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December 29, 2004

Commander
Naval Facilities Engineering Command
Atlantic Division
6506 Hampton Blvd., Bldg. A, Room 1306
Norfolk, VA 23508

Attention: EV23DC Mr. David Cleland, P.G.

Re: **FINAL** Soil Assessment Report
Building TT-3548
Marine Corps Base
Camp Lejeune, North Carolina
Navy Contract No. N62470-01-D-3009
Delivery Order Nos. 0086 and 0117
CATLIN Project Nos. 203-081 and 204-067

Dear Mr. Cleland:

CATLIN Engineers and Scientists (CATLIN) is pleased to submit the FINAL Soil Assessment Report for the above referenced site. We have reviewed the comments to the referenced draft report, made the appropriate changes to the final report and offer the following responses to the comments/concerns offered by Ms. Nikki Hall via a telephone conference call on December 15, 2004.

Conclusions and Recommendations

- **Think it is appropriate to recommend sampling of the on-site monitoring well on an annual basis until building demolition and soil excavation occurs.**

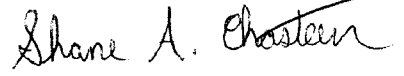
Acknowledged. The above-stated recommendation has been added to the Conclusions and Recommendations section of the report.

CATLIN appreciates the opportunity to continue to provide services to NAVFAC Atlantic and the MCB on your environmental projects.

Sincerely,



Michael E. Mason, P.E.
CATLIN Program Manager



Shane A. Chasteen
CATLIN Project Scientist

Attachments: Final Report

cc: Ms. Rochelle M. Lee - Contracts, correspondence only
Commanding General, Attn: Director I&E/EMD/EQB (w/two attachments)

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SOIL ASSESSMENT REPORT
FOR
TT-3548
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

NCDENR UST INCIDENT NO. 23694
RICK CLASSIFICATION: PENDING
LAND USE CLASSIFICATION: PENDING

DECEMBER 29, 2004

CONTRACT NO. N62470-01-D-3009
DELIVERY ORDER NOs. 0086 and 0117
CATLIN PROJECT NOs. 203-081 and 204-067



PREPARED BY:
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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
ARO	Asheville Regional Office
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
CATLIN	CATLIN Engineers and Scientists (Formerly RC&A)
CFR	Code of Federal Regulations
Cr	Chromium
CSA	Comprehensive Site Assessment
CNP	Carbon Nitrogen Phosphorous
CPT	Cone Penetrometer Test
DEM	Division of Environmental Management
DIPE	Diisopropyl 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
EAD	Environmental Affairs Department
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
FOD	Foreign Object Debris
FRO	Fayetteville Regional Office
FT	Feet
GCL	Gross Contaminant Level
GIS	Geographic Information System
GPS	Global Positioning System

Guidelines Vol. I	Groundwater Section Guidelines for Investigation and Remediation of Soil and Groundwater, Volume I, Sources Other Than Petroleum Underground Storage Tanks (May 1998)
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
LANTDIV	Atlantic Division
LSA	Limited Site Assessment
LUST	Leaking Underground Storage Tank
m-	meta
m	meter
MADEP	Massachusetts Department of Environmental Protection
MCALF	Marine Corps Auxiliary Landing Field
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCOLF	Marine Corps Outlying Landing Field
MDL	Method Detection Limit
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Litre
MRO	Mooresville Regional Office
MSCC	Maximum Soil Contaminant Concentration
MSL	Mean Sea Level
MTBE	Methyl tertiary butyl ether
µg/Kg	Micrograms per Kilogram
µg/L	Micrograms per Litre
NA	Not Analyzed
N/A	Not Applicable
NC	North Carolina
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources
NCDOC	North Carolina Department of Corrections
NCDOT	North Carolina Department of Transportation
NCSP	North Carolina State Plane
NCSPA	North Carolina State Ports Authority
NE	None Established
NM	Not Measured
NMT	No Measurable Thickness
NS	Not Sampled
o-	ortho
OVA	Organic Vapor Analyzer
p-	para
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
ROI	Radius of Influence
RRO	Raleigh Regional Office
SOW	Scope of Work
STGW	Soil-to-Groundwater
SVE	Soil Vapor Extraction
SVOC	Semi Volatile Organic Compound
TDHF	Toxicologically Defined Hydrocarbons Fractions
TCLP	Toxicity Characteristic Leaching Procedure
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
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
WaRO	Washington Regional Office
WiRO	Wilmington Regional Office
WSRO	Winston-Salem Regional Office

SOIL ASSESSMENT REPORT (SAR)

A. TITLE PAGE

DATE OF REPORT: December 29, 2004
Facility ID: N/A UST Incident Number (if known): 23694
Site Name: TT-3548
Site Location: Marine Corps Base, Camp Lejeune
Nearest City/Town: Jacksonville County: Onslow
Risk Classification: Low Land Use Classification: Residential

UST Owner: Commanding General – MCB Camp Lejeune
I&E/EMD/EQB
Address: PSC 20004
MCB Camp Lejeune, NC 28542 Phone: (910) 451-5068

UST 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: Unknown
Address: 3548 Chosin Circle, MCB Camp Lejeune, NC 28542 Phone: Unknown

Consultant/Contractor: CATLIN Engineers and Scientists
Address: 220 Old Dairy Road, Wilmington, North Carolina 28405 Phone: (910) 452-5861

Release Information

Date Discovered: August 7, 2001
Longitude: 77° 23' 01" W Latitude: 34° 44' 09" N

Estimated Quantity of Release: Unknown

Cause of Release: Unknown

Source of Release (e.g. Piping/UST):

Possible leaking UST and/or associated piping

Sizes and contents of UST system(s) from which the release occurred:

Non-regulated, non-commercial, 550-gallon fuel oil UST used for heating a single-family residence

I, Michael E. Mason a Professional Engineer Licensed Geologist (**circle one**) for
CATLIN Engineers and Scientists, do certify that the information contained in this report is correct and
accurate to the best of my knowledge.

(Please Affix Seal and Signature)



B. EXECUTIVE SUMMARY

The project is located at building TT-3548/3546 aboard the MCB Camp Lejeune, North Carolina. Building TT-3548/3546 is located in the Tarawa Terrace II Housing Area and was heated using a 550-gallon fuel oil UST.

In September 2001, the UST was removed and as part of the closure reporting requirements, laboratory results indicated that the UST system had released hydrocarbons into the subsurface. Soil contamination was detected at the base of the former tank basin at levels in excess of the Residential Maximum Soil Contaminant Concentrations (MSCCs). Subsequently, a Phase I Limited Site Assessment (LSA) and this Soil Assessment Report (SAR) have been prepared. Findings from these investigations indicate:

- Free-product was not encountered in the subsurface of the site.
- Groundwater samples collected and analyzed during the Phase I LSA activities revealed all groundwater samples were compliant with applicable NCDENR groundwater quality standards (GWQS). However, groundwater samples collected during this Soil Assessment Investigation revealed MADEP parameters above the Interim GWQS.
- Soil contamination was detected at concentrations above the Residential MSCCs at depths of greater than 9' BLS at four sample locations on the edge of the former excavation area and one sample in the center of the former excavation area.
- The horizontal and vertical extent of soil contamination has been delineated during this Soil Assessment Investigation.
- To address soil contamination, it is recommended that contaminated soil within the former tank basin from six feet BLS to the water table be removed by excavation after Building TT3548/3546 is demolished. It is estimated that the demolition will occur within the next five to six years.
- It is recommended that the groundwater be sampled for MADEP VPH/EPH on an annual basis until building demolition and soil excavation occurs. Just prior to the excavation, it is recommended that the on-site monitoring well be sampled. If results are below the IGWQS before the excavation, no further assessment or remediation of groundwater should be necessary.
- Should the groundwater laboratory results exceed the IGWQS, the site groundwater should be considered for remediation by natural attenuation/degradation and sampled for MADEP VPH/EPH on a yearly basis until the contaminants are below the IGWQS.

C. SITE HISTORY

(Refer to Tables 1 and 2)

The site previously contained one 550-gallon, non-regulated, non-commercial fuel oil UST. The fuel was used strictly for heating a duplex unit which contains two, single-family residences. The tank and associated product lines were closed by removal by J.A. Jones Environmental Services Company (J.A. Jones). UST history and owner information is included on Tables 1 and 2. The UST at this site is referred as TT3546/3548 in this investigation.

Previous investigations at the site include the UST removal and tank closure performed by J.A. Jones and a Phase I LSA prepared by Mid-Atlantic Associates, P.A. (Mid-Atlantic).

<i>Underground Storage Tank Closure Report, TT3546/3548, Camp Lejeune, Onslow County, NC, dated January 16, 2002</i>	J.A. Jones
<i>Leaking Underground Storage Tank (LUST) Phase I Limited Site Assessment Report for UST TT3546/3548 Site Tarawa Terrace II Housing Area, Marine Corps Base, Camp Lejeune, North Carolina, dated May 7, 2003</i>	Mid-Atlantic

The results of these investigations indicate the following:

UST Removal/Closure

- One 550-gallon No. 2 fuel oil USTs was removed in reportedly good condition in August 2001.
- Approximately 412 gallons of water was removed from the UST during closure activities in August 2001.
- One soil sample was collected and analyzed per EPA 5030 and 3550 and five soil samples were collected and analyzed MADEP VPH and EPH, and EPA Methods 8260 and 8270. These soil samples were collected on various dates.
- Depth of samples ranged from 3.5 to 8.5 feet BLS.
- Laboratory results from soil samples collected from the former UST basin were above State action levels for TPH and the lowest applicable MSCC (STGW MSCC) for eight risk-based soil contaminants.
- Laboratory analysis of a soil sample collected from the former UST basin base (8.5 feet BLS) revealed an aromatic fraction C₉-C₂₂ concentration of 2,090 mg/Kg, in excess of current Residential and Soil to Groundwater Maximum Soil Contaminant Concentrations (MSCCs).
- Sand backfill for the UST excavation was reportedly obtained from a borrow pit on the base.

Phase I LSA

- A receptor survey was performed to identify any water supply wells within a 1,500 foot radius of the site. No water supply wells were identified during this investigation.
- On July 23, 2002 one temporary groundwater monitoring well was installed in the former UST basin.
- During temporary monitoring well boring advancement, split spoon soil samples were collected from depths of 4 to 6 feet, 8 to 10 feet, and 13 to 15 feet BLS.
- On July 24, 2002 a soil sample was collected from a soil boring advanced adjacent to the suspected location of the former fuel delivery line. The soil sample was collected at a depth of 2 to 3 feet BLS.
- On March 20, 2003 one soil boring was advanced within the former UST basin and soil samples were collected for laboratory analysis from 8-9 feet BLS and 9-11 feet BLS.
- Groundwater samples collected during the Phase I LSA activities were analyzed per EPA Methods 602+IPE+MTBE, 625+TICs, and MADEP VPH/EPH. Resulting laboratory analysis revealed all groundwater samples were compliant with applicable NCDENR groundwater quality standards (GWQS).
- Soil samples collected during the Phase I LSA activities were analyzed per EPA Methods 8260B+DIPE+MTBE, 8270, and MADEP VPH/EPH. Resulting laboratory analysis revealed concentrations of naphthalene, 1,2,4 trimethylbenzene, and 2-methylnaphthalene in excess of current Soil to Groundwater MSCCs.
- Laboratory analysis of soil sample USTT3546/3548-SB02 collected from 8-9' within the former UST basin base revealed a concentration of aromatic fraction C₉-C₂₂ of 733 mg/Kg, in excess of current Residential and Soil to Groundwater Maximum Soil Contaminant Concentrations (MSCCs).

D. RECEPTOR INFORMATION

The receptor information provided with the LSA remains unchanged as of the date of this report.

1. Water Supply Wells

As documented in the LSA, there were no water supply wells located within 1,500 feet of subject site.

2. Public Water Supplies

Public water is provided to buildings within 1,500 feet of the subject site by water mains which carry treated potable water. Potable water is supplied to the site and surrounding areas by the MCB water supply system. Potable water is provided to Tarawa Terrace housing by the Holcomb Boulevard Water Treatment Facility. Groundwater obtained from the Castle Hayne Aquifer beneath the MCB is the raw water source for the treatment facility.

3. Surface Water

As documented in the LSA, the closest surface water body is Frenchman's Creek located approximately 520 feet northwest of the subject site.

4. Wellhead Protection Areas

As documented in the LSA, the site is not located in a proposed wellhead protection area.

5. Deep Aquifers in the Coastal Plain Physiographic Region

As identified in the Geologic Map of North Carolina (North Carolina Department of Natural Resources and Community Development 1985), the subject site lies within the Coastal Plain Physiographic Province. Potential impacts to deeper aquifers are unknown, though; minimal impact to surficial groundwater was revealed.

To some degree seven of the ten aquifers identified to date in the North Carolina Coastal Plain are typically present beneath portions of the MCB. In order of increasing depth, these aquifers include the Surficial, Castle Hayne, Beaufort, Peedee, Black Creek, and upper and lower Cape Fear aquifers.

Aquifers below the surficial aquifer in the area of Tarawa Terrace typically 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 portions of the MCB and are not generally used for water supply. The Castle Hayne Aquifer contains freshwater and is the principal aquifer used in the area for water supply.

6. Subsurface Structures

(Refer to Figure 3)

A municipal sanitary sewer line lies in a north-south orientation across the subject site. An underground water line lies in an east-west orientation across the subject site and enters the residence just north of the excavation area. Known utilities are illustrated on Figure 3.

7. Property Owners and Occupants

(Refer to Table 6)

Refer to Table 6 for a list of property owners/occupants.

E. SITE GEOLOGY

(Refer to Figures 6A through 6C and Appendix A)

According to the Geologic Map of North Carolina (North Carolina Department of Natural Resources and Community Development, 1985) the site lies within the Coastal Plain Physiographic Province.

Soil borings for this investigation indicate tan, very fine to fine, sand from 0 to 2 feet BLS. Brown, silty very fine to fine, sandy clay with low plasticity was encountered from 4 to 6 feet BLS. Light gray, well sorted, very fine to fine, sand was encountered from 9 feet to boring termination at approximately 13 feet BLS. Boring logs for borings USTTT3548-SB01 through USTTT3548-SB08 and USTTT3548-MW01 are included in Appendix A. Geologic cross-sections of the study site have been prepared and are shown on Figures 6A through 6C.

The split spoons collected during advancement of the permanent monitoring well boring during the current investigation, revealed soils to be saturated at approximately 14 feet below ground surface. Groundwater depth as measured in this permanent monitoring well approximately 24 hours after installation was 13.55 feet below top of casing.

F. SOIL INVESTIGATION

(Refer to Tables 3A-3D, Figures 4A-4C, and Appendices D, E, and F)

Historical Soil Sampling – UST Removal

As stated in the Phase I LSA by Mid-Atlantic, during UST Removal procedures a soil sample from the tank basin floor revealed TPH-Gasoline and TPH-Diesel above NCDENR Action Levels. Consequently, five additional soil samples were collected, one from the tank basin floor and four from the walls of the excavation. These soil samples were analyzed per EPA Methods 8260 and 8270 and MADEP EPH/VPH. Laboratory results indicated eight compounds were detected at concentrations in excess of the STGW MSCCs. One compound, the C₉-C₂₂ aromatics hydrocarbon fraction, was detected at a concentration above its Residential MSCC. Refer to Appendix B for historical soil sampling results from UST removal activities.

These results triggered the regulatory requirement for a Phase I LSA.

Historical Soil Sampling – Phase I LSA

During the Phase I LSA investigation, Mid-Atlantic personnel conducted soil sampling activities on July 24, 2002. One soil boring (USTTT3548-SB01) was advanced in the location of the former product feed line. This sample was collected from 2-3 feet BLS and was analyzed per EPA Methods 8260B/5035 (includes DIPE +MTBE), 8270, and MADEP VPH/EPH. The laboratory analytical results indicated that none of the target compounds were above the laboratory practical quantitation limits (PQLs).

A second soil sampling event was conducted by Mid-Atlantic on March 20, 2003. One soil boring was advanced in the center of the former tank basin. Samples were collected from

both the 8-9 feet BLS and 9-11 feet BLS interval and were analyzed per EPA Methods 8260B/5035 (includes DIPE +MTBE), 8270, and MADEP VPH/EPH. Analytical results from these two soil samples revealed four compounds at concentrations above the STGW MSCCs. One compound, the C₉-C₂₂ aromatics hydrocarbon fraction, was again detected at a concentration above its Residential MSCC. Refer to Appendix C for historical soil sampling results from Phase I LSA activities.

Current Soil Sampling – Soil Assessment Report

Soil sampling completed during the current investigation was conducted in two phases. Initially, on April 14, 2004 CATLIN personnel conducted a soil sampling event at the site as proposed in the Phase I LSA. It was intended that the collected soil samples delineate the horizontal and vertical extent of the petroleum release within the soils of the study area. Five soil borings (USTTT3548-SB01 through USTTT3548-SB05) were advanced utilizing hollow stem auger technique at the locations indicated on Figures 4A through 4C. The previous Phase I LSA noted the water table at approximately 16 feet BLS. The soil samples collected during this sampling event were taken from 9 to 14 feet BLS, therefore these samples were believed to be representative of vadose zone soils.

The analytical results of the April 14, 2004 sampling event indicated that soil contamination existed at all five of the boring locations. Therefore, in an attempt to delineate the horizontal extent of soil contamination, three additional soil borings (USTTT3548-SB06 through USTTT3548-SB08) were installed on August 10, 2004 around the perimeter of the previous soil sampling locations (See Figures 4A through 4C). The water table was noted at approximately 13.5 feet BLS during this sampling event. Two soil samples were collected from each of these borings, one from 4 to 6 feet BLS and the other from approximately 9-11 feet BLS, therefore these samples were representative of vadose zone soils. The laboratory reports and chain of custody documentation for both sampling events are provided in Appendix E.

All sampling was conducted in accordance with CATLIN's Standard Procedures included in Appendix D. The soil borings were immediately abandoned with cuttings following the collection of the samples. The soil samples were placed in laboratory glassware, labeled, placed immediately on ice in a cooler, and transported under proper chain of custody protocol to Paradigm Analytical Laboratories, Inc. in Wilmington, North Carolina. Analytical results are included in Appendix E and are summarized as follows:

EPA Method 8260B/5035 (includes DIPE +MTBE)

As indicated in Table 3A and illustrated on Figure 4A, for the samples collected from the initial five soil borings, eleven EPA Method 8260B compounds were detected at concentrations above the laboratory PQLs. Ethylbenzene; Naphthalene; 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene and Total Xylenes were detected at concentrations above the STGW MSCCs. However, no compounds were detected at concentrations above the Residential MSCCs.

Also, as indicated in Table 3A and illustrated on Figure 4A, for the samples collected from the additional three soil borings, no EPA Method 8260B compounds were detected at concentrations above the laboratory practical quantitation limits (PQLs).

EPA Method 8270

As indicated in Table 3B and illustrated on Figure 4B, for the samples collected from the initial five soil borings, five EPA Method 8270 compounds were detected at concentrations above the laboratory PQLs. 2-Methylnaphthalene was the only contaminant detected at concentrations above the STGW MSCCs and there were no compounds detected at concentrations above the Residential MSCCs.

Also, as indicated in Table 3B and illustrated on Figure 4B, for the samples collected from the additional three soil borings, no EPA Method 8270 compounds were detected at concentrations above the laboratory practical quantitation limits (PQLs).

MADEP VPH/EPH

As indicated in Tables 3C and 3D and illustrated on Figure 4C, for the samples collected from the initial five soil borings, four MADEP Aliphatic or Aromatic hydrocarbon fractions were detected at concentrations above the laboratory PQLs. Two of the hydrocarbon fractions, the C₉-C₁₈ Aliphatics and C₉-C₂₂ Aromatics, were detected at concentrations above the STGW MSCCs. The C₉-C₂₂ Aromatics hydrocarbon fraction was detected in all five samples at concentrations above the Residential MSCCs.

Also, as indicated in Tables 3C and 3D and illustrated on Figure 4C, for the samples collected from the additional three soil borings, no MADEP VPH/EPH hydrocarbon fractions were detected at concentrations above the laboratory practical quantitation limits (PQLs).

G. GROUNDWATER INVESTIGATION

(Refer to Tables 4A through 4D and 7, Figures 5A through 5C and Appendices A, C, D and E)

Historical Groundwater Sampling – Phase I LSA

As stated in the Phase I LSA report by Mid-Atlantic, on July 23, 2002 one temporary monitoring well (USTTT3546/3548-MW01) was installed at the subject site for groundwater sampling. On July 25, 2002, Mid-Atlantic personnel collected a groundwater sample from the temporary monitoring well. The groundwater sample was analyzed for volatiles per EPA Method 602 (including Total Xylenes, MTBE, and IPE), semi-volatiles per EPA Method 625 (including TICs) and per MADEP VPH/EPH.

Analytical results revealed detections of Toluene, Total Xylenes, C₉-C₁₂ Aliphatics, C₁₁-C₂₂ Aromatics, and two TICs (1-Methylnaphthalene and 2-Methylnaphthalene) above the laboratory PQLs. All detections were at concentrations below established 2L GWQS and GCLs. Refer to Appendix C for historical groundwater sampling results from Phase I LSA activities.

Current Groundwater Sampling – Soil Assessment Report

Based on the groundwater analytical results from the Phase I LSA investigation further assessment of groundwater was not necessary. However, during the April 2004 soil sampling event field observations indicated the potential presence of free-phase product at soil boring USTTT3548-SB01. In response to this observation, CATLIN recommended installing a permanent monitoring well in the center of the former excavation to determine if free-phase product was indeed present at the site.

On August 9, 2004 CATLIN personnel installed one permanent monitoring well (USTT3548-MW01) by hollow stem auger technique. The monitoring well was constructed to a depth of 20.0 feet using 10 feet of 2-inch diameter, 0.010 inch slotted Schedule 40 PVC well screen and ten feet of 2-inch diameter Schedule 40 PVC riser. The annular space between the well and boring wall was filled with medium sand pack to 8 feet BLS. Bentonite chips were emplaced from 2 to 8 feet BLS. Portland cement was poured around the annular space between the well and boring wall from 2 feet BLS to the land surface. The well was finished with a flush, mount permanent well shield. Refer to Table 7 for well construction data and Appendix A for boring log and well construction record.

The monitoring well was developed immediately after installation and allowed to equilibrate for approximately two weeks, to allow free product to accumulate, if present. On August 25, 2004 the well was gauged and revealed no measurable thickness of free product, therefore the well was purged and sampled using a disposable bailer.

The groundwater sample was collected in accordance with CATLIN's Standard Methods and Procedures in Appendix D. The groundwater sample was placed in laboratory glassware, labeled, placed immediately on ice in a cooler, and transported under proper chain-of-custody protocol to Paradigm Analytical Laboratories of Wilmington, North Carolina. Analytical results for the groundwater sample are included in Appendix E and are summarized as follows:

EPA METHOD 602 + XYLENES + IPE + MTBE

As indicated in Table 4A and illustrated on Figure 5A, Ethylbenzene was detected at a concentration of 2.06 ug/L and Total Xylenes was detected at a concentration of 10.2 ug/L, which is below the 2L GWQS of 29 ug/L and 530 ug/L respectively, in sample USTTT3548-MW01. In sample USTTT3548-MW01 Dup, Ethylbenzene was detected at a concentration of 1.99 ug/L and Total Xylenes was detected at a concentration of 10.4 ug/L, which is below the 2L GWQS of 29 ug/L and 530 ug/L respectively. All other EPA Method 602 target compounds were reported as BQL.

EPA METHOD 625 + TICS

As indicated in Table 4B and illustrated on Figure 5B, there were no EPA Method 625 target compounds or TICs reported above the laboratory PQLs.

There were no tentatively identified compounds (TICs) identified in sample USTTT3548-MW01. TICs are 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 using a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation was accomplished by relative peak height 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 height is equal to or greater than 10% of that of the nearest internal standard. The quantitation standard provided is an estimate.

MADEP VPH/EPH

As shown in Tables 4C and 4D and illustrated on Figure 5C, the C₉-C₂₂ Aromatics hydrocarbon fraction was reported at a concentration of 10,260 ug/L, which is above its IGWQS of 210 ug/L in sample USTTT3548-MW01. The C₉-C₁₈ Aliphatics hydrocarbon fraction was detected at a concentration of 22,190 ug/L, which is also above its IGWQS of 4,200 ug/L in sample USTTT3548-MW01. In addition, the C₁₉-C₃₆ Aliphatics hydrocarbon fraction was detected at a concentration of 3,300 ug/L, which is below its IGWQS of 42,000 ug/L in sample USTTT3548-MW01. The C₅-C₈ Aliphatics hydrocarbon fraction was reported as BQL (<100 ug/L).

H. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of this Soil Assessment Report, the levels of the hydrocarbons within the soils of the study area have been delineated. Soil contamination exists at depths of greater than eight feet BLS within the boundaries of the former excavation. Building TT3548/3546 is scheduled for demolition in the future; it is recommended that soil within the former tank basin from six feet BLS to the water table be removed by excavation after the building is demolished. It is estimated that the demolition will occur within the next five to six years.

Analytical results revealed groundwater contamination above the IGWQS for aliphatics and aromatics hydrocarbon fractions. It is recommended that the groundwater be sampled on an annual basis until building demolition and soil excavation occurs. Just prior to the excavation, it is recommended the on-site monitoring well be sampled. If results are below the IGWQS before the excavation, no further assessment or remediation of groundwater should be necessary. Should the groundwater laboratory results exceed the IGWQS, the site groundwater should be considered for remediation by natural attenuation/degradation and sampled for MADEP VPH/EPH on a yearly basis until the contaminants are below the IGWQS.

I. PROPOSED REMEDY FOR SOIL CONTAMINATION

1. Evaluation of Remediation Alternatives

Based on the limited horizontal extent and the vertical depth of soil contamination at this site, an imminent risk to human health or the environment does not appear to

exist at the subject site. Excavation of the contaminated soil is a viable option due to the limited extent of contamination; however, it is not recommended at this time due to the proximity of Building TT3548/3546. Building TT3548/3546 is scheduled for demolition within the next year. Therefore, an excavation of the contaminated soil is recommended after the demolition of Building TT3548/3546. Evaluation of alternative remediation methods was not deemed necessary.

2. Proposed Remediation

An excavation of the fill material within and around the perimeter of the former tank basin to a depth of approximately 6 feet is proposed. This overburden material is clean and will be stockpiled on-site. Subsequently, the soil from six feet BLS to the water table will be excavated and treated at an off-site, permitted disposal facility. Excavation will target removal of soil contamination in excess of the Residential MSCCs. The excavation will then be backfilled with clean fill material.

3. Post Remediation Sampling

Confirmatory soil samples will be collected from the boundaries of the proposed excavation from 9-11 feet BLS. Four samples are proposed for laboratory analysis per the following methods:

<u>Method</u>	<u>Description</u>
VPH	MADEP
EPH	MADEP

4. Schedule

The soil remediation is expected to start after the demolition of Building TT3548/3546.

5. Public Notice

Public notice is required by the NCDENR if the responsible party proposes cleanup of soil contamination to an alternate standard (other than the lower of the Residential or Soil-to-Groundwater MSCC). As we are proposing cleanup to the Residential MSCC, public notice is required. The following parties are required to be notified:

- the local health director;
- the chief administrative officer of each political jurisdiction in which the contamination occurs; and
- all property owners and occupants contiguous to the area containing the contamination.

Public notification will be provided by the MCB, Camp Lejeune, Installations and Environment Department, Environmental Management Division, Environmental Quality Branch.

J. LIMITATIONS

The soil and groundwater samples analyzed as part of this investigation only provide isolated data points and may not represent conditions at every location in the project area. Analyses and conclusions of this report, being based on interpolation between data points at the project area, may not be completely representative of all site conditions. Conclusions and recommendations of this investigation and report are based on the best available data in an effort to comply with current regulatory requirements.

K. REFERENCES

CATLIN Engineers and Scientists, *Workplan – Soil Assessment Report TT-3548, Marine Corps Base, Camp Lejeune, North Carolina*, March 16, 2004.

J.A. Jones Environmental Services Company. *Underground Storage Tank Closure Report TT3546/3548, Camp Lejeune, Onslow County, NC*, January 16, 2002.

Mid-Atlantic Associates, P.A., *Leaking Underground Storage Tank (LUST) Phase I Limited Site Assessment Report for UST TT3546/3548 Site Tarawa Terrace II Housing Area, Marine Corps Base, Camp Lejeune, North Carolina*, May 7, 2003.

North Carolina Department of Environment and Natural Resources, *Guidelines for Assessment and Corrective Action, North Carolina Underground Storage Tank Section* (Effective July 1, 2001).

Winner, M.D., Jr., and Coble, R.W., 1989, *Hydrogeologic Framework of the North Carolina Coastal Plain Aquifer System: U.S. Geological Survey Open-File Report 87-690*, 155 p.

TABLES

TABLE 1
SITE HISTORY
UST SYSTEM INFORMATION

TT-3548

UST ID Number	Product (gasoline, diesel, jet fuel, etc.)	Capacity (gallons)	Date Installed (m/dd/yy)	Date Permanently Closed (P), or Still in Use* (C) (m/dd/yy)	Was Release Associated With UST System? (Yes / No)
TT3546/3548	Fuel Oil ⁺	550	1976	8/07/01 (P)	Yes

⁺ UST was used strictly for residential heating purposes

* Still in use means not permanently closed.

TABLE 2
SITE HISTORY
UST OWNER/OPERATOR INFORMATION
TT-3548

UST ID Number	Name of Owner or Operator	Dates of Ownership/Operation	Owner or Operator?
TT3546/3548	Commanding General Marine Corps Base Camp Lejeune, NC	1976 to August 7, 2001	Owner and Operator
Address		Telephone Number	
I&E/EMD/EQB PSC 20004 Marine Corps Base, Camp Lejeune, NC 28542		910-451-5068	

TABLE 3A SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004

Incident Number and Name: 23694 - UST TT3546/3548

Facility ID#: N/A

Analytical Method: EPA Method 8260B/5035

Sample ID	Contaminant of Concern →		sec-Butylbenzene	tert-Butylbenzene	4-Chlorotoluene	Ethylbenzene	Isopropylbenzene	4-Isopropyltoluene	Naphthalene	n-Propyl benzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Xylenes	All Other Target Analytes
	Date Collected	Sample Depth (ft. BLS)												
Residential MSCC (mg/kg)			156	156	NE	1560	1564	NE	63	156	782	782	32,000	Varies
Industrial/Commercial MSCC (mg/kg)			4088	4088	NE	40,000	40,880	NE	1635	4088	20,440	20,440	200,000	Varies
Soil to Groundwater MSCC (mg/kg)			3	3	NE	0.24	2	NE	0.58	2	8	7	5	Varies
USTTT3548-SB01(9-11)	4/14/2004	9-11	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.01532	BQL
USTTT3548-SB01(12-14)	4/14/2004	12-14	0.584	<0.109	0.19	<0.109	<0.109	0.852	0.505	<0.109	1.79	2.33	<0.327	BQL
USTTT3548-SB02(9-11)	4/14/2004	9-11	<0.113	<0.113	<0.113	<0.113	<0.113	0.385	0.502	<0.113	0.333	2.39	<0.338	BQL
USTTT3548-SB02(11-13)	4/14/2004	11-13	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	0.325	<0.1681	BQL
USTTT3548-SB03(9-11)	4/14/2004	9-11	2.69	0.209	<0.103	0.662	0.794	3.59	4.85	1.45	34.7	13.8	9.17	BQL
USTTT3548-SB03(11-13)	4/14/2004	11-13	0.724	<0.0552	<0.0552	<0.0552	0.0734	0.825	0.545	0.0954	3.77	2.5	0.269	BQL
USTTT3548-SB04(9-11)	4/14/2004	9-11	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0168	BQL
USTTT3548-SB04(11-13)	4/14/2004	11-13	0.548	<0.0622	0.179	<0.0622	<0.0622	0.677	0.239	<0.0622	1.95	2.06	0.079	BQL
USTTT3548-SB05(9-11)	4/14/2004	9-11	<0.113	<0.113	<0.113	<0.113	<0.113	0.252	0.443	<0.113	1.09	2.24	0.241	BQL
USTTT3548-SB05(9-11)Dup	4/14/2004	9-11	<0.0573	<0.0573	<0.0573	<0.0573	<0.0573	0.369	0.604	<0.0573	1.87	2.1	0.3899	BQL
USTTT3548-SB06 (4-6)	8/10/2004	4-6	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.01546	BQL
USTTT3548-SB06 (9-11)	8/10/2004	9-11	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.01577	BQL
USTTT3548-SB07 (4-6)	8/10/2004	4-6	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.01426	BQL
USTTT3548-SB07 (9-11)	8/10/2004	9-11	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.01695	BQL
USTTT3548-SB08 (4-6)	8/10/2004	4-6	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.01477	BQL
USTTT3548-SB08 (4-6) Dup	8/10/2004	4-6	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.01447	BQL
USTTT3548-SB08 (8-10)	8/10/2004	8-10	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.01682	BQL

All results in mg/kg.

ft. BLS = feet below land surface

BQL = below quantitation limit

TABLE 3B SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004

Incident Number and Name: 23694 - UST TT3546/3548

Facility ID#: N/A

Analytical Method: EPA Method 8270

Sample ID	Contaminant of Concern →		Acenaphthene	Fluorene	2-Methylnaphthalene	Phenanthrene	Pyrene	All Other Target Analytes
	Date Collected	Sample Depth (ft. BLS)						
Residential MSCC (mg/kg)			940	620	63	469	469	Varies
Industrial/Commercial MSCC (mg/kg)			24,000	16,400	1635	12264	12264	Varies
Soil to Groundwater MSCC (mg/kg)			8	44	3	60	286	Varies
USTTT3548-SB01(9-11)	4/14/2004	9-11	<0.332	<0.332	<0.332	<0.332	<0.332	BQL
USTTT3548-SB01(12-14)	4/14/2004	12-14	<3.43	<3.43	4.46	4.97	<3.43	BQL
USTTT3548-SB02(9-11)	4/14/2004	9-11	<3.42	<3.42	<3.42	<3.42	<3.42	BQL
USTTT3548-SB02(11-13)	4/14/2004	11-13	0.698	0.584	<0.337	1.02	<0.337	BQL
USTTT3548-SB03(9-11)	4/14/2004	9-11	<3.41	<3.41	14.30	7.16	<3.41	BQL
USTTT3548-SB03(11-13)	4/14/2004	11-13	<3.31	<3.31	6.38	6.55	<3.31	BQL
USTTT3548-SB04(9-11)	4/14/2004	9-11	<0.322	<0.322	<0.322	<0.322	<0.322	BQL
USTTT3548-SB04(11-13)	4/14/2004	11-13	<3.35	<3.35	<3.35	4.45	<3.35	BQL
USTTT3548-SB05(9-11)	4/14/2004	9-11	1.3	2.25	4.43	3.56	0.451	BQL
USTTT3548-SB06 (4-6)	8/10/2004	4-6	<0.361	<0.361	<0.361	<0.361	<0.361	BQL
USTTT3548-SB06 (9-11)	8/10/2004	9-11	<0.336	<0.336	<0.336	<0.336	<0.336	BQL
USTTT3548-SB07 (4-6)	8/10/2004	4-6	<0.359	<0.359	<0.359	<0.359	<0.359	BQL
USTTT3548-SB07 (9-11)	8/10/2004	9-11	<0.321	<0.321	<0.321	<0.321	<0.321	BQL
USTTT3548-SB08 (4-6)	8/10/2004	4-6	<0.365	<0.365	<0.365	<0.365	<0.365	BQL
USTTT3548-SB08 (8-10)	8/10/2004	8-10	<0.332	<0.332	<0.332	<0.332	<0.332	BQL

All results in mg/kg.

ft. BLS = feet below land surface

BQL = below quantitation limit

TABLE 3C SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004

Incident Number and Name: 23694 - UST TT3546/3548

Facility ID#: N/A

Analytical Method: MADEP VPH/EPH

Sample ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics
	Date Collected	Sample Depth (ft. BLS)						
USTTT3548-SB01(9-11)	4/14/2004	9-11	15	370	47	<10	<10	<10
USTTT3548-SB01(12-14)	4/14/2004	12-14	12	280	36	3700	690	2700
USTTT3548-SB02(9-11)	4/14/2004	9-11	13	270	35	3700	720	2900
USTTT3548-SB02(11-13)	4/14/2004	11-13	<10	92	11	200	44	160
USTTT3548-SB03(9-11)	4/14/2004	9-11	29	330	55	5300	1100	3200
USTTT3548-SB03(11-13)	4/14/2004	11-13	12	220	30	4400	780	2600
USTTT3548-SB04(9-11)	4/14/2004	9-11	<10	<10	<10	<10	<10	<10
USTTT3548-SB04(11-13)	4/14/2004	11-13	15	370	58	3900	730	2500
USTTT3548-SB05(9-11)	4/14/2004	9-11	<10	170	22	3500	640	2200
USTTT3548-SB06 (4-6)	8/10/2004	4-6	<10	<10	<10	<10	<10	<10
USTTT3548-SB06 (9-11)	8/10/2004	9-11	<10	<10	<10	<10	<10	<10
USTTT3548-SB07 (4-6)	8/10/2004	4-6	<10	<10	<10	<10	<10	<10
USTTT3548-SB07 (9-11)	8/10/2004	9-11	<10	<10	<10	<10	<10	<10
USTTT3548-SB08 (4-6)	8/10/2004	4-6	<10	<10	<10	<10	<10	<10
USTTT3548-SB08 (8-10)	8/10/2004	8-10	<10	<10	<10	<10	<10	<10

All results in mg/kg.

ft. BLS = feet below land surface

TABLE 3D SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004

Incident Number and Name: 23694 - UST TT3546/3548

Facility ID#: N/A

Analytical Method: MADEP VPH/EPH AS COMPARED TO NCDENR MSCCs

Sample ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
	Date Collected	Sample Depth (ft. BLS)				
Residential MSCC (mg/kg)			939	9386	93,860	469
Industrial/Commercial MSCC (mg/kg)			24,528	245,280	#	12,264
Soil to Groundwater MSCC (mg/kg)			72	3225	##	34
USTTT3548-SB01(9-11)	4/14/2004	9-11	15	<380*	<10	<57*
USTTT3548-SB01(12-14)	4/14/2004	12-14	12	3980	690	2736
USTTT3548-SB02(9-11)	4/14/2004	9-11	13	3970	720	2935
USTTT3548-SB02(11-13)	4/14/2004	11-13	<10	292	44	171
USTTT3548-SB03(9-11)	4/14/2004	9-11	29	5630	1100	3255
USTTT3548-SB03(11-13)	4/14/2004	11-13	12	4620	780	2630
USTTT3548-SB04(9-11)	4/14/2004	9-11	<10	<20	<10	<20
USTTT3548-SB04(11-13)	4/14/2004	11-13	15	4270	730	2558
USTTT3548-SB05(9-11)	4/14/2004	9-11	<10	3670	640	2222
USTTT3548-SB06 (4-6)	8/10/2004	4-6	<10	<20	<10	<20
USTTT3548-SB06 (9-11)	8/10/2004	9-11	<10	<20	<10	<20
USTTT3548-SB07 (4-6)	8/10/2004	4-6	<10	<20	<10	<20
USTTT3548-SB07 (9-11)	8/10/2004	9-11	<10	<20	<10	<20
USTTT3548-SB08 (4-6)	8/10/2004	4-6	<10	<20	<10	<20
USTTT3548-SB08 (8-10)	8/10/2004	8-10	<10	<20	<10	<20

All results in mg/kg.

ft. BLS = feet below land surface

Health based level > 100%

Considered immobile

Shaded concentrations exceed the Residential MSCCs

* Result is the sum of the reported quantitation limit of one fraction and the detected concentration of the other fraction.

TABLE 4A SUMMARY OF GROUNDWATER LABORATORY RESULTS

Date: September 2004

Incident Number and Name: 23694 - UST TT3546/3548

Facility ID#: N/A

Analytical Method: EPA Method 602 + Xylenes + IPE + MTBE

Well ID	Contaminant of Concern →		Ethylbenzene	Total Xylenes	All Other Target Analytes
	Sample ID	Date Collected			
GCL (ug/L) 2L GWQS (ug/L)			29,000 29	87,500 530	Varies Varies
UST-TT3548-MW01	UST-TT3548-MW01	8/25/2004	2.06	10.2	BQL
UST-TT3548-MW01	UST-TT3548-MW01 Dup	8/25/2004	1.99	10.4	BQL

All results in µg/L

BQL = below quantitation limit

TABLE 4B SUMMARY OF GROUNDWATER LABORATORY RESULTS

Date: September 2004

Incident Number and Name: 23694 - UST TT3546/3548

Facility ID#: N/A

Analytical Method: EPA Method 625 + TICs

Well ID	Contaminant of Concern →		All Target Analytes
	Sample ID	Date Collected	
GCL (ug/L) 2L GWQS (ug/L)			Varies Varies
UST-TT3548-MW01	UST-TT3548-MW01	8/25/2004	BQL

All results in µg/L

BQL = below quantitation limit

TABLE 4C SUMMARY OF GROUNDWATER LABORATORY RESULTS

Date: September 2004

Incident Number and Name: 23694 - UST TT3546/3548

Facility ID#: N/A

Analytical Method: MADEP VPH/EPH

Well ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics
	Sample ID	Date Collected						
UST-TT3548-MW01	UST-TT3548-MW01	8/25/2004	<100	190	260	22000	3300	10000

All results in µg/L

TABLE 4D SUMMARY OF GROUNDWATER LABORATORY RESULTS

Date: September 2004

Incident Number and Name: 23694 - UST TT3546/3548

Facility ID#: N/A

Analytical Method: MADEP VPH/EPH As Compared to NCDENR IGWQS

Well ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
	Sample ID	Date Collected				
IGWQS (ug/L)			420	4,200	42,000	210
UST-TT3548-MW01	UST-TT3548-MW01	8/25/2004	<100	22,190	3300	10,260

All results in µg/L

Shaded concentrations exceed IGWQS

TABLE 5

WATER SUPPLY WELL INFORMATION

Date: May-04 Incident Number and Name: 23694 - TT-3548 Facility ID#: N/A

Well ID#	Well Owner/User (indicate which)	Address	Phone Number	Well Use	Well Depth (ft. BGS)	Type of Well	Well Casing Depth (ft. BGS)	Well Screen Interval (x to y ft. BGS)	Distance from source area of release (ft.)
-----------------	---	----------------	---------------------	-----------------	---------------------------------	---------------------	--	--	---

No water supply wells were identified within a 1,500 foot radius of the subject site.

