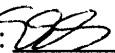
Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW08
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/22/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	85
Surrogate % Recovery - FID	98

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G650-61-8D

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-Duplicate
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/22/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	90
Surrogate % Recovery - FID	100

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G650-61-9B

Reviewed By: 



Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 05/04/06PID Initial Calibration Date: 05/04/06

Calibration Ranges and Limits

Range	MDL (07/15/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)	
C ₅ -C ₈ Aliphatics	4.4	14	100	10
C ₉ -C ₁₂ Aliphatics	3.4	11	100	10
C ₉ -C ₁₀ Aromatics	0.13	0.41	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	%RSD or CCC	Method of Quantitation
C ₅ -C ₈ Aliphatics	40	18.2	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C ₉ -C ₁₂ Aliphatics	10	0.99	Linear Regression
	250		
	500		
	750		
	1000		
C ₉ -C ₁₀ Aromatics	10	18.50	Calibration Factor
	250		
	500		
	750		
	1000		

Calibration Check Date: 06/21/06

Calibration Check

Range	Levels (µg/L) (mg/Kg)		RPD
C ₅ -C ₈ Aliphatics	2000	200	2.1
C ₉ -C ₁₂ Aliphatics	500	50	-8.8
C ₉ -C ₁₀ Aromatics	500	50	15.4

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW01
Sample Matrix	Water
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/20/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	72
Aromatic Surrogate % Recovery	73

Comments:

- * = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-61-1H

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

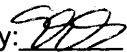
Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW02R
Sample Matrix	Water
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/20/06
Date Analyzed	06/26/06
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	130 (ug/L)
Aliphatic Surrogate % Recovery	72
Aromatic Surrogate % Recovery	71
Fractionation Surrogate 1 % Recovery	70

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-61-2H

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW03
Sample Matrix	Water
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/20/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	75
Aromatic Surrogate % Recovery	73

Comments:

- * = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-61-3H

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW04
Sample Matrix	Water
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/20/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	88
Aromatic Surrogate % Recovery	85

Comments:

- * = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-61-4I

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW05
Sample Matrix	Water
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/20/06
Date Analyzed	06/26/06
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	70
Aromatic Surrogate % Recovery	64
Fractionation Surrogate 1 % Recovery	78

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-61-5H

Reviewed By:



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW06
Sample Matrix	Water
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/20/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	86
Aromatic Surrogate % Recovery	83

Comments:

* = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-61-6H

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

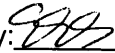
Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW07
Sample Matrix	Water
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/20/06
Date Analyzed	06/26/06
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	170 (ug/L)
Aliphatic Surrogate % Recovery	84
Aromatic Surrogate % Recovery	64
Fractionation Surrogate 1 % Recovery	58

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-61-7H

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW08
Sample Matrix	Water
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/20/06
Date Analyzed	06/22/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	89
Aromatic Surrogate % Recovery	86

Comments:

- * = Excludes any surrogates or internal standards.
 Sample did not require fractionation.

Lab info: G650-61-8H

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: CTO 0012

Sample Information and Analytical Results	
Sample Identification	ASTAS840-Duplicate
Sample Matrix	Water
Date Collected	06/14/06
Date Received	06/15/06
Date Extracted	06/20/06
Date Analyzed	06/27/06
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	120 (ug/L)
Aliphatic Surrogate % Recovery	47
Aromatic Surrogate % Recovery	68
Fractionation Surrogate 1 % Recovery	75

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-61-9H

Reviewed By:



Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 05/31/06

Calibration Ranges and Limits

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L)	RL (mg/Kg)
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100	10
C ₁₉ -C ₃₆ Aliphatics	0.57	1.8	100	10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	5.30	Calibration Factor
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	6.4	Calibration Factor
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	10.4	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 06/22/06

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	2.7
C ₁₉ -C ₃₆ Aliphatics	160	-6.4
C ₁₁ -C ₂₂ Aromatics	340	-18.2

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 05/31/06

Calibration Ranges and Limits

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L)	RL (mg/Kg)
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100	10
C ₁₉ -C ₃₆ Aliphatics	0.57	1.8	100	10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	5.30	Calibration Factor
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	6.4	Calibration Factor
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	10.4	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 06/26/06

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	6.3
C ₁₉ -C ₃₆ Aliphatics	160	3.6
C ₁₁ -C ₂₂ Aromatics	340	-1.7

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW01
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-11
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 16:40
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

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



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW01
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-11
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 16:40
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	6/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/26/2006	
Phenanthrene	BQL	10.0	1.38	1	6/26/2006	
Phenol	BQL	10.0	3.38	1	6/26/2006	
Pyrene	BQL	10.0	2.08	1	6/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	7.1	71		
2-Fluorophenol		10	6.6	66		
Nitrobenzene-d5		10	6.7	67		
Phenol-d6		10	6.3	63		
2,4,6-Tribromophenol		10	6.9	69		
4-Terphenyl-d14		10	6.6	66		

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: ASTAS840-GW01
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-11
 Lab Project ID: G650-61
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: MRC
 Date Collected: 6/14/2006 16:40
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Date Analyzed: 6/26/2006
 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: 



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW02R

Client Project ID: CTO 0012

Lab Sample ID: G650-61-2I

Lab Project ID: G650-61

Analyzed By: MRC

Date Collected: 6/14/2006 13:45

Date Received: 6/15/2006

Date Extracted: 6/21/2006

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	6/22/2006	
Acenaphthylene	BQL	10.0	1.12	1	6/22/2006	
Anthracene	BQL	10.0	1.75	1	6/22/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	6/22/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	6/22/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	6/22/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	6/22/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	6/22/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	6/22/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	6/22/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	6/22/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	6/22/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	6/22/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	6/22/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	6/22/2006	
2-Chlorophenol	BQL	10.0	4.22	1	6/22/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	6/22/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	6/22/2006	
Chrysene	BQL	10.0	1.11	1	6/22/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	6/22/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	6/22/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	6/22/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	6/22/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	6/22/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	6/22/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	6/22/2006	
Diethylphthalate	BQL	10.0	1.48	1	6/22/2006	
Dimethylphthalate	BQL	10.0	1.04	1	6/22/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	6/22/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	6/22/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	6/22/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	6/22/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	6/22/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	6/22/2006	
Diphenylamine *	BQL	10.0	1.53	1	6/22/2006	
Fluoranthene	BQL	10.0	1.41	1	6/22/2006	
Fluorene	BQL	10.0	1.22	1	6/22/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	6/22/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	6/22/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	6/22/2006	
Hexachloroethane	BQL	10.0	1.58	1	6/22/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	6/22/2006	
Isophorone	BQL	10.0	1.27	1	6/22/2006	
Naphthalene	BQL	10.0	1.08	1	6/22/2006	



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW02R
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-2I
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 13:45
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	6/22/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/22/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/22/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/22/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/22/2006	
Phenanthrene	BQL	10.0	1.38	1	6/22/2006	
Phenol	BQL	10.0	3.38	1	6/22/2006	
Pyrene	BQL	10.0	2.08	1	6/22/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/22/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/22/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	6	60		
2-Fluorophenol		10	5.2	51		
Nitrobenzene-d5		10	6	60		
Phenol-d6		10	5.4	54		
2,4,6-Tribromophenol		10	5	50		
4-Terphenyl-d14		10	5.7	57		

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: ASTAS840-GW02R
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-2I
 Lab Project ID: G650-61
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: MRC
 Date Collected: 6/14/2006 13:45
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Date Analyzed: 6/22/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	8.29			6.15
2	Dimethylnaphthalene, Isomer of	10.93			4.77
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: ASTAS840-GW03
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-3I
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 13:13
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	6/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	6/26/2006	
Anthracene	BQL	10.0	1.75	1	6/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	6/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	6/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	6/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	6/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	6/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	6/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	6/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	6/26/2006	
Bis(2-ethylhexyl)phthalate	1.50	10.0	1.33	1	6/26/2006	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	6/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	6/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	6/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	6/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	6/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	6/26/2006	
Chrysene	BQL	10.0	1.11	1	6/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	6/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	6/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	6/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	6/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	6/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	6/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	6/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	6/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	6/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	6/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	6/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	6/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	6/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	6/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	6/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	6/26/2006	
Fluoranthene	BQL	10.0	1.41	1	6/26/2006	
Fluorene	BQL	10.0	1.22	1	6/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	6/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	6/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	6/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	6/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	6/26/2006	
Isophorone	BQL	10.0	1.27	1	6/26/2006	
Naphthalene	BQL	10.0	1.08	1	6/26/2006	



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW03
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-3I
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 13:13
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	6/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/26/2006	
Phenanthrene	BQL	10.0	1.38	1	6/26/2006	
Phenol	BQL	10.0	3.38	1	6/26/2006	
Pyrene	BQL	10.0	2.08	1	6/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	6.4	64		
2-Fluorophenol		10	3	30 #		
Nitrobenzene-d5		10	5.5	55		
Phenol-d6		10	3.3	33 #		
2,4,6-Tribromophenol		10	6.2	62		
4-Terphenyl-d14		10	6.7	67		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.
 Sample was reanalyzed due to low surrogate recoveries.

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.
 # = Surrogate recovery outside In-House statistical limits.

Reviewed By: 



Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: ASTAS840-GW03

Client Project ID: CTO 0012

Lab Sample ID: G650-61-3I

Lab Project ID: G650-61

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: MRC

Date Collected: 6/14/2006 13:13

Date Received: 6/15/2006

Date Extracted: 6/21/2006

Date Analyzed: 6/26/2006

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: 



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW03
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-3J
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 13:13
 Date Received: 6/15/2006
 Date Extracted: 6/27/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	11.5	1.40	1	7/1/2006	
Acenaphthylene	BQL	11.5	1.29	1	7/1/2006	
Anthracene	BQL	11.5	2.01	1	7/1/2006	
Benzo[a]anthracene	BQL	11.5	1.56	1	7/1/2006	
Benzo[a]pyrene	BQL	11.5	1.46	1	7/1/2006	
Benzo[b]fluoranthene	BQL	11.5	1.64	1	7/1/2006	
Benzo[g,h,i]perylene	BQL	11.5	5.25	1	7/1/2006	
Benzo[k]fluoranthene	BQL	11.5	1.25	1	7/1/2006	
Bis(2-chloroethoxy)methane	BQL	11.5	1.28	1	7/1/2006	
Bis(2-chloroethyl)ether	BQL	11.5	1.25	1	7/1/2006	
Bis(2-chloroisopropyl)ether	BQL	11.5	1.80	1	7/1/2006	
Bis(2-ethylhexyl)phthalate	BQL	11.5	1.53	1	7/1/2006	
4-bromophenyl phenyl ether	BQL	11.5	2.29	1	7/1/2006	
Butylbenzylphthalate	BQL	11.5	1.76	1	7/1/2006	
2-Chloronaphthalene	BQL	11.5	1.44	1	7/1/2006	
2-Chlorophenol	BQL	11.5	4.85	1	7/1/2006	
4-Chloro-3-methylphenol	BQL	11.5	3.75	1	7/1/2006	
4-Chlorophenyl phenyl ether	BQL	11.5	1.63	1	7/1/2006	
Chrysene	BQL	11.5	1.28	1	7/1/2006	
Dibenzo[a,h]anthracene	BQL	11.5	5.60	1	7/1/2006	
Di-n-Butylphthalate	BQL	11.5	1.90	1	7/1/2006	
1,2-Dichlorobenzene	BQL	11.5	1.44	1	7/1/2006	
1,3-Dichlorobenzene	BQL	11.5	1.43	1	7/1/2006	
1,4-Dichlorobenzene	BQL	11.5	1.38	1	7/1/2006	
3,3'-Dichlorobenzidine	BQL	23.0	4.71	1	7/1/2006	
2,4-Dichlorophenol	BQL	11.5	4.31	1	7/1/2006	
Diethylphthalate	BQL	11.5	1.70	1	7/1/2006	
Dimethylphthalate	BQL	11.5	1.20	1	7/1/2006	
2,4-Dimethylphenol	BQL	11.5	10.6	1	7/1/2006	
Di-n-octylphthalate	BQL	11.5	1.33	1	7/1/2006	
4,6-Dinitro-2-methylphenol	BQL	57.5	4.26	1	7/1/2006	
2,4-Dinitrophenol	BQL	57.5	4.83	1	7/1/2006	
2,4-Dinitrotoluene	BQL	11.5	1.75	1	7/1/2006	
2,6-Dinitrotoluene	BQL	11.5	1.62	1	7/1/2006	
Diphenylamine *	BQL	11.5	1.76	1	7/1/2006	
Fluoranthene	BQL	11.5	1.62	1	7/1/2006	
Fluorene	BQL	11.5	1.40	1	7/1/2006	
Hexachlorobenzene	BQL	11.5	1.40	1	7/1/2006	
Hexachlorobutadiene	BQL	11.5	1.82	1	7/1/2006	
Hexachlorocyclopentadiene	BQL	23.0	23.0	1	7/1/2006	
Hexachloroethane	BQL	11.5	1.82	1	7/1/2006	
Indeno(1,2,3-c,d)pyrene	BQL	11.5	5.25	1	7/1/2006	
Isophorone	BQL	11.5	1.46	1	7/1/2006	
Naphthalene	BQL	11.5	1.24	1	7/1/2006	



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW03
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-3J
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 13:13
 Date Received: 6/15/2006
 Date Extracted: 6/27/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	11.5	1.52	1	7/1/2006	
2-Nitrophenol	BQL	11.5	4.05	1	7/1/2006	
4-Nitrophenol	BQL	57.5	3.64	1	7/1/2006	
N-Nitrosodi-n-propylamine	BQL	11.5	2.15	1	7/1/2006	
Pentachlorophenol	BQL	57.5	3.25	1	7/1/2006	
Phenanthrene	BQL	11.5	1.59	1	7/1/2006	
Phenol	BQL	11.5	3.89	1	7/1/2006	
Pyrene	BQL	11.5	2.39	1	7/1/2006	
1,2,4-Trichlorobenzene	BQL	11.5	1.53	1	7/1/2006	
2,4,6-Trichlorophenol	BQL	11.5	3.36	1	7/1/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.7	67
2-Fluorophenol	10	6.4	64
Nitrobenzene-d5	10	6.2	62
Phenol-d6	10	6.4	64
2,4,6-Tribromophenol	10	6.3	64
4-Terphenyl-d14	10	7.2	72

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.
 Sample was re-extracted and re-analyzed outside the method specified holding time limits.

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: ASTAS840-GW03
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-3J
 Lab Project ID: G650-61
 Sample Wt/Vol: 435 ML
 Dilution: 1

Analyzed By: MRC
 Date Collected: 6/14/2006 13:13
 Date Received: 6/15/2006
 Date Extracted: 6/27/2006
 Date Analyzed: 7/1/2006
 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: 



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW04
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-4J
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 14:30
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

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



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW04
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-4J
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 14:30
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

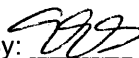
Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	6/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/26/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/26/2006	
Phenanthrene	BQL	10.0	1.38	1	6/26/2006	
Phenol	BQL	10.0	3.38	1	6/26/2006	
Pyrene	BQL	10.0	2.08	1	6/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	6.4	64		
2-Fluorophenol		10	5.6	56		
Nitrobenzene-d5		10	5.7	57		
Phenol-d6		10	5.6	56		
2,4,6-Tribromophenol		10	6.3	63		
4-Terphenyl-d14		10	6.8	68		

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: ASTAS840-GW04
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-4J
 Lab Project ID: G650-61
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: MRC
 Date Collected: 6/14/2006 14:30
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Date Analyzed: 6/26/2006
 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: 



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW05
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-5I
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 9:35
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	6/26/2006	
Acenaphthylene	BQL	10.0	1.12	1	6/26/2006	
Anthracene	BQL	10.0	1.75	1	6/26/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	6/26/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	6/26/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	6/26/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	6/26/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	6/26/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	6/26/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	6/26/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	6/26/2006	
Bis(2-ethylhexyl)phthalate	19.5	10.0	1.33	1	6/26/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	6/26/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	6/26/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	6/26/2006	
2-Chlorophenol	BQL	10.0	4.22	1	6/26/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	6/26/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	6/26/2006	
Chrysene	BQL	10.0	1.11	1	6/26/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	6/26/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	6/26/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	6/26/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	6/26/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	6/26/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	6/26/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	6/26/2006	
Diethylphthalate	BQL	10.0	1.48	1	6/26/2006	
Dimethylphthalate	BQL	10.0	1.04	1	6/26/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	6/26/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	6/26/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	6/26/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	6/26/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	6/26/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	6/26/2006	
Diphenylamine *	BQL	10.0	1.53	1	6/26/2006	
Fluoranthene	BQL	10.0	1.41	1	6/26/2006	
Fluorene	BQL	10.0	1.22	1	6/26/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	6/26/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	6/26/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	6/26/2006	
Hexachloroethane	BQL	10.0	1.58	1	6/26/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	6/26/2006	
Isophorone	BQL	10.0	1.27	1	6/26/2006	
Naphthalene	BQL	10.0	1.08	1	6/26/2006	
Nitrobenzene	BQL	10.0	1.32	1	6/26/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/26/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/26/2006	



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW05
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-5I
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 9:35
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

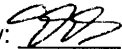
Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/26/2006	
Phenanthrene	BQL	10.0	1.38	1	6/26/2006	
Phenol	BQL	10.0	3.38	1	6/26/2006	
Pyrene	BQL	10.0	2.08	1	6/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	6.3	63		
2-Fluorophenol		10	5.7	57		
Nitrobenzene-d5		10	5.7	57		
Phenol-d6		10	5.6	56		
2,4,6-Tribromophenol		10	6.5	65		
4-Terphenyl-d14		10	5	50		

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: ASTAS840-GW05
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-5I
 Lab Project ID: G650-61
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: MRC
 Date Collected: 6/14/2006
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Date Analyzed: 6/26/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Diethyltoluamide	13.03	000134-62-3	91	20.3
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: 



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW06
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-6I
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 10:20
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

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



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW06
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-61
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 10:20
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

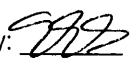
Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/26/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/26/2006	
Phenanthrene	BQL	10.0	1.38	1	6/26/2006	
Phenol	BQL	10.0	3.38	1	6/26/2006	
Pyrene	BQL	10.0	2.08	1	6/26/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/26/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/26/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	6.7	67		
2-Fluorophenol		10	6.2	62		
Nitrobenzene-d5		10	6.2	62		
Phenol-d6		10	6.1	61		
2,4,6-Tribromophenol		10	6.9	69		
4-Terphenyl-d14		10	7	70		

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: ASTAS840-GW06
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-6I
 Lab Project ID: G650-61
 Sample Wt/Vol: 500 ML
 Dilution: 1

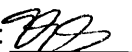
Analyzed By: MRC
 Date Collected: 6/14/2006
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Date Analyzed: 6/26/2006
 Matrix: Water

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: 



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-MW07
Client Project ID: CTO 0012
Lab Sample ID: G650-61-71
Lab Project ID: G650-61

Analyzed By: MRC
Date Collected: 6/14/2006 11:20
Date Received: 6/15/2006
Date Extracted: 6/21/2006
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	1.80	10.0	1.22	1	6/23/2006	J
Acenaphthylene	BQL	10.0	1.12	1	6/23/2006	
Anthracene	BQL	10.0	1.75	1	6/23/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	6/23/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	6/23/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	6/23/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	6/23/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	6/23/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	6/23/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	6/23/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	6/23/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	6/23/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	6/23/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	6/23/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	6/23/2006	
2-Chlorophenol	BQL	10.0	4.22	1	6/23/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	6/23/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	6/23/2006	
Chrysene	BQL	10.0	1.11	1	6/23/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	6/23/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	6/23/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	6/23/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	6/23/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	6/23/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	6/23/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	6/23/2006	
Diethylphthalate	BQL	10.0	1.48	1	6/23/2006	
Dimethylphthalate	BQL	10.0	1.04	1	6/23/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	6/23/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	6/23/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	6/23/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	6/23/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	6/23/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	6/23/2006	
Diphenylamine *	BQL	10.0	1.53	1	6/23/2006	
Fluoranthene	BQL	10.0	1.41	1	6/23/2006	
Fluorene	1.80	10.0	1.22	1	6/23/2006	J
Hexachlorobenzene	BQL	10.0	1.22	1	6/23/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	6/23/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	6/23/2006	
Hexachloroethane	BQL	10.0	1.58	1	6/23/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	6/23/2006	
Isophorone	BQL	10.0	1.27	1	6/23/2006	
Naphthalene	6.10	10.0	1.08	1	6/23/2006	J
Nitrobenzene	BQL	10.0	1.32	1	6/23/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/23/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/23/2006	



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-MW07
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-71
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 11:20
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/23/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/23/2006	
Phenanthrene	BQL	10.0	1.38	1	6/23/2006	
Phenol	BQL	10.0	3.38	1	6/23/2006	
Pyrene	BQL	10.0	2.08	1	6/23/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/23/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/23/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	6.5	65		
2-Fluorophenol		10	5.7	57		
Nitrobenzene-d5		10	6.6	66		
Phenol-d6		10	5.9	59		
2,4,6-Tribromophenol		10	3.3	33		
4-Terphenyl-d14		10	6.4	64		

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: ASTAS840-MW07
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-7I
 Lab Project ID: G650-61
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: MRC
 Date Collected: 6/14/2006 11:20
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Date Analyzed: 6/23/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	1-Methylnaphthalene	9.96	000090-12-0	100	15.2
2	Dimethylnaphthalene, Isomer of	10.93			12.8
3	2-Methylnaphthalene	9.81	000091-57-6	100	12.7
4	Aromatic, Unknown	8.29			7.12
5	Tetrahydronaphthalene, Isomer of	8.44			4.28
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: ASTAS840-GW08
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-81
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 10:47
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

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



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW08
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-8I
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 10:47
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

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

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.9	69
2-Fluorophenol	10	6.3	63
Nitrobenzene-d5	10	6.4	64
Phenol-d6	10	6.1	61
2,4,6-Tribromophenol	10	6.4	64
4-Terphenyl-d14	10	6.4	64

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: ASTAS840-GW08
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-8I
 Lab Project ID: G650-61
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: MRC
 Date Collected: 6/14/2006 10:47
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Date Analyzed: 6/26/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.57			5.34
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: ASTAS840-Duplicate
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-9K
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 0:00
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	6/23/2006	
Acenaphthylene	BQL	10.0	1.12	1	6/23/2006	
Anthracene	BQL	10.0	1.75	1	6/23/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	6/23/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	6/23/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	6/23/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	6/23/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	6/23/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	6/23/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	6/23/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	6/23/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	6/23/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	6/23/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	6/23/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	6/23/2006	
2-Chlorophenol	BQL	10.0	4.22	1	6/23/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	6/23/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	6/23/2006	
Chrysene	BQL	10.0	1.11	1	6/23/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	6/23/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	6/23/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	6/23/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	6/23/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	6/23/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	6/23/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	6/23/2006	
Diethylphthalate	BQL	10.0	1.48	1	6/23/2006	
Dimethylphthalate	BQL	10.0	1.04	1	6/23/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	6/23/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	6/23/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	6/23/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	6/23/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	6/23/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	6/23/2006	
Diphenylamine *	BQL	10.0	1.53	1	6/23/2006	
Fluoranthene	BQL	10.0	1.41	1	6/23/2006	
Fluorene	BQL	10.0	1.22	1	6/23/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	6/23/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	6/23/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	6/23/2006	
Hexachloroethane	BQL	10.0	1.58	1	6/23/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	6/23/2006	
Isophorone	BQL	10.0	1.27	1	6/23/2006	
Naphthalene	BQL	10.0	1.08	1	6/23/2006	



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-Duplicate
 Client Project ID: CTO 0012
 Lab Sample ID: G650-61-9K
 Lab Project ID: G650-61

Analyzed By: MRC
 Date Collected: 6/14/2006 0:00
 Date Received: 6/15/2006
 Date Extracted: 6/21/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	6/23/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/23/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/23/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/23/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/23/2006	
Phenanthrene	BQL	10.0	1.38	1	6/23/2006	
Phenol	BQL	10.0	3.38	1	6/23/2006	
Pyrene	BQL	10.0	2.08	1	6/23/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/23/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/23/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.7	67
2-Fluorophenol	10	5.6	56
Nitrobenzene-d5	10	6.3	63
Phenol-d6	10	5.6	56
2,4,6-Tribromophenol	10	4.1	41
4-Terphenyl-d14	10	5.6	56

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: ASTAS840-Duplicate
Client Project ID: CTO 0012
Lab Sample ID: G650-61-9K
Lab Project ID: G650-61
Sample Wt/Vol: 500 ML
Dilution: 1

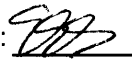
Analyzed By: MRC
Date Collected: 6/14/2006 0:00
Date Received: 6/15/2006
Date Extracted: 6/21/2006
Date Analyzed: 6/23/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	8.29			5.66
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: Method Blank
 Client Project ID:
 Lab Sample ID: PB5463
 Lab Project ID:

Analyzed By: MRC
 Date Collected:
 Date Received:
 Date Extracted: 6/21/2006
 Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	6/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	6/25/2006	
Anthracene	BQL	10.0	1.75	1	6/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	6/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	6/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	6/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	6/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	6/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	6/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	6/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	6/25/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	6/25/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	6/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	6/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	6/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	6/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	6/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	6/25/2006	
Chrysene	BQL	10.0	1.11	1	6/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	6/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	6/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	6/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	6/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	6/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	6/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	6/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	6/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	6/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	6/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	6/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	6/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	6/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	6/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	6/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	6/25/2006	
Fluoranthene	BQL	10.0	1.41	1	6/25/2006	
Fluorene	BQL	10.0	1.22	1	6/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	6/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	6/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	6/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	6/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	6/25/2006	
Isophorone	BQL	10.0	1.27	1	6/25/2006	
Naphthalene	BQL	10.0	1.08	1	6/25/2006	



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID: PB5463
 Lab Project ID:

Analyzed By: MRC
 Date Collected:
 Date Received:
 Date Extracted: 6/21/2006
 Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	6/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/25/2006	
Phenanthrene	BQL	10.0	1.38	1	6/25/2006	
Phenol	BQL	10.0	3.38	1	6/25/2006	
Pyrene	BQL	10.0	2.08	1	6/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/25/2006	

