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MCAS EL TORO
SSIC #5090.3

Tank Removal and Site Closure Report

Underground Storage Tanks 672 and 672B
Marine Corps Air Station
El Toro, California

SWDIV Contract No. N68711-93-D-1459, Delivery Order No. 0070
OHM Project No. 18609
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OHM Remediation Services Corp.

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OHM Remediation Services Corp.
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FROM: Stewart Bornhoft, Program Manager

Edwin G. Bond, Contracts Manager

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Acronyms and Abbreviations

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CA LUFT	California Leaking Underground Fuel Tank
CDM	Camp, Dresser, & McKee, Inc.
CTF	Central Treatment Facility
DCN	Document Control Number
DO	Delivery Order
EPA	United States Environmental Protection Agency
ft/ft	feet per foot
JEG	Jacobs Engineering Group Inc.
JP-5	jet fuel
MCAS	Marine Corps Air Station
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
OCHCA	Orange County Health Care Agency
OHM	OHM Remediation Services Corp.
ppm	parts per million
RFA	Resource Conservation and Recovery Act Facility Agreement
RWQCB	Regional Water Quality Control Board
SPLP	Synthetic Precipitation Leaching Procedure
Station	Marine Corps Air Station, El Toro
SWDIV	Southwest Division Naval Facilities Engineering Command
SWMU	Solid Waste Management Unit
TCE	trichloroethene
TPH	total petroleum hydrocarbons
UST	underground storage tank
yd^3	cubic yards

Section 1
Introduction

This Tank Removal and Site Closure Report summarizes the field activities conducted and associated with the removal of two underground storage tanks (USTs), designated as USTs 672 and 672B, at Marine Corps Air Station (MCAS), El Toro, California (hereinafter referred to as the "Station"). The report also summarizes the subsequent sampling activities and analytical results of samples collected at the UST site. This report is prepared by OHM Remediation Services Corp. (OHM) for Southwest Division Naval Facilities Engineering Command (SWDIV) under Contract No. N68711-93-D-1459, Delivery Order (DO) No. 0070.

The Station is located approximately 45 miles southeast of Los Angeles in Orange County, California, 1 mile north of the intersection of Interstates 5 (Santa Ana Freeway) and 405 (San Diego Freeway). The Station covers approximately 4,700 acres. The location of the Station is shown on Figure 1-1, Facility Location Map.

1.1 Site Background and Scope of Work

Building 672, the Refueling Vehicle Maintenance Shop, is located northwest of Agua Chinon Wash. USTs 672 and 672B were identified as 100 and 1,000 gallon USTs, respectively, and located approximately 300 feet north of South Marine Way. USTs 672 and 672B were located adjacent to the northwest side of Building 672, and were used for the storage of diesel and jet fuel (JP-5), according to the Base Realignment and Closure Cleanup Plan (MCAS El Toro, 1997). The UST locations are shown on Figure 1-2, Location Map.

USTs 672 and 672B are identified as Solid Waste Management Unit (SWMU) 174 and SWMU 176, respectively, in the Resource Conservation and Recovery Act Facility Assessment (RFA) report (Jacobs Engineering Group Inc.[JEG], 1993.)

Soil sampling was performed for UST 672B (SWMU 176) by JEG. One soil boring was drilled in the close vicinity of UST 672B, to a total depth of 25 feet below ground surface (bgs). The maximum concentration of total petroleum hydrocarbons (TPH) detected in subsurface was 12,309 milligrams per kilogram (mg/kg) at 15 feet bgs. JEG recommended additional soil borings for UST 672B (SWMU 176). UST 672 (SWMU 174) was not recommended for sampling. Copies of the RFA report analytical data and sample location map are included in Appendix A, RFA Background Information.

The scope of work for this project included the following:

- removal of two USTs and contents
- collection of soil samples from the UST excavations

- analysis of collected samples for site-specific potential contaminants based on reported past and current contents of the USTs, using an off-site State of California Department of Health Services-certified and Naval Facilities Engineering Service Center-approved laboratory
- verification drilling and sampling
- backfilling and restoration of the UST areas

1.2 Leaching Potential Analysis

The soil cleanup levels at the site are based on the Leaching Potential Analysis presented in the California Leaking Underground Fuel Tank (CA LUFT) Field Manual - General Risk Appraisal Method (State of California Water Resources Control Board, 1989). Table 1-1, Soil Cleanup Levels for USTs 672 and 672B using Leaching Potential Analysis from CA LUFT Field Manual, summarizes the evaluation results and cleanup levels for USTs 672 and 672B.

Based on the CA LUFT Field Manual, this site falls within the category of medium leaching potential. The maximum allowable levels of petroleum hydrocarbon compounds which may be left at this site without posing a threat to groundwater quality are as follows:

- Benzene - 0.3 part per million (ppm)
- Toluene - 0.3 ppm
- Ethylbenzene - 1 ppm
- Total xylenes - 1 ppm
- TPH as gasoline - 100 ppm
- TPH as diesel - 1,000 ppm

Note: 1 ppm is equivalent to 1 mg/kg.

1.3 Geology

Information on the shallow subsurface geology in the general area of the USTs 672 and 672B was obtained by reviewing the boring logs for groundwater monitoring wells 08_UGMW29, 07_DBMW100, and 18_PS8 (JEG, 1993). The wells, located in the vicinity of USTs 672 and 672B are shown on Figure 2-2. The wells are 4-inch diameter, 170 feet and 140 feet bgs deep, respectively. The boring logs indicate that the stratigraphy consists of predominantly of silty sand with layers of clayey sand from ground surface to first encountered groundwater.

1.4 Hydrogeology

The Station is situated within the Irvine Groundwater Subbasin (Irvine Subbasin). The Irvine Subbasin is located southeast of and adjacent to the Main Orange County Groundwater Basin.

Regional groundwater flow has been to the west and northwest since the 1940s. The groundwater gradient has been influenced locally by large groundwater withdrawal depressions. From 1969 to 1982, an average gradient of 0.0046 feet per foot (ft/ft) to the northwest was reported in the principal aquifer zone of the Irvine area (Banks, 1984). Phase I Remedial Investigation data indicated a similar groundwater flow direction and a slightly higher gradient of 0.008 ft/ft (JEG, 1994).

The depth to groundwater beneath the Station ranges from approximately 45 feet bgs in the foothills, to 240 bgs in the deepest portion of the Irvine Subbasin located on the Station. The depth to groundwater in the vicinity of USTs 672 and 672B is based on available water level data collected from groundwater monitoring well 08_UGMW29. The location of this well is shown in Figure 1-2. Based on this data, the depth to groundwater at USTs 672 and 672B is approximately 87 feet bgs (Camp, Dresser, & McKee, Inc. Federal Programs Corporation [CDM], 1996).

The groundwater quality in the wells located near the UST 672 site (wells 08_UGMW29 and 07_DBMW100) was also examined. Well 08_UGMW29 is located downgradient, approximately 300 feet northwest and well 07_DBMW100 is located upgradient, approximately 400 feet northeast of former UST Site 672. Both wells 08_UGMW29 and 07_DBMW100 have been impacted by trichloroethylene (TCE) (CDM, 1997); these wells are part of the boundary of the existing TCE plume in the shallow aquifer. The source of TCE is Installation Restoration Program (IRP) Site 24 (Volatile Organic Compound [VOC] Source Area).

Review of the groundwater data appears to indicate that the groundwater at former UST Site 672 has not been impacted by the release from USTs 672 and 672B.

The current chlorinated solvents in groundwater map, with location of former USTs Site 672 and 672B, is attached in Appendix B, TCE Plume Map.

Section 2
Summary of Field Activities

Field activities conducted at USTs 672 and 672B included a geophysical utility investigation, UST gauging and sampling, UST removal and disposal, confirmation sampling, surveying, soil transportation, backfilling, and site restoration. Field activities were conducted in accordance with the *Draft Work Plan, Remediation of Various Underground Storage Tanks at the Marine Corps Air Station El Toro, California* (OHM, 1995). Details of the field activities are discussed in the following text.

2.1 Permitting and Utility Investigation

Prior to initiating field activities, OHM completed an Orange County Health Care Agency (OCHCA) facility modification application and received approval (Permit No. 97-097) for the removal of USTs 672 and 672B. The OCHCA facility modification application and approval forms are provided as Appendix C, Orange County Health Care Agency Facility Modification Application and Approval Forms.

An OHM subcontractor, Geovision Services, Inc., conducted a geophysical survey of the UST area to locate the underground utilities in the area. The survey employed analog electromagnetic methods for the utility detection survey, and ground penetrating radar and electromagnetic induction metal detection methods for the UST delineation work. The Geophysical Survey Data is provided as Appendix D.

2.2 Underground Storage Tank Gauging and Sampling

USTs 672 and 672B were located and identified each as 100-gallon and 1,000-gallon steel USTs, respectively. Both USTs were gauged on November 26, 1996. Approximately 100 gallons of liquid product (water mixed with diesel and/or JP-5) in each UST was present at the time of gauging. The contents were pumped out of both USTs, and two liquid samples, one from each UST (Sample Identification Nos. 18609-672-004 and 18609-672B-044), were collected on December 5, 1996 and January 28, 1997 for laboratory analysis. Both samples were analyzed for TPH using CA LUFT Method 8015 modified; benzene, toluene, ethylbenzene, and total xylenes (BTEX) using United States Environmental Protection Agency (EPA) Method 8020; and ignitability using EPA Method 1010.

The analytical results indicate that UST 672 contained diesel product and UST 672B contained JP-5 product. Laboratory analytical reports, provided by Columbia Analytical Services, Inc. in Canoga Park, are included as Appendix E, Laboratory Analytical Reports.

2.3 Underground Storage Tank Removals

USTs 672 and 672B were removed on January 29, 1997. Some discoloration of the underlying soil was observed on the southwest and northwest sidewall of the excavation during removal. The bottom of USTs 672 and 672B were at a depth of approximately 6 feet and 9 feet bgs. Approximately 50 cubic yards (yd^3) of soil were excavated to remove the USTs.

Exposed piping associated with the USTs that extended beyond the excavation limits was cut, and the ends were grouted and capped at the excavation limits for abandonment in-place. The piping was abandoned in-place with the concurrence of the OCHCA inspector.

2.4 Soil Sampling, Analyses, and Results

Following the removal of USTs 672 and 672B, two rounds of progress and/or excavation guidance soil sampling was conducted. Also, three hand auger borings up to 20 feet bgs were completed to establish the vertical and lateral extent of petroleum contamination. Based on the review of the progress and hand auger soil sample analytical results, an additional 200 yd^3 of petroleum-contaminated soil was removed from the UST excavation.

After removal of the petroleum contaminated soil, nine confirmation soil samples were collected from the bottom of the excavation (Sample Identification Nos. 18609-672-133 and 18609-672-138) and sidewalls (Sample Identification Nos. 18609-447-134 through 18609-447-137, and 18609-672-140 through 18609-672-142) of the excavation. The confirmation soil samples and hand auger soil boring locations are shown in Figure 2-1, Site Plan.

Sampling, including sample handling and packaging, was conducted in accordance with the procedures described in the approved Draft Work Plan (OHM, 1995). The soil samples were collected in a 2- by 6-inch brass sleeve directly from the excavator bucket, with no tools, to minimize the need for decontamination. The soil samples were analyzed for TPH using CA LUFT Method 8015 modified; and BTEX using EPA Method 8020. Leachate from the soil sample obtained from the southeast wall (Sample Identification No. 18609-672-142) was also analyzed using the Synthetic Precipitation Leaching Procedure (SPLP) and for TPH as JP-5 using CA LUFT Method 8015 modified.

Analytical results of the confirmation and hand auger soil samples collected from the excavation pit are presented in Table 2-1, Confirmation Soil Sample Analytical Results - USTs 672 and 672B. The maximum concentration of TPH as diesel was detected in Sample Identification No. 18609-672-142 at a concentration of 7,000 mg/kg. The maximum leachable concentration of TPH as diesel was 1.10 milligrams per liter (mg/L). The SPLP analysis was performed as requested in a letter from the California Regional Water Quality Control Board (RWQCB), Santa Ana Region, dated August 13, 1996, at UST sites with high

TPH concentrations. A copy of the RWQCB letter is provided in Appendix F, Regulatory Correspondence.

Review of the analytical results of confirmation and hand auger soil samples collected from the northwest wall confirmed that petroleum contamination remained. Also, hand auger soil samples defined the lateral extent of the petroleum contamination, and confirmed that petroleum contamination was localized within the UST excavation area. Due to unstable conditions encountered at the southwest wall of the excavation, no further excavation was conducted. Laboratory analytical reports provided by EMAX Laboratories, Inc. in Torrance, California, are included in Appendix E. Photographs of the field activities are provided in Appendix G, Site Photographs.

2.5 Waste Management

The USTs 672 and 672B each contained approximately 100 gallons of diesel and JP-5 liquid product. The liquid from both USTs was pumped out on January 29, 1997 and transferred to the Station's central treatment facility (CTF) compound (operated and maintained under a separate phase of this contract). Approximately 2,900 gallons of rinse water generated by the decontamination process from both USTs were also delivered to the CTF compound. The liquids and rinsate were treated in the Station's carbon adsorption treatment system, and the treated effluent water was transferred to the Station's Golf Course Holding Tank for reuse. The contaminated soil (approximately 247 yd^3) removed from the UST excavations was transported to the Station's bioremediation treatment facility (operated under a separate phase of this contract) for further treatment.

The USTs were decontaminated using steam and Alconox™. The USTs were tested to verify the absence of flammable vapors, then transported to the Station's CTF compound. Both USTs were certified "clean" by a Marine Chemist prior to transportation to the Station's Defense Reutilization and Marketing Office for recycling. The Marine Chemist Certification and Tank Refuse Disposal Receipt are provided as Appendix H.

2.6 Land Surveying

After completing the confirmation soil sampling activities, the sample locations and limits of excavation were surveyed by Towill Surveying Inc., a State of California-registered land surveyor. The surveyed locations were measured to ±0.1 feet horizontally and tied to the California State Plane Coordinate Systems, North American Datum 1983. The surveyed elevations were measured to ±0.01 feet vertically and tied to mean sea level elevation. The land surveying data for USTs 672 and 672B is presented in Appendix I, Land Survey Report and Soil Sample Locations.

2.7 Site Restoration

With concurrence of the Station's Resident Officer in Charge of Construction, the excavation area was first backfilled with approximately 66 yd^3 of nonimpacted or "clean" stockpiled soil, 216 yd^3 of import fill sand, and then 36 yd^3 of Class II road base type material to the finish grade.

Compaction was accomplished using a compaction wheel attached to a backhoe. R. T. Frankian and Associates performed compaction tests. The compaction tests revealed a 90 to 95 percent relative compaction from USTs 672 and 672B excavation backfill. A copy of the compaction results is provided in Appendix J, Compaction Test Field Reports.

2.8 Supplemental Assessment Drilling and Confirmation Sampling

After completion of the backfilling activities, OHM contracted with Gregg Drilling to advance five soil borings (SB01 through SB05) in the vicinity of the USTs 672 and 672B excavation to determine the vertical extent of petroleum hydrocarbons in the soil and to collect additional soil samples. Borings SB-01 and SB-02 were advanced to a total depth of 40 feet bgs. Soil boring SB-03, a continuous core up to 80 feet bgs and soil borings SB-04 and SB-05 were advanced to a total depth of 80 feet bgs. Samples were collected at approximately 5 feet intervals from all the borings, except SB-03. A schematic cross section of USTs 672 and 672B excavation, showing analytical results, the verification soil boring locations, and the depth of the soil samples collected is presented in Figure 2-2, Excavation Cross Section. Boring logs describing soil lithology are provided in Appendix K, Soil Boring Logs.

A total of 23 soil samples were collected from the 4 soil borings using a California-modified split-spoon sampler. All 23 soil samples were analyzed for TPH as JP5 using CA LUFT Method 8015 modified, and for BTEX using EPA Method 8020. Also, 5 soil samples were analyzed for SPLP TPH-extractable using EPA Method 1312/8015 modified.

No petroleum hydrocarbons were reported in any of the soil samples collected from boring SB-05 (80 feet bgs). The deepest maximum concentration of TPH as JP-5 was detected in SB-04 at 7,200 mg/kg (35 feet bgs). The analytical results of the samples collected from the soil borings are presented in Table 2-2, Soil Boring Sample Analytical Results. Copies of analytical reports from EMAX are included in Appendix E.

Section 3
Conclusions and Recommendation

Based on the information presented in this report, a review of the analytical results, and information obtained from the previously published groundwater monitoring reports, the following conclusions have been reached:

- USTs 672, 672B, and fuel-impacted soils that could have posed a risk to groundwater were removed from the site.
- The former USTs were used for the storage of diesel and JP-5; which have limited mobility in the vadose zone, when compared to gasoline.
- The depth to groundwater is estimated to be approximately 87 feet bgs, based on historical data from monitoring well 08_UGMW29.
- Groundwater was not encountered in the UST excavation, at the total depth of 18 feet bgs.
- Analytical results from nine confirmation soil samples, collected from the excavation of USTs 672 and 672B, indicate maximum detectable concentrations of TPH as JP-5 of 6,200 mg/kg. Benzene was not detected in nine confirmation soil samples collected during UST removal activities or the subsequent site verification activities.
- Analytical results of soil samples indicate that the release of the petroleum hydrocarbons is neither laterally nor vertically extensive, and the leaching potential for the residual petroleum hydrocarbons is very low. Also, residual petroleum-contaminated soil is located beneath 16 feet of imported clean fill material.
- The compound exceeding the maximum allowable concentration, as defined by the CA LUFT Field Manual, was TPH as JP5, ethylbenzene, and total xylenes. Results from samples collected from five soil borings advanced in the location of the USTs 672 and 672B excavation indicated that petroleum contamination does not appear to extend beyond 45 feet bgs.
- Leachability analysis test results by EPA Method 1312 indicate a low potential for migration of petroleum hydrocarbons to groundwater. Maximum leachable concentration of TPH as JP-5 was reported at 22 mg/L, at 30 feet bgs, and the corresponding TPH as JP-5 concentration in the soil sample was 23,000 mg/kg. The leachate concentration was less than 1 percent of the TPH concentration in the associated soil sample.

Therefore, it is concluded that the detected concentrations of petroleum hydrocarbons pose a minimal risk to groundwater quality. Insufficient mass loading is present to promote vertical migration of petroleum hydrocarbons to groundwater. This conclusion is based on the depth to groundwater, relative limited mobility of diesel and JP-5 fuel, and the CA LUFT Field Manual guidelines.

Based on information provided in this report, OHM, on behalf of MCAS El Toro, recommends that this report be submitted to the RWQCB, Santa Ana Region, and a "No Further Action" status be granted for USTs 672 (also known as SWMU 174) and 672B (also known as SWMU 176).

Section 4
References

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JEG. See Jacobs Engineering Group Inc.

Marine Corps Air Station, El Toro. 1997. *Base Realignment and Closure (BRAC) Cleanup Plan.*

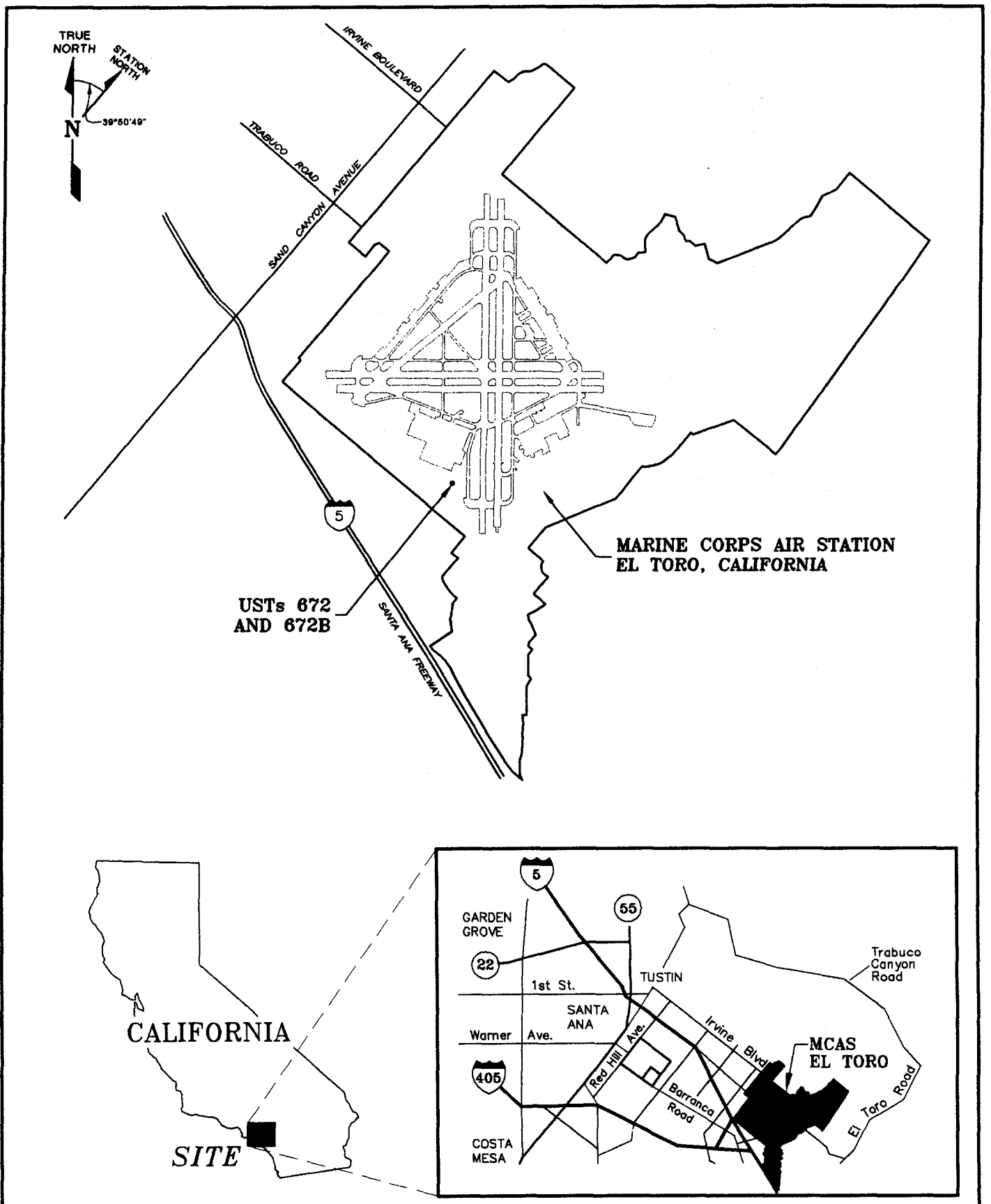
MCAS El Toro. See Marine Corps Air Station, El Toro.