TABLE 6**PROPERTY OWNERS/OCCUPANTS**Date: May 2004Incident No. and Name: 23694 - TT-3548Facility ID#: N/A

Tax Parcel Number/Map ID	Owner/Occupant Name (Last, First MI)	Address
N/A	Owner: Commanding General, MCB Camp Lejeune	I&E/EMD/EQB PSC 20004 Marine Corps Base, Camp Lejeune, NC 28542
N/A	Occupant: Unknown	3548 Chosin Circle Marine Corps Base, Camp Lejeune, NC 28542

TABLE 7

WELL CONSTRUCTION INFORMATION

Date: Sep-04Incident Number and Name: 23694 - TT3548Facility ID#: N/A

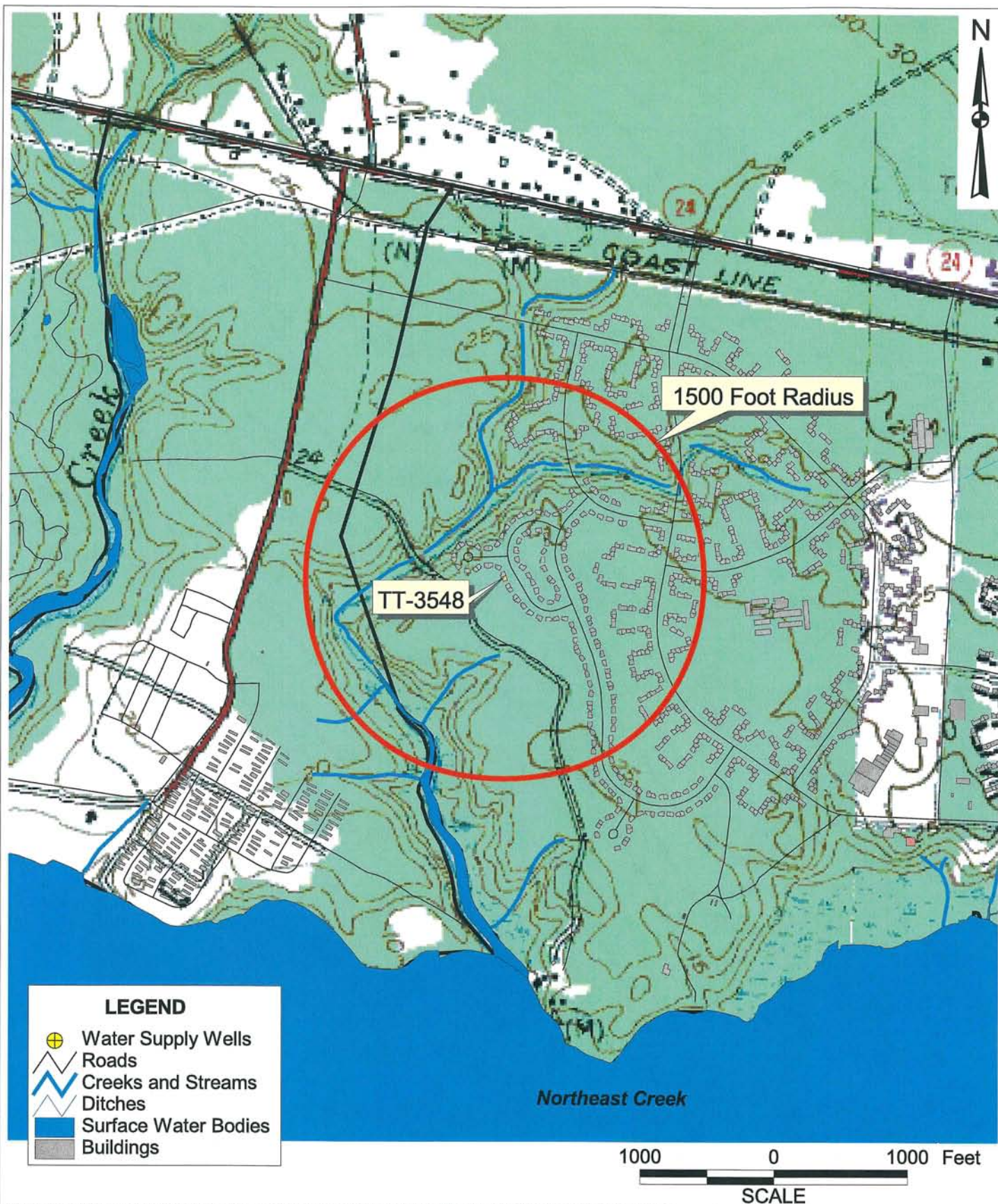
Well ID	Date Installed (m/dd/yy)	Date Water Level Measured (m/dd/yy)	Well Casing Depth (ft. BGS)	Screened Interval (x to y ft. BGS)	Bottom of Well (ft. BGS)	Top of Casing Elevation (ft.)	Depth to Water from Top of Casing (ft.)	Free Product Thickness** (ft.)	Ground Water Elevation* (ft.)	Comments
USTTT3548-MW01	8/9/2004	8/25/2004	2	10-20	20	Unknown	12.26	NMT	Unknown	Permanent Flush Mount Monitoring Well.

* Reference Point for Elevation Measurements (___NA___), Elevation: (___NA___ft.).

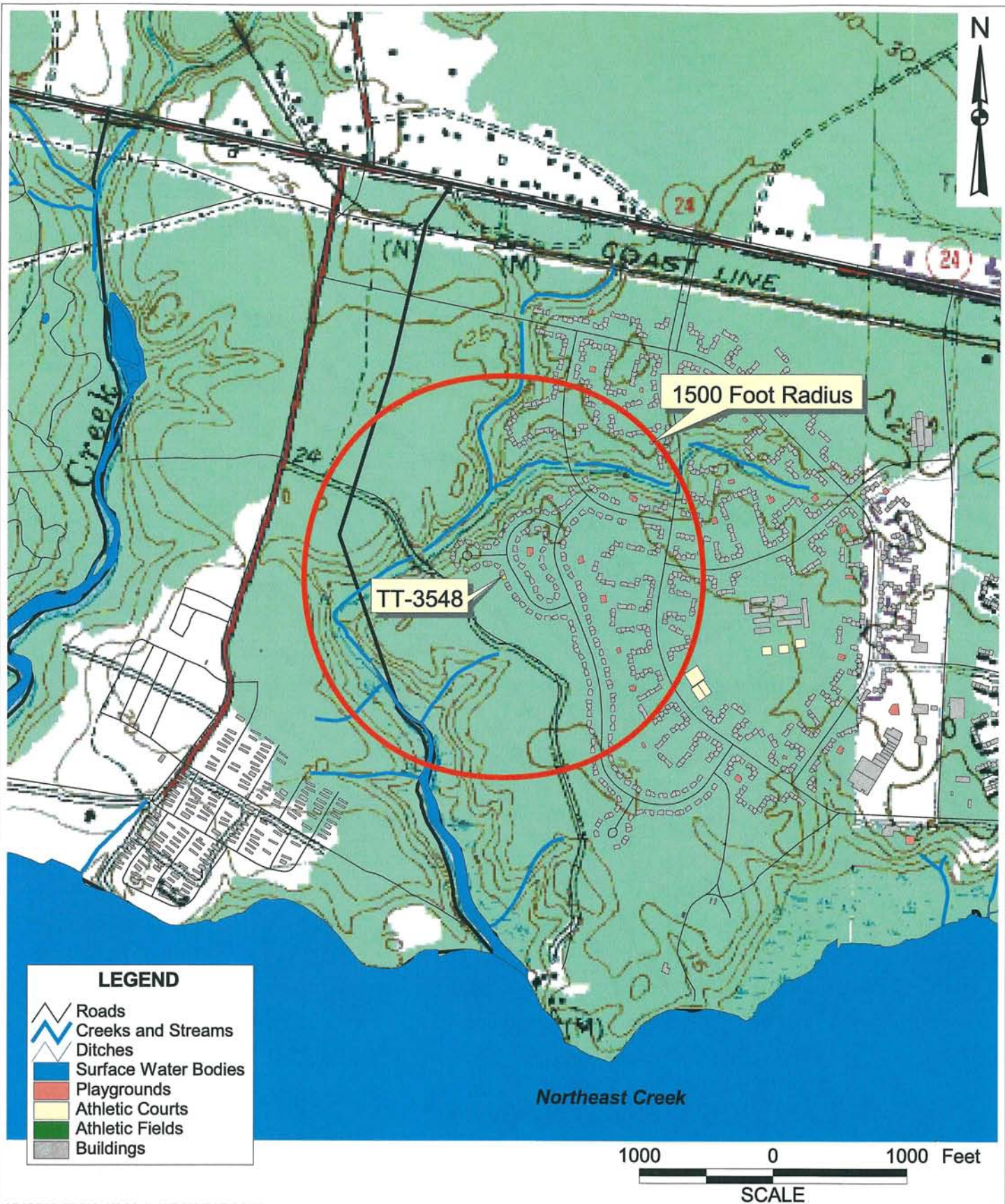
** If free product is present in a well, ground water elevation should be calculated by: [Top of Casing Elevation - Depth to Water] + [free product thickness x 0.82]

ft BGS = feet below ground surface

FIGURES



	PROJECT BUILDING TT-3548 MARINE CORPS BASE CAMP LEJEUNE, N.C.		TITLE SITE LOCATION AND WATER SURVEY		FIGURE 1
	JOB NO: 203-081	DATE: MAY 2004	SCALE: AS SHOWN	DRAWN BY: SAC	CHECKED BY: TWL



ADAPTED FROM: USGS JACKSONVILLE SOUTH, N.C. TOPOGRAPHIC QUADRANGLE DATED 1952, PHOTOREVISED 1971

	PROJECT BUILDING TT-3548 MARINE CORPS BASE CAMP LEJEUNE, N.C.	TITLE SITE LOCATION WITH PLACES OF PUBLIC ASSEMBLY	FIGURE 2
JOB NO: 203-081	DATE: MAY 2004	SCALE: AS SHOWN	DRAWN BY: SAC
		CHECKED BY: TWL	

TT-3546 ENTRANCE

SIDEWALK

HOUSE TT-3548/3546

USTTT3548-SB04

TT-3548 ENTRANCE

SIDEWALK

USTTT3548-SB07

USTTT3548-SB01

EXCAVATION

USTTT3548-SB03

LEGEND	
EXISTING	NEW DESCRIPTION
	BUILDING
	TYPE II MONITORING WELL
	SOIL BORING
— F —	FORMER FUEL DELIVERY LINE
— SS —	SANITARY SEWER LINE
— W —	WATER SUPPLY LINE

USTTT3548-SB05

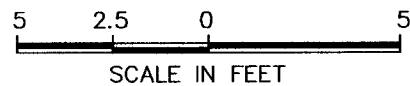
USTTT3548-MW01

USTTT3548-SB02

USTTT3548-SB06

USTTT3548-SB08

APPROXIMATELY 60' TO CHOSIN CIRCLE



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PROJECT
SOIL ASSESSMENT REPORT
TT-3548
MARINE CORPS BASE
CAMP LEJEUNE, N.C.

JOB NO: 203-081 DATE SEP 2004

TITLE
SITE PLAN WITH UTILITIES

SCALE: 1"=5'

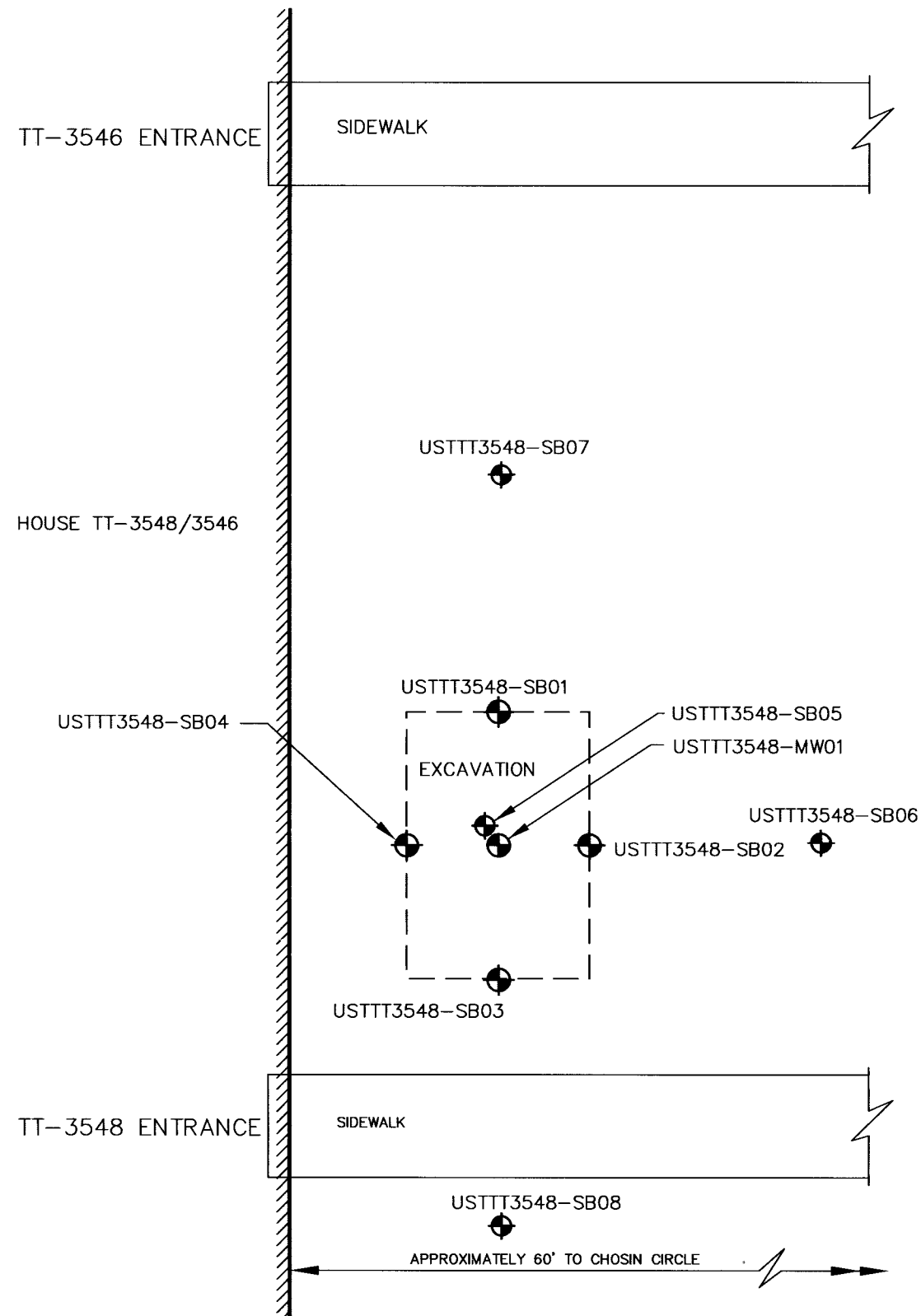
DRAWN BY: WHW

CHECKED BY: MEM

FIGURE

3

203081-1041-SEP04-03



Analytical Method: EPA Method 8260B/5035

Sample ID	Contaminant of Concern →		sec-Butylbenzene	tert-Butylbenzene	4-Chlorotoluene	Ethylbenzene	Isopropylbenzene	4-Isopropyltoluene	Naphthalene	n-Propyl benzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Xylenes	All Other Target Analytes
	Date Collected	Sample Depth (ft. BLS)												
Residential MSCC (mg/kg)			156	156	NE	1560	1564	NE	63	156	782	782	32,000	Varies
Industrial/Commercial MSCC (mg/kg)			4088	4088	NE	40,000	40,880	NE	1635	4088	20,440	20,440	200,000	Varies
Soil to Groundwater MSCC (mg/kg)			3	3	NE	0.24	2	NE	0.58	2	8	7	5	Varies
USTTT3548-SB01(9-11)	4/14/2004	9-11	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	<0.01532	BQL
USTTT3548-SB01(12-14)	4/14/2004	12-14	0.584	<0.109	0.19	<0.109	<0.109	0.852	0.505	<0.109	1.79	2.33	<0.327	BQL
USTTT3548-SB02(9-11)	4/14/2004	9-11	<0.113	<0.113	<0.113	<0.113	<0.113	0.385	0.502	<0.113	0.333	2.39	<0.338	BQL
USTTT3548-SB02(11-13)	4/14/2004	11-13	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	<0.0561	0.325	<0.1681	BQL
USTTT3548-SB03(9-11)	4/14/2004	9-11	2.69	0.209	<0.103	0.662	0.794	3.59	4.85	1.45	34.7	13.8	9.17	BQL
USTTT3548-SB03(11-13)	4/14/2004	11-13	0.724	<0.0552	<0.0552	<0.0552	0.0734	0.825	0.545	0.0954	3.77	2.5	0.269	BQL
USTTT3548-SB04(9-11)	4/14/2004	9-11	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0168	BQL
USTTT3548-SB04(11-13)	4/14/2004	11-13	0.548	<0.0622	0.179	<0.0622	<0.0622	0.677	0.239	<0.0622	1.95	2.06	0.079	BQL
USTTT3548-SB05(9-11)	4/14/2004	9-11	<0.113	<0.113	<0.113	<0.113	<0.113	0.252	0.443	<0.113	1.09	2.24	0.241	BQL
USTTT3548-SB05(9-11)Dup	4/14/2004	9-11	<0.0573	<0.0573	<0.0573	<0.0573	<0.0573	0.369	0.604	<0.0573	1.87	2.1	0.3899	BQL
USTTT3548-SB06 (4-6)	8/10/2004	4-6	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.00516	<0.01546	BQL
USTTT3548-SB06 (9-11)	8/10/2004	9-11	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.00527	<0.01577	BQL
USTTT3548-SB07 (4-6)	8/10/2004	4-6	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	<0.01426	BQL
USTTT3548-SB07 (9-11)	8/10/2004	9-11	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.00565	<0.01695	BQL
USTTT3548-SB08 (4-6)	8/10/2004	4-6	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.00492	<0.01477	BQL
USTTT3548-SB08 (4-6) Dup	8/10/2004	4-6	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.00482	<0.01447	BQL
USTTT3548-SB08 (8-10)	8/10/2004	8-10	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.00562	<0.01682	BQL

All results in mg/kg.
ft. BLS = feet below land surface
BQL = below quantitation limit

LEGEND

EXISTING

NEW

DESCRIPTION

NE

BQL

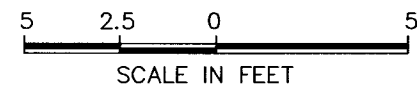
BUILDING

TYPE II MONITORING WELL

SOIL BORING

NONE ESTABLISHED

BELOW QUANTITATION LIMIT



NOTE:
1. ALL RESULTS IN mg/Kg.
2. SOIL SAMPLES FOR LABORATORY ANALYSIS WERE NOT COLLECTED FROM USTTT3548-MW01.

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PROJECT

SOIL ASSESSMENT REPORT

TT-3548

MARINE CORPS BASE

CAMP LEJEUNE, N.C.

JOB NO: 203-081

DATE: SEP 2004

TITLE

SITE PLAN WITH SOIL

LABORATORY RESULTS -

EPA METHOD 8260B/5035

SCALE: 1"=5'

DRAWN BY: WHW

CHECKED BY: MEM

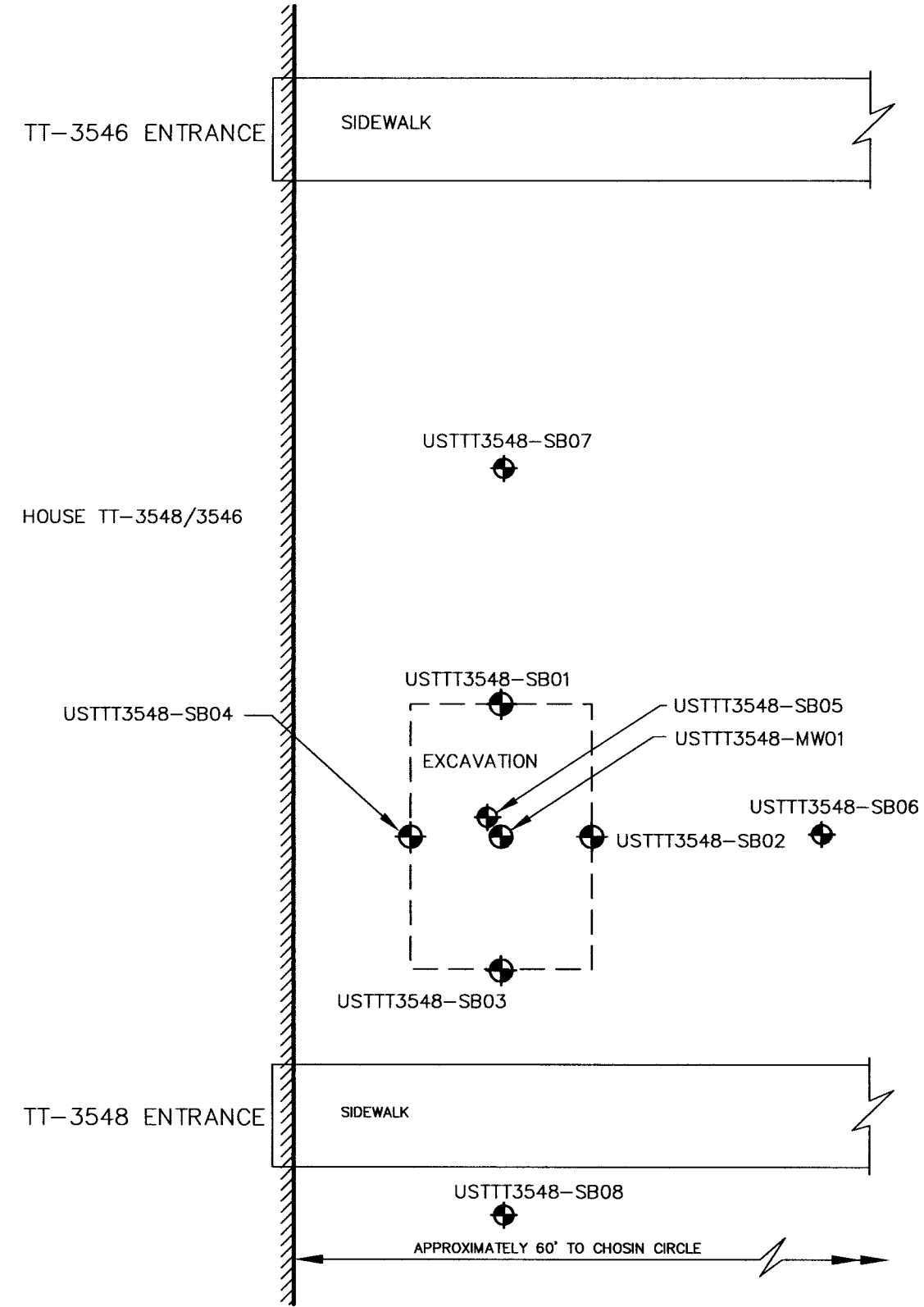
FIGURE

4A

Analytical Method: EPA Method 8270

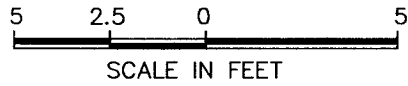
Sample ID	Contaminant of Concern →		Acenaphthene	Fluorene	2-Methylnaphthalene	Phenanthrene	Pyrene	All Other Target Analytes
	Date Collected	Sample Depth (ft. BLS)						
Residential MSCC (mg/kg)			940	620	63	469	469	Varies
Industrial/Commercial MSCC (mg/kg)			24,000	16,400	1635	12264	12264	Varies
Soil to Groundwater MSCC (mg/kg)			8	44	3	60	286	Varies
USTTT3548-SB01(9-11)	4/14/2004	9-11	<0.332	<0.332	<0.332	<0.332	<0.332	BQL
USTTT3548-SB01(12-14)	4/14/2004	12-14	<3.43	<3.43	4.46	4.97	<3.43	BQL
USTTT3548-SB02(9-11)	4/14/2004	9-11	<3.42	<3.42	<3.42	<3.42	<3.42	BQL
USTTT3548-SB02(11-13)	4/14/2004	11-13	0.698	0.584	<0.337	1.02	<0.337	BQL
USTTT3548-SB03(9-11)	4/14/2004	9-11	<3.41	<3.41	14.30	7.16	<3.41	BQL
USTTT3548-SB03(11-13)	4/14/2004	11-13	<3.31	<3.31	6.38	6.55	<3.31	BQL
USTTT3548-SB04(9-11)	4/14/2004	9-11	<0.322	<0.322	<0.322	<0.322	<0.322	BQL
USTTT3548-SB04(11-13)	4/14/2004	11-13	<3.35	<3.35	<3.35	4.45	<3.35	BQL
USTTT3548-SB05(9-11)	4/14/2004	9-11	1.3	2.25	4.43	3.56	0.451	BQL
USTTT3548-SB06 (4-6)	8/10/2004	4-6	<0.361	<0.361	<0.361	<0.361	<0.361	BQL
USTTT3548-SB06 (9-11)	8/10/2004	9-11	<0.336	<0.336	<0.336	<0.336	<0.336	BQL
USTTT3548-SB07 (4-6)	8/10/2004	4-6	<0.359	<0.359	<0.359	<0.359	<0.359	BQL
USTTT3548-SB07 (9-11)	8/10/2004	9-11	<0.321	<0.321	<0.321	<0.321	<0.321	BQL
USTTT3548-SB08 (4-6)	8/10/2004	4-6	<0.365	<0.365	<0.365	<0.365	<0.365	BQL
USTTT3548-SB08 (8-10)	8/10/2004	8-10	<0.332	<0.332	<0.332	<0.332	<0.332	BQL

All results in mg/kg.
ft. BLS = feet below land surface
BQL = below quantitation limit



NOTE:
1. ALL RESULTS IN mg/Kg.
2. SOIL SAMPLES FOR LABORATORY ANALYSIS WERE NOT COLLECTED FROM USTTT3548-MW01.

LEGEND		
EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		SOIL BORING
NE		NONE ESTABLISHED
BQL		BELOW QUANTITATION LIMIT



WILMINGTON, NORTH CAROLINA

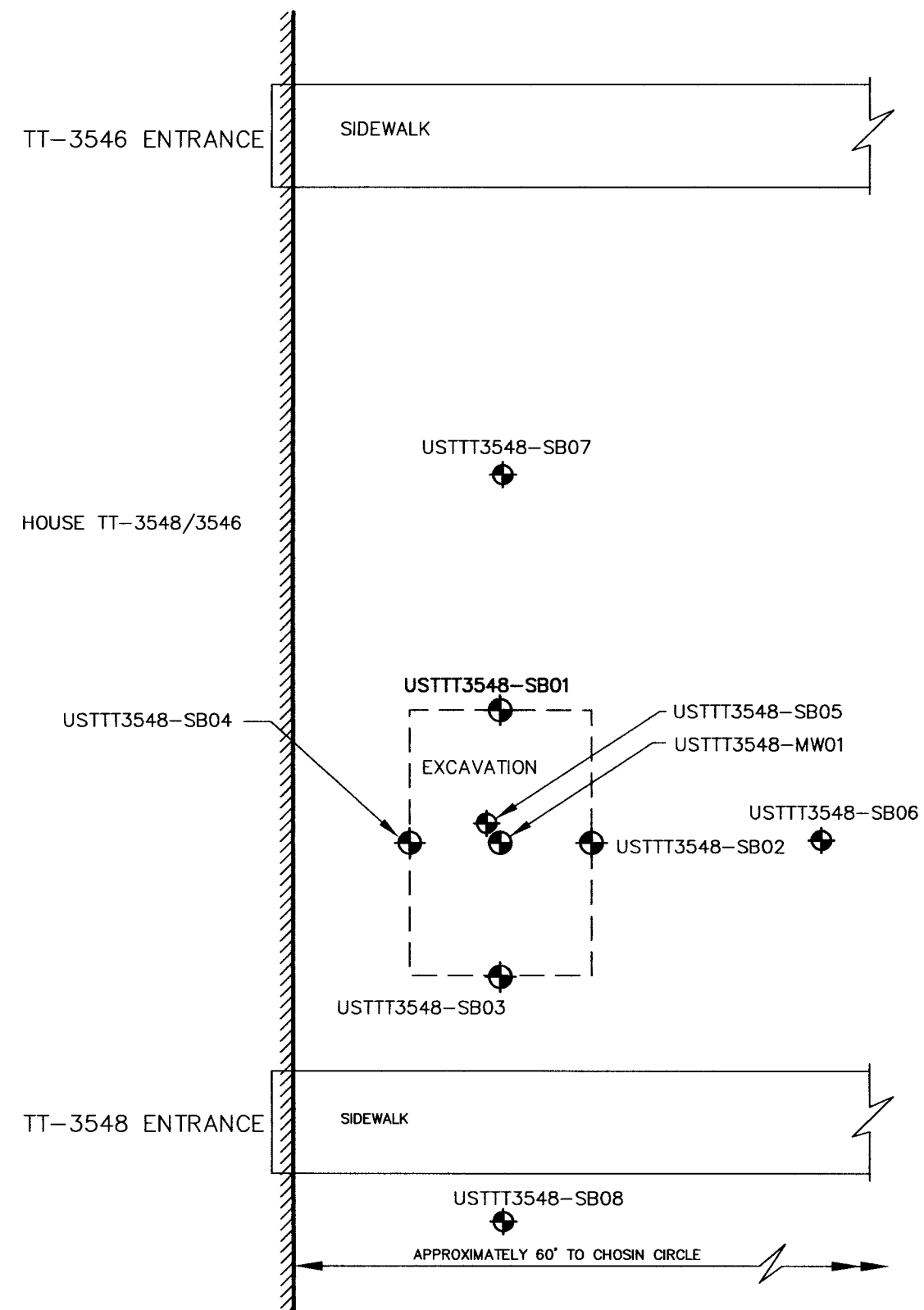
PROJECT
SOIL ASSESSMENT REPORT
TT-3548
MARINE CORPS BASE
CAMP LEJEUNE, N.C.

JOB NO: 203-081 DATE: SEP 2004

TITLE
SITE PLAN WITH SOIL
LABORATORY RESULTS -
EPA METHOD 8270

SCALE: 1"=5' DRAWN BY: WHW CHECKED BY: MEM

FIGURE
4B



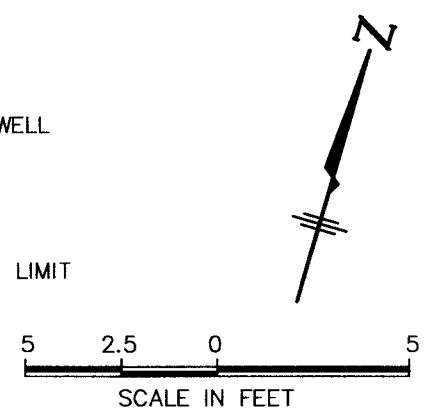
NOTE:
1. ALL RESULTS IN mg/Kg.
2. SOIL SAMPLES FOR LABORATORY ANALYSIS WERE NOT COLLECTED FROM USTTT3548-MW01.

Analytical Method: MADEP VPH/EPH AS COMPARED TO NCDENR MSCCs

Sample ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
	Date Collected	Sample Depth (ft. BLS)				
Residential MSCC (mg/kg)			939	9386	93,860	469
Industrial/Commercial MSCC (mg/kg)			24,528	245,280	#	12,264
Soil to Groundwater MSCC (mg/kg)			72	3225	##	34
USTTT3548-SB01(9-11)	4/14/2004	9-11	15	<380*	<10	<57*
USTTT3548-SB01(12-14)	4/14/2004	12-14	12	3980	690	2736
USTTT3548-SB02(9-11)	4/14/2004	9-11	13	3970	720	2935
USTTT3548-SB02(11-13)	4/14/2004	11-13	<10	292	44	171
USTTT3548-SB03(9-11)	4/14/2004	9-11	29	5630	1100	3255
USTTT3548-SB03(11-13)	4/14/2004	11-13	12	4620	780	2630
USTTT3548-SB04(9-11)	4/14/2004	9-11	<10	<20	<10	<20
USTTT3548-SB04(11-13)	4/14/2004	11-13	15	4270	730	2558
USTTT3548-SB05(9-11)	4/14/2004	9-11	<10	3670	640	2222
USTTT3548-SB06 (4-6)	8/10/2004	4-6	<10	<20	<10	<20
USTTT3548-SB06 (9-11)	8/10/2004	9-11	<10	<20	<10	<20
USTTT3548-SB07 (4-6)	8/10/2004	4-6	<10	<20	<10	<20
USTTT3548-SB07 (9-11)	8/10/2004	9-11	<10	<20	<10	<20
USTTT3548-SB08 (4-6)	8/10/2004	4-6	<10	<20	<10	<20
USTTT3548-SB08 (8-10)	8/10/2004	8-10	<10	<20	<10	<20

All results in mg/kg.
ft. BLS = feet below land surface
Health based level > 100%
Considered immobile
Shaded concentrations exceed the Residential MSCCs
* Result is the sum of the reported quantitation limit of one fraction and the detected concentration of the other fraction.

LEGEND		
EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		SOIL BORING
NE		NONE ESTABLISHED
BQL		BELOW QUANTITATION LIMIT



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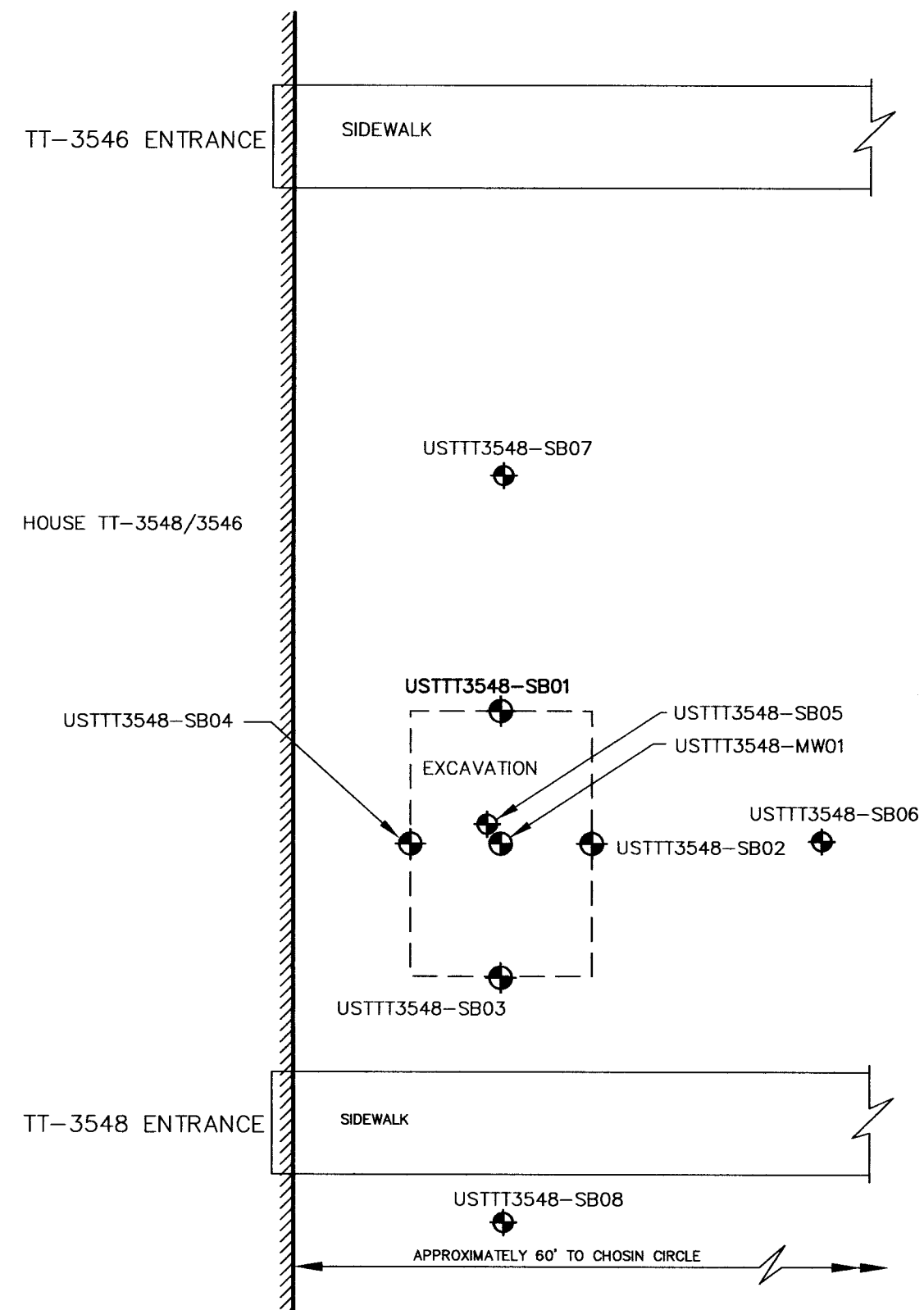
PROJECT
SOIL ASSESSMENT REPORT
TT-3548
MARINE CORPS BASE
CAMP LEJEUNE, N.C.

JOB NO: 203-081 DATE: SEP 2004

TITLE
SITE PLAN WITH SOIL
LABORATORY RESULTS -
MADEP EPH/VPH AS COMPARED
TO NCDENR MSCCs

SCALE: 1"=5' DRAWN BY: WHW CHECKED BY: MEM

FIGURE
4C



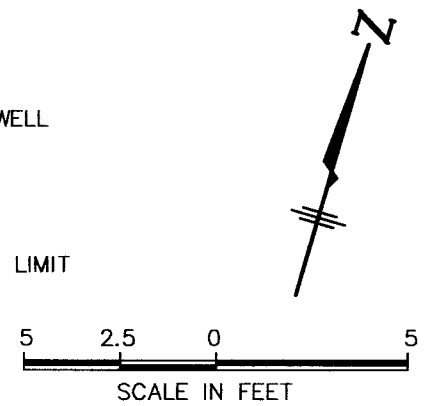
NOTE:
1. ALL RESULTS IN mg/Kg.
2. SOIL SAMPLES FOR LABORATORY ANALYSIS WERE NOT COLLECTED FROM USTTT3548-MW01.

Analytical Method: MADEP VPH/EPH AS COMPARED TO NCDENR MSCCs

Sample ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
	Date Collected	Sample Depth (ft. BLS)				
Residential MSCC (mg/kg)			939	9386	93,860	469
Industrial/Commercial MSCC (mg/kg)			24,528	245,280	#	12,264
Soil to Groundwater MSCC (mg/kg)			72	3225	##	34
USTTT3548-SB01(9-11)	4/14/2004	9-11	15	<380*	<10	<57*
USTTT3548-SB01(12-14)	4/14/2004	12-14	12	3980	690	2736
USTTT3548-SB02(9-11)	4/14/2004	9-11	13	3970	720	2935
USTTT3548-SB02(11-13)	4/14/2004	11-13	<10	292	44	171
USTTT3548-SB03(9-11)	4/14/2004	9-11	29	5630	1100	3255
USTTT3548-SB03(11-13)	4/14/2004	11-13	12	4620	780	2630
USTTT3548-SB04(9-11)	4/14/2004	9-11	<10	<20	<10	<20
USTTT3548-SB04(11-13)	4/14/2004	11-13	15	4270	730	2558
USTTT3548-SB05(9-11)	4/14/2004	9-11	<10	3670	640	2222
USTTT3548-SB06 (4-6)	8/10/2004	4-6	<10	<20	<10	<20
USTTT3548-SB06 (9-11)	8/10/2004	9-11	<10	<20	<10	<20
USTTT3548-SB07 (4-6)	8/10/2004	4-6	<10	<20	<10	<20
USTTT3548-SB07 (9-11)	8/10/2004	9-11	<10	<20	<10	<20
USTTT3548-SB08 (4-6)	8/10/2004	4-6	<10	<20	<10	<20
USTTT3548-SB08 (8-10)	8/10/2004	8-10	<10	<20	<10	<20

All results in mg/kg.
ft. BLS = feet below land surface
Health based level > 100%
Considered immobile
Shaded concentrations exceed the Residential MSCCs
* Result is the sum of the reported quantitation limit of one fraction and the detected concentration of the other fraction.

LEGEND		
EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		SOIL BORING
NE		NONE ESTABLISHED
BQL		BELOW QUANTITATION LIMIT



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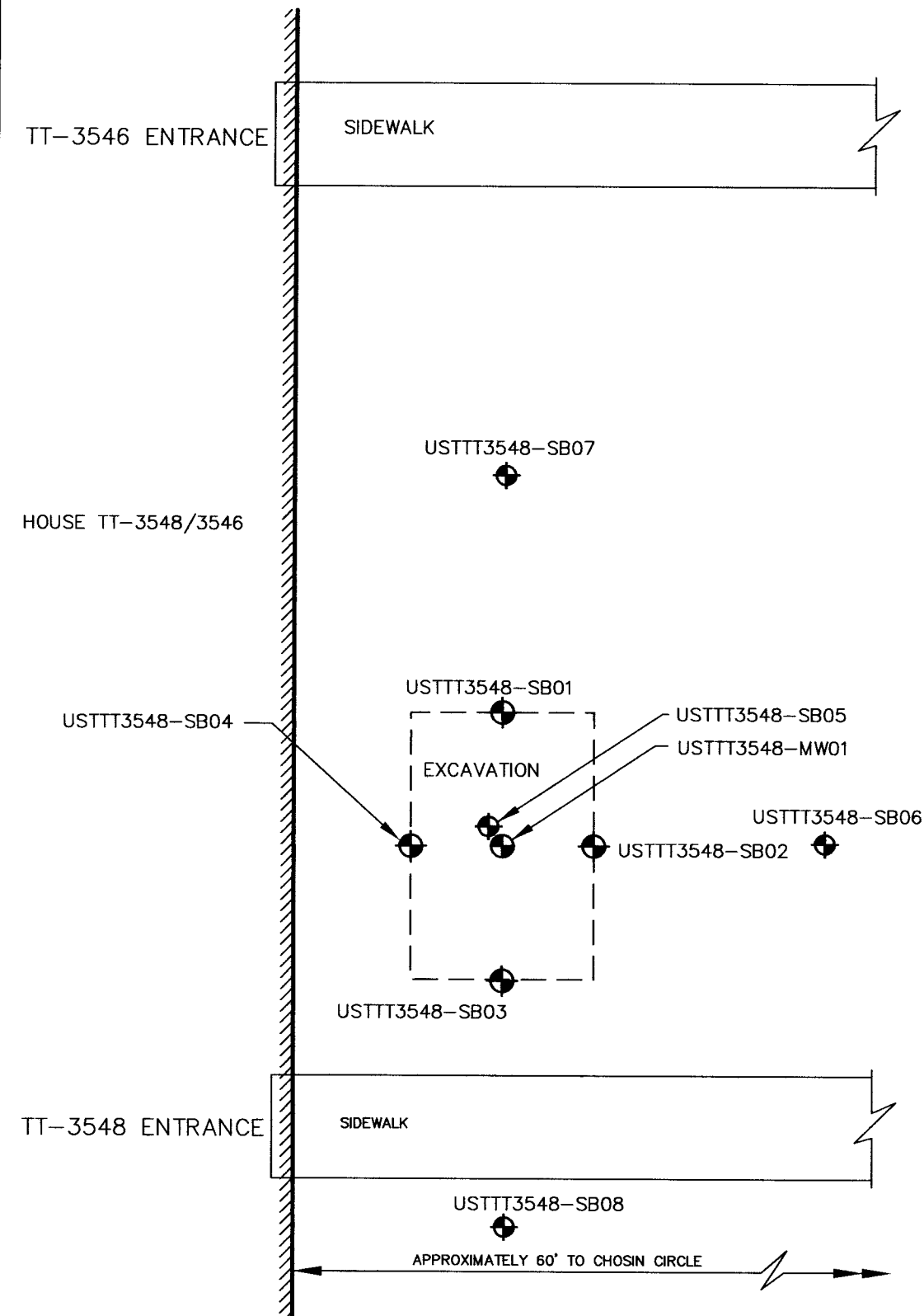
PROJECT
SOIL ASSESSMENT REPORT
TT-3548
MARINE CORPS BASE
CAMP LEJEUNE, N.C.