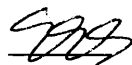
	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.8	68
2-Fluorophenol	10	6.2	62
Nitrobenzene-d5	10	6.3	64
Phenol-d6	10	5.9	59
2,4,6-Tribromophenol	10	6.3	63
4-Terphenyl-d14	10	6.8	68

Comments:

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

Flags:

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

Reviewed By: 



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-5463-MS/MSD/LCS

Date Extracted: 06/21/06

Lab Project ID:

Date Analyzed: 06/26/06

Matrix: WATER

Analyzed By: MRC

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	222	197	88.7	222	191	86.0	3.09	30	62.0-119
4-Chloro-3-methylphenol	BQL	222	171	77.1	222	161	72.4	6.29	30	67.0-109
2-Chlorophenol	BQL	222	168	75.4	222	159	71.4	5.45	30	59.0-95.0
1,4-Dichlorobenzene	BQL	222	112	50.3	222	112	50.5	0.397	30	29.0-86.0
2,4-Dinitrotoluene	BQL	222	186	83.5	222	182	82.1	1.69	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	222	168	75.4	222	164	74.0	1.87	30	67.0-107
4-Nitrophenol	BQL	222	188	84.5	222	175	78.9	6.85	30	49.0-146
Pentachlorophenol	BQL	222	150	67.4	222	137	61.7	8.83	30	43.0-106
Phenol	BQL	222	166	74.8	222	158	71.1	5.07	30	61.0-100
Pyrene	BQL	222	199	89.5	222	200	90.1	0.668	30	41.0-123
1,2,4-Trichlorobenzene	BQL	222	154	69.3	222	151	68.1	1.75	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	100	71.7	73.7	72.9-127
4-Chloro-3-methylphenol	100	62.4	62.4	61.6-113
2-Chlorophenol	100	62.4	62.4	52.3-104
1,4-Dichlorobenzene	100	40.7	40.7	27.3-85.0
2,4-Dinitrotoluene	100	69.6	69.6	66.5-117
N-Nitrosodi-n-propylamine	100	64.1	64.1	54.4-119
4-Nitrophenol	100	59.3	59.3	32.4-150
Pentachlorophenol	100	50.1	50.1	23.9-115
Phenol	100	62.0	62.0	54.5-106
Pyrene	100	70.7	70.7	63.5-126
1,2,4-Trichlorobenzene	100	54.3	54.3	49.1-98.5

Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By:



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID: PB5552
 Lab Project ID:
 Report Basis: Dry Weight

Analyzed By: MRC
 Date Collected:
 Date Received:
 Date Extracted: 6/29/2006
 Matrix: SOIL
 % Solids: 100

Compound	Result ug/Kg	RL ug/Kg	MDL ug/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	313	44.7	1	7/1/2006	
Acenaphthylene	BQL	313	41.6	1	7/1/2006	
Anthracene	BQL	313	45.3	1	7/1/2006	
Benzo[a]anthracene	BQL	313	54.1	1	7/1/2006	
Benzo[a]pyrene	BQL	313	47.8	1	7/1/2006	
Benzo[b]fluoranthene	BQL	313	54.7	1	7/1/2006	
Benzo[g,h,i]perylene	BQL	313	85.0	1	7/1/2006	
Benzo[k]fluoranthene	BQL	313	60.3	1	7/1/2006	
Bis(2-chloroethoxy)methane	BQL	313	46.6	1	7/1/2006	
Bis(2-chloroethyl)ether	BQL	313	37.8	1	7/1/2006	
Bis(2-chloroisopropyl)ether	BQL	313	39.1	1	7/1/2006	
Bis(2-ethylhexyl)phthalate	BQL	313	41.9	1	7/1/2006	
4-bromophenyl phenyl ether	BQL	313	52.8	1	7/1/2006	
Butylbenzylphthalate	BQL	313	48.1	1	7/1/2006	
2-Chloronaphthalene	BQL	313	49.1	1	7/1/2006	
2-Chlorophenol	BQL	313	97.8	1	7/1/2006	
4-Chloro-3-methylphenol	BQL	313	97.5	1	7/1/2006	
4-Chlorophenyl phenyl ether	BQL	313	45.9	1	7/1/2006	
Chrysene	BQL	313	33.8	1	7/1/2006	
Dibenzo[a,h]anthracene	BQL	313	87.5	1	7/1/2006	
Di-n-Butylphthalate	BQL	313	37.2	1	7/1/2006	
1,2-Dichlorobenzene	BQL	313	34.7	1	7/1/2006	
1,3-Dichlorobenzene	BQL	313	34.1	1	7/1/2006	
1,4-Dichlorobenzene	BQL	313	35.3	1	7/1/2006	
3,3'-Dichlorobenzidine	BQL	625	78.8	1	7/1/2006	
2,4-Dichlorophenol	BQL	313	113	1	7/1/2006	
Diethylphthalate	BQL	313	40.3	1	7/1/2006	
Dimethylphthalate	BQL	313	37.8	1	7/1/2006	
2,4-Dimethylphenol	BQL	313	223	1	7/1/2006	
Di-n-octylphthalate	BQL	313	51.6	1	7/1/2006	
4,6-Dinitro-2-methylphenol	BQL	1560	184	1	7/1/2006	
2,4-Dinitrophenol	BQL	1560	688	1	7/1/2006	
2,4-Dinitrotoluene	BQL	313	40.6	1	7/1/2006	
2,6-Dinitrotoluene	BQL	313	56.9	1	7/1/2006	
Diphenylamine *	BQL	313	30.6	1	7/1/2006	
Fluoranthene	BQL	313	43.7	1	7/1/2006	
Fluorene	BQL	313	38.8	1	7/1/2006	
Hexachlorobenzene	BQL	313	48.1	1	7/1/2006	
Hexachlorobutadiene	BQL	313	50.0	1	7/1/2006	
Hexachlorocyclopentadiene	BQL	625	32.2	1	7/1/2006	
Hexachloroethane	BQL	313	28.1	1	7/1/2006	
Indeno(1,2,3-c,d)pyrene	BQL	313	80.0	1	7/1/2006	
Isophorone	BQL	313	45.9	1	7/1/2006	
Naphthalene	BQL	313	25.3	1	7/1/2006	



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID: PB5552
 Lab Project ID:
 Report Basis: Dry Weight

Analyzed By: MRC
 Date Collected:
 Date Received:
 Date Extracted: 6/29/2006
 Matrix: SOIL
 % Solids: 100

Compound	Result ug/Kg	RL ug/Kg	MDL ug/Kg	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	313	42.2	1	7/1/2006	
2-Nitrophenol	BQL	313	96.9	1	7/1/2006	
4-Nitrophenol	BQL	1560	86.6	1	7/1/2006	
N-Nitrosodi-n-propylamine	BQL	313	39.7	1	7/1/2006	
Pentachlorophenol	BQL	1560	81.6	1	7/1/2006	
Phenanthrene	BQL	313	35.6	1	7/1/2006	
Phenol	BQL	313	85.6	1	7/1/2006	
Pyrene	BQL	313	60.0	1	7/1/2006	
1,2,4-Trichlorobenzene	BQL	313	39.1	1	7/1/2006	
2,4,6-Trichlorophenol	BQL	313	111	1	7/1/2006	

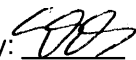
	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.4	84
2-Fluorophenol	10	7.9	79
Nitrobenzene-d5	10	7.4	74
Phenol-d6	10	7.8	78
2,4,6-Tribromophenol	10	7.3	73
4-Terphenyl-d14	10	7.9	79

Comments:

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

Flags:

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

Reviewed By: 



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-5552-MS/MSD/LCS

Date Extracted: 06/29/06

Lab Project ID:

Date Analyzed: 07/03/06

Matrix: SOIL

Analyzed By: MRC

Prep Method: 3540

Dilution: 1

	Sample Amount (µg/kg)	MS Spike (µg/kg)	MS Conc. (µg/kg)	MS Spike % Rec.	MSD Spike (µg/kg)	MSD Conc. (µg/kg)	MSD Conc. % Rec.	RPD	QC Limits	
									RPD	% Rec.
Acenaphthylene	BQL	3210	3260	102	3210	3020	94.0	7.97	30	73.0-140
4-Chloro-3-methylphenol	BQL	3210	2760	86.2	3210	2580	80.2	7.21	30	80.0-115
2-Chlorophenol	BQL	3210	2630	82.0	3210	2490	77.6	5.51	30	77.1-111
1,4-Dichlorobenzene	BQL	3210	2830	88.2	3210	2740	85.2	3.46	30	70.6-117
2,4-Dinitrotoluene	BQL	3210	3040	94.9	3210	2760	85.9	9.96	30	67.6-136
N-Nitrosodi-n-propylamine	BQL	3210	2950	92.0	3210	2910	90.5	1.64	30	74.3-133
4-Nitrophenol	BQL	3210	2970	92.7	3210	2480	77.1	18.4	30	56.8-133
Pentachlorophenol	BQL	3210	2300	71.7	3210	2130	66.4	7.68	30	29.2-108
Phenol	BQL	3210	2890	90.2	3210	2710	84.3	6.76	30	71.2-120
Pyrene	BQL	3210	3000	93.6	3210	2850	88.9	5.15	30	68.5-140
1,2,4-Trichlorobenzene	BQL	3210	2940	91.6	3210	2740	85.4	7.01	30	68.9-119

	Spiked Amount (µg/kg)	LCS Conc. (µg/kg)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	3125	3370	108	80.9-143
4-Chloro-3-methylphenol	3125	2900	92.8	83.9-124
2-Chlorophenol	3125	2680	85.7	80.3-119
1,4-Dichlorobenzene	3125	2950	94.5	76.3-118
2,4-Dinitrotoluene	3125	3010	96.3	80.6-126
N-Nitrosodi-n-propylamine	3125	2850	91.2	80.3-131
4-Nitrophenol	3125	2910	93.2	60.0-145
Pentachlorophenol	3125	2080	66.5	36.4-114
Phenol	3125	2890	92.6	74.3-117
Pyrene	3125	3110	99.5	74.7-141
1,2,4-Trichlorobenzene	3125	2880	92.0	74.1-120

Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

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.



Locations Nationwide

- Alaska
- Louisiana
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

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054749

[illegible]



Mr. Chris Murray
Sovereign Consulting
405 Oakmeads Crescent
Suite 1
Virginia Beach VA 23462
Report Number: G650-92
Client Project: NV016

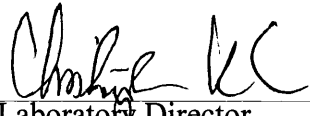
Dear Mr. Murray:

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

11/22/06
Date



Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW01

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 11/6/2006 14:30

Lab Sample ID: G650-92-1A

Date Received: 11/8/2006

Lab Project ID: G650-92

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/15/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/15/2006
Ethylbenzene	BQL	1.00	0.181	1	11/15/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/15/2006
Toluene	BQL	1.00	0.157	1	11/15/2006
m/p-Xylene	BQL	2.00	0.481	1	11/15/2006
o-Xylene	BQL	2.00	0.584	1	11/15/2006

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.7	104

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

 Reviewed By:
 Copy of GC-VOA_WA



Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW03

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 11/7/2006 10:58

Lab Sample ID: G650-92-2A

Date Received: 11/8/2006

Lab Project ID: G650-92

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/20/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/20/2006
Ethylbenzene	BQL	1.00	0.181	1	11/20/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/20/2006
Toluene	BQL	1.00	0.157	1	11/20/2006
m/p-Xylene	BQL	2.00	0.481	1	11/20/2006
o-Xylene	BQL	2.00	0.584	1	11/20/2006

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: ASTAS840-GW04

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 11/6/2006 13:23

Lab Sample ID: G650-92-3A

Date Received: 11/8/2006

Lab Project ID: G650-92

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/15/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/15/2006
Ethylbenzene	BQL	1.00	0.181	1	11/15/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/15/2006
Toluene	BQL	1.00	0.157	1	11/15/2006
m/p-Xylene	BQL	2.00	0.481	1	11/15/2006
o-Xylene	BQL	2.00	0.584	1	11/15/2006

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.6	104

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW05

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 11/6/2006 12:28

Lab Sample ID: G650-92-4A

Date Received: 11/8/2006

Lab Project ID: G650-92

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/17/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/17/2006
Ethylbenzene	BQL	1.00	0.181	1	11/17/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/17/2006
Toluene	0.256	1.00	0.157	1	11/17/2006
m/p-Xylene	BQL	2.00	0.481	1	11/17/2006
o-Xylene	BQL	2.00	0.584	1	11/17/2006

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	39.0	97.6

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW06

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 11/7/2006 10:05

Lab Sample ID: G650-92-5A

Date Received: 11/8/2006

Lab Project ID: G650-92

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/20/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/20/2006
Ethylbenzene	BQL	1.00	0.181	1	11/20/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/20/2006
Toluene	BQL	1.00	0.157	1	11/20/2006
m/p-Xylene	BQL	2.00	0.481	1	11/20/2006
o-Xylene	BQL	2.00	0.584	1	11/20/2006

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: ASTAS840-MW07

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 11/6/2006 16:26

Lab Sample ID: G650-92-6A

Date Received: 11/8/2006

Lab Project ID: G650-92

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/17/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/17/2006
Ethylbenzene	0.581	1.00	0.181	1	11/17/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/17/2006
Toluene	BQL	1.00	0.157	1	11/17/2006
m/p-Xylene	BQL	2.00	0.481	1	11/17/2006
o-Xylene	BQL	2.00	0.584	1	11/17/2006

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.3	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

 Reviewed By:
 Copy of GC-VOA_WA



Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW08

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 11/6/2006 15:40

Lab Sample ID: G650-92-7A

Date Received: 11/8/2006

Lab Project ID: G650-92

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/17/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/17/2006
Ethylbenzene	BQL	1.00	0.181	1	11/17/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/17/2006
Toluene	0.308	1.00	0.157	1	11/17/2006
m/p-Xylene	BQL	2.00	0.481	1	11/17/2006
o-Xylene	3.99	2.00	0.584	1	11/17/2006

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: ASTAS840-MW09

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 11/7/2006 11:40

Lab Sample ID: G650-92-8A

Date Received: 11/8/2006

Lab Project ID: G650-92

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	0.909	1.00	0.183	1	11/20/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/20/2006
Ethylbenzene	1.13	1.00	0.181	1	11/20/2006
Methyl-tert butyl ether (MTBE)	0.828	2.00	0.359	1	11/20/2006
Toluene	BQL	1.00	0.157	1	11/20/2006
m/p-Xylene	BQL	2.00	0.481	1	11/20/2006
o-Xylene	BQL	2.00	0.584	1	11/20/2006

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	39.9	99.9

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-Duplicate

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 11/7/2006 0:00

Lab Sample ID: G650-92-9A

Date Received: 11/8/2006

Lab Project ID: G650-92

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	0.885	1.00	0.183	1	11/20/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/20/2006
Ethylbenzene	0.990	1.00	0.181	1	11/20/2006
Methyl-tert butyl ether (MTBE)	0.823	2.00	0.359	1	11/20/2006
Toluene	BQL	1.00	0.157	1	11/20/2006
m/p-Xylene	BQL	2.00	0.481	1	11/20/2006
o-Xylene	BQL	2.00	0.584	1	11/20/2006

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: G650-92-10A

Lab Project ID: G650-92

Analyzed By: RSB

Date Collected: 11/7/2006 0:00

Date Received: 11/8/2006

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/20/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/20/2006
Ethylbenzene	BQL	1.00	0.181	1	11/20/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/20/2006
Toluene	BQL	1.00	0.157	1	11/20/2006
m/p-Xylene	BQL	2.00	0.481	1	11/20/2006
o-Xylene	BQL	2.00	0.584	1	11/20/2006

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.2	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

 Reviewed By:
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Results for Volatiles

by GC 602

Client Sample ID: Method Blank

Analyzed By: RSB

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3111406A

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/14/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/14/2006
Ethylbenzene	BQL	1.00	0.181	1	11/14/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/14/2006
Toluene	BQL	1.00	0.157	1	11/14/2006
m/p-Xylene	BQL	2.00	0.481	1	11/14/2006
o-Xylene	BQL	2.00	0.584	1	11/14/2006

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.3	108

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

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Control Limits for QC Check / Laboratory Control Spike

Method : 601 Spike[ppb] : 10
 Instrument : gc3
 Filename : 111406\004f0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Bromodichloromethane	11.6	116.3	76.0	124.0	116	42	172
Bromoform	13.4	133.7 +	73.5	126.5	134	13	159
Bromomethane	12.0	120.1	58.5	141.5	120	D	144
Carbon tetrachloride	11.3	112.9	68.5	131.5	113	43	143
Chlorobenzene	10.9	109.3	72.0	128.0	109	38	150
Chloroethane	11.1	111.0	77.0	123.0	111	46	137
Chloroform	11.2	112.2	75.0	125.0	112	49	133
Chloromethane	9.4	93.8	59.5	140.5	94	D	193
Dibromochloromethane	12.0	119.7	65.5	134.5	120	24	191
1,2-Dibromoethane	11.6	115.9	13.6	186.4	116	D	206
1,2-Dichlorobenzene	11.1	111.0	70.0	130.0	111	D	208
1,3-Dichlorobenzene	11.0	110.3	49.5	150.5	110	7	187
1,4-Dichlorobenzene	11.3	112.9	69.5	130.5	113	42	143
1,1-Dichloroethane	11.0	110.0	84.0	116.0	110	47	132
1,2-Dichloroethane	11.2	112.0	71.5	128.5	112	51	147
1,1-Dichloroethene	11.5	114.9	63.0	137.0	115	28	167
cis-1,2-Dichloroethene	11.7	116.6	34.4	180.6	117	19	181
trans-1,2-Dichloroethene	11.3	112.6	64.0	136.0	113	38	155
1,2-Dichloropropane	11.3	112.8	74.0	126.0	113	44	156
cis-1,3-Dichloropropene	9.5	95.2	64.0	136.0	95	22	178
trans-1,3-Dichloropropene	11.5	115.1	64.0	136.0	115	22	178
Methylene Chloride	11.2	112.0	77.5	122.5	112	25	162
1,1,2,2-Tetrachloroethane	6.7	67.3	49.0	151.0	67	8	184
Tetrachloroethane	11.2	112.3	70.0	130.0	112	26	162
1,1,1-Trichloroethane	11.2	111.9	71.0	129.0	112	41	138
1,1,2-Trichloroethane	11.2	112.2	78.5	121.5	112	39	136
Trichloroethene	10.9	109.3	77.0	123.0	109	35	146
Trichlorofluoromethane	10.7	107.5	66.5	133.5	107	21	156
Vinyl Chloride	10.4	104.0	68.5	131.5	104	28	163

Method: 602 Spike[ppb] : 10
 Instrument : gc3
 Filename : 111406\004r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	11.5	115.3	77.0	123.0	115	39	150
Chlorobenzene	11.4	113.9	80.5	119.5	114	55	135
1,2-Dichlorobenzene	11.5	115.0	68.0	132.0	115	37	154
1,3-Dichlorobenzene	11.3	113.3	72.5	127.5	113	50	141
1,4-Dichlorobenzene	11.5	114.6	69.5	130.5	115	42	143
Diisopropyl ether	11.2	112.2	43.1	156.9	112	30	170
Ethylbenzene	11.5	115.3	63.0	137.0	115	32	160
MTBE	11.5	114.8	46.8	153.2	115	35	165
Toluene	11.5	115.1	77.5	127.0	115	46	148
m,p-Xylene	23.1	115.7	11.2	188.8	116	D	239
o-Xylene	11.8	118.0	47.6	152.4	118	36	164

Flags :

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

Reviewed by:



Control Limits for QC Check / Laboratory Control Spike

Method : 601 Spike[ppb] : 10
 Instrument : gc3
 Filename : 111406\005f0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Bromodichloromethane	11.8	118.4	76.0	124.0	118	42	172
Bromoform	13.5	135.1 +	73.5	126.5	135	13	159
Bromomethane	11.8	118.2	58.5	141.5	118	D	144
Carbon tetrachloride	11.5	115.4	68.5	131.5	115	43	143
Chlorobenzene	11.1	111.2	72.0	128.0	111	38	150
Chloroethane	11.3	113.2	77.0	123.0	113	46	137
Chloroform	11.6	116.3	75.0	125.0	116	49	133
Chloromethane	9.4	94.0	59.5	140.5	94	D	193
Dibromochloromethane	12.1	121.0	65.5	134.5	121	24	191
• 1,2-Dibromoethane	11.8	118.2	13.6	186.4	118	D	206
1,2-Dichlorobenzene	11.3	112.6	70.0	130.0	113	D	208
1,3-Dichlorobenzene	11.2	112.0	49.5	150.5	112	7	187
1,4-Dichlorobenzene	11.4	114.5	69.5	130.5	114	42	143
1,1-Dichloroethane	11.3	113.2	84.0	116.0	113	47	132
1,2-Dichloroethane	11.4	114.3	71.5	128.5	114	51	147
1,1-Dichloroethene	11.7	117.2	63.0	137.0	117	28	167
• cis-1,2-Dichloroethene	11.9	119.1	34.4	180.6	119	19	181
trans-1,2-Dichloroethene	11.6	115.7	64.0	136.0	116	38	155
1,2-Dichloropropane	11.4	114.2	74.0	126.0	114	44	156
cis-1,3-Dichloropropene	9.6	95.9	64.0	136.0	96	22	178
trans-1,3-Dichloropropene	11.7	117.1	64.0	136.0	117	22	178
Methylene Chloride	11.5	114.7	77.5	122.5	115	25	162
1,1,2,2-Tetrachloroethane	6.7	67.1	49.0	151.0	67	8	184
Tetrachloroethane	11.3	113.3	70.0	130.0	113	26	162
1,1,1-Trichloroethane	11.4	113.9	71.0	129.0	114	41	138
1,1,2-Trichloroethane	11.6	115.9	78.5	121.5	116	39	136
Trichloroethene	11.1	111.3	77.0	123.0	111	35	146
Trichlorofluoromethane	10.8	108.3	66.5	133.5	108	21	156
Vinyl Chloride	10.6	106.0	68.5	131.5	106	28	163

Method: 602 Spike[ppb]: 10
 Instrument : gc3
 Filename : 111406\005r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	11.6	116.3	77.0	123.0	116	39	150
Chlorobenzene	11.4	114.3	80.5	119.5	114	55	135
1,2-Dichlorobenzene	11.4	114.1	68.0	132.0	114	37	154
1,3-Dichlorobenzene	11.3	112.9	72.5	127.5	113	50	141
1,4-Dichlorobenzene	11.3	113.3	69.5	130.5	113	42	143
• Diisopropyl ether	11.4	113.6	43.1	156.9	114	30	170
Ethylbenzene	11.6	115.6	63.0	137.0	116	32	160
• MTBE	11.6	116.2	46.8	153.2	116	35	165
Toluene	11.6	115.7	77.5	127.0	116	46	148
• m,p-Xylene	23.2	116.0	11.2	188.8	116	D	239
• o-Xylene	11.8	118.0	47.6	152.4	118	36	164

Flags :

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

Reviewed by:



Control Limits for MS-MSD

Method : 601 Spike[ppb] : 10
 Instrument : gc3
 Sample : 111406\017f0101.txt
 MS : 111406\019f0101.txt
 MSD : 111406\020f0101.txt

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Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Bromodichloromethane	ND	11.0	11.8	110	118	42	172
Bromoform	ND	10.1	10.7	99	105	13	159
Bromomethane	ND	11.1	12.3	111	123	D	144
Carbon tetrachloride	ND	10.8	11.7	108	117	43	143
Chlorobenzene	ND	10.5	11.3	105	113	38	150
Chloroethane	ND	11.1	12.7	111	127	46	137
Chloroform	ND	10.9	11.7	109	117	49	133
Chloromethane	ND	9.5	10.5	95	105	D	193
Dibromochloromethane	ND	10.5	11.1	105	111	24	191
1,2-Dibromoethane	ND	11.3	12.3	113	123	D	206
1,2-Dichlorobenzene	ND	10.5	11.5	105	115	D	208
1,3-Dichlorobenzene	ND	10.3	11.4	103	114	7	187
1,4-Dichlorobenzene	ND	10.7	11.6	107	116	42	143
1,1-Dichloroethane	ND	10.6	11.5	106	115	47	132
1,2-Dichloroethane	ND	10.7	11.6	107	116	51	147
1,1-Dichloroethene	ND	10.9	11.9	109	119	28	167
cis-1,2-Dichloroethene	1.23	12.4	13.3	112	121	19	181
trans-1,2-Dichloroethene	ND	10.8	11.7	108	117	38	155
1,2-Dichloropropane	ND	10.9	11.8	108	117	44	156
cis-1,3-Dichloropropene	ND	8.8	9.7	88	97	22	178
trans-1,3-Dichloropropene	ND	10.7	11.7	107	116	22	178
Methylene Chloride	ND	10.8	11.7	108	117	25	162
1,1,2,2-Tetrachloroethane	ND	6.2	6.5	62	65	8	184
Tetrachloroethane	2.87	12.7	13.6	98	108	26	162
1,1,1-Trichloroethane	ND	10.7	11.5	107	115	41	138
1,1,2-Trichloroethane	ND	11.0	11.6	110	116	39	136
Trichloroethene	7.45	17.1	18.0	96	105	35	146
Trichlorofluoromethane	ND	10.8	12.2	108	122	21	156
Vinyl Chloride	ND	10.3	11.8	103	118	28	163

Method: 602 Spike[ppb]: 10
 Instrument : gc3
 Sample : 111406\017r0101.txt
 MS : 111406\019r0101.txt
 MSD : 111406\020r0101.txt

Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	ND	10.8	12.0	108	120	39	150
Chlorobenzene	ND	10.6	11.8	106	118	55	135
1,2-Dichlorobenzene	ND	10.4	11.8	104	118	37	154
1,3-Dichlorobenzene	ND	10.4	11.6	104	116	50	141
1,4-Dichlorobenzene	ND	10.4	11.8	104	118	42	143
Diisopropyl ether	ND	10.5	11.7	105	117	30	170
Ethylbenzene	ND	10.7	11.9	107	119	32	160
MTBE	ND	10.8	12.0	107	119	35	165
Toluene	ND	10.7	11.9	107	119	46	148
m,p-Xylene	ND	21.5	23.9	108	120	D	239
o-Xylene	ND	11.0	12.2	110	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: RSB

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3111706A

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/17/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/17/2006
Ethylbenzene	BQL	1.00	0.181	1	11/17/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/17/2006
Toluene	BQL	1.00	0.157	1	11/17/2006
m/p-Xylene	BQL	2.00	0.481	1	11/17/2006
o-Xylene	BQL	2.00	0.584	1	11/17/2006

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.3	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

 Reviewed By:
 Copy of GC-VOA_WA



Control Limits for QC Check / Laboratory Control Spike

Method : 601 Spike[ppb] : 10
 Instrument : gc3
 Filename : 111706\004f0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Bromodichloromethane	9.8	98.4	76.0	124.0	98	42	172
Bromoform	10.3	102.9	73.5	126.5	103	13	159
Bromomethane	8.4	83.8	58.5	141.5	84	D	144
Carbon tetrachloride	10.2	101.9	68.5	131.5	102	43	143
Chlorobenzene	9.6	96.2	72.0	128.0	96	38	150
Chloroethane	9.6	95.7	77.0	123.0	96	46	137
Chloroform	10.1	100.7	75.0	125.0	101	49	133
Chloromethane	7.8	78.0	59.5	140.5	78	D	193
Dibromochloromethane	9.8	98.0	65.5	134.5	98	24	191
• 1,2-Dibromoethane	9.3	93.0	13.6	186.4	93	D	206
1,2-Dichlorobenzene	10.0	100.4	70.0	130.0	100	D	208
1,3-Dichlorobenzene	9.9	99.4	49.5	150.5	99	7	187
1,4-Dichlorobenzene	10.0	99.8	69.5	130.5	100	42	143
1,1-Dichloroethane	10.1	100.6	84.0	116.0	101	47	132
1,2-Dichloroethane	10.1	101.2	71.5	128.5	101	51	147
1,1-Dichloroethene	10.5	104.7	63.0	137.0	105	28	167
• cis-1,2-Dichloroethene	10.4	103.6	34.4	180.6	104	19	181
trans-1,2-Dichloroethene	10.2	101.8	64.0	136.0	102	38	155
1,2-Dichloropropane	10.1	101.0	74.0	126.0	101	44	156
cis-1,3-Dichloropropene	11.0	109.8	64.0	136.0	110	22	178
trans-1,3-Dichloropropene	9.9	98.8	64.0	136.0	99	22	178
Methylene Chloride	9.9	98.5	77.5	122.5	99	25	162
1,1,2,2-Tetrachloroethane	10.0	100.4	49.0	151.0	100	8	184
Tetrachloroethane	10.0	100.0	70.0	130.0	100	26	162
1,1,1-Trichloroethane	10.1	100.8	71.0	129.0	101	41	138
1,1,2-Trichloroethane	9.6	95.8	78.5	121.5	96	39	136
Trichloroethene	9.9	98.6	77.0	123.0	99	35	146
Trichlorofluoromethane	9.8	98.3	66.5	133.5	98	21	156
Vinyl Chloride	9.5	95.2	68.5	131.5	95	28	163

Method: 602 Spike[ppb]: 10
 Instrument : gc3
 Filename : 111706\004r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	9.6	96.0	77.0	123.0	96	39	150
Chlorobenzene	9.4	94.1	80.5	119.5	94	55	135
1,2-Dichlorobenzene	9.5	95.4	68.0	132.0	95	37	154
1,3-Dichlorobenzene	9.4	94.1	72.5	127.5	94	50	141
1,4-Dichlorobenzene	9.4	93.7	69.5	130.5	94	42	143
• Diisopropyl ether	9.4	93.8	43.1	156.9	94	30	170
Ethylbenzene	9.6	96.4	63.0	137.0	96	32	160
• MTBE	9.7	97.3	46.8	163.2	97	35	165
Toluene	9.6	95.7	77.5	127.0	96	46	148
• m,p-Xylene	19.3	96.6	11.2	188.8	97	D	239
• o-Xylene	10.0	99.8	47.6	152.4	100	36	164

Flags :

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

Reviewed by:



Control Limits for QC Check / Laboratory Control Spike

Method : 601 Spike[ppb] : 10
 Instrument : gc3
 Filename : 111706\005f0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Bromodichloromethane	9.9	98.8	76.0	124.0	99	42	172
Bromoform	10.3	102.8	73.5	126.5	103	13	159
Bromomethane	9.8	98.0	58.5	141.5	98	D	144
Carbon tetrachloride	10.3	103.1	68.5	131.5	103	43	143
Chlorobenzene	9.7	97.5	72.0	128.0	97	38	150
Chloroethane	10.3	103.5	77.0	123.0	103	46	137
Chloroform	9.9	99.5	75.0	125.0	99	49	133
Chloromethane	8.4	83.8	59.5	140.5	84	D	193
Dibromochloromethane	9.8	98.0	65.5	134.5	98	24	191
• 1,2-Dibromoethane	9.4	94.2	13.6	186.4	94	D	206
1,2-Dichlorobenzene	9.9	99.2	70.0	130.0	99	D	208
1,3-Dichlorobenzene	10.0	100.5	49.5	150.5	100	7	187
1,4-Dichlorobenzene	9.9	98.6	69.5	130.5	99	42	143
1,1-Dichloroethane	10.1	100.9	84.0	116.0	101	47	132
1,2-Dichloroethane	10.1	100.9	71.5	128.5	101	51	147
1,1-Dichloroethene	10.6	105.9	63.0	137.0	106	28	167
• cis-1,2-Dichloroethene	10.3	103.5	34.4	180.6	103	19	181
trans-1,2-Dichloroethene	10.2	102.3	64.0	136.0	102	38	155
1,2-Dichloropropane	10.0	100.2	74.0	126.0	100	44	156
cis-1,3-Dichloropropene	11.0	110.0	64.0	136.0	110	22	178
trans-1,3-Dichloropropene	9.9	99.2	64.0	136.0	99	22	178
Methylene Chloride	9.9	99.1	77.5	122.5	99	25	162
1,1,2,2-Tetrachloroethane	10.0	100.3	49.0	151.0	100	8	184
Tetrachloroethane	10.0	99.5	70.0	130.0	100	26	162
1,1,1-Trichloroethane	10.1	101.3	71.0	129.0	101	41	138
1,1,2-Trichloroethane	9.2	91.5	78.5	121.5	92	39	136
Trichloroethene	9.9	98.6	77.0	123.0	99	35	146
Trichlorofluoromethane	10.5	105.3	66.5	133.5	105	21	156
Vinyl Chloride	10.2	102.4	68.5	131.5	102	28	163

Method: 602 Spike[ppb]: 10
 Instrument : gc3
 Filename : 111706\005r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	10.1	101.0	77.0	123.0	101	39	150
Chlorobenzene	10.0	99.6	80.5	119.5	100	55	135
1,2-Dichlorobenzene	10.0	100.0	68.0	132.0	100	37	154
1,3-Dichlorobenzene	9.9	99.1	72.5	127.5	99	50	141
1,4-Dichlorobenzene	9.9	98.6	69.5	130.5	99	42	143
• Diisopropyl ether	9.9	99.3	43.1	156.9	99	30	170
Ethylbenzene	10.2	101.8	63.0	137.0	102	32	160
• MTBE	10.2	102.5	46.8	163.2	102	35	165
Toluene	10.1	101.1	77.5	127.0	101	46	148
• m,p-Xylene	20.4	102.0	11.2	188.8	102	D	239
• o-Xylene	10.5	105.3	47.6	152.4	105	36	164

Flags :

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

Reviewed by:



Control Limits for MS-MSD

Method : 601 Spike[ppb] : 10
 Instrument : gc3
 Sample : 111706\017f0101.txt
 MS : 111706\019f0101.txt
 MSD : 111706\020f0101.txt

5

Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Bromodichloromethane	ND	12.0	12.3	120	123	42	172
Bromoform	ND	10.4	10.7	104	107	13	159
Bromomethane	ND	7.6	10.2	76	102	D	144
Carbon tetrachloride	ND	13.3	13.5	133	135	43	143
Chlorobenzene	ND	12.9	13.2	129	132	38	150
Chloroethane	ND	10.4	12.2	104	122	46	137
Chloroform	ND	12.6	13.0	126	130	49	133
Chloromethane	ND	9.4	10.8	94	108	D	193
Dibromochloromethane	ND	11.4	11.7	114	117	24	191
• 1,2-Dibromoethane	ND	10.8	11.1	108	111	D	206
1,2-Dichlorobenzene	ND	13.3	13.7	133	137	D	208
1,3-Dichlorobenzene	ND	13.1	13.5	131	135	7	187
1,4-Dichlorobenzene	ND	13.3	13.6	133	136	42	143
1,1-Dichloroethane	ND	14.1	14.4	140 +	143 +	47	132
1,2-Dichloroethane	ND	13.2	13.7	132	137	51	147
1,1-Dichloroethene	ND	14.1	14.5	141	144	28	167
• cis-1,2-Dichloroethene	5.70	18.1	18.4	124	127	19	181
trans-1,2-Dichloroethene	ND	13.5	13.9	135	139	38	155
1,2-Dichloropropane	ND	13.7	14.2	137	142	44	156
cis-1,3-Dichloropropene	ND	11.4	11.7	114	117	22	178
trans-1,3-Dichloropropene	ND	12.0	12.4	120	124	22	178
Methylene Chloride	ND	13.1	13.4	131	134	25	162
1,1,2,2-Tetrachloroethane	ND	7.0	7.4	70	74	8	184
Tetrachloroethane	ND	12.8	13.1	128	131	26	162
1,1,1-Trichloroethane	2.35	15.2	15.6	129	133	41	138
1,1,2-Trichloroethane	ND	11.8	12.4	118	124	39	136
Trichloroethene	7.40	20.0	20.3	126	129	35	146
Trichlorofluoromethane	ND	11.1	12.7	111	127	21	156
Vinyl Chloride	ND	11.2	13.0	112	130	28	163

Method: 602 Spike[ppb] : 10
 Instrument : gc3
 Sample : 111706\017r0101.txt
 MS : 111706\019r0101.txt
 MSD : 111706\020r0101.txt

Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	ND	11.0	11.2	110	112	39	150
Chlorobenzene	ND	10.7	11.0	107	110	55	135
1,2-Dichlorobenzene	ND	10.5	10.8	105	108	37	154
1,3-Dichlorobenzene	ND	10.6	10.8	106	108	50	141
1,4-Dichlorobenzene	ND	10.5	10.8	105	108	42	143
• Diisopropyl ether	ND	10.9	11.1	109	111	30	170
Ethylbenzene	ND	11.0	11.2	110	112	32	160
• MTBE	ND	11.1	11.4	111	114	35	165
Toluene	ND	11.0	11.2	110	112	46	148
• m,p-Xylene	ND	21.9	22.4	110	112	D	239
• o-Xylene	1.0	11.4	11.6	104	106	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: RSB

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3112006A

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	0.183	1	11/20/2006
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	11/20/2006
Ethylbenzene	BQL	1.00	0.181	1	11/20/2006
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	11/20/2006
Toluene	BQL	1.00	0.157	1	11/20/2006
m/p-Xylene	BQL	2.00	0.481	1	11/20/2006
o-Xylene	BQL	2.00	0.584	1	11/20/2006

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.6	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.



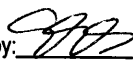
Control Limits for QC Check / Laboratory Control Spike

Method: 602 Spike[ppb]: 10
 Instrument: GC3
 Filename: 112006\021r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	10.8	107.9	77.0	123.0	108	39	150
Chlorobenzene	10.5	105.3	80.5	119.5	105	55	135
1,2-Dichlorobenzene	10.5	105.1	68.0	132.0	105	37	154
1,3-Dichlorobenzene	10.5	104.9	72.5	127.5	105	50	141
1,4-Dichlorobenzene	10.5	105.0	69.5	130.5	105	42	143
• Diisopropyl ether	10.7	106.6	43.1	156.9	107	30	170
Ethylbenzene	10.7	107.4	63.0	137.0	107	32	160
• MTBE	10.8	107.7	46.8	153.2	108	35	165
Toluene	10.7	107.1	77.5	127.0	107	46	148
• m,p-Xylene	21.5	107.4	11.2	188.8	107	D	239
• o-Xylene	11.2	111.6	47.6	152.4	112	36	164

Flags :

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

Reviewed by: 



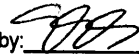
Control Limits for QC Check / Laboratory Control Spike

Method: 602 Spike[ppb]: 10
 Instrument : gc3
 Filename : 112006\022r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	10.2	102.4	77.0	123.0	102	39	150
Chlorobenzene	10.0	100.3	80.5	119.5	100	55	135
1,2-Dichlorobenzene	10.1	101.0	68.0	132.0	101	37	154
1,3-Dichlorobenzene	10.0	99.8	72.5	127.5	100	50	141
1,4-Dichlorobenzene	10.0	99.7	69.5	130.5	100	42	143
• Diisopropyl ether	10.1	100.5	43.1	156.9	101	30	170
Ethylbenzene	10.2	102.5	63.0	137.0	102	32	160
• MTBE	10.2	101.8	46.8	153.2	102	35	165
Toluene	10.2	102.2	77.5	127.0	102	46	148
• m,p-Xylene	20.5	102.7	11.2	188.8	103	D	239
• o-Xylene	10.6	106.2	47.6	152.4	106	36	164

Flags :

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

Reviewed by: 



Control Limits for MS-MSD

Method: 602 Spike[ppb]: 10
 Instrument : gc3
 Sample : 112006\035r0101.txt
 MS : 112006\037r0101.txt
 MSD : 112006\038r0101.txt

Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	44.1	55.2	54.4	111	103	39	150
Chlorobenzene	ND	10.5	10.1	105	101	55	135
1,2-Dichlorobenzene	ND	10.4	10.2	101	98	37	154
1,3-Dichlorobenzene	ND	10.3	9.9	102	99	50	141
1,4-Dichlorobenzene	ND	10.0	9.7	94	91	42	143
• Diisopropyl ether	ND	11.2	10.9	106	103	30	170
Ethylbenzene	2.0	12.9	12.4	109	104	32	160
• MTBE	41.7	52.8	51.6	111	99	35	165
Toluene	ND	11.0	10.6	108	104	46	148
• m,p-Xylene	1.8	23.5	22.7	109	105	D	239
• o-Xylene	2.5	13.7	12.7	113	102	36	164

Flags :

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

Reviewed by: 



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW01

Client Project ID: NV016

Lab Sample ID: G650-92-1H

Lab Project ID: G650-92

Analyzed By: EAW

Date Collected: 11/6/2006 14:30

Date Received: 11/8/2006

Date Extracted: 11/10/2006

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	11/15/2006	
Acenaphthylene	BQL	10.0	1.12	1	11/15/2006	
Anthracene	BQL	10.0	1.75	1	11/15/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/15/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/15/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/15/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/15/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/15/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/15/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	11/15/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/15/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/15/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/15/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/15/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/15/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/15/2006	
Chrysene	BQL	10.0	1.11	1	11/15/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/15/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/15/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/15/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/15/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/15/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/15/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/15/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/15/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/15/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/15/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/15/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/15/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/15/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/15/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/15/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/15/2006	
Fluoranthene	BQL	10.0	1.41	1	11/15/2006	
Fluorene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/15/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/15/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/15/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/15/2006	
Isophorone	BQL	10.0	1.27	1	11/15/2006	
Naphthalene	BQL	10.0	1.08	1	11/15/2006	



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW01
 Client Project ID: NV016
 Lab Sample ID: G650-92-1H
 Lab Project ID: G650-92

Analyzed By: EAW
 Date Collected: 11/6/2006 14:30
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/15/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/15/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/15/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/15/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/15/2006	
Phenanthrene	BQL	10.0	1.38	1	11/15/2006	
Phenol	BQL	10.0	3.38	1	11/15/2006	
Pyrene	BQL	10.0	2.08	1	11/15/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/15/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/15/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	7.7	77		
2-Fluorophenol		10	6.2	62		
Nitrobenzene-d5		10	6.5	65		
Phenol-d6		10	6.8	68		
2,4,6-Tribromophenol		10	8.4	84		
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: ASTAS840-GW01
 Client Project ID: NV016
 Lab Sample ID: G650-92-1H
 Lab Project ID: G650-92
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: EAW
 Date Collected: 11/6/2006 14:30
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Date Analyzed: 11/15/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.34			9.2
2	Cyclohexane, 1,2-dichloro-, trans-	7.77	000822-86-6	90	8.39
3	Unknown	5.14			7.78
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: ASTAS840-GW03

Client Project ID: NV016

Lab Sample ID: G650-92-2H

Lab Project ID: G650-92

Analyzed By: EAW

Date Collected: 11/7/2006 10:58

Date Received: 11/8/2006

Date Extracted: 11/13/2006

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	11/15/2006	
Acenaphthylene	BQL	10.0	1.12	1	11/15/2006	
Anthracene	BQL	10.0	1.75	1	11/15/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/15/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/15/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/15/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/15/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/15/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/15/2006	
Bis(2-ethylhexyl)phthalate	10.2	10.0	1.33	1	11/15/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/15/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/15/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/15/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/15/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/15/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/15/2006	
Chrysene	BQL	10.0	1.11	1	11/15/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/15/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/15/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/15/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/15/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/15/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/15/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/15/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/15/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/15/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/15/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/15/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/15/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/15/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/15/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/15/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/15/2006	
Fluoranthene	BQL	10.0	1.41	1	11/15/2006	
Fluorene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/15/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/15/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/15/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/15/2006	
Isophorone	BQL	10.0	1.27	1	11/15/2006	
Naphthalene	BQL	10.0	1.08	1	11/15/2006	



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW03
 Client Project ID: NV016
 Lab Sample ID: G650-92-2H
 Lab Project ID: G650-92

Analyzed By: EAW
 Date Collected: 11/7/2006 10:58
 Date Received: 11/8/2006
 Date Extracted: 11/13/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/15/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/15/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/15/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/15/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/15/2006	
Phenanthrene	BQL	10.0	1.38	1	11/15/2006	
Phenol	BQL	10.0	3.38	1	11/15/2006	
Pyrene	BQL	10.0	2.08	1	11/15/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/15/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/15/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.2	92		
2-Fluorophenol		10	8.6	86		
Nitrobenzene-d5		10	8.4	84		
Phenol-d6		10	8.9	89		
2,4,6-Tribromophenol		10	9	90		
4-Terphenyl-d14		10	11.8	118		

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: ASTAS840-GW03
 Client Project ID: NV016
 Lab Sample ID: G650-92-2H
 Lab Project ID: G650-92
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: EAW
 Date Collected: 11/7/2006 10:58
 Date Received: 11/8/2006
 Date Extracted: 11/13/2006
 Date Analyzed: 11/15/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.34			11.4
2	1-Propene, 1,2,3-trichloro-	6.26	000096-19-5	78	9.89
3	Cyclohexane, 1,2-dichloro-, trans-	7.77	000822-86-6	90	6.48
4	Unknown	5.14			5.92
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: ASTAS840-GW04

Client Project ID: NV016

Lab Sample ID: G650-92-3H

Lab Project ID: G650-92

Analyzed By: EAW

Date Collected: 11/6/2006 13:23

Date Received: 11/8/2006

Date Extracted: 11/10/2006

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	11/15/2006	
Acenaphthylene	BQL	10.0	1.12	1	11/15/2006	
Anthracene	BQL	10.0	1.75	1	11/15/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/15/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/15/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/15/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/15/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/15/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/15/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	11/15/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/15/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/15/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/15/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/15/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/15/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/15/2006	
Chrysene	BQL	10.0	1.11	1	11/15/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/15/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/15/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/15/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/15/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/15/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/15/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/15/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/15/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/15/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/15/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/15/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/15/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/15/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/15/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/15/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/15/2006	
Fluoranthene	BQL	10.0	1.41	1	11/15/2006	
Fluorene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/15/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/15/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/15/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/15/2006	
Isophorone	BQL	10.0	1.27	1	11/15/2006	
Naphthalene	BQL	10.0	1.08	1	11/15/2006	



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW04
 Client Project ID: NV016
 Lab Sample ID: G650-92-3H
 Lab Project ID: G650-92

Analyzed By: EAW
 Date Collected: 11/6/2006 13:23
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/15/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/15/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/15/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/15/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/15/2006	
Phenanthrene	BQL	10.0	1.38	1	11/15/2006	
Phenol	BQL	10.0	3.38	1	11/15/2006	
Pyrene	BQL	10.0	2.08	1	11/15/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/15/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/15/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.3	83		
2-Fluorophenol		10	7.9	79		
Nitrobenzene-d5		10	7.6	76		
Phenol-d6		10	8.1	81		
2,4,6-Tribromophenol		10	8	80		
4-Terphenyl-d14		10	12	120		

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: ASTAS840-GW04

Client Project ID: NV016

Lab Sample ID: G650-92-3H

Lab Project ID: G650-92

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: EAW

Date Collected: 11/6/2006 13:23

Date Received: 11/8/2006

Date Extracted: 11/10/2006

Date Analyzed: 11/15/2006

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	5.15			11.6
2	Cyclohexane, 1,2-dichloro-, trans-	7.78	000822-86-6	96	10.2
3	Unknown	12.34			9.82
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: ASTAS840-GW05

Client Project ID: NV016

Lab Sample ID: G650-92-4H

Lab Project ID: G650-92

Analyzed By: EAW

Date Collected: 11/6/2006 12:28

Date Received: 11/8/2006

Date Extracted: 11/10/2006

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	11/15/2006	
Acenaphthylene	BQL	10.0	1.12	1	11/15/2006	
Anthracene	BQL	10.0	1.75	1	11/15/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/15/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/15/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/15/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/15/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/15/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/15/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	11/15/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/15/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/15/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/15/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/15/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/15/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/15/2006	
Chrysene	BQL	10.0	1.11	1	11/15/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/15/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/15/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/15/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/15/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/15/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/15/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/15/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/15/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/15/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/15/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/15/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/15/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/15/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/15/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/15/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/15/2006	
Fluoranthene	BQL	10.0	1.41	1	11/15/2006	
Fluorene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/15/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/15/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/15/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/15/2006	
Isophorone	BQL	10.0	1.27	1	11/15/2006	
Naphthalene	BQL	10.0	1.08	1	11/15/2006	



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW05
 Client Project ID: NV016
 Lab Sample ID: G650-92-4H
 Lab Project ID: G650-92

Analyzed By: EAW
 Date Collected: 11/6/2006 12:28
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/15/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/15/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/15/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/15/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/15/2006	
Phenanthrene	BQL	10.0	1.38	1	11/15/2006	
Phenol	BQL	10.0	3.38	1	11/15/2006	
Pyrene	BQL	10.0	2.08	1	11/15/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/15/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/15/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.2	92
2-Fluorophenol	10	8.8	88
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	9	90
2,4,6-Tribromophenol	10	8.9	89
4-Terphenyl-d14	10	12.3	123

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: ASTAS840-GW05

Client Project ID: NV016

Lab Sample ID: G650-92-4H

Lab Project ID: G650-92

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: EAW

Date Collected: 11/6/2006 12:28

Date Received: 11/8/2006

Date Extracted: 11/10/2006

Date Analyzed: 11/15/2006

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	6.26			20.9
2	7-Oxabicyclo[4.1.0]heptane	5.15	000286-20-4	90	15.6
3	Unknown	12.35			11
4	Cyclohexane, 1,2-dichloro-, trans-	7.78	000822-86-6	97	8.82
5	Alkene, Unknown	8.58			5.08
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: ASTAS840-GW06

Client Project ID: NV016

Lab Sample ID: G650-92-5H

Lab Project ID: G650-92

Analyzed By: EAW

Date Collected: 11/7/2006 10:05

Date Received: 11/8/2006

Date Extracted: 11/13/2006

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	11/15/2006	
Acenaphthylene	BQL	10.0	1.12	1	11/15/2006	
Anthracene	BQL	10.0	1.75	1	11/15/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/15/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/15/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/15/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/15/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/15/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/15/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	11/15/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/15/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/15/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/15/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/15/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/15/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/15/2006	
Chrysene	BQL	10.0	1.11	1	11/15/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/15/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/15/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/15/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/15/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/15/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/15/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/15/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/15/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/15/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/15/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/15/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/15/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/15/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/15/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/15/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/15/2006	
Fluoranthene	BQL	10.0	1.41	1	11/15/2006	
Fluorene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/15/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/15/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/15/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/15/2006	
Isophorone	BQL	10.0	1.27	1	11/15/2006	
Naphthalene	BQL	10.0	1.08	1	11/15/2006	



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW06
 Client Project ID: NV016
 Lab Sample ID: G650-92-5H
 Lab Project ID: G650-92

Analyzed By: EAW
 Date Collected: 11/7/2006 10:05
 Date Received: 11/8/2006
 Date Extracted: 11/13/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/15/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/15/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/15/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/15/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/15/2006	
Phenanthrene	BQL	10.0	1.38	1	11/15/2006	
Phenol	BQL	10.0	3.38	1	11/15/2006	
Pyrene	BQL	10.0	2.08	1	11/15/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/15/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/15/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.5	85		
2-Fluorophenol		10	7.7	77		
Nitrobenzene-d5		10	7.6	76		
Phenol-d6		10	7.8	78		
2,4,6-Tribromophenol		10	8.3	83		
4-Terphenyl-d14		10	12.8	128		

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: ASTAS840-GW06
 Client Project ID: NV016
 Lab Sample ID: G650-92-5H
 Lab Project ID: G650-92
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: EAW
 Date Collected: 11/7/2006 10:05
 Date Received: 11/8/2006
 Date Extracted: 11/13/2006
 Date Analyzed: 11/15/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.35			10.1
2	Cyclohexane, 1,2-dichloro-, trans-	7.78	000822-86-6	97	7.59
3	Unknown	5.14			7.45
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: ASTAS840-MW07