OHM. See OHM Remediation Services Corp.

OHM Remediation Services Corp. 1995. *Draft Work Plan, Remediation of Various Underground Storage Tanks at the Marine Corps Air Station El Toro, California.* SWDIV Contract No. 68711-93-D-1459, DO 0024.

State of California Water Resources Control Board. 1989. *Leaking Underground Fuel Tank Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure.* October.

Figures



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				CHECKED BY	DATE			
				APPROVED BY DR	DATE 3/9/98			
CONTRACT NAME SWDIV				PROJECT MANAGER	DATE	MARINE CORPS AIR STATION EL TORO, CALIFORNIA		
AUTOCAD FILE No. 18609105.DWG	PLOT SCALE 1=1	SHEET 1	OF 1	SCALE NONE	DOCUMENT CONTROL No. SW3618	OHM PROJECT No. 18609	FIGURE No. FIG 1-1	REVISION 0

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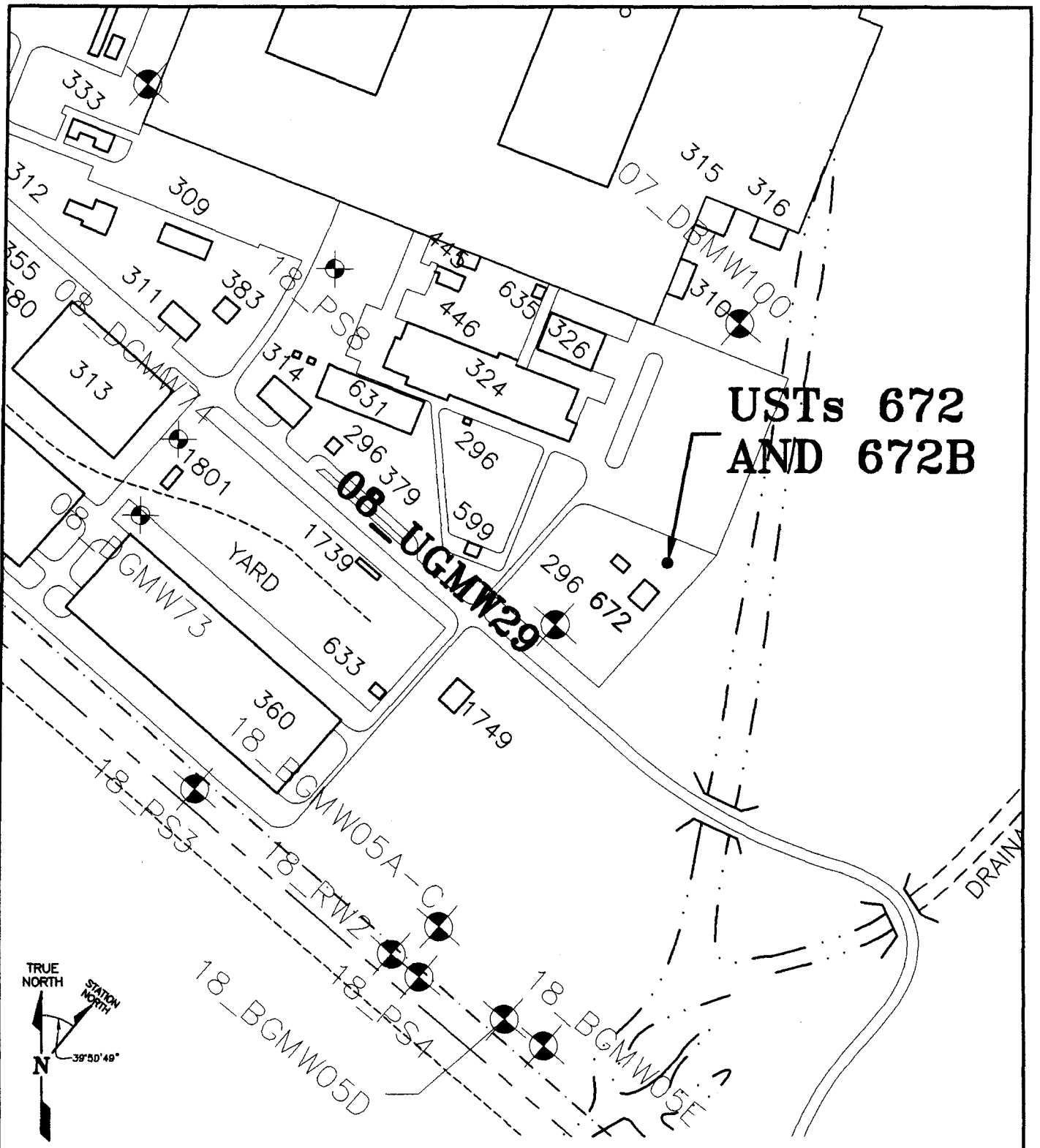

EXPLANATION:

GROUNDWATER MONITORING WELL

GRAPHIC SCALE

300 0 150 300

(IN FEET)

OHM Remediation Services Corp. A Subsidiary of OHM Corporation SAN DIEGO, CA				DRAWN BY R. PIRMORADIAN	DATE 03/05/98	LOCATION MAP USTs 672 AND 672B		
				CHECKED BY	DATE			
				APPROVED BY DR	DATE 3/9/98	MARINE CORPS AIR STATION EL TORO, CALIFORNIA		
CONTRACT NAME SWDIV				PROJECT MANAGER	DATE			
AUTOCAD FILE No. 18609106.DWG	PLOT SCALE 1=1	SHEET 1	OF 1	SCALE AS NOTED	DOCUMENT CONTROL No. SW3618	OHM PROJECT No. 18609	FIGURE No. FIG 1-2	REVISION 0

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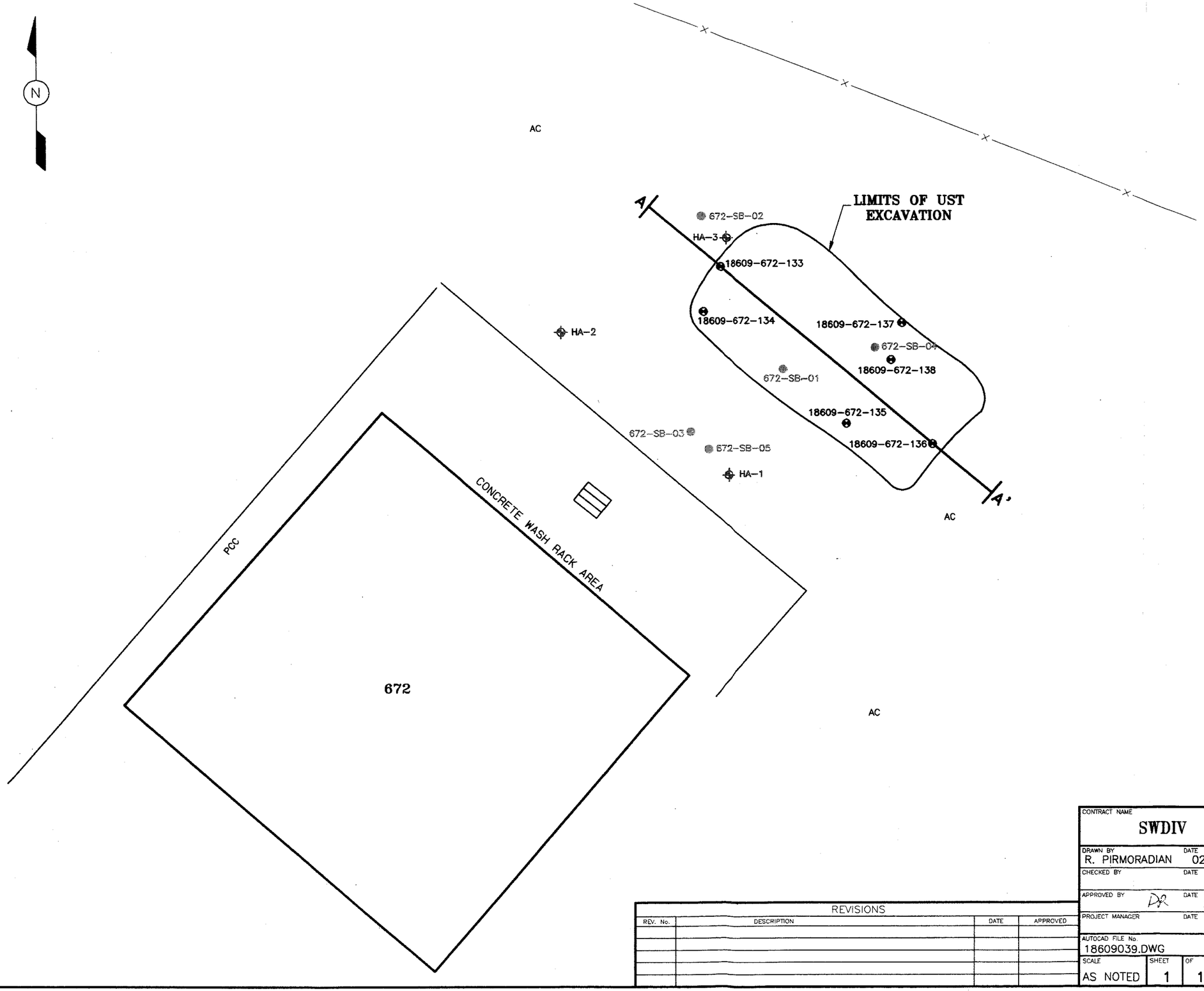

EXPLANATION:

AC–	ASPHALT CONCRETE
PCC–	PORTLAND CEMENT CONCRETE
HA–3	HAND AUGER BORING
18609–672–133	CONFIRMATION SOIL SAMPLE FROM THE EXCAVATION
672–SB–02	HOLLOW STEM AUGER SOIL BORING

GRAPHIC SCALE

10 0 5 10

(IN FEET)

REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED

CONTRACT NAME: SWDIV

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SAN DIEGO, CA

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CHECKED BY — DATE
APPROVED BY: DR — DATE: 3/9/98
PROJECT MANAGER — DATE
AUTOCAD FILE No.: 18609039.DWG

SITE PLAN
USTs 672 AND 672B

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW3618	18609	FIG 2–1

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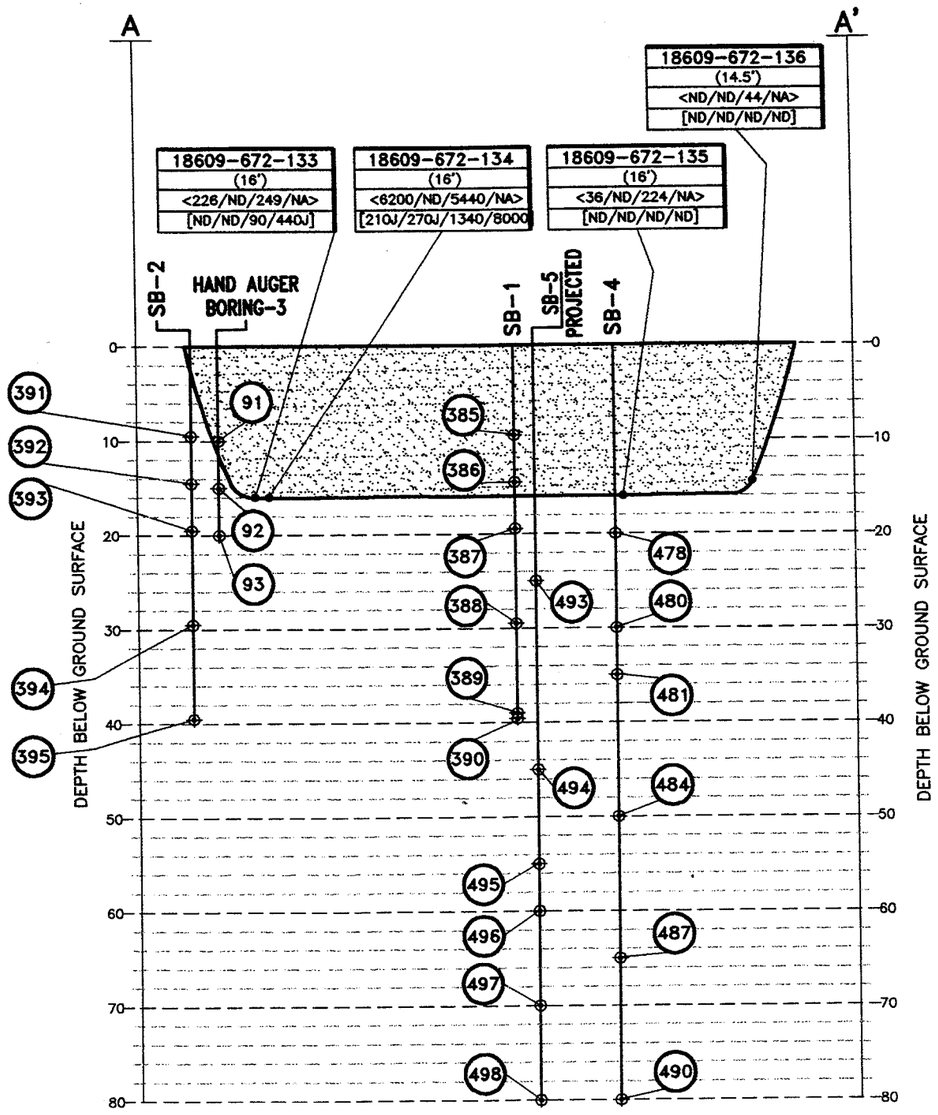

A–A' CROSS SECTION
SEE APPENDIX D

SB-2

391	18609-672-391 (9.5') <ND/ND/NA/NA> [ND/ND/3000/11000]
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393	18609-672-393 (19.5') <880P/ND/NA/NA> [ND/ND/1000/ND]
394	18609-672-394 (29.5') <650P/ND/NA/NA> [ND/ND/600/ND]
395	18609-672-395 (39.5') <5100P/ND/NA/0.7P> [ND/ND/ND/4400]

HAND AUGER BORING-3

91	18609-672-91 (10') <11000/1600P/NA/NA> [528/1670/7500/34000]
92	18609-672-92 (15') <5400/752P/NA/NA> [ND/ND/1480/11000]
93	18609-672-93 (20') <7900/873P/NA/NA> [ND/541/2260/16000]

SB-1

385	18609-672-385 (9.5') <9700P/ND/NA/0.9P> [ND/ND/4400/17000]
386	18609-672-386 (14.5') <4800P/ND/NA/NA> [ND/ND/ND/2600]
387	18609-672-387 (19.5') <7400P/ND/NA/NA> [ND/ND/2000/7800]
388	18609-672-388 (29.5') <2100P/ND/NA/NA> [2900J/ND/16000/5600]
389	18609-672-389 (39.0') <5400P/ND/NA/NA> [ND/ND/4400/ND]
390	18609-672-390 (39.5') <4800P/ND/NA/1.3P> [ND/ND/ND/6000]

SB-5

493	18609-493 (25') <ND/ND/NA/NA> [ND/ND/ND/ND]
494	18609-494 (45') <150/ND/NA/22> [ND/ND/ND/ND]
495	18609-495 (55') <530/ND/NA/2.0> [ND/ND/ND/ND]
496	18609-496 (60') <ND/ND/NA/NA> [ND/ND/ND/ND]
497	18609-497 (70') <ND/ND/NA/NA> [ND/ND/ND/ND]
498	18609-498 (80') <ND/ND/NA/NA> [ND/ND/ND/ND]

SB-4

478	18609-478 (20') <5400/ND/NA/NA> [ND/ND/ND/ND]
480	18609-480 (30') <23000/ND/NA/22> [ND/ND/ND/ND]
481	18609-481 (35') <7200/ND/NA/2.0> [ND/ND/ND/ND]
484	18609-484 (50') <ND/ND/NA/NA> [ND/ND/ND/ND]
487	18609-487 (65') <ND/ND/NA/NA> [ND/ND/ND/ND]
490	18609-490 (80') <ND/ND/NA/NA> [ND/ND/ND/ND]

EXPLANATION:

- • EXCAVATION CONFIRMATION SOIL SAMPLE LOCATION
- ⊕ VERIFICATION DRILLING SOIL SAMPLE LOCATION
- NA NOT ANALYZED
- ND NOT DETECTED ABOVE LABORATORY REPORTING LIMITS AS SHOWN IN TABLE 2-1
- SPLP SYNTHETIC PRECIPITATION LEACHING PROCEDURE
- TPH TOTAL PETROLEUM HYDROCARBONS
- TRPH TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
- mg/kg MILLIGRAMS PER KILOGRAM
- µg/kg MICROGRAMS PER KILOGRAM
- µg/L MICROGRAMS PER LITER
- APPROXIMATE LIMITS OF UNDERGROUND STORAGE TANKS 672 & 672B EXCAVATION

18609-672-133	SAMPLE IDENTIFIER
(16')	(SAMPLE DEPTH IN FEET)
<226/ND/249/NA>	<TPH-JP5/TPH-GASOLINE/TRPH/SPLP TPH-JP5 (mg/L) CONCENTRATION mg/kg>
[ND/ND/90/440J]	[BENZENE/TOLUENE/ETHYLBENZENE/TOTAL XYLENES CONCENTRATION µg/kg]

NOTE: ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE

REVISIONS

REV. No.	DESCRIPTION	DATE	APPROVED
0	INITIAL VERSION OF DOCUMENT		

CONTRACT NAME: SWDIV

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

DRAWN BY: R. PIRMORADIAN DATE: 02/19/98
CHECKED BY DATE
APPROVED BY: DR DATE: 3/9/98
PROJECT MANAGER DATE
AUTOCAD FILE No. 18609100.DWG

EXCAVATION CROSS SECTION
USTs 672 AND 672B

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW3618	18609	FIG 2-2

Feb 19, 1998 – 18:05:36 G:\PROJECTS\18609\18609100.dwg

Tables

Table 1-1
Soil Cleanup Levels for USTs 672 and 672B using Leaching Potential Analysis from CA LUFT Field Manual

Site Feature	Score	Score 10 pts if Condition is Met	Score	Score 9 pts if Condition is Met	Score	Score 5 pts if Condition is Met
Minimum depth to groundwater from the soil sample (feet)[a, b]	-	>100[c]	9	51 - 100	--	25 - 50
Fractures in subsurface (applies to foothills or mountain ranges)	10	None	--	Unknown	--	Present
Average annual precipitation (inches)[d]	--	<10	9	10 - 25	--	26 - 40
Manmade conduits which increase vertical migration of leachate	10	None	--	Unknown	--	Present
Unique site features: recharge area, coarse soil, nearby wells, etc.	10	None	--	At least one	--	More than one
Column Totals - Total Points	30	+	18	+	--	= 48
Range of Total Points	49 pts or more		41 - 48 pts		40 pts or less	
Maximum Allowable BTEX Levels (ppm)	1/50/50/50		0.3/0.3/1/1		Not applicable[c]	
Maximum Allowable TPH Levels (ppm)	Gasoline	1,000	100		10	
	Diesel	10,000	1,000		100	

Reference: California Leaking Underground Fuel Tank Manual (State of California Water Resources Control Board, 1989).