JOB NO: 203-081 DATE: SEP 2004

TITLE
SITE PLAN WITH SOIL
LABORATORY RESULTS -
MADEP EPH/VPH AS COMPARED
TO NCDENR MSCCs

SCALE: 1"=5' DRAWN BY: WHW CHECKED BY: MEM

FIGURE
4C



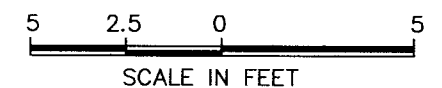
Analytical Method: EPA Method 602 + Xylenes + IPE + MTBE

Well ID	Contaminant of Concern →		Ethylbenzene	Total Xylenes	All Other Target Analytes
	Sample ID	Date Collected			
GCL (ug/L) 2L GWQS (ug/L)			29,000 29	87,500 530	Varies Varies
UST-TT3548-MW01	UST-TT3548-MW01	8/25/2004	2.06	10.2	BQL
UST-TT3548-MW01	UST-TT3548-MW01 Dup	8/25/2004	1.99	10.4	BQL

All results in µg/L

BQL = below quantitation limit

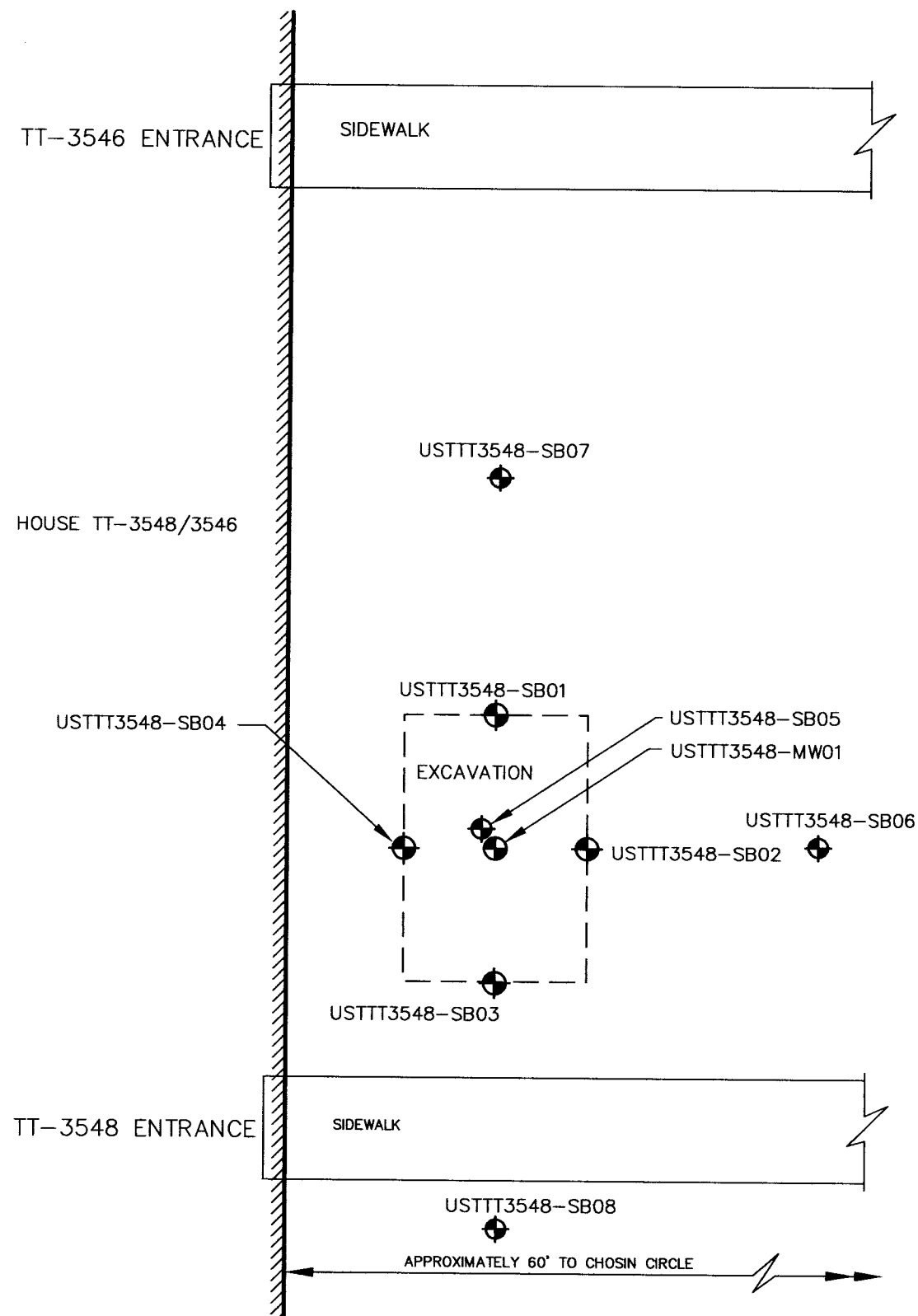
LEGEND		
EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		SOIL BORING
NE		NONE ESTABLISHED
BQL		BELOW QUANTITATION LIMIT



NOTE:
1. ALL RESULTS IN ug/L.

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	JOB NO: 203-081 DATE: SEP 2004	SCALE: 1"=5'	DRAWN BY: WHW CHECKED BY: MEM

203081-1041-SEP04-05A

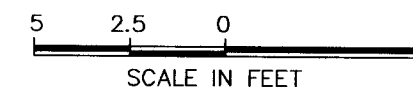


Analytical Method: EPA Method 625 + TICs

Well ID	Contaminant of Concern →		All Target Analytes
	Sample ID	Date Collected	
GCL (ug/L) 2L GWQS (ug/L)			Varies Varies
UST-TT3548-MW01	UST-TT3548-MW01	8/25/2004	BQL

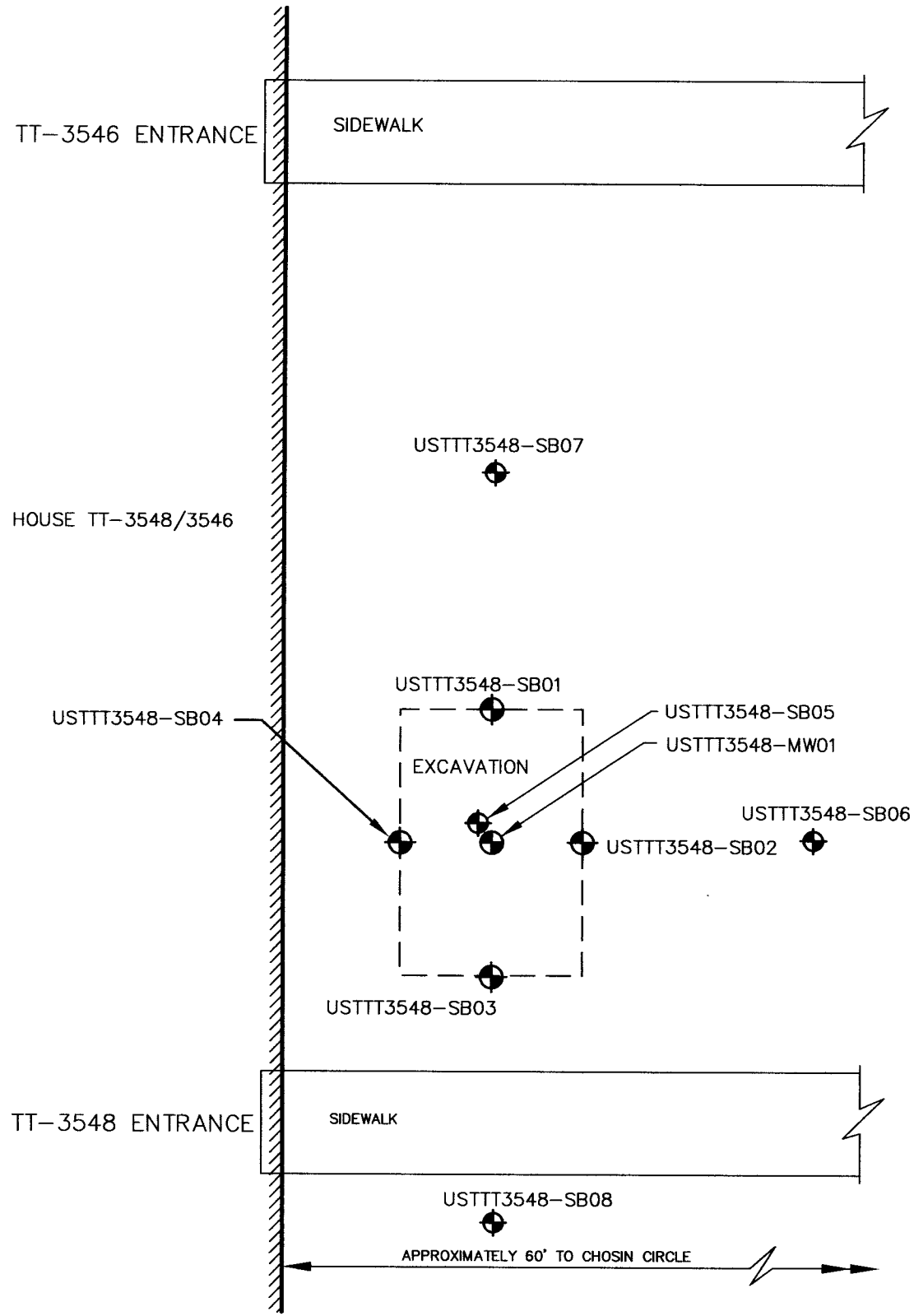
All results in ug/L
BQL = below quantitation limit

LEGEND		
EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		SOIL BORING
NE		NONE ESTABLISHED
BQL		BELOW QUANTITATION LIMIT



NOTE:
1. ALL RESULTS IN ug/L.

CATLIN ENGINEERS and SCIENTISTS WILMINGTON, NORTH CAROLINA	PROJECT SOIL ASSESSMENT REPORT TT-3548 MARINE CORPS BASE CAMP LEJEUNE, N.C.	TITLE SITE PLAN WITH GROUNDWATER LABORATORY RESULTS - EPA METHOD 625+TICs	FIGURE 5B
	JOB NO: 203-081 DATE: SEP 2004	SCALE: 1"=5' DRAWN BY: WHW CHECKED BY: MEM	203081-1041-SEP04-05B



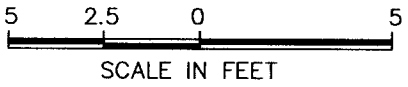
NOTE:
1. ALL RESULTS IN ug/L.

Analytical Method: MADEP VPH/EPH As Compared to NCDENR IGWQS

Well ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
	Sample ID	Date Collected				
IGWQS (ug/L)			420	4,200	42,000	210
UST-TT3548-MW01	UST-TT3548-MW01	8/25/2004	<100	22,190	3,300	10,260

All results in ug/L
Shaded concentrations exceed IGWQS

LEGEND		
EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		SOIL BORING
NE		NONE ESTABLISHED
BQL		BELOW QUANTITATION LIMIT



 ENGINEERS and SCIENTISTS WILMINGTON, NORTH CAROLINA	PROJECT SOIL ASSESSMENT REPORT TT-3548 MARINE CORPS BASE CAMP LEJEUNE, N.C.	TITLE SITE PLAN WITH GROUNDWATER LABORATORY RESULTS - MADEP VPH/EPH AS COMPARED TO NCDENR IGWQS		FIGURE 5C
	JOB NO: 203-081 DATE: SEP 2004	SCALE: 1"=5' DRAWN BY: WHW CHECKED BY: MEM	203081-1041-SEP04-05C	

TT-3546 ENTRANCE

SIDEWALK

HOUSE TT-3548/3546

USTTT3548-SB04

USTTT3548-SB01

EXCAVATION

USTTT3548-SB05

USTTT3548-MW01

USTTT3548-SB06

USTTT3548-SB02

USTTT3548-SB03

TT-3548 ENTRANCE

SIDEWALK

USTTT3548-SB08

APPROXIMATELY 60' TO CHOSIN CIRCLE

5 2.5 0 5
SCALE IN FEET

LEGEND

EXISTING NEW DESCRIPTION



BUILDING



TYPE II MONITORING WELL



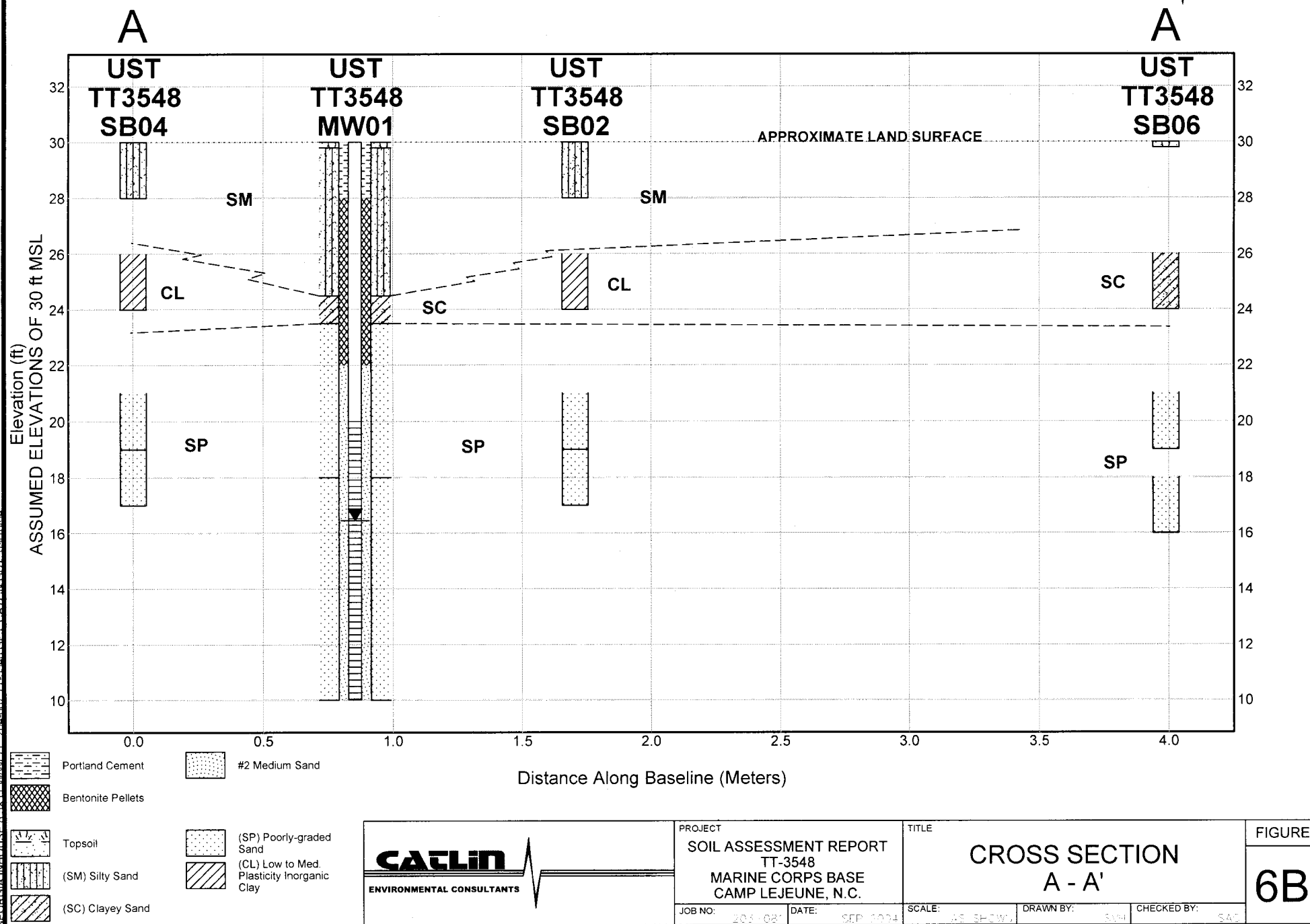
SOIL BORING



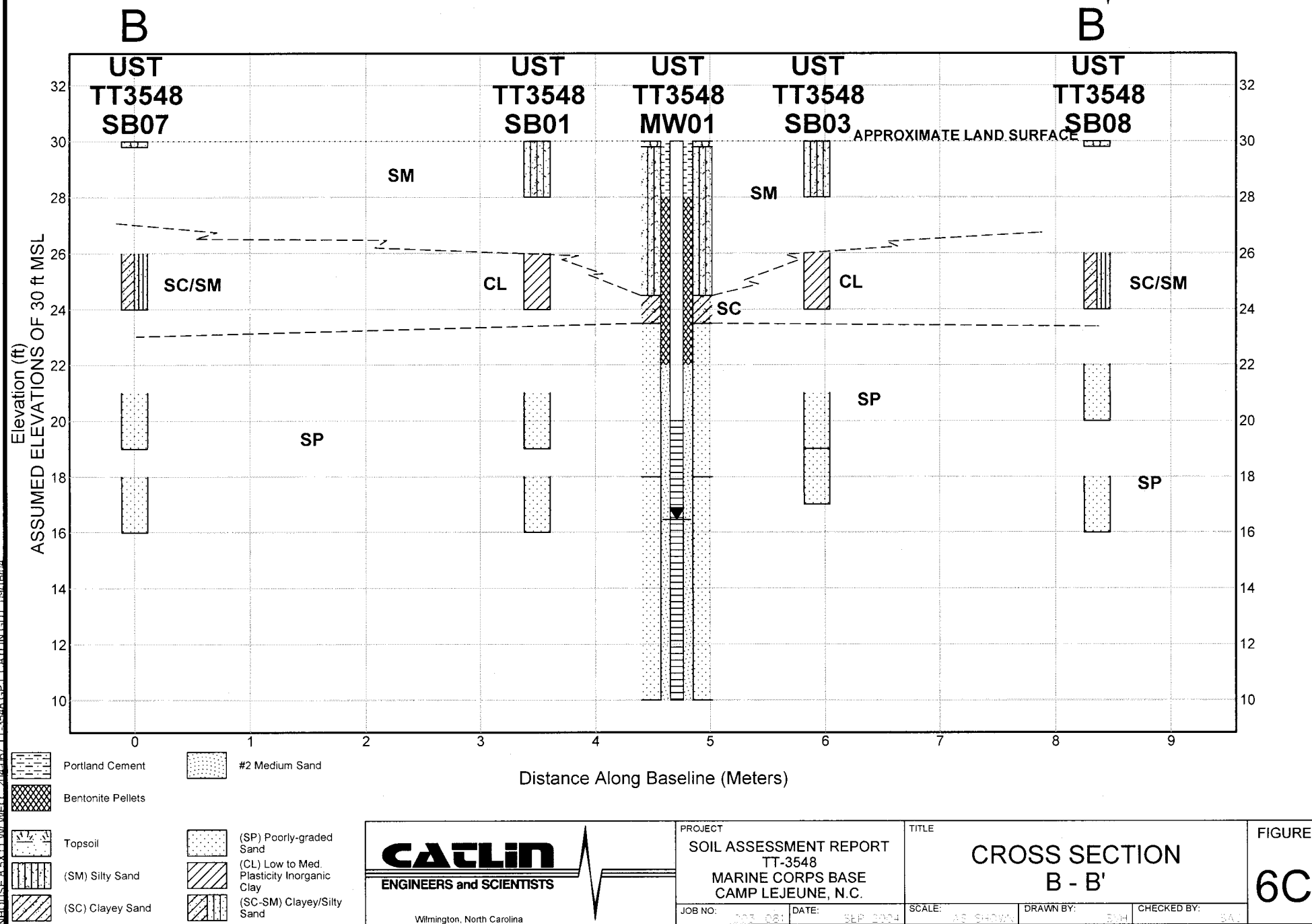
 ENGINEERS and SCIENTISTS WILMINGTON, NORTH CAROLINA	PROJECT SOIL ASSESSMENT REPORT TT-3548 MARINE CORPS BASE CAMP LEJEUNE, N.C.	TITLE CROSS SECTION - PLAN VIEW		FIGURE 6A
	JOB NO: 203-081	DATE: SEP 2004	SCALE: 1"=5'	DRAWN BY: WHW

203081-1041-SEP04-06A

GEORGIA INHOUSE 8.5X11 W/MELL 204.067 TT-3548 GPL CATLIN.GDT 09/16/04



INHOUSE 8.5X11 W/MELL 2004.067 TT-3548.GPJ CATLIN GDT 09/16/04



APPENDIX A
BORING LOGS

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
ENGLISH
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-067	STATE: NC	COUNTY: Onslow	LOCATION: Camp LeJeune
PROJECT NAME: TT-3548		LOGGED BY: Charles Ray	BORING ID: UST
		DRILLER: Bobbie Fowler	TT3548-SB01
LATITUDE: 3,846,325.3	LONGITUDE: 281,791.5	CREW:	
SYSTEM: UTM-WGS 84 (m)		BORING LOCATION:	LAND ELEV.: 30.0
DRILL MACHINE: Diedrich D-25	METHOD: HSA	0 HOUR DTW: NM	BORING DEPTH: 14.0
START DATE: 04/14/04	FINISH DATE: 04/14/04	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT	SAMP. TYPE	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	30.0
					SM		0.0	From auger cuttings- Tan, SILTY, f. to vf. SAND.	
							2.0		28.0
4.0							4.0		26.0
	2 4 6 8				CL			Brown, SILTY, f. to vf. SANDY CLAY. Low plasticity. Moist. No HCO	
6.0							6.0		24.0
9.0							9.0		21.0
	10 14 22 30	SPT		UST TT3548-SB01 (9-11)	SP			Light gray, f. to vf. SAND. Moist. Well sorted.	
11.0							11.0		19.0
12.0							12.0		18.0
	11 9 8 14	SPT		UST TT3548-SB01 (12-14)	SP			Same as above. Strong HCO. Possible free product in soil. Saturated @ 14' BLS.	
14.0							14.0		16.0
								Boring Terminated at Elevation 16.0 ft	

CATLIN ENVIRO. LOG 204-067 TT-3548 GPL TEST GDT 09/16/04

BORING LOG

CATLIN

ENGINEERS and SCIENTISTS
ENGLISH
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-067	STATE: NC	COUNTY: Onslow	LOCATION: Camp LeJeune
PROJECT NAME: TT-3548		LOGGED BY: Charles Ray	BORING ID: UST
		DRILLER: Bobbie Fowler	TT3548-SB02
LATITUDE: 3,846,324.5	LONGITUDE: 281,792.8	CREW:	
SYSTEM: UTM-WGS 84 (m)	BORING LOCATION:	LAND ELEV.: 30.0	
DRILL MACHINE: Diedrich D-25	METHOD: HSA	0 HOUR DTW: NM	BORING DEPTH: 13.0
START DATE: 04/14/04	FINISH DATE: 04/14/04	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT	SAMP. TYPE	OVA RESULTS (ppm)	LAB.	U S C S	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	30.0
0.0							0.0		
					SM			Auger cuttings- tan, SILTY, f. to vf. SAND.	
2.0							2.0		28.0
4.0							4.0		26.0
					CL			Auger cuttings- Brown, SILTY, f. to vf. SANDY CLAY. Low plasticity. Moist. No HCO.	
6.0							6.0		24.0
9.0							9.0		21.0
	11 16 22 22	SPT	▲29	UST TT3548-SB02 (9-11)	SP			Light gray, f. to vf. SAND. Well sorted. Mod. HCO.	
11.0							11.0		19.0
	16 18 19 20	SPT	▲27.6	UST TT3548-SB02 (11-13)	SP			Light gray, f. to vf. SAND. Well sorted. Moist. Mod. HCO.	
13.0							13.0		17.0
								Boring Terminated at Elevation 17.0 ft	

BORING LOG

CATLIN
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ENGLISH
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-067	STATE: NC	COUNTY: Onslow	LOCATION: Camp LeJeune
PROJECT NAME: TT-3548		LOGGED BY: Charles Ray	BORING ID: UST
		DRILLER: Bobbie Fowler	TT3548-SB03
LATITUDE: 3,846,323.0	LONGITUDE: 281,792.4	CREW:	
SYSTEM: UTM-WGS 84 (m)	BORING LOCATION:	LAND ELEV.: 30.0	
DRILL MACHINE: Diedrich D-25	METHOD: HSA	0 HOUR DTW: NM	BORING DEPTH: 13.0
START DATE: 04/14/04	FINISH DATE: 04/14/04	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm)	LAB.	U S C S	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE	30.0
0.0					SM		0.0	Auger cuttings - Tan, SILTY, f. to vf. SAND.	
2.0							2.0		28.0
4.0							4.0		26.0
6.0					CL		6.0	Auger cuttings - Brown, SILTY, f. to vf. SANDY CLAY w/ low plasticity. Moist. No HCO.	24.0
9.0							9.0		21.0
11.0	10 16 27 29	SPT	▲115	UST TT3548-SB03 (9-11)	SP		11.0	Light gray, f. to vf. SAND. Well sorted. Strong HCO.	19.0
13.0	16 18 25 30	SPT	▲38	UST TT3548-SB03 (11-13)	SP		13.0	S. A. A. Strong HCO.	17.0
								Boring Terminated at Elevation 17.0 ft	

BORING LOG

CATLIN
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Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-067	STATE: NC	COUNTY: Onslow	LOCATION: Camp LeJeune
PROJECT NAME: TT-3548		LOGGED BY: Charles Ray	BORING ID: UST
		DRILLER: Bobbie Fowler	TT3548-SB04
LATITUDE: 3,846,323.9	LONGITUDE: 281,791.2	CREW:	
SYSTEM: UTM-WGS 84 (m)	BORING LOCATION:		LAND ELEV.: 30.0
DRILL MACHINE: Diedrich D-25	METHOD: HSA	0 HOUR DTW: NM	BORING DEPTH: 13.0
START DATE: 04/14/04	FINISH DATE: 04/14/04	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT	SAMP. TYPE	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	30.0
0.0					SM		0.0	Auger cuttings - Tan, SILTY, f. to vf. SAND.	
2.0							2.0		28.0
4.0					CL		4.0	Auger cuttings - Brown, SILTY, f. to vf. SANDY CLAY. Low plasticity. Moist. No HCO.	26.0
6.0							6.0		24.0
9.0							9.0		21.0
	9 17 17 22	SPT	▲7.2	UST TT3548-SB04 (9-11)	SP		11.0	Light gray, f. to vf. SAND. Well sorted. Strong HCO.	19.0
11.0									
	20 21 28 27	SPT	▲32.5	UST TT3548-SB04 (11-13)	SP		13.0	Light gray, f. to vf. SAND (similar to above). Well sorted. Strong HCO.	17.0
13.0								Boring Terminated at Elevation 17.0 ft	

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
ENGLISH
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-067	STATE: NC	COUNTY: Onslow	LOCATION: Camp LeJeune
PROJECT NAME: TT-3548		LOGGED BY: Charles Ray	BORING ID: UST
		DRILLER: Bobbie Fowler	TT3548-SB05
LATITUDE: 3,846,324.2	LONGITUDE: 281,791.8	CREW:	
SYSTEM: UTM-WGS 84 (m)	BORING LOCATION:	LAND ELEV.: 30.0	
DRILL MACHINE: Diedrich D-25	METHOD: HSA	0 HOUR DTW: NM	BORING DEPTH: 11.0
START DATE: 04/14/04	FINISH DATE: 04/14/04	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0							0.0	LAND SURFACE	30.0
0.0					SM		0.0	Tan, SILTY, f. to vf. SAND.	
2.0							2.0		28.0
4.0							4.0		26.0
6.0					CL		6.0	Brown, SILTY, f. to vf. SANDY CLAY. Low plasticity. Moist. No HCO.	24.0
9.0							9.0		21.0
11.0	10 14 16 25	SPT	22	UST TT3548 -SB05 (9-11) +DUP	SP		11.0	Light gray, f. to vf. SAND. Well sorted. Strong HCO.	19.0
								Boring Terminated at Elevation 19.0 ft	

BORING LOG

CATLIN

ENGINEERS and SCIENTISTS

ENGLISH
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-067	STATE: NC	COUNTY: Onslow	LOCATION: Camp LeJeune
PROJECT NAME: TT-3548		LOGGED BY: Tom Stetler	BORING ID: UST
		DRILLER: Bobbie Fowler	TT3548-SB06
LATITUDE: 3,846,325.3	LONGITUDE: 281,794.9	CREW: Bill Miller	
SYSTEM: UTM-WGS 84 (m)		BORING LOCATION: East of basin.	LAND ELEV.: 30.0
DRILL MACHINE: Diedrich D-50	METHOD: HSA	0 HOUR DTW: NM	BORING DEPTH: 14.0
START DATE: 08/10/04	FINISH DATE: 08/10/04	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	30.0
							0.0	TOPSOIL	29.8
4.0							4.0		26.0
	4 6 6 8	SPT	▲0	USTTT 3548-SB06 (4-6)	SC		6.0	Light brown, CLAYEY, f. to vf. SAND. Minor orange-brown mottling. Moist. No HCO.	24.0
6.0									
9.0							9.0		21.0
	8 15 24 31	SPT	▲0	USTTT 3548-SB06 (9-11)	SP		11.0	Light gray, clean, f. to vf. SAND. Minor inter-layering of gray-brown sand (up to 2 cm in thickness). Well sorted. No HCO.	19.0
11.0							12.0		18.0
12.0									
	5 5 11 15		▲2.8		SP		14.0	Light gray, f. to vf. SAND. S. A. A. but trace clay (?). Minor yellowish-gray lenses. Well sorted, but slightly more coarse in grain size than above. Base of spoon is wet. No HCO.	16.0
14.0								Boring Terminated at Elevation 16.0 ft	

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
ENGLISH
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-067	STATE: NC	COUNTY: Onslow	LOCATION: Camp LeJeune
PROJECT NAME: TT-3548		LOGGED BY: Tom Stetler	BORING ID: UST
		DRILLER: Bobbie Fowler	TT3548-SB07
LATITUDE: 3,846,328.6	LONGITUDE: 281,790.3	CREW: Bill Miller	
SYSTEM: UTM-WGS 84 (m)	BORING LOCATION: North of basin.		LAND ELEV.: 30.0
DRILL MACHINE: Diedrich D-50	METHOD: HSA	0 HOUR DTW: NM	BORING DEPTH: 14.0
START DATE: 08/10/04	FINISH DATE: 08/10/04	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT	SAMP. TYPE	OVA RESULTS (ppm)	LAB.	U S C S	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	30.0
							0.0	TOPSOIL	29.8
4.0							4.0		26.0
	1 2 5 8	SPT	▲0	USTTT 3548-SB07 (4-6)	SC/SM		6.0	Tan to orange-tan, SILTY to CLAYEY, vf. SAND. Trace clay. Minor mottling. Moist. No HCO.	24.0
6.0									
							9.0		21.0
9.0	15 17 19 28	SPT	▲0	USTTT 3548-SB07 (9-11)	SP		11.0	Light gray, clean, vf. SAND. Well sorted. Moist. Minor brownish-gray laminations. No HCO.	19.0
11.0							12.0		18.0
12.0									
	8 5 8 12		▲0		SP		14.0	Gray, f. to vf. SAND. Similar to above, but not as well sorted. Base of spoon is saturated. No HCO.	16.0
14.0								Boring Terminated at Elevation 16.0 ft	

CATLIN ENVIRO. LOG 204-067 TT-3548 G.P.I. TEST GDT 09/16/04

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
ENGLISH
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-067	STATE: NC	COUNTY: Onslow	LOCATION: Camp LeJeune
PROJECT NAME: TT-3548		LOGGED BY: Tom Stetler	BORING ID: UST
		DRILLER: Bobbie Fowler	TT3548-SB08
LATITUDE: 3,846,320.8	LONGITUDE: 281,793.2	CREW: Bill Miller	
SYSTEM: UTM-WGS 84 (m)		BORING LOCATION: South of basin.	LAND ELEV.: 30.0
DRILL MACHINE: Diedrich D-50	METHOD: HSA	0 HOUR DTW: NM	BORING DEPTH: 14.0
START DATE: 08/10/04	FINISH DATE: 08/10/04	24 HOUR DTW: NM	ROCK DEPTH: --

DEPTH	BLOW COUNT	SAMP. TYPE	OVA RESULTS (ppm)	LAB.	U S C S	L O G	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000					
							0.0 LAND SURFACE	30.0
							0.2 TOPSOIL	29.8
4.0								26.0
	2 3 4 6	SPT	▲0	USTTT 3548- SB08 (4-6) +DUP	SC/ SM		Tan to orange-ran, SILTY, f. to vf. SAND. Trace clay. Minor mottling. Moist. No HCO.	24.0
6.0								
8.0								22.0
	7 9 16 16	SPT	▲0	USTTT 3548- SB08 (8-10)	SP		Light gray, vf. SAND. Well sorted. Clean. Moist. No HCO.	20.0
10.0								
12.0								18.0
	6 3 3 4		▲1.1		SP		Light gray, f. to vf. SAND. Minor silt at base of spoon. Similar to above, but less well sorted. Saturated at base. No HCO.	
14.0								16.0
							Boring Terminated at Elevation 16.0 ft	

WELL LOG

CATLIN

ENGINEERS and SCIENTISTS

Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-067	STATE: NC	COUNTY: Onslow	LOCATION: Camp LeJeune
PROJECT NAME: TT-3548		LOGGED BY: Tom Stetler	WELL ID:
		DRILLER: Bobbie Fowler	UST
NORTHING: 3,846,324.2	EASTING: 281,792.0	CREW: Bill Miller	TT3548-MW01
SYSTEM: UTM-WGS 84 (m)		BORING LOCATION: In former tank basin.	
T.O.C. ELEV.: 30.00			
DRILL MACHINE: Diedrich D-50	METHOD: HSA	0 HOUR DTW: 13.54	BORING DEPTH: 20.0
START DATE: 08/09/04	FINISH DATE: 08/09/04	24 HOUR DTW: 13.55	WELL DEPTH: 20.0

DEPTH	BLOW COUNT				OVA (ppm)	LAB.	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION	WELL DETAIL
6in	6in	6in	6in									
0.0									0.0	LAND SURFACE	30.0	0.0
									0.2	TOPSOIL	29.8	0.0
1	1	2	2		.9							
2.0	1	2	2	1	271		SM			Light tan to tan, SILTY, vf. SAND. Moderately well sorted. Soft. Minor silt. Minor laminations. Wet @ 2' BLS, slight HCO @ 4' BLS.		2.0
4.0	1	0	1	0	1566				5.5		24.5	
6.0	1	2	7	11	1271		SC		6.5	Dark brown, SILTY to CLAYEY, vf. SAND. Very soft. Wet. Strong HCO.	23.5	
8.0	5	10	13	15	843.2		SP			Light gray, clean, f. to vf. SAND. Well sorted. Minor light brown banding up to 2 cm in thickness near base. Moist. Strong HCO between 6.5 and 10' BLS.		8.0
10.0	5	9	12	16	81.7						10.0	
12.0	4	8	11	12	8.9				12.0		18.0	
14.0	6	11	15	15	5.6		SP			Gray to light gray, f. to vf. SAND. Slightly more coarse in grain size than above. Trace yellowish-gray sandy lenses (up to 1 cm in width). Saturated @ 14' BLS. No HCO.		
16.0	7	9	15	18	7.0							
18.0	8	12	16	19	13.9							
									20.0		10.0	20.0
										Boring Terminated at Elevation 10.0 ft		

CATLIN BORING LOG 204-067 TT-3548 GPL CATLIN GDI 09/16/04



Portland Cement



Bentonite Pellets



#2 Medium Sand

WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Bobbie Fowler CERTIFICATION # 2869

WELL CONTRACTOR COMPANY NAME CATLIN Engineers & Scientists PHONE # (910) 452-5861

STATE WELL CONSTRUCTION PERMIT # _____ ASSOCIATED WQ PERMIT # N/A
(if applicable) (if applicable)

UST TT3548-MW01

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐
Monitoring ☒ Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use _____

2. WELL LOCATION: (Show sketch of the location below)

Nearest Town: Camp LeJeune County: Onslow

(Road Name and Numbers, Community, Subdivision, Lot No., Zip Code)

3. OWNER: LANTDIV NAVFACENGCOM Commanding General

Address: AC/S EMD/Marine Corps Base/PSC Box 20004
(Street or Route No.)

Camp LeJeune
City or Town

NC
State

28542-0004
Zip Code

Area code - Phone number

4. DATE DRILLED: 8/9/2004

5. TOTAL DEPTH: 20

6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

7. STATIC WATER LEVEL Below Top of Casing 13.55 FT.
(Use "+" if Above Top of Casing)

8. TOP OF CASING IS 0 FT. Above Land Surface*

* Top of casing terminated at/or below land surface requires
a variance in accordance with 15A NCAC 2C.0118

9. YIELD (gpm): N/A METHOD OF TEST N/A

10. WATER ZONES (depth): Surficial Aquifer

12. DISINFECTION: Type N/A Amount N/A

13. CASING: Depth Diameter Wall Thickness or Weight/Ft. Material
From 0 To 10 ft. 2 in. Sch. 40 PVC
From _____ To _____ ft. _____ in. _____
From _____ To _____ ft. _____ in. _____

14. GROUT: Depth Material Method
From 0 To 2 ft. Portland Cement Surface Pour
From 2 To 8 ft. Bent. Pellets Surface Pour

15. SCREEN: Depth Diameter Slot Size Material
From 10 To 20 ft. 2 in. Slot .010 in. PVC
From _____ To _____ ft. _____ in. _____ in. _____

16. SAND/GRAVEL PACK: Depth Size Material
From 8 To 20 ft. #2 Medium Torpedo Sand
From _____ To _____ ft. _____

17. REMARKS: _____

Topographic/Land Setting
☐ Ridge ☐ Slope ☐ Valley ☒ Flat
(check appropriate box)

Northring/Easting of well location

3846324.1869957/281791.964321

UTM-WGS 84 (m)

Latitude/longitude source: ☒ GPS ☐ Topo. map
(check box)

DEPTH
From To

DRILLING LOG
Formation Description

SEE
ATTACHED

LOCATION SKETCH

Show direction and distance in miles from at least
two State Roads or County Roads. Include road
numbers and common road names.

SEE
ATTACHED

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL
CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF PERSON CONSTRUCTING THE WELL

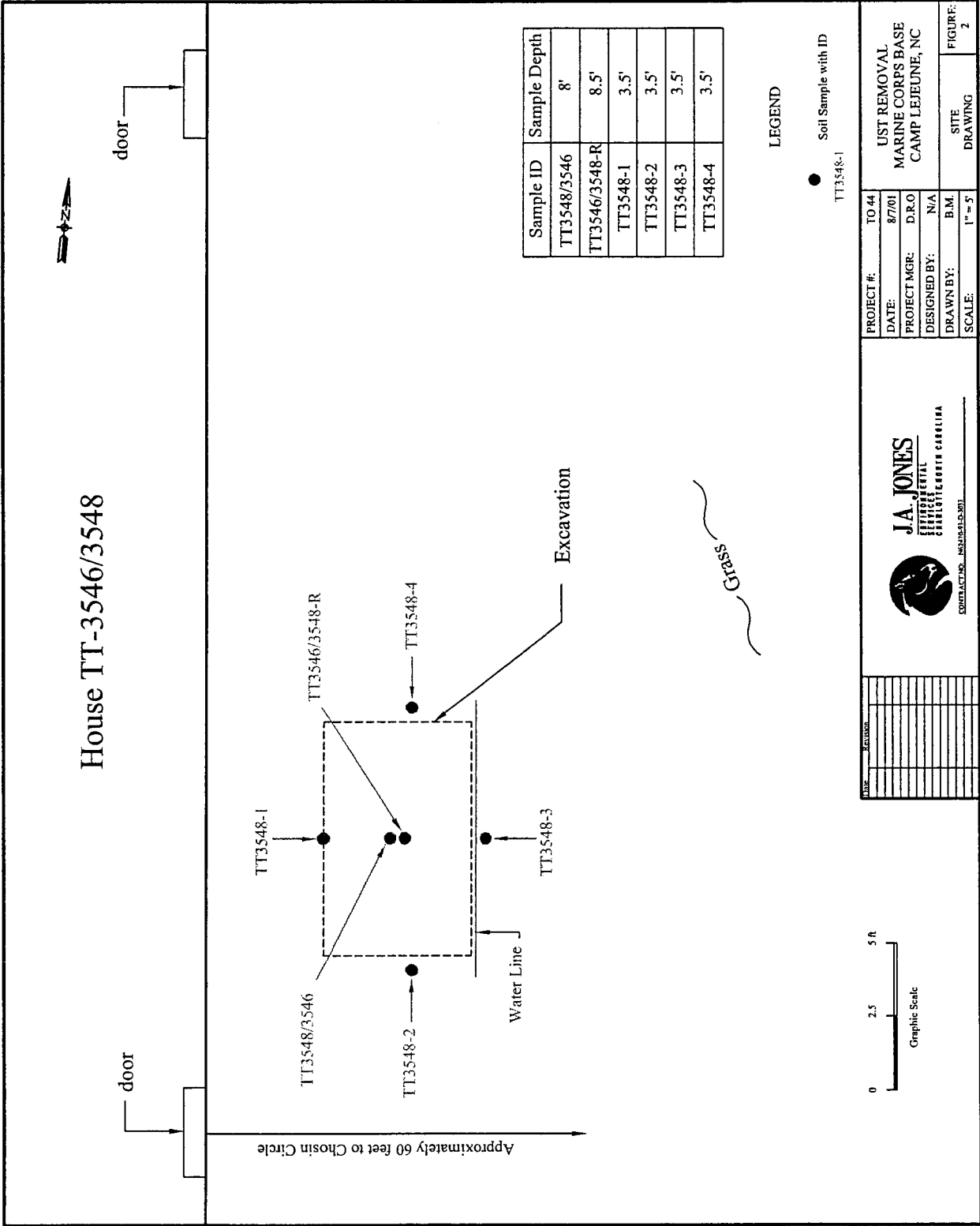
DATE

Submit original to Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC
27699-1636 Phone No. (919) 733-3221, within 30 days.

Modified from:
GW-1 REV.07/2001

APPENDIX B

HISTORICAL DATA FROM UST CLOSURE REPORT



TABLES

Table 1 Soil Sample Analytical Results (8/7/01 Sampling Event)

Sample ID	Sample Date	Sample Depth (ft bls)	TPH-GRO (Mg/Kg)	TPH-DRO (Mg/Kg)
TT-3548/3546	8/7/01	8	2,000	15,000

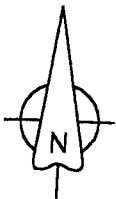
Table 2 SOIL SAMPLES ANALYTICAL RESULTS
(9/20 & 10/23/01 Sampling Event)

SAMPLE ID	DATE	SAMPLE DEPTH	COMPOUND CONCENTRATION (in ppm)														
			C9-C22 Aromatics	C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	Carbon disulfide	Fluorene	Sec-Butylbenzene	P-Isopropyltoluene	Naphthalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2-Methylnaphthalene	Phenanthrene	Pyrene	Total Xylenes
TT3546/3548-R	9/20/01	8.5'	2090	63	4000	750		5.7	3.7	4	17	28	13	48	10		6.9
TT3548-1	10/23/01	3.5'					0.018									0.4	
TT3548-2	10/23/01	3.5'			110		0.009				0.0095						
TT3548-3	10/23/01	3.5'															
TT3548-4	10/23/01	3.5'															
Residential Soil Cleanup Level	--		469	939	9386	93860	1564	620	156	n/e	63	782	782	63	469	469	32000
Soil-to-Water Maximum Soil Contaminant Concentration	--		34	72	3255		4	44	3	n/e	0.58	8	7	3	60	286	5

- Note:
1. Only those compounds whose concentration is above Method Detection Limit are listed
 2. A no-entry-cell indicates compound concentration Below Method Detection Limit
 3. n/e ----- Not established yet by NCDENR
 4. Bold indicates compound concentration above Residential Soil Cleanup Level

APPENDIX C

HISTORICAL DATA FROM PHASE I LSA



TT-3546 ENTRANCE

NOTE: DATA LEGEND

NB= N-BUTYLBENZENE
 4-I= 4-ISOPROPYLTOLUENE
 N= NAPHTHALENE
 1,2,4-T= 1,2,4-TRIMETHYLBENZENE
 1,3,5-T= 1,3,5-TRIMETHYLBENZENE
 X= TOTAL XYLENES
 NA= NOT APPLICABLE
 ND= NOT DETECTED ABOVE LABORATORY
 PRACTICAL QUANTITATION LIMIT (PQL)

CONTAMINANT

BORING
NUMBER AND
SAMPLE DEPTH
(FT.)

LOWEST MAXIMUM
CONTAMINANT
CONCENTRATION
(mg/kg)

SB02	8-9'	9-11'	MSCC
N-B	2.0	1.4	4

CONCENTRATION
(mg/kg)

HOUSE TT-3548/3546

GRASS

SB02	8-9'	9-11'	MSCC
N-B	2.0	1.4	4
4-I	1.2	ND	NA
N	4.0	1.8	.58
1,2,4-T	11.0	5.2	8
1,3,5-T	5.8	3.6	7
X	4.6	ND	5

USTTT3546/3548-SB02

USTTT3546/3548-SB01

SB01	2-3'
	ND

TT-3548 ENTRANCE

SIDEWALK

LEGEND

● USTTT3546/3548-SB01

BORING LOCATION

--- FORMER FUEL DELIVERY LINE

(APPROXIMATE LOCATION)

--- SEWER LINE

SEWER LINE

--- WATER LINE

WATER LINE

APPROXIMATELY
60' TO CHOSIN
CIRCLE

SEE APPENDIX A
FOR UST CLOSURE
ASSESSMENT SOIL
SAMPLE LOCATIONS

0 5'

SCALE: 1" = 5'

MID-ATLANTIC
ASSOCIATES, INC.
Engineering & Environmental Solutions

SOIL SAMPLE LABORATORY RESULTS
 EPA METHOD 8260B
 LUST TT-3546/3548
 TARAWA TERRACE II HOUSING AREA
 MARINE CORPS BASE
 CAMP LEJEUNE, NORTH CAROLINA

DRAWN BY: *[Signature]*

DATE: APRIL 2003

DRAFT
CHECK:

JOB
NO: 000R1243.23

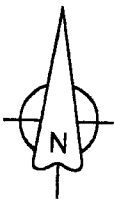
ENG
CHECK: *[Signature]*

CAD
NO: 01-124309-23

APPROVAL: *[Signature]*

DWG
NO: 6.1

REFERENCE: J.A. JONES ENVIRONMENTAL SERVICES SITE MAP DATED 8/7/01.