Client Project ID: NV016

Lab Sample ID: G650-92-6H

Lab Project ID: G650-92

Analyzed By: EAW

Date Collected: 11/6/2006 16:26

Date Received: 11/8/2006

Date Extracted: 11/10/2006

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	1.70	10.0	1.22	1	11/15/2006	J
Acenaphthylene	BQL	10.0	1.12	1	11/15/2006	
Anthracene	BQL	10.0	1.75	1	11/15/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/15/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/15/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/15/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/15/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/15/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/15/2006	
Bis(2-ethylhexyl)phthalate	3.30	10.0	1.33	1	11/15/2006	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/15/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/15/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/15/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/15/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/15/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/15/2006	
Chrysene	BQL	10.0	1.11	1	11/15/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/15/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/15/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/15/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/15/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/15/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/15/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/15/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/15/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/15/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/15/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/15/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/15/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/15/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/15/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/15/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/15/2006	
Fluoranthene	BQL	10.0	1.41	1	11/15/2006	
Fluorene	2.20	10.0	1.22	1	11/15/2006	J
Hexachlorobenzene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/15/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/15/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/15/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/15/2006	
Isophorone	BQL	10.0	1.27	1	11/15/2006	
Naphthalene	8.00	10.0	1.08	1	11/15/2006	J



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-MW07
 Client Project ID: NV016
 Lab Sample ID: G650-92-6H
 Lab Project ID: G650-92

Analyzed By: EAW
 Date Collected: 11/6/2006 16:26
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/15/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/15/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/15/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/15/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/15/2006	
Phenanthrene	2.90	10.0	1.38	1	11/15/2006	J
Phenol	BQL	10.0	3.38	1	11/15/2006	
Pyrene	BQL	10.0	2.08	1	11/15/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/15/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/15/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.2	82		
2-Fluorophenol		10	7	70		
Nitrobenzene-d5		10	7.2	72		
Phenol-d6		10	7.7	77		
2,4,6-Tribromophenol		10	8.5	85		
4-Terphenyl-d14		10	11.6	116		

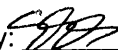
Comments:

* 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: ASTAS840-MW07
 Client Project ID: NV016
 Lab Sample ID: G650-92-6H
 Lab Project ID: G650-92
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: EAW
 Date Collected: 11/6/2006 16:26
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Date Analyzed: 11/15/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	12.34			17.2
2	Unknown	6.26			13.9
3	Naphthalene, 1,7-dimethyl-	11.14	000575-37-1	98	11.9
4	Cyclohexane, 1,2-dichloro-, trans-	7.77	000822-86-6	97	11
5	Naphthalene, 2,3-dimethyl-	11.44	000581-40-8	98	8.56
6	Unknown	12.01			6.79
7	Naphthalene, 1-ethyl-	11.03	001127-76-0	94	6.43
8	Unknown	12.77			5.72
9	Unknown	5.14			5.69
10	1H-Indene, 2,3-dihydro-5-methyl-	8.61	000874-35-1	90	5.6

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: ASTAS840-GW08

Client Project ID: NV016

Lab Sample ID: G650-92-7H

Lab Project ID: G650-92

Analyzed By: EAW

Date Collected: 11/6/2006 15:40

Date Received: 11/8/2006

Date Extracted: 11/10/2006

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	11/15/2006	
Acenaphthylene	BQL	10.0	1.12	1	11/15/2006	
Anthracene	BQL	10.0	1.75	1	11/15/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/15/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/15/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/15/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/15/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/15/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/15/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	11/15/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/15/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/15/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/15/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/15/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/15/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/15/2006	
Chrysene	BQL	10.0	1.11	1	11/15/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/15/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/15/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/15/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/15/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/15/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/15/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/15/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/15/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/15/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/15/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/15/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/15/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/15/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/15/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/15/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/15/2006	
Fluoranthene	BQL	10.0	1.41	1	11/15/2006	
Fluorene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/15/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/15/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/15/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/15/2006	
Isophorone	BQL	10.0	1.27	1	11/15/2006	
Naphthalene	6.00	10.0	1.08	1	11/15/2006	J



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW08
 Client Project ID: NV016
 Lab Sample ID: G650-92-7H
 Lab Project ID: G650-92

Analyzed By: EAW
 Date Collected: 11/6/2006 15:40
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/15/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/15/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/15/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/15/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/15/2006	
Phenanthrene	BQL	10.0	1.38	1	11/15/2006	
Phenol	BQL	10.0	3.38	1	11/15/2006	
Pyrene	BQL	10.0	2.08	1	11/15/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/15/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/15/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.9	99		
2-Fluorophenol		10	9.3	93		
Nitrobenzene-d5		10	9.1	91		
Phenol-d6		10	9.5	95		
2,4,6-Tribromophenol		10	8.6	86		
4-Terphenyl-d14		10	12.3	123		

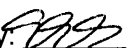
Comments:

* 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: ASTAS840-GW08
 Client Project ID: NV016
 Lab Sample ID: G650-92-7H
 Lab Project ID: G650-92
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: EAW
 Date Collected: 11/6/2006 15:40
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Date Analyzed: 11/15/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	4.94			78.8
2	Unknown	12.01			18.7
3	Unknown	5.14			13.1
4	Unknown	12.34			10.3
5	Cyclohexane, 1,2-dichloro-, trans-	7.78	000822-86-6	97	9
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: ASTAS840-MW09

Client Project ID: NV016

Lab Sample ID: G650-92-8H

Lab Project ID: G650-92

Analyzed By: EAW

Date Collected: 11/7/2006 11:40

Date Received: 11/8/2006

Date Extracted: 11/10/2006

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	2.50	10.0	1.22	1	11/15/2006	J
Acenaphthylene	BQL	10.0	1.12	1	11/15/2006	
Anthracene	BQL	10.0	1.75	1	11/15/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/15/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/15/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/15/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/15/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/15/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/15/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	11/15/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/15/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/15/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/15/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/15/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/15/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/15/2006	
Chrysene	BQL	10.0	1.11	1	11/15/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/15/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/15/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/15/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/15/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/15/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/15/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/15/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/15/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/15/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/15/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/15/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/15/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/15/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/15/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/15/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/15/2006	
Fluoranthene	BQL	10.0	1.41	1	11/15/2006	
Fluorene	2.90	10.0	1.22	1	11/15/2006	J
Hexachlorobenzene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/15/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/15/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/15/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/15/2006	
Isophorone	BQL	10.0	1.27	1	11/15/2006	
Naphthalene	6.40	10.0	1.08	1	11/15/2006	J



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-MW09
 Client Project ID: NV016
 Lab Sample ID: G650-92-8H
 Lab Project ID: G650-92

Analyzed By: EAW
 Date Collected: 11/7/2006 11:40
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/15/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/15/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/15/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/15/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/15/2006	
Phenanthrene	2.60	10.0	1.38	1	11/15/2006	J
Phenol	BQL	10.0	3.38	1	11/15/2006	
Pyrene	BQL	10.0	2.08	1	11/15/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/15/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/15/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.3	93		
2-Fluorophenol		10	8.7	87		
Nitrobenzene-d5		10	8.4	84		
Phenol-d6		10	9.1	91		
2,4,6-Tribromophenol		10	10.2	102		
4-Terphenyl-d14		10	10.7	107		

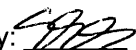
Comments:

* 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: ASTAS840-MW09
 Client Project ID: NV016
 Lab Sample ID: G650-92-8H
 Lab Project ID: G650-92
 Sample Wt/Vol: 500 ML
 Dilution: 1

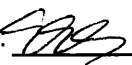
Analyzed By: EAW
 Date Collected: 11/7/2006 11:40
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Date Analyzed: 11/15/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-,	8.62	000464-49-3	98	93
2	Unknown	12.34			17.1
3	Naphthalene, 1,7-dimethyl-	11.15	000575-37-1	98	11.5
4	Cyclohexane, 1,2-dichloro-, trans-	7.77	000822-86-6	95	9.97
5	Naphthalene, 2,3-dimethyl-	11.44	000581-40-8	98	7.58
6	Unknown	6.26			6.84
7	Naphthalene, 1,2,3,4-tetrahydro-6-methyl-	10.06	001680-51-9	96	6.62
8	Unknown	5.14			6.23
9	Indane	7.35	000496-11-7	87	4.77
10	Naphthalene, 1,3-dimethyl-	11.57	000575-41-7	95	4.34

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: ASTAS840-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-92-9H
Lab Project ID: G650-92

Analyzed By: EAW
Date Collected: 11/7/2006 0:00
Date Received: 11/8/2006
Date Extracted: 11/10/2006
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	11/15/2006	J
Acenaphthylene	BQL	10.0	1.12	1	11/15/2006	
Anthracene	BQL	10.0	1.75	1	11/15/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/15/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/15/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/15/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/15/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/15/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/15/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/15/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	11/15/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/15/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/15/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/15/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/15/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/15/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/15/2006	
Chrysene	BQL	10.0	1.11	1	11/15/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/15/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/15/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/15/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/15/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/15/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/15/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/15/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/15/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/15/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/15/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/15/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/15/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/15/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/15/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/15/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/15/2006	
Fluoranthene	BQL	10.0	1.41	1	11/15/2006	
Fluorene	2.40	10.0	1.22	1	11/15/2006	J
Hexachlorobenzene	BQL	10.0	1.22	1	11/15/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/15/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/15/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/15/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/15/2006	
Isophorone	BQL	10.0	1.27	1	11/15/2006	
Naphthalene	6.50	10.0	1.08	1	11/15/2006	J



Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-Duplicate
 Client Project ID: NV016
 Lab Sample ID: G650-92-9H
 Lab Project ID: G650-92

Analyzed By: EAW
 Date Collected: 11/7/2006 0:00
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/15/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/15/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/15/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/15/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/15/2006	
Phenanthrene	2.20	10.0	1.38	1	11/15/2006	J
Phenol	BQL	10.0	3.38	1	11/15/2006	
Pyrene	BQL	10.0	2.08	1	11/15/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/15/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/15/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.1	91		
2-Fluorophenol		10	8.6	86		
Nitrobenzene-d5		10	8.3	83		
Phenol-d6		10	8.9	89		
2,4,6-Tribromophenol		10	9.7	97		
4-Terphenyl-d14		10	10.7	107		

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: ASTAS840-Duplicate
 Client Project ID: NV016
 Lab Sample ID: G650-92-9H
 Lab Project ID: G650-92
 Sample Wt/Vol: 500 ML
 Dilution: 1

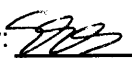
Analyzed By: EAW
 Date Collected: 11/7/2006 0:00
 Date Received: 11/8/2006
 Date Extracted: 11/10/2006
 Date Analyzed: 11/15/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-,	8.62	000464-49-3	98	85.7
2	Unknown	12.35			17.8
3	Cyclohexane, 1,2-dichloro-, trans-	7.78	000822-86-6	95	11.1
4	Naphthalene, 2,6-dimethyl-	11.15	000581-42-0	97	9.8
5	Naphthalene, 1,2,3,4-tetrahydro-6-methyl-	10.06	001680-51-9	95	5.91
6	Naphthalene, 1,4-dimethyl-	11.44	000571-58-4	98	5.29
7	Benzene, 2-ethenyl-1,4-dimethyl-	8.51	002039-89-6	96	5.01
8	Unknown	7.35			4.34
9	Unknown	5.14			4.21
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: Method Blank
Client Project ID:
Lab Sample ID: PB6664
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 11/10/2006
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	11/14/2006	
Acenaphthylene	BQL	10.0	1.12	1	11/14/2006	
Anthracene	BQL	10.0	1.75	1	11/14/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/14/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/14/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/14/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/14/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/14/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/14/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/14/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/14/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	11/14/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/14/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/14/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/14/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/14/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/14/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/14/2006	
Chrysene	BQL	10.0	1.11	1	11/14/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/14/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/14/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/14/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/14/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/14/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/14/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/14/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/14/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/14/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/14/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/14/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/14/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/14/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/14/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/14/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/14/2006	
Fluoranthene	BQL	10.0	1.41	1	11/14/2006	
Fluorene	BQL	10.0	1.22	1	11/14/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	11/14/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/14/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/14/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/14/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/14/2006	
Isophorone	BQL	10.0	1.27	1	11/14/2006	
Naphthalene	BQL	10.0	1.08	1	11/14/2006	



Results for Semivolatiles by GCMS 625

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID: PB6664
 Lab Project ID:

Analyzed By: EAW
 Date Collected:
 Date Received:
 Date Extracted: 11/10/2006
 Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/14/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/14/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/14/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/14/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/14/2006	
Phenanthrene	BQL	10.0	1.38	1	11/14/2006	
Phenol	BQL	10.0	3.38	1	11/14/2006	
Pyrene	BQL	10.0	2.08	1	11/14/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/14/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/14/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	10	99		
2-Fluorophenol		10	5.5	55		
Nitrobenzene-d5		10	8.5	85		
Phenol-d6		10	8.4	84		
2,4,6-Tribromophenol		10	8.5	85		
4-Terphenyl-d14		10	12	120		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By:



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-6664-MS/MSD/LCS

Date Extracted: 11/10/06

Lab Project ID:

Date Analyzed: 11/15/06

Matrix: WATER

Analyzed By: MRC

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	217	237	109	217	240	110.0	1.37	30	62.0-119
4-Chloro-3-methylphenol	BQL	217	194	89.1	217	199	91.5	2.66	30	67.0-109
2-Chlorophenol	BQL	217	195	89.6	217	191	87.7	2.14	30	59.0-95.0
1,4-Dichlorobenzene	BQL	217	148	68.0	217	136	62.7	8.10	30	29.0-86.0
2,4-Dinitrotoluene	BQL	217	218	100	217	227	104*	3.91	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	217	213	98.0	217	215	98.7	0.712	30	67.0-107
4-Nitrophenol	BQL	217	208	95.5	217	220	101.0	5.60	30	49.0-146
Pentachlorophenol	BQL	217	202	92.9	217	202	92.8	0.108	30	43.0-106
Phenol	BQL	217	214	98.4	217	207	95.2	3.31	30	61.0-100
Pyrene	BQL	217	256	118	217	262	121.0	2.52	30	41.0-123
1,2,4-Trichlorobenzene	BQL	217	184	84.6	217	180	82.8	2.15	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits
				% Rec.
Acenaphthylene	100	104	104	72.9-127
4-Chloro-3-methylphenol	100	82.5	82.5	61.6-113
2-Chlorophenol	100	82.7	82.7	52.3-104
1,4-Dichlorobenzene	100	54.9	54.9	27.3-85.0
2,4-Dinitrotoluene	100	94.6	94.6	66.5-117
N-Nitrosodi-n-propylamine	100	94.0	94.0	54.4-119
4-Nitrophenol	100	78.3	78.3	32.4-150
Pentachlorophenol	100	76.4	76.4	23.9-115
Phenol	100	78.5	78.5	54.5-106
Pyrene	100	119	119	63.5-126
1,2,4-Trichlorobenzene	100	74.4	74.4	49.1-98.5

Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By:



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID: PB6674
 Lab Project ID:

Analyzed By: EAW
 Date Collected:
 Date Received:
 Date Extracted: 11/13/2006
 Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	11/16/2006	
Acenaphthylene	BQL	10.0	1.12	1	11/16/2006	
Anthracene	BQL	10.0	1.75	1	11/16/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	11/16/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	11/16/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	11/16/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	11/16/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	11/16/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	11/16/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	11/16/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	11/16/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	11/16/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	11/16/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	11/16/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	11/16/2006	
2-Chlorophenol	BQL	10.0	4.22	1	11/16/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	11/16/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	11/16/2006	
Chrysene	BQL	10.0	1.11	1	11/16/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	11/16/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	11/16/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	11/16/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	11/16/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	11/16/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	11/16/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	11/16/2006	
Diethylphthalate	BQL	10.0	1.48	1	11/16/2006	
Dimethylphthalate	BQL	10.0	1.04	1	11/16/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	11/16/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	11/16/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	11/16/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	11/16/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	11/16/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	11/16/2006	
Diphenylamine *	BQL	10.0	1.53	1	11/16/2006	
Fluoranthene	BQL	10.0	1.41	1	11/16/2006	
Fluorene	BQL	10.0	1.22	1	11/16/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	11/16/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	11/16/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	11/16/2006	
Hexachloroethane	BQL	10.0	1.58	1	11/16/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	11/16/2006	
Isophorone	BQL	10.0	1.27	1	11/16/2006	
Naphthalene	BQL	10.0	1.08	1	11/16/2006	



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID: PB6674
 Lab Project ID:

Analyzed By: EAW
 Date Collected:
 Date Received:
 Date Extracted: 11/13/2006
 Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	11/16/2006	
2-Nitrophenol	BQL	10.0	3.52	1	11/16/2006	
4-Nitrophenol	BQL	50.0	3.17	1	11/16/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	11/16/2006	
Pentachlorophenol	BQL	50.0	2.83	1	11/16/2006	
Phenanthrene	BQL	10.0	1.38	1	11/16/2006	
Phenol	BQL	10.0	3.38	1	11/16/2006	
Pyrene	BQL	10.0	2.08	1	11/16/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	11/16/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	11/16/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	7.4	74		
2-Fluorophenol		10	6.1	61		
Nitrobenzene-d5		10	6.4	64		
Phenol-d6		10	6.9	69		
2,4,6-Tribromophenol		10	8.2	82		
4-Terphenyl-d14		10	11.7	117		

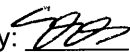
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 



**Results 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-6674-MS/MSD/LCS

Date Extracted: 11/13/06

Lab Project ID:

Date Analyzed: 11/15/06

Matrix: WATER

Analyzed By: MRC

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	208	211	101	208	216	104.0	2.44	30	62.0-119
4-Chloro-3-methylphenol	BQL	208	173	82.9	208	181	87.1	4.94	30	67.0-109
2-Chlorophenol	BQL	208	180	86.4	208	190	91.0	5.19	30	59.0-95.0
1,4-Dichlorobenzene	BQL	208	169	81.0	208	157	75.6	6.90	30	29.0-86.0
2,4-Dinitrotoluene	BQL	208	207	99.2	208	214	103.0	3.56	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	208	193	92.7	208	203	97.4	4.94	30	67.0-107
4-Nitrophenol	BQL	208	167	80.4	208	172	82.5	2.58	30	49.0-146
Pentachlorophenol	BQL	208	147	70.4	208	157	75.6	7.12	30	43.0-106
Phenol	BQL	208	174	83.6	208	182	87.2	4.22	30	61.0-100
Pyrene	BQL	208	225	108	208	220	105.0	2.44	30	41.0-123
1,2,4-Trichlorobenzene	BQL	208	176	84.6	208	169	81.0	4.35	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	100	97.2	97.2	72.9-127
4-Chloro-3-methylphenol	100	92.0	92.0	61.6-113
2-Chlorophenol	100	87.9	87.9	52.3-104
1,4-Dichlorobenzene	100	81.8	81.8	27.3-85.0
2,4-Dinitrotoluene	100	107	107	66.5-117
N-Nitrosodi-n-propylamine	100	101	101	54.4-119
4-Nitrophenol	100	128	128	32.4-150
Pentachlorophenol	100	90.0	90.0	23.9-115
Phenol	100	87.9	87.9	54.5-106
Pyrene	100	102	102	63.5-126
1,2,4-Trichlorobenzene	100	89.4	89.4	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:



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW01
Sample Matrix	Water
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/16/06
Date Analyzed	11/17/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	69
Aromatic Surrogate % Recovery	55

Comments:

- * = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-92-11

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW03
Sample Matrix	Water
Date Collected	11/07/06
Date Received	11/08/06
Date Extracted	11/16/06
Date Analyzed	11/17/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	54
Aromatic Surrogate % Recovery	41

Comments:

- * = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-92-2I

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW04
Sample Matrix	Water
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/16/06
Date Analyzed	11/17/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	93
Aromatic Surrogate % Recovery	80

Comments:

- * = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-92-3I

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW05
Sample Matrix	Water
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/16/06
Date Analyzed	11/17/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	87
Aromatic Surrogate % Recovery	77

Comments:

* = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-92-4I

Reviewed By: SGS



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

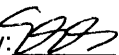
Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW06
Sample Matrix	Water
Date Collected	11/07/06
Date Received	11/08/06
Date Extracted	11/16/06
Date Analyzed	11/17/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	86
Aromatic Surrogate % Recovery	74

Comments:

- * = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-92-5I

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

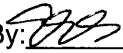
Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW07
Sample Matrix	Water
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/16/06
Date Analyzed	11/21/06
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	91
Aromatic Surrogate % Recovery	76
Fractionation Surrogate 1 % Recovery	79

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-92-6I

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW08
Sample Matrix	Water
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/16/06
Date Analyzed	11/17/06
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	89
Aromatic Surrogate % Recovery	76

Comments:

- * = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G650-92-71

Reviewed By:



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

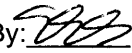
Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW09
Sample Matrix	Water
Date Collected	11/07/06
Date Received	11/08/06
Date Extracted	11/16/06
Date Analyzed	11/20/06
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	70
Aromatic Surrogate % Recovery	60
Fractionation Surrogate 1 % Recovery	71

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-92-8I

Reviewed By: 



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign Consulting

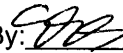
Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-Duplicate
Sample Matrix	Water
Date Collected	11/07/06
Date Received	11/08/06
Date Extracted	11/16/06
Date Analyzed	11/20/06
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	40
Aromatic Surrogate % Recovery	42
Fractionation Surrogate 1 % Recovery	81

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-92-9J

Reviewed By: 



Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 10/24/06

Calibration Ranges and Limits

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100 10
C ₁₉ -C ₃₆ Aliphatics	0.57	1.8	100 10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100 10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	1.00	Linear Regression
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	1.0	Linear Regression
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	0.999	Linear Regression
	85		
	170		
	340		
	680		

Calibration Check Date: 11/17/06

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	13.6
C ₁₉ -C ₃₆ Aliphatics	160	12.1
C ₁₁ -C ₂₂ Aromatics	340	-15.6

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 10/24/06**Calibration Ranges and Limits**

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100 10
C ₁₉ -C ₃₆ Aliphatics	0.57	1.8	100 10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100 10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	1.00	Linear Regression
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	1.0	Linear Regression
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	0.999	Linear Regression
	85		
	170		
	340		
	680		

Calibration Check Date: 11/20/06**Calibration Check**

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	9.7
C ₁₉ -C ₃₆ Aliphatics	160	9.1
C ₁₁ -C ₂₂ Aromatics	340	-9.9

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW01
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/10/06
Date Analyzed	11/10/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	91
Surrogate % Recovery - FID	93

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-92-1d

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW03
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	11/07/06
Date Received	11/08/06
Date Extracted	11/10/06
Date Analyzed	11/10/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	92
Surrogate % Recovery - FID	95

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-92-2d

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW04
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/10/06
Date Analyzed	11/10/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	92
Surrogate % Recovery - FID	94

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-92-3d

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

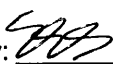
Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW05
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/10/06
Date Analyzed	11/10/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	95
Surrogate % Recovery - FID	96

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-92-4d

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW06
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	11/07/06
Date Received	11/08/06
Date Extracted	11/10/06
Date Analyzed	11/10/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	89
Surrogate % Recovery - FID	91

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-92-5d

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW07
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/10/06
Date Analyzed	11/10/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	98
Surrogate % Recovery - FID	97

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-92-6d

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW08
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	11/06/06
Date Received	11/08/06
Date Extracted	11/10/06
Date Analyzed	11/10/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	95
Surrogate % Recovery - FID	96

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-92-7d

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

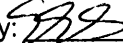
Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW09
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	11/07/06
Date Received	11/08/06
Date Extracted	11/10/06
Date Analyzed	11/10/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	96
Surrogate % Recovery - FID	96

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-92-8d

Reviewed By: 



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Sovereign Consulting

Project Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-Duplicate
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	11/07/06
Date Received	11/08/06
Date Extracted	11/10/06
Date Analyzed	11/10/06
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	94
Surrogate % Recovery - FID	99

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-92-9d

Reviewed By: 



Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 09/01/06PID Initial Calibration Date: 09/01/06

Calibration Ranges and Limits

Range	MDL (07/15/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)
C ₅ -C ₈ Aliphatics	4.4	14	100 10
C ₉ -C ₁₂ Aliphatics	3.4	11	100 10
C ₉ -C ₁₀ Aromatics	0.13	0.41	100 10

Calibration Concentration Levels

Range	Levels (µg/L)	%RSD or CCC	Method of Quantitation
C ₅ -C ₈ Aliphatics	40	8.7	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C ₉ -C ₁₂ Aliphatics	10	0.99	Linear Regression
	250		
	500		
	750		
	1000		
C ₉ -C ₁₀ Aromatics	10	0.99	Linear Regression
	250		
	500		
	750		
	1000		

Calibration Check Date: 11/10/06

Calibration Check

Range	Levels (µg/L) (mg/Kg)	RPD
C ₅ -C ₈ Aliphatics	2000 200	23.8
C ₉ -C ₁₂ Aliphatics	500 50	10.2
C ₉ -C ₁₀ Aromatics	500 50	8.1

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



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
• Louisiana
• New Jersey
• West Virginia
• Hawaii
• Maryland
• North Carolina

www.us.sgs.com

066268

1

CLIENT: SOVEREIGN CONSULTING

CONTACT: FOREST ELLERMAN

PROJECT: NV016

REPORTS TO: Chris Nunn

INVOICE TO: Chris Nunn

405 OAK MEADOWS CIRCLE

2

VIRGINIA BEACH VA 23462

LAB NO.

SAMPLE IDENTIFICATION

DATE

TIME

MATRIX

NO

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R

S

SGS Reference:

G650-92

PAGE 1 OF 1

PHONE NO: (703) 520-3641

SITE/PWSID#: AS8410

E-MAIL: chris.nunn@sovereign.com

QUOTE #

405 OAK MEADOWS CIRCLE

2

VIRGINIA BEACH VA 23462

LAB NO.