Explanation:

[a] - *If depth is greater than 5 feet and less than 25 feet, score 0 points. If depth is 5 feet or less, this table should not be used.*

[b] - *Monitoring Well 08_UGMW29 was used as reference to estimate a depth to groundwater 87 feet below ground surface at this site.*

[c] - *Levels for BTEX are not applicable at a TPH concentration of 10 ppm (gasoline) or 100 ppm (diesel). For explanation, see Step 6, page 27 of California Leaking Underground Fuel Tank Manual.*

[d] - *If precipitation is over 40 inches, score 0 points.*

BTEX - benzene, toluene, ethylbenzene, and total xylenes

CA LUFT - California Leaking Underground Fuel Tank

ppm - parts per million

pts - points

TPH - total petroleum hydrocarbons

Table 2 - 1
Confirmation Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672B-082	18609-672B-083	18609-672B-084	18609-672B-085	18609-672-086
Sample Location		HA-1	HA-1	HA-1	HA-1	HA-2
Date Collected		02/06/97	02/06/97	02/06/97	02/06/97	02/06/97
Sample Depth (feet below ground surface)		10.0	15.0	1.5	20.0	5.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	1.1 U	1.2 U	27 JP	1.2 U	1.1 U
TPH as Diesel	mg/kg	11 U	12 U	**2950**	12 U	11 U
TPH as JP-5	mg/kg	NA	NA	NA	NA	NA
TPH as Motor Oil	mg/kg	11 U	12 U	110 U	12 U	11 U
C31-C40 (Heavy Oil range Organics)	mg/kg	57 U	58 U	540 U	58 U	56 U
EPA 1312/8015M						
TPH as Diesel (SPLP)	mg/L	NA	NA	NA	NA	NA
TPH as Motor Oil (SPLP)	mg/L	NA	NA	NA	NA	NA
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	5.7 U	5.8 U	**130** J	5.8 U	5.6 U
Ethylbenzene	µg/kg	5.7 U	5.8 U	**4000**	5.8 U	5.6 U
Toluene	µg/kg	5.7 U	5.8 U	**430** J	5.8 U	5.6 U
Xylenes (total)	µg/kg	11 U	12 U	**6400**	12 U	11 U

Table 2 - 1
Confirmation Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-087	18609-672-088	18609-672-089	18609-672-091	18609-672-092
Sample Location		HA-2	HA-2	HA-2	HA-3	HA-3
Date Collected		02/06/97	02/06/97	02/06/97	02/07/97	02/07/97
Sample Depth (feet below ground surface)		10.0	15.0	20.0	10.0	15.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	1.2 U	1.1 U	1.1 U	**1600** P	**752** P
TPH as Diesel	mg/kg	12 U	11 U	11 U	NA	NA
TPH as JP-5	mg/kg	NA	NA	NA	**11000**	**5400**
TPH as Motor Oil	mg/kg	12 U	11 U	11 U	870	680
C31-C40 (Heavy Oil range Organics)	mg/kg	58 U	56 U	57 U	2900 U	2900 U
EPA 1312/8015M						
TPH as Diesel (SPLP)	mg/L	NA	NA	NA	NA	NA
TPH as Motor Oil (SPLP)	mg/L	NA	NA	NA	NA	NA
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	5.8 U	5.6 U	5.7 U	**528**	110 U
Ethylbenzene	µg/kg	5.8 U	5.6 U	5.7 U	**7500**	**1480**
Toluene	µg/kg	5.8 U	5.6 U	5.7 U	**1670**	110 U
Xylenes (total)	µg/kg	12 U	11 U	11 U	**34000**	**11000**

Table 2 - 1
Confirmation Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-093
Sample Location		HA-3
Date Collected		02/07/97
Sample Depth (feet below ground surface)		20.0
	Unit	
CA LUFT 8015M		
TPH as Gasoline	mg/kg	**873** P
TPH as Diesel	mg/kg	NA
TPH as JP-5	mg/kg	**7900**
TPH as Motor Oil	mg/kg	780
C31-C40 (Heavy Oil range Organics)	mg/kg	2900 U
EPA 1312/8015M		
TPH as Diesel (SPLP)	mg/L	NA
TPH as Motor Oil (SPLP)	mg/L	NA
EPA 418.1		
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA
EPA 8020		
Benzene	µg/kg	120 U
Ethylbenzene	µg/kg	**2260**
Toluene	µg/kg	**541**
Xylenes (total)	µg/kg	**16000**

Table 2 - 1
Confirmation Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-133	18609-672-134	18609-672-135	18609-672-136	18609-672-137
Sample Location		UST-672 SW Bottom	UST-672 SW Wall	UST-672 SE Wall	UST-672 E Wall	UST-672 NE Wall
Date Collected		02/24/97	02/24/97	02/24/97	02/24/97	02/24/97
Sample Depth (feet below ground surface)		16.0	16.0	16.0	14.5	16.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	NA	NA	NA	NA	NA
TPH as Diesel	mg/kg	NA	NA	NA	NA	NA
TPH as JP-5	mg/kg	226	**6200**	36 P	12 U	**6200**
TPH as Motor Oil	mg/kg	NA	NA	28	NA	NA
C31-C40 (Heavy Oil range Organics)	mg/kg	NA	NA	NA	NA	NA
EPA 1312/8015M						
TPH as Diesel (SPLP)	mg/L	NA	NA	NA	NA	NA
TPH as Motor Oil (SPLP)	mg/L	NA	NA	NA	NA	NA
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	249	5440	224	44	4200
EPA 8020						
Benzene	µg/kg	NA	NA	NA	NA	NA
Ethylbenzene	µg/kg	NA	NA	NA	NA	NA
Toluene	µg/kg	NA	NA	NA	NA	NA
Xylenes (total)	µg/kg	NA	NA	NA	NA	NA
EPA 8240						
1,1,1-Trichloroethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
1,1,2,2-Tetrachloroethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
1,1,2-Trichloroethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
1,1-Dichloroethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
1,1-Dichloroethene	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
1,2,3-Trichloropropane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
1,2-Dichloroethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
1,2-Dichloroethene (total)	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
1,2-Dichloropropane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
2-Butanone (MEK)	µg/kg	1100 U	12000 U	110 U	120 U	1100 U
2-Chloroethyl vinyl ether	µg/kg	570 U	5900 U	57 U	58 U	570 U
2-Hexanone	µg/kg	570 U	5900 U	57 U	58 U	570 U
4-Methyl-2-pentanone (MIBK)	µg/kg	570 U	5900 U	57 U	58 U	570 U
Acetone	µg/kg	1100 U	12000 U	110 U	120 U	1100 U
Acrolein	µg/kg	1100 U	12000 U	110 U	120 U	1100 U

Table 2 - 1
Confirmation Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-133	18609-672-134	18609-672-135	18609-672-136	18609-672-137
Sample Location		UST-672 SW Bottom	UST-672 SW Wall	UST-672 SE Wall	UST-672 E Wall	UST-672 NE Wall
Date Collected		02/24/97	02/24/97	02/24/97	02/24/97	02/24/97
Sample Depth (feet below ground surface)		16.0	16.0	16.0	14.5	16.0
	Unit					
Acrylonitrile	µg/kg	570 U	5900 U	57 U	58 U	570 U
Benzene	µg/kg	57 U	210 J	5.7 U	5.8 U	57 U
Bromodichloromethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Bromoform	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Bromomethane	µg/kg	110 U	1200 U	11 U	12 U	110 U
Carbon disulfide	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Carbon tetrachloride	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Chlorobenzene	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Chloroethane	µg/kg	110 U	1200 U	11 U	12 U	110 U
Chloroform	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Chloromethane	µg/kg	110 U	1200 U	11 U	12 U	110 U
cis-1,2-Dichloroethene	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
cis-1,3-Dichloropropene	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Dibromochloromethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Dibromomethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Dichlorodifluoromethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Ethyl methacrylate	µg/kg	110 U	1200 U	11 U	12 U	110 U
Ethylbenzene	µg/kg	90	1340	5.7 U	5.8 U	7 J
Iodomethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Methylene chloride	µg/kg	230 U	2400 U	23 U	23 U	230 U
Styrene	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Tetrachloroethene	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Toluene	µg/kg	57 U	270 J	5.7 U	5.8 U	57 U
trans-1,2-Dichloroethene	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
trans-1,3-Dichloropropene	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Trichloroethene	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Trichlorofluoromethane	µg/kg	57 U	590 U	5.7 U	5.8 U	57 U
Vinyl acetate	µg/kg	570 U	5900 U	57 U	58 U	570 U
Vinyl Chloride	µg/kg	110 U	1200 U	11 U	12 U	110 U
Xylenes (total)	µg/kg	440 J	8000	5.7 U	5.8 U	180 J

Table 2 - 1
Confirmation Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-138	18609-672-140	18609-672-141	18609-672-142
Sample Location		UST-672 SE Bottom	UST-672 NE Wall	UST-672 NE Wall	UST-672 NW Wall
Date Collected		02/24/97	02/26/97	02/26/97	02/26/97
Sample Depth (feet below ground surface)		18.0	7.0	7.0	7.0
	Unit				
CA LUFT 8015M					
TPH as Gasoline	mg/kg	NA	1.1 U	1.1 U	110 U
TPH as Diesel	mg/kg	NA	11 U	11 U	**7000**
TPH as JP-5	mg/kg	**2800**	NA	NA	NA
TPH as Motor Oil	mg/kg	NA	52	42	**1400**
C31-C40 (Heavy Oil range Organics)	mg/kg	NA	NA	NA	NA
EPA 1312/8015M					
TPH as Diesel (SPLP)	mg/L	NA	NA	NA	1.10
TPH as Motor Oil (SPLP)	mg/L	NA	NA	NA	NA
EPA 418.1					
Total Recoverable Petroleum Hydrocarbon	mg/kg	2770	71	86	6950
EPA 8020					
Benzene	µg/kg	NA	5.7 U	5.6 U	540 U
Ethylbenzene	µg/kg	NA	5.7 U	5.6 U	**3100**
Toluene	µg/kg	NA	5.7 U	5.6 U	540 U
Xylenes (total)	µg/kg	NA	11 U	11 U	**22000**
EPA 8240					
1,1,1-Trichloroethane	µg/kg	53 U	NA	NA	NA
1,1,2,2-Tetrachloroethane	µg/kg	53 U	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	53 U	NA	NA	NA
1,1-Dichloroethane	µg/kg	53 U	NA	NA	NA
1,1-Dichloroethene	µg/kg	53 U	NA	NA	NA
1,2,3-Trichloropropane	µg/kg	53 U	NA	NA	NA
1,2-Dichloroethane	µg/kg	53 U	NA	NA	NA
1,2-Dichloroethene (total)	µg/kg	53 U	NA	NA	NA
1,2-Dichloropropane	µg/kg	53 U	NA	NA	NA
2-Butanone (MEK)	µg/kg	1100 U	NA	NA	NA
2-Chloroethyl vinyl ether	µg/kg	530 U	NA	NA	NA
2-Hexanone	µg/kg	530 U	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	µg/kg	530 U	NA	NA	NA
Acetone	µg/kg	1100 U	NA	NA	NA
Acrolein	µg/kg	1100 U	NA	NA	NA

Table 2 - 1
Confirmation Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-138	18609-672-140	18609-672-141	18609-672-142
Sample Location		UST-672 SE Bottom	UST-672 NE Wall	UST-672 NE Wall	UST-672 NW Wall
Date Collected		02/24/97	02/26/97	02/26/97	02/26/97
Sample Depth (feet below ground surface)		18.0	7.0	7.0	7.0
	Unit				
Acrylonitrile	µg/kg	530 U	NA	NA	NA
Benzene	µg/kg	53 U	NA	NA	NA
Bromodichloromethane	µg/kg	53 U	NA	NA	NA
Bromoform	µg/kg	53 U	NA	NA	NA
Bromomethane	µg/kg	110 U	NA	NA	NA
Carbon disulfide	µg/kg	53 U	NA	NA	NA
Carbon tetrachloride	µg/kg	53 U	NA	NA	NA
Chlorobenzene	µg/kg	53 U	NA	NA	NA
Chloroethane	µg/kg	110 U	NA	NA	NA
Chloroform	µg/kg	53 U	NA	NA	NA
Chloromethane	µg/kg	110 U	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	53 U	NA	NA	NA
cis-1,3-Dichloropropene	µg/kg	53 U	NA	NA	NA
Dibromochloromethane	µg/kg	53 U	NA	NA	NA
Dibromomethane	µg/kg	53 U	NA	NA	NA
Dichlorodifluoromethane	µg/kg	53 U	NA	NA	NA
Ethyl methacrylate	µg/kg	110 U	NA	NA	NA
Ethylbenzene	µg/kg	53 U	NA	NA	NA
Iodomethane	µg/kg	53 U	NA	NA	NA
Methylene chloride	µg/kg	210 U	NA	NA	NA
Styrene	µg/kg	53 U	NA	NA	NA
Tetrachloroethene	µg/kg	53 U	NA	NA	NA
Toluene	µg/kg	53 U	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	53 U	NA	NA	NA
trans-1,3-Dichloropropene	µg/kg	53 U	NA	NA	NA
Trichloroethene	µg/kg	53 U	NA	NA	NA
Trichlorofluoromethane	µg/kg	53 U	NA	NA	NA
Vinyl acetate	µg/kg	530 U	NA	NA	NA
Vinyl Chloride	µg/kg	110 U	NA	NA	NA
Xylenes (total)	µg/kg	54 J	NA	NA	NA

Table 2 - 1
Confirmation Sample Analytical Results - USTs 672A and 672B

Explanation:
CA LUFT - California Leaking Underground Fuel Tank
E - east
EPA - United States Environmental Protection Agency
J - estimated
JP - estimated and fuel pattern does not match laboratory standard
M - modified
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
N - north
NA - not analyzed
NE - northeast
NW - northwest
OHM - OHM Remediation Services Corp.
ORGLEAD - organic lead
P - fuel pattern dose not match laboratory standard
S - south
SB - soil boring
SE - southeast
SPLP - synthetic precipitation leaching procedure
SW - southwest
TPH - total petroleum hydrocarbons
U - not detected above or equal to the stated reporting limit
UST - underground storage tank
W - west
µg/kg - micrograms per kilogram