TT-3546 ENTRANCE

NOTE: DATA LEGEND

AC= ACENAPHTHAENE
 F= FLUORENE
 1-MN= 1-METHYLNAPHTHALENE
 2-MN= 2-METHYLNAPHTHALENE
 N= NAPHTHALENE
 PH= PHENANTHRENE
 PY= PYRENE
 TIC= TENTATIVELY IDENTIFIED
 COMPOUND (ESTIMATED CONCENTRATION)
 NA= NOT APPLICABLE
 ND= NOT DETECTED ABOVE LABORATORY
 PRACTICAL QUANTITATION LIMIT (PQL)

CONTAMINANT

BORING
 NUMBER AND
 SAMPLE DEPTH
 (FT.)

LOWEST MAXIMUM
 CONTAMINANT
 CONCENTRATION
 (mg/kg)

SB02	8-9'	9-11'	MSCC
AC	2.2	.71	8

CONCENTRATION
 (mg/kg)

HOUSE TT-3548/3548

GRASS

SB02	8-9'	9-11'	MSCC
AC	2.2	.71	8
F	3.2	1.2	44
2-MN	15.0	5.8	3
N	5.4	.69	.58
PH	8.6	3.1	60
PY	ND	.61	286
1-MN (TIC)	17.0	3.9	NA
2-MN (TIC)	15.0	NA	3
OTHER TICs	8 TICs 87.7	9 TICs 55.5	NA

USTTT3546/3548-SB02

USTTT3546/3548-SB01

SB01 2-3'

ND

TT-3548 ENTRANCE

SIDEWALK

LEGEND

● USTTT3546/3548-SB01

--- FORMER FUEL DELIVERY LINE

--- (APPROXIMATE LOCATION)

--- SEWER LINE

--- WATER LINE

BORING LOCATION
 FORMER FUEL DELIVERY LINE
 (APPROXIMATE LOCATION)

SEWER LINE
 WATER LINE

APPROXIMATELY
 60' TO CHOSIN
 CIRCLE

SEE APPENDIX A
 FOR UST CLOSURE
 ASSESSMENT SOIL
 SAMPLE LOCATIONS

0 5'

SCALE: 1" = 5'

MID-ATLANTIC
ASSOCIATES, INC.
Engineering & Environmental Solutions

SOIL SAMPLE LABORATORY RESULTS
 EPA METHOD 8270
 LUST TT-3546/3548
 TARAWA TERRACE II HOUSING AREA
 MARINE CORPS BASE
 CAMP LEJEUNE, NORTH CAROLINA

DRAWN
 BY: *[Signature]*

DATE: APRIL 2003

DRAFT
 CHECK:

JOB
 NO: 000R1243.23

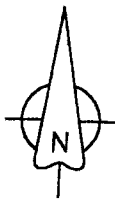
ENG
 CHECK: *[Signature]*

CAD
 NO: 01-124310-23

APPROVAL: *[Signature]*

DWG
 NO: 6.2

REFERENCE: J.A. JONES ENVIRONMENTAL SERVICES SITE MAP DATED 8/7/01.



TT-3546 ENTRANCE

NOTE: DATA LEGEND

C5-C8=C5-C8 ALIPHATICS
C9-C18=C9-C18 ALIPHATICS
C19-C36=C19-C36 ALIPHATICS
C9-C22=C9-C22 AROMATICS

NA=NOT APPLICABLE

ND=NOT DETECTED ABOVE LABORATORY
PRACTICAL QUANTITATION LIMIT (PQL)

CONTAMINANT

BORING
NUMBER AND
SAMPLE DEPTH
(FT.)

LOWEST MAXIMUM
CONTAMINANT
CONCENTRATION
(mg/kg)

SB02	8-9'	9-11'	MSCC
C5-C8	23	ND	72

CONCENTRATION
(mg/kg)

HOUSE TT-3546/3546

GRASS

SB02	8-9'	9-11'	MSCC
C5-C8	23	ND	72
C9-C18	690	660	3,255
C19-C36	110	130	93,860
C9-C22	733	339	34

USTTT3546/3548-SB02

USTTT3546/3548-SB01

SB01	2-3'
ND	

EXCAVATION

TT-3548 ENTRANCE

SIDEWALK

LEGEND

● USTTT3546/3548-SB01

--- FORMER FUEL DELIVERY LINE

--- SEWER LINE

--- WATER LINE

BORING LOCATION

FORMER FUEL DELIVERY LINE
(APPROXIMATE LOCATION)

SEWER LINE

WATER LINE

APPROXIMATELY
60' TO CHOSIN
CIRCLE

SEE APPENDIX A
FOR UST CLOSURE
ASSESSMENT SOIL
SAMPLE LOCATIONS

0 5'

SCALE: 1" = 5'

MID-ATLANTIC
ASSOCIATES, INC.
Engineering & Environmental Solutions

SOIL SAMPLE LABORATORY RESULTS
MADEP VPH/EPH
LUST TT-3546/3548
TARAWA TERRACE II HOUSING AREA
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DRAWN BY: *[Signature]*

DATE: APRIL 2003

DRAFT
CHECK:

JOB
NO: 000R1243.23

ENG
CHECK: *[Signature]*

CAD
NO: 01-124311-23

APPROVAL: *[Signature]*

DWG
NO: 6.3

REFERENCE: J.A. JONES ENVIRONMENTAL SERVICES SITE MAP DATED 8/7/01.

Table 6.2: Summary of Chemical Constituents Detected in Groundwater (µg/L)

Date: May 2003 Incident Number and Name: 23694, Tarawa Terrace 3548 Facility ID#: Not Applicable

Analytical Method (e.g., VOC by EPA 601) →			VOC EPA 602	VOC EPA 602	Semi- VOC EPA 625	Semi- VOC EPA 625	Semi- VOC EPA 625	Other Total TICs Estimated concentration, ug/L	MADEP VPH	MADEP VPH	MADEP EPH	MADEP EPH	MADEP VPH	MADEP EPH
Contaminant of Concern →			Toluene	Xylenes (Total)	1-Methylnaphthalene (TIC), Estimated concentration, ug/L [Match Probability, %]	2-Methylnaphthalene (TIC), Estimated concentration, ug/L [Match Probability, %]	Other Total TICs Estimated concentration, ug/L	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C10 Aromatics	C11-C22 Aromatics	
Well ID	Sample ID	Date Collected (m/dd/yy)												
USTTT3546/3548 -MW01 Temporary Well at former UST location	UST TT3546/3548- MW01	7/25/02	2	14	15 [97%]	13 [94%]	104	<100	130	<100	<100	<100	120	
2L Standard (ug/l)			1,000	530	NA	28	NA	420	4,200	42,000	210			
GCL (ug/l)			257,500	87,500	NA	12,500	NA	Not Est.	Not Est.	Not Est.	Not Est.			

Notes:

Bold = Concentration is equal to or exceeds State Groundwater Standard
GCL = Gross Contaminant Level
NA = Not Applicable
Not Est. = GCL not established
PQL = Practical Quantitation Limit
ug/L = micrograms per liter

TABLE 6.3

WELL CONSTRUCTION INFORMATION

Date: April 2003 Incident Number/Name: 23694/Tarawa Terrace 3548 Facility ID #: Not Applicable

Well ID	Date Installed (m/dd/yy)	Date Water Level Measured (m/dd/yy)	Well Casing Depth (ft. BGS)	Screened Interval (x to y ft. BGS)	Bottom of Well (ft. BGS)	Top of Casing Elevation (ft.)	Depth of Water From Top of Casing (ft.)	Free Product Thickness** (ft.)	Ground Water Elevation* (ft.)	Comments
MW-1	7/23/02	7/25/02	8.5	8.5 to 18.5	18.5	0	16.43	NMT	N/A	Temporary Well Installed and Abandoned by CATLIN on July 25, 2002

No other wells installed during Phase I Limited Site Assessment

ft BGS =

Feet below ground surface

MW-1 =

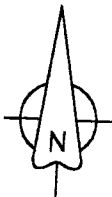
Abbreviated Well Identification. The MCB Well ID is USTTT3546/3548-MW01

N/A =

Not Applicable

NMT =

No Measurable Thickness. The oil/water interface probe used is capable of detecting thicknesses equal to or greater than 0.01 feet.



TT-3546 ENTRANCE

NOTE: DATA LEGEND

T-TOLUENE
X-XYLENES (TOTAL)
ND-NOT DETECTED ABOVE LABORATORY
PRACTICAL QUANTITATION LIMIT (PQL)
ug/L-MICROGRAMS PER LITER (PPB)

CONTAMINANT

CONCENTRATION
(ug/L)

STATE
GROUNDWATER
STANDARD (ug/L)

	MWD1	NCAC 2L
T	7	1000
X	14	530

HOUSE TT-3548/3546

USTTT3548/3548-MW01

GRASS

EXCAVATION

	MWD1	NCAC 2L
T	2	1000
X	14	530

TT-3548 ENTRANCE

SIDEWALK

LEGEND

● USTTT3548/3548-MW01

TEMPORARY MONITORING WELL LOCATION
FORMER FUEL DELIVERY LINE
(APPROXIMATE LOCATION)

—S—S—S—

SEWER LINE

—V—V—V—

WATER LINE

APPROXIMATELY
60' TO CHOSIN
CIRCLE

SEE APPENDIX A
FOR UST CLOSURE
ASSESSMENT SOIL
SAMPLE LOCATIONS

0 5'

SCALE: 1" = 5'

MID-ATLANTIC
ASSOCIATES, INC.
Engineering & Environmental Solutions

GROUNDWATER
SAMPLE LABORATORY RESULTS
EPH METHOD 602
LUST TT-3546/3548
TARAWA TERRACE II HOUSING AREA
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DRAWN
BY: *[Signature]*

DATE: APRIL 2003

DRAFT
CHECK:

JOB
NO: 000R1243.23

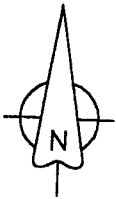
ENG
CHECK: *[Signature]*

CAD
NO: 01-124312-23

APPROVAL: *[Signature]*

DWG
NO: 6.4

REFERENCE: J.A. JONES ENVIRONMENTAL SERVICES SITE MAP DATED 8/7/01.



TT-3546 ENTRANCE

NOTE: DATA LEGEND
1-MN-1-METHYLNAPHTHALENE
2-MN-2-METHYLNAPHTHALENE
TIC-TENTATIVELY IDENTIFIED COMPOUND
ug/L-MICROGRAMS PER LITER (PPB)
(EST)-ESTIMATED CONCENTRATION
NA-NOT APPLICABLE

CONTAMINANT		CONCENTRATION (ug/L)	STATE GROUNDWATER STANDARD (ug/L)
MW01	2-MN (TIC)	13	28

HOUSE TT-3548/3546

USTTT3546/3548-MW01

GRASS

EXCAVATION

MW01		NCAC 2L
2-MN (TIC)	13	28
1-MN (TIC)	15	NA
OTHER TICs	104 (EST)	NA

TT-3548 ENTRANCE

SIDEWALK

LEGEND

- USTTT3546/3548-MW01 TEMPORARY MONITORING WELL LOCATION
- FORMER FUEL DELIVERY LINE (APPROXIMATE LOCATION)
- SEWER LINE
- WATER LINE

APPROXIMATELY 60' TO CHOSIN CIRCLE

SEE APPENDIX A FOR UST CLOSURE ASSESSMENT SOIL SAMPLE LOCATIONS

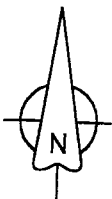
0 5'
SCALE: 1" = 5'

MID-ATLANTIC
ASSOCIATES, INC.
Engineering & Environmental Solutions

GROUNDWATER
SAMPLE LABORATORY RESULTS
EPH METHOD 625
LUST TT-3546/3548
TARAWA TERRACE II HOUSING AREA
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DRAWN BY: <i>[Signature]</i>	DATE: MAY 2003
DRAFT CHECK: <i>[Signature]</i>	JOB NO: 000R1243.23
ENG CHECK: <i>[Signature]</i>	CAD NO: 01-124313-23
APPROVAL: <i>[Signature]</i>	DWG NO: 6.5

REFERENCE: J.A. JONES ENVIRONMENTAL SERVICES SITE MAP DATED 8/7/01.



TT-3546 ENTRANCE

NOTE: DATA LEGEND

C8-C12=C8-C12 ALIPHATICS
C11-C22=C11-C22 AROMATICS
ug/L-MICROGRAMS PER LITER (PPB)

HOUSE TT-3548/3546

CONTAMINANT

WELL NUMBER

STATE
GROUNDWATER
STANDARD
(ug/L)

MW01		NCAC 2L
C8-C12	130	4,200
C11-C22	120	210

CONCENTRATION
(ug/L)

USTTT3546/3548-MW01

GRASS

EXCAVATION

MW01		NCAC 2L
C8-C12	130	4,200
C11-C22	120	210

TT-3548 ENTRANCE

SIDEWALK

LEGEND

● USTTT3546/3548-MW01

TEMPORARY MONITORING WELL LOCATION
FORMER FUEL DELIVERY LINE
(APPROXIMATE LOCATION)

— s — s — s —

SEWER LINE

— v — v — v —

WATER LINE

APPROXIMATELY
60' TO CHOSIN
CIRCLE

SEE APPENDIX A
FOR UST CLOSURE
ASSESSMENT SOIL
SAMPLE LOCATIONS

0 5'

SCALE: 1" = 5'

MID-ATLANTIC
ASSOCIATES, INC.
Engineering & Environmental Solutions

GROUNDWATER
SAMPLE LABORATORY RESULTS
MADEP VPH/EPH
LUST TT-3546/3548
TARAWA TERRACE II HOUSING AREA
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DRAWN
BY: *[Signature]*

DATE: APRIL 2003

DRAFT
CHECK:

JOB
NO: 000R1243.23

ENG
CHECK: *[Signature]*

CAD
NO: 01-124314-23

APPROVAL: *[Signature]*

DWG
NO: 6.6

REFERENCE: J.A. JONES ENVIRONMENTAL SERVICES SITE MAP DATED 8/7/01.

APPENDIX D
STANDARD PROCEDURES

CATLIN STANDARD METHODS OF INVESTIGATION

(REVISED APRIL 2002)

1.0 DATA COLLECTION

1.1 BACKGROUND DATA

Background data and history information relevant to the site investigation is generated through numerous sources. These sources may include, but are not limited to, the following:

- Conversations with the client and regulatory officials involved with the incident.
- Review of pertinent regulatory correspondence.
- Review of previous and existing reports and other technical data.
- Review of available historical records.

1.2 SURVEYS AND POTENTIAL RECEPTOR DATA

Physical survey and potential receptor data are collected in accordance with the intended level of investigation. In general, the purpose is to collect sufficient information for site assessment and corrective action planning.

Individual receptors are identified and evaluated in the context of their potential for contaminant impact. Potential receptors of contamination can include surface water bodies, groundwater supply wells, wellhead protection areas, and subsurface building structures.

1.2.1 Horizontal Survey

Horizontal survey data are generated using either accepted general field surveying techniques, or existing survey maps; or by using a combination of existing data and field generated information. The survey area generally extends to a point at least 50 feet beyond suspected plume boundaries. A receptor scale survey of a larger area surrounding a site will be made if appropriate and necessary.

1.2.2 Vertical Survey

A vertical survey is conducted at the site typically within an accuracy of 0.01 foot. The datum plane is generally assumed unless otherwise noted. Assumed temporary benchmarks (TBM) are selected near ground level. The vertical survey includes such points as top of all well casings, selected ground shots, important utility inverts, utility fluid levels, important surface water levels, and other items determined to be significant.

1.3 DRILLING AND MONITORING WELL/PIEZOMETER INSTALLATION

Necessary permits are applied for and obtained in accordance with federal, state, and local requirements prior to drilling or well construction activities. Additionally, the well locations are scanned for underground utilities prior to conducting intrusive subsurface activities. Wells are installed under applicable licensing requirements, and are designed and constructed in accordance with accepted standards and practices. Any wells purposely installed at off-site locations are permitted through appropriate right-of-entry agreements with all necessary property owners and/or their agents.

1.3.1 Drilling Methods and Subsurface Data Collection

Drilling is accomplished utilizing one or more of the following methods:

Auger Drilling

Auger drilling is the preferred, most often used method of subsurface investigation and is accomplished using a vehicle or trailer mounted drill rig. Continuous flight auger types used vary upon the site and situation; ranging from the 4-inch outside diameter solid stem to the 12-inch outside diameter hollow stem. Auger type is selected based upon appropriateness and/or site-specific requirements.

Hand Augering

Hand augering is utilized when economically and scientifically feasible, or when no other method is suitable. Hand augers typically produce three-inch diameter holes and are generally limited to depths of less than 15 feet.

Direct Push

Direct push methods of subsurface investigation are used generally for soil screening purposes or collection of groundwater samples where permanent wells are not viable.

Other Methods

Other drilling methods, such as mud and air rotary, rock coring, cable tool, and large bucket augering are used when site conditions or project requirements dictate.

Regardless of the drilling method used, the drill rig(s) and all drilling tools are thoroughly cleaned between boreholes to prevent cross introduction of contaminants. Split spoon samples are collected and field-described at intervals of five feet or less, and cuttings are continuously monitored for organic vapors. Drill cuttings are containerized for off-site disposal or are spread on the ground surface in proximity to the well or boring in accordance with North Carolina Department of Environment and Natural Resources (NCDENR) requirements. A geologist or engineer, trained in using visual/manual techniques, is always present during drilling and is responsible for subsurface contaminant and geologic data collection. Soils are classified in general agreement with the Unified Soils Classification System (USCS).

1.3.2 Hydropunch Installation

Hydropunch penetrometers (Hydropunches) are used to delineate the spatial extent of dissolved and free phase plumes. Soil borings are advanced to the appropriate depth and then the Hydropunch is advanced through the soil boring into undisturbed material. Groundwater samples are collected by pulling back on the body of the Hydropunch and allowing the groundwater to enter the screened portion of the sample chamber. Samples are retrieved using a decontaminated Teflon bailer or peristaltic pump.

1.3.3 Well Installation

Wells are typically constructed of threaded PVC casing and screen. No glues or cements are used in joining PVC components. Well diameter, slot sizes, and protective covers vary depending upon site-specific conditions or situation-specific requirements.

1.3.4 Well Development

Wells are developed by over-pumping or surging using appropriate pumps, blocks, or bailers. Through development, unwanted fine materials are removed from the natural formation surrounding the well. Well development will be performed no sooner than 24-hours after grouting is completed for the Type III wells. Water generated during development is containerized and properly disposed or is discharged onto the ground in proximity of the well in accordance with NCDENR requirements.

1.4 HYDROGEOLOGIC DATA COLLECTION

Data used to help characterize hydrogeologic conditions at a site are obtained through various procedures including, but not necessarily limited to, those described below:

1.4.1 Regional Geology

Information pertaining to the regional geologic framework is compiled from existing publications, maps, and scientific papers.

1.4.2 Site Geology

Shallow site geology is generally determined from field descriptions and borehole samples. Interpretations with regard to hydrogeologically important contacts, zones, fractures, faults, cleavage, and facies changes are made when possible.

1.4.3 Groundwater Occurrence and Characteristics

Groundwater data is obtained utilizing a number of methods and procedures, not limited to the general list below:

Well Water Levels

After well development, wells are allowed to stabilize for a minimum of 24 hours prior to measuring. Water level and free product thickness (where applicable) measurements are performed using an electronic interface probe or steel tape with water/product finding pastes.

The specific gravity of any accumulated product is determined and used to calculate true hydraulic grade from measured water levels. This information is combined with vertical survey data to determine relative potentiometric surface elevations for all wells.

Aquifer Testing

Various aquifer tests may be used to make determinations of hydraulic conductivity. Slug or pumping tests are often used to characterize site hydrogeologic conditions and to develop remedial action alternatives utilizing appropriate pumping technologies.

Other Methods

Other methods may be deemed appropriate for determining various groundwater characteristics. These other methods may include nested well configurations and/or clustered piezometer installations; sieve or pipette analysis; fracture trace analysis; computer modeling; and geophysical logging.

1.5 PETROLEUM HYDROCARBON DATA COLLECTION

1.5.1 Collection Methods

Petroleum hydrocarbon data is obtained through various methods including, but not limited to, the following:

Field Analysis

- Direct thickness measurement of phase separated components using tapes and/or probes.
- Manual vapor analysis using a photoionization detector (PID) or flame ionization detector (FIS).
- Detectable odor and visual observation.

Laboratory Analysis

- Laboratory analysis of phase-separated products.
- Laboratory vapor, soil, and groundwater analysis using appropriate EPA Methods.

1.5.2 Field Sampling

Field sampling procedures are performed in accordance with recommended protocol, accepted industry standards, and under appropriate chain-of-custody procedures. Generally, sampling procedures are as follows:

Product Samples

Product samples are obtained using clean equipment and containers. Each is shipped to the analytical laboratory in protective containers.

Vapor Samples

PID/FID readings are measured from soil sample headspace using containerized samples that have been brought to ambient temperature.

Carbon tubes are utilized in conjunction with a laboratory-calibrated vacuum pump to obtain vapor samples. The carbon tubes are sealed and refrigerated for shipment to the analytical laboratory (This method is known as the Carbon Adsorption Method).

Soil Samples

Soil samples are immediately packed into clean containers, and refrigerated for shipment to the analytical laboratory.

Groundwater Samples

Groundwater samples are collected in accordance with the following procedures:

- Creeks/Lakes/Etc.

Grab samples are obtained.

- Domestic Wells

Wells are pumped for a time sufficient to completely purge the well and any pressure or holding tanks prior to sampling.

- Monitoring Wells

Water level measurements are made and well volumes calculated for each well.

Three well volumes are removed from each well using a thoroughly cleaned Teflon bailer or appropriate purging pump. If it is not possible to remove three volumes, due to very low yields, a minimum of one volume is removed prior to obtaining a sample.

Where analysis for metals is required, wells are typically sampled utilizing low flow techniques, which reduce turbidity and the potential for matrix interference.

Samples are collected and containerized in a manner that minimizes agitation and contact with the air.

Sampling records are field prepared.

Samples are labeled and proper chain of custody documents are maintained.

Samples are promptly protectively packed, refrigerated, and shipped to the analytical laboratory for analysis.

2.0 DATA EVALUATION

Data obtained as a result of the site investigation is compiled and evaluated and a report is prepared for client review and distribution to the appropriate agencies. Generally, specific data are evaluated as follows:

- Background data are evaluated in context with the suspected or confirmed problem.
- Survey data are utilized to develop site maps and to evaluate contaminant receptors.
- Well construction records are compiled and presented as part of the report. As-built information is used in combination with other data to evaluate subsurface conditions and monitoring well screen settings as they relate to the investigation.
- Subsurface drilling logs are used to develop geologic cross-sections, fence diagrams, isopachs, structure contours, or other constructions. Regional geologic data are used to obtain an overall framework.
- Hydrogeologic data are used to develop contour maps, flow nets and other constructions. The data is also used to calculate various hydrogeologic parameters that describe aquifer characteristics.
- Hydrocarbon data are utilized to develop various plume geometry and isoconcentration maps.
- All data are compiled and utilized for making specific recommendations with regard to remedial action alternatives.

APPENDIX E

LABORATORY REPORTS
AND
CHAIN-OF-CUSTODY DOCUMENTATION

PARADIGM ANALYTICAL LABORATORIES, INC.

Mr. Shane Chasteen
Richard Catlin & Associates
P.O. Box 10279
Wilmington NC 28404-0279

Report Number: G128-1367

Client Project: TT-3548

Dear Mr. Chasteen:

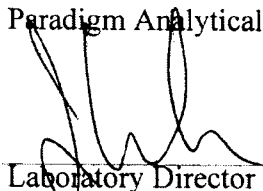
Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period 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 Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using 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,

Paradigm Analytical Laboratories, Inc.


Laboratory Director

J. Patrick Weaver

8/31/04
Date

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GC 602

Client Sample ID: UST-TT3548-MW01

Analyzed By: EKR

Client Project ID: TT-3548

Date Collected: 08/25/2004 13:45

Lab Sample ID: G128-1367-1A

Date Received: 8/25/2004

Lab Project ID: G128-1367

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	08/27/2004
Diisopropyl ether (DIPE)	BQL	1.00	1	08/27/2004
Ethylbenzene	2.06	1.00	1	08/27/2004
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	08/27/2004
Toluene	BQL	1.00	1	08/27/2004
m/p-Xylene	10.2	2.00	1	08/27/2004
o-Xylene	BQL	2.00	1	08/27/2004

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.1	105

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GC 602

Client Sample ID: UST-TT3548-MW01 Dup

Analyzed By: EKR

Client Project ID: TT-3548

Date Collected: 08/25/2004 13:45

Lab Sample ID: G128-1367-2A

Date Received: 8/25/2004

Lab Project ID: G128-1367

Matrix: Water

Analyte	Result ug/L	RL ug/L	Dilution Factor	Date Analyzed
Benzene	BQL	1.00	1	08/27/2004
Diisopropyl ether (DIPE)	BQL	1.00	1	08/27/2004
Ethylbenzene	1.99	1.00	1	08/27/2004
Methyl-tert butyl ether (MTBE)	BQL	2.00	1	08/27/2004
Toluene	BQL	1.00	1	08/27/2004
m/p-Xylene	10.4	2.00	1	08/27/2004
o-Xylene	BQL	2.00	1	08/27/2004

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.2	105

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 625

Client Sample ID: UST-TT3548-MW01
Client Project ID: TT-3548
Lab Sample ID: G128-1367-11
Lab Project ID: G128-1367

Analyzed By: MRC
Date Collected: 08/25/2004 13:45
Date Received: 08/25/2004
Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	Dilution Factor	Date Analyzed
Acenaphthene	BQL	10.0	1	08/27/2004
Acenaphthylene	BQL	10.0	1	08/27/2004
Anthracene	BQL	10.0	1	08/27/2004
Benzo[a]anthracene	BQL	10.0	1	08/27/2004
Benzo[a]pyrene	BQL	10.0	1	08/27/2004
Benzo[b]fluoranthene	BQL	10.0	1	08/27/2004
Benzo[g,h,i]perylene	BQL	10.0	1	08/27/2004
Benzo[k]fluoranthene	BQL	10.0	1	08/27/2004
Bis(2-chloroethoxy)methane	BQL	10.0	1	08/27/2004
Bis(2-chloroethyl)ether	BQL	10.0	1	08/27/2004
Bis(2-chloroisopropyl)ether	BQL	10.0	1	08/27/2004
Bis(2-ethylhexyl)phthalate	BQL	10.0	1	08/27/2004
4-bromophenyl phenyl ether	BQL	10.0	1	08/27/2004
Butylbenzylphthalate	BQL	10.0	1	08/27/2004
2-Chloronaphthalene	BQL	10.0	1	08/27/2004
2-Chlorophenol	BQL	10.0	1	08/27/2004
4-Chloro-3-methylphenol	BQL	10.0	1	08/27/2004
4-Chlorophenyl phenyl ether	BQL	10.0	1	08/27/2004
Chrysene	BQL	10.0	1	08/27/2004
Dibenzo[a,h]anthracene	BQL	10.0	1	08/27/2004
Di-n-Butylphthalate	BQL	10.0	1	08/27/2004
1,2-Dichlorobenzene	BQL	10.0	1	08/27/2004
1,3-Dichlorobenzene	BQL	10.0	1	08/27/2004
1,4-Dichlorobenzene	BQL	10.0	1	08/27/2004
3,3'-Dichlorobenzidine	BQL	20.0	1	08/27/2004
2,4-Dichlorophenol	BQL	10.0	1	08/27/2004
Diethylphthalate	BQL	10.0	1	08/27/2004
Dimethylphthalate	BQL	10.0	1	08/27/2004
2,4-Dimethylphenol	BQL	10.0	1	08/27/2004
Di-n-octylphthalate	BQL	10.0	1	08/27/2004
4,6-Dinitro-2-methylphenol	BQL	50.0	1	08/27/2004
2,4-Dinitrophenol	BQL	50.0	1	08/27/2004
2,4-Dinitrotoluene	BQL	10.0	1	08/27/2004
2,6-Dinitrotoluene	BQL	10.0	1	08/27/2004
Fluoranthene	BQL	10.0	1	08/27/2004
Fluorene	BQL	10.0	1	08/27/2004
Hexachlorobenzene	BQL	10.0	1	08/27/2004
Hexachlorobutadiene	BQL	10.0	1	08/27/2004
Hexachlorocyclopentadiene	BQL	20.0	1	08/27/2004
Hexachloroethane	BQL	10.0	1	08/27/2004
Indeno(1,2,3-c,d)pyrene	BQL	10.0	1	08/27/2004
Isophorone	BQL	10.0	1	08/27/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: UST-TT3548-MW01
Client Project ID: TT-3548
Lab Sample ID: G128-1367-1I
Lab Project ID: G128-1367

Analyzed By: MRC
Date Collected: 08/25/2004 13:45
Date Received: 08/25/2004
Matrix: Water

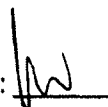
Compound	Result ug/L	Quantitation Limit ug/L	Dilution Factor	Date Analyzed
Naphthalene	BQL	10.0	1	08/27/2004
Nitrobenzene	BQL	10.0	1	08/27/2004
2-Nitrophenol	BQL	10.0	1	08/27/2004
4-Nitrophenol	BQL	50.0	1	08/27/2004
N-Nitrosodi-n-propylamine	BQL	10.0	1	08/27/2004
N-Nitrosodiphenylamine	BQL	10.0	1	08/27/2004
Pentachlorophenol	BQL	50.0	1	08/27/2004
Phenanthrene	BQL	10.0	1	08/27/2004
Phenol	BQL	10.0	1	08/27/2004
Pyrene	BQL	10.0	1	08/27/2004
1,2,4-Trichlorobenzene	BQL	10.0	1	08/27/2004
2,4,6-Trichlorophenol	BQL	10.0	1	08/27/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.1	91
2-Fluorophenol	10	7.9	79
Nitrobenzene-d5	10	9.7	97
Phenol-d6	10	7.4	74
2,4,6-Tribromophenol	10	12.3	123
4-Terphenyl-d14	10	8.3	83

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: UST-TT3548-MW01

Client Project ID: TT-3548

Lab Sample ID: G128-1367-1I

Lab Project ID: G128-1367

Analyzed By: MRC

Date Collected: 08/25/2004 13:45

Date Received: 08/25/2004

Matrix: Water

Dilution: 1

Date Analyzed: 08-27-2004

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Alkane, Unknown	13.42			123
2	Alkane, Unknown	14.15			87.1
3	Alkane, Unknown	14.84			80.1
4	Alkane, Unknown	13.45			72.2
5	Alkane, Unknown	15.50			61.6
6	Alkane, Unknown	14.19			55.7
7	Alkane, Unknown	8.05			51.8
8	Trimethylbenzene, Isomer of	6.89			42.8
9	Alkane, Unknown	16.13			41.6
10	Ethylidimethylbenzene, Isomer of	7.62			37

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: 

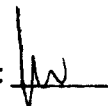
VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	UST-TT3548-MW01
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	08/25/04
Date Received	08/25/04
Date Extracted	08/27/04
Date Analyzed	08/27/04
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 100 (µg/L)
C ₉ -C ₁₂ Aliphatics**	190 (µg/L)
C ₉ -C ₁₀ Aromatics**	260 (µg/L)
Surrogate % Recovery - PID	68
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: g128-1367-1b

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 08/27/04

PID Initial Calibration Date: 08/27/04

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	5.5	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C ₉ -C ₁₂ Aliphatics	10	17.3	Calibration Factor
	250		
	500		
	750		
	1000		
C ₉ -C ₁₀ Aromatics	10	2.8	Calibration Factor
	250		
	500		
	750		
	1000		

Calibration Check Date: 08/27/04

Calibration Check

Range	Levels (µg/L) (mg/Kg)		RPD
C ₅ -C ₈ Aliphatics	2000	200	6.9
C ₉ -C ₁₂ Aliphatics	500	50	8.6
C ₉ -C ₁₀ Aromatics	500	50	2.2

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

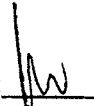
Sample Information and Analytical Results	
Sample Identification	UST-TT3548-MW01
Sample Matrix	Water
Date Collected	08/25/04
Date Received	08/25/04
Date Extracted	08/27/04
Date Analyzed	08/30/04
Dry Weight	
Dilution Factor	5:5
C ₉ -C ₁₈ Aliphatics*	22000 (µg/L)
C ₁₉ -C ₃₆ Aliphatics*	3300 (µg/L)
C ₁₁ -C ₂₂ Aromatics*	10000 (µg/L)
Aliphatic Surrogate % Recovery	N/A
Aromatic Surrogate % Recovery	N/A
Fractionation Surrogate 1 % Recovery	N/A

Comments:

* = Excludes any surrogates or internal standards.

N/A= Non-applicable(surrogates diluted out).

Lab info: G128-1367-1L

Reviewed By: 

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 08/09/04

Calibration Ranges and Limits

Range	MDL (µg/L)		ML (µg/L)		RL (µg/L) (mg/Kg)	
C ₉ -C ₁₈ Aliphatics	0.1	0.8	0.3	2.6	100	10
C ₁₉ -C ₃₆ Aliphatics	0.1	1.6	0.3	5	100	10
C ₁₁ -C ₂₂ Aromatics	0.2	2.1	0.6	6.7	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	9.70	Calibration Factor
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	8.6	Calibration Factor
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	5.4	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 08/30/04

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	10.0
C ₁₉ -C ₃₆ Aliphatics	160	-8.4
C ₁₁ -C ₂₂ Aromatics	340	-21.2

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

**List of Reporting Abbreviations
and Data Qualifiers**

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

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.

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 45002

Page 1 of 1

Client: CATLIN

Project ID: 17-3548

Address:

Contact: Shony Chastek

Address: _____
Phone: 452-5861

Quote #: POD 101

Date: 8/25/09

Turnaround: 57D

Job Number: 203-081

P.O. Number: 240802-3

Invoice To: Shire (a/c CATERIA)

[illegible]

SEE REVERSE FOR
TERMS AND CONDITIONS

PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive
Wilmington, North Carolina 28405
(910) 350-1903
Fax (910) 350-1557

 **FILE COPY**

Mr. Shane Chasteen
Richard Catlin & Associates
P.O. Box 10279
Wilmington NC 28404-0279

Report Number: G128-1354

Client Project: TT-3548

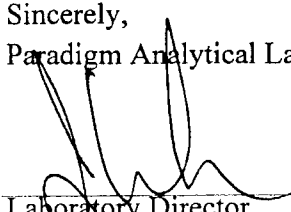
Dear Mr. Chasteen:

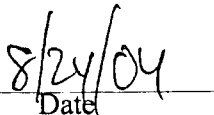
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Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
Paradigm Analytical Laboratories, Inc.


Laboratory Director
J. Patrick Weaver


Date

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles by GCMS 8260-5035

Client Sample ID: USTTT3548-SB06 (4-6)
Client Project ID: TT-3548
Lab Sample ID G128-1354-1A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:45
Date Received: 08/10/2004
Matrix: Soil
%Solids: 85.7

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0516	1	08/16/2004
Benzene	BQL	0.00516	1	08/16/2004
Bromobenzene	BQL	0.00516	1	08/16/2004
Bromochloromethane	BQL	0.00516	1	08/16/2004
Bromodichloromethane	BQL	0.00516	1	08/16/2004
Bromoform	BQL	0.00516	1	08/16/2004
Bromomethane	BQL	0.00516	1	08/16/2004
2-Butanone	BQL	0.0258	1	08/16/2004
n-Butylbenzene	BQL	0.00516	1	08/16/2004
sec-Butylbenzene	BQL	0.00516	1	08/16/2004
tert-Butylbenzene	BQL	0.00516	1	08/16/2004
Carbon disulfide	BQL	0.00516	1	08/16/2004
Carbon tetrachloride	BQL	0.00516	1	08/16/2004
Chlorobenzene	BQL	0.00516	1	08/16/2004
Chloroethane	BQL	0.00516	1	08/16/2004
Chloroform	BQL	0.00516	1	08/16/2004
Chloromethane	BQL	0.00516	1	08/16/2004
2-Chlorotoluene	BQL	0.00516	1	08/16/2004
4-Chlorotoluene	BQL	0.00516	1	08/16/2004
Dibromochloromethane	BQL	0.00516	1	08/16/2004
1,2-Dibromo-3-chloropropane	BQL	0.00516	1	08/16/2004
Dibromomethane	BQL	0.00516	1	08/16/2004
1,2-Dibromoethane (EDB)	BQL	0.00516	1	08/16/2004
1,2-Dichlorobenzene	BQL	0.00516	1	08/16/2004
1,3-Dichlorobenzene	BQL	0.00516	1	08/16/2004
1,4-Dichlorobenzene	BQL	0.00516	1	08/16/2004
trans-1,4-Dichloro-2-butene	BQL	0.00516	1	08/16/2004
1,1-Dichloroethane	BQL	0.00516	1	08/16/2004
1,1-Dichloroethene	BQL	0.00516	1	08/16/2004
1,2-Dichloroethane	BQL	0.00516	1	08/16/2004
cis-1,2-Dichloroethene	BQL	0.00516	1	08/16/2004
trans-1,2-dichloroethene	BQL	0.00516	1	08/16/2004
1,2-Dichloropropane	BQL	0.00516	1	08/16/2004
1,3-Dichloropropane	BQL	0.00516	1	08/16/2004
2,2-Dichloropropane	BQL	0.00516	1	08/16/2004
1,1-Dichloropropene	BQL	0.00516	1	08/16/2004
cis-1,3-Dichloropropene	BQL	0.00516	1	08/16/2004
trans-1,3-Dichloropropene	BQL	0.00516	1	08/16/2004
Dichlorodifluoromethane	BQL	0.00516	1	08/16/2004
Diisopropyl ether (DIPE)	BQL	0.00516	1	08/16/2004
Ethylbenzene	BQL	0.00516	1	08/16/2004
Hexachlorobutadiene	BQL	0.00516	1	08/16/2004
2-Hexanone	BQL	0.00516	1	08/16/2004
Iodomethane	BQL	0.00516	1	08/16/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles by GCMS 8260-5035

Client Sample ID: USTTT3548-SB06 (4-6)
 Client Project ID: TT-3548
 Lab Sample ID G128-1354-1A
 Lab Project ID: G128-1354
 Report Basis: Dry Weight

Analyzed By: JTF
 Date Collected: 08-10-2004 10:45
 Date Received: 08/10/2004
 Matrix: Soil
 %Solids: 85.7

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00516	1	08/16/2004
4-Isopropyltoluene	BQL	0.00516	1	08/16/2004
Methylene chloride	BQL	0.0206	1	08/16/2004
4-Methyl-2-pentanone	BQL	0.00516	1	08/16/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00516	1	08/16/2004
Naphthalene	BQL	0.00516	1	08/16/2004
n-Propyl benzene	BQL	0.00516	1	08/16/2004
Styrene	BQL	0.00516	1	08/16/2004
1,1,1,2-Tetrachloroethane	BQL	0.00516	1	08/16/2004
1,1,2,2-Tetrachloroethane	BQL	0.00516	1	08/16/2004
Tetrachloroethene	BQL	0.00516	1	08/16/2004
Toluene	BQL	0.00516	1	08/16/2004
1,2,3-Trichlorobenzene	BQL	0.00516	1	08/16/2004
1,2,4-Trichlorobenzene	BQL	0.00516	1	08/16/2004
Trichloroethene	BQL	0.00516	1	08/16/2004
1,1,1-Trichloroethane	BQL	0.00516	1	08/16/2004
1,1,2-Trichloroethane	BQL	0.00516	1	08/16/2004
Trichlorofluoromethane	BQL	0.00516	1	08/16/2004
1,2,3-Trichloropropane	BQL	0.00516	1	08/16/2004
1,2,4-Trimethylbenzene	BQL	0.00516	1	08/16/2004
1,3,5-Trimethylbenzene	BQL	0.00516	1	08/16/2004
Vinyl chloride	BQL	0.00516	1	08/16/2004
m,p-Xylene	BQL	0.0103	1	08/16/2004
o-Xylene	BQL	0.00516	1	08/16/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0492	98
1,2-Dichloroethane-d4	0.05	0.0645	129
Toluene-d8	0.05	0.0509	102

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB06 (9-11)
Client Project ID: TT-3548
Lab Sample ID G128-1354-2A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 11:00
Date Received: 08/10/2004
Matrix: Soil
%Solids: 93.4

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0527	1	08/16/2004
Benzene	BQL	0.00527	1	08/16/2004
Bromobenzene	BQL	0.00527	1	08/16/2004
Bromochloromethane	BQL	0.00527	1	08/16/2004
Bromodichloromethane	BQL	0.00527	1	08/16/2004
Bromoform	BQL	0.00527	1	08/16/2004
Bromomethane	BQL	0.00527	1	08/16/2004
2-Butanone	BQL	0.0264	1	08/16/2004
n-Butylbenzene	BQL	0.00527	1	08/16/2004
sec-Butylbenzene	BQL	0.00527	1	08/16/2004
tert-Butylbenzene	BQL	0.00527	1	08/16/2004
Carbon disulfide	BQL	0.00527	1	08/16/2004
Carbon tetrachloride	BQL	0.00527	1	08/16/2004
Chlorobenzene	BQL	0.00527	1	08/16/2004
Chloroethane	BQL	0.00527	1	08/16/2004
Chloroform	BQL	0.00527	1	08/16/2004
Chloromethane	BQL	0.00527	1	08/16/2004
2-Chlorotoluene	BQL	0.00527	1	08/16/2004
4-Chlorotoluene	BQL	0.00527	1	08/16/2004
Dibromochloromethane	BQL	0.00527	1	08/16/2004
1,2-Dibromo-3-chloropropane	BQL	0.00527	1	08/16/2004
Dibromomethane	BQL	0.00527	1	08/16/2004
1,2-Dibromoethane (EDB)	BQL	0.00527	1	08/16/2004
1,2-Dichlorobenzene	BQL	0.00527	1	08/16/2004
1,3-Dichlorobenzene	BQL	0.00527	1	08/16/2004
1,4-Dichlorobenzene	BQL	0.00527	1	08/16/2004
trans-1,4-Dichloro-2-butene	BQL	0.00527	1	08/16/2004
1,1-Dichloroethane	BQL	0.00527	1	08/16/2004
1,1-Dichloroethene	BQL	0.00527	1	08/16/2004
1,2-Dichloroethane	BQL	0.00527	1	08/16/2004
cis-1,2-Dichloroethene	BQL	0.00527	1	08/16/2004
trans-1,2-dichloroethene	BQL	0.00527	1	08/16/2004
1,2-Dichloropropane	BQL	0.00527	1	08/16/2004
1,3-Dichloropropane	BQL	0.00527	1	08/16/2004
2,2-Dichloropropane	BQL	0.00527	1	08/16/2004
1,1-Dichloropropene	BQL	0.00527	1	08/16/2004
cis-1,3-Dichloropropene	BQL	0.00527	1	08/16/2004
trans-1,3-Dichloropropene	BQL	0.00527	1	08/16/2004
Dichlorodifluoromethane	BQL	0.00527	1	08/16/2004
Diisopropyl ether (DIPE)	BQL	0.00527	1	08/16/2004
Ethylbenzene	BQL	0.00527	1	08/16/2004
Hexachlorobutadiene	BQL	0.00527	1	08/16/2004
2-Hexanone	BQL	0.00527	1	08/16/2004
Iodomethane	BQL	0.00527	1	08/16/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles by GCMS 8260-5035

Client Sample ID: USTTT3548-SB06 (9-11)
 Client Project ID: TT-3548
 Lab Sample ID G128-1354-2A
 Lab Project ID: G128-1354
 Report Basis: Dry Weight

Analyzed By: JTF
 Date Collected: 08-10-2004 11:00
 Date Received: 08/10/2004
 Matrix: Soil
 %Solids: 93.4