SAMPLE IDENTIFICATION

DATE

TIME

MATRIX

NO

C

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Preservatives

Used

Analysis

Required

3

9

7

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

Shipping Carrier: FED EX

Tracking Number: 85678745 4414

Shipping Ticket No: 44251444

Samples Received Cold? (Circle) YES NO

Temperature (C): 5.2 / 5.8

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

EDD Format

Email results "EDD Format" to

nhall@sovereign.com or chris.nunn@sovereign.com

STANDARD TURNAROUND

White - Retained by Lab

Yellow - Returned with Report

Pink - Retained by Sampler

200 W. Potter Drive

Anchorage, AK 99518

Tel: (907) 562-2343

Fax: (907) 561-5301

5500 Business Drive

Wilmington, NC 28405

Tel: (910) 350-1903

Fax: (910) 350-1557

Mr. Chris Murray
Sovereign Consulting
405 Oakmeads Crescent
Suite 1
Virginia Beach VA 23462
Report Number: G650-101
Client Project: NV016

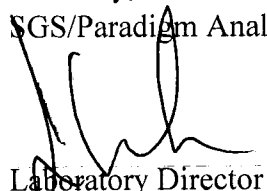
Dear Mr. Murray:

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

2/2/2007
Date

Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW01

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 1/18/2007 10:40

Lab Sample ID: G650-101-1A

Date Received: 1/19/2007

Lab Project ID: G650-101

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	1/25/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	1/25/2007	
Ethylbenzene	BQL	1.00	0.172	1	1/25/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	1/25/2007	
Toluene	0.627	1.00	0.159	1	1/25/2007	J
m/p-Xylene	0.377	2.00	0.326	1	1/25/2007	J
o-Xylene	BQL	2.00	0.285	1	1/25/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	38.0	95

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW03

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 1/18/2007 13:25

Lab Sample ID: G650-101-2A

Date Received: 1/19/2007

Lab Project ID: G650-101

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	1/25/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	1/25/2007	
Ethylbenzene	BQL	1.00	0.172	1	1/25/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	1/25/2007	
Toluene	0.896	1.00	0.159	1	1/25/2007	J
m/p-Xylene	BQL	2.00	0.326	1	1/25/2007	
o-Xylene	BQL	2.00	0.285	1	1/25/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	38.1	95.2

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW04

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 1/18/2007 9:58

Lab Sample ID: G650-101-3A

Date Received: 1/19/2007

Lab Project ID: G650-101

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	1/25/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	1/25/2007	
Ethylbenzene	BQL	1.00	0.172	1	1/25/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	1/25/2007	
Toluene	0.471	1.00	0.159	1	1/25/2007	J
m/p-Xylene	BQL	2.00	0.326	1	1/25/2007	
o-Xylene	BQL	2.00	0.285	1	1/25/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	37.8	94.5

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW05

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 1/18/2007 9:10

Lab Sample ID: G650-101-4A

Date Received: 1/19/2007

Lab Project ID: G650-101

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	1/25/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	1/25/2007	
Ethylbenzene	BQL	1.00	0.172	1	1/25/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	1/25/2007	
Toluene	0.625	1.00	0.159	1	1/25/2007	J
m/p-Xylene	BQL	2.00	0.326	1	1/25/2007	
o-Xylene	BQL	2.00	0.285	1	1/25/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	37.8	94.5

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-GW06

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 1/18/2007 11:15

Lab Sample ID: G650-101-5A

Date Received: 1/19/2007

Lab Project ID: G650-101

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	1/25/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	1/25/2007	
Ethylbenzene	BQL	1.00	0.172	1	1/25/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	1/25/2007	
Toluene	0.644	1.00	0.159	1	1/25/2007	J
m/p-Xylene	BQL	2.00	0.326	1	1/25/2007	
o-Xylene	BQL	2.00	0.285	1	1/25/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	37.9	94.7

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-MW07

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 1/18/2007 12:05

Lab Sample ID: G650-101-6A

Date Received: 1/19/2007

Lab Project ID: G650-101

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.183	1	1/25/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.229	1	1/25/2007	
Ethylbenzene	0.743	1.00	0.181	1	1/25/2007	J
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	1/25/2007	
Toluene	0.656	1.00	0.157	1	1/25/2007	J
m/p-Xylene	BQL	2.00	0.481	1	1/25/2007	
o-Xylene	BQL	2.00	0.584	1	1/25/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	38.0	95

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: ASTAS840-MW09

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 1/18/2007 12:59

Lab Sample ID: G650-101-7A

Date Received: 1/19/2007

Lab Project ID: G650-101

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	0.612	1.00	0.198	1	1/26/2007	J
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	1/26/2007	
Ethylbenzene	0.622	1.00	0.172	1	1/26/2007	J
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	1/26/2007	
Toluene	0.554	1.00	0.159	1	1/26/2007	J
m/p-Xylene	BQL	2.00	0.326	1	1/26/2007	
o-Xylene	BQL	2.00	0.285	1	1/26/2007	

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: ASTAS840-Duplicate

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 1/18/2007 0:00

Lab Sample ID: G650-101-8A

Date Received: 1/19/2007

Lab Project ID: G650-101

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	1/26/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	1/26/2007	
Ethylbenzene	0.666	1.00	0.172	1	1/26/2007	J
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	1/26/2007	
Toluene	0.558	1.00	0.159	1	1/26/2007	J
m/p-Xylene	BQL	2.00	0.326	1	1/26/2007	
o-Xylene	BQL	2.00	0.285	1	1/26/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.3	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: Trip Blanks

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 1/18/2007 0:00

Lab Sample ID: G650-101-9A

Date Received: 1/19/2007

Lab Project ID: G650-101

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	1/26/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	1/26/2007	
Ethylbenzene	BQL	1.00	0.172	1	1/26/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	1/26/2007	
Toluene	BQL	1.00	0.159	1	1/26/2007	
m/p-Xylene	BQL	2.00	0.326	1	1/26/2007	
o-Xylene	BQL	2.00	0.285	1	1/26/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.3	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: Method Blank

Analyzed By: RSB

Client Project ID:

Date Collected:

Lab Sample ID: VBLK1012507A

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	1/25/2007	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	1/25/2007	
Ethylbenzene	BQL	1.00	0.172	1	1/25/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	1/25/2007	
Toluene	BQL	1.00	0.159	1	1/25/2007	
m/p-Xylene	BQL	2.00	0.326	1	1/25/2007	
o-Xylene	BQL	2.00	0.285	1	1/25/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	37.9	94.7

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 8021

Client Sample ID: Method Blank

Analyzed By: RSB

Client Project ID:

Date Collected:

Lab Sample ID: VBLK5012607A

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	0.183	1	1/26/2007	
Ethylbenzene	BQL	1.00	0.181	1	1/26/2007	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.359	1	1/26/2007	
Toluene	BQL	1.00	0.157	1	1/26/2007	
m/p-Xylene	BQL	2.00	0.481	1	1/26/2007	
o-Xylene	BQL	2.00	0.584	1	1/26/2007	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.1	100

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Summary Results for Laboratory Control Spike

Method: 602

Filename : 012507/004R

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	10.5	105.2	39	150
Chlorobenzene	10.0	10.3	103.2	55	135
1,2-Dichlorobenzene	20.0	21.3	106.4	37	154
1,3-Dichlorobenzene	10.0	10.3	103.3	50	141
1,4-Dichlorobenzene	20.0	20.8	103.8	42	143
• Diisopropyl ether	10.0	9.8	98.5	30	170
Ethylbenzene	10.0	10.6	105.7	32	160
• MTBE	20.0	20.9	104.6	35	165
Toluene	10.0	10.5	105.0	46	148
• m,p-Xylene	20.0	21.1	105.5	0	239
• o-Xylene	20.0	21.0	104.9	36	164

Flags :

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

Summary Results for Laboratory Control Spike

Method: 602

Filename : 012507/005R

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	9.9	99.4	39	150
Chlorobenzene	10.0	9.8	97.7	55	135
1,2-Dichlorobenzene	20.0	20.0	100.1	37	154
1,3-Dichlorobenzene	10.0	9.8	97.8	50	141
1,4-Dichlorobenzene	20.0	19.7	98.3	42	143
• Diisopropyl ether	10.0	9.3	93.1	30	170
Ethylbenzene	10.0	10.0	100.2	32	160
• MTBE	20.0	19.7	98.5	35	165
Toluene	10.0	9.9	99.2	46	148
• m,p-Xylene	20.0	20.0	100.1	0	239
• o-Xylene	20.0	19.9	99.4	36	164

Flags :

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

Summary Results for MS-MSD

Method: 602

Sample : 012507/017F::012507/017R

MS : 012507/019F::012507/019R

MSD : 012507/020F::012507/020R

Compound	SA	µg/L			REC(%)		REC Limits	
		Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	20.0	31.6	21.2	20.7	106	106	39	150
Chlorobenzene	20.0	ND	20.2	20.1	101	101	55	135
1,2-Dichlorobenzene	20.0	ND	40.5	40.6	203 +	203 +	37	154
1,3-Dichlorobenzene	20.0	ND	20.0	20.0	100	100	50	141
1,4-Dichlorobenzene	20.0	ND	39.2	39.1	196 +	196 +	42	143
• Diisopropyl ether	20.0	43.5	20.8	20.3	104	104	30	170
Ethylbenzene	20.0	20.6	21.9	21.6	109	109	32	160
• MTBE	40.0	27.7	41.7	40.9	104	104	35	165
Toluene	20.0	ND	20.7	20.6	104	104	46	148
• m,p-Xylene	40.0	10.7	41.8	41.5	104	104	D	239
• o-Xylene	40.0	ND	40.9	40.8	102	102	36	164

Flags :

* Double spiked MS, MSD

+ = out of QC limits.

♦ = lab generated limits.

D = Detected

ND = None Detected

SA= Spike Added

Summary Results for Laboratory Control Spike

Method: 602

Filename : 012607/003f

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	10.1	100.9	39	150
Chlorobenzene	10.0	10.2	101.9	55	135
1,2-Dichlorobenzene	20.0	20.7	103.7	37	154
1,3-Dichlorobenzene	10.0	10.1	101.5	50	141
1,4-Dichlorobenzene	20.0	20.3	101.7	42	143
• Diisopropyl ether	10.0	10.1	101.4	30	170
Ethylbenzene	10.0	10.4	104.2	32	160
• MTBE	20.0	19.9	99.5	35	165
Toluene	10.0	10.3	103.2	46	148
• m,p-Xylene	20.0	20.8	104.0	0	239
• o-Xylene	20.0	20.6	103.1	36	164

Flags :

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

Summary Results for Laboratory Control Spike

Method: 602

Filename : 012607/005f

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	10.4	104.4	39	150
Chlorobenzene	10.0	10.2	101.9	55	135
1,2-Dichlorobenzene	20.0	20.7	103.7	37	154
1,3-Dichlorobenzene	10.0	10.1	101.5	50	141
1,4-Dichlorobenzene	20.0	20.3	101.7	42	143
• Diisopropyl ether	10.0	10.0	100.4	30	170
Ethylbenzene	10.0	10.8	108.3	32	160
• MTBE	20.0	20.5	102.3	35	165
Toluene	10.0	10.7	106.9	46	148
• m,p-Xylene	20.0	20.8	104.0	0	239
• o-Xylene	20.0	21.4	107.1	36	164

Flags :

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

Summary Results for MS-MSD

Method: 602

Sample : 012607/117b::012607/017f

MS : 012607/119b::012607/019f

MSD : 012607/120b::012607/020f

Compound	SA	µg/L			REC(%)		REC Limits	
		Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	10.0	ND	9.6	10.6	96	96	39	150
Chlorobenzene	10.0	ND	7.4	8.9	74	74	55	135
1,2-Dichlorobenzene	10.0	1.7	14.6	17.9	146	146	37	154
1,3-Dichlorobenzene	10.0	ND	7.3	8.9	73	73	50	141
1,4-Dichlorobenzene	10.0	2.5	11.8	14.9	118	118	42	143
• Diisopropyl ether	10.0	ND	9.3	15.7	93	93	30	170
Ethylbenzene	10.0	ND	9.9	10.0	99	99	32	160
• MTBE	20.0	ND	19.0	21.4	95	95	35	165
Toluene	10.0	ND	9.7	10.1	97	97	46	148
• m,p-Xylene	20.0	15.4	14.5	17.7	73	73	D	239
• o-Xylene	20.0	ND	19.5	27.7	98	98	36	164

Flags :

+ = out of QC limits.

♦ = lab generated limits.

D = Detected

ND = None Detected

SA= Spike Added

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW01
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/23/07
Date Analyzed	01/23/07
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	99
Surrogate % Recovery - FID	99

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-101-1d

Reviewed By: hmc

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW03
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/23/07
Date Analyzed	01/23/07
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	96
Surrogate % Recovery - FID	96

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-101-2d

Reviewed By: gme

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW04
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/23/07
Date Analyzed	01/23/07
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	96
Surrogate % Recovery - FID	96

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-101-3d

Reviewed By: fm

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW05
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/23/07
Date Analyzed	01/23/07
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	96
Surrogate % Recovery - FID	95

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-101-4d

Reviewed By: mm

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW06
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/23/07
Date Analyzed	01/23/07
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	97
Surrogate % Recovery - FID	97

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-101-5d

Reviewed By: im

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW07
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/23/07
Date Analyzed	01/23/07
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	130 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	97

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-101-6d

Reviewed By: fm

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW09
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/23/07
Date Analyzed	01/23/07
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	99

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-101-7d

Reviewed By: gma

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-Duplicate
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/23/07
Date Analyzed	01/23/07
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	130 (µg/L)
C ₉ -C ₁₀ Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	96
Surrogate % Recovery - FID	97

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g650-101-8d

Reviewed By: AME

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 01/03/07PID Initial Calibration Date: 01/03/07

Calibration Ranges and Limits

Range	MDL (07/15/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)
C ₅ -C ₈ Aliphatics	4.4	14	100 10
C ₉ -C ₁₂ Aliphatics	3.4	11	100 10
C ₉ -C ₁₀ Aromatics	0.13	0.41	100 10

Calibration Concentration Levels

Range	Levels (µg/L)	%RSD or CCC	Method of Quantitation
C ₅ -C ₈ Aliphatics	40	9.7	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C ₉ -C ₁₂ Aliphatics	10	15.00	Calibration Factor
	250		
	500		
	750		
	1000		
C ₉ -C ₁₀ Aromatics	10	23.10	Calibration Factor
	250		
	500		
	750		
	1000		

Calibration Check Date: 01/23/07

Calibration Check

Range	Levels (mg/Kg) (µg/L)	RPD
C ₅ -C ₈ Aliphatics	2000 200	15.4
C ₉ -C ₁₂ Aliphatics	500 50	12.7
C ₉ -C ₁₀ Aromatics	500 50	19.7

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW01
Sample Matrix	Water
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/24/07
Date Analyzed	01/25/07
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	59
Aromatic Surrogate % Recovery	52

Comments:

- * = Excludes any surrogates or internal standards.
 Sample did not require fractionation.

Lab info: G650-101-1H

Reviewed By: gme

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW03
Sample Matrix	Water
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/24/07
Date Analyzed	01/25/07
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	74
Aromatic Surrogate % Recovery	68

Comments:

* = Excludes any surrogates or internal standards.
 Sample did not require fractionation.

Lab info: G650-101-2H

Reviewed By: fm

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW04
Sample Matrix	Water
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/24/07
Date Analyzed	01/25/07
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	76
Aromatic Surrogate % Recovery	68

Comments:

- * = Excludes any surrogates or internal standards.
 Sample did not require fractionation.

Lab info: G650-101-3H

Reviewed By: RM

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW05
Sample Matrix	Water
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/24/07
Date Analyzed	01/25/07
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	74
Aromatic Surrogate % Recovery	68

Comments:

* = Excludes any surrogates or internal standards.
 Sample did not require fractionation.

Lab info: G650-101-4H

Reviewed By: RM

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-GW06
Sample Matrix	Water
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/24/07
Date Analyzed	01/25/07
Dry Weight	
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	74
Aromatic Surrogate % Recovery	68

Comments:

* = Excludes any surrogates or internal standards.
 Sample did not require fractionation.

Lab info: G650-101-5H

Reviewed By: kim

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW07
Sample Matrix	Water
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/24/07
Date Analyzed	01/29/07
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	77
Aromatic Surrogate % Recovery	69
Fractionation Surrogate 1 % Recovery	78

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-101-6H

Reviewed By: Rue

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-MW09
Sample Matrix	Water
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/25/07
Date Analyzed	01/30/07
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	< 100 (ug/L)
Aliphatic Surrogate % Recovery	65
Aromatic Surrogate % Recovery	57
Fractionation Surrogate 1 % Recovery	71

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-101-7J

Reviewed By: pm

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Sovereign ConsultingProject Name: NV016

Sample Information and Analytical Results	
Sample Identification	ASTAS840-Duplicate
Sample Matrix	Water
Date Collected	01/18/07
Date Received	01/19/07
Date Extracted	01/25/07
Date Analyzed	02/02/07
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	130 (ug/L)
Aliphatic Surrogate % Recovery	72
Aromatic Surrogate % Recovery	63
Fractionation Surrogate 1 % Recovery	69

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G650-101-81

Reviewed By: pm

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 12/14/06

Calibration Ranges and Limits

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)	
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100	10
C ₁₉ -C ₃₆ Aliphatics	0.57	1.8	100	10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	1.00	Linear Regression
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	1.0	Linear Regression
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	1	Linear Regression
	85		
	170		
	340		
	680		

Calibration Check Date: 01/25/07

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	3.4
C ₁₉ -C ₃₆ Aliphatics	160	1.4
C ₁₁ -C ₂₂ Aromatics	340	-11.5

MDL = Method Detection Limit
 ML = Minimum Limit
 RL = Reportable Limit

RPD = Relative Percent Difference
 %RSD = Percent Relative Standard Deviation
 CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 12/14/06

Calibration Ranges and Limits

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100 10
C ₁₉ -C ₃₆ Aliphatics	0.57	1.8	100 10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100 10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	1.00	Linear Regression
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	1.0	Linear Regression
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	1	Linear Regression
	85		
	170		
	340		
	680		

Calibration Check Date: 01/29/07

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	-0.1
C ₁₉ -C ₃₆ Aliphatics	160	0.6
C ₁₁ -C ₂₂ Aromatics	340	-6.0

MDL = Method Detection Limit
 ML = Minimum Limit
 RL = Reportable Limit

RPD = Relative Percent Difference
 %RSD = Percent Relative Standard Deviation
 CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 12/14/06

Calibration Ranges and Limits

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)	
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100	10
C ₁₉ -C ₃₆ Aliphatics	0.57	1.8	100	10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	1.00	Linear Regression
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	1.0	Linear Regression
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	1	Linear Regression
	85		
	170		
	340		
	680		

Calibration Check Date: 01/30/07

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	2.5
C ₁₉ -C ₃₆ Aliphatics	160	3.9
C ₁₁ -C ₂₂ Aromatics	340	-5.1

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 12/14/06

Calibration Ranges and Limits

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L)	RL (mg/Kg)
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100	10
C ₁₉ -C ₃₆ Aliphatics	0.57	1.8	100	10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	1.00	Linear Regression
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	1.0	Linear Regression
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	1	Linear Regression
	85		
	170		
	340		
	680		

Calibration Check Date: 02/02/07

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	1.8
C ₁₉ -C ₃₆ Aliphatics	160	0.4
C ₁₁ -C ₂₂ Aromatics	340	-8.0

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW01
 Client Project ID: NV016
 Lab Sample ID: G650-101-11
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 10:40
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/27/2007	
Acenaphthylene	BQL	10.0	1.12	1	1/27/2007	
Anthracene	BQL	10.0	1.75	1	1/27/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/27/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/27/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/27/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/27/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/27/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/27/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/27/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/27/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/27/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/27/2007	
2-Chlorophenol	BQL	10.0	4.22	1	1/27/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/27/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/27/2007	
Chrysene	BQL	10.0	1.11	1	1/27/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/27/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/27/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/27/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/27/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/27/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/27/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/27/2007	
Diethylphthalate	BQL	10.0	1.48	1	1/27/2007	
Dimethylphthalate	BQL	10.0	1.04	1	1/27/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/27/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/27/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/27/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/27/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/27/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/27/2007	
Diphenylamine *	BQL	10.0	1.53	1	1/27/2007	
Fluoranthene	BQL	10.0	1.41	1	1/27/2007	
Fluorene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/27/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/27/2007	
Hexachloroethane	BQL	10.0	1.58	1	1/27/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/27/2007	
Isophorone	BQL	10.0	1.27	1	1/27/2007	
Naphthalene	BQL	10.0	1.08	1	1/27/2007	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW01
 Client Project ID: NV016
 Lab Sample ID: G650-101-11
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 10:40
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	1/27/2007	
2-Nitrophenol	BQL	10.0	3.52	1	1/27/2007	
4-Nitrophenol	BQL	50.0	3.17	1	1/27/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/27/2007	
Pentachlorophenol	BQL	50.0	2.83	1	1/27/2007	
Phenanthrene	BQL	10.0	1.38	1	1/27/2007	
Phenol	BQL	10.0	3.38	1	1/27/2007	
Pyrene	BQL	10.0	2.08	1	1/27/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/27/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/27/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.8	88		
2-Fluorophenol		10	8.3	83		
Nitrobenzene-d5		10	8.9	89		
Phenol-d6		10	8.1	81		
2,4,6-Tribromophenol		10	8.7	87		
4-Terphenyl-d14		10	12.2	122		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: hu

Results of Library Search for Semivolatile Compounds*by GCMS*

Client Sample ID: ASTAS840-GW01

Client Project ID: NV016

Lab Sample ID: G650-101-1I

Lab Project ID: G650-101

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: EAW

Date Collected: 1/18/2007 10:40

Date Received: 1/19/2007

Date Extracted: 1/25/2007

Date Analyzed: 1/27/2007

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.95			194
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: RM

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW03

Client Project ID: NV016

Lab Sample ID: G650-101-2I

Lab Project ID: G650-101

Analyzed By: EAW

Date Collected: 1/18/2007 13:25

Date Received: 1/19/2007

Date Extracted: 1/25/2007

Matrix: Water

Compound	Result	RL	MDL	Dilution	Date	Flag
ug/L	ug/L	ug/L	Factor	Analyzed		
Acenaphthene	BQL	10.0	1.22	1	1/27/2007	
Acenaphthylene	BQL	10.0	1.12	1	1/27/2007	
Anthracene	BQL	10.0	1.75	1	1/27/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/27/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/27/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/27/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/27/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/27/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/27/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/27/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/27/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/27/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/27/2007	
2-Chlorophenol	BQL	10.0	4.22	1	1/27/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/27/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/27/2007	
Chrysene	BQL	10.0	1.11	1	1/27/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/27/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/27/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/27/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/27/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/27/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/27/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/27/2007	
Diethylphthalate	BQL	10.0	1.48	1	1/27/2007	
Dimethylphthalate	BQL	10.0	1.04	1	1/27/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/27/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/27/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/27/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/27/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/27/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/27/2007	
Diphenylamine *	BQL	10.0	1.53	1	1/27/2007	
Fluoranthene	BQL	10.0	1.41	1	1/27/2007	
Fluorene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/27/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/27/2007	
Hexachloroethane	BQL	10.0	1.58	1	1/27/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/27/2007	
Isophorone	BQL	10.0	1.27	1	1/27/2007	
Naphthalene	BQL	10.0	1.08	1	1/27/2007	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW03
 Client Project ID: NV016
 Lab Sample ID: G650-101-2I
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 13:25
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	1/27/2007	
2-Nitrophenol	BQL	10.0	3.52	1	1/27/2007	
4-Nitrophenol	BQL	50.0	3.17	1	1/27/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/27/2007	
Pentachlorophenol	BQL	50.0	2.83	1	1/27/2007	
Phenanthrene	BQL	10.0	1.38	1	1/27/2007	
Phenol	BQL	10.0	3.38	1	1/27/2007	
Pyrene	BQL	10.0	2.08	1	1/27/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/27/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/27/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.5	85		
2-Fluorophenol		10	8.4	84		
Nitrobenzene-d5		10	8.6	86		
Phenol-d6		10	7.8	78		
2,4,6-Tribromophenol		10	8.1	81		
4-Terphenyl-d14		10	11.5	115		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: *hwa*

Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: ASTAS840-GW03

Client Project ID: NV016

Lab Sample ID: G650-101-2I

Lab Project ID: G650-101

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: EAW

Date Collected: 1/18/2007 13:25

Date Received: 1/19/2007

Date Extracted: 1/25/2007

Date Analyzed: 1/27/2007

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.95			175
2	Unknown	5.33			4.08
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: fm

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW04
 Client Project ID: NV016
 Lab Sample ID: G650-101-3I
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 9:58
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/27/2007	
Acenaphthylene	BQL	10.0	1.12	1	1/27/2007	
Anthracene	BQL	10.0	1.75	1	1/27/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/27/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/27/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/27/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/27/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/27/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/27/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/27/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/27/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/27/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/27/2007	
2-Chlorophenol	BQL	10.0	4.22	1	1/27/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/27/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/27/2007	
Chrysene	BQL	10.0	1.11	1	1/27/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/27/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/27/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/27/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/27/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/27/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/27/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/27/2007	
Diethylphthalate	BQL	10.0	1.48	1	1/27/2007	
Dimethylphthalate	BQL	10.0	1.04	1	1/27/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/27/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/27/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/27/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/27/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/27/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/27/2007	
Diphenylamine *	BQL	10.0	1.53	1	1/27/2007	
Fluoranthene	BQL	10.0	1.41	1	1/27/2007	
Fluorene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/27/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/27/2007	
Hexachloroethane	BQL	10.0	1.58	1	1/27/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/27/2007	
Isophorone	BQL	10.0	1.27	1	1/27/2007	
Naphthalene	BQL	10.0	1.08	1	1/27/2007	

Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW04
 Client Project ID: NV016
 Lab Sample ID: G650-101-3I
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 9:58
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	1/27/2007	
2-Nitrophenol	BQL	10.0	3.52	1	1/27/2007	
4-Nitrophenol	BQL	50.0	3.17	1	1/27/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/27/2007	
Pentachlorophenol	BQL	50.0	2.83	1	1/27/2007	
Phenanthrene	BQL	10.0	1.38	1	1/27/2007	
Phenol	BQL	10.0	3.38	1	1/27/2007	
Pyrene	BQL	10.0	2.08	1	1/27/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/27/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/27/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.7	87		
2-Fluorophenol		10	8.3	83		
Nitrobenzene-d5		10	8.8	88		
Phenol-d6		10	7.9	79		
2,4,6-Tribromophenol		10	8.1	81		
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: fm

Results of Library Search for Semivolatile Compounds*by GCMS*

Client Sample ID: ASTAS840-GW04

Client Project ID: NV016

Lab Sample ID: G650-101-3I

Lab Project ID: G650-101

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: EAW

Date Collected: 1/18/2007 9:58

Date Received: 1/19/2007

Date Extracted: 1/25/2007

Date Analyzed: 1/27/2007

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.95			175
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: fm

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW05
 Client Project ID: NV016
 Lab Sample ID: G650-101-4I
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 9:10
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/27/2007	
Acenaphthylene	BQL	10.0	1.12	1	1/27/2007	
Anthracene	BQL	10.0	1.75	1	1/27/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/27/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/27/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/27/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/27/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/27/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/27/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/27/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/27/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/27/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/27/2007	
2-Chlorophenol	BQL	10.0	4.22	1	1/27/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/27/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/27/2007	
Chrysene	BQL	10.0	1.11	1	1/27/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/27/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/27/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/27/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/27/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/27/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/27/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/27/2007	
Diethylphthalate	BQL	10.0	1.48	1	1/27/2007	
Dimethylphthalate	BQL	10.0	1.04	1	1/27/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/27/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/27/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/27/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/27/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/27/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/27/2007	
Diphenylamine *	BQL	10.0	1.53	1	1/27/2007	
Fluoranthene	BQL	10.0	1.41	1	1/27/2007	
Fluorene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/27/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/27/2007	
Hexachloroethane	BQL	10.0	1.58	1	1/27/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/27/2007	
Isophorone	BQL	10.0	1.27	1	1/27/2007	
Naphthalene	BQL	10.0	1.08	1	1/27/2007	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW05
 Client Project ID: NV016
 Lab Sample ID: G650-101-41
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 9:10
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	1/27/2007	
2-Nitrophenol	BQL	10.0	3.52	1	1/27/2007	
4-Nitrophenol	BQL	50.0	3.17	1	1/27/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/27/2007	
Pentachlorophenol	BQL	50.0	2.83	1	1/27/2007	
Phenanthrene	BQL	10.0	1.38	1	1/27/2007	
Phenol	BQL	10.0	3.38	1	1/27/2007	
Pyrene	BQL	10.0	2.08	1	1/27/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/27/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/27/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.8	88		
2-Fluorophenol		10	8.5	85		
Nitrobenzene-d5		10	9	90		
Phenol-d6		10	8.2	82		
2,4,6-Tribromophenol		10	8.4	84		
4-Terphenyl-d14		10	11.9	119		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: me

Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: ASTAS840-GW05

Client Project ID: NV016

Lab Sample ID: G650-101-4I

Lab Project ID: G650-101

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: EAW

Date Collected: 1/18/2007 9:10

Date Received: 1/19/2007

Date Extracted: 1/25/2007

Date Analyzed: 1/27/2007

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.95			174
2	Unknown	5.33			5.38
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: fwu

Results for Semivolatiles by GCMS 625

Client Sample ID: ASTAS840-GW06
 Client Project ID: NV016
 Lab Sample ID: G650-101-51
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 11:15
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/27/2007	
Acenaphthylene	BQL	10.0	1.12	1	1/27/2007	
Anthracene	BQL	10.0	1.75	1	1/27/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/27/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/27/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/27/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/27/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/27/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/27/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/27/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/27/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/27/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/27/2007	
2-Chlorophenol	BQL	10.0	4.22	1	1/27/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/27/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/27/2007	
Chrysene	BQL	10.0	1.11	1	1/27/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/27/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/27/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/27/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/27/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/27/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/27/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/27/2007	
Diethylphthalate	BQL	10.0	1.48	1	1/27/2007	
Dimethylphthalate	BQL	10.0	1.04	1	1/27/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/27/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/27/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/27/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/27/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/27/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/27/2007	
Diphenylamine *	BQL	10.0	1.53	1	1/27/2007	
Fluoranthene	BQL	10.0	1.41	1	1/27/2007	
Fluorene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/27/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/27/2007	
Hexachloroethane	BQL	10.0	1.58	1	1/27/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/27/2007	
Isophorone	BQL	10.0	1.27	1	1/27/2007	
Naphthalene	BQL	10.0	1.08	1	1/27/2007	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW06
 Client Project ID: NV016
 Lab Sample ID: G650-101-51
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 11:15
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	1/27/2007	
2-Nitrophenol	BQL	10.0	3.52	1	1/27/2007	
4-Nitrophenol	BQL	50.0	3.17	1	1/27/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/27/2007	
Pentachlorophenol	BQL	50.0	2.83	1	1/27/2007	
Phenanthrene	BQL	10.0	1.38	1	1/27/2007	
Phenol	BQL	10.0	3.38	1	1/27/2007	
Pyrene	BQL	10.0	2.08	1	1/27/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/27/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/27/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.1	91		
2-Fluorophenol		10	9.1	91		
Nitrobenzene-d5		10	9.3	93		
Phenol-d6		10	8.5	85		
2,4,6-Tribromophenol		10	8.8	88		
4-Terphenyl-d14		10	11.9	119		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: me

Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: ASTAS840-GW06

Client Project ID: NV016

Lab Sample ID: G650-101-51

Lab Project ID: G650-101

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: EAW

Date Collected: 1/18/2007 11:15

Date Received: 1/19/2007

Date Extracted: 1/25/2007

Date Analyzed: 1/27/2007

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.95			179
2	Unknown	20.27			21.2
3	Unknown	21.01			20.3
4	Unknown	21.92			17.2
5	Unknown	19.64			16.3
6	Unknown	23.05			11.4
7	Unknown	11.36			11
8	Unknown	19.07			9.28
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: ime

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-MW07
 Client Project ID: NV016
 Lab Sample ID: G650-101-6I
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 12:05
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	2.70	10.0	1.22	1	1/27/2007	J
Acenaphthylene	BQL	10.0	1.12	1	1/27/2007	
Anthracene	BQL	10.0	1.75	1	1/27/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/27/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/27/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/27/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/27/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/27/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/27/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/27/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/27/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/27/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/27/2007	
2-Chlorophenol	BQL	10.0	4.22	1	1/27/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/27/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/27/2007	
Chrysene	BQL	10.0	1.11	1	1/27/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/27/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/27/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/27/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/27/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/27/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/27/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/27/2007	
Diethylphthalate	BQL	10.0	1.48	1	1/27/2007	
Dimethylphthalate	BQL	10.0	1.04	1	1/27/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/27/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/27/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/27/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/27/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/27/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/27/2007	
Diphenylamine *	BQL	10.0	1.53	1	1/27/2007	
Fluoranthene	BQL	10.0	1.41	1	1/27/2007	
Fluorene	2.50	10.0	1.22	1	1/27/2007	J
Hexachlorobenzene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/27/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/27/2007	
Hexachloroethane	BQL	10.0	1.58	1	1/27/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/27/2007	
Isophorone	BQL	10.0	1.27	1	1/27/2007	
Naphthalene	6.30	10.0	1.08	1	1/27/2007	J
Nitrobenzene	BQL	10.0	1.32	1	1/27/2007	
2-Nitrophenol	BQL	10.0	3.52	1	1/27/2007	
4-Nitrophenol	BQL	50.0	3.17	1	1/27/2007	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-MW07
 Client Project ID: NV016
 Lab Sample ID: G650-101-6I
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 12:05
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/27/2007	
Pentachlorophenol	BQL	50.0	2.83	1	1/27/2007	
Phenanthrene	2.90	10.0	1.38	1	1/27/2007	J
Phenol	BQL	10.0	3.38	1	1/27/2007	
Pyrene	BQL	10.0	2.08	1	1/27/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/27/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/27/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.2	82
2-Fluorophenol	10	8	80
Nitrobenzene-d5	10	8.3	83
Phenol-d6	10	7.9	79
2,4,6-Tribromophenol	10	8.4	84
4-Terphenyl-d14	10	9.9	99

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: *hmr*

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: ASTAS840-MW07

Client Project ID: NV016

Lab Sample ID: G650-101-6I

Lab Project ID: G650-101

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: EAW

Date Collected: 1/18/2007 12:05

Date Received: 1/19/2007

Date Extracted: 1/25/2007

Date Analyzed: 1/27/2007

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.95			187
2	Naphthalene, 1,7-dimethyl-	10.26	000575-37-1	97	22.2
3	Naphthalene, 2,3-dimethyl-	10.43	000581-40-8	97	11.2
4	Naphthalene, 2,6-dimethyl-	10.13	000581-42-0	98	9.43
5	Naphthalene, 1,2,3,4-tetrahydro-6-methyl-	9.07	001680-51-9	94	9.39
6	2,3-Dihydro-1-methylindene	7.65	027133-93-3	95	8.99
7	Naphthalene, 1-ethyl-	10.03	001127-76-0	97	8.74
8	Naphthalene, 1,2,3,4-tetrahydro-6-methyl-	8.83	001680-51-9	97	7.87
9	Unknown	5.33			7.83
10	Unknown	11.74			7.39

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: mm

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-MW09
 Client Project ID: NV016
 Lab Sample ID: G650-101-7H
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 12:59
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/27/2007	
Acenaphthylene	BQL	10.0	1.12	1	1/27/2007	
Anthracene	BQL	10.0	1.75	1	1/27/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/27/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/27/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/27/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/27/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/27/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/27/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/27/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/27/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/27/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/27/2007	
2-Chlorophenol	BQL	10.0	4.22	1	1/27/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/27/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/27/2007	
Chrysene	BQL	10.0	1.11	1	1/27/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/27/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/27/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/27/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/27/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/27/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/27/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/27/2007	
Diethylphthalate	BQL	10.0	1.48	1	1/27/2007	
Dimethylphthalate	BQL	10.0	1.04	1	1/27/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/27/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/27/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/27/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/27/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/27/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/27/2007	
Diphenylamine *	BQL	10.0	1.53	1	1/27/2007	
Fluoranthene	BQL	10.0	1.41	1	1/27/2007	
Fluorene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/27/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/27/2007	
Hexachloroethane	BQL	10.0	1.58	1	1/27/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/27/2007	
Isophorone	BQL	10.0	1.27	1	1/27/2007	
Naphthalene	BQL	10.0	1.08	1	1/27/2007	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-MW09
 Client Project ID: NV016
 Lab Sample ID: G650-101-7H
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 12:59
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	1/27/2007	
2-Nitrophenol	BQL	10.0	3.52	1	1/27/2007	
4-Nitrophenol	BQL	50.0	3.17	1	1/27/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/27/2007	
Pentachlorophenol	BQL	50.0	2.83	1	1/27/2007	
Phenanthrene	BQL	10.0	1.38	1	1/27/2007	
Phenol	BQL	10.0	3.38	1	1/27/2007	
Pyrene	BQL	10.0	2.08	1	1/27/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/27/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/27/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.1	81		
2-Fluorophenol		10	7.4	74		
Nitrobenzene-d5		10	8	80		
Phenol-d6		10	7.2	72		
2,4,6-Tribromophenol		10	8.1	81		
4-Terphenyl-d14		10	9.4	94		

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 of Library Search for Semivolatile Compounds*by GCMS*

Client Sample ID: ASTAS840-MW09

Client Project ID: NV016

Lab Sample ID: G650-101-7H

Lab Project ID: G650-101

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: EAW

Date Collected: 1/18/2007 12:59

Date Received: 1/19/2007

Date Extracted: 1/25/2007

Date Analyzed: 1/27/2007

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.95			181
2	Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-,	7.65	000464-48-2	97	20.6
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: fm

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-Duplicate
 Client Project ID: NV016
 Lab Sample ID: G650-101-8H
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 0:00
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	2.80	10.0	1.22	1	1/27/2007	J
Acenaphthylene	BQL	10.0	1.12	1	1/27/2007	
Anthracene	BQL	10.0	1.75	1	1/27/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/27/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/27/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/27/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/27/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/27/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/27/2007	
Bis(2-ethylhexyl)phthalate	2.50	10.0	1.33	1	1/27/2007	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/27/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/27/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/27/2007	
2-Chlorophenol	BQL	10.0	4.22	1	1/27/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/27/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/27/2007	
Chrysene	BQL	10.0	1.11	1	1/27/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/27/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/27/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/27/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/27/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/27/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/27/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/27/2007	
Diethylphthalate	BQL	10.0	1.48	1	1/27/2007	
Dimethylphthalate	BQL	10.0	1.04	1	1/27/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/27/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/27/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/27/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/27/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/27/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/27/2007	
Diphenylamine *	BQL	10.0	1.53	1	1/27/2007	
Fluoranthene	BQL	10.0	1.41	1	1/27/2007	
Fluorene	2.60	10.0	1.22	1	1/27/2007	J
Hexachlorobenzene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/27/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/27/2007	
Hexachloroethane	BQL	10.0	1.58	1	1/27/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/27/2007	
Isophorone	BQL	10.0	1.27	1	1/27/2007	
Naphthalene	6.40	10.0	1.08	1	1/27/2007	J

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-Duplicate
 Client Project ID: NV016
 Lab Sample ID: G650-101-8H
 Lab Project ID: G650-101

Analyzed By: EAW
 Date Collected: 1/18/2007 0:00
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	1/27/2007	
2-Nitrophenol	BQL	10.0	3.52	1	1/27/2007	
4-Nitrophenol	BQL	50.0	3.17	1	1/27/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/27/2007	
Pentachlorophenol	BQL	50.0	2.83	1	1/27/2007	
Phenanthrene	2.80	10.0	1.38	1	1/27/2007	J
Phenol	BQL	10.0	3.38	1	1/27/2007	
Pyrene	BQL	10.0	2.08	1	1/27/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/27/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/27/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.9	89		
2-Fluorophenol		10	8.8	88		
Nitrobenzene-d5		10	9.1	91		
Phenol-d6		10	8.2	82		
2,4,6-Tribromophenol		10	9.1	91		
4-Terphenyl-d14		10	11.6	116		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: jmw

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: ASTAS840-Duplicate
 Client Project ID: NV016
 Lab Sample ID: G650-101-8H
 Lab Project ID: G650-101
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: EAW
 Date Collected: 1/18/2007 0:00
 Date Received: 1/19/2007
 Date Extracted: 1/25/2007
 Date Analyzed: 1/27/2007
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.95			199
2	Naphthalene, 2,3-dimethyl-	10.26	000581-40-8	97	24.3
3	Naphthalene, 2,3-dimethyl-	10.43	000581-40-8	98	11.9
4	Naphthalene, 1,7-dimethyl-	10.14	000575-37-1	96	10.1
5	Naphthalene, 1,2,3,4-tetrahydro-6-methyl-	9.07	001680-51-9	92	9.95
6	Naphthalene, 1-ethyl-	10.04	001127-76-0	93	9.58
7	Naphthalene, 1,2,3,4-tetrahydro-5-methyl-	8.84	002809-64-5	95	8.09
8	Aromatic, Unknown	7.79			7.76
9	Aromatic, Unknown	11.74			7.56
10	Aromatic, Unknown	8.13			6.95

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: RML

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB7175
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 1/25/2007
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/27/2007	
Acenaphthylene	BQL	10.0	1.12	1	1/27/2007	
Anthracene	BQL	10.0	1.75	1	1/27/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/27/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/27/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/27/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/27/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/27/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/27/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/27/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/27/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/27/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/27/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/27/2007	
2-Chlorophenol	BQL	10.0	4.22	1	1/27/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/27/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/27/2007	
Chrysene	BQL	10.0	1.11	1	1/27/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/27/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/27/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/27/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/27/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/27/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/27/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/27/2007	
Diethylphthalate	BQL	10.0	1.48	1	1/27/2007	
Dimethylphthalate	BQL	10.0	1.04	1	1/27/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/27/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/27/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/27/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/27/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/27/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/27/2007	
Diphenylamine *	BQL	10.0	1.53	1	1/27/2007	
Fluoranthene	BQL	10.0	1.41	1	1/27/2007	
Fluorene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	1/27/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/27/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/27/2007	
Hexachloroethane	BQL	10.0	1.58	1	1/27/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/27/2007	
Isophorone	BQL	10.0	1.27	1	1/27/2007	
Naphthalene	BQL	10.0	1.08	1	1/27/2007	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID: PB7175
 Lab Project ID:

Analyzed By: EAW
 Date Collected:
 Date Received:
 Date Extracted: 1/25/2007
 Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Nitrobenzene	BQL	10.0	1.32	1	1/27/2007	
2-Nitrophenol	BQL	10.0	3.52	1	1/27/2007	
4-Nitrophenol	BQL	50.0	3.17	1	1/27/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/27/2007	
Pentachlorophenol	BQL	50.0	2.83	1	1/27/2007	
Phenanthrene	BQL	10.0	1.38	1	1/27/2007	
Phenol	BQL	10.0	3.38	1	1/27/2007	
Pyrene	BQL	10.0	2.08	1	1/27/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/27/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/27/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.2	82		
2-Fluorophenol		10	7.2	72		
Nitrobenzene-d5		10	8.4	84		
Phenol-d6		10	7.5	75		
2,4,6-Tribromophenol		10	8.4	84		
4-Terphenyl-d14		10	10.3	103		

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

Date Collected:

Client Project ID:

Date Received:

Lab Sample ID: Batch-7175-MS/MSD/LCS

Date Extracted: 01/25/07

Lab Project ID: G650-102-1

Date Analyzed: 01/27/07

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	213	218	103	213	227	107.0	4.11	30	62.0-119
4-Chloro-3-methylphenol	BQL	213	192	90.2	213	202	94.9	5.08	30	67.0-109
2-Chlorophenol	BQL	213	182	85.4	213	188	88.3	3.34	30	59.0-95.0
1,4-Dichlorobenzene	BQL	213	128	60.1	213	133	62.6	4.07	30	29.0-86.0
2,4-Dinitrotoluene	BQL	213	223	105*	213	231	108*	3.38	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	213	230	108*	213	234	110*	1.92	30	67.0-107
4-Nitrophenol	BQL	213	189	88.9	213	199	93.6	5.15	30	49.0-146
Pentachlorophenol	BQL	213	169	79.6	213	172	80.9	1.62	30	43.0-106
Phenol	BQL	213	181	84.9	213	188	88.3	3.93	30	61.0-100
Pyrene	BQL	213	216	101	213	224	105.0	3.97	30	41.0-123
1,2,4-Trichlorobenzene	BQL	213	165	77.6	213	175	82.1	5.64	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	100	100	100	72.9-127
4-Chloro-3-methylphenol	100	90.3	90.3	61.6-113
2-Chlorophenol	100	88.9	88.9	52.3-104
1,4-Dichlorobenzene	100	70.1	70.1	27.3-85.0
2,4-Dinitrotoluene	100	101	101	66.5-117
N-Nitrosodi-n-propylamine	100	108	108	54.4-119
4-Nitrophenol	100	89.1	89.1	32.4-150
Pentachlorophenol	100	76.3	76.3	23.9-115
Phenol	100	87.8	87.8	54.5-106
Pyrene	100	102	102	63.5-126
1,2,4-Trichlorobenzene	100	83.5	83.5	49.1-98.5

Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: fm

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.



Locations Nationwide

- Alaska
- Louisiana
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

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730996

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

1270 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557



Mr. Chris Murray
Sovereign Consulting
405 Oakmeads Crescent
Suite 1
Virginia Beach VA 23462
Report Number: G650-113
Client Project: NV016

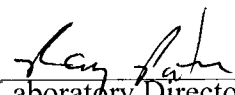
Dear Mr. Murray:

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

4/26/2007
Date

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW01

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 4/13/2007 8:50

Lab Sample ID: G650-113-1A

Date Received: 4/13/2007

Lab Project ID: G650-113

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/16/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/16/2007
Ethylbenzene	BQL	1.00	1	4/16/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/16/2007
Toluene	BQL	1.00	1	4/16/2007
m/p-Xylene	BQL	2.00	1	4/16/2007
o-Xylene	BQL	2.00	1	4/16/2007

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.9	105

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW03

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 4/12/2007 13:50

Lab Sample ID: G650-113-2A

Date Received: 4/13/2007

Lab Project ID: G650-113

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/16/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/16/2007
Ethylbenzene	BQL	1.00	1	4/16/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/16/2007
Toluene	BQL	1.00	1	4/16/2007
m/p-Xylene	BQL	2.00	1	4/16/2007
o-Xylene	BQL	2.00	1	4/16/2007

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.8	104

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW04

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 4/12/2007 12:45

Lab Sample ID: G650-113-3A

Date Received: 4/13/2007

Lab Project ID: G650-113

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/16/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/16/2007
Ethylbenzene	BQL	1.00	1	4/16/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/16/2007
Toluene	BQL	1.00	1	4/16/2007
m/p-Xylene	BQL	2.00	1	4/16/2007
o-Xylene	BQL	2.00	1	4/16/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.8	105

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW05

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 4/12/2007 11:40

Lab Sample ID: G650-113-4A

Date Received: 4/13/2007

Lab Project ID: G650-113

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/17/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/17/2007
Ethylbenzene	BQL	1.00	1	4/17/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/17/2007
Toluene	BQL	1.00	1	4/17/2007
m/p-Xylene	BQL	2.00	1	4/17/2007
o-Xylene	BQL	2.00	1	4/17/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.7	104

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW06

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 4/13/2007 9:40

Lab Sample ID: G650-113-5A

Date Received: 4/13/2007

Lab Project ID: G650-113

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/16/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/16/2007
Ethylbenzene	BQL	1.00	1	4/16/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/16/2007
Toluene	BQL	1.00	1	4/16/2007
m/p-Xylene	BQL	2.00	1	4/16/2007
o-Xylene	BQL	2.00	1	4/16/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.8	105

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW07

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 4/12/2007 9:30

Lab Sample ID: G650-113-6A

Date Received: 4/13/2007

Lab Project ID: G650-113

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/16/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/16/2007
Ethylbenzene	BQL	1.00	1	4/16/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/16/2007
Toluene	BQL	1.00	1	4/16/2007
m/p-Xylene	BQL	2.00	1	4/16/2007
o-Xylene	BQL	2.00	1	4/16/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.6	104

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW08

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 4/12/2007 10:30

Lab Sample ID: G650-113-7A

Date Received: 4/13/2007

Lab Project ID: G650-113

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/17/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/17/2007
Ethylbenzene	BQL	1.00	1	4/17/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/17/2007
Toluene	BQL	1.00	1	4/17/2007
m/p-Xylene	BQL	2.00	1	4/17/2007
o-Xylene	BQL	2.00	1	4/17/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.9	105

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-GW09

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 4/12/2007 14:43

Lab Sample ID: G650-113-8A

Date Received: 4/13/2007

Lab Project ID: G650-113

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/17/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/17/2007
Ethylbenzene	BQL	1.00	1	4/17/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/17/2007
Toluene	BQL	1.00	1	4/17/2007
m/p-Xylene	BQL	2.00	1	4/17/2007
o-Xylene	BQL	2.00	1	4/17/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.7	104

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: ASTAS840-Duplicate

Analyzed By: RSB

Client Project ID: NV016

Date Collected: 4/12/2007 0:00

Lab Sample ID: G650-113-9A

Date Received: 4/13/2007

Lab Project ID: G650-113

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/17/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/17/2007
Ethylbenzene	BQL	1.00	1	4/17/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/17/2007
Toluene	BQL	1.00	1	4/17/2007
m/p-Xylene	BQL	2.00	1	4/17/2007
o-Xylene	BQL	2.00	1	4/17/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.0	105

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: G650-113-10A

Lab Project ID: G650-113

Analyzed By: RSB

Date Collected: 4/12/2007 0:00

Date Received: 4/13/2007

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/16/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/16/2007
Ethylbenzene	BQL	1.00	1	4/16/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/16/2007
Toluene	BQL	1.00	1	4/16/2007
m/p-Xylene	BQL	2.00	1	4/16/2007
o-Xylene	BQL	2.00	1	4/16/2007

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.9	105

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: Method Blank

Analyzed By: RSB

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3041607A

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/16/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/16/2007
Ethylbenzene	BQL	1.00	1	4/16/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/16/2007
Toluene	BQL	1.00	1	4/16/2007
m/p-Xylene	BQL	2.00	1	4/16/2007
o-Xylene	BQL	2.00	1	4/16/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.0	105

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: Method Blank

Analyzed By: RSB

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3041707A

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/16/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/16/2007
Ethylbenzene	BQL	1.00	1	4/16/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/16/2007
Toluene	BQL	1.00	1	4/16/2007
m/p-Xylene	BQL	2.00	1	4/16/2007
o-Xylene	BQL	2.00	1	4/16/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.0	105

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: Method Blank

Analyzed By: RSB

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3041707A

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	4/17/2007
Diisopropyl ether (DIPE)	BQL	1.00	1	4/17/2007
Ethylbenzene	BQL	1.00	1	4/17/2007
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	4/17/2007
Toluene	BQL	1.00	1	4/17/2007
m/p-Xylene	BQL	2.00	1	4/17/2007
o-Xylene	BQL	2.00	1	4/17/2007

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.8	104

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Summary Results for MS-MSD

Sample : 041607/017F::041607/017R

MS : 041607/019F::041607/019R

MSD : 041607/020F::041607/020R

Compound	SA	µg/L			REC(%)		REC Limits	
		Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	10.0	2.3	11.4	11.3	114	114	39	150
Chlorobenzene	10.0	ND	11.1	10.9	111	111	55	135
1,2-Dichlorobenzene	20.0	ND	22.4	22.4	112	112	37	154
1,3-Dichlorobenzene	10.0	ND	11.1	11.0	111	111	50	141
1,4-Dichlorobenzene	20.0	ND	21.6	21.4	108	108	42	143
• Diisopropyl ether	10.0	ND	11.1	11.0	111	111	30	170
Ethylbenzene	10.0	ND	11.3	11.2	113	113	32	160
• MTBE	20.0	ND	21.6	21.6	108	108	35	165
Toluene	10.0	ND	11.2	11.2	112	112	46	148
• m,p-Xylene	20.0	4.2	23.0	22.7	115	115	D	239
• o-Xylene	20.0	1.5	22.9	22.6	114	114	36	164