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-385	18609-672-386	18609-672-387	18609-672-388	18609-672-389
Sample Location		UST-672 SB01	UST-672 SB01	UST-672 SB01	UST-672 SB01	UST-672 SB01
Date Collected		06/18/97	06/18/97	06/18/97	06/18/97	06/18/97
Sample Depth (feet below ground surface)		9.5	14.5	19.5	29.5	39.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	230 U	220 U	230 U	220 U	210 U
TPH as Diesel	mg/kg	**9700** P	**4800** P	**7400** P	**2100** P	**5400** P
TPH as JP-5	mg/kg	NA	NA	NA	NA	NA
TPH as Motor Oil	mg/kg	1100 U	1100 U	1200 U	110 U	1000 U
C31-C40 (Heavy Oil range Organics)	mg/kg	NA	NA	NA	NA	NA
EPA 1312/8015M						
TPH as Diesel (SPLP)	mg/L	0.9 P	NA	NA	NA	NA
TPH as Motor Oil (SPLP)	mg/L	NA	NA	NA	NA	NA
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	1100 U	1100 U	1200 U	2900 J	1000 U
Ethylbenzene	µg/kg	**4400**	1100 U	**2000**	**16000**	**4400**
Toluene	µg/kg	1100 U	1100 U	1200 U	1100 U	1000 U
Xylenes (total)	µg/kg	**17000**	**2600**	**7800**	**56000**	NA
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	NA	NA	NA	5500 U	NA
1,1,1-Trichloroethane	µg/kg	NA	NA	NA	5500 U	NA
1,1,2,2-Tetrachloroethane	µg/kg	NA	NA	NA	5500 U	NA
1,1,2-Trichloroethane	µg/kg	NA	NA	NA	5500 U	NA
1,1-Dichloroethane	µg/kg	NA	NA	NA	5500 U	NA
1,1-Dichloroethene	µg/kg	NA	NA	NA	5500 U	NA
1,1-Dichloropropene	µg/kg	NA	NA	NA	5500 U	NA
1,2,3-Trichlorobenzene	µg/kg	NA	NA	NA	5500 U	NA
1,2,3-Trichloropropane	µg/kg	NA	NA	NA	5500 U	NA
1,2,4-Trichlorobenzene	µg/kg	NA	NA	NA	5500 U	NA
1,2,4-Trimethylbenzene	µg/kg	NA	NA	NA	26000	NA
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	NA	NA	NA	5500 U	NA
1,2-Dibromoethane (EDB)	µg/kg	NA	NA	NA	5500 U	NA
1,2-Dichlorobenzene	µg/kg	NA	NA	NA	5500 U	NA
1,2-Dichloroethane	µg/kg	NA	NA	NA	5500 U	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-385	18609-672-386	18609-672-387	18609-672-388	18609-672-389
Sample Location		UST-672 SB01	UST-672 SB01	UST-672 SB01	UST-672 SB01	UST-672 SB01
Date Collected		06/18/97	06/18/97	06/18/97	06/18/97	06/18/97
Sample Depth (feet below ground surface)		9.5	14.5	19.5	29.5	39.0
	Unit					
1,2-Dichloropropane	µg/kg	NA	NA	NA	5500 U	NA
1,3,5-Trimethylbenzene	µg/kg	NA	NA	NA	8000	NA
1,3-Dichlorobenzene	µg/kg	NA	NA	NA	5500 U	NA
1,3-Dichloropropane	µg/kg	NA	NA	NA	5500 U	NA
1,4-Dichlorobenzene	µg/kg	NA	NA	NA	5500 U	NA
2,2-Dichloropropane	µg/kg	NA	NA	NA	5500 U	NA
2-Chlorotoluene	µg/kg	NA	NA	NA	5500 U	NA
4-Chlorotoluene	µg/kg	NA	NA	NA	5500 U	NA
Benzene	µg/kg	NA	NA	NA	5500 U	NA
Bromobenzene	µg/kg	NA	NA	NA	5500 U	NA
Bromochloromethane	µg/kg	NA	NA	NA	5500 U	NA
Bromodichloromethane	µg/kg	NA	NA	NA	5500 U	NA
Bromoform	µg/kg	NA	NA	NA	5500 U	NA
Bromomethane	µg/kg	NA	NA	NA	5500 U	NA
Carbon tetrachloride	µg/kg	NA	NA	NA	5500 U	NA
Chlorobenzene	µg/kg	NA	NA	NA	5500 U	NA
Chloroethane	µg/kg	NA	NA	NA	5500 U	NA
Chloroform	µg/kg	NA	NA	NA	5500 U	NA
Chloromethane	µg/kg	NA	NA	NA	5500 U	NA
cis-1,2-Dichloroethene	µg/kg	NA	NA	NA	5500 U	NA
cis-1,3-Dichloropropene	µg/kg	NA	NA	NA	5500 U	NA
Dibromochloromethane	µg/kg	NA	NA	NA	5500 U	NA
Dibromomethane	µg/kg	NA	NA	NA	5500 U	NA
Dichlorodifluoromethane	µg/kg	NA	NA	NA	5500 U	NA
Ethylbenzene	µg/kg	NA	NA	NA	4200 J	NA
Hexachlorobutadiene	µg/kg	NA	NA	NA	5500 U	NA
Isopropylbenzene (Cumene)	µg/kg	NA	NA	NA	1100 J	NA
Methylene chloride	µg/kg	NA	NA	NA	5500 U	NA
N-Butylbenzene	µg/kg	NA	NA	NA	5500 U	NA
N-Propylbenzene	µg/kg	NA	NA	NA	2800 J	NA
Naphthalene	µg/kg	NA	NA	NA	6000	NA
p-Isopropyltoluene	µg/kg	NA	NA	NA	2700 J	NA
sec-Butylbenzene	µg/kg	NA	NA	NA	2300 J	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-385	18609-672-386	18609-672-387	18609-672-388	18609-672-389
Sample Location		UST-672 SB01	UST-672 SB01	UST-672 SB01	UST-672 SB01	UST-672 SB01
Date Collected		06/18/97	06/18/97	06/18/97	06/18/97	06/18/97
Sample Depth (feet below ground surface)		9.5	14.5	19.5	29.5	39.0
	Unit					
Styrene	µg/kg	NA	NA	NA	5500 U	NA
tert-Butylbenzene	µg/kg	NA	NA	NA	5500 U	NA
Tetrachloroethene	µg/kg	NA	NA	NA	5500 U	NA
Toluene	µg/kg	NA	NA	NA	5500 U	NA
trans-1,2-Dichloroethene	µg/kg	NA	NA	NA	5500 U	NA
Trichloroethene	µg/kg	NA	NA	NA	5500 U	NA
Trichlorofluoromethane	µg/kg	NA	NA	NA	5500 U	NA
Vinyl Chloride	µg/kg	NA	NA	NA	5500 U	NA
Xylenes (total)	µg/kg	NA	NA	NA	18000	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-390	18609-672-391	18609-672-392	18609-672-393	18609-672-394
Sample Location		UST-672 SB01	UST-672 SB02	UST-672 SB02	UST-672 SB02	UST-672 SB02
Date Collected		06/18/97	06/18/97	06/18/97	06/18/97	06/18/97
Sample Depth (feet below ground surface)		39.5	9.5	14.5	19.5	29.5
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	210 U	260 U	110 U	230 U	110 U
TPH as Diesel	mg/kg	**4800** P	40 P	**1700** P	880 P	650 P
TPH as JP-5	mg/kg	NA	NA	NA	NA	NA
TPH as Motor Oil	mg/kg	520 U	24	560 U	120 U	110 U
C31-C40 (Heavy Oil range Organics)	mg/kg	NA	NA	NA	NA	NA
EPA 1312/8015M						
TPH as Diesel (SPLP)	mg/L	1.3 P	NA	NA	NA	NA
TPH as Motor Oil (SPLP)	mg/L	NA	NA	NA	NA	NA
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	1000 U	1300 U	560 U	1200 U	570 U
Ethylbenzene	µg/kg	1000 U	**3000**	**600**	**1000**	**600**
Toluene	µg/kg	1000 U	1300 U	560 U	1200 U	570 U
Xylenes (total)	µg/kg	**6000**	**11000**	**2600**	2300 U	1100 U
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	µg/kg	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	NA	NA	NA	NA	NA
1,1-Dichloroethane	µg/kg	NA	NA	NA	NA	NA
1,1-Dichloroethene	µg/kg	NA	NA	NA	NA	NA
1,1-Dichloropropene	µg/kg	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	µg/kg	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	µg/kg	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	µg/kg	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/kg	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	NA	NA	NA	NA	NA
1,2-Dibromoethane (EDB)	µg/kg	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	µg/kg	NA	NA	NA	NA	NA
1,2-Dichloroethane	µg/kg	NA	NA	NA	NA	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-390	18609-672-391	18609-672-392	18609-672-393	18609-672-394
Sample Location		UST-672 SB01	UST-672 SB02	UST-672 SB02	UST-672 SB02	UST-672 SB02
Date Collected		06/18/97	06/18/97	06/18/97	06/18/97	06/18/97
Sample Depth (feet below ground surface)		39.5	9.5	14.5	19.5	29.5
	Unit					
1,2-Dichloropropane	µg/kg	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	µg/kg	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	µg/kg	NA	NA	NA	NA	NA
1,3-Dichloropropane	µg/kg	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	µg/kg	NA	NA	NA	NA	NA
2,2-Dichloropropane	µg/kg	NA	NA	NA	NA	NA
2-Chlorotoluene	µg/kg	NA	NA	NA	NA	NA
4-Chlorotoluene	µg/kg	NA	NA	NA	NA	NA
Benzene	µg/kg	NA	NA	NA	NA	NA
Bromobenzene	µg/kg	NA	NA	NA	NA	NA
Bromochloromethane	µg/kg	NA	NA	NA	NA	NA
Bromodichloromethane	µg/kg	NA	NA	NA	NA	NA
Bromoform	µg/kg	NA	NA	NA	NA	NA
Bromomethane	µg/kg	NA	NA	NA	NA	NA
Carbon tetrachloride	µg/kg	NA	NA	NA	NA	NA
Chlorobenzene	µg/kg	NA	NA	NA	NA	NA
Chloroethane	µg/kg	NA	NA	NA	NA	NA
Chloroform	µg/kg	NA	NA	NA	NA	NA
Chloromethane	µg/kg	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	µg/kg	NA	NA	NA	NA	NA
Dibromochloromethane	µg/kg	NA	NA	NA	NA	NA
Dibromomethane	µg/kg	NA	NA	NA	NA	NA
Dichlorodifluoromethane	µg/kg	NA	NA	NA	NA	NA
Ethylbenzene	µg/kg	NA	NA	NA	NA	NA
Hexachlorobutadiene	µg/kg	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	µg/kg	NA	NA	NA	NA	NA
Methylene chloride	µg/kg	NA	NA	NA	NA	NA
N-Butylbenzene	µg/kg	NA	NA	NA	NA	NA
N-Propylbenzene	µg/kg	NA	NA	NA	NA	NA
Naphthalene	µg/kg	NA	NA	NA	NA	NA
p-Isopropyltoluene	µg/kg	NA	NA	NA	NA	NA
sec-Butylbenzene	µg/kg	NA	NA	NA	NA	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-390	18609-672-391	18609-672-392	18609-672-393	18609-672-394
Sample Location		UST-672 SB01	UST-672 SB02	UST-672 SB02	UST-672 SB02	UST-672 SB02
Date Collected		06/18/97	06/18/97	06/18/97	06/18/97	06/18/97
Sample Depth (feet below ground surface)		39.5	9.5	14.5	19.5	29.5
	Unit					
Styrene	µg/kg	NA	NA	NA	NA	NA
tert-Butylbenzene	µg/kg	NA	NA	NA	NA	NA
Tetrachloroethene	µg/kg	NA	NA	NA	NA	NA
Toluene	µg/kg	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	NA	NA	NA	NA	NA
Trichlorofluoromethane	µg/kg	NA	NA	NA	NA	NA
Vinyl Chloride	µg/kg	NA	NA	NA	NA	NA
Xylenes (total)	µg/kg	NA	NA	NA	NA	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-395	18609-478	18609-480	18609-481	18609-484
Sample Location		UST-672 SB02	UST-672 SB04	UST-672 SB04	UST-672 SB04	UST-672 SB04
Date Collected		06/18/97	09/04/97	09/04/97	09/04/97	09/04/97
Sample Depth (feet below ground surface)		39.5	20.0	30.0	35.0	50.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	210 U	120 U	240 U	230 U	1.2 U
TPH as Diesel	mg/kg	**5100** P	**5400**	**23000**	**7200**	12 U
TPH as JP-5	mg/kg	NA	NA	NA	NA	NA
TPH as Motor Oil	mg/kg	1000 U	1200 U	1200 U	1100 U	12 U
C31-C40 (Heavy Oil range Organics)	mg/kg	NA	NA	NA	NA	NA
EPA 1312/8015M						
TPH as Diesel (SPLP)	mg/L	0.7 P	NA	22	2.0	NA
TPH as Motor Oil (SPLP)	mg/L	NA	NA	5 U	0.5 U	NA
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	1000 U	580 U	1200 U	1100 U	6.1 U
Ethylbenzene	µg/kg	1000 U	580 U	1200 U	1100 U	6.1 U
Toluene	µg/kg	1000 U	580 U	1200 U	1100 U	6.1 U
Xylenes (total)	µg/kg	**4400**	1700 U	3500 U	3400 U	18 U
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	NA	5800 U	NA	57000 U	NA
1,1,1-Trichloroethane	µg/kg	NA	5800 U	NA	57000 U	NA
1,1,2,2-Tetrachloroethane	µg/kg	NA	5800 U	NA	57000 U	NA
1,1,2-Trichloroethane	µg/kg	NA	5800 U	NA	57000 U	NA
1,1-Dichloroethane	µg/kg	NA	5800 U	NA	57000 U	NA
1,1-Dichloroethene	µg/kg	NA	5800 U	NA	57000 U	NA
1,1-Dichloropropene	µg/kg	NA	5800 U	NA	57000 U	NA
1,2,3-Trichlorobenzene	µg/kg	NA	5800 U	NA	57000 U	NA
1,2,3-Trichloropropane	µg/kg	NA	5800 U	NA	57000 U	NA
1,2,4-Trichlorobenzene	µg/kg	NA	5800 U	NA	57000 U	NA
1,2,4-Trimethylbenzene	µg/kg	NA	9000	NA	150000	NA
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	NA	5800 U	NA	57000 U	NA
1,2-Dibromoethane (EDB)	µg/kg	NA	5800 U	NA	57000 U	NA
1,2-Dichlorobenzene	µg/kg	NA	5800 U	NA	57000 U	NA
1,2-Dichloroethane	µg/kg	NA	5800 U	NA	57000 U	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-395	18609-478	18609-480	18609-481	18609-484
Sample Location		UST-672 SB02	UST-672 SB04	UST-672 SB04	UST-672 SB04	UST-672 SB04
Date Collected		06/18/97	09/04/97	09/04/97	09/04/97	09/04/97
Sample Depth (feet below ground surface)		39.5	20.0	30.0	35.0	50.0
	Unit					
1,2-Dichloropropane	µg/kg	NA	5800 U	NA	57000 U	NA
1,3,5-Trimethylbenzene	µg/kg	NA	2600 J	NA	43000 J	NA
1,3-Dichlorobenzene	µg/kg	NA	5800 U	NA	57000 U	NA
1,3-Dichloropropane	µg/kg	NA	5800 U	NA	57000 U	NA
1,4-Dichlorobenzene	µg/kg	NA	5800 U	NA	57000 U	NA
2,2-Dichloropropane	µg/kg	NA	5800 U	NA	57000 U	NA
2-Chlorotoluene	µg/kg	NA	5800 U	NA	57000 U	NA
4-Chlorotoluene	µg/kg	NA	5800 U	NA	57000 U	NA
Benzene	µg/kg	NA	5800 U	NA	57000 U	NA
Bromobenzene	µg/kg	NA	5800 U	NA	57000 U	NA
Bromochloromethane	µg/kg	NA	5800 U	NA	57000 U	NA
Bromodichloromethane	µg/kg	NA	5800 U	NA	57000 U	NA
Bromoform	µg/kg	NA	5800 U	NA	57000 U	NA
Bromomethane	µg/kg	NA	1700 J	NA	15000 J	NA
Carbon tetrachloride	µg/kg	NA	5800 U	NA	57000 U	NA
Chlorobenzene	µg/kg	NA	5800 U	NA	57000 U	NA
Chloroethane	µg/kg	NA	5800 U	NA	57000 U	NA
Chloroform	µg/kg	NA	5800 U	NA	57000 U	NA
Chloromethane	µg/kg	NA	5800 U	NA	57000 U	NA
cis-1,2-Dichloroethene	µg/kg	NA	5800 U	NA	57000 U	NA
cis-1,3-Dichloropropene	µg/kg	NA	5800 U	NA	57000 U	NA
Dibromochloromethane	µg/kg	NA	5800 U	NA	57000 U	NA
Dibromomethane	µg/kg	NA	5800 U	NA	57000 U	NA
Dichlorodifluoromethane	µg/kg	NA	5800 U	NA	57000 U	NA
Ethylbenzene	µg/kg	NA	5800 U	NA	7600 J	NA
Hexachlorobutadiene	µg/kg	NA	5800 U	NA	57000 U	NA
Isopropylbenzene (Cumene)	µg/kg	NA	5800 U	NA	4100 J	NA
Methylene chloride	µg/kg	NA	5800 U	NA	57000 U	NA
N-Butylbenzene	µg/kg	NA	1900 J	NA	11000 J	NA
N-Propylbenzene	µg/kg	NA	540 J	NA	11000 J	NA
Naphthalene	µg/kg	NA	3200 J	NA	80000	NA
p-Isopropyltoluene	µg/kg	NA	1200 J	NA	19000 J	NA
sec-Butylbenzene	µg/kg	NA	810 J	NA	12000 J	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-672-395	18609-478	18609-480	18609-481	18609-484
Sample Location		UST-672 SB02	UST-672 SB04	UST-672 SB04	UST-672 SB04	UST-672 SB04
Date Collected		06/18/97	09/04/97	09/04/97	09/04/97	09/04/97
Sample Depth (feet below ground surface)		39.5	20.0	30.0	35.0	50.0
	Unit					
Styrene	µg/kg	NA	5800 U	NA	57000 U	NA
tert-Butylbenzene	µg/kg	NA	5800 U	NA	57000 U	NA
Tetrachloroethene	µg/kg	NA	5800 U	NA	57000 U	NA
Toluene	µg/kg	NA	5800 U	NA	57000 U	NA
trans-1,2-Dichloroethene	µg/kg	NA	5800 U	NA	57000 U	NA
Trichloroethene	µg/kg	NA	5800 U	NA	57000 U	NA
Trichlorofluoromethane	µg/kg	NA	5800 U	NA	57000 U	NA
Vinyl Chloride	µg/kg	NA	5800 U	NA	57000 U	NA
Xylenes (total)	µg/kg	NA	730 J	NA	66000 J	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-487	18609-490	18609-493	18609-494	18609-495
Sample Location		UST-672 SB04	UST-672 SB04	UST-672 SB05	UST-672 SB05	UST-672 SB05
Date Collected		09/04/97	09/04/97	09/04/97	09/04/97	09/04/97
Sample Depth (feet below ground surface)		65.0	80.0	25.0	45.0	55.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	1.2 U	1.0 U	1.1 U	1.1 U	1.2 U
TPH as Diesel	mg/kg	12 U	10 U	11 U	150	530
TPH as JP-5	mg/kg	NA	NA	NA	NA	NA
TPH as Motor Oil	mg/kg	12 U	10 U	11 U	11 U	60 U
C31-C40 (Heavy Oil range Organics)	mg/kg	NA	NA	NA	NA	NA
EPA 1312/8015M						
TPH as Diesel (SPLP)	mg/L	NA	NA	NA	NA	NA
TPH as Motor Oil (SPLP)	mg/L	NA	NA	NA	NA	NA
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	5.8 U	5.2 U	5.5 U	5.3 U	6.0 U
Ethylbenzene	µg/kg	5.8 U	5.2 U	5.5 U	5.3 U	6.0 U
Toluene	µg/kg	5.8 U	5.2 U	5.5 U	5.3 U	6.0 U
Xylenes (total)	µg/kg	17 U	16 U	16 U	16 U	18 U
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,1,1-Trichloroethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,1,2,2-Tetrachloroethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,1,2-Trichloroethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,1-Dichloroethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,1-Dichloroethene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,1-Dichloropropene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,2,3-Trichlorobenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,2,3-Trichloropropane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,2,4-Trichlorobenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,2,4-Trimethylbenzene	µg/kg	NA	5.2 U	5.5 U	NA	2 J
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,2-Dibromoethane (EDB)	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,2-Dichlorobenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,2-Dichloroethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-487	18609-490	18609-493	18609-494	18609-495
Sample Location		UST-672 SB04	UST-672 SB04	UST-672 SB05	UST-672 SB05	UST-672 SB05
Date Collected		09/04/97	09/04/97	09/04/97	09/04/97	09/04/97
Sample Depth (feet below ground surface)		65.0	80.0	25.0	45.0	55.0
	Unit					
1,2-Dichloropropane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,3,5-Trimethylbenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,3-Dichlorobenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,3-Dichloropropane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
1,4-Dichlorobenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
2,2-Dichloropropane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
2-Chlorotoluene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
4-Chlorotoluene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Benzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Bromobenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Bromochloromethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Bromodichloromethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Bromoform	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Bromomethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Carbon tetrachloride	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Chlorobenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Chloroethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Chloroform	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Chloromethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
cis-1,2-Dichloroethene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
cis-1,3-Dichloropropene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Dibromochloromethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Dibromomethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Dichlorodifluoromethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Ethylbenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Hexachlorobutadiene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Isopropylbenzene (Cumene)	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Methylene chloride	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
N-Butylbenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
N-Propylbenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Naphthalene	µg/kg	NA	5.2 U	5.5 U	NA	2 J
p-Isopropyltoluene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
sec-Butylbenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-487	18609-490	18609-493	18609-494	18609-495
Sample Location		UST-672 SB04	UST-672 SB04	UST-672 SB05	UST-672 SB05	UST-672 SB05
Date Collected		09/04/97	09/04/97	09/04/97	09/04/97	09/04/97
Sample Depth (feet below ground surface)		65.0	80.0	25.0	45.0	55.0
	Unit					
Styrene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
tert-Butylbenzene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Tetrachloroethene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Toluene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
trans-1,2-Dichloroethene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Trichloroethene	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Trichlorofluoromethane	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Vinyl Chloride	µg/kg	NA	5.2 U	5.5 U	NA	6.0 U
Xylenes (total)	µg/kg	NA	10 U	11 U	NA	12 U

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-496	18609-497	18609-498	18609-499
Sample Location		UST-672 SB05	UST-672 SB05	UST-672 SB05	UST-672 SB05
Date Collected		09/04/97	09/04/97	09/04/97	09/04/97
Sample Depth (feet below ground surface)		60.0	70.0	80.0	44.5
	Unit				
CA LUFT 8015M					
TPH as Gasoline	mg/kg	1.1 U	1.1 U	1.0 U	1.1 U
TPH as Diesel	mg/kg	11 U	11 U	10 U	11 U
TPH as JP-5	mg/kg	NA	NA	NA	NA
TPH as Motor Oil	mg/kg	11 U	11 U	10 U	11 U
C31-C40 (Heavy Oil range Organics)	mg/kg	NA	NA	NA	NA
EPA 1312/8015M					
TPH as Diesel (SPLP)	mg/L	NA	NA	NA	NA
TPH as Motor Oil (SPLP)	mg/L	NA	NA	NA	NA
EPA 418.1					
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA
EPA 8020					
Benzene	µg/kg	5.6 U	5.4 U	5.1 U	5.3 U
Ethylbenzene	µg/kg	5.6 U	5.4 U	5.1 U	5.3 U
Toluene	µg/kg	5.6 U	5.4 U	5.1 U	5.3 U
Xylenes (total)	µg/kg	17 U	16 U	15 U	16 U
EPA 8260A					
1,1,1,2-Tetrachloroethane	µg/kg	NA	NA	5.1 U	NA
1,1,1-Trichloroethane	µg/kg	NA	NA	5.1 U	NA
1,1,2,2-Tetrachloroethane	µg/kg	NA	NA	5.1 U	NA
1,1,2-Trichloroethane	µg/kg	NA	NA	5.1 U	NA
1,1-Dichloroethane	µg/kg	NA	NA	5.1 U	NA
1,1-Dichloroethene	µg/kg	NA	NA	5.1 U	NA
1,1-Dichloropropene	µg/kg	NA	NA	5.1 U	NA
1,2,3-Trichlorobenzene	µg/kg	NA	NA	5.1 U	NA
1,2,3-Trichloropropane	µg/kg	NA	NA	5.1 U	NA
1,2,4-Trichlorobenzene	µg/kg	NA	NA	5.1 U	NA
1,2,4-Trimethylbenzene	µg/kg	NA	NA	5.1 U	NA
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	NA	NA	5.1 U	NA
1,2-Dibromoethane (EDB)	µg/kg	NA	NA	5.1 U	NA
1,2-Dichlorobenzene	µg/kg	NA	NA	5.1 U	NA
1,2-Dichloroethane	µg/kg	NA	NA	5.1 U	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-496	18609-497	18609-498	18609-499
Sample Location		UST-672 SB05	UST-672 SB05	UST-672 SB05	UST-672 SB05
Date Collected		09/04/97	09/04/97	09/04/97	09/04/97
Sample Depth (feet below ground surface)		60.0	70.0	80.0	44.5
	Unit				
1,2-Dichloropropane	µg/kg	NA	NA	5.1 U	NA
1,3,5-Trimethylbenzene	µg/kg	NA	NA	5.1 U	NA
1,3-Dichlorobenzene	µg/kg	NA	NA	5.1 U	NA
1,3-Dichloropropane	µg/kg	NA	NA	5.1 U	NA
1,4-Dichlorobenzene	µg/kg	NA	NA	5.1 U	NA
2,2-Dichloropropane	µg/kg	NA	NA	5.1 U	NA
2-Chlorotoluene	µg/kg	NA	NA	5.1 U	NA
4-Chlorotoluene	µg/kg	NA	NA	5.1 U	NA
Benzene	µg/kg	NA	NA	5.1 U	NA
Bromobenzene	µg/kg	NA	NA	5.1 U	NA
Bromochloromethane	µg/kg	NA	NA	5.1 U	NA
Bromodichloromethane	µg/kg	NA	NA	5.1 U	NA
Bromoform	µg/kg	NA	NA	5.1 U	NA
Bromomethane	µg/kg	NA	NA	5.1 U	NA
Carbon tetrachloride	µg/kg	NA	NA	5.1 U	NA
Chlorobenzene	µg/kg	NA	NA	5.1 U	NA
Chloroethane	µg/kg	NA	NA	5.1 U	NA
Chloroform	µg/kg	NA	NA	5.1 U	NA
Chloromethane	µg/kg	NA	NA	5.1 U	NA
cis-1,2-Dichloroethene	µg/kg	NA	NA	5.1 U	NA
cis-1,3-Dichloropropene	µg/kg	NA	NA	5.1 U	NA
Dibromochloromethane	µg/kg	NA	NA	5.1 U	NA
Dibromomethane	µg/kg	NA	NA	5.1 U	NA
Dichlorodifluoromethane	µg/kg	NA	NA	5.1 U	NA
Ethylbenzene	µg/kg	NA	NA	5.1 U	NA
Hexachlorobutadiene	µg/kg	NA	NA	5.1 U	NA
Isopropylbenzene (Cumene)	µg/kg	NA	NA	5.1 U	NA
Methylene chloride	µg/kg	NA	NA	5.1 U	NA
N-Butylbenzene	µg/kg	NA	NA	5.1 U	NA
N-Propylbenzene	µg/kg	NA	NA	5.1 U	NA
Naphthalene	µg/kg	NA	NA	5.1 U	NA
p-Isopropyltoluene	µg/kg	NA	NA	5.1 U	NA
sec-Butylbenzene	µg/kg	NA	NA	5.1 U	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