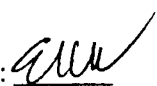
Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00527	1	08/16/2004
4-Isopropyltoluene	BQL	0.00527	1	08/16/2004
Methylene chloride	BQL	0.0211	1	08/16/2004
4-Methyl-2-pentanone	BQL	0.00527	1	08/16/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00527	1	08/16/2004
Naphthalene	BQL	0.00527	1	08/16/2004
n-Propyl benzene	BQL	0.00527	1	08/16/2004
Styrene	BQL	0.00527	1	08/16/2004
1,1,1,2-Tetrachloroethane	BQL	0.00527	1	08/16/2004
1,1,2,2-Tetrachloroethane	BQL	0.00527	1	08/16/2004
Tetrachloroethene	BQL	0.00527	1	08/16/2004
Toluene	BQL	0.00527	1	08/16/2004
1,2,3-Trichlorobenzene	BQL	0.00527	1	08/16/2004
1,2,4-Trichlorobenzene	BQL	0.00527	1	08/16/2004
Trichloroethene	BQL	0.00527	1	08/16/2004
1,1,1-Trichloroethane	BQL	0.00527	1	08/16/2004
1,1,2-Trichloroethane	BQL	0.00527	1	08/16/2004
Trichlorofluoromethane	BQL	0.00527	1	08/16/2004
1,2,3-Trichloropropane	BQL	0.00527	1	08/16/2004
1,2,4-Trimethylbenzene	BQL	0.00527	1	08/16/2004
1,3,5-Trimethylbenzene	BQL	0.00527	1	08/16/2004
Vinyl chloride	BQL	0.00527	1	08/16/2004
m-,p-Xylene	BQL	0.0105	1	08/16/2004
o-Xylene	BQL	0.00527	1	08/16/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0488	98
1,2-Dichloroethane-d4	0.05	0.0634	127
Toluene-d8	0.05	0.0507	101

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB07 (4-6)
Client Project ID: TT-3548
Lab Sample ID G128-1354-3A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:15
Date Received: 08/10/2004
Matrix: Soil
%Solids: 86.1

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0475	1	08/16/2004
Benzene	BQL	0.00475	1	08/16/2004
Bromobenzene	BQL	0.00475	1	08/16/2004
Bromochloromethane	BQL	0.00475	1	08/16/2004
Bromodichloromethane	BQL	0.00475	1	08/16/2004
Bromoform	BQL	0.00475	1	08/16/2004
Bromomethane	BQL	0.00475	1	08/16/2004
2-Butanone	BQL	0.0238	1	08/16/2004
n-Butylbenzene	BQL	0.00475	1	08/16/2004
sec-Butylbenzene	BQL	0.00475	1	08/16/2004
tert-Butylbenzene	BQL	0.00475	1	08/16/2004
Carbon disulfide	BQL	0.00475	1	08/16/2004
Carbon tetrachloride	BQL	0.00475	1	08/16/2004
Chlorobenzene	BQL	0.00475	1	08/16/2004
Chloroethane	BQL	0.00475	1	08/16/2004
Chloroform	BQL	0.00475	1	08/16/2004
Chloromethane	BQL	0.00475	1	08/16/2004
2-Chlorotoluene	BQL	0.00475	1	08/16/2004
4-Chlorotoluene	BQL	0.00475	1	08/16/2004
Dibromochloromethane	BQL	0.00475	1	08/16/2004
1,2-Dibromo-3-chloropropane	BQL	0.00475	1	08/16/2004
Dibromomethane	BQL	0.00475	1	08/16/2004
1,2-Dibromoethane (EDB)	BQL	0.00475	1	08/16/2004
1,2-Dichlorobenzene	BQL	0.00475	1	08/16/2004
1,3-Dichlorobenzene	BQL	0.00475	1	08/16/2004
1,4-Dichlorobenzene	BQL	0.00475	1	08/16/2004
trans-1,4-Dichloro-2-butene	BQL	0.00475	1	08/16/2004
1,1-Dichloroethane	BQL	0.00475	1	08/16/2004
1,1-Dichloroethene	BQL	0.00475	1	08/16/2004
1,2-Dichloroethane	BQL	0.00475	1	08/16/2004
cis-1,2-Dichloroethene	BQL	0.00475	1	08/16/2004
trans-1,2-dichloroethene	BQL	0.00475	1	08/16/2004
1,2-Dichloropropane	BQL	0.00475	1	08/16/2004
1,3-Dichloropropane	BQL	0.00475	1	08/16/2004
2,2-Dichloropropane	BQL	0.00475	1	08/16/2004
1,1-Dichloropropene	BQL	0.00475	1	08/16/2004
cis-1,3-Dichloropropene	BQL	0.00475	1	08/16/2004
trans-1,3-Dichloropropene	BQL	0.00475	1	08/16/2004
Dichlorodifluoromethane	BQL	0.00475	1	08/16/2004
Diisopropyl ether (DIPE)	BQL	0.00475	1	08/16/2004
Ethylbenzene	BQL	0.00475	1	08/16/2004
Hexachlorobutadiene	BQL	0.00475	1	08/16/2004
2-Hexanone	BQL	0.00475	1	08/16/2004
Iodomethane	BQL	0.00475	1	08/16/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB07 (4-6)
Client Project ID: TT-3548
Lab Sample ID G128-1354-3A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:15
Date Received: 08/10/2004
Matrix: Soil
%Solids: 86.1

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00475	1	08/16/2004
4-Isopropyltoluene	BQL	0.00475	1	08/16/2004
Methylene chloride	BQL	0.0190	1	08/16/2004
4-Methyl-2-pentanone	BQL	0.00475	1	08/16/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00475	1	08/16/2004
Naphthalene	BQL	0.00475	1	08/16/2004
n-Propyl benzene	BQL	0.00475	1	08/16/2004
Styrene	BQL	0.00475	1	08/16/2004
1,1,1,2-Tetrachloroethane	BQL	0.00475	1	08/16/2004
1,1,2,2-Tetrachloroethane	BQL	0.00475	1	08/16/2004
Tetrachloroethene	BQL	0.00475	1	08/16/2004
Toluene	BQL	0.00475	1	08/16/2004
1,2,3-Trichlorobenzene	BQL	0.00475	1	08/16/2004
1,2,4-Trichlorobenzene	BQL	0.00475	1	08/16/2004
Trichloroethene	BQL	0.00475	1	08/16/2004
1,1,1-Trichloroethane	BQL	0.00475	1	08/16/2004
1,1,2-Trichloroethane	BQL	0.00475	1	08/16/2004
Trichlorofluoromethane	BQL	0.00475	1	08/16/2004
1,2,3-Trichloropropane	BQL	0.00475	1	08/16/2004
1,2,4-Trimethylbenzene	BQL	0.00475	1	08/16/2004
1,3,5-Trimethylbenzene	BQL	0.00475	1	08/16/2004
Vinyl chloride	BQL	0.00475	1	08/16/2004
m-,p-Xylene	BQL	0.00951	1	08/16/2004
o-Xylene	BQL	0.00475	1	08/16/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.05	100
1,2-Dichloroethane-d4	0.05	0.0624	125
Toluene-d8	0.05	0.051	102

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles by GCMS 8260-5035

Client Sample ID: USTTT3548-SB07 (9-11)
Client Project ID: TT-3548
Lab Sample ID G128-1354-4A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:20
Date Received: 08/10/2004
Matrix: Soil
%Solids: 91.6

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0565	1	08/16/2004
Benzene	BQL	0.00565	1	08/16/2004
Bromobenzene	BQL	0.00565	1	08/16/2004
Bromochloromethane	BQL	0.00565	1	08/16/2004
Bromodichloromethane	BQL	0.00565	1	08/16/2004
Bromoform	BQL	0.00565	1	08/16/2004
Bromomethane	BQL	0.00565	1	08/16/2004
2-Butanone	BQL	0.0283	1	08/16/2004
n-Butylbenzene	BQL	0.00565	1	08/16/2004
sec-Butylbenzene	BQL	0.00565	1	08/16/2004
tert-Butylbenzene	BQL	0.00565	1	08/16/2004
Carbon disulfide	BQL	0.00565	1	08/16/2004
Carbon tetrachloride	BQL	0.00565	1	08/16/2004
Chlorobenzene	BQL	0.00565	1	08/16/2004
Chloroethane	BQL	0.00565	1	08/16/2004
Chloroform	BQL	0.00565	1	08/16/2004
Chloromethane	BQL	0.00565	1	08/16/2004
2-Chlorotoluene	BQL	0.00565	1	08/16/2004
4-Chlorotoluene	BQL	0.00565	1	08/16/2004
Dibromochloromethane	BQL	0.00565	1	08/16/2004
1,2-Dibromo-3-chloropropane	BQL	0.00565	1	08/16/2004
Dibromomethane	BQL	0.00565	1	08/16/2004
1,2-Dibromoethane (EDB)	BQL	0.00565	1	08/16/2004
1,2-Dichlorobenzene	BQL	0.00565	1	08/16/2004
1,3-Dichlorobenzene	BQL	0.00565	1	08/16/2004
1,4-Dichlorobenzene	BQL	0.00565	1	08/16/2004
trans-1,4-Dichloro-2-butene	BQL	0.00565	1	08/16/2004
1,1-Dichloroethane	BQL	0.00565	1	08/16/2004
1,1-Dichloroethene	BQL	0.00565	1	08/16/2004
1,2-Dichloroethane	BQL	0.00565	1	08/16/2004
cis-1,2-Dichloroethene	BQL	0.00565	1	08/16/2004
trans-1,2-dichloroethene	BQL	0.00565	1	08/16/2004
1,2-Dichloropropane	BQL	0.00565	1	08/16/2004
1,3-Dichloropropane	BQL	0.00565	1	08/16/2004
2,2-Dichloropropane	BQL	0.00565	1	08/16/2004
1,1-Dichloropropene	BQL	0.00565	1	08/16/2004
cis-1,3-Dichloropropene	BQL	0.00565	1	08/16/2004
trans-1,3-Dichloropropene	BQL	0.00565	1	08/16/2004
Dichlorodifluoromethane	BQL	0.00565	1	08/16/2004
Diisopropyl ether (DIPE)	BQL	0.00565	1	08/16/2004
Ethylbenzene	BQL	0.00565	1	08/16/2004
Hexachlorobutadiene	BQL	0.00565	1	08/16/2004
2-Hexanone	BQL	0.00565	1	08/16/2004
Iodomethane	BQL	0.00565	1	08/16/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles by GCMS 8260-5035

Client Sample ID: USTTT3548-SB07 (9-11)
Client Project ID: TT-3548
Lab Sample ID G128-1354-4A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:20
Date Received: 08/10/2004
Matrix: Soil
%Solids: 91.6

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00565	1	08/16/2004
4-Isopropyltoluene	BQL	0.00565	1	08/16/2004
Methylene chloride	BQL	0.0226	1	08/16/2004
4-Methyl-2-pentanone	BQL	0.00565	1	08/16/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00565	1	08/16/2004
Naphthalene	BQL	0.00565	1	08/16/2004
n-Propyl benzene	BQL	0.00565	1	08/16/2004
Styrene	BQL	0.00565	1	08/16/2004
1,1,1,2-Tetrachloroethane	BQL	0.00565	1	08/16/2004
1,1,2,2-Tetrachloroethane	BQL	0.00565	1	08/16/2004
Tetrachloroethene	BQL	0.00565	1	08/16/2004
Toluene	BQL	0.00565	1	08/16/2004
1,2,3-Trichlorobenzene	BQL	0.00565	1	08/16/2004
1,2,4-Trichlorobenzene	BQL	0.00565	1	08/16/2004
Trichloroethene	BQL	0.00565	1	08/16/2004
1,1,1-Trichloroethane	BQL	0.00565	1	08/16/2004
1,1,2-Trichloroethane	BQL	0.00565	1	08/16/2004
Trichlorofluoromethane	BQL	0.00565	1	08/16/2004
1,2,3-Trichloropropane	BQL	0.00565	1	08/16/2004
1,2,4-Trimethylbenzene	BQL	0.00565	1	08/16/2004
1,3,5-Trimethylbenzene	BQL	0.00565	1	08/16/2004
Vinyl chloride	BQL	0.00565	1	08/16/2004
m-,p-Xylene	BQL	0.0113	1	08/16/2004
o-Xylene	BQL	0.00565	1	08/16/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0503	101
1,2-Dichloroethane-d4	0.05	0.0626	125
Toluene-d8	0.05	0.0509	102

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB08 (4-6)
Client Project ID: TT-3548
Lab Sample ID G128-1354-5A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:00
Date Received: 08/10/2004
Matrix: Soil
%Solids: 85.6

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0492	1	08/17/2004
Benzene	BQL	0.00492	1	08/17/2004
Bromobenzene	BQL	0.00492	1	08/17/2004
Bromochloromethane	BQL	0.00492	1	08/17/2004
Bromodichloromethane	BQL	0.00492	1	08/17/2004
Bromoform	BQL	0.00492	1	08/17/2004
Bromomethane	BQL	0.00492	1	08/17/2004
2-Butanone	BQL	0.0246	1	08/17/2004
n-Butylbenzene	BQL	0.00492	1	08/17/2004
sec-Butylbenzene	BQL	0.00492	1	08/17/2004
tert-Butylbenzene	BQL	0.00492	1	08/17/2004
Carbon disulfide	BQL	0.00492	1	08/17/2004
Carbon tetrachloride	BQL	0.00492	1	08/17/2004
Chlorobenzene	BQL	0.00492	1	08/17/2004
Chloroethane	BQL	0.00492	1	08/17/2004
Chloroform	BQL	0.00492	1	08/17/2004
Chloromethane	BQL	0.00492	1	08/17/2004
2-Chlorotoluene	BQL	0.00492	1	08/17/2004
4-Chlorotoluene	BQL	0.00492	1	08/17/2004
Dibromochloromethane	BQL	0.00492	1	08/17/2004
1,2-Dibromo-3-chloropropane	BQL	0.00492	1	08/17/2004
Dibromomethane	BQL	0.00492	1	08/17/2004
1,2-Dibromoethane (EDB)	BQL	0.00492	1	08/17/2004
1,2-Dichlorobenzene	BQL	0.00492	1	08/17/2004
1,3-Dichlorobenzene	BQL	0.00492	1	08/17/2004
1,4-Dichlorobenzene	BQL	0.00492	1	08/17/2004
trans-1,4-Dichloro-2-butene	BQL	0.00492	1	08/17/2004
1,1-Dichloroethane	BQL	0.00492	1	08/17/2004
1,1-Dichloroethene	BQL	0.00492	1	08/17/2004
1,2-Dichloroethane	BQL	0.00492	1	08/17/2004
cis-1,2-Dichloroethene	BQL	0.00492	1	08/17/2004
trans-1,2-dichloroethene	BQL	0.00492	1	08/17/2004
1,2-Dichloropropane	BQL	0.00492	1	08/17/2004
1,3-Dichloropropane	BQL	0.00492	1	08/17/2004
2,2-Dichloropropane	BQL	0.00492	1	08/17/2004
1,1-Dichloropropene	BQL	0.00492	1	08/17/2004
cis-1,3-Dichloropropene	BQL	0.00492	1	08/17/2004
trans-1,3-Dichloropropene	BQL	0.00492	1	08/17/2004
Dichlorodifluoromethane	BQL	0.00492	1	08/17/2004
Diisopropyl ether (DIPE)	BQL	0.00492	1	08/17/2004
Ethylbenzene	BQL	0.00492	1	08/17/2004
Hexachlorobutadiene	BQL	0.00492	1	08/17/2004
2-Hexanone	BQL	0.00492	1	08/17/2004
Iodomethane	BQL	0.00492	1	08/17/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles by GCMS 8260-5035

Client Sample ID: USTTT3548-SB08 (4-6)
Client Project ID: TT-3548
Lab Sample ID G128-1354-5A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:00
Date Received: 08/10/2004
Matrix: Soil
%Solids: 85.6

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00492	1	08/17/2004
4-Isopropyltoluene	BQL	0.00492	1	08/17/2004
Methylene chloride	BQL	0.0197	1	08/17/2004
4-Methyl-2-pentanone	BQL	0.00492	1	08/17/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00492	1	08/17/2004
Naphthalene	BQL	0.00492	1	08/17/2004
n-Propyl benzene	BQL	0.00492	1	08/17/2004
Styrene	BQL	0.00492	1	08/17/2004
1,1,1,2-Tetrachloroethane	BQL	0.00492	1	08/17/2004
1,1,2,2-Tetrachloroethane	BQL	0.00492	1	08/17/2004
Tetrachloroethene	BQL	0.00492	1	08/17/2004
Toluene	BQL	0.00492	1	08/17/2004
1,2,3-Trichlorobenzene	BQL	0.00492	1	08/17/2004
1,2,4-Trichlorobenzene	BQL	0.00492	1	08/17/2004
Trichloroethene	BQL	0.00492	1	08/17/2004
1,1,1-Trichloroethane	BQL	0.00492	1	08/17/2004
1,1,2-Trichloroethane	BQL	0.00492	1	08/17/2004
Trichlorofluoromethane	BQL	0.00492	1	08/17/2004
1,2,3-Trichloropropane	BQL	0.00492	1	08/17/2004
1,2,4-Trimethylbenzene	BQL	0.00492	1	08/17/2004
1,3,5-Trimethylbenzene	BQL	0.00492	1	08/17/2004
Vinyl chloride	BQL	0.00492	1	08/17/2004
m-,p-Xylene	BQL	0.00985	1	08/17/2004
o-Xylene	BQL	0.00492	1	08/17/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0491	98
1,2-Dichloroethane-d4	0.05	0.0634	127
Toluene-d8	0.05	0.0504	101

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB08 (4-6) Dup
Client Project ID: TT-3548
Lab Sample ID G128-1354-6A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:00
Date Received: 08/10/2004
Matrix: Soil
%Solids: 86.7

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0482	1	08/17/2004
Benzene	BQL	0.00482	1	08/17/2004
Bromobenzene	BQL	0.00482	1	08/17/2004
Bromochloromethane	BQL	0.00482	1	08/17/2004
Bromodichloromethane	BQL	0.00482	1	08/17/2004
Bromoform	BQL	0.00482	1	08/17/2004
Bromomethane	BQL	0.00482	1	08/17/2004
2-Butanone	BQL	0.0241	1	08/17/2004
n-Butylbenzene	BQL	0.00482	1	08/17/2004
sec-Butylbenzene	BQL	0.00482	1	08/17/2004
tert-Butylbenzene	BQL	0.00482	1	08/17/2004
Carbon disulfide	BQL	0.00482	1	08/17/2004
Carbon tetrachloride	BQL	0.00482	1	08/17/2004
Chlorobenzene	BQL	0.00482	1	08/17/2004
Chloroethane	BQL	0.00482	1	08/17/2004
Chloroform	BQL	0.00482	1	08/17/2004
Chloromethane	BQL	0.00482	1	08/17/2004
2-Chlorotoluene	BQL	0.00482	1	08/17/2004
4-Chlorotoluene	BQL	0.00482	1	08/17/2004
Dibromochloromethane	BQL	0.00482	1	08/17/2004
1,2-Dibromo-3-chloropropane	BQL	0.00482	1	08/17/2004
Dibromomethane	BQL	0.00482	1	08/17/2004
1,2-Dibromoethane (EDB)	BQL	0.00482	1	08/17/2004
1,2-Dichlorobenzene	BQL	0.00482	1	08/17/2004
1,3-Dichlorobenzene	BQL	0.00482	1	08/17/2004
1,4-Dichlorobenzene	BQL	0.00482	1	08/17/2004
trans-1,4-Dichloro-2-butene	BQL	0.00482	1	08/17/2004
1,1-Dichloroethane	BQL	0.00482	1	08/17/2004
1,1-Dichloroethene	BQL	0.00482	1	08/17/2004
1,2-Dichloroethane	BQL	0.00482	1	08/17/2004
cis-1,2-Dichloroethene	BQL	0.00482	1	08/17/2004
trans-1,2-dichloroethene	BQL	0.00482	1	08/17/2004
1,2-Dichloropropane	BQL	0.00482	1	08/17/2004
1,3-Dichloropropane	BQL	0.00482	1	08/17/2004
2,2-Dichloropropane	BQL	0.00482	1	08/17/2004
1,1-Dichloropropene	BQL	0.00482	1	08/17/2004
cis-1,3-Dichloropropene	BQL	0.00482	1	08/17/2004
trans-1,3-Dichloropropene	BQL	0.00482	1	08/17/2004
Dichlorodifluoromethane	BQL	0.00482	1	08/17/2004
Diisopropyl ether (DIPE)	BQL	0.00482	1	08/17/2004
Ethylbenzene	BQL	0.00482	1	08/17/2004
Hexachlorobutadiene	BQL	0.00482	1	08/17/2004
2-Hexanone	BQL	0.00482	1	08/17/2004
Iodomethane	BQL	0.00482	1	08/17/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles by GCMS 8260-5035

Client Sample ID: USTTT3548-SB08 (4-6) Dup
Client Project ID: TT-3548
Lab Sample ID G128-1354-6A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:00
Date Received: 08/10/2004
Matrix: Soil
%Solids: 86.7

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00482	1	08/17/2004
4-Isopropyltoluene	BQL	0.00482	1	08/17/2004
Methylene chloride	BQL	0.0193	1	08/17/2004
4-Methyl-2-pentanone	BQL	0.00482	1	08/17/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00482	1	08/17/2004
Naphthalene	BQL	0.00482	1	08/17/2004
n-Propyl benzene	BQL	0.00482	1	08/17/2004
Styrene	BQL	0.00482	1	08/17/2004
1,1,1,2-Tetrachloroethane	BQL	0.00482	1	08/17/2004
1,1,2,2-Tetrachloroethane	BQL	0.00482	1	08/17/2004
Tetrachloroethene	BQL	0.00482	1	08/17/2004
Toluene	BQL	0.00482	1	08/17/2004
1,2,3-Trichlorobenzene	BQL	0.00482	1	08/17/2004
1,2,4-Trichlorobenzene	BQL	0.00482	1	08/17/2004
Trichloroethene	BQL	0.00482	1	08/17/2004
1,1,1-Trichloroethane	BQL	0.00482	1	08/17/2004
1,1,2-Trichloroethane	BQL	0.00482	1	08/17/2004
Trichlorofluoromethane	BQL	0.00482	1	08/17/2004
1,2,3-Trichloropropane	BQL	0.00482	1	08/17/2004
1,2,4-Trimethylbenzene	BQL	0.00482	1	08/17/2004
1,3,5-Trimethylbenzene	BQL	0.00482	1	08/17/2004
Vinyl chloride	BQL	0.00482	1	08/17/2004
m-,p-Xylene	BQL	0.00965	1	08/17/2004
o-Xylene	BQL	0.00482	1	08/17/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0496	99
1,2-Dichloroethane-d4	0.05	0.0621	124
Toluene-d8	0.05	0.0494	99

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB08 (8-10)
Client Project ID: TT-3548
Lab Sample ID G128-1354-7A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:05
Date Received: 08/10/2004
Matrix: Soil
%Solids: 92.3

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0562	1	08/17/2004
Benzene	BQL	0.00562	1	08/17/2004
Bromobenzene	BQL	0.00562	1	08/17/2004
Bromochloromethane	BQL	0.00562	1	08/17/2004
Bromodichloromethane	BQL	0.00562	1	08/17/2004
Bromoform	BQL	0.00562	1	08/17/2004
Bromomethane	BQL	0.00562	1	08/17/2004
2-Butanone	BQL	0.0281	1	08/17/2004
n-Butylbenzene	BQL	0.00562	1	08/17/2004
sec-Butylbenzene	BQL	0.00562	1	08/17/2004
tert-Butylbenzene	BQL	0.00562	1	08/17/2004
Carbon disulfide	BQL	0.00562	1	08/17/2004
Carbon tetrachloride	BQL	0.00562	1	08/17/2004
Chlorobenzene	BQL	0.00562	1	08/17/2004
Chloroethane	BQL	0.00562	1	08/17/2004
Chloroform	BQL	0.00562	1	08/17/2004
Chloromethane	BQL	0.00562	1	08/17/2004
2-Chlorotoluene	BQL	0.00562	1	08/17/2004
4-Chlorotoluene	BQL	0.00562	1	08/17/2004
Dibromochloromethane	BQL	0.00562	1	08/17/2004
1,2-Dibromo-3-chloropropane	BQL	0.00562	1	08/17/2004
Dibromomethane	BQL	0.00562	1	08/17/2004
1,2-Dibromoethane (EDB)	BQL	0.00562	1	08/17/2004
1,2-Dichlorobenzene	BQL	0.00562	1	08/17/2004
1,3-Dichlorobenzene	BQL	0.00562	1	08/17/2004
1,4-Dichlorobenzene	BQL	0.00562	1	08/17/2004
trans-1,4-Dichloro-2-butene	BQL	0.00562	1	08/17/2004
1,1-Dichloroethane	BQL	0.00562	1	08/17/2004
1,1-Dichloroethene	BQL	0.00562	1	08/17/2004
1,2-Dichloroethane	BQL	0.00562	1	08/17/2004
cis-1,2-Dichloroethene	BQL	0.00562	1	08/17/2004
trans-1,2-dichloroethene	BQL	0.00562	1	08/17/2004
1,2-Dichloropropane	BQL	0.00562	1	08/17/2004
1,3-Dichloropropane	BQL	0.00562	1	08/17/2004
2,2-Dichloropropane	BQL	0.00562	1	08/17/2004
1,1-Dichloropropene	BQL	0.00562	1	08/17/2004
cis-1,3-Dichloropropene	BQL	0.00562	1	08/17/2004
trans-1,3-Dichloropropene	BQL	0.00562	1	08/17/2004
Dichlorodifluoromethane	BQL	0.00562	1	08/17/2004
Diisopropyl ether (DIPE)	BQL	0.00562	1	08/17/2004
Ethylbenzene	BQL	0.00562	1	08/17/2004
Hexachlorobutadiene	BQL	0.00562	1	08/17/2004
2-Hexanone	BQL	0.00562	1	08/17/2004
Iodomethane	BQL	0.00562	1	08/17/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB08 (8-10)
Client Project ID: TT-3548
Lab Sample ID G128-1354-7A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 10:05
Date Received: 08/10/2004
Matrix: Soil
%Solids: 92.3

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00562	1	08/17/2004
4-Isopropyltoluene	BQL	0.00562	1	08/17/2004
Methylene chloride	BQL	0.0225	1	08/17/2004
4-Methyl-2-pentanone	BQL	0.00562	1	08/17/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00562	1	08/17/2004
Naphthalene	BQL	0.00562	1	08/17/2004
n-Propyl benzene	BQL	0.00562	1	08/17/2004
Styrene	BQL	0.00562	1	08/17/2004
1,1,1,2-Tetrachloroethane	BQL	0.00562	1	08/17/2004
1,1,2,2-Tetrachloroethane	BQL	0.00562	1	08/17/2004
Tetrachloroethene	BQL	0.00562	1	08/17/2004
Toluene	BQL	0.00562	1	08/17/2004
1,2,3-Trichlorobenzene	BQL	0.00562	1	08/17/2004
1,2,4-Trichlorobenzene	BQL	0.00562	1	08/17/2004
Trichloroethene	BQL	0.00562	1	08/17/2004
1,1,1-Trichloroethane	BQL	0.00562	1	08/17/2004
1,1,2-Trichloroethane	BQL	0.00562	1	08/17/2004
Trichlorofluoromethane	BQL	0.00562	1	08/17/2004
1,2,3-Trichloropropane	BQL	0.00562	1	08/17/2004
1,2,4-Trimethylbenzene	BQL	0.00562	1	08/17/2004
1,3,5-Trimethylbenzene	BQL	0.00562	1	08/17/2004
Vinyl chloride	BQL	0.00562	1	08/17/2004
m-,p-Xylene	BQL	0.0112	1	08/17/2004
o-Xylene	BQL	0.00562	1	08/17/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0484	97
1,2-Dichloroethane-d4	0.05	0.0631	126
Toluene-d8	0.05	0.0498	100

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles by GCMS 8260-5035

Client Sample ID: Trip Blank
Client Project ID: TT-3548
Lab Sample ID G128-1354-8A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 00:00
Date Received: 08/10/2004
Matrix: Soil
%Solids: 100.0

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0500	1	08/12/2004
Benzene	BQL	0.00500	1	08/12/2004
Bromobenzene	BQL	0.00500	1	08/12/2004
Bromochloromethane	BQL	0.00500	1	08/12/2004
Bromodichloromethane	BQL	0.00500	1	08/12/2004
Bromoform	BQL	0.00500	1	08/12/2004
Bromomethane	BQL	0.00500	1	08/12/2004
2-Butanone	BQL	0.0250	1	08/12/2004
n-Butylbenzene	BQL	0.00500	1	08/12/2004
sec-Butylbenzene	BQL	0.00500	1	08/12/2004
tert-Butylbenzene	BQL	0.00500	1	08/12/2004
Carbon disulfide	BQL	0.00500	1	08/12/2004
Carbon tetrachloride	BQL	0.00500	1	08/12/2004
Chlorobenzene	BQL	0.00500	1	08/12/2004
Chloroethane	BQL	0.00500	1	08/12/2004
Chloroform	BQL	0.00500	1	08/12/2004
Chloromethane	BQL	0.00500	1	08/12/2004
2-Chlorotoluene	BQL	0.00500	1	08/12/2004
4-Chlorotoluene	BQL	0.00500	1	08/12/2004
Dibromochloromethane	BQL	0.00500	1	08/12/2004
1,2-Dibromo-3-chloropropane	BQL	0.00500	1	08/12/2004
Dibromomethane	BQL	0.00500	1	08/12/2004
1,2-Dibromoethane (EDB)	BQL	0.00500	1	08/12/2004
1,2-Dichlorobenzene	BQL	0.00500	1	08/12/2004
1,3-Dichlorobenzene	BQL	0.00500	1	08/12/2004
1,4-Dichlorobenzene	BQL	0.00500	1	08/12/2004
trans-1,4-Dichloro-2-butene	BQL	0.00500	1	08/12/2004
1,1-Dichloroethane	BQL	0.00500	1	08/12/2004
1,1-Dichloroethene	BQL	0.00500	1	08/12/2004
1,2-Dichloroethane	BQL	0.00500	1	08/12/2004
cis-1,2-Dichloroethene	BQL	0.00500	1	08/12/2004
trans-1,2-dichloroethene	BQL	0.00500	1	08/12/2004
1,2-Dichloropropane	BQL	0.00500	1	08/12/2004
1,3-Dichloropropane	BQL	0.00500	1	08/12/2004
2,2-Dichloropropane	BQL	0.00500	1	08/12/2004
1,1-Dichloropropene	BQL	0.00500	1	08/12/2004
cis-1,3-Dichloropropene	BQL	0.00500	1	08/12/2004
trans-1,3-Dichloropropene	BQL	0.00500	1	08/12/2004
Dichlorodifluoromethane	BQL	0.00500	1	08/12/2004
Diisopropyl ether (DIPE)	BQL	0.00500	1	08/12/2004
Ethylbenzene	BQL	0.00500	1	08/12/2004
Hexachlorobutadiene	BQL	0.00500	1	08/12/2004
2-Hexanone	BQL	0.00500	1	08/12/2004
Iodomethane	BQL	0.00500	1	08/12/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: Trip Blank
Client Project ID: TT-3548
Lab Sample ID G128-1354-8A
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 08-10-2004 00:00
Date Received: 08/10/2004
Matrix: Soil
%Solids: 100.0

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00500	1	08/12/2004
4-Isopropyltoluene	BQL	0.00500	1	08/12/2004
Methylene chloride	BQL	0.0200	1	08/12/2004
4-Methyl-2-pentanone	BQL	0.00500	1	08/12/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00500	1	08/12/2004
Naphthalene	BQL	0.00500	1	08/12/2004
n-Propyl benzene	BQL	0.00500	1	08/12/2004
Styrene	BQL	0.00500	1	08/12/2004
1,1,1,2-Tetrachloroethane	BQL	0.00500	1	08/12/2004
1,1,2,2-Tetrachloroethane	BQL	0.00500	1	08/12/2004
Tetrachloroethene	BQL	0.00500	1	08/12/2004
Toluene	BQL	0.00500	1	08/12/2004
1,2,3-Trichlorobenzene	BQL	0.00500	1	08/12/2004
1,2,4-Trichlorobenzene	BQL	0.00500	1	08/12/2004
Trichloroethene	BQL	0.00500	1	08/12/2004
1,1,1-Trichloroethane	BQL	0.00500	1	08/12/2004
1,1,2-Trichloroethane	BQL	0.00500	1	08/12/2004
Trichlorofluoromethane	BQL	0.00500	1	08/12/2004
1,2,3-Trichloropropane	BQL	0.00500	1	08/12/2004
1,2,4-Trimethylbenzene	BQL	0.00500	1	08/12/2004
1,3,5-Trimethylbenzene	BQL	0.00500	1	08/12/2004
Vinyl chloride	BQL	0.00500	1	08/12/2004
m-,p-Xylene	BQL	0.0100	1	08/12/2004
o-Xylene	BQL	0.00500	1	08/12/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0493	99
1,2-Dichloroethane-d4	0.05	0.0693	139
Toluene-d8	0.05	0.0505	101

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB06 (4-6)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/10/04
Date Analyzed	08/21/04
Dry Weight	86
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	100
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: g128-1354-1e

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

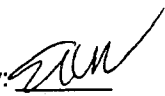
Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB06 (9-11)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/10/04
Date Analyzed	08/21/04
Dry Weight	93
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	110
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: g128-1354-2e

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB07 (4-6)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/10/04
Date Analyzed	08/21/04
Dry Weight	86
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	110
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: g128-1354-3e

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB07 (9-11)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/10/04
Date Analyzed	08/21/04
Dry Weight	92
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	110
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: g128-1354-4e

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB08 (4-6)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/10/04
Date Analyzed	08/21/04
Dry Weight	86
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	100
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: g128-1354-5e

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

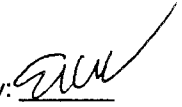
Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB08 (8-10)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/10/04
Date Analyzed	08/21/04
Dry Weight	92
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	110
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: g128-1354-7e

Reviewed By: 

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 08/18/04PID Initial Calibration Date: 08/18/04

Calibration Ranges and Limits

Range	MDL (07/15/2004) ($\mu\text{g/L}$)	ML ($\mu\text{g/L}$)	RL ($\mu\text{g/L}$) (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 ($\mu\text{g/L}$)	%RSD or CCC	Method of Quantitation
C ₅ -C ₈ Aliphatics	40	6.6	Calibration Factor
	160		
	400		
	1600		
	4000		
C ₉ -C ₁₂ Aliphatics	10	0.987	Linear Regression
	40		
	100		
	400		
	1000		
C ₉ -C ₁₀ Aromatics	10	0.993	Linear Regression
	40		
	100		
	400		
	1000		

Calibration Check Date: 08/20/04

Calibration Check

Range	Levels ($\mu\text{g/L}$) (mg/Kg)		RPD
C ₅ -C ₈ Aliphatics	400	40	17.3
C ₉ -C ₁₂ Aliphatics	100	10	0.3
C ₉ -C ₁₀ Aromatics	100	10	-3.6

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

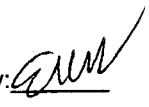
Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB06 (4-6)
Sample Matrix	Soil
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/16/04
Date Analyzed	08/17/04
Dry Weight	85.7
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	94
Aromatic Surrogate % Recovery	92

Comments:

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

Lab info: G128-1354-1G

Reviewed By: 

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB06 (9-11)
Sample Matrix	Soil
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/16/04
Date Analyzed	08/17/04
Dry Weight	93.4
Dilution Factor	1
C ₈ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	93
Aromatic Surrogate % Recovery	93

Comments:

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

Lab info: G128-1354-2G

Reviewed By: 

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB07 (4-6)
Sample Matrix	Soil
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/16/04
Date Analyzed	08/17/04
Dry Weight	86.1
Dilution Factor	1
C ₈ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	97
Aromatic Surrogate % Recovery	97

Comments:

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

Lab info: G128-1354-3G

Reviewed By: 

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB07 (9-11)
Sample Matrix	Soil
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/16/04
Date Analyzed	08/17/04
Dry Weight	91.6
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	96
Aromatic Surrogate % Recovery	98

Comments:

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

Lab info: G128-1354-4G

Reviewed By: 

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB08 (4-6)
Sample Matrix	Soil
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/16/04
Date Analyzed	08/17/04
Dry Weight	85.6
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	110
Aromatic Surrogate % Recovery	110

Comments:

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

Lab info: G128-1354-5G

Reviewed By: 

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB08 (8-10)
Sample Matrix	Soil
Date Collected	08/10/04
Date Received	08/10/04
Date Extracted	08/16/04
Date Analyzed	08/17/04
Dry Weight	92.3
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	110
Aromatic Surrogate % Recovery	100

Comments:

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

Lab info: G128-1354-7G

Reviewed By: 

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 08/09/04

Calibration Ranges and Limits

Range	MDL ($\mu\text{g/L}$)		ML ($\mu\text{g/L}$)		RL ($\mu\text{g/L}$) (mg/Kg)	
C ₉ -C ₁₈ Aliphatics	0.1	0.8	0.3	2.6	100	10
C ₁₉ -C ₃₆ Aliphatics	0.1	1.6	0.3	5	100	10
C ₁₁ -C ₂₂ Aromatics	0.2	2.1	0.6	6.7	100	10

Calibration Concentration Levels

Range	Levels ($\mu\text{g/mL}$)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	9.70	Calibration Factor
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	8.6	Calibration Factor
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	5.4	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 08/17/04

Calibration Check

Range	Levels ($\mu\text{g/mL}$)	RPD
C ₉ -C ₁₈ Aliphatics	120	-8.1
C ₁₉ -C ₃₆ Aliphatics	160	-12.3
C ₁₁ -C ₂₂ Aromatics	340	-9.8

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB06 (4-6)
Client Project ID: TT-3548
Lab Sample ID: G128-1354-1J
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: MRC
Date Collected: 08/10/2004 10:45
Date Received: 08/10/2004
Matrix: Soil
%Solids: 85.7

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.361	1	08/17/2004
Acenaphthylene	BQL	0.361	1	08/17/2004
Anthracene	BQL	0.361	1	08/17/2004
Benzo[a]anthracene	BQL	0.361	1	08/17/2004
Benzo[a]pyrene	BQL	0.361	1	08/17/2004
Benzo[b]fluoranthene	BQL	0.361	1	08/17/2004
Benzo[g,h,i]perylene	BQL	0.361	1	08/17/2004
Benzo[k]fluoranthene	BQL	0.361	1	08/17/2004
Benzoic Acid	BQL	0.721	1	08/17/2004
Bis(2-chloroethoxy)methane	BQL	0.361	1	08/17/2004
Bis(2-chloroethyl)ether	BQL	0.361	1	08/17/2004
Bis(2-chloroisopropyl)ether	BQL	0.361	1	08/17/2004
Bis(2-ethylhexyl)phthalate	BQL	0.361	1	08/17/2004
4-bromophenyl phenyl ether	BQL	0.361	1	08/17/2004
Butylbenzylphthalate	BQL	0.361	1	08/17/2004
2-Chloronaphthalene	BQL	0.361	1	08/17/2004
2-Chlorophenol	BQL	0.361	1	08/17/2004
4-Chloro-3-methylphenol	BQL	0.361	1	08/17/2004
4-Chloroaniline	BQL	1.80	1	08/17/2004
4-Chlorophenyl phenyl ether	BQL	0.361	1	08/17/2004
Chrysene	BQL	0.361	1	08/17/2004
Dibenzo[a,h]anthracene	BQL	0.361	1	08/17/2004
Dibenzofuran	BQL	0.361	1	08/17/2004
Di-n-Butylphthalate	BQL	0.361	1	08/17/2004
1,2-Dichlorobenzene	BQL	0.361	1	08/17/2004
1,3-Dichlorobenzene	BQL	0.361	1	08/17/2004
1,4-Dichlorobenzene	BQL	0.361	1	08/17/2004
3,3'-Dichlorobenzidine	BQL	0.721	1	08/17/2004
2,4-Dichlorophenol	BQL	0.361	1	08/17/2004
Diethylphthalate	BQL	0.361	1	08/17/2004
Dimethylphthalate	BQL	0.361	1	08/17/2004
2,4-Dimethylphenol	BQL	0.361	1	08/17/2004
Di-n-octylphthalate	BQL	0.361	1	08/17/2004
4,6-Dinitro-2-methylphenol	BQL	1.80	1	08/17/2004
2,4-Dinitrophenol	BQL	1.80	1	08/17/2004
2,4-Dinitrotoluene	BQL	0.361	1	08/17/2004
2,6-Dinitrotoluene	BQL	0.361	1	08/17/2004
Fluoranthene	BQL	0.361	1	08/17/2004
Fluorene	BQL	0.361	1	08/17/2004
Hexachlorobenzene	BQL	0.361	1	08/17/2004
Hexachlorobutadiene	BQL	0.361	1	08/17/2004
Hexachlorocyclopentadiene	BQL	0.721	1	08/17/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTTT3548-SB06 (4-6)
 Client Project ID: TT-3548
 Lab Sample ID: G128-1354-1J
 Lab Project ID: G128-1354
 Report Basis: Dry Weight

Analyzed By: MRC
 Date Collected: 08/10/2004 10:45
 Date Received: 08/10/2004
 Matrix: Soil
 %Solids: 85.7

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.361	1	08/17/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.361	1	08/17/2004
Isophorone	BQL	0.361	1	08/17/2004
2-Methylnaphthalene	BQL	0.361	1	08/17/2004
2-Methylphenol	BQL	0.361	1	08/17/2004
3- & 4-Methylphenol	BQL	0.361	1	08/17/2004
Naphthalene	BQL	0.361	1	08/17/2004
2-Nitroaniline	BQL	0.361	1	08/17/2004
3-Nitroaniline	BQL	1.80	1	08/17/2004
4-Nitroaniline	BQL	1.80	1	08/17/2004
Nitrobenzene	BQL	0.361	1	08/17/2004
2-Nitrophenol	BQL	0.361	1	08/17/2004
4-Nitrophenol	BQL	1.80	1	08/17/2004
N-Nitrosodi-n-propylamine	BQL	0.361	1	08/17/2004
N-Nitrosodiphenylamine	BQL	0.361	1	08/17/2004
Pentachlorophenol	BQL	1.80	1	08/17/2004
Phenanthrene	BQL	0.361	1	08/17/2004
Phenol	BQL	0.361	1	08/17/2004
Pyrene	BQL	0.361	1	08/17/2004
1,2,4-Trichlorobenzene	BQL	0.361	1	08/17/2004
2,4,5-Trichlorophenol	BQL	0.361	1	08/17/2004
2,4,6-Trichlorophenol	BQL	0.361	1	08/17/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
2-Fluorophenol	10	7.7	77
Nitrobenzene-d5	10	9	90
Phenol-d6	10	7.4	74
2,4,6-Tribromophenol	10	9.5	95
4-Terphenyl-d14	10	8.8	88

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTTT3548-SB06 (9-11)
Client Project ID: TT-3548
Lab Sample ID: G128-1354-2H
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: MRC
Date Collected: 08/10/2004 11:00
Date Received: 08/10/2004
Matrix: Soil
%Solids: 93.4