Flags :

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

Summary Results for QC Check

Method: 602

Filename : 041607/002R

Compound	SA	Resul	Rec	QC Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	20.0	19.1	95.7	77.0	123.0
Chlorobenzene	20.0	19.1	95.6	80.5	119.5
1,2-Dichlorobenzene	40.0	38.4	96.0	68.0	132.0
1,3-Dichlorobenzene	20.0	19.1	95.7	72.5	127.5
1,4-Dichlorobenzene	40.0	38.3	95.8	69.5	130.5
• Diisopropyl ether	20.0	19.2	95.8	43.1	156.9
Ethylbenzene	20.0	19.6	97.8	63.0	137.0
• MTBE	40.0	37.5	93.7	46.8	153.2
Toluene	20.0	19.3	96.6	77.5	127.0
• m,p-Xylene	40.0	38.9	97.1	11.2	188.8
• o-Xylene	40.0	38.8	96.9	47.6	152.4

Flags :

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



Summary Results for Laboratory Control Spike

Method: 602

Filename : 041607/004R

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	9.1	91.1	39	150
Chlorobenzene	10.0	9.0	90.3	55	135
1,2-Dichlorobenzene	20.0	18.6	93.0	37	154
1,3-Dichlorobenzene	10.0	9.1	91.2	50	141
1,4-Dichlorobenzene	20.0	18.4	92.1	42	143
• Diisopropyl ether	10.0	9.0	89.8	30	170
Ethylbenzene	10.0	9.2	91.9	32	160
• MTBE	20.0	17.8	89.2	35	165
Toluene	10.0	9.1	91.1	46	148
• m,p-Xylene	20.0	18.4	91.9	0	239
• o-Xylene	20.0	18.4	92.1	36	164

Flags :

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

Summary Results for MS-MSD

Sample : 041707/017F::041707/017R

MS : 041707/019F::041707/019R

MSD : 041707/020F::041707/020R

Compound	SA	µg/L			REC(%)		REC Limits	
		Sam.	MS	MSD	MS	MSD	Lower	Upper
Bromodichloromethane	10.0	ND	9.9	11.2	99	112	42	172
Bromoform	10.0	ND	11.0	12.1	110	121	13	159
Bromomethane	10.0	ND	7.8	8.3	78	83	D	144
Carbon tetrachloride	20.0	ND	21.2	23.8	106	119	43	143
Chlorobenzene	10.0	ND	9.8	11.3	98	113	38	150
Chloroethane	10.0	ND	9.4	9.6	94	96	46	137
Chloroform	10.0	ND	10.6	11.9	106	119	49	133
Chloromethane	10.0	ND	9.1	9.0	93	91	D	193
Dibromochloromethane	10.0	ND	10.7	11.9	107	119	24	191
1,2-Dibromoethane	10.0	ND	9.8	11.0	98	110	D	206
1,2-Dichlorobenzene	10.0	ND	10.2	11.5	102	115	D	208
1,3-Dichlorobenzene	10.0	ND	10.0	11.3	100	113	7	187
1,4-Dichlorobenzene	10.0	ND	10.4	11.6	104	116	42	143
1,1-Dichloroethane	10.0	ND	10.4	11.5	104	115	47	132
1,2-Dichloroethane	10.0	ND	10.6	11.7	106	117	51	147
1,1-Dichloroethene	10.0	ND	9.7	10.8	97	108	28	167
cis-1,2-Dichloroethene	20.0	ND	22.1	24.9	111	125	19	181
trans-1,2-Dichloroethene	10.0	ND	10.1	11.1	101	111	38	155
1,2-Dichloropropane	10.0	ND	10.7	11.9	107	119	44	156
cis-1,3-Dichloropropene	10.0	ND	10.0	11.3	100	113	22	178
trans-1,3-Dichloropropene	10.0	ND	10.1	11.4	101	114	22	178
Methylene Chloride	10.0	ND	10.2	11.3	111	122	25	162
1,1,2,2-Tetrachloroethane	20.0	ND	18.3	20.9	91	105	8	184
Tetrachloroethane	20.0	ND	21.1	23.5	106	117	26	162
1,1,1-Trichloroethane	10.0	ND	10.5	11.6	105	116	41	138
1,1,2-Trichloroethane	10.0	ND	11.2	12.4	112	124	39	136
Trichloroethene	10.0	ND	10.2	11.3	108	120	35	146
Trichlorofluoromethane	10.0	ND	9.7	9.8	97	98	21	156
Vinyl Chloride	10.0	ND	9.7	9.9	105	107	28	163

Method: 602

Compound	SA	µg/L			P(%)		P Limits	
		Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	10.0	ND	10.3	11.7	103	117	39	150
Chlorobenzene	10.0	ND	10.3	11.7	103	117	55	135
1,2-Dichlorobenzene	10.0	ND	20.3	23.5	207 +	239 +	37	154
1,3-Dichlorobenzene	10.0	ND	10.2	11.6	102	116	50	141
1,4-Dichlorobenzene	20.0	ND	20.3	23.2	102	116	42	143
Diisopropyl ether	10.0	ND	10.3	11.8	103	118	30	170
Ethylbenzene	10.0	ND	10.4	11.9	104	119	32	160
MTBE	20.0	ND	20.3	23.1	102	115	35	165
Toluene	10.0	ND	10.4	11.8	104	118	46	148
m,p-Xylene	20.0	ND	20.7	23.7	104	119	D	239
o-Xylene	20.0	ND	20.7	23.7	104	118	36	164

Flags :

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

Summary Results for QC Check

Method : 601

Filename : 041707/002F

Compound	SA	Resul	Rec	F	QC Limits	
	ug/L	ug/L	(%)		Lower	Upper
Bromodichloromethane	20.0	20.4	102.2		76.0	124.0
Bromoform	20.0	27.2	135.8 +		73.5	126.5
Bromomethane	20.0	16.8	84.1		58.5	141.5
Carbon tetrachloride	40.0	40.0	100.0		68.5	131.5
Chlorobenzene	20.0	19.7	98.3		72.0	128.0
Chloroethane	20.0	18.0	89.8		77.0	123.0
Chloroform	20.0	20.2	100.8		75.0	125.0
Chloromethane	20.0	17.1	85.3		59.5	140.5
Dibromochloromethane	20.0	22.6	112.9		65.5	134.5
1,2-Dibromoethane	20.0	20.2	100.8		13.6	186.4
1,2-Dichlorobenzene	20.0	19.7	98.4		70.0	130.0
1,3-Dichlorobenzene	20.0	19.6	97.8		49.5	150.5
1,4-Dichlorobenzene	20.0	19.7	98.3		69.5	130.5
1,1-Dichloroethane	20.0	19.7	98.5		84.0	116.0
1,2-Dichloroethane	20.0	20.2	100.8		71.5	128.5
1,1-Dichloroethene	20.0	18.9	94.5		63.0	137.0
cis-1,2-Dichloroethene	40.0	43.5	108.8		34.4	180.6
trans-1,2-Dichloroethene	20.0	19.4	96.8		64.0	136.0
1,2-Dichloropropane	20.0	19.8	98.8		74.0	126.0
cis-1,3-Dichloropropene	20.0	20.6	103.2		64.0	136.0
trans-1,3-Dichloropropene	20.0	20.9	104.5		64.0	136.0
Methylene Chloride	20.0	19.4	97.2		77.5	122.5
1,1,2,2-Tetrachloroethane	60.0	63.1	105.1		49.0	151.0
Tetrachloroethene	40.0	39.7	99.3		70.0	130.0
1,1,1-Trichloroethane	20.0	19.9	99.3		71.0	129.0
1,1,2-Trichloroethane	20.0	20.8	103.9		78.5	121.5
Trichloroethene	20.0	19.4	97.1		77.0	123.0
Trichlorofluoromethane	20.0	18.0	89.8		66.5	133.5
Vinyl Chloride	20.0	18.4	92.2		68.5	131.5

Method: 602

Filename : 041707/002R

Compound	SA	Resul	Rec		QC Limits	
	ug/L	ug/L	(%)		Lower	Upper
Benzene	20.0	21.4	107.1		77.0	123.0
Chlorobenzene	20.0	21.3	106.7		80.5	119.5
1,2-Dichlorobenzene	40.0	43.5	108.7		68.0	132.0
1,3-Dichlorobenzene	20.0	21.4	106.9		72.5	127.5
1,4-Dichlorobenzene	40.0	43.3	108.4		69.5	130.5
Diisopropyl ether	20.0	21.5	107.4		43.1	156.9
Ethylbenzene	20.0	21.9	109.3		63.0	137.0
MTBE	40.0	42.4	106.0		46.8	153.2
Toluene	20.0	21.5	107.5		77.5	127.0
m,p-Xylene	40.0	43.3	108.4		11.2	188.8
o-Xylene	40.0	43.3	108.2		47.6	152.4

Flags :

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

Summary Results for Laboratory Control Spike

Method : 601

Filename : 041707/003F

Compound	SA	Result	Rec	F	LCS Limits	
	ug/L	ug/L	(%)		Lower	Upper
Bromodichloromethane	10.0	11.0	110.2		42	172
Bromoform	10.0	12.2	122.0		13	159
Bromomethane	10.0	5.9	59.4		0	144
Carbon tetrachloride	20.0	19.4	97.1		43	143
Chlorobenzene	10.0	9.1	90.7		38	150
Chloroethane	10.0	6.2	62.4		46	137
Chloroform	10.0	9.7	96.6		49	133
Chloromethane	10.0	6.0	60.2		0	193
Dibromochloromethane	10.0	10.6	105.6		24	191
• 1,2-Dibromoethane	10.0	9.0	90.0		0	206
1,2-Dichlorobenzene	10.0	9.5	95.4		0	208
1,3-Dichlorobenzene	10.0	9.2	92.1		7	187
1,4-Dichlorobenzene	10.0	9.5	95.5		42	143
1,1-Dichloroethane	10.0	9.3	93.2		47	132
1,2-Dichloroethane	10.0	9.6	95.7		51	147
1,1-Dichloroethene	10.0	8.9	88.7		28	167
• cis-1,2-Dichloroethene	20.0	20.9	104.3		19	181
trans-1,2-Dichloroethene	10.0	9.1	91.0		38	155
1,2-Dichloropropane	10.0	9.9	98.9		44	156
cis-1,3-Dichloropropene	10.0	9.3	93.0		22	178
trans-1,3-Dichloropropene	10.0	9.7	97.1		22	178
Methylene Chloride	10.0	9.2	91.7		25	162
1,1,2,2-Tetrachloroethane	20.0	16.7	83.4		8	184
Tetrachloroethane	10.0	9.9	99.0		26	162
1,1,1-Trichloroethane	10.0	9.4	93.8		41	138
1,1,2-Trichloroethane	10.0	10.0	99.9		39	136
Trichloroethene	10.0	9.2	91.5		35	146
Trichlorofluoromethane	10.0	6.3	63.0		21	156
Vinyl Chloride	10.0	6.6	66.0		28	163

Method: 602

Filename : 041707/003R

Compound	SA	Result	Rec	LCS Limits	
	ug/L	ug/L	(%)	Lower	Upper
Benzene	10.0	9.5	94.6	39	150
Chlorobenzene	10.0	9.5	94.5	55	135
1,2-Dichlorobenzene	20.0	19.7	98.4	37	154
1,3-Dichlorobenzene	10.0	9.6	96.0	50	141
1,4-Dichlorobenzene	20.0	19.2	96.1	42	143
• Diisopropyl ether	10.0	9.4	94.2	30	170
Ethylbenzene	10.0	9.6	96.4	32	160
• MTBE	20.0	18.7	93.5	35	165
Toluene	10.0	9.5	94.9	46	148
• m,p-Xylene	20.0	19.3	96.4	0	239
• o-Xylene	20.0	19.3	96.5	36	164

Flags :

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

Results for Semivolatiles
by GCMS 625Client Sample ID: ASTAS840-GW01
Client Project ID: NV016
Lab Sample ID: G650-113-1E
Lab Project ID: G650-113Analyzed By: EAW
Date Collected: 4/13/2007 8:50
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	4/19/2007	
Acenaphthylene	BQL	10.0	1.12	1	4/19/2007	
Anthracene	BQL	10.0	1.75	1	4/19/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/19/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/19/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/19/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/19/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/19/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/19/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	4/19/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/19/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/19/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/19/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/19/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/19/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/19/2007	
Chrysene	BQL	10.0	1.11	1	4/19/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/19/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/19/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/19/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/19/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/19/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/19/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/19/2007	
Diethylphthalate	BQL	10.0	1.48	1	4/19/2007	
Dimethylphthalate	BQL	10.0	1.04	1	4/19/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/19/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/19/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/19/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/19/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/19/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/19/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/19/2007	
Fluoranthene	BQL	10.0	1.41	1	4/19/2007	
Fluorene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/19/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/19/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/19/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/19/2007	
Isophorone	BQL	10.0	1.27	1	4/19/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
Naphthalene	BQL	10.0	1.08	1	4/19/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/19/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/19/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/19/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/19/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/19/2007	
Phenanthrene	BQL	10.0	1.38	1	4/19/2007	

Results for Semivolatiles
by GCMS 625

Client Sample ID: ASTAS840-GW01
Client Project ID: NV016
Lab Sample ID: G650-113-1E
Lab Project ID: G650-113

Analyzed By: EAW
Date Collected: 4/13/2007 8:50
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/19/2007	
Pyrene	BQL	10.0	2.08	1	4/19/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/19/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/19/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.7	87		
2-Fluorophenol		10	8.6	86		
Nitrobenzene-d5		10	8.9	88		
Phenol-d6		10	8.7	87		
2,4,6-Tribromophenol		10	11	110		
4-Terphenyl-d14		10	10.7	107		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: RM

**Results of Library Search for Semivolatile Compounds**
by GCMS

Client Sample ID: ASTAS840-GW01
Client Project ID: NV016
Lab Sample ID: G650-113-1E
Lab Project ID: G650-113
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 4/13/2007 8:50
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Date Analyzed: 4/19/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.31			15.8
2	Unknown	12.09			9.47
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: *hm*

Results for Semivolatiles
by GCMS 625Client Sample ID: ASTAS840-GW03
Client Project ID: NV016
Lab Sample ID: G650-113-2E
Lab Project ID: G650-113Analyzed By: EAW
Date Collected: 4/12/2007 13:50
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	4/19/2007	
Acenaphthylene	BQL	10.0	1.12	1	4/19/2007	
Anthracene	BQL	10.0	1.75	1	4/19/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/19/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/19/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/19/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/19/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/19/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/19/2007	
Bis(2-ethylhexyl)phthalate	1.60	10.0	1.33	1	4/19/2007	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/19/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/19/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/19/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/19/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/19/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/19/2007	
Chrysene	BQL	10.0	1.11	1	4/19/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/19/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/19/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/19/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/19/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/19/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/19/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/19/2007	
Diethylphthalate	BQL	10.0	1.48	1	4/19/2007	
Dimethylphthalate	BQL	10.0	1.04	1	4/19/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/19/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/19/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/19/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/19/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/19/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/19/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/19/2007	
Fluoranthene	BQL	10.0	1.41	1	4/19/2007	
Fluorene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/19/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/19/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/19/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/19/2007	
Isophorone	BQL	10.0	1.27	1	4/19/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
Naphthalene	BQL	10.0	1.08	1	4/19/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/19/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/19/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/19/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/19/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/19/2007	
Phenanthrene	BQL	10.0	1.38	1	4/19/2007	

Results for Semivolatiles
by GCMS 625

Client Sample ID: ASTAS840-GW03
Client Project ID: NV016
Lab Sample ID: G650-113-2E
Lab Project ID: G650-113

Analyzed By: EAW
Date Collected: 4/12/2007 13:50
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/19/2007	
Pyrene	BQL	10.0	2.08	1	4/19/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/19/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/19/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.6	86
2-Fluorophenol	10	8.6	86
Nitrobenzene-d5	10	8.9	89
Phenol-d6	10	8.5	85
2,4,6-Tribromophenol	10	11.2	112
4-Terphenyl-d14	10	10.7	107

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: ASTAS840-GW03
Client Project ID: NV016
Lab Sample ID: G650-113-2E
Lab Project ID: G650-113
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 4/12/2007 13:50
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Date Analyzed: 4/19/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.31			16.7
2	Unknown	12.09			8.82
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 625Client Sample ID: ASTAS840-GW04
Client Project ID: NV016
Lab Sample ID: G650-113-3E
Lab Project ID: G650-113Analyzed By: EAW
Date Collected: 4/12/2007 12:45
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	4/19/2007	
Acenaphthylene	BQL	10.0	1.12	1	4/19/2007	
Anthracene	BQL	10.0	1.75	1	4/19/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/19/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/19/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/19/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/19/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/19/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/19/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	4/19/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/19/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/19/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/19/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/19/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/19/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/19/2007	
Chrysene	BQL	10.0	1.11	1	4/19/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/19/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/19/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/19/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/19/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/19/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/19/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/19/2007	
Diethylphthalate	BQL	10.0	1.48	1	4/19/2007	
Dimethylphthalate	BQL	10.0	1.04	1	4/19/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/19/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/19/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/19/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/19/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/19/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/19/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/19/2007	
Fluoranthene	BQL	10.0	1.41	1	4/19/2007	
Fluorene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/19/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/19/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/19/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/19/2007	
Isophorone	BQL	10.0	1.27	1	4/19/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
Naphthalene	BQL	10.0	1.08	1	4/19/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/19/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/19/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/19/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/19/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/19/2007	
Phenanthrene	BQL	10.0	1.38	1	4/19/2007	

Results for Semivolatiles
by GCMS 625

Client Sample ID: ASTAS840-GW04
Client Project ID: NV016
Lab Sample ID: G650-113-3E
Lab Project ID: G650-113

Analyzed By: EAW
Date Collected: 4/12/2007 12:45
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/19/2007	
Pyrene	BQL	10.0	2.08	1	4/19/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/19/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/19/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.2	82		
2-Fluorophenol		10	7.9	79		
Nitrobenzene-d5		10	8.2	82		
Phenol-d6		10	7.9	79		
2,4,6-Tribromophenol		10	10.2	102		
4-Terphenyl-d14		10	11.6	116		

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: ASTAS840-GW04
Client Project ID: NV016
Lab Sample ID: G650-113-3E
Lab Project ID: G650-113
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 4/12/2007 12:45
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Date Analyzed: 4/19/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.31			13
2	Unknown	12.09			8.03
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: am

Results for Semivolatiles
by GCMS 625

Client Sample ID: ASTAS840-GW05

Client Project ID: NV016

Lab Sample ID: G650-113-4E

Lab Project ID: G650-113

Analyzed By: EAW

Date Collected: 4/12/2007 11:40

Date Received: 4/13/2007

Date Extracted: 4/16/2007

Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	4/19/2007	
Acenaphthylene	BQL	10.0	1.12	1	4/19/2007	
Anthracene	BQL	10.0	1.75	1	4/19/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/19/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/19/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/19/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/19/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/19/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/19/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	4/19/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/19/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/19/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/19/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/19/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/19/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/19/2007	
Chrysene	BQL	10.0	1.11	1	4/19/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/19/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/19/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/19/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/19/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/19/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/19/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/19/2007	
Diethylphthalate	BQL	10.0	1.48	1	4/19/2007	
Dimethylphthalate	BQL	10.0	1.04	1	4/19/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/19/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/19/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/19/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/19/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/19/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/19/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/19/2007	
Fluoranthene	BQL	10.0	1.41	1	4/19/2007	
Fluorene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/19/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/19/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/19/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/19/2007	
Isophorone	BQL	10.0	1.27	1	4/19/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
Naphthalene	BQL	10.0	1.08	1	4/19/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/19/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/19/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/19/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/19/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/19/2007	
Phenanthrene	BQL	10.0	1.38	1	4/19/2007	

Results for Semivolatiles
by GCMS 625

Client Sample ID: ASTAS840-GW05
Client Project ID: NV016
Lab Sample ID: G650-113-4E
Lab Project ID: G650-113

Analyzed By: EAW
Date Collected: 4/12/2007 11:40
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/19/2007	
Pyrene	BQL	10.0	2.08	1	4/19/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/19/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/19/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.9	89		
2-Fluorophenol		10	8.8	88		
Nitrobenzene-d5		10	9	90		
Phenol-d6		10	8.5	85		
2,4,6-Tribromophenol		10	11.2	112		
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: 

**Results of Library Search for Semivolatile Compounds**
by GCMS

Client Sample ID: ASTAS840-GW05
Client Project ID: NV016
Lab Sample ID: G650-113-4E
Lab Project ID: G650-113
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 4/12/2007 11:40
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Date Analyzed: 4/19/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.31			14.5
2	Unknown	12.09			9.33
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 625Client Sample ID: ASTAS840-GW06
Client Project ID: NV016
Lab Sample ID: G650-113-5E
Lab Project ID: G650-113Analyzed By: EAW
Date Collected: 4/13/2007 9:40
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	4/19/2007	
Acenaphthylene	BQL	10.0	1.12	1	4/19/2007	
Anthracene	BQL	10.0	1.75	1	4/19/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/19/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/19/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/19/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/19/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/19/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/19/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	4/19/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/19/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/19/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/19/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/19/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/19/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/19/2007	
Chrysene	BQL	10.0	1.11	1	4/19/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/19/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/19/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/19/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/19/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/19/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/19/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/19/2007	
Diethylphthalate	BQL	10.0	1.48	1	4/19/2007	
Dimethylphthalate	BQL	10.0	1.04	1	4/19/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/19/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/19/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/19/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/19/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/19/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/19/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/19/2007	
Fluoranthene	BQL	10.0	1.41	1	4/19/2007	
Fluorene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/19/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/19/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/19/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/19/2007	
Isophorone	BQL	10.0	1.27	1	4/19/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
Naphthalene	BQL	10.0	1.08	1	4/19/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/19/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/19/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/19/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/19/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/19/2007	
Phenanthrene	BQL	10.0	1.38	1	4/19/2007	

Results for Semivolatiles
by GCMS 625

Client Sample ID: ASTAS840-GW06
Client Project ID: NV016
Lab Sample ID: G650-113-5E
Lab Project ID: G650-113

Analyzed By: EAW
Date Collected: 4/13/2007 9:40
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/19/2007	
Pyrene	BQL	10.0	2.08	1	4/19/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/19/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/19/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.7	87		
2-Fluorophenol		10	9.2	92		
Nitrobenzene-d5		10	9	90		
Phenol-d6		10	8.8	88		
2,4,6-Tribromophenol		10	10.8	108		
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: 

**Results of Library Search for Semivolatile Compounds**
by GCMS

Client Sample ID: ASTAS840-GW06
Client Project ID: NV016
Lab Sample ID: G650-113-5E
Lab Project ID: G650-113
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 4/13/2007 9:40
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Date Analyzed: 4/19/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Acid, Unknown	10.31			13.7
2	Unknown	12.09			10.7
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: bm

Results for Semivolatiles
by GCMS 625Client Sample ID: ASTAS840-GW07
Client Project ID: NV016
Lab Sample ID: G650-113-6E
Lab Project ID: G650-113Analyzed By: EAW
Date Collected: 4/12/2007 9:30
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	4/19/2007	
Acenaphthylene	BQL	10.0	1.12	1	4/19/2007	
Anthracene	BQL	10.0	1.75	1	4/19/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/19/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/19/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/19/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/19/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/19/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/19/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	4/19/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/19/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/19/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/19/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/19/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/19/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/19/2007	
Chrysene	BQL	10.0	1.11	1	4/19/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/19/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/19/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/19/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/19/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/19/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/19/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/19/2007	
Diethylphthalate	BQL	10.0	1.48	1	4/19/2007	
Dimethylphthalate	BQL	10.0	1.04	1	4/19/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/19/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/19/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/19/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/19/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/19/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/19/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/19/2007	
Fluoranthene	BQL	10.0	1.41	1	4/19/2007	
Fluorene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/19/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/19/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/19/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/19/2007	
Isophorone	BQL	10.0	1.27	1	4/19/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
Naphthalene	BQL	10.0	1.08	1	4/19/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/19/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/19/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/19/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/19/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/19/2007	
Phenanthrene	BQL	10.0	1.38	1	4/19/2007	

Results for Semivolatiles
by GCMS 625

Client Sample ID: ASTAS840-GW07
Client Project ID: NV016
Lab Sample ID: G650-113-6E
Lab Project ID: G650-113

Analyzed By: EAW
Date Collected: 4/12/2007 9:30
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/19/2007	
Pyrene	BQL	10.0	2.08	1	4/19/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/19/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/19/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.5	85		
2-Fluorophenol		10	8.5	85		
Nitrobenzene-d5		10	8.9	89		
Phenol-d6		10	8.5	85		
2,4,6-Tribromophenol		10	10.6	106		
4-Terphenyl-d14		10	12.4	124		

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: ASTAS840-GW07
Client Project ID: NV016
Lab Sample ID: G650-113-6E
Lab Project ID: G650-113
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 4/12/2007 9:30
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Date Analyzed: 4/19/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.31			18.7
2	Unknown	12.09			10
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: hm

Results for Semivolatiles
by GCMS 625Client Sample ID: ASTAS840-GW08
Client Project ID: NV016
Lab Sample ID: G650-113-7E
Lab Project ID: G650-113Analyzed By: EAW
Date Collected: 4/12/2007 10:30
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	4/19/2007	
Acenaphthylene	BQL	10.0	1.12	1	4/19/2007	
Anthracene	BQL	10.0	1.75	1	4/19/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/19/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/19/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/19/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/19/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/19/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/19/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	4/19/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/19/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/19/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/19/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/19/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/19/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/19/2007	
Chrysene	BQL	10.0	1.11	1	4/19/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/19/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/19/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/19/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/19/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/19/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/19/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/19/2007	
Diethylphthalate	2.20	10.0	1.48	1	4/19/2007	J
Dimethylphthalate	BQL	10.0	1.04	1	4/19/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/19/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/19/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/19/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/19/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/19/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/19/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/19/2007	
Fluoranthene	BQL	10.0	1.41	1	4/19/2007	
Fluorene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/19/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/19/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/19/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/19/2007	
Isophorone	BQL	10.0	1.27	1	4/19/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
Naphthalene	BQL	10.0	1.08	1	4/19/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/19/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/19/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/19/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/19/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/19/2007	
Phenanthrene	BQL	10.0	1.38	1	4/19/2007	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: ASTAS840-GW08
Client Project ID: NV016
Lab Sample ID: G650-113-7E
Lab Project ID: G650-113