OHM Sample Number		18609-496	18609-497	18609-498	18609-499
Sample Location		UST-672 SB05	UST-672 SB05	UST-672 SB05	UST-672 SB05
Date Collected		09/04/97	09/04/97	09/04/97	09/04/97
Sample Depth (feet below ground surface)		60.0	70.0	80.0	44.5
	Unit				
Styrene	µg/kg	NA	NA	5.1 U	NA
tert-Butylbenzene	µg/kg	NA	NA	5.1 U	NA
Tetrachloroethene	µg/kg	NA	NA	5.1 U	NA
Toluene	µg/kg	NA	NA	5.1 U	NA
trans-1,2-Dichloroethene	µg/kg	NA	NA	5.1 U	NA
Trichloroethene	µg/kg	NA	NA	5.1 U	NA
Trichlorofluoromethane	µg/kg	NA	NA	5.1 U	NA
Vinyl Chloride	µg/kg	NA	NA	5.1 U	NA
Xylenes (total)	µg/kg	NA	NA	10 U	NA

Table 2 - 2
Soil Boring Sample Analytical Results - USTs 672A and 672B

Explanation:
CA LUFT - California Leaking Underground Fuel Tank
E - east
EPA - United States Environmental Protection Agency
J - estimated
JP - estimated and fuel pattern does not match laboratory standard
M - modified
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
N - north
NA - not analyzed
NE - northeast
NW - northwest
OHM - OHM Remediation Services Corp.
ORGLEAD - organic lead
P - fuel pattern dose not match laboratory standard
S - south
SB - soil boring
SE - southeast
SPLP - synthetic precipitation leaching procedure
SW - southwest
TPH - total petroleum hydrocarbons
U - not detected above or equal to the stated reporting limit
UST - underground storage tank
W - west
µg/kg - micrograms per kilogram

Appendix A
RFA Background Information

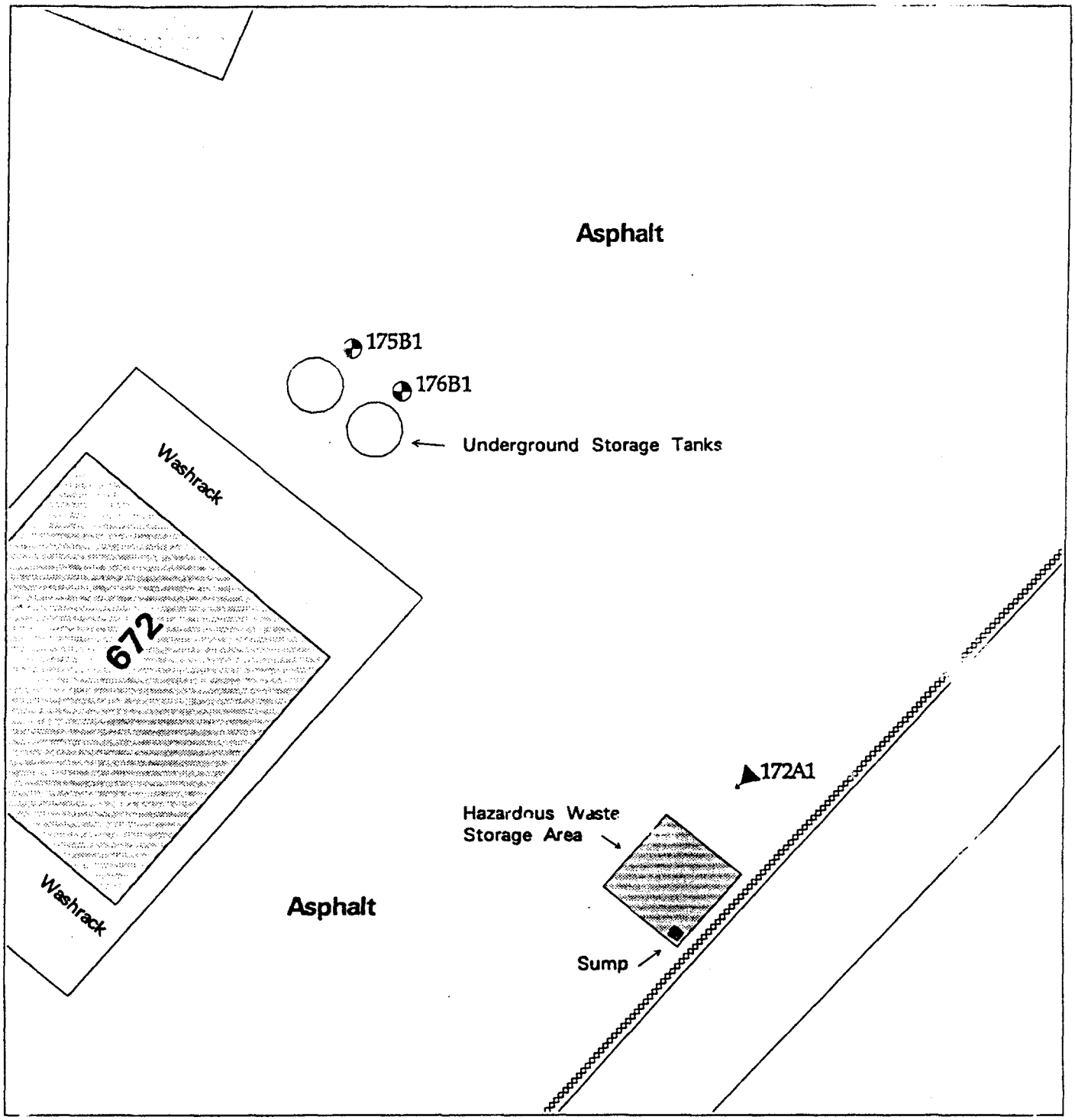


Figure 53 Sample Location Map

Boring Location and Number:

- 123H4 5′ Deep Boring
- 123B4 25′ Deep Boring
- 123A4 60′ Long, Angle Boring

Features:

- Building
- Concrete
- Fence
- Railroad

Scale

0 10 20 40 Feet

SWMU/AOC Number and Type:

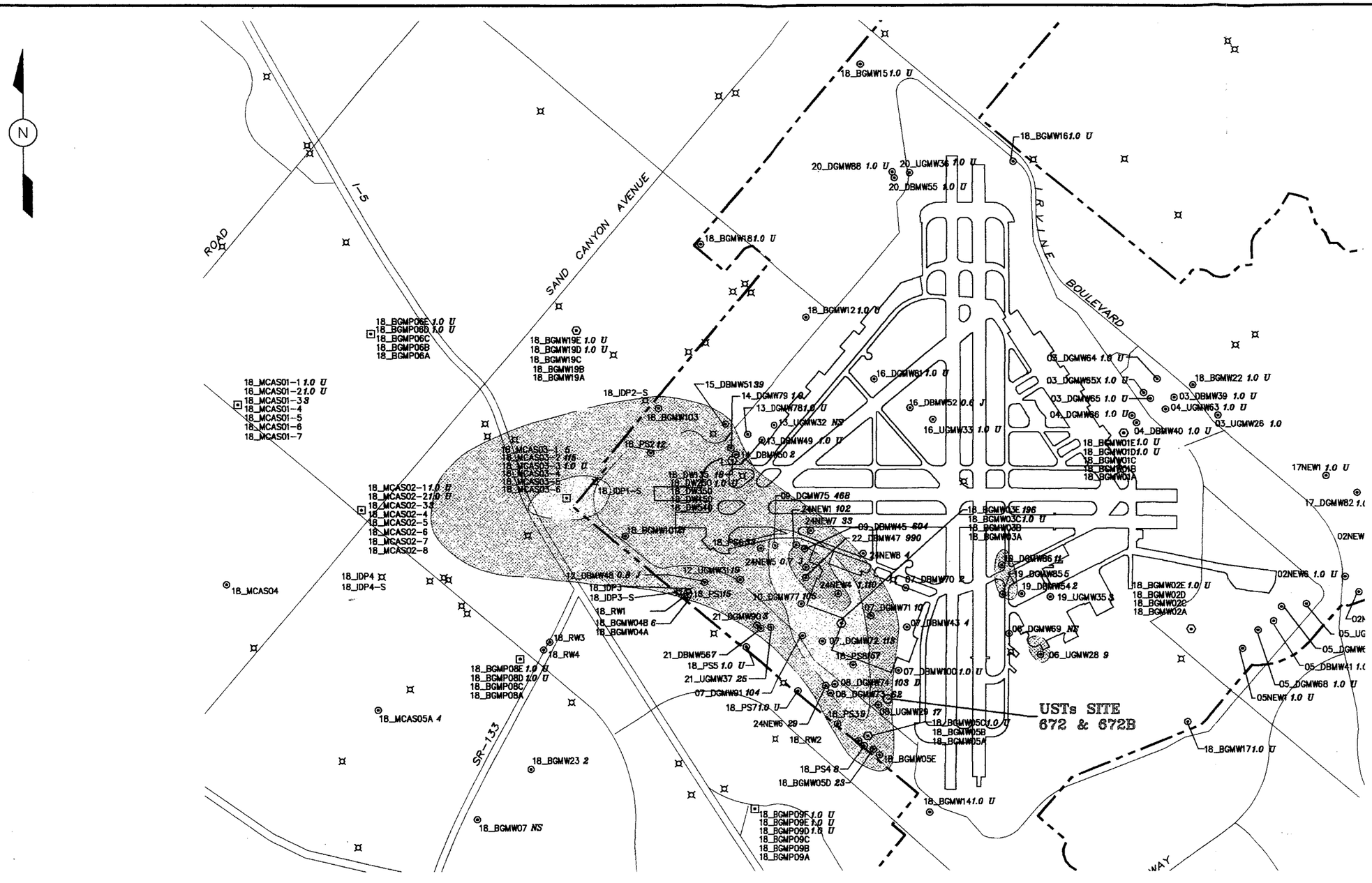
172 - Hazardous Waste Storage Area
175 - Underground Storage Tank
176 - Underground Storage Tank

MCAS El Toro
RCRA Facility Assessment

MCAS EL TORO RCRA FACILITY ASSESSMENT -- SAMPLING VISIT RESULTS

SWMU/AOC NUMBER	SWMU/AOC TYPE (FIGURE)	BORING NUMBER	SAMPLE DEPTH (FEET)	ANALYTICAL TEST RESULTS							RECOMMENDATIONS	
				TPH (mg/kg)	TFH (mg/kg)		VOCs (ug/kg)	SVOCs (ug/kg)	PESTICIDES/PCBs (ug/kg)	METALS (mg/kg)	Action	Rationale
					Gasoline	Diesel						
176	Underground Storage Tank (53)	B1	5	18136	2540	26200	Methylene Chloride-1700 BJ * Acetone-2300 BJ * Toluene-3300 Xylene-37000 2-Butanone-7600 Ethylbenzene-7100	NA	NA	NA	Additional borings.	Petroleum hydrocarbon contamination, unknown extent.
			10	6934	1780	26700	Methylene Chloride-1300 BJ * Acetone-1900 BJ * Xylene-39000 2-Butanone-7000 Ethylbenzene-7800 2-Hexanone-3000	NA	NA	NA		TPH/TFH > 1000 ppm VOCs < ETM & PRG
			15	10377	1960	87.1	Methylene Chloride-1500 BJ * Acetone-2800 B * Xylene-21000 2-Butanone-5600 Ethylbenzene-4800 2-Hexanone-1800 J	NA	NA	NA		
			15 (Duplicate)	12309	921	11500	Methylene Chloride-1300 BJ Acetone-3800 B * Xylene-22000 2-Butanone-6000 Ethylbenzene-4700	NA	NA	NA		
			20	5495	2110	5740	Methylene Chloride-12 B * Acetone-12 B * Toluene-120 Xylene-6300 D Ethylbenzene-2100 DJ Benzene-42	NA	NA	NA		
			25	8663	1320	9700	Methylene Chloride-35 BJ * Acetone-47 BJ * Xylene-6000 D Benzene-51 J Ethylbenzene-740 2-Hexanone-370	NA	NA	NA		

Appendix B
TCE Plume Map



REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED
01	XELTBASE.DWG BY BECHTEL NATIONAL, INC		
02	17486099.DWG OHM DRAWING BY A. SUAREZ	02/12/98	
03	17486006.DWG OHM DRAWING BY R. PIRMORADIAN	03/09/98	
04	18609113.DWG OHM DRAWING BY R. PIRMORADIAN	03/10/98	

CONTRACT NAME: SWDIV

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

DRAWN BY: R. PIRMORADIAN DATE: 03/10/98
CHECKED BY DATE
APPROVED BY DATE
PROJECT MANAGER DATE
AUTOCAD FILE No. 18609113.DWG

CHLORINATED SOLVENT PLUME IN GROUNDWATER

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW3618	18609	APPENDIX B

Mar 10, 1998 – 10:44:53 G:\PROJECTS\18609\18609113.dwg

Appendix C
Orange County Health Care Agency Modification Application and Approval Forms

COUNTY OF ORANGE

TOM URAM
DIRECTOR

HUGH F. STALLWORTH, M.D.
HEALTH OFFICER

ENVIRONMENTAL HEALTH DIVISION
ROBERT E. MERRYMAN, REHS, MPH
DEPUTY DIRECTOR

HEALTH CARE AGENCY
PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION
2009 E. EDINGER AVENUE
SANTA ANA, CALIFORNIA 92705
(714) 667-3700

FACILITY MODIFICATION APPLICATION
TALLATION/REMOVAL/REPAIR)
COMPLETE PAGES 1 & 2)

DATE: 12/6/96

LITY INFORMATION

E: MARINE CORPS AIR STATION

EET ADDRESS: NEAR GATE NO. 2 (See attached Map)

: ELTORO, CA 92709

AL NUMBER OF TANKS (AFTER INSTALLATION/REMOVAL) HIS LOCATION: 0

E OF BUSINESS:
- ☐ GASOLINE STATION
- ☒ GOVERNMENT
- ☐ FARM
- ☐ OTHER

WNER NAME (CORP., INDIVIDUAL, PUBLIC AGENCY):

MCAS ELTORO A/C ENVIRONMENTAL & SAFETY

EET ADDRESS: P O BOX 95001

: SANTA ANA

TE: CA ZIP 92709-5001

EPHONE NO: 714-726-6607

ING ADDRESS INFORMATION

TO NAME: OHM REMEDIATION SERVICES CORP.

TO ADDRESS: 2031 MAIN STREET

: IRVINE

TE: CA ZIP 92714

EPHONE NO.: 714-263-1146

TYPE OF CONSTRUCTION

INDICATE NO. OF TANK(S) BEING REMOVED/REPAIRED/INSTALLED BELOW: (COMPLETE PAGE 2 - INDICATING THE TANKS TO BE INSTALLED/REMOVED, OR AFFECTED BY THE REPAIR)

- ☐ INSTALLATION(S)
- ☐ REPAIR(S)/RELINE(S) TO USTs
- ☒ CLOSURE(S)/REMOVAL(S) 10+4 = 14
- ☐ SYSTEM MODIFICATION (E.G. REPIPE, REPAIR TO PIPING)
- ☐ OTHER (SPECIFY)

24 HOUR EMERGENCY CONTACT PERSON

DAYS: SCOTT KEHE 714-726-2506
NAME TELEPHONE
OHM - 1-800-537-9540 (24HR)
NIGHTS: ELTORO - 714-726-9911 | 2172
NAME TELEPHONE

APPLICANT

NAME: DHANANJAY RAWAL
PLEASE PRINT

SIGNATURE: [signature]

COMPANY NAME: OHM REMEDIATION SERVICES CORP

TELEPHONE NO: 714-263-9124 x 303

FACILITY OPERATOR (CONTACT PERSON)

NAME: LT HOPE KACHARIAN, MCAS ENV. DEPT.

BUSINESS TELEPHONE NO.: 714-726-3386

ES: NEW INSTALLATIONS, CLOSURES, REPAIRS AND SYSTEM MODIFICATIONS OF UNDERGROUND STORAGE TANKS REQUIRE THE SUBMITTAL OF (4) SETS OF PLANS TO THIS DIVISION. THESE PLANS MUST BE APPROVED PRIOR TO THE INITIATION OF ANY CONSTRUCTION OR MODIFICATION. ALL PLANS OR REPORTS REQUIRED MUST ACCOMPANY THIS FORM AT THE TIME OF SUBMITTAL.

PLAN APPROVAL AND FEES ARE VALID FOR ONE YEAR. IF TANKS HAVE NOT BEEN REMOVED, INSTALLED OR MODIFIED WITHIN ONE YEAR OF THE APPROVAL DATE, NEW PLANS AND FEES MUST BE SUBMITTED.

12/9/96

OFFICE USE ONLY

HSO # 141000

PLAN CHECK NO.: 96-193 FEES PAID: 1024 + 372 RCVD. BY: DJ CK # 836732/836733

PLAN APPROVAL DATE: 12/12/96 BY: DE

BER OF TANKS TO RECEIVE A SURCHARGE BILL: NUMBER OF TANKS TO BE ADDED TO BILLING:

Fees pd - $372.00 12-10-96

PAID

TANK INFORMATION

IDE THE INFORMATION BELOW FOR ALL TANKS AND PIPING SYSTEMS TO BE INSTALLED, REMOVED OR REPAIRED. ALSO INDICATE THE HANGES TO BE MADE TO EACH TANK SYSTEM.

	TANK I.D.		672 #1	672 B#2	T-9 #3	T-10 #4
ATERIAL STORED	MATERIAL OR WASTE STORED	CURRENTLY	WASTE OIL	WASTE OIL	JP-5	JP-5
		PROPOSED	—	—	—	—
		PREVIOUSLY	WASTE OIL JP-5	WASTE OIL	JP-5	JP-5
	FUEL TYPE, I.E., UNLEADED		N/A	N/A	N/A	N/A
	TYPE (TANK, SUMP, OTHERS)		TANK	TANK	TANK	TANK
	DOUBLE WALL/SINGLE WALL		SINGLE WALL	SINGLE WALL	SINGLE WALL	SINGLE WALL
	UL NUMBER		N/A	N/A	N/A	N/A
	YEAR INSTALLED		N/A	N/A	N/A	N/A
	VAULTED/NOT VAULTED		UNKNOWN	UNKNOWN	UNKnown	UNKnown
TANK	PRIMARY	MANUFACTURER	N/A	N/A	N/A	N/A
		CAPACITY (GALLONS)	500	1000	2000	1000
		CONSTRUCTION MATERIAL	STEEL	STEEL	Fiberglass Coated Steel	Fiberglass Coated Steel
		THICKNESS (UNITS)	N/A	N/A	N/A	N/A
		INTERIOR LINING	N/A	N/A	N/A	N/A
	SECONDARY	MANUFACTURER	None	None	None	None
		CAPACITY (GALLONS)				
		CONSTRUCTION MATERIAL				
		THICKNESS (UNITS)	None	None	None	None
	CORROSION PROTECTION					
	TYPE OF LEAK DETECTION FOR USTs (LIQUID, PROBE, ETC.)					
	MANUFACTURER OF LEAK DETECTOR					
PIPING	LOCATION (UNDER/ABOVE GROUND)		Underground	Underground	Underground	Underground
	SUCTION/PRESSURE GRAVITY/UNKNOWN		Unknown	Unknown	Unknown	Unknown
	PRIMARY	CONSTRUCTION MATERIAL	Steel	Steel	Unknown	Unknown
		MANUFACTURER				
	SECONDARY	CONSTRUCTION MATERIAL				
		MANUFACTURER				
	TYPE OF LEAK DETECTION FOR PIPING (PRESSURE LOSS DEVICE, ETC.)					
	MANUFACTURER OF LEAK DETECTOR					
RFILL PROTECTION (TYPE)			None	None	None	None
TAINMENT (TYPE)			None	None	None	None

APPROVED

ORANGE COUNTY HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH DIVISION
HAZARDOUS MATERIALS MANAGEMENT SECTION
THIS APPROVAL IS VALID FOR 12 MONTHS FROM THE APPROVAL DATE

AR	12/12/96	96PC195
Plan Reviewed By	Date	Plan #

This approval shall not be construed to permit the violation of any law, nor does it prevent further corrections of errors found on the plans. Plans must be resubmitted for approval if any additional changes are made by the applicant.

In addition to this approval, all applicable permits required by the local fire department, building department, and the Air Quality Management District must be obtained.

Underground tank installation, removal, and repair inspections [illegible] and must be scheduled [illegible] in advance. Contact (714) 667-[illegible] appointment.

A copy of these approved plans must be available at the site at all times.