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.336	1	08/17/2004
Acenaphthylene	BQL	0.336	1	08/17/2004
Anthracene	BQL	0.336	1	08/17/2004
Benzo[a]anthracene	BQL	0.336	1	08/17/2004
Benzo[a]pyrene	BQL	0.336	1	08/17/2004
Benzo[b]fluoranthene	BQL	0.336	1	08/17/2004
Benzo[g,h,i]perylene	BQL	0.336	1	08/17/2004
Benzo[k]fluoranthene	BQL	0.336	1	08/17/2004
Benzoic Acid	BQL	0.672	1	08/17/2004
Bis(2-chloroethoxy)methane	BQL	0.336	1	08/17/2004
Bis(2-chloroethyl)ether	BQL	0.336	1	08/17/2004
Bis(2-chloroisopropyl)ether	BQL	0.336	1	08/17/2004
Bis(2-ethylhexyl)phthalate	BQL	0.336	1	08/17/2004
4-bromophenyl phenyl ether	BQL	0.336	1	08/17/2004
Butylbenzylphthalate	BQL	0.336	1	08/17/2004
2-Chloronaphthalene	BQL	0.336	1	08/17/2004
2-Chlorophenol	BQL	0.336	1	08/17/2004
4-Chloro-3-methylphenol	BQL	0.336	1	08/17/2004
4-Chloroaniline	BQL	1.68	1	08/17/2004
4-Chlorophenyl phenyl ether	BQL	0.336	1	08/17/2004
Chrysene	BQL	0.336	1	08/17/2004
Dibenzo[a,h]anthracene	BQL	0.336	1	08/17/2004
Dibenzofuran	BQL	0.336	1	08/17/2004
Di-n-Butylphthalate	BQL	0.336	1	08/17/2004
1,2-Dichlorobenzene	BQL	0.336	1	08/17/2004
1,3-Dichlorobenzene	BQL	0.336	1	08/17/2004
1,4-Dichlorobenzene	BQL	0.336	1	08/17/2004
3,3'-Dichlorobenzidine	BQL	0.672	1	08/17/2004
2,4-Dichlorophenol	BQL	0.336	1	08/17/2004
Diethylphthalate	BQL	0.336	1	08/17/2004
Dimethylphthalate	BQL	0.336	1	08/17/2004
2,4-Dimethylphenol	BQL	0.336	1	08/17/2004
Di-n-octylphthalate	BQL	0.336	1	08/17/2004
4,6-Dinitro-2-methylphenol	BQL	1.68	1	08/17/2004
2,4-Dinitrophenol	BQL	1.68	1	08/17/2004
2,4-Dinitrotoluene	BQL	0.336	1	08/17/2004
2,6-Dinitrotoluene	BQL	0.336	1	08/17/2004
Fluoranthene	BQL	0.336	1	08/17/2004
Fluorene	BQL	0.336	1	08/17/2004
Hexachlorobenzene	BQL	0.336	1	08/17/2004
Hexachlorobutadiene	BQL	0.336	1	08/17/2004
Hexachlorocyclopentadiene	BQL	0.672	1	08/17/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: USTTT3548-SB06 (9-11)
Client Project ID: TT-3548
Lab Sample ID: G128-1354-2H
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: MRC
Date Collected: 08/10/2004 11:00
Date Received: 08/10/2004
Matrix: Soil
%Solids: 93.4

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.336	1	08/17/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.336	1	08/17/2004
Isophorone	BQL	0.336	1	08/17/2004
2-Methylnaphthalene	BQL	0.336	1	08/17/2004
2-Methylphenol	BQL	0.336	1	08/17/2004
3- & 4-Methylphenol	BQL	0.336	1	08/17/2004
Naphthalene	BQL	0.336	1	08/17/2004
2-Nitroaniline	BQL	0.336	1	08/17/2004
3-Nitroaniline	BQL	1.68	1	08/17/2004
4-Nitroaniline	BQL	1.68	1	08/17/2004
Nitrobenzene	BQL	0.336	1	08/17/2004
2-Nitrophenol	BQL	0.336	1	08/17/2004
4-Nitrophenol	BQL	1.68	1	08/17/2004
N-Nitrosodi-n-propylamine	BQL	0.336	1	08/17/2004
N-Nitrosodiphenylamine	BQL	0.336	1	08/17/2004
Pentachlorophenol	BQL	1.68	1	08/17/2004
Phenanthrene	BQL	0.336	1	08/17/2004
Phenol	BQL	0.336	1	08/17/2004
Pyrene	BQL	0.336	1	08/17/2004
1,2,4-Trichlorobenzene	BQL	0.336	1	08/17/2004
2,4,5-Trichlorophenol	BQL	0.336	1	08/17/2004
2,4,6-Trichlorophenol	BQL	0.336	1	08/17/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.7	97
2-Fluorophenol	10	8.7	87
Nitrobenzene-d5	10	9.5	95
Phenol-d6	10	8.6	86
2,4,6-Tribromophenol	10	10.6	106
4-Terphenyl-d14	10	9.5	95

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: USTTT3548-SB07 (4-6)
Client Project ID: TT-3548
Lab Sample ID: G128-1354-3H
Lab Project ID: G128-1354
Report Basis: Dry Weight

Analyzed By: MRC
Date Collected: 08/10/2004 10:15
Date Received: 08/10/2004
Matrix: Soil
%Solids: 86.1

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.359	1	08/17/2004
Acenaphthylene	BQL	0.359	1	08/17/2004
Anthracene	BQL	0.359	1	08/17/2004
Benzo[a]anthracene	BQL	0.359	1	08/17/2004
Benzo[a]pyrene	BQL	0.359	1	08/17/2004
Benzo[b]fluoranthene	BQL	0.359	1	08/17/2004
Benzo[g,h,i]perylene	BQL	0.359	1	08/17/2004
Benzo[k]fluoranthene	BQL	0.359	1	08/17/2004
Benzoic Acid	BQL	0.719	1	08/17/2004
Bis(2-chloroethoxy)methane	BQL	0.359	1	08/17/2004
Bis(2-chloroethyl)ether	BQL	0.359	1	08/17/2004
Bis(2-chloroisopropyl)ether	BQL	0.359	1	08/17/2004
Bis(2-ethylhexyl)phthalate	BQL	0.359	1	08/17/2004
4-bromophenyl phenyl ether	BQL	0.359	1	08/17/2004
Butylbenzylphthalate	BQL	0.359	1	08/17/2004
2-Chloronaphthalene	BQL	0.359	1	08/17/2004
2-Chlorophenol	BQL	0.359	1	08/17/2004
4-Chloro-3-methylphenol	BQL	0.359	1	08/17/2004
4-Chloroaniline	BQL	1.80	1	08/17/2004
4-Chlorophenyl phenyl ether	BQL	0.359	1	08/17/2004
Chrysene	BQL	0.359	1	08/17/2004
Dibenzo[a,h]anthracene	BQL	0.359	1	08/17/2004
Dibenzofuran	BQL	0.359	1	08/17/2004
Di-n-Butylphthalate	BQL	0.359	1	08/17/2004
1,2-Dichlorobenzene	BQL	0.359	1	08/17/2004
1,3-Dichlorobenzene	BQL	0.359	1	08/17/2004
1,4-Dichlorobenzene	BQL	0.359	1	08/17/2004
3,3'-Dichlorobenzidine	BQL	0.719	1	08/17/2004
2,4-Dichlorophenol	BQL	0.359	1	08/17/2004
Diethylphthalate	BQL	0.359	1	08/17/2004
Dimethylphthalate	BQL	0.359	1	08/17/2004
2,4-Dimethylphenol	BQL	0.359	1	08/17/2004
Di-n-octylphthalate	BQL	0.359	1	08/17/2004
4,6-Dinitro-2-methylphenol	BQL	1.80	1	08/17/2004
2,4-Dinitrophenol	BQL	1.80	1	08/17/2004
2,4-Dinitrotoluene	BQL	0.359	1	08/17/2004
2,6-Dinitrotoluene	BQL	0.359	1	08/17/2004
Fluoranthene	BQL	0.359	1	08/17/2004
Fluorene	BQL	0.359	1	08/17/2004
Hexachlorobenzene	BQL	0.359	1	08/17/2004
Hexachlorobutadiene	BQL	0.359	1	08/17/2004
Hexachlorocyclopentadiene	BQL	0.719	1	08/17/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTTT3548-SB07 (4-6)
 Client Project ID: TT-3548
 Lab Sample ID: G128-1354-3H
 Lab Project ID: G128-1354
 Report Basis: Dry Weight

Analyzed By: MRC
 Date Collected: 08/10/2004 10:15
 Date Received: 08/10/2004
 Matrix: Soil
 %Solids: 86.1

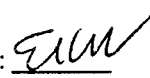
Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.359	1	08/17/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.359	1	08/17/2004
Isophorone	BQL	0.359	1	08/17/2004
2-Methylnaphthalene	BQL	0.359	1	08/17/2004
2-Methylphenol	BQL	0.359	1	08/17/2004
3- & 4-Methylphenol	BQL	0.359	1	08/17/2004
Naphthalene	BQL	0.359	1	08/17/2004
2-Nitroaniline	BQL	0.359	1	08/17/2004
3-Nitroaniline	BQL	1.80	1	08/17/2004
4-Nitroaniline	BQL	1.80	1	08/17/2004
Nitrobenzene	BQL	0.359	1	08/17/2004
2-Nitrophenol	BQL	0.359	1	08/17/2004
4-Nitrophenol	BQL	1.80	1	08/17/2004
N-Nitrosodi-n-propylamine	BQL	0.359	1	08/17/2004
N-Nitrosodiphenylamine	BQL	0.359	1	08/17/2004
Pentachlorophenol	BQL	1.80	1	08/17/2004
Phenanthrene	BQL	0.359	1	08/17/2004
Phenol	BQL	0.359	1	08/17/2004
Pyrene	BQL	0.359	1	08/17/2004
1,2,4-Trichlorobenzene	BQL	0.359	1	08/17/2004
2,4,5-Trichlorophenol	BQL	0.359	1	08/17/2004
2,4,6-Trichlorophenol	BQL	0.359	1	08/17/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9	90
2-Fluorophenol	10	8.7	87
Nitrobenzene-d5	10	9.6	96
Phenol-d6	10	8.8	88
2,4,6-Tribromophenol	10	10.4	104
4-Terphenyl-d14	10	10	99

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTTT3548-SB07 (9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1354-4H

Lab Project ID: G128-1354

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 08/10/2004 10:20

Date Received: 08/10/2004

Matrix: Soil

%Solids: 91.6

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.321	1	08/17/2004
Acenaphthylene	BQL	0.321	1	08/17/2004
Anthracene	BQL	0.321	1	08/17/2004
Benzo[a]anthracene	BQL	0.321	1	08/17/2004
Benzo[a]pyrene	BQL	0.321	1	08/17/2004
Benzo[b]fluoranthene	BQL	0.321	1	08/17/2004
Benzo[g,h,i]perylene	BQL	0.321	1	08/17/2004
Benzo[k]fluoranthene	BQL	0.321	1	08/17/2004
Benzoic Acid	BQL	0.642	1	08/17/2004
Bis(2-chloroethoxy)methane	BQL	0.321	1	08/17/2004
Bis(2-chloroethyl)ether	BQL	0.321	1	08/17/2004
Bis(2-chloroisopropyl)ether	BQL	0.321	1	08/17/2004
Bis(2-ethylhexyl)phthalate	BQL	0.321	1	08/17/2004
4-bromophenyl phenyl ether	BQL	0.321	1	08/17/2004
Butylbenzylphthalate	BQL	0.321	1	08/17/2004
2-Chloronaphthalene	BQL	0.321	1	08/17/2004
2-Chlorophenol	BQL	0.321	1	08/17/2004
4-Chloro-3-methylphenol	BQL	0.321	1	08/17/2004
4-Chloroaniline	BQL	1.61	1	08/17/2004
4-Chlorophenyl phenyl ether	BQL	0.321	1	08/17/2004
Chrysene	BQL	0.321	1	08/17/2004
Dibenzo[a,h]anthracene	BQL	0.321	1	08/17/2004
Dibenzofuran	BQL	0.321	1	08/17/2004
Di-n-Butylphthalate	BQL	0.321	1	08/17/2004
1,2-Dichlorobenzene	BQL	0.321	1	08/17/2004
1,3-Dichlorobenzene	BQL	0.321	1	08/17/2004
1,4-Dichlorobenzene	BQL	0.321	1	08/17/2004
3,3'-Dichlorobenzidine	BQL	0.642	1	08/17/2004
2,4-Dichlorophenol	BQL	0.321	1	08/17/2004
Diethylphthalate	BQL	0.321	1	08/17/2004
Dimethylphthalate	BQL	0.321	1	08/17/2004
2,4-Dimethylphenol	BQL	0.321	1	08/17/2004
Di-n-octylphthalate	BQL	0.321	1	08/17/2004
4,6-Dinitro-2-methylphenol	BQL	1.61	1	08/17/2004
2,4-Dinitrophenol	BQL	1.61	1	08/17/2004
2,4-Dinitrotoluene	BQL	0.321	1	08/17/2004
2,6-Dinitrotoluene	BQL	0.321	1	08/17/2004
Fluoranthene	BQL	0.321	1	08/17/2004
Fluorene	BQL	0.321	1	08/17/2004
Hexachlorobenzene	BQL	0.321	1	08/17/2004
Hexachlorobutadiene	BQL	0.321	1	08/17/2004
Hexachlorocyclopentadiene	BQL	0.642	1	08/17/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTTT3548-SB07 (9-11)
 Client Project ID: TT-3548
 Lab Sample ID: G128-1354-4H
 Lab Project ID: G128-1354
 Report Basis: Dry Weight

Analyzed By: MRC
 Date Collected: 08/10/2004 10:20
 Date Received: 08/10/2004
 Matrix: Soil
 %Solids: 91.6

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.321	1	08/17/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.321	1	08/17/2004
Isophorone	BQL	0.321	1	08/17/2004
2-Methylnaphthalene	BQL	0.321	1	08/17/2004
2-Methylphenol	BQL	0.321	1	08/17/2004
3- & 4-Methylphenol	BQL	0.321	1	08/17/2004
Naphthalene	BQL	0.321	1	08/17/2004
2-Nitroaniline	BQL	0.321	1	08/17/2004
3-Nitroaniline	BQL	1.61	1	08/17/2004
4-Nitroaniline	BQL	1.61	1	08/17/2004
Nitrobenzene	BQL	0.321	1	08/17/2004
2-Nitrophenol	BQL	0.321	1	08/17/2004
4-Nitrophenol	BQL	1.61	1	08/17/2004
N-Nitrosodi-n-propylamine	BQL	0.321	1	08/17/2004
N-Nitrosodiphenylamine	BQL	0.321	1	08/17/2004
Pentachlorophenol	BQL	1.61	1	08/17/2004
Phenanthrene	BQL	0.321	1	08/17/2004
Phenol	BQL	0.321	1	08/17/2004
Pyrene	BQL	0.321	1	08/17/2004
1,2,4-Trichlorobenzene	BQL	0.321	1	08/17/2004
2,4,5-Trichlorophenol	BQL	0.321	1	08/17/2004
2,4,6-Trichlorophenol	BQL	0.321	1	08/17/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.2	92
2-Fluorophenol	10	8.6	86
Nitrobenzene-d5	10	9.5	94
Phenol-d6	10	8.7	87
2,4,6-Tribromophenol	10	10.5	105
4-Terphenyl-d14	10	9.8	98

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB08 (4-6)

Client Project ID: TT-3548

Lab Sample ID: G128-1354-5H

Lab Project ID: G128-1354

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 08/10/2004 10:00

Date Received: 08/10/2004

Matrix: Soil

%Solids: 85.6

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.365	1	08/17/2004
Acenaphthylene	BQL	0.365	1	08/17/2004
Anthracene	BQL	0.365	1	08/17/2004
Benzo[a]anthracene	BQL	0.365	1	08/17/2004
Benzo[a]pyrene	BQL	0.365	1	08/17/2004
Benzo[b]fluoranthene	BQL	0.365	1	08/17/2004
Benzo[g,h,i]perylene	BQL	0.365	1	08/17/2004
Benzo[k]fluoranthene	BQL	0.365	1	08/17/2004
Benzoic Acid	BQL	0.731	1	08/17/2004
Bis(2-chloroethoxy)methane	BQL	0.365	1	08/17/2004
Bis(2-chloroethyl)ether	BQL	0.365	1	08/17/2004
Bis(2-chloroisopropyl)ether	BQL	0.365	1	08/17/2004
Bis(2-ethylhexyl)phthalate	BQL	0.365	1	08/17/2004
4-bromophenyl phenyl ether	BQL	0.365	1	08/17/2004
Butylbenzylphthalate	BQL	0.365	1	08/17/2004
2-Chloronaphthalene	BQL	0.365	1	08/17/2004
2-Chlorophenol	BQL	0.365	1	08/17/2004
4-Chloro-3-methylphenol	BQL	0.365	1	08/17/2004
4-Chloroaniline	BQL	1.83	1	08/17/2004
4-Chlorophenyl phenyl ether	BQL	0.365	1	08/17/2004
Chrysene	BQL	0.365	1	08/17/2004
Dibenzo[a,h]anthracene	BQL	0.365	1	08/17/2004
Dibenzofuran	BQL	0.365	1	08/17/2004
Di-n-Butylphthalate	BQL	0.365	1	08/17/2004
1,2-Dichlorobenzene	BQL	0.365	1	08/17/2004
1,3-Dichlorobenzene	BQL	0.365	1	08/17/2004
1,4-Dichlorobenzene	BQL	0.365	1	08/17/2004
3,3'-Dichlorobenzidine	BQL	0.731	1	08/17/2004
2,4-Dichlorophenol	BQL	0.365	1	08/17/2004
Diethylphthalate	BQL	0.365	1	08/17/2004
Dimethylphthalate	BQL	0.365	1	08/17/2004
2,4-Dimethylphenol	BQL	0.365	1	08/17/2004
Di-n-octylphthalate	BQL	0.365	1	08/17/2004
4,6-Dinitro-2-methylphenol	BQL	1.83	1	08/17/2004
2,4-Dinitrophenol	BQL	1.83	1	08/17/2004
2,4-Dinitrotoluene	BQL	0.365	1	08/17/2004
2,6-Dinitrotoluene	BQL	0.365	1	08/17/2004
Fluoranthene	BQL	0.365	1	08/17/2004
Fluorene	BQL	0.365	1	08/17/2004
Hexachlorobenzene	BQL	0.365	1	08/17/2004
Hexachlorobutadiene	BQL	0.365	1	08/17/2004
Hexachlorocyclopentadiene	BQL	0.731	1	08/17/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTTT3548-SB08 (4-6)
 Client Project ID: TT-3548
 Lab Sample ID: G128-1354-5H
 Lab Project ID: G128-1354
 Report Basis: Dry Weight

Analyzed By: MRC
 Date Collected: 08/10/2004 10:00
 Date Received: 08/10/2004
 Matrix: Soil
 %Solids: 85.6

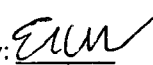
Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.365	1	08/17/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.365	1	08/17/2004
Isophorone	BQL	0.365	1	08/17/2004
2-Methylnaphthalene	BQL	0.365	1	08/17/2004
2-Methylphenol	BQL	0.365	1	08/17/2004
3- & 4-Methylphenol	BQL	0.365	1	08/17/2004
Naphthalene	BQL	0.365	1	08/17/2004
2-Nitroaniline	BQL	0.365	1	08/17/2004
3-Nitroaniline	BQL	1.83	1	08/17/2004
4-Nitroaniline	BQL	1.83	1	08/17/2004
Nitrobenzene	BQL	0.365	1	08/17/2004
2-Nitrophenol	BQL	0.365	1	08/17/2004
4-Nitrophenol	BQL	1.83	1	08/17/2004
N-Nitrosodi-n-propylamine	BQL	0.365	1	08/17/2004
N-Nitrosodiphenylamine	BQL	0.365	1	08/17/2004
Pentachlorophenol	BQL	1.83	1	08/17/2004
Phenanthrene	BQL	0.365	1	08/17/2004
Phenol	BQL	0.365	1	08/17/2004
Pyrene	BQL	0.365	1	08/17/2004
1,2,4-Trichlorobenzene	BQL	0.365	1	08/17/2004
2,4,5-Trichlorophenol	BQL	0.365	1	08/17/2004
2,4,6-Trichlorophenol	BQL	0.365	1	08/17/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.2	102
2-Fluorophenol	10	9.5	95
Nitrobenzene-d5	10	10.3	103
Phenol-d6	10	9.6	96
2,4,6-Tribromophenol	10	11.6	116
4-Terphenyl-d14	10	10.8	108

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTTT3548-SB08 (8-10)

Client Project ID: TT-3548

Lab Sample ID: G128-1354-7H

Lab Project ID: G128-1354

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 08/10/2004 10:05

Date Received: 08/10/2004

Matrix: Soil

%Solids: 92.3

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.332	1	08/17/2004
Acenaphthylene	BQL	0.332	1	08/17/2004
Anthracene	BQL	0.332	1	08/17/2004
Benzo[a]anthracene	BQL	0.332	1	08/17/2004
Benzo[a]pyrene	BQL	0.332	1	08/17/2004
Benzo[b]fluoranthene	BQL	0.332	1	08/17/2004
Benzo[g,h,i]perylene	BQL	0.332	1	08/17/2004
Benzo[k]fluoranthene	BQL	0.332	1	08/17/2004
Benzoic Acid	BQL	0.664	1	08/17/2004
Bis(2-chloroethoxy)methane	BQL	0.332	1	08/17/2004
Bis(2-chloroethyl)ether	BQL	0.332	1	08/17/2004
Bis(2-chloroisopropyl)ether	BQL	0.332	1	08/17/2004
Bis(2-ethylhexyl)phthalate	BQL	0.332	1	08/17/2004
4-bromophenyl phenyl ether	BQL	0.332	1	08/17/2004
Butylbenzylphthalate	BQL	0.332	1	08/17/2004
2-Chloronaphthalene	BQL	0.332	1	08/17/2004
2-Chlorophenol	BQL	0.332	1	08/17/2004
4-Chloro-3-methylphenol	BQL	0.332	1	08/17/2004
4-Chloroaniline	BQL	1.66	1	08/17/2004
4-Chlorophenyl phenyl ether	BQL	0.332	1	08/17/2004
Chrysene	BQL	0.332	1	08/17/2004
Dibenzo[a,h]anthracene	BQL	0.332	1	08/17/2004
Dibenzofuran	BQL	0.332	1	08/17/2004
Di-n-Butylphthalate	BQL	0.332	1	08/17/2004
1,2-Dichlorobenzene	BQL	0.332	1	08/17/2004
1,3-Dichlorobenzene	BQL	0.332	1	08/17/2004
1,4-Dichlorobenzene	BQL	0.332	1	08/17/2004
3,3'-Dichlorobenzidine	BQL	0.664	1	08/17/2004
2,4-Dichlorophenol	BQL	0.332	1	08/17/2004
Diethylphthalate	BQL	0.332	1	08/17/2004
Dimethylphthalate	BQL	0.332	1	08/17/2004
2,4-Dimethylphenol	BQL	0.332	1	08/17/2004
Di-n-octylphthalate	BQL	0.332	1	08/17/2004
4,6-Dinitro-2-methylphenol	BQL	1.66	1	08/17/2004
2,4-Dinitrophenol	BQL	1.66	1	08/17/2004
2,4-Dinitrotoluene	BQL	0.332	1	08/17/2004
2,6-Dinitrotoluene	BQL	0.332	1	08/17/2004
Fluoranthene	BQL	0.332	1	08/17/2004
Fluorene	BQL	0.332	1	08/17/2004
Hexachlorobenzene	BQL	0.332	1	08/17/2004
Hexachlorobutadiene	BQL	0.332	1	08/17/2004
Hexachlorocyclopentadiene	BQL	0.664	1	08/17/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTTT3548-SB08 (8-10)
 Client Project ID: TT-3548
 Lab Sample ID: G128-1354-7H
 Lab Project ID: G128-1354
 Report Basis: Dry Weight

Analyzed By: MRC
 Date Collected: 08/10/2004 10:05
 Date Received: 08/10/2004
 Matrix: Soil
 %Solids: 92.3

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.332	1	08/17/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.332	1	08/17/2004
Isophorone	BQL	0.332	1	08/17/2004
2-Methylnaphthalene	BQL	0.332	1	08/17/2004
2-Methylphenol	BQL	0.332	1	08/17/2004
3- & 4-Methylphenol	BQL	0.332	1	08/17/2004
Naphthalene	BQL	0.332	1	08/17/2004
2-Nitroaniline	BQL	0.332	1	08/17/2004
3-Nitroaniline	BQL	1.66	1	08/17/2004
4-Nitroaniline	BQL	1.66	1	08/17/2004
Nitrobenzene	BQL	0.332	1	08/17/2004
2-Nitrophenol	BQL	0.332	1	08/17/2004
4-Nitrophenol	BQL	1.66	1	08/17/2004
N-Nitrosodi-n-propylamine	BQL	0.332	1	08/17/2004
N-Nitrosodiphenylamine	BQL	0.332	1	08/17/2004
Pentachlorophenol	BQL	1.66	1	08/17/2004
Phenanthrene	BQL	0.332	1	08/17/2004
Phenol	BQL	0.332	1	08/17/2004
Pyrene	BQL	0.332	1	08/17/2004
1,2,4-Trichlorobenzene	BQL	0.332	1	08/17/2004
2,4,5-Trichlorophenol	BQL	0.332	1	08/17/2004
2,4,6-Trichlorophenol	BQL	0.332	1	08/17/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.9	99
2-Fluorophenol	10	9.2	92
Nitrobenzene-d5	10	10.3	103
Phenol-d6	10	9	90
2,4,6-Tribromophenol	10	11.6	116
4-Terphenyl-d14	10	9.7	97

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

List of Reporting Abbreviations
and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

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.

PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive, Wilmington, NC 28405

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 45013

Page 1 of 1

Client: Catlin Project ID: TT-3548 Date: 8-10-04
 Address: 220 Old Dairy Rd. Contact: Shane Cheskeen
 Address: Wilmington NC 28405 Phone: 910-452-5861
 Quote #: DOD 101 Fax: 910-452-7563

Report To: Shane @ Catlin

Invoice To: Sheila @ Catlin

Sample ID	Date	Time	Preservatives			Matrix	Analyses				Comments: Please specify any special reporting requirements.	
			ICR	MEOH	8260 MTH + 1961		VPH	GP4	B270			
USTTT3548-SB06 (4-6)	8-10	10:45a	S	✓	✓	✓	✓	✓	✓	✓	✓	LeJeune summary EDD format. G128-1354
USTTT3548-SB06 (4-11)	(8-10)	11:00a	S	✓	✓	✓	✓	✓	✓	✓		
USTTT3548-SB07 (4-6)	8-10	10:15a	S	✓	✓	✓	✓	✓	✓	✓		
USTTT3548-SB07 (4-11)	8-10	10:20a	S	✓	✓	✓	✓	✓	✓	✓		
USTTT3548-SB08 (4-6)	8-10	10:00a	S	✓	✓	✓	✓	✓	✓	✓		
USTTT3548-SB08 (4-6) DUP	8-10	10:00a	S	✓	✓	✓	✓	✓	✓	✓		
USTTT3548-SB08 (4-10)	8-10	10:05a	S	✓	✓	✓	✓	✓	✓	✓		
Trip blank				✓	✓	✓						
Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested					
Tam SBT	8-10	16:15	Shane Cheskeen	8/10/04	16:15	on ice	NC ☒ SC ☐ Other ☐					
							SEE REVERSE FOR TERMS AND CONDITIONS					

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

Mr. Mike E. Mason
Richard Catlin & Associates
P.O. Box 10279
Wilmington NC 28404-0279

Report Number: G128-1295

Client Project: TT-3548

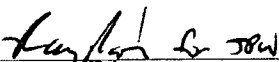
Dear Mr. Mason:

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 Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using 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,
Paradigm Analytical Laboratories, Inc.

 5/4/2001
Laboratory Director Date
J. Patrick Weaver

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB01(9-11)
Client Project ID: TT-3548
Lab Sample ID G128-1295-1A
Lab Project ID: G128-1295
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 04-14-2004 11:00
Date Received: 04/16/2004
Matrix: Soil
%Solids: 90.5

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0512	1	04/20/2004
Benzene	BQL	0.00512	1	04/20/2004
Bromobenzene	BQL	0.00512	1	04/20/2004
Bromochloromethane	BQL	0.00512	1	04/20/2004
Bromodichloromethane	BQL	0.00512	1	04/20/2004
Bromoform	BQL	0.00512	1	04/20/2004
Bromomethane	BQL	0.00512	1	04/20/2004
2-Butanone	BQL	0.0256	1	04/20/2004
n-Butylbenzene	BQL	0.00512	1	04/20/2004
sec-Butylbenzene	BQL	0.00512	1	04/20/2004
tert-Butylbenzene	BQL	0.00512	1	04/20/2004
Carbon disulfide	BQL	0.00512	1	04/20/2004
Carbon tetrachloride	BQL	0.00512	1	04/20/2004
Chlorobenzene	BQL	0.00512	1	04/20/2004
Chloroethane	BQL	0.00512	1	04/20/2004
Chloroform	BQL	0.00512	1	04/20/2004
Chloromethane	BQL	0.00512	1	04/20/2004
2-Chlorotoluene	BQL	0.00512	1	04/20/2004
4-Chlorotoluene	BQL	0.00512	1	04/20/2004
Dibromochloromethane	BQL	0.00512	1	04/20/2004
1,2-Dibromo-3-chloropropane	BQL	0.00512	1	04/20/2004
Dibromomethane	BQL	0.00512	1	04/20/2004
1,2-Dibromoethane (EDB)	BQL	0.00512	1	04/20/2004
1,2-Dichlorobenzene	BQL	0.00512	1	04/20/2004
1,3-Dichlorobenzene	BQL	0.00512	1	04/20/2004
1,4-Dichlorobenzene	BQL	0.00512	1	04/20/2004
trans-1,4-Dichloro-2-butene	BQL	0.00512	1	04/20/2004
1,1-Dichloroethane	BQL	0.00512	1	04/20/2004
1,1-Dichloroethene	BQL	0.00512	1	04/20/2004
1,2-Dichloroethane	BQL	0.00512	1	04/20/2004
cis-1,2-Dichloroethene	BQL	0.00512	1	04/20/2004
trans-1,2-dichloroethene	BQL	0.00512	1	04/20/2004
1,2-Dichloropropane	BQL	0.00512	1	04/20/2004
1,3-Dichloropropane	BQL	0.00512	1	04/20/2004
2,2-Dichloropropane	BQL	0.00512	1	04/20/2004
1,1-Dichloropropene	BQL	0.00512	1	04/20/2004
cis-1,3-Dichloropropene	BQL	0.00512	1	04/20/2004
trans-1,3-Dichloropropene	BQL	0.00512	1	04/20/2004
Dichlorodifluoromethane	BQL	0.00512	1	04/20/2004
Diisopropyl ether (DIPE)	BQL	0.00512	1	04/20/2004
Ethylbenzene	BQL	0.00512	1	04/20/2004
Hexachlorobutadiene	BQL	0.00512	1	04/20/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB01(9-11)
Client Project ID: TT-3548
Lab Sample ID G128-1295-1A
Lab Project ID: G128-1295
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 04-14-2004 11:00
Date Received: 04/16/2004
Matrix: Soil
%Solids: 90.5

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
2-Hexanone	BQL	0.00512	1	04/20/2004
Iodomethane	BQL	0.00512	1	04/20/2004
Isopropylbenzene	BQL	0.00512	1	04/20/2004
4-Isopropyltoluene	BQL	0.00512	1	04/20/2004
Methylene chloride	BQL	0.0205	1	04/20/2004
4-Methyl-2-pentanone	BQL	0.00512	1	04/20/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00512	1	04/20/2004
Naphthalene	BQL	0.00512	1	04/20/2004
n-Propyl benzene	BQL	0.00512	1	04/20/2004
Styrene	BQL	0.00512	1	04/20/2004
1,1,1,2-Tetrachloroethane	BQL	0.00512	1	04/20/2004
1,1,2,2-Tetrachloroethane	BQL	0.00512	1	04/20/2004
Tetrachloroethene	BQL	0.00512	1	04/20/2004
Toluene	BQL	0.00512	1	04/20/2004
1,2,3-Trichlorobenzene	BQL	0.00512	1	04/20/2004
1,2,4-Trichlorobenzene	BQL	0.00512	1	04/20/2004
Trichloroethene	BQL	0.00512	1	04/20/2004
1,1,1-Trichloroethane	BQL	0.00512	1	04/20/2004
1,1,2-Trichloroethane	BQL	0.00512	1	04/20/2004
Trichlorofluoromethane	BQL	0.00512	1	04/20/2004
1,2,3-Trichloropropane	BQL	0.00512	1	04/20/2004
1,2,4-Trimethylbenzene	BQL	0.00512	1	04/20/2004
1,3,5-Trimethylbenzene	BQL	0.00512	1	04/20/2004
Vinyl chloride	BQL	0.00512	1	04/20/2004
m-,p-Xylene	BQL	0.0102	1	04/20/2004
o-Xylene	BQL	0.00512	1	04/20/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.05	100
1,2-Dichloroethane-d4	0.05	0.0608	122
Toluene-d8	0.05	0.0501	100

Comments:

Flags:

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

Reviewed By: unc

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB01(12-14)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-2D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 11:15

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.1

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	2.73	100	04/21/2004
Benzene	BQL	0.109	100	04/21/2004
Bromobenzene	BQL	0.109	100	04/21/2004
Bromochloromethane	BQL	0.109	100	04/21/2004
Bromodichloromethane	BQL	0.109	100	04/21/2004
Bromoform	BQL	0.109	100	04/21/2004
Bromomethane	BQL	0.109	100	04/21/2004
2-Butanone	BQL	2.73	100	04/21/2004
n-Butylbenzene	BQL	0.109	100	04/21/2004
sec-Butylbenzene	0.584	0.109	100	04/21/2004
tert-Butylbenzene	BQL	0.109	100	04/21/2004
Carbon disulfide	BQL	0.109	100	04/21/2004
Carbon tetrachloride	BQL	0.109	100	04/21/2004
Chlorobenzene	BQL	0.109	100	04/21/2004
Chloroethane	BQL	0.109	100	04/21/2004
2-Chloroethyl vinyl ether	BQL	0.546	100	04/21/2004
Chloroform	BQL	0.109	100	04/21/2004
Chloromethane	BQL	0.109	100	04/21/2004
2-Chlorotoluene	BQL	0.109	100	04/21/2004
4-Chlorotoluene	0.190	0.109	100	04/21/2004
Dibromochloromethane	BQL	0.109	100	04/21/2004
1,2-Dibromo-3-chloropropane	BQL	0.546	100	04/21/2004
Dibromomethane	BQL	0.109	100	04/21/2004
1,2-Dibromoethane (EDB)	BQL	0.109	100	04/21/2004
1,2-Dichlorobenzene	BQL	0.109	100	04/21/2004
1,3-Dichlorobenzene	BQL	0.109	100	04/21/2004
1,4-Dichlorobenzene	BQL	0.109	100	04/21/2004
trans-1,4-Dichloro-2-butene	BQL	0.546	100	04/21/2004
1,1-Dichloroethane	BQL	0.109	100	04/21/2004
1,1-Dichloroethene	BQL	0.109	100	04/21/2004
1,2-Dichloroethane	BQL	0.109	100	04/21/2004
cis-1,2-Dichloroethene	BQL	0.109	100	04/21/2004
trans-1,2-dichloroethene	BQL	0.109	100	04/21/2004
1,2-Dichloropropane	BQL	0.109	100	04/21/2004
1,3-Dichloropropane	BQL	0.109	100	04/21/2004
2,2-Dichloropropane	BQL	0.109	100	04/21/2004
1,1-Dichloropropene	BQL	0.109	100	04/21/2004
cis-1,3-Dichloropropene	BQL	0.109	100	04/21/2004
trans-1,3-Dichloropropene	BQL	0.109	100	04/21/2004
Dichlorodifluoromethane	BQL	0.546	100	04/21/2004
Diisopropyl ether (DIPE)	BQL	0.109	100	04/21/2004
Ethylbenzene	BQL	0.109	100	04/21/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB01(12-14)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-2D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 11:15

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.1

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Hexachlorobutadiene	BQL	0.109	100	04/21/2004
2-Hexanone	BQL	0.546	100	04/21/2004
Iodomethane	BQL	0.109	100	04/21/2004
Isopropylbenzene	BQL	0.109	100	04/21/2004
4-Isopropyltoluene	0.852	0.109	100	04/21/2004
Methylene chloride	BQL	0.546	100	04/21/2004
4-Methyl-2-pentanone	BQL	0.546	100	04/21/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.109	100	04/21/2004
Naphthalene	0.505	0.109	100	04/21/2004
n-Propyl benzene	BQL	0.109	100	04/21/2004
Styrene	BQL	0.109	100	04/21/2004
1,1,1,2-Tetrachloroethane	BQL	0.109	100	04/21/2004
1,1,2,2-Tetrachloroethane	BQL	0.109	100	04/21/2004
Tetrachloroethene	BQL	0.109	100	04/21/2004
Toluene	BQL	0.109	100	04/21/2004
1,2,3-Trichlorobenzene	BQL	0.109	100	04/21/2004
1,2,4-Trichlorobenzene	BQL	0.109	100	04/21/2004
Trichloroethene	BQL	0.109	100	04/21/2004
1,1,1-Trichloroethane	BQL	0.109	100	04/21/2004
1,1,2-Trichloroethane	BQL	0.109	100	04/21/2004
Trichlorofluoromethane	BQL	0.109	100	04/21/2004
1,2,3-Trichloropropane	BQL	0.109	100	04/21/2004
1,2,4-Trimethylbenzene	1.79	0.109	100	04/21/2004
1,3,5-Trimethylbenzene	2.33	0.109	100	04/21/2004
Vinyl chloride	BQL	0.109	100	04/21/2004
m-,p-Xylene	BQL	0.218	100	04/21/2004
o-Xylene	BQL	0.109	100	04/21/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.0111	111
1,2-Dichloroethane-d4	0.01	0.00975	98
Toluene-d8	0.01	0.0107	107

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB02(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-3D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 11:30

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.1

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	2.81	100	04/21/2004
Benzene	BQL	0.113	100	04/21/2004
Bromobenzene	BQL	0.113	100	04/21/2004
Bromochloromethane	BQL	0.113	100	04/21/2004
Bromodichloromethane	BQL	0.113	100	04/21/2004
Bromoform	BQL	0.113	100	04/21/2004
Bromomethane	BQL	0.113	100	04/21/2004
2-Butanone	BQL	2.81	100	04/21/2004
n-Butylbenzene	BQL	0.113	100	04/21/2004
sec-Butylbenzene	BQL	0.113	100	04/21/2004
tert-Butylbenzene	BQL	0.113	100	04/21/2004
Carbon disulfide	BQL	0.113	100	04/21/2004
Carbon tetrachloride	BQL	0.113	100	04/21/2004
Chlorobenzene	BQL	0.113	100	04/21/2004
Chloroethane	BQL	0.113	100	04/21/2004
2-Chloroethyl vinyl ether	BQL	0.563	100	04/21/2004
Chloroform	BQL	0.113	100	04/21/2004
Chloromethane	BQL	0.113	100	04/21/2004
2-Chlorotoluene	BQL	0.113	100	04/21/2004
4-Chlorotoluene	BQL	0.113	100	04/21/2004
Dibromochloromethane	BQL	0.113	100	04/21/2004
1,2-Dibromo-3-chloropropane	BQL	0.563	100	04/21/2004
Dibromomethane	BQL	0.113	100	04/21/2004
1,2-Dibromoethane (EDB)	BQL	0.113	100	04/21/2004
1,2-Dichlorobenzene	BQL	0.113	100	04/21/2004
1,3-Dichlorobenzene	BQL	0.113	100	04/21/2004
1,4-Dichlorobenzene	BQL	0.113	100	04/21/2004
trans-1,4-Dichloro-2-butene	BQL	0.563	100	04/21/2004
1,1-Dichloroethane	BQL	0.113	100	04/21/2004
1,1-Dichloroethene	BQL	0.113	100	04/21/2004
1,2-Dichloroethane	BQL	0.113	100	04/21/2004
cis-1,2-Dichloroethene	BQL	0.113	100	04/21/2004
trans-1,2-dichloroethene	BQL	0.113	100	04/21/2004
1,2-Dichloropropane	BQL	0.113	100	04/21/2004
1,3-Dichloropropane	BQL	0.113	100	04/21/2004
2,2-Dichloropropane	BQL	0.113	100	04/21/2004
1,1-Dichloropropene	BQL	0.113	100	04/21/2004
cis-1,3-Dichloropropene	BQL	0.113	100	04/21/2004
trans-1,3-Dichloropropene	BQL	0.113	100	04/21/2004
Dichlorodifluoromethane	BQL	0.563	100	04/21/2004
Diisopropyl ether (DIPE)	BQL	0.113	100	04/21/2004
Ethylbenzene	BQL	0.113	100	04/21/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB02(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-3D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 11:30

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.1

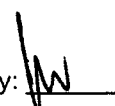
Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Hexachlorobutadiene	BQL	0.113	100	04/21/2004
2-Hexanone	BQL	0.563	100	04/21/2004
Iodomethane	BQL	0.113	100	04/21/2004
Isopropylbenzene	BQL	0.113	100	04/21/2004
4-Isopropyltoluene	0.385	0.113	100	04/21/2004
Methylene chloride	BQL	0.563	100	04/21/2004
4-Methyl-2-pentanone	BQL	0.563	100	04/21/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.113	100	04/21/2004
Naphthalene	0.502	0.113	100	04/21/2004
n-Propyl benzene	BQL	0.113	100	04/21/2004
Styrene	BQL	0.113	100	04/21/2004
1,1,1,2-Tetrachloroethane	BQL	0.113	100	04/21/2004
1,1,2,2-Tetrachloroethane	BQL	0.113	100	04/21/2004
Tetrachloroethene	BQL	0.113	100	04/21/2004
Toluene	BQL	0.113	100	04/21/2004
1,2,3-Trichlorobenzene	BQL	0.113	100	04/21/2004
1,2,4-Trichlorobenzene	BQL	0.113	100	04/21/2004
Trichloroethene	BQL	0.113	100	04/21/2004
1,1,1-Trichloroethane	BQL	0.113	100	04/21/2004
1,1,2-Trichloroethane	BQL	0.113	100	04/21/2004
Trichlorofluoromethane	BQL	0.113	100	04/21/2004
1,2,3-Trichloropropane	BQL	0.113	100	04/21/2004
1,2,4-Trimethylbenzene	0.333	0.113	100	04/21/2004
1,3,5-Trimethylbenzene	2.39	0.113	100	04/21/2004
Vinyl chloride	BQL	0.113	100	04/21/2004
m-,p-Xylene	BQL	0.225	100	04/21/2004
o-Xylene	BQL	0.113	100	04/21/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.011	110
1,2-Dichloroethane-d4	0.01	0.00956	96
Toluene-d8	0.01	0.0104	104

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB02(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-4D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 11:45

Date Received: 04-16-2004

Matrix: Soil

%Solids: 90.5

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	1.40	50	04/30/2004
Benzene	BQL	0.0561	50	04/30/2004
Bromobenzene	BQL	0.0561	50	04/30/2004
Bromochloromethane	BQL	0.0561	50	04/30/2004
Bromodichloromethane	BQL	0.0561	50	04/30/2004
Bromoform	BQL	0.0561	50	04/30/2004
Bromomethane	BQL	0.0561	50	04/30/2004
2-Butanone	BQL	1.40	50	04/30/2004
n-Butylbenzene	BQL	0.0561	50	04/30/2004
sec-Butylbenzene	BQL	0.0561	50	04/30/2004
tert-Butylbenzene	BQL	0.0561	50	04/30/2004
Carbon disulfide	BQL	0.0561	50	04/30/2004
Carbon tetrachloride	BQL	0.0561	50	04/30/2004
Chlorobenzene	BQL	0.0561	50	04/30/2004
Chloroethane	BQL	0.0561	50	04/30/2004
2-Chloroethyl vinyl ether	BQL	0.281	50	04/30/2004
Chloroform	BQL	0.0561	50	04/30/2004
Chloromethane	BQL	0.0561	50	04/30/2004
2-Chlorotoluene	BQL	0.0561	50	04/30/2004
4-Chlorotoluene	BQL	0.0561	50	04/30/2004
Dibromochloromethane	BQL	0.0561	50	04/30/2004
1,2-Dibromo-3-chloropropane	BQL	0.281	50	04/30/2004
Dibromomethane	BQL	0.0561	50	04/30/2004
1,2-Dibromoethane (EDB)	BQL	0.0561	50	04/30/2004
1,2-Dichlorobenzene	BQL	0.0561	50	04/30/2004
1,3-Dichlorobenzene	BQL	0.0561	50	04/30/2004
1,4-Dichlorobenzene	BQL	0.0561	50	04/30/2004
trans-1,4-Dichloro-2-butene	BQL	0.281	50	04/30/2004
1,1-Dichloroethane	BQL	0.0561	50	04/30/2004
1,1-Dichloroethene	BQL	0.0561	50	04/30/2004
1,2-Dichloroethane	BQL	0.0561	50	04/30/2004
cis-1,2-Dichloroethene	BQL	0.0561	50	04/30/2004
trans-1,2-dichloroethene	BQL	0.0561	50	04/30/2004
1,2-Dichloropropane	BQL	0.0561	50	04/30/2004
1,3-Dichloropropane	BQL	0.0561	50	04/30/2004
2,2-Dichloropropane	BQL	0.0561	50	04/30/2004
1,1-Dichloropropene	BQL	0.0561	50	04/30/2004
cis-1,3-Dichloropropene	BQL	0.0561	50	04/30/2004
trans-1,3-Dichloropropene	BQL	0.0561	50	04/30/2004
Dichlorodifluoromethane	BQL	0.281	50	04/30/2004
Diisopropyl ether (DIPE)	BQL	0.0561	50	04/30/2004
Ethylbenzene	BQL	0.0561	50	04/30/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB02(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-4D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 11:45