Analyzed By: EAW
Date Collected: 4/12/2007 10:30
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/19/2007	
Pyrene	BQL	10.0	2.08	1	4/19/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/19/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/19/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9	90		
2-Fluorophenol		10	9.3	93		
Nitrobenzene-d5		10	9.6	96		
Phenol-d6		10	9	90		
2,4,6-Tribromophenol		10	10.5	105		
4-Terphenyl-d14		10	11.4	114		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: Ru

**Results of Library Search for Semivolatile Compounds**
by GCMS

Client Sample ID: ASTAS840-GW08
Client Project ID: NV016
Lab Sample ID: G650-113-7E
Lab Project ID: G650-113
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 4/12/2007 10:30
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Date Analyzed: 4/19/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.31			18.3
2	Unknown	12.09			9.4
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: RM

Results for Semivolatiles
by GCMS 625Client Sample ID: ASTAS840-GW09
Client Project ID: NV016
Lab Sample ID: G650-113-8E
Lab Project ID: G650-113Analyzed By: EAW
Date Collected: 4/12/2007 14:43
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	2.40	10.0	1.22	1	4/19/2007	J
Acenaphthylene	BQL	10.0	1.12	1	4/19/2007	
Anthracene	BQL	10.0	1.75	1	4/19/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/19/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/19/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/19/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/19/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/19/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/19/2007	
Bis(2-ethylhexyl)phthalate	1.70	10.0	1.33	1	4/19/2007	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/19/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/19/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/19/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/19/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/19/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/19/2007	
Chrysene	BQL	10.0	1.11	1	4/19/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/19/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/19/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/19/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/19/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/19/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/19/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/19/2007	
Diethylphthalate	BQL	10.0	1.48	1	4/19/2007	
Dimethylphthalate	BQL	10.0	1.04	1	4/19/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/19/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/19/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/19/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/19/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/19/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/19/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/19/2007	
Fluoranthene	BQL	10.0	1.41	1	4/19/2007	
Fluorene	2.90	10.0	1.22	1	4/19/2007	J
Hexachlorobenzene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/19/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/19/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/19/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/19/2007	
Isophorone	BQL	10.0	1.27	1	4/19/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
Naphthalene	BQL	10.0	1.08	1	4/19/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/19/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/19/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/19/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/19/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/19/2007	
Phenanthrene	BQL	10.0	1.38	1	4/19/2007	

Results for Semivolatiles
by GCMS 625

Client Sample ID: ASTAS840-GW09
Client Project ID: NV016
Lab Sample ID: G650-113-8E
Lab Project ID: G650-113

Analyzed By: EAW
Date Collected: 4/12/2007 14:43
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/19/2007	
Pyrene	BQL	10.0	2.08	1	4/19/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/19/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/19/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.6	86		
2-Fluorophenol		10	8.8	88		
Nitrobenzene-d5		10	9.1	91		
Phenol-d6		10	8.7	87		
2,4,6-Tribromophenol		10	11.3	114		
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: ASTAS840-GW09
Client Project ID: NV016
Lab Sample ID: G650-113-8E
Lab Project ID: G650-113
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 4/12/2007 14:43
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Date Analyzed: 4/19/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.31			20.6
2	Unknown	12.09			11.9
3	Benzene, 2-ethenyl-1,4-dimethyl-	8.38	002039-89-6	91	11.9
4	Aromatic, Unknown	9.82			7.04
5	Aromatic, Unknown	7.12			6.6
6	Naphthalene, 2,3-dimethyl-	11.02	000581-40-8	97	5.84
7	Unknown	12.52			5.13
8	1,1'-Biphenyl, 3,3',4,4',5,5'-hexachloro-	17.48	032774-16-6	99	4.81
9	Aromatic, Unknown	17.14			4.66
10	1H-Indene, 2,3-dihydro-1,6-dimethyl-	8.87	017059-48-2	95	4.54

Comment:

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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: hmr

Results for Semivolatiles
by GCMS 625Client Sample ID: ASTAS840-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-113-9E
Lab Project ID: G650-113Analyzed By: EAW
Date Collected: 4/12/2007 0:00
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	4/19/2007	
Acenaphthylene	BQL	10.0	1.12	1	4/19/2007	
Anthracene	BQL	10.0	1.75	1	4/19/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/19/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/19/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/19/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/19/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/19/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/19/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/19/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	4/19/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/19/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/19/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/19/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/19/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/19/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/19/2007	
Chrysene	BQL	10.0	1.11	1	4/19/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/19/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/19/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/19/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/19/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/19/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/19/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/19/2007	
Diethylphthalate	BQL	10.0	1.48	1	4/19/2007	
Dimethylphthalate	BQL	10.0	1.04	1	4/19/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/19/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/19/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/19/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/19/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/19/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/19/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/19/2007	
Fluoranthene	BQL	10.0	1.41	1	4/19/2007	
Fluorene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	4/19/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/19/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/19/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/19/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/19/2007	
Isophorone	BQL	10.0	1.27	1	4/19/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/19/2007	
Naphthalene	BQL	10.0	1.08	1	4/19/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/19/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/19/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/19/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/19/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/19/2007	
Phenanthrene	BQL	10.0	1.38	1	4/19/2007	

Results for Semivolatiles
by GCMS 625

Client Sample ID: ASTAS840-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-113-9E
Lab Project ID: G650-113

Analyzed By: EAW
Date Collected: 4/12/2007 0:00
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/19/2007	
Pyrene	BQL	10.0	2.08	1	4/19/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/19/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/19/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.2	92		
2-Fluorophenol		10	9.1	91		
Nitrobenzene-d5		10	9.6	96		
Phenol-d6		10	9.1	91		
2,4,6-Tribromophenol		10	11.3	113		
4-Terphenyl-d14		10	11.5	115		

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: ASTAS840-Duplicate
Client Project ID: NV016
Lab Sample ID: G650-113-9E
Lab Project ID: G650-113
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: EAW
Date Collected: 4/12/2007 0:00
Date Received: 4/13/2007
Date Extracted: 4/16/2007
Date Analyzed: 4/19/2007
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	10.31			16.3
2	Unknown	12.09			9.63
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: fur

Results for Semivolatiles
by GCMS 625Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB7913
Lab Project ID:Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 4/16/2007
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	4/23/2007	
Acenaphthylene	BQL	10.0	1.12	1	4/23/2007	
Anthracene	BQL	10.0	1.75	1	4/23/2007	
Benzo[a]anthracene	BQL	10.0	1.36	1	4/23/2007	
Benzo[a]pyrene	BQL	10.0	1.27	1	4/23/2007	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	4/23/2007	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	4/23/2007	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	4/23/2007	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	4/23/2007	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	4/23/2007	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	4/23/2007	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	4/23/2007	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	4/23/2007	
Butylbenzylphthalate	BQL	10.0	1.53	1	4/23/2007	
2-Chloronaphthalene	BQL	10.0	1.25	1	4/23/2007	
2-Chlorophenol	BQL	10.0	4.22	1	4/23/2007	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	4/23/2007	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	4/23/2007	
Chrysene	BQL	10.0	1.11	1	4/23/2007	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	4/23/2007	
Di-n-Butylphthalate	BQL	10.0	1.65	1	4/23/2007	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	4/23/2007	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	4/23/2007	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	4/23/2007	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	4/23/2007	
2,4-Dichlorophenol	BQL	10.0	3.75	1	4/23/2007	
Diethylphthalate	BQL	10.0	1.48	1	4/23/2007	
Dimethylphthalate	BQL	10.0	1.04	1	4/23/2007	
2,4-Dimethylphenol	BQL	10.0	9.25	1	4/23/2007	
Di-n-octylphthalate	BQL	10.0	1.16	1	4/23/2007	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	4/23/2007	
2,4-Dinitrophenol	BQL	50.0	4.20	1	4/23/2007	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	4/23/2007	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	4/23/2007	
Diphenylamine *	BQL	10.0	1.53	1	4/23/2007	
Fluoranthene	BQL	10.0	1.41	1	4/23/2007	
Fluorene	BQL	10.0	1.22	1	4/23/2007	
Hexachlorobenzene	BQL	10.0	1.22	1	4/23/2007	
Hexachlorobutadiene	BQL	10.0	1.58	1	4/23/2007	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	4/23/2007	
Hexachloroethane	BQL	10.0	1.58	1	4/23/2007	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	4/23/2007	
Isophorone	BQL	10.0	1.27	1	4/23/2007	
1-Methylnaphthalene	BQL	10.0	1.08	1	4/23/2007	
2-Methylnaphthalene	BQL	10.0	1.08	1	4/23/2007	
Naphthalene	BQL	10.0	1.08	1	4/23/2007	
Nitrobenzene	BQL	10.0	1.32	1	4/23/2007	
2-Nitrophenol	BQL	10.0	3.52	1	4/23/2007	
4-Nitrophenol	BQL	50.0	3.17	1	4/23/2007	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	4/23/2007	
Pentachlorophenol	BQL	50.0	2.83	1	4/23/2007	
Phenanthrene	BQL	10.0	1.38	1	4/23/2007	

Results for Semivolatiles
by GCMS 625Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB7913
Lab Project ID:Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 4/16/2007
Matrix: WATER

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	10.0	3.38	1	4/23/2007	
Pyrene	BQL	10.0	2.08	1	4/23/2007	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	4/23/2007	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	4/23/2007	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.1	91		
2-Fluorophenol		10	8.6	86		
Nitrobenzene-d5		10	9.2	92		
Phenol-d6		10	8.8	88		
2,4,6-Tribromophenol		10	9.6	96		
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: 

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-7913-MS/MSD/LCS

Lab Project ID: G650-113-1E

Matrix: WATER

Prep Method: 3520

Date Collected:

Date Received:

Date Extracted: 04/16/07

Date Analyzed: 04/19/07

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.	RPD	QC Limits	
									RPD	% Rec.
Acenaphthylene	BQL	222	210	94.7	222	190	85.4	10.3	30	62.0-119
4-Chloro-3-methylphenol	BQL	222	224	101	222	198	88.9	12.4	30	67.0-109
2-Chlorophenol	BQL	222	215	96.7*	222	186	83.9	14.2	30	59.0-95.0
1,4-Dichlorobenzene	BQL	222	123	55.5	222	105	47.2	16.2	30	29.0-86.0
2,4-Dinitrotoluene	BQL	222	229	103	222	201	90.6	12.8	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	222	236	106	222	207	93.1	13.2	30	67.0-107
4-Nitrophenol	BQL	222	218	98.3	222	175	78.6	22.3	30	49.0-146
Pentachlorophenol	BQL	222	212	95.5	222	179	80.6	16.9	30	43.0-106
Phenol	BQL	222	194	87.2	222	171	77.1	12.3	30	61.0-100
Pyrene	BQL	222	230	104	222	238	107.0	3.23	30	41.0-123
1,2,4-Trichlorobenzene	BQL	222	162	72.9	222	145	65.3	11.0	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	100	94.8	94.8	72.9-127
4-Chloro-3-methylphenol	100	96.0	96.0	61.6-113
2-Chlorophenol	100	87.7	87.7	52.3-104
1,4-Dichlorobenzene	100	56.7	56.7	27.3-85.0
2,4-Dinitrotoluene	100	98.6	98.6	66.5-117
N-Nitrosodi-n-propylamine	100	96.1	96.1	54.4-119
4-Nitrophenol	100	80.0	80.0	32.4-150
Pentachlorophenol	100	87.5	87.5	23.9-115
Phenol	100	80.9	80.9	54.5-106
Pyrene	100	108	108	63.5-126
1,2,4-Trichlorobenzene	100	73.7	73.7	49.1-98.5

Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: lw



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
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SGS ENVIRONMENTAL SERVICES, INC.

1 CLIENT: Sovereign Consulting Inc.		SGS Reference: G650-113		PAGE 1 OF 1	
CONTACT: Scarlett Fielding		PHONE NO: (910) 539-6683			
PROJECT: NVO16		SITE/PWSID#: AS840			
REPORTS TO: C. Murray		E-MAIL: cmurray@sovcon.com			
405 Oak Meigs Crescent Suite 1		nha@sovcon.com			
VA Beach, VA 23462		FAX NO: (757) 456-5095			
INVOICE TO: C. Murray		QUOTE #			
P.O. NUMBER					
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	REMARKS
	ASTAS840-GW01	4/13/07	0850	W	
	ASTAS840-GW03	4/12/07	1350		
	ASTAS840-GW04	4/12/07	1245		
	ASTAS840-GW05	4/12/07	1140		
	ASTAS840-GW06	4/13/07	0940		
	ASTAS840-GW07	4/12/07	0930		
	ASTAS840-GW08	4/12/07	1030		
	ASTAS840-GW09	4/12/07	1443		
	ASTAS840-Duplicate	4/12/07			
	Trip Blank	4/12/07		W	

5	Collected/Relinquished By: (1)	Date	Time	Received By:	Date	Time
	<i>[Signature]</i>	4/13/07	1017	<i>[Signature]</i>	4/13/07	1017
	Relinquished By: (2)	Date	Time	Received By:	Date	Time
	<i>[Signature]</i>	04/13/07	1445	<i>[Signature]</i>	4/13/07	1445
	Relinquished By: (3)	Date	Time	Received By:	Date	Time
	Relinquished By: (4)	Date	Time	Received By:	Date	Time

4	Shipping Carrier:	Shipping Ticket No:	Special Deliverable Requirements:	Special Instructions:
			EDD Format	Report 1,2-methylnaphthalene email results to: nha@sovcon.com cmurray@sovcon.com

3	Preservatives Used	Analysis Required	Chain of Custody Seal: (Circle)
	HCl	602	INTACT

2	SAMPLE TYPE	No	C	CONTAINERS	G= GRAB	REMARKS
	C= COMP	4	G			

1	Temperature (C):	Samples Received Cold? (Circle)	White - Retained by Lab
	5.8, 5.6 TC	YES	Yellow - Returned with Report

1	Requested Turnaround Time:	Date Needed
	☒ RUSH	

APPENDIX C

FIELD DATA

Project Number: NV012
Project Name: AS840
Date: 6/14/06
Weather:

Well ID: GWO1
Sample ID: 1st ASS40-GWO1
Well Condition:

Protective Casing Diameter (inch):	
Inner Casing Diameter (inch):	2
Inner Casing Material:	
Purge/Sample Method:	
PID/FID Reading of Well Headspace (ppm)	
Before Cap Removal:	
After Cap Removal:	
Depth to Product from TOC (feet):	
Initial Depth to Water from TOC (feet):	4.51
Product Thickness (feet):	
Depth to Top of Screen from TOC (feet):	
Total Depth from TOC (feet):	18.55

Water Column (feet): 124.04

Casing Volume (gal): 2.28

Pump Intake Setting from TOC (feet):

DTW After Pump Installed:

Start Purge Date/Time: 1515

End Purge Date/Time:

Total Volume Purged (gal):

Depth to Water After Purge from TOC (feet):

Pre-Sample Depth to Water from TOC (feet):

Start Sample Date/Time:

End Sample Date/Time: 1640

Sampler Name: TE

[illegible]

Project Number: NV012
Project Name: A5840
Date: 6/14/06
Weather: _____

Well ID: GW02R
Sample ID: ASTHS840-GW02R
Well Condition:

Protective Casing Diameter (inch):	2
Inner Casing Diameter (inch):	
Inner Casing Material:	
Purge/Sample Method:	
PID/FID Reading of Well Headspace (ppm)	
Before Cap Removal:	
After Cap Removal:	
Depth to Product from TOC (feet):	
Initial Depth to Water from TOC (feet):	5.60
Product Thickness (feet):	
Depth to Top of Screen from TOC (feet):	
Total Depth from TOC (feet):	11.21

Water Column (feet): 10.61

Casing Volume (gal): 1.72

Pump Intake Setting from TOC (feet):

DTW After Pump Installed:

Start Purge Date/Time: 1320

End Purge Date/Time:

Total Volume Purged (gal):

Depth to Water After Purge from TOC (feet):

Pre-Sample Depth to Water from TOC (feet):

Start Sample Date/Time:

End Sample Date/Time: 1345

Sampler Name: TE

Time	Rate (gal/min)	Cumulative Gallons Purged	pH (SI Units)	Conductivity (µohms/cm)	Temp (°C)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mv)	Depth to Water (ft)	Comments
1332	200 ml/min	2	7.11	0.738	20.67	0.97	4.62	-14.6		(*Replacement well)
1335			7.11	0.731	20.70	0.66	0.00	-64.8		
1338			7.10	0.718	20.73	0.70	0.00	-65.1		
1341			7.10	0.714	20.81	0.55	0.00	-65.4		
Duplicate sample on GWO2R										

Project Number: NV012
Project Name: A5840
Date: 6/14/06
Weather:

Well ID: GW34
Sample ID: ASTAS840-NW34
Well Condition:

Protective Casing Diameter (inch):
Inner Casing Diameter (inch):
Inner Casing Material:
Purge/Sample Method:
PID/FID Reading of Well Headspace (ppm)
 Before Cap Removal:
 After Cap Removal:
Depth to Product from TOC (feet):
Initial Depth to Water from TOC (feet):
Product Thickness (feet):
Depth to Top of Screen from TOC (feet):
Total Depth from TOC (feet):

Water Column (feet): 12.16

Casing Volume (gal): 1.98

Pump Intake Setting from TOC (feet):

DTW After Pump Installed:

Start Purge Date/Time: 1/4/01

End Purge Date/Time:

Total Volume Purged (gal):

Depth to Water After Purge from TOC (feet):

Pre-Sample Depth to Water from TOC (feet):

Start Sample Date/Time:

End Sample Date/Time: 1/4/01

Sampler Name: JTS

[illegible]

Project Number: NV012
Project Name: ASS410
Date: 6/14/06
Weather: _____

[illegible]

Project Number: NV012
Project Name: ASSLO
Date: 6/14/06
Weather: _____

Well ID: GWO6
Sample ID: AST ASSHO-GWO6
Well Condition:

Protective Casing Diameter (inch):
Inner Casing Diameter (inch):
Inner Casing Material:
Purge/Sample Method:
PID/FID Reading of Well Headspace (ppm)
Before Cap Removal:
After Cap Removal:
Depth to Product from TOC (feet):
Initial Depth to Water from TOC (feet):
Product Thickness (feet):
Depth to Top of Screen from TOC (feet):
Total Depth from TOC (feet):

Water Column (feet): 12.42

Casing Volume (gal): 2.02

Pump Intake Setting from TOC (feet):

DTW After Pump Installed:

Start Purge Date/Time: 09/08

End Purge Date/Time:

Total Volume Purged (gal):

Depth to Water After Purge from TOC (feet):

Pre-Sample Depth to Water from TOC (feet):

Start Sample Date/Time:

End Sample Date/Time: 10/20

Sampler Name: TK

[illegible]

Project Number: NV012
Project Name: ASS40
Date: 6/14/06
Weather: _____

Well ID: GWO-1
Sample ID: ASTAS840-GWO-1
Well Condition: _____

Protective Casing Diameter (inch):	2
Inner Casing Diameter (inch):	
Inner Casing Material:	
Purge/Sample Method:	
PID/FID Reading of Well Headspace (ppm)	
Before Cap Removal:	
After Cap Removal:	
Depth to Product from TOC (feet):	
Initial Depth to Water from TOC (feet):	7.26
Product Thickness (feet):	
Depth to Top of Screen from TOC (feet):	
Total Depth from TOC (feet):	14.03

Water Column (feet):	6.11
Casing Volume (gal):	1.10
Pump Intake Setting from TOC (feet):	
DTW After Pump Installed:	
Start Purge Date/Time:	10/5/06
End Purge Date/Time:	
Total Volume Purged (gal):	2
Depth to Water After Purge from TOC (feet):	
Pre-Sample Depth to Water from TOC (feet):	
Start Sample Date/Time:	
End Sample Date/Time:	11/20/06
Sampler Name:	TE

[illegible]

GROUNDWATER MONITORING WELL GAUGING DATA
MCB Camp LeJeune and New River MCAS

SITE: AS840

DATE: 11/6/26

Gauged By:

TE

DEPTH TO BOTTOM
MEASURED FROM TOC

WELL
NUMBER

Installed Measured

TIME OF
GAUGING

DEPTH TO
WATER
FROM TOP
OF CASING

DEPTH TO
LNAPL
FROM TOP
OF CASING

LNAPL
THICKNESS

COMMENTS

ASTAS840-
GW01
ASTAS840-
GW03
ASTAS840-
GW04
ASTAS840-
GW05
ASTAS840-
GW06
ASTAS840-
MW07
ASTAS840-
GW08
ASTAS840-
MW09

18.35

27.81

18.31

18.45

18.00

14.03

13.62

16.21

1103

1100

1115

1116

1102

1117

1118

1101

5.35

6.57

7.32

7.13

6.58

7.61

7.55

6.57

Project Number: NY 016
Project Name: AS 840
Date: 11/26/06
Weather: 63°

Well ID: MWD
Sample ID: ASTASB40-GWS
Well Condition: Coating Went

Protective Casing Diameter (inch):	<u>N/A</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>5.35</u>
Product Thickness (feet):	<u>N/A</u>
Total Depth from TOC (feet):	<u>18.35</u>

Water Column (feet):	13
Casing Volume (gal):	2.11
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	1355
Total Volume Purged (gal):	4
Sample Time/Date	1430
Sampler Name:	TE

[illegible]

Project Number: NY016
Project Name: AS84D
Date: 11/7/06
Weather: S+T

Well ID: MN03
Sample ID: ASTAS840-GN03
Well Condition: good

Protective Casing Diameter (inch):	<u>N/A</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>6.57</u>
Product Thickness (feet):	<u>N/A</u>
Total Depth from TOC (feet):	<u>27.81</u>

Water Column (feet): 21.24

Casing Volume (gal): 3.46

Purge/Sample Method: Low Flow Method

Start Purge Date/Time: 1006

Total Volume Purged (gal): ~~1006~~ 5

Sample Time/Date: 1058

Sampler Name: TE

[illegible]

Project Number: NY2016
Project Name: AS840
Date: 11/6/20
Weather: 40's

Well ID: MWOL
Sample ID: AST ASSAY - GWOL
Well Condition: Good

Protective Casing Diameter (inch):	<u>N/A</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>7.32</u>
Product Thickness (feet):	<u>N/A</u>
Total Depth from TOC (feet):	<u>18.51</u>

Water Column (feet): 10.99

Casing Volume (gal): 1.79

Purge/Sample Method: Low Flow Method

Start Purge Date/Time: 1240

Total Volume Purged (gal): 3

Sample Time/Date: 1823

Sampler Name: TE

[illegible]

Project Number: CTO 0016
Project Name: AS 840
Date: 11/6/06
Weather: 40's

Well ID: MW05
Sample ID: 2 AST ASBU - GW05
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):	7.13
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	18.45

Water Column (feet):	11.32
Casing Volume (gal):	1.84
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	11/45
Total Volume Purged (gal):	3
Sample Time/Date	1228
Sampler Name:	TE

[illegible]

Project Number: NVD16
Project Name: AS840
Date: 11/7/04
Weather: 50's

Well ID: MW06
Sample ID: AST A5840 GW06
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):	6.58
Product Thickness (feet):	N/A
Total Depth from TOC (feet):	18

Water Column (feet): 11.42

Casing Volume (gal): 1.86

Purge/Sample Method: Low Flow Method

Start Purge Date/Time: 0921

Total Volume Purged (gal): 4

Sample Time/Date: 1025

Sampler Name: TE

[illegible]

Project Number: NY016
Project Name: AS840
Date: 11/7/06
Weather: 523

Well ID: MW02R
Sample ID: ASTAS840-MW09
Well Condition: Good

Protective Casing Diameter (inch):	<u>N/A</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>6.57</u>
Product Thickness (feet):	<u>N/A</u>
Total Depth from TOC (feet):	<u>16.21</u>

Water Column (feet):	9.64
Casing Volume (gal):	1.57
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	1107
Total Volume Purged (gal):	3
Sample Time/Date	1140
Sampler Name:	JE

[illegible]

Duplicate sample on MW09

GROUNDWATER MONITORING WELL GAUGING DATA
MCB Camp LeJeune and New River MCAS

SITE: AS840
DATE: 1/18/07

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					
ASTAS840- GW01		18.35	0813	3.62			
ASTAS840- GW03		27.81	0811	5.50			
ASTAS840- GW04		18.31	0816	6.30			
ASTAS840- GW05		18.45	0820	6.17			
ASTAS840- GW06		18.00	0815	5.55			
ASTAS840- MW07		14.03	1124	6.24			
ASTAS840- GW08		13.62	1125	6.50			
ASTAS840- MW09		16.21	0810	5.50			

Project Number: NV016
Project Name: AS840
Date: 1/18/07
Weather: 40's ↓ Rain

Well ID: GW01
Sample ID: ASTMS840-GW01
Well Condition: ~~OK~~ fail
8

Protective Casing Diameter (inch):	<u>N/A</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>3.62</u>
Product Thickness (feet):	<u>N/A</u>
Total Depth from TOC (feet):	<u>18.36</u>

Water Column (feet):	14.14
Casing Volume (gal):	2.40
Purge/Sample Method:	Low Flow Method
Start Purge Date/Time:	1005
Total Volume Purged (gal):	3
Sample Time/Date	1040
Sampler Name:	TE

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

* Duplicate Sample on MWOM

[illegible]

Date: 12 April 2007

SITE: AS840

MCB Camp LeJeune and New River MCAS

Gauged By: Ernst Riggs & Scarlett Fielding

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