All piping associated with underground storage tanks shall be removed and properly disposed of

Appendix D
Geophysical Survey Data

GEOVision
geophysical services
a division of Agbabian Associates

GEOPHYSICAL SURVEY RESULTS FOR UST SITE 672A & 672B

MARINE CORPS AIR STATION, EL TORO
SANTA ANA, CALIFORNIA

Prepared for

OHM Remediation Services Corporation
Irvine, California

Prepared by

GEOVISION GEOPHYSICAL SERVICES
1785 Pomona Road, Suite B
Corona, California, 91720

November 12, 1996

GEOVISION JOB NUMBER: 97206

1.0 Introduction

A geophysical investigation was carried out on November 6, 1996 for OHM Remediation Services Corporation at Underground Storage Tank (UST) site 672A & 672B, located at Marine Corps Air Station (MCAS) El Toro, Santa Ana, California. The investigation was conducted to verify and accurately locate the presence of a UST and to locate and mark all detectable underground utilities.

2.0 Field Procedures

GEOVision's standard clearance procedures were used to survey the site for the presence of a UST and to accurately locate underground utilities in the surrounding area. GEOVision field teams used the attached GEOPHYSICAL CLEARANCE FORM to ensure that all appropriate procedures were followed. Procedures that were not appropriate for the site were lined out.

First, base utility maps were consulted for UST Site 672A & 672B. If a utility line appeared to have been installed near the site, it was traced and marked using a Metrotech 9890 multi-frequency utility locator (Metrotech). The utility line was marked on the ground surface using surveyor's paint and was color coded with the appropriate APWA color for the type of underground utility. For dirt areas, color coded stake chasers were also installed.

The field team then inspected the site and traced all pipes and utilities evident from field observations (i.e. manhole, vault, valve, cracked/patched asphalt, vent line, etc.).

The crew then used the Metrotech in the 50/60 Hz mode, which picks up any live electrical utilities in the area, to sweep the site. Any live electrical utilities located in this way were traced and marked on the ground with the appropriate color paint.

The Metrotech was then used to circle the suspected tank site. One field crew member would stand on or near the suspected tank location holding the transmitter, and keeping it constantly oriented on the second crew member who would sweep out a circle around the suspected tank location.

A GSSI SIR-2 digital Ground Penetrating Radar (GPR) system was then used to collect GPR profiles over the suspected tank bed. Profiles were collected using either a 300 MHz or 500 MHz antenna, depending on which antenna gave the best depth penetration and resolution for the soil conditions beneath the site. A marker switch on the antenna handle was used to place 5' spaced distance marks on each profile as the antenna was pulled along the ground over the suspected tank location. Additional profiles were collected until the field supervisor was

confident that the tank location could be accurately marked. All GPR records were stored on the system's harddrive for later processing and archiving, and were printed out onsite using a portable printer. Representative GPR profiles, hand annotated by the operator in the field, are attached.

The tank bed locations were marked on the ground using florescent orange surveyor's paint. An accurate, scaled geophysical survey map was then drawn on the back of the GEOPHYSICAL CLEARANCE FORM. All landmarks and buildings in the vicinity were drawn in and labeled. All utilities identified and marked on the ground were also accurately plotted on the survey map. All GPR profiles collected are shown on the map along with their corresponding file numbers.

3.0 Conclusions

UST Site 672A & 672B is located inside of the fuel truck fueling area. The two tanks are side by side and are covered by asphalt. Fill caps that have been sealed shut are visible for both tanks. GPR was used to mark each tank bed. The tanks appear to be of different size. The vent lines were traced up to the reinforced concrete bermed area, where they were no longer traceable because of interference.

GE Vision
geophysical services
a division of Agbabian Associates

GEOPHYSICAL CLEARANCE FORM

PROJECT NAME: OHM El Toro PROJECT NUMBER 97206
LOCATION MCAS El Toro
DATE 11/6/96 TIME 0800
SITE DESCRIPTION: Tank 672A / 672B

GEOPHYSICAL EQUIPMENT

GROUND PENETRATING RADAR (GPR) UNIT: SIR-2 MAGNET~~OMETER~~:
ELECTROMAGNE~~TIC (EM)~~: EM LINE TRACER (LT): M9890
METAL DETECTOR (MD): Fisher G-3 OT~~HER~~:

PROCEDURES

☑ 1. Inspect available utility maps and trace all recorded utilities in the vicinity of the proposed drilling location using LT, and if necessary GPR.
~~☐ 2. Review~~ available geophysical data: ☐ Magnetic ☐ EM-31 ☐ EM-61
☑ 3. Inspect site and trace all pipes evident from field observations (ie. manhole, vault, valve, cracked asphalt, pipe at surface, etc)
☑ 4. Sweep proposed drilling location with LT in 50/60 Hz mode
☑ 5. Hold LT transmitter over proposed ~~drilling~~ location and circle at about a 40 foot radius with reciever tracing all utilities encountered.
☑ 6. Conduct two perpendicular GPR profiles through proposed borehole.
GPR antenna: 500MHz
GPR range: 30 nsec Estimated depth penetration *: 3'/4'
* utility lines below this depth cannot be detected using GPR
☑ 7. Other TANK 805 OUTLINED IN ORANGE PAINT. ~~OTHER~~ UTILITES MARKED IN A.P.W.A. COLORS.

FIELD PERSONNEL: R.A. MERRILL / D. PENDERGRAFT

SIGNATURE: [signature]

762/B

FILE399(11/06/96 09:46:02) Samp/Scan 512 S→N 500 5' ticks
Scan/Sec 32.0 Bits: 8
Dielectric: 1.00

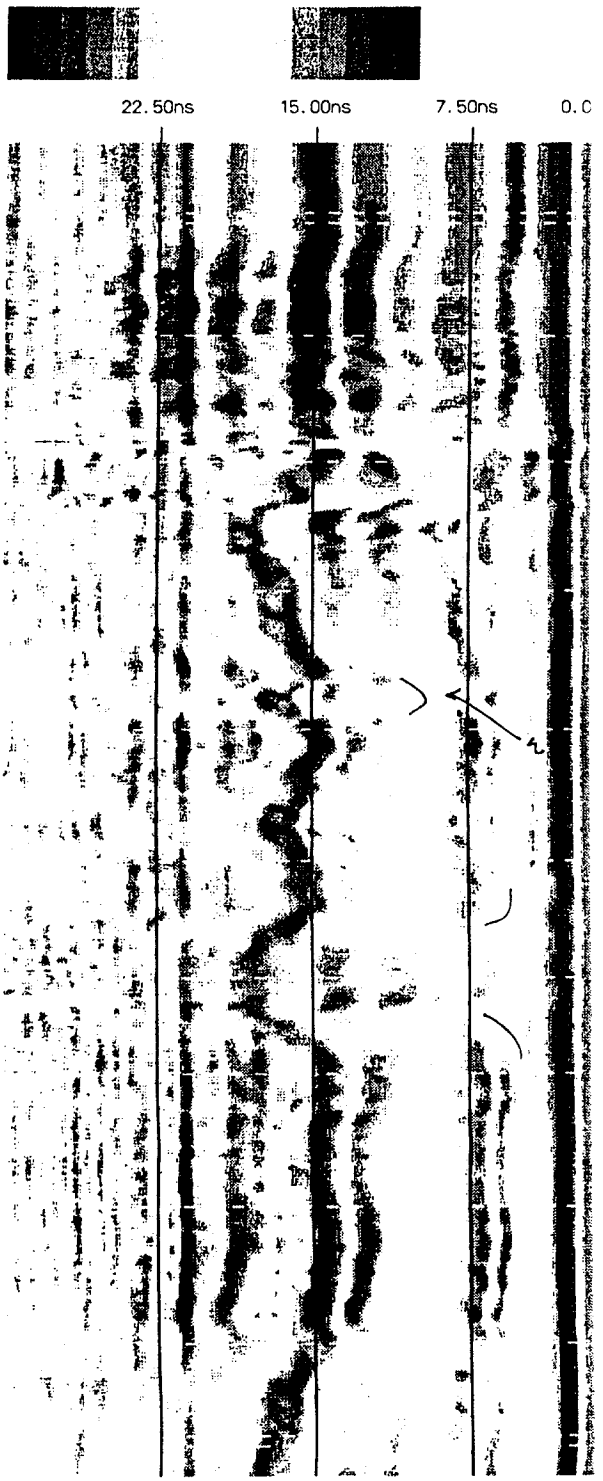
Position: 0.0nS Range: 30.0nS
Range Gain -9 8 36 55 63
V(IIR LP N=1 F=1100)
V(IIR HP N=2 F=50)

Table #15; Transform #1

FILE403(11/06/96 10:01:22) Samp/Scan 512 S→N 500 MHz 5'
Scan/Sec 32.0 Bits: 8
Dielectric: 1.00

Position: 0.0nS Range: 30.0nS
Range Gain -9 8 36 55 63
V(IIR LP N=1 F=1100)
V(IIR HP N=2 F=50)

Table #15; Transform #1



Appendix E
Laboratory Analytical Reports

OH Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

186561

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
UST 672 DO75	MCAS EL TORO

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
18609	Thizar-Tintut-Williams	(714) 263-1146

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
Lynn Horenecker - SWDIV	Bill Sedlak - OHM

APCL
5 DAY TAT

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	8020	418.1	TPH Full Range						REMARKS
1	18609-672 -080	2/6/97	0800		X	TRIP BLANK For 2-6-97	1	X								~~HOLD~~
2	18609-672 -081	2/6/97	0820		X	Rinsate For UST672 Hand Auger.	4	X	X	X						~~HOLD~~ CB
3	18609-672B -082	2/6/97	0930		X	Hand Auger SW Offset 10ft Depth 10ft Soil Confirmation	1	X	X	X						~~HOLD~~ CB
4	18609-672B -083	2/6/97	1000		X	Hand Auger SW Offset 10ft Depth 15ft Soil Confirmation	1	X	X	X						~~HOLD~~ CB
5	18609-672B -084	2/6/97	1015		X	West Corner Offset 10ft Depth 1½ft Hand Auger Soil Confirmation	1	X	X	X						~~HOLD~~ CB
6	18609-672B -085	2/6/97	1100		X	Hand Auger SW Offset 10ft Depth 20ft Soil Confirmation	1	X	X	X						~~HOLD~~ CB
7	18609-672 -086	2/6/97	1245		X	Hand Auger West Corner 5ft Depth Soil Confirmation	1	X	X	X						~~HOLD~~ CB
8	18609-672 -087	2/6/97	1320		X	Hand Auger West Corner 10ft Depth Soil Confirmation	1	X	X	X						~~HOLD~~ CB
9	18609-672 -088	2/6/97	1350		X	Hand Auger West Corner 15ft Depth Soil Confirmation	1	X	X	X						~~HOLD~~ CB LEVEL "D" Data Deliverable
10	18609-672 -089	2/6/97	1425		X	Hand Auger West Corner Offset 10ft (Depth 20ft) Soil Confirmation	1	X	X	X						~~HOLD~~ CB

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 to 10	Chris Bigler	Juan Carlos Rdz	2/7/97	8:30
2					
3					
4					

REMARKS
Courier Pick up to Lab.
Level "C" Data Deliverable.

SAMPLER'S SIGNATURE
Chris Bigler

CHAIN OF CUSTODY
Orange County Health Care Agency
Environmental Health Division
2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

1. **ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.**

2. **PLEASE WRITE LEGIBLY.**

3. **ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.**

4. **TO BE COMPLETED BY LABORATORY ANALYST**

LAB NO.: _____

DATE RECEIVED: _____

SAMPLE(S) CONDITION (PLEASE CHECK):

CHILLED: _____ COUNTY SEAL(S) INTACT: _____

CONTAINER IN GOOD CONDITION: _____

DATE ANALYSIS COMPLETED: _____

ANALYST: _____

5. **TO BE COMPLETED BY SAMPLE COLLECTOR**

SITE NAME/ADDRESS: MAS El Toro
Tanks 672 & 672B, Santa Ana

DATE OF COLLECTION: 2-24-97

SAMPLE COLLECTOR/COMPANY: M. Brown
OHM Remediation

TELEPHONE NO.: _____

HCA REPRESENTATIVE: A. Rashid-Ahmed

6.

	SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
1840	672 133	TPH (418.1) JP5 (8015), BTEX (8020)	TRPH (418.1) & 8240	9:15am
1845	672 134			9:20am
1850	672-135			9:25am
1855	672-136			9:33am
1900	672 137			9:36am
1905	672-138			9:55am

7. **CHAIN OF CUSTODY**

	SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
1.	Alighman Rashid-Ahmed	HZ. Waste	2-24-97 10:35am
2.	Mark L. Brown	OHM/SF Tech.	2-24-97 - 10:35AM
3.	[illegible]	APCI	2-4-97 - 12:30pm
4.			-
5.			-
6.			-

WHITE-RETURN THIS COPY TO ENVIRONMENTAL HEALTH, CANARY-LABORATORY COPY
PINK-CONTRACTOR/CONSULTANT COPY, GOLDENROD-OFFICE COPY

F272-9.1531.1(R8/89) CRS

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/10/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97G1296-MB-01	Received Date:	02/10/97
Sample ID:	**97G1296-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/10/97	Anal. Date:	02/10/97
Batch No:	97G1296	Prep. No:	–	Anal. Time:	13:03
Data File Name:	1296G.K01	Sample Amount:	5 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
6	M/P-XYLENE	108-38-3	μg/L	1	<1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	103
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	111
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000397

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/11/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97G1296-MB-02	Received Date:	02/11/97
Sample ID:	**97G1296-MB-02**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/11/97	Anal. Date:	02/11/97
Batch No:	97G1296	Prep. No:	–	Anal. Time:	11:18
Data File Name:	1296G.K02	Sample Amount:	5 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	< 0.05	U
2	BENZENE	71-43-2	μg/L	0.5	< 0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	< 0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	< 0.5	U
5	O-XYLENE	95-47-6	μg/L	0.5	< 0.5	U
6	M/P-XYLENE	108-38-3	μg/L	1	< 1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	103
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	116
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000308

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/11/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97G1319-MB-01	Received Date:	02/11/97
Sample ID:	**97G1319-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/11/97	Anal. Date:	02/11/97
Batch No:	97G1319	Prep. No:	–	Anal. Time:	19:06
Data File Name:	1319G.K01	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1	<1	U
2	BENZENE	71-43-2	μg/kg	5	<5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5	<5	U
4	TOLUENE	108-88-3	μg/kg	5	<5	U
5	O-XYLENE	95-47-6	μg/kg	5	<5	U
6	M/P-XYLENE	108-38-3	μg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	72
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	84
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	103
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000309

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/12/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97G1324-MB-01	Received Date:	02/12/97
Sample ID:	**97G1324-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1324	Prep. No:	–	Anal. Time:	12:07
Data File Name:	1324G.K01	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1	<1	U
2	BENZENE	71-43-2	μg/kg	5	<5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5	<5	U
4	TOLUENE	108-88-3	μg/kg	5	<5	U
5	O-XYLENE	95-47-6	μg/kg	5	<5	U
6	M/P-XYLENE	108-38-3	μg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	114
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	88
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	94
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000310

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-2	Received Date:	02/07/97
Sample ID:	**18609-672-081**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/10/97	Anal. Date:	02/10/97
Batch No:	97G1296	Prep. No:	–	Anal. Time:	18:27
Data File Name:	1406.002	Sample Amount:	5 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
6	M/P-XYLENE	108-38-3	μg/L	1	<1	U

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	98
2 4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	110
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	101
# of out-of-control			0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000311

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-3	Received Date:	02/07/97
Sample ID:	**18609-672B-082**	Sample Matrix	Soil	Moisture %:	13.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1319	Prep. No:	–	Anal. Time:	00:55
Data File Name:	1406.003	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.7	<5.7	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.7	<5.7	U
4	TOLUENE	108-88-3	μg/kg	5.7	<5.7	U
5	O-XYLENE	95-47-6	μg/kg	5.7	<5.7	U
6	M/P-XYLENE	108-38-3	μg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	83
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	105
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000312

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-4	Received Date:	02/07/97
Sample ID:	**18609-672B-083**	Sample Matrix	Soil	Moisture %:	13.6
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1319	Prep. No:	–	Anal. Time:	01:20
Data File Name:	1406.004	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	< 1.2	U
2	BENZENE	71-43-2	μg/kg	5.8	< 5.8	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.8	< 5.8	U
4	TOLUENE	108-88-3	μg/kg	5.8	< 5.8	U
5	O-XYLENE	95-47-6	μg/kg	5.8	< 5.8	U
6	M/P-XYLENE	108-38-3	μg/kg	12	< 12	U

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	90
2 4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	96
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	110
# of out-of-control			0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000313

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-5	Received Date:	02/07/97
Sample ID:	**18609-672-084**	Sample Matrix	Soil	Moisture %:	7.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1324	Prep. No:	–	Anal. Time:	17:26
Data File Name:	1406.105	Sample Amount:	5 g	Dilution Factor:	100
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	110	27 [a]	J
2	BENZENE	71-43-2	μg/kg	540	130	J
3	ETHYLBENZENE	100-41-4	μg/kg	540	4000	
4	TOLUENE	108-88-3	μg/kg	540	430	J
5	O-XYLENE	95-47-6	μg/kg	540	4000	
6	M/P-XYLENE	108-38-3	μg/kg	1100	2400	

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	97
2 4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	108
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	85
# of out-of-control			0

[a] Not a typical gas pattern. Most of the peaks in the chromatogram correspond to the heavier portion of the chain.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

File : c:\data\9702\97g1324\1406.105
Method : c:\ezchrom\methods\lufts046.b00
Sample ID : 1406-5 S f=100
Acquired : Feb 12, 1997 17:26:42
Printed : Feb 18, 1997 11:46:55

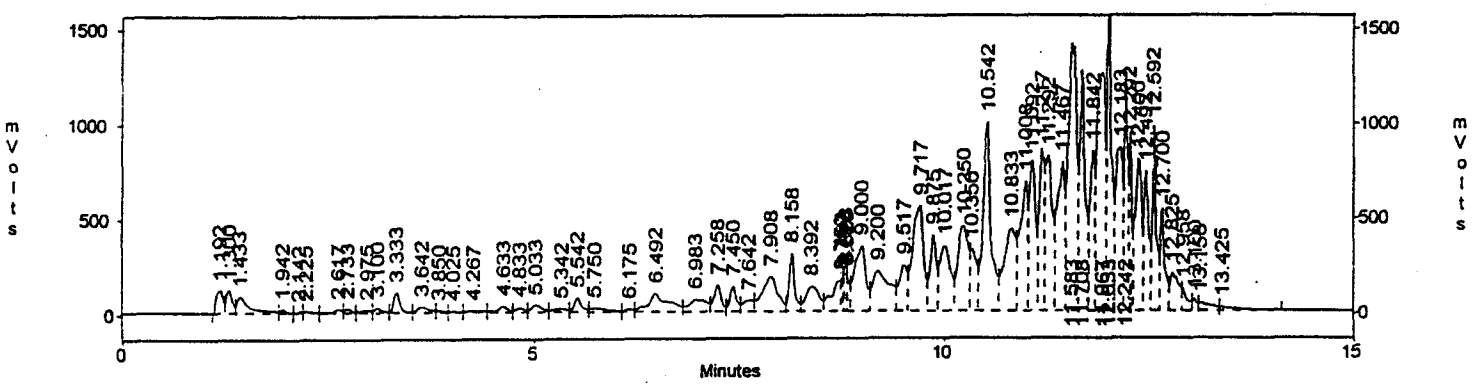
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
11	2. TFT	3.33	538634	105584	6570.03223	82.0
34	7. BFB	8.81	383631	195994	3949.75195	97.1
G1	1. Gasoline		15846127		6259.88330	2531.4