Date Received: 04-16-2004

Matrix: Soil

%Solids: 90.5

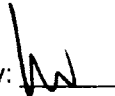
Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Hexachlorobutadiene	BQL	0.0561	50	04/30/2004
2-Hexanone	BQL	0.281	50	04/30/2004
Iodomethane	BQL	0.0561	50	04/30/2004
Isopropylbenzene	BQL	0.0561	50	04/30/2004
4-Isopropyltoluene	BQL	0.0561	50	04/30/2004
Methylene chloride	BQL	0.281	50	04/30/2004
4-Methyl-2-pentanone	BQL	0.281	50	04/30/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.0561	50	04/30/2004
Naphthalene	BQL	0.0561	50	04/30/2004
n-Propyl benzene	BQL	0.0561	50	04/30/2004
Styrene	BQL	0.0561	50	04/30/2004
1,1,1,2-Tetrachloroethane	BQL	0.0561	50	04/30/2004
1,1,2,2-Tetrachloroethane	BQL	0.0561	50	04/30/2004
Tetrachloroethene	BQL	0.0561	50	04/30/2004
Toluene	BQL	0.0561	50	04/30/2004
1,2,3-Trichlorobenzene	BQL	0.0561	50	04/30/2004
1,2,4-Trichlorobenzene	BQL	0.0561	50	04/30/2004
Trichloroethene	BQL	0.0561	50	04/30/2004
1,1,1-Trichloroethane	BQL	0.0561	50	04/30/2004
1,1,2-Trichloroethane	BQL	0.0561	50	04/30/2004
Trichlorofluoromethane	BQL	0.0561	50	04/30/2004
1,2,3-Trichloropropane	BQL	0.0561	50	04/30/2004
1,2,4-Trimethylbenzene	BQL	0.0561	50	04/30/2004
1,3,5-Trimethylbenzene	0.325	0.0561	50	04/30/2004
Vinyl chloride	BQL	0.0561	50	04/30/2004
m-,p-Xylene	BQL	0.112	50	04/30/2004
o-Xylene	BQL	0.0561	50	04/30/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.00963	96
1,2-Dichloroethane-d4	0.01	0.0104	104
Toluene-d8	0.01	0.01	100

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB03(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-5D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 12:00

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.5

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	2.57	100	04/21/2004
Benzene	BQL	0.103	100	04/21/2004
Bromobenzene	BQL	0.103	100	04/21/2004
Bromochloromethane	BQL	0.103	100	04/21/2004
Bromodichloromethane	BQL	0.103	100	04/21/2004
Bromoform	BQL	0.103	100	04/21/2004
Bromomethane	BQL	0.103	100	04/21/2004
2-Butanone	BQL	2.57	100	04/21/2004
n-Butylbenzene	BQL	0.103	100	04/21/2004
sec-Butylbenzene	2.69	0.103	100	04/21/2004
tert-Butylbenzene	0.209	0.103	100	04/21/2004
Carbon disulfide	BQL	0.103	100	04/21/2004
Carbon tetrachloride	BQL	0.103	100	04/21/2004
Chlorobenzene	BQL	0.103	100	04/21/2004
Chloroethane	BQL	0.103	100	04/21/2004
2-Chloroethyl vinyl ether	BQL	0.513	100	04/21/2004
Chloroform	BQL	0.103	100	04/21/2004
Chloromethane	BQL	0.103	100	04/21/2004
2-Chlorotoluene	BQL	0.103	100	04/21/2004
4-Chlorotoluene	BQL	0.103	100	04/21/2004
Dibromochloromethane	BQL	0.103	100	04/21/2004
1,2-Dibromo-3-chloropropane	BQL	0.513	100	04/21/2004
Dibromomethane	BQL	0.103	100	04/21/2004
1,2-Dibromoethane (EDB)	BQL	0.103	100	04/21/2004
1,2-Dichlorobenzene	BQL	0.103	100	04/21/2004
1,3-Dichlorobenzene	BQL	0.103	100	04/21/2004
1,4-Dichlorobenzene	BQL	0.103	100	04/21/2004
trans-1,4-Dichloro-2-butene	BQL	0.513	100	04/21/2004
1,1-Dichloroethane	BQL	0.103	100	04/21/2004
1,1-Dichloroethene	BQL	0.103	100	04/21/2004
1,2-Dichloroethane	BQL	0.103	100	04/21/2004
cis-1,2-Dichloroethene	BQL	0.103	100	04/21/2004
trans-1,2-dichloroethene	BQL	0.103	100	04/21/2004
1,2-Dichloropropane	BQL	0.103	100	04/21/2004
1,3-Dichloropropane	BQL	0.103	100	04/21/2004
2,2-Dichloropropane	BQL	0.103	100	04/21/2004
1,1-Dichloropropene	BQL	0.103	100	04/21/2004
cis-1,3-Dichloropropene	BQL	0.103	100	04/21/2004
trans-1,3-Dichloropropene	BQL	0.103	100	04/21/2004
Dichlorodifluoromethane	BQL	0.513	100	04/21/2004
Diisopropyl ether (DIPE)	BQL	0.103	100	04/21/2004
Ethylbenzene	0.662	0.103	100	04/21/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB03(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-5D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 12:00

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.5

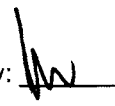
Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Hexachlorobutadiene	BQL	0.103	100	04/21/2004
2-Hexanone	BQL	0.513	100	04/21/2004
Iodomethane	BQL	0.103	100	04/21/2004
Isopropylbenzene	0.794	0.103	100	04/21/2004
4-Isopropyltoluene	3.59	0.103	100	04/21/2004
Methylene chloride	BQL	0.513	100	04/21/2004
4-Methyl-2-pentanone	BQL	0.513	100	04/21/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.103	100	04/21/2004
Naphthalene	4.85	0.103	100	04/21/2004
n-Propyl benzene	1.45	0.103	100	04/21/2004
Styrene	BQL	0.103	100	04/21/2004
1,1,1,2-Tetrachloroethane	BQL	0.103	100	04/21/2004
1,1,2,2-Tetrachloroethane	BQL	0.103	100	04/21/2004
Tetrachloroethene	BQL	0.103	100	04/21/2004
Toluene	BQL	0.103	100	04/21/2004
1,2,3-Trichlorobenzene	BQL	0.103	100	04/21/2004
1,2,4-Trichlorobenzene	BQL	0.103	100	04/21/2004
Trichloroethene	BQL	0.103	100	04/21/2004
1,1,1-Trichloroethane	BQL	0.103	100	04/21/2004
1,1,2-Trichloroethane	BQL	0.103	100	04/21/2004
Trichlorofluoromethane	BQL	0.103	100	04/21/2004
1,2,3-Trichloropropane	BQL	0.103	100	04/21/2004
1,2,4-Trimethylbenzene	34.7	1.03	1000	04/21/2004
1,3,5-Trimethylbenzene	13.8	1.03	1000	04/21/2004
Vinyl chloride	BQL	0.103	100	04/21/2004
m-,p-Xylene	7.06	0.205	100	04/21/2004
o-Xylene	2.11	0.103	100	04/21/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.00992	99
1,2-Dichloroethane-d4	0.01	0.00989	99
Toluene-d8	0.01	0.0112	112

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB03(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-6D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 12:15

Date Received: 04-16-2004

Matrix: Soil

%Solids: 93.5

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	1.38	50	04/21/2004
Benzene	BQL	0.0552	50	04/21/2004
Bromobenzene	BQL	0.0552	50	04/21/2004
Bromochloromethane	BQL	0.0552	50	04/21/2004
Bromodichloromethane	BQL	0.0552	50	04/21/2004
Bromoform	BQL	0.0552	50	04/21/2004
Bromomethane	BQL	0.0552	50	04/21/2004
2-Butanone	BQL	1.38	50	04/21/2004
n-Butylbenzene	BQL	0.0552	50	04/21/2004
sec-Butylbenzene	0.724	0.221	200	04/21/2004
tert-Butylbenzene	BQL	0.0552	50	04/21/2004
Carbon disulfide	BQL	0.0552	50	04/21/2004
Carbon tetrachloride	BQL	0.0552	50	04/21/2004
Chlorobenzene	BQL	0.0552	50	04/21/2004
Chloroethane	BQL	0.0552	50	04/21/2004
2-Chloroethyl vinyl ether	BQL	0.276	50	04/21/2004
Chloroform	BQL	0.0552	50	04/21/2004
Chloromethane	BQL	0.0552	50	04/21/2004
2-Chlorotoluene	BQL	0.0552	50	04/21/2004
4-Chlorotoluene	BQL	0.0552	50	04/21/2004
Dibromochloromethane	BQL	0.0552	50	04/21/2004
1,2-Dibromo-3-chloropropane	BQL	0.276	50	04/21/2004
Dibromomethane	BQL	0.0552	50	04/21/2004
1,2-Dibromoethane (EDB)	BQL	0.0552	50	04/21/2004
1,2-Dichlorobenzene	BQL	0.0552	50	04/21/2004
1,3-Dichlorobenzene	BQL	0.0552	50	04/21/2004
1,4-Dichlorobenzene	BQL	0.0552	50	04/21/2004
trans-1,4-Dichloro-2-butene	BQL	0.276	50	04/21/2004
1,1-Dichloroethane	BQL	0.0552	50	04/21/2004
1,1-Dichloroethene	BQL	0.0552	50	04/21/2004
1,2-Dichloroethane	BQL	0.0552	50	04/21/2004
cis-1,2-Dichloroethene	BQL	0.0552	50	04/21/2004
trans-1,2-dichloroethene	BQL	0.0552	50	04/21/2004
1,2-Dichloropropane	BQL	0.0552	50	04/21/2004
1,3-Dichloropropane	BQL	0.0552	50	04/21/2004
2,2-Dichloropropane	BQL	0.0552	50	04/21/2004
1,1-Dichloropropene	BQL	0.0552	50	04/21/2004
cis-1,3-Dichloropropene	BQL	0.0552	50	04/21/2004
trans-1,3-Dichloropropene	BQL	0.0552	50	04/21/2004
Dichlorodifluoromethane	BQL	0.276	50	04/21/2004
Diisopropyl ether (DIPE)	BQL	0.0552	50	04/21/2004
Ethylbenzene	BQL	0.0552	50	04/21/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB03(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-6D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 12:15

Date Received: 04-16-2004

Matrix: Soil

%Solids: 93.5

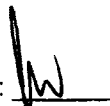
Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Hexachlorobutadiene	BQL	0.0552	50	04/21/2004
2-Hexanone	BQL	0.276	50	04/21/2004
Iodomethane	BQL	0.0552	50	04/21/2004
Isopropylbenzene	0.0734	0.0552	50	04/21/2004
4-Isopropyltoluene	0.825	0.221	200	04/21/2004
Methylene chloride	BQL	0.276	50	04/21/2004
4-Methyl-2-pentanone	BQL	0.276	50	04/21/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.0552	50	04/21/2004
Naphthalene	0.545	0.221	200	04/21/2004
n-Propyl benzene	0.0954	0.0552	50	04/21/2004
Styrene	BQL	0.0552	50	04/21/2004
1,1,1,2-Tetrachloroethane	BQL	0.0552	50	04/21/2004
1,1,2,2-Tetrachloroethane	BQL	0.0552	50	04/21/2004
Tetrachloroethene	BQL	0.0552	50	04/21/2004
Toluene	BQL	0.0552	50	04/21/2004
1,2,3-Trichlorobenzene	BQL	0.0552	50	04/21/2004
1,2,4-Trichlorobenzene	BQL	0.0552	50	04/21/2004
Trichloroethene	BQL	0.0552	50	04/21/2004
1,1,1-Trichloroethane	BQL	0.0552	50	04/21/2004
1,1,2-Trichloroethane	BQL	0.0552	50	04/21/2004
Trichlorofluoromethane	BQL	0.0552	50	04/21/2004
1,2,3-Trichloropropane	BQL	0.0552	50	04/21/2004
1,2,4-Trimethylbenzene	3.77	0.221	200	04/21/2004
1,3,5-Trimethylbenzene	2.50	0.221	200	04/21/2004
Vinyl chloride	BQL	0.0552	50	04/21/2004
m-,p-Xylene	0.160	0.110	50	04/21/2004
o-Xylene	0.109	0.0552	50	04/21/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.00882	88
1,2-Dichloroethane-d4	0.01	0.00986	99
Toluene-d8	0.01	0.0105	105

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB04(9-11)

Client Project ID: TT-3548

Lab Sample ID G128-1295-7A

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04-14-2004 12:30

Date Received: 04/16/2004

Matrix: Soil

%Solids: 93.8

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0560	1	04/20/2004
Benzene	BQL	0.00560	1	04/20/2004
Bromobenzene	BQL	0.00560	1	04/20/2004
Bromochloromethane	BQL	0.00560	1	04/20/2004
Bromodichloromethane	BQL	0.00560	1	04/20/2004
Bromoform	BQL	0.00560	1	04/20/2004
Bromomethane	BQL	0.00560	1	04/20/2004
2-Butanone	BQL	0.0280	1	04/20/2004
n-Butylbenzene	BQL	0.00560	1	04/20/2004
sec-Butylbenzene	BQL	0.00560	1	04/20/2004
tert-Butylbenzene	BQL	0.00560	1	04/20/2004
Carbon disulfide	BQL	0.00560	1	04/20/2004
Carbon tetrachloride	BQL	0.00560	1	04/20/2004
Chlorobenzene	BQL	0.00560	1	04/20/2004
Chloroethane	BQL	0.00560	1	04/20/2004
Chloroform	BQL	0.00560	1	04/20/2004
Chloromethane	BQL	0.00560	1	04/20/2004
2-Chlorotoluene	BQL	0.00560	1	04/20/2004
4-Chlorotoluene	BQL	0.00560	1	04/20/2004
Dibromochloromethane	BQL	0.00560	1	04/20/2004
1,2-Dibromo-3-chloropropane	BQL	0.00560	1	04/20/2004
Dibromomethane	BQL	0.00560	1	04/20/2004
1,2-Dibromoethane (EDB)	BQL	0.00560	1	04/20/2004
1,2-Dichlorobenzene	BQL	0.00560	1	04/20/2004
1,3-Dichlorobenzene	BQL	0.00560	1	04/20/2004
1,4-Dichlorobenzene	BQL	0.00560	1	04/20/2004
trans-1,4-Dichloro-2-butene	BQL	0.00560	1	04/20/2004
1,1-Dichloroethane	BQL	0.00560	1	04/20/2004
1,1-Dichloroethene	BQL	0.00560	1	04/20/2004
1,2-Dichloroethane	BQL	0.00560	1	04/20/2004
cis-1,2-Dichloroethene	BQL	0.00560	1	04/20/2004
trans-1,2-dichloroethene	BQL	0.00560	1	04/20/2004
1,2-Dichloropropane	BQL	0.00560	1	04/20/2004
1,3-Dichloropropane	BQL	0.00560	1	04/20/2004
2,2-Dichloropropane	BQL	0.00560	1	04/20/2004
1,1-Dichloropropene	BQL	0.00560	1	04/20/2004
cis-1,3-Dichloropropene	BQL	0.00560	1	04/20/2004
trans-1,3-Dichloropropene	BQL	0.00560	1	04/20/2004
Dichlorodifluoromethane	BQL	0.00560	1	04/20/2004
Diisopropyl ether (DIPE)	BQL	0.00560	1	04/20/2004
Ethylbenzene	BQL	0.00560	1	04/20/2004
Hexachlorobutadiene	BQL	0.00560	1	04/20/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTTT3548-SB04(9-11)
Client Project ID: TT-3548
Lab Sample ID G128-1295-7A
Lab Project ID: G128-1295
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 04-14-2004 12:30
Date Received: 04/16/2004
Matrix: Soil
%Solids: 93.8

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
2-Hexanone	BQL	0.00560	1	04/20/2004
Iodomethane	BQL	0.00560	1	04/20/2004
Isopropylbenzene	BQL	0.00560	1	04/20/2004
4-Isopropyltoluene	BQL	0.00560	1	04/20/2004
Methylene chloride	BQL	0.0224	1	04/20/2004
4-Methyl-2-pentanone	BQL	0.00560	1	04/20/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00560	1	04/20/2004
Naphthalene	BQL	0.00560	1	04/20/2004
n-Propyl benzene	BQL	0.00560	1	04/20/2004
Styrene	BQL	0.00560	1	04/20/2004
1,1,1,2-Tetrachloroethane	BQL	0.00560	1	04/20/2004
1,1,2,2-Tetrachloroethane	BQL	0.00560	1	04/20/2004
Tetrachloroethene	BQL	0.00560	1	04/20/2004
Toluene	BQL	0.00560	1	04/20/2004
1,2,3-Trichlorobenzene	BQL	0.00560	1	04/20/2004
1,2,4-Trichlorobenzene	BQL	0.00560	1	04/20/2004
Trichloroethene	BQL	0.00560	1	04/20/2004
1,1,1-Trichloroethane	BQL	0.00560	1	04/20/2004
1,1,2-Trichloroethane	BQL	0.00560	1	04/20/2004
Trichlorofluoromethane	BQL	0.00560	1	04/20/2004
1,2,3-Trichloropropane	BQL	0.00560	1	04/20/2004
1,2,4-Trimethylbenzene	BQL	0.00560	1	04/20/2004
1,3,5-Trimethylbenzene	BQL	0.00560	1	04/20/2004
Vinyl chloride	BQL	0.00560	1	04/20/2004
m-,p-Xylene	BQL	0.0112	1	04/20/2004
o-Xylene	BQL	0.00560	1	04/20/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0508	102
1,2-Dichloroethane-d4	0.05	0.0605	121
Toluene-d8	0.05	0.05	100

Comments:

Flags:

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

Reviewed By: me

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB04(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-8D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 12:45

Date Received: 04-16-2004

Matrix: Soil

%Solids: 92.2

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	1.55	50	04/21/2004
Benzene	BQL	0.0622	50	04/21/2004
Bromobenzene	BQL	0.0622	50	04/21/2004
Bromochloromethane	BQL	0.0622	50	04/21/2004
Bromodichloromethane	BQL	0.0622	50	04/21/2004
Bromoform	BQL	0.0622	50	04/21/2004
Bromomethane	BQL	0.0622	50	04/21/2004
2-Butanone	BQL	1.55	50	04/21/2004
n-Butylbenzene	BQL	0.0622	50	04/21/2004
sec-Butylbenzene	0.548	0.0622	50	04/21/2004
tert-Butylbenzene	BQL	0.0622	50	04/21/2004
Carbon disulfide	BQL	0.0622	50	04/21/2004
Carbon tetrachloride	BQL	0.0622	50	04/21/2004
Chlorobenzene	BQL	0.0622	50	04/21/2004
Chloroethane	BQL	0.0622	50	04/21/2004
2-Chloroethyl vinyl ether	BQL	0.311	50	04/21/2004
Chloroform	BQL	0.0622	50	04/21/2004
Chloromethane	BQL	0.0622	50	04/21/2004
2-Chlorotoluene	BQL	0.0622	50	04/21/2004
4-Chlorotoluene	0.179	0.0622	50	04/21/2004
Dibromochloromethane	BQL	0.0622	50	04/21/2004
1,2-Dibromo-3-chloropropane	BQL	0.311	50	04/21/2004
Dibromomethane	BQL	0.0622	50	04/21/2004
1,2-Dibromoethane (EDB)	BQL	0.0622	50	04/21/2004
1,2-Dichlorobenzene	BQL	0.0622	50	04/21/2004
1,3-Dichlorobenzene	BQL	0.0622	50	04/21/2004
1,4-Dichlorobenzene	BQL	0.0622	50	04/21/2004
trans-1,4-Dichloro-2-butene	BQL	0.311	50	04/21/2004
1,1-Dichloroethane	BQL	0.0622	50	04/21/2004
1,1-Dichloroethene	BQL	0.0622	50	04/21/2004
1,2-Dichloroethane	BQL	0.0622	50	04/21/2004
cis-1,2-Dichloroethene	BQL	0.0622	50	04/21/2004
trans-1,2-dichloroethene	BQL	0.0622	50	04/21/2004
1,2-Dichloropropane	BQL	0.0622	50	04/21/2004
1,3-Dichloropropane	BQL	0.0622	50	04/21/2004
2,2-Dichloropropane	BQL	0.0622	50	04/21/2004
1,1-Dichloropropene	BQL	0.0622	50	04/21/2004
cis-1,3-Dichloropropene	BQL	0.0622	50	04/21/2004
trans-1,3-Dichloropropene	BQL	0.0622	50	04/21/2004
Dichlorodifluoromethane	BQL	0.311	50	04/21/2004
Diisopropyl ether (DIPE)	BQL	0.0622	50	04/21/2004
Ethylbenzene	BQL	0.0622	50	04/21/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB04(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-8D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 12:45

Date Received: 04-16-2004

Matrix: Soil

%Solids: 92.2

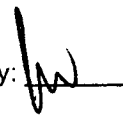
Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Hexachlorobutadiene	BQL	0.0622	50	04/21/2004
2-Hexanone	BQL	0.311	50	04/21/2004
Iodomethane	BQL	0.0622	50	04/21/2004
Isopropylbenzene	BQL	0.0622	50	04/21/2004
4-Isopropyltoluene	0.677	0.0622	50	04/21/2004
Methylene chloride	BQL	0.311	50	04/21/2004
4-Methyl-2-pentanone	BQL	0.311	50	04/21/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.0622	50	04/21/2004
Naphthalene	0.239	0.0622	50	04/21/2004
n-Propyl benzene	BQL	0.0622	50	04/21/2004
Styrene	BQL	0.0622	50	04/21/2004
1,1,1,2-Tetrachloroethane	BQL	0.0622	50	04/21/2004
1,1,2,2-Tetrachloroethane	BQL	0.0622	50	04/21/2004
Tetrachloroethene	BQL	0.0622	50	04/21/2004
Toluene	BQL	0.0622	50	04/21/2004
1,2,3-Trichlorobenzene	BQL	0.0622	50	04/21/2004
1,2,4-Trichlorobenzene	BQL	0.0622	50	04/21/2004
Trichloroethene	BQL	0.0622	50	04/21/2004
1,1,1-Trichloroethane	BQL	0.0622	50	04/21/2004
1,1,2-Trichloroethane	BQL	0.0622	50	04/21/2004
Trichlorofluoromethane	BQL	0.0622	50	04/21/2004
1,2,3-Trichloropropane	BQL	0.0622	50	04/21/2004
1,2,4-Trimethylbenzene	1.95	0.0622	50	04/21/2004
1,3,5-Trimethylbenzene	2.06	0.0622	50	04/21/2004
Vinyl chloride	BQL	0.0622	50	04/21/2004
m-,p-Xylene	BQL	0.124	50	04/21/2004
o-Xylene	0.0790	0.0622	50	04/21/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.0109	109
1,2-Dichloroethane-d4	0.01	0.00967	97
Toluene-d8	0.01	0.0103	103

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB05(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-9D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 13:00

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.3

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	2.82	100	04/21/2004
Benzene	BQL	0.113	100	04/21/2004
Bromobenzene	BQL	0.113	100	04/21/2004
Bromochloromethane	BQL	0.113	100	04/21/2004
Bromodichloromethane	BQL	0.113	100	04/21/2004
Bromoform	BQL	0.113	100	04/21/2004
Bromomethane	BQL	0.113	100	04/21/2004
2-Butanone	BQL	2.82	100	04/21/2004
n-Butylbenzene	BQL	0.113	100	04/21/2004
sec-Butylbenzene	BQL	0.113	100	04/21/2004
tert-Butylbenzene	BQL	0.113	100	04/21/2004
Carbon disulfide	BQL	0.113	100	04/21/2004
Carbon tetrachloride	BQL	0.113	100	04/21/2004
Chlorobenzene	BQL	0.113	100	04/21/2004
Chloroethane	BQL	0.113	100	04/21/2004
2-Chloroethyl vinyl ether	BQL	0.564	100	04/21/2004
Chloroform	BQL	0.113	100	04/21/2004
Chloromethane	BQL	0.113	100	04/21/2004
2-Chlorotoluene	BQL	0.113	100	04/21/2004
4-Chlorotoluene	BQL	0.113	100	04/21/2004
Dibromochloromethane	BQL	0.113	100	04/21/2004
1,2-Dibromo-3-chloropropane	BQL	0.564	100	04/21/2004
Dibromomethane	BQL	0.113	100	04/21/2004
1,2-Dibromoethane (EDB)	BQL	0.113	100	04/21/2004
1,2-Dichlorobenzene	BQL	0.113	100	04/21/2004
1,3-Dichlorobenzene	BQL	0.113	100	04/21/2004
1,4-Dichlorobenzene	BQL	0.113	100	04/21/2004
trans-1,4-Dichloro-2-butene	BQL	0.564	100	04/21/2004
1,1-Dichloroethane	BQL	0.113	100	04/21/2004
1,1-Dichloroethene	BQL	0.113	100	04/21/2004
1,2-Dichloroethane	BQL	0.113	100	04/21/2004
cis-1,2-Dichloroethene	BQL	0.113	100	04/21/2004
trans-1,2-dichloroethene	BQL	0.113	100	04/21/2004
1,2-Dichloropropane	BQL	0.113	100	04/21/2004
1,3-Dichloropropane	BQL	0.113	100	04/21/2004
2,2-Dichloropropane	BQL	0.113	100	04/21/2004
1,1-Dichloropropene	BQL	0.113	100	04/21/2004
cis-1,3-Dichloropropene	BQL	0.113	100	04/21/2004
trans-1,3-Dichloropropene	BQL	0.113	100	04/21/2004
Dichlorodifluoromethane	BQL	0.564	100	04/21/2004
Diisopropyl ether (DIPE)	BQL	0.113	100	04/21/2004
Ethylbenzene	BQL	0.113	100	04/21/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB05(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-9D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 13:00

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.3

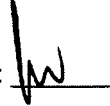
Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Hexachlorobutadiene	BQL	0.113	100	04/21/2004
2-Hexanone	BQL	0.564	100	04/21/2004
Iodomethane	BQL	0.113	100	04/21/2004
Isopropylbenzene	BQL	0.113	100	04/21/2004
4-Isopropyltoluene	0.252	0.113	100	04/21/2004
Methylene chloride	BQL	0.564	100	04/21/2004
4-Methyl-2-pentanone	BQL	0.564	100	04/21/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.113	100	04/21/2004
Naphthalene	0.443	0.113	100	04/21/2004
n-Propyl benzene	BQL	0.113	100	04/21/2004
Styrene	BQL	0.113	100	04/21/2004
1,1,1,2-Tetrachloroethane	BQL	0.113	100	04/21/2004
1,1,2,2-Tetrachloroethane	BQL	0.113	100	04/21/2004
Tetrachloroethene	BQL	0.113	100	04/21/2004
Toluene	BQL	0.113	100	04/21/2004
1,2,3-Trichlorobenzene	BQL	0.113	100	04/21/2004
1,2,4-Trichlorobenzene	BQL	0.113	100	04/21/2004
Trichloroethene	BQL	0.113	100	04/21/2004
1,1,1-Trichloroethane	BQL	0.113	100	04/21/2004
1,1,2-Trichloroethane	BQL	0.113	100	04/21/2004
Trichlorofluoromethane	BQL	0.113	100	04/21/2004
1,2,3-Trichloropropane	BQL	0.113	100	04/21/2004
1,2,4-Trimethylbenzene	1.09	0.113	100	04/21/2004
1,3,5-Trimethylbenzene	2.24	0.113	100	04/21/2004
Vinyl chloride	BQL	0.113	100	04/21/2004
m-,p-Xylene	0.241	0.226	100	04/21/2004
o-Xylene	BQL	0.113	100	04/21/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.0102	102
1,2-Dichloroethane-d4	0.01	0.00975	98
Toluene-d8	0.01	0.0103	103

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB05(9-11)Dup

Client Project ID: TT-3548

Lab Sample ID: G128-1295-10D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 13:00

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.3

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	1.43	50	04/21/2004
Benzene	BQL	0.0573	50	04/21/2004
Bromobenzene	BQL	0.0573	50	04/21/2004
Bromochloromethane	BQL	0.0573	50	04/21/2004
Bromodichloromethane	BQL	0.0573	50	04/21/2004
Bromoform	BQL	0.0573	50	04/21/2004
Bromomethane	BQL	0.0573	50	04/21/2004
2-Butanone	BQL	1.43	50	04/21/2004
n-Butylbenzene	BQL	0.0573	50	04/21/2004
sec-Butylbenzene	BQL	0.0573	50	04/21/2004
tert-Butylbenzene	BQL	0.0573	50	04/21/2004
Carbon disulfide	BQL	0.0573	50	04/21/2004
Carbon tetrachloride	BQL	0.0573	50	04/21/2004
Chlorobenzene	BQL	0.0573	50	04/21/2004
Chloroethane	BQL	0.0573	50	04/21/2004
2-Chloroethyl vinyl ether	BQL	0.287	50	04/21/2004
Chloroform	BQL	0.0573	50	04/21/2004
Chloromethane	BQL	0.0573	50	04/21/2004
2-Chlorotoluene	BQL	0.0573	50	04/21/2004
4-Chlorotoluene	BQL	0.0573	50	04/21/2004
Dibromochloromethane	BQL	0.0573	50	04/21/2004
1,2-Dibromo-3-chloropropane	BQL	0.287	50	04/21/2004
Dibromomethane	BQL	0.0573	50	04/21/2004
1,2-Dibromoethane (EDB)	BQL	0.0573	50	04/21/2004
1,2-Dichlorobenzene	BQL	0.0573	50	04/21/2004
1,3-Dichlorobenzene	BQL	0.0573	50	04/21/2004
1,4-Dichlorobenzene	BQL	0.0573	50	04/21/2004
trans-1,4-Dichloro-2-butene	BQL	0.287	50	04/21/2004
1,1-Dichloroethane	BQL	0.0573	50	04/21/2004
1,1-Dichloroethene	BQL	0.0573	50	04/21/2004
1,2-Dichloroethane	BQL	0.0573	50	04/21/2004
cis-1,2-Dichloroethene	BQL	0.0573	50	04/21/2004
trans-1,2-dichloroethene	BQL	0.0573	50	04/21/2004
1,2-Dichloropropane	BQL	0.0573	50	04/21/2004
1,3-Dichloropropane	BQL	0.0573	50	04/21/2004
2,2-Dichloropropane	BQL	0.0573	50	04/21/2004
1,1-Dichloropropene	BQL	0.0573	50	04/21/2004
cis-1,3-Dichloropropene	BQL	0.0573	50	04/21/2004
trans-1,3-Dichloropropene	BQL	0.0573	50	04/21/2004
Dichlorodifluoromethane	BQL	0.287	50	04/21/2004
Diisopropyl ether (DIPE)	BQL	0.0573	50	04/21/2004
Ethylbenzene	BQL	0.0573	50	04/21/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Volatiles
by GCMS 8260/5035**

Client Sample ID: USTTT3548-SB05(9-11)Dup

Client Project ID: TT-3548

Lab Sample ID: G128-1295-10D

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: JTF

Date Collected: 04/14/2004 13:00

Date Received: 04-16-2004

Matrix: Soil

%Solids: 89.3

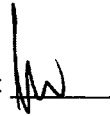
Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Hexachlorobutadiene	BQL	0.0573	50	04/21/2004
2-Hexanone	BQL	0.287	50	04/21/2004
Iodomethane	BQL	0.0573	50	04/21/2004
Isopropylbenzene	BQL	0.0573	50	04/21/2004
4-Isopropyltoluene	0.369	0.0573	50	04/21/2004
Methylene chloride	BQL	0.287	50	04/21/2004
4-Methyl-2-pentanone	BQL	0.287	50	04/21/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.0573	50	04/21/2004
Naphthalene	0.604	0.0573	50	04/21/2004
n-Propyl benzene	BQL	0.0573	50	04/21/2004
Styrene	BQL	0.0573	50	04/21/2004
1,1,1,2-Tetrachloroethane	BQL	0.0573	50	04/21/2004
1,1,2,2-Tetrachloroethane	BQL	0.0573	50	04/21/2004
Tetrachloroethene	BQL	0.0573	50	04/21/2004
Toluene	BQL	0.0573	50	04/21/2004
1,2,3-Trichlorobenzene	BQL	0.0573	50	04/21/2004
1,2,4-Trichlorobenzene	BQL	0.0573	50	04/21/2004
Trichloroethene	BQL	0.0573	50	04/21/2004
1,1,1-Trichloroethane	BQL	0.0573	50	04/21/2004
1,1,2-Trichloroethane	BQL	0.0573	50	04/21/2004
Trichlorofluoromethane	BQL	0.0573	50	04/21/2004
1,2,3-Trichloropropane	BQL	0.0573	50	04/21/2004
1,2,4-Trimethylbenzene	1.87	0.0573	50	04/21/2004
1,3,5-Trimethylbenzene	2.10	0.0573	50	04/21/2004
Vinyl chloride	BQL	0.0573	50	04/21/2004
m-,p-Xylene	0.305	0.115	50	04/21/2004
o-Xylene	0.0849	0.0573	50	04/21/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.00923	92
1,2-Dichloroethane-d4	0.01	0.00951	95
Toluene-d8	0.01	0.0103	103

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB01(9-11)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/14/04
Date Analyzed	04/21/04
Dry Weight	91
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	15 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	370 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	47 (mg/Kg)
Surrogate % Recovery - PID	170***
Surrogate % Recovery - FID	770***

* = 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.

***= High surrogate recovery due to matrix interference

Lab Info: g128-1295-1e

Reviewed By: me

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB01(12-14)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/14/04
Date Analyzed	04/21/04
Dry Weight	89
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	12 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	280 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	36 (mg/Kg)
Surrogate % Recovery - PID	170***
Surrogate % Recovery - FID	700***

* = 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.

***= High surrogate recovery due to matrix interference

Lab Info: g128-1295-2e

Reviewed By: mmc

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB02(9-11)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/14/04
Date Analyzed	04/21/04
Dry Weight	89
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	13 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	270 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	35 (mg/Kg)
Surrogate % Recovery - PID	210***
Surrogate % Recovery - FID	680***

* = 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.

***= High surrogate recovery due to matrix interference

Lab Info: g128-1295-3e

Reviewed By: hmc

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB02(11-13)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/14/04
Date Analyzed	04/21/04
Dry Weight	91
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	92 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	11 (mg/Kg)
Surrogate % Recovery - PID	210***
Surrogate % Recovery - FID	220***

* = 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.

***= High surrogate recovery due to matrix interference

Lab Info: g128-1295-4e

Reviewed By: hmt

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB03(9-11)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/14/04
Date Analyzed	04/21/04
Dry Weight	90
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	29 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	330 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	55 (mg/Kg)
Surrogate % Recovery - PID	150***
Surrogate % Recovery - FID	750***

* = 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.

***= High surrogate recovery due to matrix interference

Lab Info: g128-1295-5e

Reviewed By: mt

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB03(11-13)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/14/04
Date Analyzed	04/21/04
Dry Weight	93
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	12 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	220 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	30 (mg/Kg)
Surrogate % Recovery - PID	140***
Surrogate % Recovery - FID	540***

* = 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.

***= High surrogate recovery due to matrix interference

Lab Info: g128-1295-6e

Reviewed By: mm

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB04(9-11)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/14/04
Date Analyzed	04/21/04
Dry Weight	94
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	130
Surrogate % Recovery - FID	130

* = 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: g128-1295-7e

Reviewed By: hmc

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB04(11-13)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/14/04
Date Analyzed	04/21/04
Dry Weight	92
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	15 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	370 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	58 (mg/Kg)
Surrogate % Recovery - PID	140***
Surrogate % Recovery - FID	670***

* = 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.

***= High surrogate recovery due to matrix interference

Lab Info: g128-1295-8e

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB05(9-11)
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/14/04
Date Analyzed	04/21/04
Dry Weight	89
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	170 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	22 (mg/Kg)
Surrogate % Recovery - PID	250***
Surrogate % Recovery - FID	440***

* = 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.

***= High surrogate recovery due to matrix interference

Lab Info: g128-1295-9e

Reviewed By: mmc

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 03/02/04PID Initial Calibration Date: 03/02/04

Calibration Ranges and Limits

Range	MDL		ML		RL	
	($\mu\text{g/L}$)	(mg/Kg)	($\mu\text{g/L}$)	(mg/Kg)	($\mu\text{g/L}$)	(mg/Kg)
C ₅ -C ₈ Aliphatics	9.3	0.41	29.4	1.3	100	10
C ₉ -C ₁₂ Aliphatics	7.9	0.3	25.2	0.97	100	10
C ₉ -C ₁₀ Aromatics	0.5	0.04	1.5	0.14	100	10

Calibration Concentration Levels

Range	Levels		%RSD or CCC	Method of Quantitation
	($\mu\text{g/L}$)	(mg/Kg)		
C ₅ -C ₈ Aliphatics	20	2	4.7	Calibration Factor
	80	8		
	200	20		
	800	80		
	2000	200		
C ₉ -C ₁₂ Aliphatics	15	1.5	14.3	Calibration Factor
	60	6		
	150	15		
	600	60		
	1500	150		
C ₉ -C ₁₀ Aromatics	32.5	3.25	0.998	Linear Regression
	130	13		
	325	32.5		
	1300	130		
	3250	325		

Calibration Check Date: 04/21/04

Calibration Check

Range	Levels		RPD
	($\mu\text{g/L}$)	(mg/Kg)	
C ₅ -C ₈ Aliphatics	200	20	1.3
C ₉ -C ₁₂ Aliphatics	150	15	2.2
C ₉ -C ₁₀ Aromatics	325	32.5	-4.6

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB01(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-1H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 11:00

Date Received: 04/16/2004

Matrix: Soil

%Solids: 90.5

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.332	1	04/22/2004
Acenaphthylene	BQL	0.332	1	04/22/2004
Anthracene	BQL	0.332	1	04/22/2004
Benzo[a]anthracene	BQL	0.332	1	04/22/2004
Benzo[a]pyrene	BQL	0.332	1	04/22/2004
Benzo[b]fluoranthene	BQL	0.332	1	04/22/2004
Benzo[g,h,i]perylene	BQL	0.332	1	04/22/2004
Benzo[k]fluoranthene	BQL	0.332	1	04/22/2004
Benzoic Acid	BQL	0.664	1	04/22/2004
Bis(2-chloroethoxy)methane	BQL	0.332	1	04/22/2004
Bis(2-chloroethyl)ether	BQL	0.332	1	04/22/2004
Bis(2-chloroisopropyl)ether	BQL	0.332	1	04/22/2004
Bis(2-ethylhexyl)phthalate	BQL	0.332	1	04/22/2004
4-bromophenyl phenyl ether	BQL	0.332	1	04/22/2004
Butylbenzylphthalate	BQL	0.332	1	04/22/2004
2-Chloronaphthalene	BQL	0.332	1	04/22/2004
2-Chlorophenol	BQL	0.332	1	04/22/2004
4-Chloro-3-methylphenol	BQL	0.332	1	04/22/2004
4-Chloroaniline	BQL	1.66	1	04/22/2004
4-Chlorophenyl phenyl ether	BQL	0.332	1	04/22/2004
Chrysene	BQL	0.332	1	04/22/2004
Dibenzo[a,h]anthracene	BQL	0.332	1	04/22/2004
Dibenzofuran	BQL	0.332	1	04/22/2004
Di-n-Butylphthalate	BQL	0.332	1	04/22/2004
1,2-Dichlorobenzene	BQL	0.332	1	04/22/2004
1,3-Dichlorobenzene	BQL	0.332	1	04/22/2004
1,4-Dichlorobenzene	BQL	0.332	1	04/22/2004
3,3'-Dichlorobenzidine	BQL	0.664	1	04/22/2004
2,4-Dichlorophenol	BQL	0.332	1	04/22/2004
Diethylphthalate	BQL	0.332	1	04/22/2004
Dimethylphthalate	BQL	0.332	1	04/22/2004
2,4-Dimethylphenol	BQL	0.332	1	04/22/2004
Di-n-octylphthalate	BQL	0.332	1	04/22/2004
4,6-Dinitro-2-methylphenol	BQL	1.66	1	04/22/2004
2,4-Dinitrophenol	BQL	1.66	1	04/22/2004
2,4-Dinitrotoluene	BQL	0.332	1	04/22/2004
2,6-Dinitrotoluene	BQL	0.332	1	04/22/2004
Fluoranthene	BQL	0.332	1	04/22/2004
Fluorene	BQL	0.332	1	04/22/2004
Hexachlorobenzene	BQL	0.332	1	04/22/2004
Hexachlorobutadiene	BQL	0.332	1	04/22/2004
Hexachlorocyclopentadiene	BQL	0.664	1	04/22/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB01(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-1H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 11:00

Date Received: 04/16/2004

Matrix: Soil

%Solids: 90.5

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.332	1	04/22/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.332	1	04/22/2004
Isophorone	BQL	0.332	1	04/22/2004
2-Methylnaphthalene	BQL	0.332	1	04/22/2004
2-Methylphenol	BQL	0.332	1	04/22/2004
3- & 4-Methylphenol	BQL	0.332	1	04/22/2004
Naphthalene	BQL	0.332	1	04/22/2004
2-Nitroaniline	BQL	0.332	1	04/22/2004
3-Nitroaniline	BQL	1.66	1	04/22/2004
4-Nitroaniline	BQL	1.66	1	04/22/2004
Nitrobenzene	BQL	0.332	1	04/22/2004
2-Nitrophenol	BQL	0.332	1	04/22/2004
4-Nitrophenol	BQL	1.66	1	04/22/2004
N-Nitrosodi-n-propylamine	BQL	0.332	1	04/22/2004
N-Nitrosodiphenylamine	BQL	0.332	1	04/22/2004
Pentachlorophenol	BQL	1.66	1	04/22/2004
Phenanthrene	BQL	0.332	1	04/22/2004
Phenol	BQL	0.332	1	04/22/2004
Pyrene	BQL	0.332	1	04/22/2004
1,2,4-Trichlorobenzene	BQL	0.332	1	04/22/2004
2,4,5-Trichlorophenol	BQL	0.332	1	04/22/2004
2,4,6-Trichlorophenol	BQL	0.332	1	04/22/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.9	79
2-Fluorophenol	10	7.9	79
Nitrobenzene-d5	10	6.9	69
Phenol-d6	10	7	70
2,4,6-Tribromophenol	10	7.8	78
4-Terphenyl-d14	10	9.3	93

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: me

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB01(12-14)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-2H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 11:15

Date Received: 04/16/2004

Matrix: Soil

%Solids: 89.1

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	3.43	10	04/26/2004
Acenaphthylene	BQL	3.43	10	04/26/2004
Anthracene	BQL	3.43	10	04/26/2004
Benzo[a]anthracene	BQL	3.43	10	04/26/2004
Benzo[a]pyrene	BQL	3.43	10	04/26/2004
Benzo[b]fluoranthene	BQL	3.43	10	04/26/2004
Benzo[g,h,i]perylene	BQL	3.43	10	04/26/2004
Benzo[k]fluoranthene	BQL	3.43	10	04/26/2004
Benzoic Acid	BQL	6.86	10	04/26/2004
Bis(2-chloroethoxy)methane	BQL	3.43	10	04/26/2004
Bis(2-chloroethyl)ether	BQL	3.43	10	04/26/2004
Bis(2-chloroisopropyl)ether	BQL	3.43	10	04/26/2004
Bis(2-ethylhexyl)phthalate	BQL	3.43	10	04/26/2004
4-bromophenyl phenyl ether	BQL	3.43	10	04/26/2004
Butylbenzylphthalate	BQL	3.43	10	04/26/2004
2-Chloronaphthalene	BQL	3.43	10	04/26/2004
2-Chlorophenol	BQL	3.43	10	04/26/2004
4-Chloro-3-methylphenol	BQL	3.43	10	04/26/2004
4-Chloroaniline	BQL	17.2	10	04/26/2004
4-Chlorophenyl phenyl ether	BQL	3.43	10	04/26/2004
Chrysene	BQL	3.43	10	04/26/2004
Dibenzo[a,h]anthracene	BQL	3.43	10	04/26/2004
Dibenzofuran	BQL	3.43	10	04/26/2004
Di-n-Butylphthalate	BQL	3.43	10	04/26/2004
1,2-Dichlorobenzene	BQL	3.43	10	04/26/2004
1,3-Dichlorobenzene	BQL	3.43	10	04/26/2004
1,4-Dichlorobenzene	BQL	3.43	10	04/26/2004
3,3'-Dichlorobenzidine	BQL	6.86	10	04/26/2004
2,4-Dichlorophenol	BQL	3.43	10	04/26/2004
Diethylphthalate	BQL	3.43	10	04/26/2004
Dimethylphthalate	BQL	3.43	10	04/26/2004
2,4-Dimethylphenol	BQL	3.43	10	04/26/2004
Di-n-octylphthalate	BQL	3.43	10	04/26/2004
4,6-Dinitro-2-methylphenol	BQL	17.2	10	04/26/2004
2,4-Dinitrophenol	BQL	17.2	10	04/26/2004
2,4-Dinitrotoluene	BQL	3.43	10	04/26/2004
2,6-Dinitrotoluene	BQL	3.43	10	04/26/2004
Fluoranthene	BQL	3.43	10	04/26/2004
Fluorene	BQL	3.43	10	04/26/2004
Hexachlorobenzene	BQL	3.43	10	04/26/2004
Hexachlorobutadiene	BQL	3.43	10	04/26/2004
Hexachlorocyclopentadiene	BQL	6.86	10	04/26/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: USTTT3548-SB01(12-14)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-2H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 11:15

Date Received: 04/16/2004

Matrix: Soil

%Solids: 89.1

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	3.43	10	04/26/2004
Indeno(1,2,3-c,d)pyrene	BQL	3.43	10	04/26/2004
Isophorone	BQL	3.43	10	04/26/2004
2-Methylnaphthalene	4.46	3.43	10	04/26/2004
2-Methylphenol	BQL	3.43	10	04/26/2004
3- & 4-Methylphenol	BQL	3.43	10	04/26/2004
Naphthalene	BQL	3.43	10	04/26/2004
2-Nitroaniline	BQL	3.43	10	04/26/2004
3-Nitroaniline	BQL	17.2	10	04/26/2004
4-Nitroaniline	BQL	17.2	10	04/26/2004
Nitrobenzene	BQL	3.43	10	04/26/2004
2-Nitrophenol	BQL	3.43	10	04/26/2004
4-Nitrophenol	BQL	17.2	10	04/26/2004
N-Nitrosodi-n-propylamine	BQL	3.43	10	04/26/2004
N-Nitrosodiphenylamine	BQL	3.43	10	04/26/2004
Pentachlorophenol	BQL	17.2	10	04/26/2004
Phenanthrene	4.97	3.43	10	04/26/2004
Phenol	BQL	3.43	10	04/26/2004
Pyrene	BQL	3.43	10	04/26/2004
1,2,4-Trichlorobenzene	BQL	3.43	10	04/26/2004
2,4,5-Trichlorophenol	BQL	3.43	10	04/26/2004
2,4,6-Trichlorophenol	BQL	3.43	10	04/26/2004

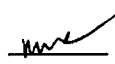
	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	NA	NA
2-Fluorophenol	10	NA	NA
Nitrobenzene-d5	10	NA	NA
Phenol-d6	10	NA	NA
2,4,6-Tribromophenol	10	NA	NA
4-Terphenyl-d14	10	NA	NA

Comments:

Flags:

BQL = Below Quantitation Limits.