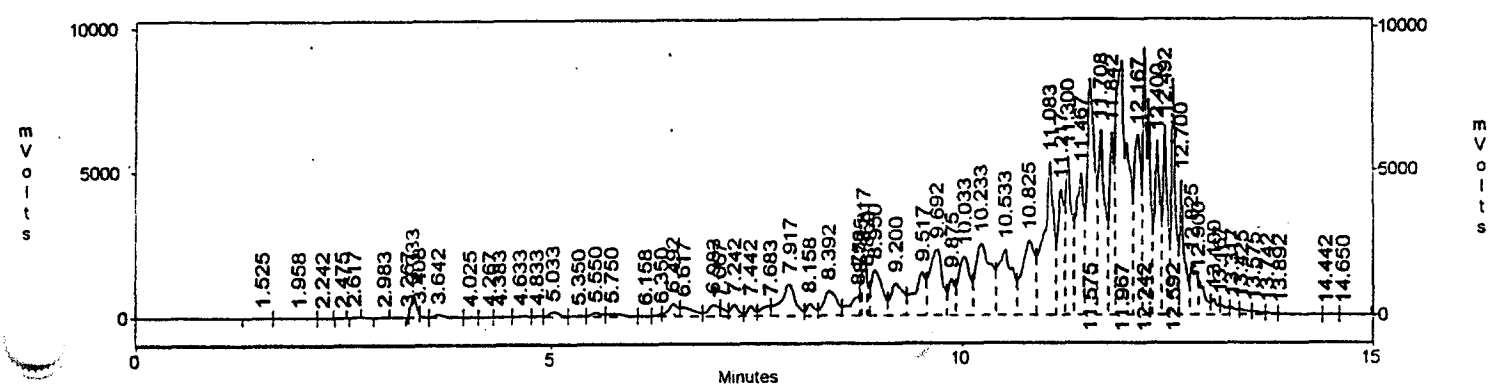
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	1.79	0	0	0.00000	0.00
3	10. MEK	2.24	22806	3874	0.00000	0.00
5	1. Benzene W 20	2.62	100637	24288	2.24490	1.24
8	2. TFT (Int.)	3.33	3612770	785686	1.00000	100.00
14	3. Toluene W 80	4.63	343313	33653	2.23849	4.25
26	5. Et-Bz W 19	7.24	2636037	393997	1.90222	38.36
27	6. P/M xylene W 82	7.44	1898567	335658	2.24455	23.41
30	7. O-xylene W 27	8.16	2653008	413189	1.91472	38.35
34	8. BFB (Surr.)	8.82	7233097	2119593	1.84979	108.23

c:\data\9702\97g1324\1406.105 – Channel A



c:\data\9702\97g1324\1406.105 – Channel B



000315

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-6	Received Date:	02/07/97
Sample ID:	**18609-672B-085**	Sample Matrix	Soil	Moisture %:	14.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1319	Prep. No:	–	Anal. Time:	02:10
Data File Name:	1406.006	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	µg/kg	5.8	<5.8	U
3	ETHYLBENZENE	100-41-4	µg/kg	5.8	<5.8	U
4	TOLUENE	108-88-3	µg/kg	5.8	<5.8	U
5	O-XYLENE	95-47-6	µg/kg	5.8	<5.8	U
6	M/P-XYLENE	108-38-3	µg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	78
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	93
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	102
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000316

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-7	Received Date:	02/07/97
Sample ID:	**18609-672-086**	Sample Matrix	Soil	Moisture %:	11.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1319	Prep. No:	–	Anal. Time:	02:35
Data File Name:	1406.007	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.6	<5.6	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.6	<5.6	U
4	TOLUENE	108-88-3	μg/kg	5.6	<5.6	U
5	O-XYLENE	95-47-6	μg/kg	5.6	<5.6	U
6	M/P-XYLENE	108-38-3	μg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	90
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	108
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000317

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-8	Received Date:	02/07/97
Sample ID:	**18609-672-087**	Sample Matrix	Soil	Moisture %:	14.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1319	Prep. No:	–	Anal. Time:	03:00
Data File Name:	1406.008	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	< 1.2	U
2	BENZENE	71-43-2	μg/kg	5.8	< 5.8	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.8	< 5.8	U
4	TOLUENE	108-88-3	μg/kg	5.8	< 5.8	U
5	O-XYLENE	95-47-6	μg/kg	5.8	< 5.8	U
6	M/P-XYLENE	108-38-3	μg/kg	12	< 12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	91
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	93
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	104
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000318

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-9	Received Date:	02/07/97
Sample ID:	**18609-672-088**	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1319	Prep. No:	–	Anal. Time:	03:25
Data File Name:	1406.009	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.6	<5.6	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.6	<5.6	U
4	TOLUENE	108-88-3	μg/kg	5.6	<5.6	U
5	O-XYLENE	95-47-6	μg/kg	5.6	<5.6	U
6	M/P-XYLENE	108-38-3	μg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	83
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	89
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	106
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000319

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-10	Received Date:	02/07/97
Sample ID:	**18609-672-089**	Sample Matrix	Soil	Moisture %:	12.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1319	Prep. No:	–	Anal. Time:	03:50
Data File Name:	1406.010	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.7	<5.7	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.7	<5.7	U
4	TOLUENE	108-88-3	μg/kg	5.7	<5.7	U
5	O-XYLENE	95-47-6	μg/kg	5.7	<5.7	U
6	M/P-XYLENE	108-38-3	μg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	77
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	87
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	101
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000320

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1296		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
1	97G1296-MB-01	97G1296-MB-01	103	111	0
2	97G1296-LCS-01	97G1296-LCS-01	110	111	0
3	97G1296-LSD-01	97G1296-LSD-01	111	101	0
4	18609-672-081	97-1406-2	98	110	0
5	73-ER-02 (02/03/97)-MSD	97-1389-3MSD	113	104	0
6	97G1296-MB-02	97G1296-MB-02	103	116	0
7	73-ER-02 (02/03/97)-MS	97-1389-3MS	102	121	0
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	68-124
S2 = 4-BROMO-FLUOROBENZENE (PID)	71-134

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1319		

#	Client Sample No	Lab Sample ID	S1 %	#	S2 %	#	TOT OUT
1	97G1319-MB-01	97G1319-MB-01	72		84		0
2	97G1319-LCS-01	97G1319-LCS-01	83		90		0
3	97G1319-LSD-01	97G1319-LSD-01	91		92		0
4	97-2E-S-669-MSD	97-1400-18MSD	100		123		0
5	18609-672B-082	97-1406-3	83		91		0
6	18609-672B-083	97-1406-4	90		96		0
7	18609-672B-085	97-1406-6	78		93		0
8	18609-672-086	97-1406-7	90		91		0
9	18609-672-087	97-1406-8	91		93		0
10	18609-672-088	97-1406-9	83		89		0
11	18609-672-089	97-1406-10	77		87		0
12	97-2E-S-669-MS	97-1400-18MS	123		112		0
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	70-132
S2 = 4-BROMO-FLUOROBENZENE (PID)	65-126

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

000322

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1324		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
1	97G1324-MB-01	97G1324-MB-01	114	88	0
2	97G1324-LCS-01	97G1324-LCS-01	77	90	0
3	97G1324-LSD-01	97G1324-LSD-01	83	91	0
4	73-06SS-02-MS	97-1435-1MS	90	91	0
5	73-06SS-02-MSD	97-1435-1MSD	85	87	0
6	18609-672-084	97-1406-5	[illegible]	108	0
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	70-132
S2 = 4-BROMO-FLUOROBENZENE (PID)	65-126

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

000323

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1296		
LCS Filename:	1296G.L01	Date Analyzed:	021097	Time Analyzed:	14:45
LCSD Filename:	1296G.J01	Date Analyzed:	021097	Time Analyzed:	15:10

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	0.990	99	75-122
BENZENE	µg/L	20	0	18.7	94	77-121
ETHYLBENZENE	µg/L	19	0	19.1	101	78-132
TOLUENE	µg/L	80	0	82.2	103	77-134
O-XYLENE	µg/L	27	0	28.1	104	77-133
M/P-XYLENE	µg/L	82	0	81.2	99	81-131
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/L	1	0.999	100	1	23	75-122
BENZENE	µg/L	20	17.0	85	9	22	77-121
ETHYLBENZENE	µg/L	19	17.3	91	10	27	78-132
TOLUENE	µg/L	80	74.5	93	10	29	77-134
O-XYLENE	µg/L	27	25.8	96	9	28	77-133
M/P-XYLENE	µg/L	82	73.6	90	10	25	81-131
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000324

3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1296		
MS Filename:	1296G.M02	Date Analyzed:	021197	Time Analyzed:	11:43
MSD Filename:	1296G.N01	Date Analyzed:	021097	Time Analyzed:	20:37
MS Sample No:	**73-ER-02 (02/03/97)**	Sample Lab ID:	97-1389-3		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	0.994	99	75-120
BENZENE	µg/L	20	0	17.5	88	72-121
ETHYLBENZENE	µg/L	19	0	16.9	89	74-132
TOLUENE	µg/L	80	0	75.2	94	77-134
O-XYLENE	µg/L	27	0	23.1	86	74-133
M/P-XYLENE	µg/L	82	0	70.2	86	70-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/L	1	0.932	93	6	23	75-120
BENZENE	µg/L	20	15.8	79	10	22	72-121
ETHYLBENZENE	µg/L	19	15.8	83	7	27	74-132
TOLUENE	µg/L	80	68.4	86	9	24	77-134
O-XYLENE	µg/L	27	22.2	82	4	27	74-133
M/P-XYLENE	µg/L	82	66.8	81	5	32	70-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000325

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1319		
LCS Filename:	1319G.L01	Date Analyzed:	021197	Time Analyzed:	19:31
LCSD Filename:	1319G.J01	Date Analyzed:	021197	Time Analyzed:	19:56

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	1	0	1.15	115	77-122
BENZENE	µg/kg	20	0	23.4	117	72-119
ETHYLBENZENE	µg/kg	19	0	21.3	112	71-134
TOLUENE	µg/kg	80	0	85.6	107	79-129
O-XYLENE	µg/kg	27	0	29.8	110	70-133
M/P-XYLENE	µg/kg	82	0	85.0	104	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	1	1.16	116	1	23	77-122
BENZENE	µg/kg	20	22.3	112	4	23	72-119
ETHYLBENZENE	µg/kg	19	19.8	104	7	31	71-134
TOLUENE	µg/kg	80	80.1	100	7	25	79-129
O-XYLENE	µg/kg	27	28.0	104	6	32	70-133
M/P-XYLENE	µg/kg	82	79.6	97	7	30	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

000326

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1319		
MS Filename:	1319G.M02	Date Analyzed:	021297	Time Analyzed:	09:16
MSD Filename:	1319G.N01	Date Analyzed:	021197	Time Analyzed:	20:46
MS Sample No:	**97-2E-S-669**	Sample Lab ID:	97-1400-18	Moisture, %	23.4

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	1.31	0	1.20	92	65-127
BENZENE	µg/kg	26.1	0	28.9	111	70-121
ETHYLBENZENE	µg/kg	24.8	0	21.7	88	71-134
TOLUENE	µg/kg	104	0	92.5	89	79-129
O-XYLENE	µg/kg	35.2	0	33.1	94	70-133
M/P-XYLENE	µg/kg	107	0	91.9	86	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	1.31	1.15	88	4	31	65-127
BENZENE	µg/kg	26.1	30.7	118	6	26	70-121
ETHYLBENZENE	µg/kg	24.8	21.7	88	0	26	71-134
TOLUENE	µg/kg	104	90.4	87	2	24	79-129
O-XYLENE	µg/kg	35.2	29.3	83	12	30	70-133
M/P-XYLENE	µg/kg	107	86.8	81	6	27	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1324		
LCS Filename:	1324G.L01	Date Analyzed:	021297	Time Analyzed:	12:32
LCSD Filename:	1324G.J01	Date Analyzed:	021297	Time Analyzed:	12:57

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	1	0	1.08	108	77-122
BENZENE	µg/kg	20	0	23.4	117	72-119
ETHYLBENZENE	µg/kg	19	0	22.7	119	71-134
TOLUENE	µg/kg	80	0	93.6	117	79-129
O-XYLENE	µg/kg	27	0	31.9	118	70-133
M/P-XYLENE	µg/kg	82	0	93.5	114	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	1	1.09	109	1	23	77-122
BENZENE	µg/kg	20	20.0	100	16	23	72-119
ETHYLBENZENE	µg/kg	19	21.3	112	6	31	71-134
TOLUENE	µg/kg	80	88.5	111	5	25	79-129
O-XYLENE	µg/kg	27	29.9	111	6	32	70-133
M/P-XYLENE	µg/kg	82	87.4	107	6	30	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

060328

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1324		
MS Filename:	1324G.M01	Date Analyzed:	021297	Time Analyzed:	14:31
MSD Filename:	1324G.N01	Date Analyzed:	021297	Time Analyzed:	14:56
MS Sample No:	**73-06SS-02**	Sample Lab ID:	97-1435-1	Moisture, %	19.8

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	1.25	0	1.16	93	65-127
BENZENE	µg/kg	24.9	0	26.6	107	70-121
ETHYLBENZENE	µg/kg	23.7	0	18.8	79	71-134
TOLUENE	µg/kg	99.8	0	81.6	82	79-129
O-XYLENE	µg/kg	33.7	0	27.1	80	70-133
M/P-XYLENE	µg/kg	102	0	75.5	74	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	1.25	1.24	99	6	31	65-127
BENZENE	µg/kg	24.9	23.9	96	11	26	70-121
ETHYLBENZENE	µg/kg	23.7	21.4	90	13	26	71-134
TOLUENE	µg/kg	99.8	91.7	92	11	24	79-129
O-XYLENE	µg/kg	33.7	29.3	87	8	30	70-133
M/P-XYLENE	µg/kg	102	85.3	84	13	27	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000329

Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Analysis Date:	02/10/97
		Sample Matrix:	Water	Analysis Time:	13:03
Sample ID:	**97G1296-MB-01**	Batch No:	97G1296	Instrument ID:	GC: N
Lab Sample ID:	97G1296-MB-01	Data File Name:	1296G.K01	GC Column:	DB-1
		Heated Purge: (Y/N)	N	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1296-LCS-01	97G1296-LCS-01	Lab Control Spike	1296G.L01	02/10/97	14:45
2	97G1296-LSD-01	97G1296-LSD-01	Lab Control Spike Duplicate	1296G.J01	02/10/97	15:10
3	18609-672-081	97-1406-2	Field Sample	1406.002	02/10/97	18:27
4	73-ER-02 (02/03/97)-MSD	97-1389-3MSD	Matrix Spike Duplicate	1296G.N01	02/10/97	20:37
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000330

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Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Analysis Date:	02/11/97
		Sample Matrix:	Water	Analysis Time:	11:18
Sample ID:	**97G1296-MB-02**	Batch No:	97G1296	Instrument ID:	GC: N
Lab Sample ID:	97G1296-MB-02	Data File Name:	1296G.K02	GC Column:	DB-1
		Heated Purge: (Y/N)	N	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
5	73-ER-02 (02/03/97)-MS	97-1389-3MS	Matrix Spike	1296G.M02	02/11/97	11:43
6						
7						
8						
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25						

000331

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Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Analysis Date:	02/11/97
		Sample Matrix:	Soil	Analysis Time:	19:06
Sample ID:	**97G1319-MB-01**	Batch No:	97G1319	Instrument ID:	GC: B
Lab Sample ID:	97G1319-MB-01	Data File Name:	1319G.K01	GC Column:	[illegible]TX [illegible]
		Heated Purge: (Y/N)	Y	Column ID:	[illegible].53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data File Name	Analysis Date	Analysis Time
1	97G1319-LCS-01	97G1319-LCS-01	Lab Control Spike	[illegible]19G.L01	02/11/97	19:31
2	97G1319-LSD-01	97G1319-LSD-01	Lab Control Spike Duplicate	[illegible]19G.J01	02/11/97	19:56
3	97-2E-S-669-MSD	97-1400-18MSD	Matrix Spike Duplicate	1319G.N01	02/11/97	20:46
4	18609-672B-082	97-1406-3	Field Sample	1406.003	02/12/97	00:55
5	18609-672B-083	97-1406-4	Field Sample	1406.004	02/12/97	01:20
6	18609-672B-085	97-1406-6	Field Sample	1406.006	02/12/97	02:10
7	18609-672-086	97-1406-7	Field Sample	1406.007	02/12/97	02:35
8	18609-672-087	97-1406-8	Field Sample	1406.008	02/12/97	03:00
9	18609-672-088	97-1406-9	Field Sample	1406.009	02/12/97	03:25
10	18609-672-089	97-1406-10	Field Sample	1406.010	02/12/97	03:50
11	97-2E-S-669-MS	97-1400-18MS	Matrix Spike	1319G.M02	02/12/97	09:16
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000332

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Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Analysis Date:	02/12/97
		Sample Matrix:	Soil	Analysis Time:	12:07
Sample ID:	**97G1324-MB-01**	Batch No:	97G1324	Instrument ID:	GC: B
Lab Sample ID:	97G1324-MB-01	Data File Name:	1324G.K01	GC Column:	RTX-5
		Heated Purge: (Y/N)	Y	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1324-LCS-01	97G1324-LCS-01	Lab Control Spike	1324G.L01	02/12/97	12:32
2	97G1324-LSD-01	97G1324-LSD-01	Lab Control Spike Duplicate	1324G.J01	02/12/97	12:57
3	73-06SS-02-MS	97-1435-1MS	Matrix Spike	1324G.M01	02/12/97	14:31
4	73-06SS-02-MSD	97-1435-1MSD	Matrix Spike Duplicate	1324G.N01	02/12/97	14:56
5	18609-672-084	97-1406-5	Field Sample	1406.105	02/12/97	17:26
6						
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000333

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Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97G1289-MB-01	Received Date:	02/07/97
Sample ID:	**97G1289-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/07/97	Anal. Date:	02/09/97
Batch No:	97G1289	Prep. No:	1 of 1	Anal. Time:	21:54
Data File Name:	1289G.K01	Sample Amount:	1000 mL	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	0.5	< 0.5	U
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	< 0.5	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/L	2.5	< 2.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	83
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/11/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97G1312-MB-01	Received Date:	02/11/97
Sample ID:	**97G1312-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/97	Anal. Date:	02/12/97
Batch No:	97G1312	Prep. No:	1 of 1	Anal. Time:	03:45 .
Data File Name:	1312G.K01	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	< 10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	< 10	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	50	< 50	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	87
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-2	Received Date:	02/07/97
Sample ID:	**18609-672-081**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/07/97	Anal. Date:	02/09/97
Batch No:	97G1289	Prep. No:	1 of 1	Anal. Time:	23:10
Data File Name:	1406.002	Sample Amount:	1000 mL	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	0.5	<0.5	U
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/L	2.5	<2.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	117
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-3	Received Date:	02/07/97
Sample ID:	**18609-672B-082**	Sample Matrix	Soil	Moisture %:	13.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/97	Anal. Date:	02/12/97
Batch No:	97G1312	Prep. No:	1 of 1	Anal. Time:	07:36
Data File Name:	1406.003	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	57	<57	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	93
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-4	Received Date:	02/07/97
Sample ID:	**18609-672B-083**	Sample Matrix	Soil	Moisture %:	13.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/97	Anal. Date:	02/12/97
Batch No:	97G1312	Prep. No:	1 of 1	Anal. Time:	10:10
Data File Name:	1406.004	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	58	<58	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	94
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000368

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Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-5	Received Date:	02/07/97
Sample ID:	**18609-672-084**	Sample Matrix	Soil	Moisture %:	7.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/97	Anal. Date:	02/12/97
Batch No:	97G1312	Prep. No:	1 of 1	Anal. Time:	10:36
Data File Name:	1406.005	Sample Amount:	20.0 g	Dilution Factor:	10

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	110	2950	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	110	<110	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	540	<540	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

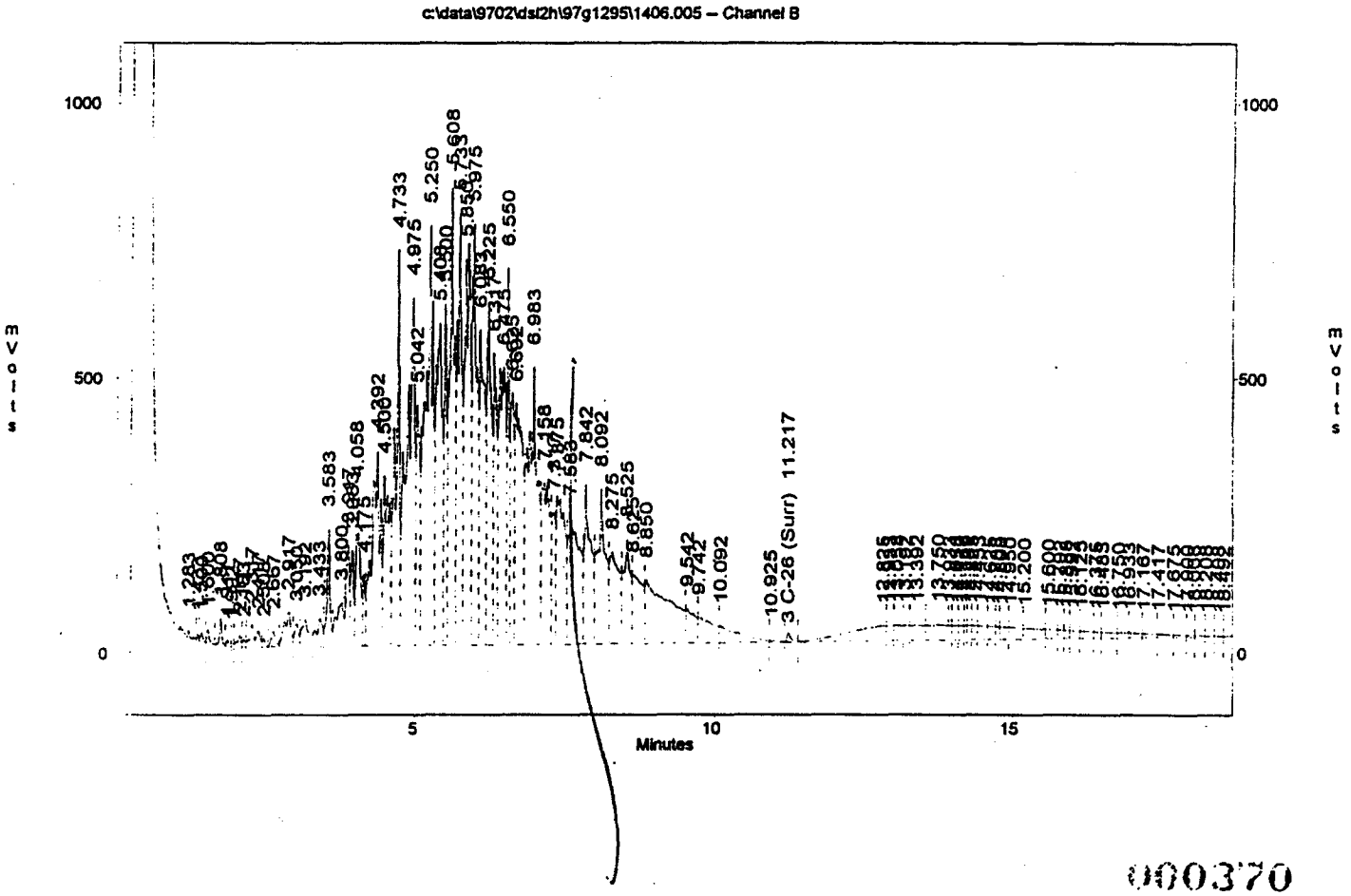
000369

Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File	: c:\data\9702\dsl2h\97g1295\1406.005
Method	: c:\ezchrom\methods\j5mo-014.h00
Sample ID	: 1406-5 F=0.5
Vial	: 82
Volume	: 1
Acquired	: Feb 12, 1997 10:36:17
Printed	: Feb 13, 1997 10:43:19
User	: System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.22	72657	4.541
1 Jp-5		95486424	5442.295
2 motor oil		13944239	950.140