NA = Not Applicable, surrogates diluted out.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB02(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-3H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 11:30

Date Received: 04/16/2004

Matrix: Soil

%Solids: 89.1

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	3.42	10	04/26/2004
Acenaphthylene	BQL	3.42	10	04/26/2004
Anthracene	BQL	3.42	10	04/26/2004
Benzo[a]anthracene	BQL	3.42	10	04/26/2004
Benzo[a]pyrene	BQL	3.42	10	04/26/2004
Benzo[b]fluoranthene	BQL	3.42	10	04/26/2004
Benzo[g,h,i]perylene	BQL	3.42	10	04/26/2004
Benzo[k]fluoranthene	BQL	3.42	10	04/26/2004
Benzoic Acid	BQL	6.84	10	04/26/2004
Bis(2-chloroethoxy)methane	BQL	3.42	10	04/26/2004
Bis(2-chloroethyl)ether	BQL	3.42	10	04/26/2004
Bis(2-chloroisopropyl)ether	BQL	3.42	10	04/26/2004
Bis(2-ethylhexyl)phthalate	BQL	3.42	10	04/26/2004
4-bromophenyl phenyl ether	BQL	3.42	10	04/26/2004
Butylbenzylphthalate	BQL	3.42	10	04/26/2004
2-Chloronaphthalene	BQL	3.42	10	04/26/2004
2-Chlorophenol	BQL	3.42	10	04/26/2004
4-Chloro-3-methylphenol	BQL	3.42	10	04/26/2004
4-Chloroaniline	BQL	17.1	10	04/26/2004
4-Chlorophenyl phenyl ether	BQL	3.42	10	04/26/2004
Chrysene	BQL	3.42	10	04/26/2004
Dibenzo[a,h]anthracene	BQL	3.42	10	04/26/2004
Dibenzofuran	BQL	3.42	10	04/26/2004
Di-n-Butylphthalate	BQL	3.42	10	04/26/2004
1,2-Dichlorobenzene	BQL	3.42	10	04/26/2004
1,3-Dichlorobenzene	BQL	3.42	10	04/26/2004
1,4-Dichlorobenzene	BQL	3.42	10	04/26/2004
3,3'-Dichlorobenzidine	BQL	6.84	10	04/26/2004
2,4-Dichlorophenol	BQL	3.42	10	04/26/2004
Diethylphthalate	BQL	3.42	10	04/26/2004
Dimethylphthalate	BQL	3.42	10	04/26/2004
2,4-Dimethylphenol	BQL	3.42	10	04/26/2004
Di-n-octylphthalate	BQL	3.42	10	04/26/2004
4,6-Dinitro-2-methylphenol	BQL	17.1	10	04/26/2004
2,4-Dinitrophenol	BQL	17.1	10	04/26/2004
2,4-Dinitrotoluene	BQL	3.42	10	04/26/2004
2,6-Dinitrotoluene	BQL	3.42	10	04/26/2004
Fluoranthene	BQL	3.42	10	04/26/2004
Fluorene	BQL	3.42	10	04/26/2004
Hexachlorobenzene	BQL	3.42	10	04/26/2004
Hexachlorobutadiene	BQL	3.42	10	04/26/2004
Hexachlorocyclopentadiene	BQL	6.84	10	04/26/2004

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB02(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-3H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 11:30

Date Received: 04/16/2004

Matrix: Soil

%Solids: 89.1

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	3.42	10	04/26/2004
Indeno(1,2,3-c,d)pyrene	BQL	3.42	10	04/26/2004
Isophorone	BQL	3.42	10	04/26/2004
2-Methylnaphthalene	BQL	3.42	10	04/26/2004
2-Methylphenol	BQL	3.42	10	04/26/2004
3- & 4-Methylphenol	BQL	3.42	10	04/26/2004
Naphthalene	BQL	3.42	10	04/26/2004
2-Nitroaniline	BQL	3.42	10	04/26/2004
3-Nitroaniline	BQL	17.1	10	04/26/2004
4-Nitroaniline	BQL	17.1	10	04/26/2004
Nitrobenzene	BQL	3.42	10	04/26/2004
2-Nitrophenol	BQL	3.42	10	04/26/2004
4-Nitrophenol	BQL	17.1	10	04/26/2004
N-Nitrosodi-n-propylamine	BQL	3.42	10	04/26/2004
N-Nitrosodiphenylamine	BQL	3.42	10	04/26/2004
Pentachlorophenol	BQL	17.1	10	04/26/2004
Phenanthrene	BQL	3.42	10	04/26/2004
Phenol	BQL	3.42	10	04/26/2004
Pyrene	BQL	3.42	10	04/26/2004
1,2,4-Trichlorobenzene	BQL	3.42	10	04/26/2004
2,4,5-Trichlorophenol	BQL	3.42	10	04/26/2004
2,4,6-Trichlorophenol	BQL	3.42	10	04/26/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	NA	NA
2-Fluorophenol	10	NA	NA
Nitrobenzene-d5	10	NA	NA
Phenol-d6	10	NA	NA
2,4,6-Tribromophenol	10	NA	NA
4-Terphenyl-d14	10	NA	NA

Comments:

Sample diluted due to high concentration of non-target interference.

Flags:

BQL = Below Quantitation Limits.

NA = Not applicable, surrogates diluted out.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB02(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-4H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 11:45

Date Received: 04/16/2004

Matrix: Soil

%Solids: 90.5

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	0.698	0.337	1	04/22/2004
Acenaphthylene	BQL	0.337	1	04/22/2004
Anthracene	BQL	0.337	1	04/22/2004
Benzo[a]anthracene	BQL	0.337	1	04/22/2004
Benzo[a]pyrene	BQL	0.337	1	04/22/2004
Benzo[b]fluoranthene	BQL	0.337	1	04/22/2004
Benzo[g,h,i]perylene	BQL	0.337	1	04/22/2004
Benzo[k]fluoranthene	BQL	0.337	1	04/22/2004
Benzoic Acid	BQL	0.675	1	04/22/2004
Bis(2-chloroethoxy)methane	BQL	0.337	1	04/22/2004
Bis(2-chloroethyl)ether	BQL	0.337	1	04/22/2004
Bis(2-chloroisopropyl)ether	BQL	0.337	1	04/22/2004
Bis(2-ethylhexyl)phthalate	BQL	0.337	1	04/22/2004
4-bromophenyl phenyl ether	BQL	0.337	1	04/22/2004
Butylbenzylphthalate	BQL	0.337	1	04/22/2004
2-Chloronaphthalene	BQL	0.337	1	04/22/2004
2-Chlorophenol	BQL	0.337	1	04/22/2004
4-Chloro-3-methylphenol	BQL	0.337	1	04/22/2004
4-Chloroaniline	BQL	1.69	1	04/22/2004
4-Chlorophenyl phenyl ether	BQL	0.337	1	04/22/2004
Chrysene	BQL	0.337	1	04/22/2004
Dibenzo[a,h]anthracene	BQL	0.337	1	04/22/2004
Dibenzofuran	BQL	0.337	1	04/22/2004
Di-n-Butylphthalate	BQL	0.337	1	04/22/2004
1,2-Dichlorobenzene	BQL	0.337	1	04/22/2004
1,3-Dichlorobenzene	BQL	0.337	1	04/22/2004
1,4-Dichlorobenzene	BQL	0.337	1	04/22/2004
3,3'-Dichlorobenzidine	BQL	0.675	1	04/22/2004
2,4-Dichlorophenol	BQL	0.337	1	04/22/2004
Diethylphthalate	BQL	0.337	1	04/22/2004
Dimethylphthalate	BQL	0.337	1	04/22/2004
2,4-Dimethylphenol	BQL	0.337	1	04/22/2004
Di-n-octylphthalate	BQL	0.337	1	04/22/2004
4,6-Dinitro-2-methylphenol	BQL	1.69	1	04/22/2004
2,4-Dinitrophenol	BQL	1.69	1	04/22/2004
2,4-Dinitrotoluene	BQL	0.337	1	04/22/2004
2,6-Dinitrotoluene	BQL	0.337	1	04/22/2004
Fluoranthene	BQL	0.337	1	04/22/2004
Fluorene	0.584	0.337	1	04/22/2004
Hexachlorobenzene	BQL	0.337	1	04/22/2004
Hexachlorobutadiene	BQL	0.337	1	04/22/2004
Hexachlorocyclopentadiene	BQL	0.675	1	04/22/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB02(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-4H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 11:45

Date Received: 04/16/2004

Matrix: Soil

%Solids: 90.5

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.337	1	04/22/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.337	1	04/22/2004
Isophorone	BQL	0.337	1	04/22/2004
2-Methylnaphthalene	BQL	0.337	1	04/22/2004
2-Methylphenol	BQL	0.337	1	04/22/2004
3- & 4-Methylphenol	BQL	0.337	1	04/22/2004
Naphthalene	BQL	0.337	1	04/22/2004
2-Nitroaniline	BQL	0.337	1	04/22/2004
3-Nitroaniline	BQL	1.69	1	04/22/2004
4-Nitroaniline	BQL	1.69	1	04/22/2004
Nitrobenzene	BQL	0.337	1	04/22/2004
2-Nitrophenol	BQL	0.337	1	04/22/2004
4-Nitrophenol	BQL	1.69	1	04/22/2004
N-Nitrosodi-n-propylamine	BQL	0.337	1	04/22/2004
N-Nitrosodiphenylamine	BQL	0.337	1	04/22/2004
Pentachlorophenol	BQL	1.69	1	04/22/2004
Phenanthrene	1.02	0.337	1	04/22/2004
Phenol	BQL	0.337	1	04/22/2004
Pyrene	BQL	0.337	1	04/22/2004
1,2,4-Trichlorobenzene	BQL	0.337	1	04/22/2004
2,4,5-Trichlorophenol	BQL	0.337	1	04/22/2004
2,4,6-Trichlorophenol	BQL	0.337	1	04/22/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.1	101
2-Fluorophenol	10	6.6	66
Nitrobenzene-d5	10	8	80
Phenol-d6	10	6	60
2,4,6-Tribromophenol	10	8.2	82
4-Terphenyl-d14	10	7.7	77

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB03(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-5H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 12:00

Date Received: 04/16/2004

Matrix: Soil

%Solids: 89.5

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	3.41	10	04/26/2004
Acenaphthylene	BQL	3.41	10	04/26/2004
Anthracene	BQL	3.41	10	04/26/2004
Benzo[a]anthracene	BQL	3.41	10	04/26/2004
Benzo[a]pyrene	BQL	3.41	10	04/26/2004
Benzo[b]fluoranthene	BQL	3.41	10	04/26/2004
Benzo[g,h,i]perylene	BQL	3.41	10	04/26/2004
Benzo[k]fluoranthene	BQL	3.41	10	04/26/2004
Benzoic Acid	BQL	6.81	10	04/26/2004
Bis(2-chloroethoxy)methane	BQL	3.41	10	04/26/2004
Bis(2-chloroethyl)ether	BQL	3.41	10	04/26/2004
Bis(2-chloroisopropyl)ether	BQL	3.41	10	04/26/2004
Bis(2-ethylhexyl)phthalate	BQL	3.41	10	04/26/2004
4-bromophenyl phenyl ether	BQL	3.41	10	04/26/2004
Butylbenzylphthalate	BQL	3.41	10	04/26/2004
2-Chloronaphthalene	BQL	3.41	10	04/26/2004
2-Chlorophenol	BQL	3.41	10	04/26/2004
4-Chloro-3-methylphenol	BQL	3.41	10	04/26/2004
4-Chloroaniline	BQL	17.0	10	04/26/2004
4-Chlorophenyl phenyl ether	BQL	3.41	10	04/26/2004
Chrysene	BQL	3.41	10	04/26/2004
Dibenzo[a,h]anthracene	BQL	3.41	10	04/26/2004
Dibenzofuran	BQL	3.41	10	04/26/2004
Di-n-Butylphthalate	BQL	3.41	10	04/26/2004
1,2-Dichlorobenzene	BQL	3.41	10	04/26/2004
1,3-Dichlorobenzene	BQL	3.41	10	04/26/2004
1,4-Dichlorobenzene	BQL	3.41	10	04/26/2004
3,3'-Dichlorobenzidine	BQL	6.81	10	04/26/2004
2,4-Dichlorophenol	BQL	3.41	10	04/26/2004
Diethylphthalate	BQL	3.41	10	04/26/2004
Dimethylphthalate	BQL	3.41	10	04/26/2004
2,4-Dimethylphenol	BQL	3.41	10	04/26/2004
Di-n-octylphthalate	BQL	3.41	10	04/26/2004
4,6-Dinitro-2-methylphenol	BQL	17.0	10	04/26/2004
2,4-Dinitrophenol	BQL	17.0	10	04/26/2004
2,4-Dinitrotoluene	BQL	3.41	10	04/26/2004
2,6-Dinitrotoluene	BQL	3.41	10	04/26/2004
Fluoranthene	BQL	3.41	10	04/26/2004
Fluorene	BQL	3.41	10	04/26/2004
Hexachlorobenzene	BQL	3.41	10	04/26/2004
Hexachlorobutadiene	BQL	3.41	10	04/26/2004
Hexachlorocyclopentadiene	BQL	6.81	10	04/26/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB03(9-11)
Client Project ID: TT-3548
Lab Sample ID: G128-1295-5H
Lab Project ID: G128-1295
Report Basis: Dry Weight

Analyzed By: MRC
Date Collected: 04/14/2004 12:00
Date Received: 04/16/2004
Matrix: Soil
%Solids: 89.5

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	3.41	10	04/26/2004
Indeno(1,2,3-c,d)pyrene	BQL	3.41	10	04/26/2004
Isophorone	BQL	3.41	10	04/26/2004
2-Methylnaphthalene	14.3	3.41	10	04/26/2004
2-Methylphenol	BQL	3.41	10	04/26/2004
3- & 4-Methylphenol	BQL	3.41	10	04/26/2004
Naphthalene	BQL	3.41	10	04/26/2004
2-Nitroaniline	BQL	3.41	10	04/26/2004
3-Nitroaniline	BQL	17.0	10	04/26/2004
4-Nitroaniline	BQL	17.0	10	04/26/2004
Nitrobenzene	BQL	3.41	10	04/26/2004
2-Nitrophenol	BQL	3.41	10	04/26/2004
4-Nitrophenol	BQL	17.0	10	04/26/2004
N-Nitrosodi-n-propylamine	BQL	3.41	10	04/26/2004
N-Nitrosodiphenylamine	BQL	3.41	10	04/26/2004
Pentachlorophenol	BQL	17.0	10	04/26/2004
Phenanthrene	7.16	3.41	10	04/26/2004
Phenol	BQL	3.41	10	04/26/2004
Pyrene	BQL	3.41	10	04/26/2004
1,2,4-Trichlorobenzene	BQL	3.41	10	04/26/2004
2,4,5-Trichlorophenol	BQL	3.41	10	04/26/2004
2,4,6-Trichlorophenol	BQL	3.41	10	04/26/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	NA	NA
2-Fluorophenol	10	NA	NA
Nitrobenzene-d5	10	NA	NA
Phenol-d6	10	NA	NA
2,4,6-Tribromophenol	10	NA	NA
4-Terphenyl-d14	10	NA	NA

Comments:

Flags:

BQL = Below Quantitation Limits.
NA = Not applicable, surrogates diluted out.

Reviewed By: mw

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB03(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-6H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 12:15

Date Received: 04/16/2004

Matrix: Soil

%Solids: 93.5

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	3.31	10	04/26/2004
Acenaphthylene	BQL	3.31	10	04/26/2004
Anthracene	BQL	3.31	10	04/26/2004
Benzo[a]anthracene	BQL	3.31	10	04/26/2004
Benzo[a]pyrene	BQL	3.31	10	04/26/2004
Benzo[b]fluoranthene	BQL	3.31	10	04/26/2004
Benzo[g,h,i]perylene	BQL	3.31	10	04/26/2004
Benzo[k]fluoranthene	BQL	3.31	10	04/26/2004
Benzoic Acid	BQL	6.62	10	04/26/2004
Bis(2-chloroethoxy)methane	BQL	3.31	10	04/26/2004
Bis(2-chloroethyl)ether	BQL	3.31	10	04/26/2004
Bis(2-chloroisopropyl)ether	BQL	3.31	10	04/26/2004
Bis(2-ethylhexyl)phthalate	BQL	3.31	10	04/26/2004
4-bromophenyl phenyl ether	BQL	3.31	10	04/26/2004
Butylbenzylphthalate	BQL	3.31	10	04/26/2004
2-Chloronaphthalene	BQL	3.31	10	04/26/2004
2-Chlorophenol	BQL	3.31	10	04/26/2004
4-Chloro-3-methylphenol	BQL	3.31	10	04/26/2004
4-Chloroaniline	BQL	16.5	10	04/26/2004
4-Chlorophenyl phenyl ether	BQL	3.31	10	04/26/2004
Chrysene	BQL	3.31	10	04/26/2004
Dibenzo[a,h]anthracene	BQL	3.31	10	04/26/2004
Dibenzofuran	BQL	3.31	10	04/26/2004
Di-n-Butylphthalate	BQL	3.31	10	04/26/2004
1,2-Dichlorobenzene	BQL	3.31	10	04/26/2004
1,3-Dichlorobenzene	BQL	3.31	10	04/26/2004
1,4-Dichlorobenzene	BQL	3.31	10	04/26/2004
3,3'-Dichlorobenzidine	BQL	6.62	10	04/26/2004
2,4-Dichlorophenol	BQL	3.31	10	04/26/2004
Diethylphthalate	BQL	3.31	10	04/26/2004
Dimethylphthalate	BQL	3.31	10	04/26/2004
2,4-Dimethylphenol	BQL	3.31	10	04/26/2004
Di-n-octylphthalate	BQL	3.31	10	04/26/2004
4,6-Dinitro-2-methylphenol	BQL	16.5	10	04/26/2004
2,4-Dinitrophenol	BQL	16.5	10	04/26/2004
2,4-Dinitrotoluene	BQL	3.31	10	04/26/2004
2,6-Dinitrotoluene	BQL	3.31	10	04/26/2004
Fluoranthene	BQL	3.31	10	04/26/2004
Fluorene	BQL	3.31	10	04/26/2004
Hexachlorobenzene	BQL	3.31	10	04/26/2004
Hexachlorobutadiene	BQL	3.31	10	04/26/2004
Hexachlorocyclopentadiene	BQL	6.62	10	04/26/2004

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB03(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-6H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 12:15

Date Received: 04/16/2004

Matrix: Soil

%Solids: 93.5

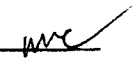
Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	3.31	10	04/26/2004
Indeno(1,2,3-c,d)pyrene	BQL	3.31	10	04/26/2004
Isophorone	BQL	3.31	10	04/26/2004
2-Methylnaphthalene	6.38	3.31	10	04/26/2004
2-Methylphenol	BQL	3.31	10	04/26/2004
3- & 4-Methylphenol	BQL	3.31	10	04/26/2004
Naphthalene	BQL	3.31	10	04/26/2004
2-Nitroaniline	BQL	3.31	10	04/26/2004
3-Nitroaniline	BQL	16.5	10	04/26/2004
4-Nitroaniline	BQL	16.5	10	04/26/2004
Nitrobenzene	BQL	3.31	10	04/26/2004
2-Nitrophenol	BQL	3.31	10	04/26/2004
4-Nitrophenol	BQL	16.5	10	04/26/2004
N-Nitrosodi-n-propylamine	BQL	3.31	10	04/26/2004
N-Nitrosodiphenylamine	BQL	3.31	10	04/26/2004
Pentachlorophenol	BQL	16.5	10	04/26/2004
Phenanthrene	6.55	3.31	10	04/26/2004
Phenol	BQL	3.31	10	04/26/2004
Pyrene	BQL	3.31	10	04/26/2004
1,2,4-Trichlorobenzene	BQL	3.31	10	04/26/2004
2,4,5-Trichlorophenol	BQL	3.31	10	04/26/2004
2,4,6-Trichlorophenol	BQL	3.31	10	04/26/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	NA	NA
2-Fluorophenol	10	NA	NA
Nitrobenzene-d5	10	NA	NA
Phenol-d6	10	NA	NA
2,4,6-Tribromophenol	10	NA	NA
4-Terphenyl-d14	10	NA	NA

Comments:**Flags:**

BQL = Below Quantitation Limits.

NA = Not applicable, surrogates diluted out.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB04(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-7H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 12:30

Date Received: 04/16/2004

Matrix: Soil

%Solids: 93.8

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.322	1	04/22/2004
Acenaphthylene	BQL	0.322	1	04/22/2004
Anthracene	BQL	0.322	1	04/22/2004
Benzo[a]anthracene	BQL	0.322	1	04/22/2004
Benzo[a]pyrene	BQL	0.322	1	04/22/2004
Benzo[b]fluoranthene	BQL	0.322	1	04/22/2004
Benzo[g,h,i]perylene	BQL	0.322	1	04/22/2004
Benzo[k]fluoranthene	BQL	0.322	1	04/22/2004
Benzoic Acid	BQL	0.644	1	04/22/2004
Bis(2-chloroethoxy)methane	BQL	0.322	1	04/22/2004
Bis(2-chloroethyl)ether	BQL	0.322	1	04/22/2004
Bis(2-chloroisopropyl)ether	BQL	0.322	1	04/22/2004
Bis(2-ethylhexyl)phthalate	BQL	0.322	1	04/22/2004
4-bromophenyl phenyl ether	BQL	0.322	1	04/22/2004
Butylbenzylphthalate	BQL	0.322	1	04/22/2004
2-Chloronaphthalene	BQL	0.322	1	04/22/2004
2-Chlorophenol	BQL	0.322	1	04/22/2004
4-Chloro-3-methylphenol	BQL	0.322	1	04/22/2004
4-Chloroaniline	BQL	1.61	1	04/22/2004
4-Chlorophenyl phenyl ether	BQL	0.322	1	04/22/2004
Chrysene	BQL	0.322	1	04/22/2004
Dibenzo[a,h]anthracene	BQL	0.322	1	04/22/2004
Dibenzofuran	BQL	0.322	1	04/22/2004
Di-n-Butylphthalate	BQL	0.322	1	04/22/2004
1,2-Dichlorobenzene	BQL	0.322	1	04/22/2004
1,3-Dichlorobenzene	BQL	0.322	1	04/22/2004
1,4-Dichlorobenzene	BQL	0.322	1	04/22/2004
3,3'-Dichlorobenzidine	BQL	0.644	1	04/22/2004
2,4-Dichlorophenol	BQL	0.322	1	04/22/2004
Diethylphthalate	BQL	0.322	1	04/22/2004
Dimethylphthalate	BQL	0.322	1	04/22/2004
2,4-Dimethylphenol	BQL	0.322	1	04/22/2004
Di-n-octylphthalate	BQL	0.322	1	04/22/2004
4,6-Dinitro-2-methylphenol	BQL	1.61	1	04/22/2004
2,4-Dinitrophenol	BQL	1.61	1	04/22/2004
2,4-Dinitrotoluene	BQL	0.322	1	04/22/2004
2,6-Dinitrotoluene	BQL	0.322	1	04/22/2004
Fluoranthene	BQL	0.322	1	04/22/2004
Fluorene	BQL	0.322	1	04/22/2004
Hexachlorobenzene	BQL	0.322	1	04/22/2004
Hexachlorobutadiene	BQL	0.322	1	04/22/2004
Hexachlorocyclopentadiene	BQL	0.644	1	04/22/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: USTTT3548-SB04(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-7H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 12:30

Date Received: 04/16/2004

Matrix: Soil

%Solids: 93.8

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.322	1	04/22/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.322	1	04/22/2004
Isophorone	BQL	0.322	1	04/22/2004
2-Methylnaphthalene	BQL	0.322	1	04/22/2004
2-Methylphenol	BQL	0.322	1	04/22/2004
3- & 4-Methylphenol	BQL	0.322	1	04/22/2004
Naphthalene	BQL	0.322	1	04/22/2004
2-Nitroaniline	BQL	0.322	1	04/22/2004
3-Nitroaniline	BQL	1.61	1	04/22/2004
4-Nitroaniline	BQL	1.61	1	04/22/2004
Nitrobenzene	BQL	0.322	1	04/22/2004
2-Nitrophenol	BQL	0.322	1	04/22/2004
4-Nitrophenol	BQL	1.61	1	04/22/2004
N-Nitrosodi-n-propylamine	BQL	0.322	1	04/22/2004
N-Nitrosodiphenylamine	BQL	0.322	1	04/22/2004
Pentachlorophenol	BQL	1.61	1	04/22/2004
Phenanthrene	BQL	0.322	1	04/22/2004
Phenol	BQL	0.322	1	04/22/2004
Pyrene	BQL	0.322	1	04/22/2004
1,2,4-Trichlorobenzene	BQL	0.322	1	04/22/2004
2,4,5-Trichlorophenol	BQL	0.322	1	04/22/2004
2,4,6-Trichlorophenol	BQL	0.322	1	04/22/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.7	67
2-Fluorophenol	10	6.9	69
Nitrobenzene-d5	10	6	60
Phenol-d6	10	6.4	64
2,4,6-Tribromophenol	10	7.4	74
4-Terphenyl-d14	10	9.5	95

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: mrc

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB04(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-8H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 12:45

Date Received: 04/16/2004

Matrix: Soil

%Solids: 92.2

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	3.35	10	04/26/2004
Acenaphthylene	BQL	3.35	10	04/26/2004
Anthracene	BQL	3.35	10	04/26/2004
Benzo[a]anthracene	BQL	3.35	10	04/26/2004
Benzo[a]pyrene	BQL	3.35	10	04/26/2004
Benzo[b]fluoranthene	BQL	3.35	10	04/26/2004
Benzo[g,h,i]perylene	BQL	3.35	10	04/26/2004
Benzo[k]fluoranthene	BQL	3.35	10	04/26/2004
Benzoic Acid	BQL	6.69	10	04/26/2004
Bis(2-chloroethoxy)methane	BQL	3.35	10	04/26/2004
Bis(2-chloroethyl)ether	BQL	3.35	10	04/26/2004
Bis(2-chloroisopropyl)ether	BQL	3.35	10	04/26/2004
Bis(2-ethylhexyl)phthalate	BQL	3.35	10	04/26/2004
4-bromophenyl phenyl ether	BQL	3.35	10	04/26/2004
Butylbenzylphthalate	BQL	3.35	10	04/26/2004
2-Chloronaphthalene	BQL	3.35	10	04/26/2004
2-Chlorophenol	BQL	3.35	10	04/26/2004
4-Chloro-3-methylphenol	BQL	3.35	10	04/26/2004
4-Chloroaniline	BQL	16.7	10	04/26/2004
4-Chlorophenyl phenyl ether	BQL	3.35	10	04/26/2004
Chrysene	BQL	3.35	10	04/26/2004
Dibenzo[a,h]anthracene	BQL	3.35	10	04/26/2004
Dibenzofuran	BQL	3.35	10	04/26/2004
Di-n-Butylphthalate	BQL	3.35	10	04/26/2004
1,2-Dichlorobenzene	BQL	3.35	10	04/26/2004
1,3-Dichlorobenzene	BQL	3.35	10	04/26/2004
1,4-Dichlorobenzene	BQL	3.35	10	04/26/2004
3,3'-Dichlorobenzidine	BQL	6.69	10	04/26/2004
2,4-Dichlorophenol	BQL	3.35	10	04/26/2004
Diethylphthalate	BQL	3.35	10	04/26/2004
Dimethylphthalate	BQL	3.35	10	04/26/2004
2,4-Dimethylphenol	BQL	3.35	10	04/26/2004
Di-n-octylphthalate	BQL	3.35	10	04/26/2004
4,6-Dinitro-2-methylphenol	BQL	16.7	10	04/26/2004
2,4-Dinitrophenol	BQL	16.7	10	04/26/2004
2,4-Dinitrotoluene	BQL	3.35	10	04/26/2004
2,6-Dinitrotoluene	BQL	3.35	10	04/26/2004
Fluoranthene	BQL	3.35	10	04/26/2004
Fluorene	BQL	3.35	10	04/26/2004
Hexachlorobenzene	BQL	3.35	10	04/26/2004
Hexachlorobutadiene	BQL	3.35	10	04/26/2004
Hexachlorocyclopentadiene	BQL	6.69	10	04/26/2004

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB04(11-13)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-8H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 12:45

Date Received: 04/16/2004

Matrix: Soil

%Solids: 92.2

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	3.35	10	04/26/2004
Indeno(1,2,3-c,d)pyrene	BQL	3.35	10	04/26/2004
Isophorone	BQL	3.35	10	04/26/2004
2-Methylnaphthalene	BQL	3.35	10	04/26/2004
2-Methylphenol	BQL	3.35	10	04/26/2004
3- & 4-Methylphenol	BQL	3.35	10	04/26/2004
Naphthalene	BQL	3.35	10	04/26/2004
2-Nitroaniline	BQL	3.35	10	04/26/2004
3-Nitroaniline	BQL	16.7	10	04/26/2004
4-Nitroaniline	BQL	16.7	10	04/26/2004
Nitrobenzene	BQL	3.35	10	04/26/2004
2-Nitrophenol	BQL	3.35	10	04/26/2004
4-Nitrophenol	BQL	16.7	10	04/26/2004
N-Nitrosodi-n-propylamine	BQL	3.35	10	04/26/2004
N-Nitrosodiphenylamine	BQL	3.35	10	04/26/2004
Pentachlorophenol	BQL	16.7	10	04/26/2004
Phenanthrene	4.45	3.35	10	04/26/2004
Phenol	BQL	3.35	10	04/26/2004
Pyrene	BQL	3.35	10	04/26/2004
1,2,4-Trichlorobenzene	BQL	3.35	10	04/26/2004
2,4,5-Trichlorophenol	BQL	3.35	10	04/26/2004
2,4,6-Trichlorophenol	BQL	3.35	10	04/26/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	NA	NA
2-Fluorophenol	10	NA	NA
Nitrobenzene-d5	10	NA	NA
Phenol-d6	10	NA	NA
2,4,6-Tribromophenol	10	NA	NA
4-Terphenyl-d14	10	NA	NA

Comments:

Flags:

BQL = Below Quantitation Limits.

NA = Not applicable, surrogates diluted out.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB05(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-9H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 13:00

Date Received: 04/16/2004

Matrix: Soil

%Solids: 89.3

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	1.30	0.352	1	04/22/2004
Acenaphthylene	BQL	0.352	1	04/22/2004
Anthracene	BQL	0.352	1	04/22/2004
Benzo[a]anthracene	BQL	0.352	1	04/22/2004
Benzo[a]pyrene	BQL	0.352	1	04/22/2004
Benzo[b]fluoranthene	BQL	0.352	1	04/22/2004
Benzo[g,h,i]perylene	BQL	0.352	1	04/22/2004
Benzo[k]fluoranthene	BQL	0.352	1	04/22/2004
Benzoic Acid	BQL	0.705	1	04/22/2004
Bis(2-chloroethoxy)methane	BQL	0.352	1	04/22/2004
Bis(2-chloroethyl)ether	BQL	0.352	1	04/22/2004
Bis(2-chloroisopropyl)ether	BQL	0.352	1	04/22/2004
Bis(2-ethylhexyl)phthalate	BQL	0.352	1	04/22/2004
4-bromophenyl phenyl ether	BQL	0.352	1	04/22/2004
Butylbenzylphthalate	BQL	0.352	1	04/22/2004
2-Chloronaphthalene	BQL	0.352	1	04/22/2004
2-Chlorophenol	BQL	0.352	1	04/22/2004
4-Chloro-3-methylphenol	BQL	0.352	1	04/22/2004
4-Chloroaniline	BQL	1.76	1	04/22/2004
4-Chlorophenyl phenyl ether	BQL	0.352	1	04/22/2004
Chrysene	BQL	0.352	1	04/22/2004
Dibenzo[a,h]anthracene	BQL	0.352	1	04/22/2004
Dibenzofuran	BQL	0.352	1	04/22/2004
Di-n-Butylphthalate	BQL	0.352	1	04/22/2004
1,2-Dichlorobenzene	BQL	0.352	1	04/22/2004
1,3-Dichlorobenzene	BQL	0.352	1	04/22/2004
1,4-Dichlorobenzene	BQL	0.352	1	04/22/2004
3,3'-Dichlorobenzidine	BQL	0.705	1	04/22/2004
2,4-Dichlorophenol	BQL	0.352	1	04/22/2004
Diethylphthalate	BQL	0.352	1	04/22/2004
Dimethylphthalate	BQL	0.352	1	04/22/2004
2,4-Dimethylphenol	BQL	0.352	1	04/22/2004
Di-n-octylphthalate	BQL	0.352	1	04/22/2004
4,6-Dinitro-2-methylphenol	BQL	1.76	1	04/22/2004
2,4-Dinitrophenol	BQL	1.76	1	04/22/2004
2,4-Dinitrotoluene	BQL	0.352	1	04/22/2004
2,6-Dinitrotoluene	BQL	0.352	1	04/22/2004
Fluoranthene	BQL	0.352	1	04/22/2004
Fluorene	2.25	0.352	1	04/22/2004
Hexachlorobenzene	BQL	0.352	1	04/22/2004
Hexachlorobutadiene	BQL	0.352	1	04/22/2004
Hexachlorocyclopentadiene	BQL	0.705	1	04/22/2004

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTTT3548-SB05(9-11)

Client Project ID: TT-3548

Lab Sample ID: G128-1295-9H

Lab Project ID: G128-1295

Report Basis: Dry Weight

Analyzed By: MRC

Date Collected: 04/14/2004 13:00

Date Received: 04/16/2004

Matrix: Soil

%Solids: 89.3

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.352	1	04/22/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.352	1	04/22/2004
Isophorone	BQL	0.352	1	04/22/2004
2-Methylnaphthalene	4.43	0.352	1	04/22/2004
2-Methylphenol	BQL	0.352	1	04/22/2004
3- & 4-Methylphenol	BQL	0.352	1	04/22/2004
Naphthalene	BQL	0.352	1	04/22/2004
2-Nitroaniline	BQL	0.352	1	04/22/2004
3-Nitroaniline	BQL	1.76	1	04/22/2004
4-Nitroaniline	BQL	1.76	1	04/22/2004
Nitrobenzene	BQL	0.352	1	04/22/2004
2-Nitrophenol	BQL	0.352	1	04/22/2004
4-Nitrophenol	BQL	1.76	1	04/22/2004
N-Nitrosodi-n-propylamine	BQL	0.352	1	04/22/2004
N-Nitrosodiphenylamine	BQL	0.352	1	04/22/2004
Pentachlorophenol	BQL	1.76	1	04/22/2004
Phenanthrene	3.56	0.352	1	04/22/2004
Phenol	BQL	0.352	1	04/22/2004
Pyrene	0.451	0.352	1	04/22/2004
1,2,4-Trichlorobenzene	BQL	0.352	1	04/22/2004
2,4,5-Trichlorophenol	BQL	0.352	1	04/22/2004
2,4,6-Trichlorophenol	BQL	0.352	1	04/22/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	13	130
2-Fluorophenol	10	8	80
Nitrobenzene-d5	10	11.5	115
Phenol-d6	10	7.2	72
2,4,6-Tribromophenol	10	10	100
4-Terphenyl-d14	10	7.8	78

Comments:**Flags:**

BQL = Below Quantitation Limits.

Reviewed By: mrc

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB01(9-11)
Sample Matrix	Soil
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/19/04
Date Analyzed	04/26/04
Dry Weight	90.5
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	130
Aromatic Surrogate % Recovery	93

Comments:

* = Excludes any surrogates or internal standards.

Sample did not require fractionation.

Lab info: G128-1295-1G

Reviewed By: 

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB01(12-14)
Sample Matrix	Soil
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/19/04
Date Analyzed	04/26/04
Dry Weight	89.1
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	3700 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	690 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	2700 (mg/Kg)
Aliphatic Surrogate % Recovery	150
Aromatic Surrogate % Recovery	90
Fractionation Surrogate 1 % Recovery	130

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1295-2G

Reviewed By: mc

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB02(9-11)
Sample Matrix	Soil
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/19/04
Date Analyzed	04/26/04
Dry Weight	89.1
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	3700 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	720 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	2900 (mg/Kg)
Aliphatic Surrogate % Recovery	140
Aromatic Surrogate % Recovery	84
Fractionation Surrogate 1 % Recovery	120

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1295-3F

Reviewed By: me

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB02(11-13)
Sample Matrix	Soil
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/19/04
Date Analyzed	04/26/04
Dry Weight	90.5
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	200 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	44 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	160 (mg/Kg)
Aliphatic Surrogate % Recovery	160
Aromatic Surrogate % Recovery	130
Fractionation Surrogate 1 % Recovery	68

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1295-4F

Reviewed By: me

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB03(9-11)
Sample Matrix	Soil
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/19/04
Date Analyzed	04/26/04
Dry Weight	89.5
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	5300 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	1100 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	3200 (mg/Kg)
Aliphatic Surrogate % Recovery	150
Aromatic Surrogate % Recovery	64
Fractionation Surrogate 1 % Recovery	87

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1295-5G

Reviewed By: hw

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB03(11-13)
Sample Matrix	Soil
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/19/04
Date Analyzed	04/26/04
Dry Weight	93.5
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	4400 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	780 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	2600 (mg/Kg)
Aliphatic Surrogate % Recovery	160
Aromatic Surrogate % Recovery	79
Fractionation Surrogate 1 % Recovery	120

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1295-6G

Reviewed By: me

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB04(9-11)
Sample Matrix	Soil
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/19/04
Date Analyzed	04/26/04
Dry Weight	93.7
Dilution Factor	1
C ₈ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	110
Aromatic Surrogate % Recovery	89
Fractionation Surrogate 1 % Recovery	68

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1295-7F

Reviewed By: 

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB04(11-13)
Sample Matrix	Soil
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/19/04
Date Analyzed	04/26/04
Dry Weight	92.2
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	3900 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	730 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	2500 (mg/Kg)
Aliphatic Surrogate % Recovery	160
Aromatic Surrogate % Recovery	89
Fractionation Surrogate 1 % Recovery	130

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1295-8H

Reviewed By: mc

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & AssociatesProject Name: TT-3548

Sample Information and Analytical Results	
Sample Identification	USTTT3548-SB05(9-11)
Sample Matrix	Soil
Date Collected	04/14/04
Date Received	04/16/04
Date Extracted	04/19/04
Date Analyzed	04/26/04
Dry Weight	89.3
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	3500 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	640 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	2200 (mg/Kg)
Aliphatic Surrogate % Recovery	130
Aromatic Surrogate % Recovery	87
Fractionation Surrogate 1 % Recovery	120

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1295-9F

Reviewed By: *pmc*

PARADIGM ANALYTICAL LABORATORIES, INC.

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 04/22/04

Calibration Ranges and Limits

Range	MDL (mg/Kg)	(µg/L)	ML (mg/Kg)	(µg/L)	RL (mg/Kg)	(µg/L)
C ₉ -C ₁₈ Aliphatics	0.1	0.8	0.3	2.6	100	10
C ₁₉ -C ₃₆ Aliphatics	0.1	1.6	0.3	5	100	10
C ₁₁ -C ₂₂ Aromatics	0.2	2.1	0.6	6.7	100	10

Calibration Concentration Levels

Range	Levels (µg/L) (mg/Kg)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	0.06 1	4.80	Calibration Factor
	0.15 2.5		
	0.3 5		
	0.6 10		
	3 50		
C ₁₉ -C ₃₆ Aliphatics	0.08 1.33	11.0	Calibration Factor
	0.2 3.33		
	0.4 6.67		
	0.8 13.3		
	4 66.7		
C ₁₁ -C ₂₂ Aromatics	0.17 2.83	16	Calibration Factor
	0.425 7.08		
	0.85 14.2		
	1.7 28.3		
	8.5 142		

Calibration Check Date: 04/26/04

Calibration Check

Range	Levels (µg/mL) (mg/Kg)	RPD
C ₉ -C ₁₈ Aliphatics	0.6 10	-4.2
C ₁₉ -C ₃₆ Aliphatics	0.8 13.3	3.8
C ₁₁ -C ₂₂ Aromatics	1.7 28.3	2.4

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

**List of Reporting Abbreviations
and Data Qualifiers**

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

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.

COC# 40235

Chain-of Custody Record & Analytical Request

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Report To: Mike & Marc

Turnaround: 57d.

Job Number: 203-081

Fax:

Product values		Analysis		Comments	
Product	Value	Product	Value	Product	Value
1000	1100	1000	1100	1000	1100
1115	1115	1115	1115	1115	1115
1130	1130	1130	1130	1130	1130
1145	1145	1145	1145	1145	1145
1200	1200	1200	1200	1200	1200
1215	1215	1215	1215	1215	1215
1230	1230	1230	1230	1230	1230
1245	1245	1245	1245	1245	1245
1300	1300	1300	1300	1300	1300
1300	1300	1300	1300	1300	1300

NC _____ SC _____ Other _____

SEE REVERSE FOR
TERMS AND CONDITIONS