000370

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-6	Received Date:	02/07/97
Sample ID:	**18609-672B-085**	Sample Matrix	Soil	Moisture %:	14.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/97	Anal. Date:	02/12/97
Batch No:	97G1312	Prep. No:	1 of 1	Anal. Time:	08:01
Data File Name:	1406.006	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	< 12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	< 12	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	58	< 58	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	92
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000371

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Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-7	Received Date:	02/07/97
Sample ID:	**18609-672-086**	Sample Matrix	Soil	Moisture %:	11.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/97	Anal. Date:	02/12/97
Batch No:	97G1312	Prep. No:	1 of 1	Anal. Time:	11:01
Data File Name:	1406.007	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	< 11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	< 11	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	56	< 56	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	[illegible]
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000372

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Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-8	Received Date:	02/07/97
Sample ID:	**18609-672-087**	Sample Matrix	Soil	Moisture %:	14.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/97	Anal. Date:	02/12/97
Batch No:	97G1312	Prep. No:	1 of 1	Anal. Time:	08:53
Data File Name:	1406.008	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	< 12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	< 12	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	58	< 58	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	110
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000373

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-9	Received Date:	02/07/97
Sample ID:	**18609-672-088**	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/97	Anal. Date:	02/12/97
Batch No:	97G1312	Prep. No:	1 of 1	Anal. Time:	09:18
Data File Name:	1406.009	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	56	<56	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	102
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000375

ile : c:\data\9702\97g1319\1406.009
Method : c:\ezchrom\methods\lufts046.b00
Sample ID : 1406-9 S F=1
Acquired : Feb 12, 1997 03:25:33
Printed : Feb 12, 1997 16:17:32

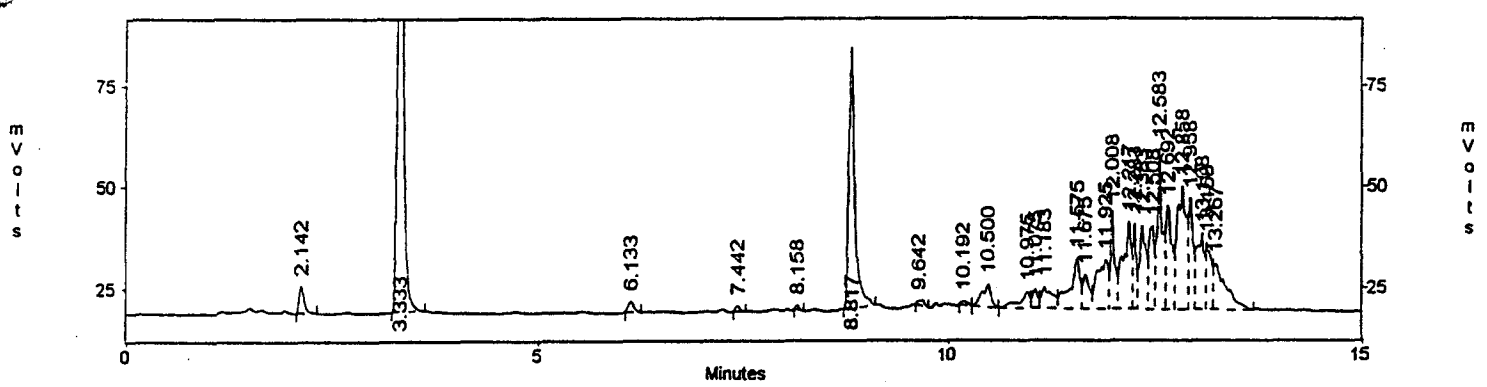
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
2	2. TFT	3.33	594586	118255	6570.03223	90.5
6	7. BFB	8.82	329407	64413	3949.75195	83.4
G1	1. Gasoline		361201		6259.88330	57.7

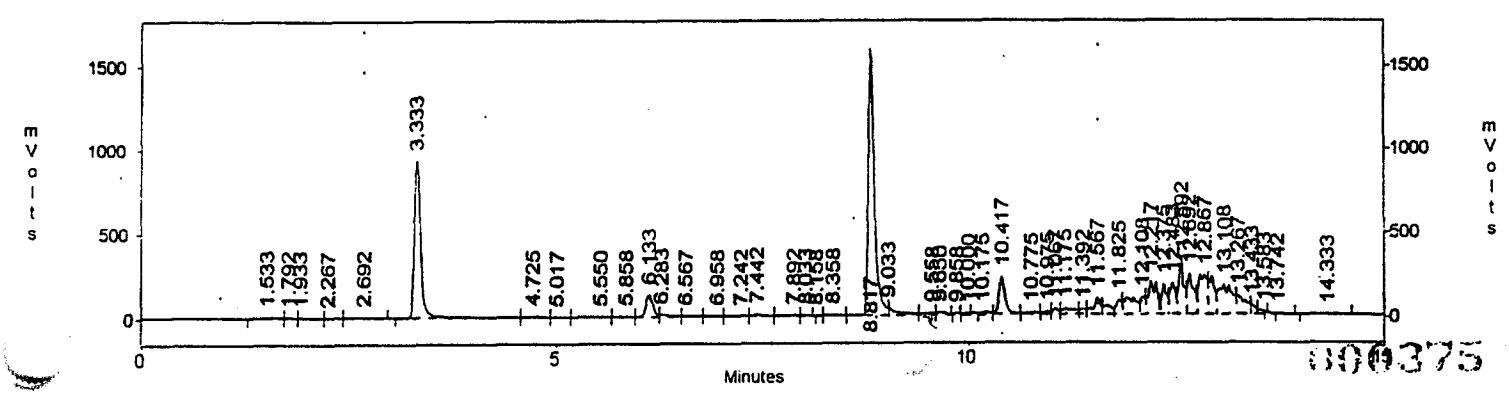
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.79	20208	2572	0.54548	0.76
4	10. MEK	2.27	8438	1407	0.00000	0.00
5	1. Benzene W 20	2.69	26654	2829	2.24490	0.24
6	2. TFT (Int.)	3.33	4862531	930707	1.00000	100.00
7	3. Toluene W 80	4.72	33019	4965	2.23849	0.30
15	5. Et-Bz W 19	7.24	27005	3290	1.90222	0.29
16	6. P/M xylene W 82	7.44	83106	13791	2.24455	0.76
18	7. O-xylene W 27	8.03	40002	6861	1.91472	0.43
21	8. BFB (Surr.)	8.82	7994276	1587977	1.84979	88.88

c:\data\9702\97g1319\1406.009 -- Channel A



c:\data\9702\97g1319\1406.009 -- Channel B

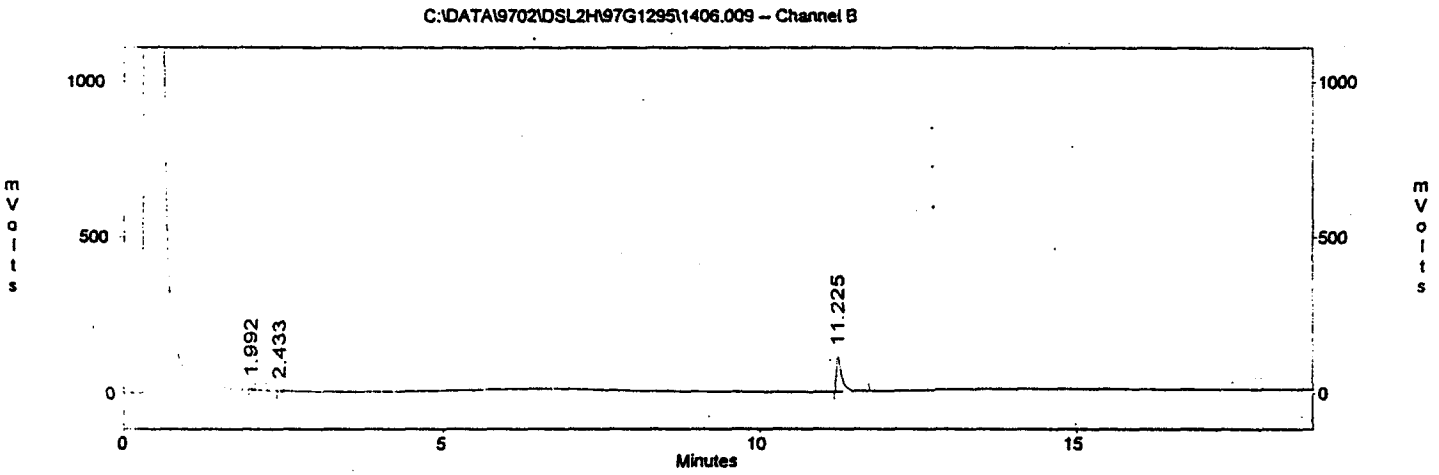


Fuel Finger Print (C8 - C40) Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um

File : C:\DATA\9702\DSL2H\97G1295\1406.009
Method : C:\EZCHROM\METHODS\Fp40-010.h00
Sample ID : 1406-9 F=0.05
Acquired : Feb 12, 1997 09:18:29
Printed : Feb 12, 1997 09:37:21
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
1 C-8	1.04	0	0.000
2 C-9	1.82	0	0.000
3 C-10	3.58	0	0.000
4 C-11	4.86	0	0.000
5 C-12	5.61	0	0.000
6 C-13	6.22	0	0.000
7 C-14	6.77	0	0.000
8 C-15	7.27	0	0.000
9 C-16	7.62	0	0.000
10 C-17	8.05	0	0.000
11 C-18	8.46	0	0.000
12 C-19	8.98	0	0.000
13 C-20	9.35	0	0.000
14 C-21	9.59	0	0.000
15 C-22	10.06	0	0.000
16 C-23	10.40	0	0.000
17 C-24	10.72	0	0.000
18 C-25	11.03	0	0.000
19 C-26	11.23	679924	50.931
20 C-28	11.76	0	0.000
21 C-30	12.28	0	0.000
22 C-32	12.77	0	0.000
23 C-34	13.34	0	0.000
24 C-36	14.11	0	0.000
25 C-38	15.18	0	0.000
26 C-40	16.73	0	0.000
27 C8-10 (GRO)		27082	1.630
28 C11-22 (DRO)		0	0.000
29C23-30(Motor Oil)		679924	50.484
30C31-40(Heavy Oil)		0	0.000



000376

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/06/97
Project ID:	UST 672	Service ID:	971406	Collected by:	
		Lab Sample ID:	97-1406-10	Received Date:	02/07/97
Sample ID:	**18609-672-089**	Sample Matrix	Soil	Moisture %:	12.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/11/97	Anal. Date:	02/12/97
Batch No:	97G1312	Prep. No:	1 of 1	Anal. Time:	09:44
Data File Name:	1406.010	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	57	<57	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	102
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000377

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1289		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G1289-MB-01	97G1289-MB-01	83	0
2	97G1289-LCS-01	97G1289-LCS-01	98	0
3	97G1289-LSD-01	97G1289-LSD-01	99	0
4	18609-672-081	97-1406-2	117	0
5				
6				
7				
8				
9				
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20				
21				
22				
23				
24				
25				

S1 = HEXACOSANE, C_{26}

QC Control Limit
50-149

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

000378

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1312		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G1312-MB-01	97G1312-MB-01	87	0
2	97G1312-LCS-01	97G1312-LCS-01	94	0
3	97G1312-LSD-01	97G1312-LSD-01	93	0
4	18609-672-089-MS	97-1406-10MS	89	0
5	18609-672-089-MSD	97-1406-10MSD	97	0
6	18609-672B-082	97-1406-3	93	0
7	18609-672B-085	97-1406-6	92	0
8	18609-672-087	97-1406-8	110	0
9	18609-672-088	97-1406-9	102	0
10	18609-672-089	97-1406-10	102	0
11	18609-672B-083	97-1406-4	94	0
12	18609-672-084	97-1406-5	99	0
13	18609-672-086	97-1406-7	120	0
14				
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16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

S1 = HEXACOSANE, C_{26}

QC Control Limit
50-146

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

000379

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1289		
LCS Filename:	1289G.L01	Date Analyzed:	020997	Time Analyzed:	22:19
LCSD Filename:	1289G.J01	Date Analyzed:	020997	Time Analyzed:	[illegible]

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/L	1	0	0.994		65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD ±	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/L	1	1.00	100		35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values.

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000380

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1312		
LCS Filename:	1312G.L01	Date Analyzed:	021297	Time Analyzed:	04:11
LCSD Filename:	1312G.J01	Date Analyzed:	021297	Time Analyzed:	04:37

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	41.8	84	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	41.5	83	1	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000381

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1312		
MS Filename:	1312G.M01	Date Analyzed:	021297	Time Analyzed:	05:02
MSD Filename:	1312G.N01	Date Analyzed:	021297	Time Analyzed:	06:45
MS Sample No:	**18609-672-089**	Sample Lab ID:	97-1406-10	Moisture, %	12.7

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	57.3	0	49.6	87	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	57.3	52.3	91	5	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

000382

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Analysis Date:	02/09/97
		Sample Matrix:	Water	Analysis Time:	21:54
Sample ID:	**97G1289-MB-01**	Batch No:	97G1289	Instrument ID:	GC: H
Lab Sample ID:	97G1289-MB-01	Data File Name:	1289G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1289-LCS-01	97G1289-LCS-01	Lab Control Spike	1289G.L01	02/09/97	22:19
2	97G1289-LSD-01	97G1289-LSD-01	Lab Control Spike Duplicate	1289G.J01	02/09/97	22:45
3	18609-672-081	97-1406-2	Field Sample	1406.002	02/09/97	23:10
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Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971406
Project ID:	UST 672	Project No:	18609	Analysis Date:	02/12/97
		Sample Matrix:	Soil	Analysis Time:	03:45
Sample ID:	**97G1312-MB-01**	Batch No:	97G1312	Instrument ID:	GC: H
Lab Sample ID:	97G1312-MB-01	Data File Name:	1312G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1312-LCS-01	97G1312-LCS-01	Lab Control Spike	1312G.L01	02/12/97	04:11
2	97G1312-LSD-01	97G1312-LSD-01	Lab Control Spike Duplicate	1312G.J01	02/12/97	04:37
3	18609-672-089-MS	97-1406-10MS	Matrix Spike	1312G.M01	02/12/97	05:02
4	18609-672-089-MSD	97-1406-10MSD	Matrix Spike Duplicate	1312G.N01	02/12/97	06:45
5	18609-672B-082	97-1406-3	Field Sample	1406.003	02/12/97	07:36
6	18609-672B-085	97-1406-6	Field Sample	1406.006	02/12/97	08:01
7	18609-672-087	97-1406-8	Field Sample	1406.008	02/12/97	08:53
8	18609-672-088	97-1406-9	Field Sample	1406.009	02/12/97	09:18
9	18609-672-089	97-1406-10	Field Sample	1406.010	02/12/97	09:44
10	18609-672B-083	97-1406-4	Field Sample	1406.004	02/12/97	10:10
11	18609-672-084	97-1406-5	Field Sample	1406.005	02/12/97	10:36
12	18609-672-086	97-1406-7	Field Sample	1406.007	02/12/97	11:01
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000384

Applied P & Ch Laboratory

Wet Analysis Results for Method ASTM-D2216

Client Name: OHM Remediation Services (Irvine) Project No: 18609 Anal. Method ASTM-D2216
Project ID: UST 672 Service ID: 971406 Collected by:

Component Name: Moisture, percent in soil
CAS No: 7732-18-5

Lab ID	Sample ID	Matix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-1406-3	18609-672B-082	Soil	02/06/97	02/07/97	02/10/97	97W1523		0.5	13.0	
97-1406-4	18609-672B-083	Soil	02/06/97	02/07/97	02/10/97	97W1523		0.5	13.6	
97-1406-5	18609-672-084	Soil	02/06/97	02/07/97	02/10/97	97W1523		0.5	7.5	
97-1406-6	18609-672B-085	Soil	02/06/97	02/07/97	02/10/97	97W1523		0.5	14.2	
97-1406-7	18609-672-086	Soil	02/06/97	02/07/97	02/10/97	97W1523		0.5	11.5	
97-1406-8	18609-672-087	Soil	02/06/97	02/07/97	02/10/97	97W1523		0.5	14.0	
97-1406-9	18609-672-088	Soil	02/06/97	02/07/97	02/10/97	97W1523		0.5	10.8	
97-1406-10	18609-672-089	Soil	02/06/97	02/07/97	02/10/97	97W1523		0.5	12.7	

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL.

000421

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

LAB COP
Form 001
Field Technical Service
Rev. 08/8

186562

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
UST 672 0075	MCAS EL TORO

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
18609	Thizar-Tintut-Williams	714-263-1146

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
Lynn Hornecker - SWDIV	Bill Sedlak - OHM

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): 8020, 418.1, TPH Full Range

APCL 000802

5 Day TAT

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	8020	418.1	TPH Full Range						REMARKS
1	18609-672 -090	2/7/97	0800		X	Trip Blank For 2/7/97 Location	2	X								
2	18609-672 -091	2/7/97	0810		X	Site 672 West Bottom Floor 10 ft Hand Auger Soil Confirmation	1	X	X	X						
3	18609-672 -092	2/7/97	0840		X	Site 672 West Bottom Floor 15 ft Hand Auger Soil Confirmation	1	X	X	X						
4	18609-672 -093	2/7/97	0905		X	Site 672 West Bottom Floor 20 ft Hand Auger Soil Confirmation	1	X	X	X						
5	18609-672 -094	2/7/97	0930		X	Site 672 Rinsate for Hand Auger Water	4	X	X	X						
6																
7																
8																
9																
10																

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 to 5	Chris Bigler	Juan Carlos Rodriguez	2/7/97	11:10
2					
3					
4					

REMARKS: Courier pick up to lab. Level 'C' Data Deliverable.

SAMPLER'S SIGNATURE: Chris Bigler

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/13/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97G1333-MB-01	Received Date:	02/13/97
Sample ID:	**97G1333-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/13/97	Anal. Date:	02/13/97
Batch No:	97G1333	Prep. No:	–	Anal. Time:	10:10
Data File Name:	1333G.K01	Sample Amount:	5 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
6	M/P-XYLENE	108-38-3	μg/L	1	<1	U

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	98
2 4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	109
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control			0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000809

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/12/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97G1327-MB-01	Received Date:	02/12/97
Sample ID:	97G1327-MB-01	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1327	Prep. No:	–	Anal. Time:	15:17
Data File Name:	1327G.K01	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1	<1	U
2	BENZENE	71-43-2	μg/kg	5	<5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5	<5	U
4	TOLUENE	108-88-3	μg/kg	5	<5	U
5	O-XYLENE	95-47-6	μg/kg	5	<5	U
6	M/P-XYLENE	108-38-3	μg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	74
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	98
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	103
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000810

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97-1417-1	Received Date:	02/07/97
Sample ID:	**18609-672-090**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/13/97	Anal. Date:	02/13/97
Batch No:	97G1333	Prep. No:	–	Anal. Time:	15:39
Data File Name:	1417.001	Sample Amount:	5 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	< 0.05	U
2	BENZENE	71-43-2	μg/L	0.5	< 0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	< 0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	< 0.5	U
5	O-XYLENE	95-47-6	μg/L	0.5	< 0.5	U
6	M/P-XYLENE	108-38-3	μg/L	1	< 1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	115
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	113
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000811

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97-1417-2	Received Date:	02/07/97
Sample ID:	**18609-672-091**	Sample Matrix	Soil	Moisture %:	14.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1327	Prep. No:	–	Anal. Time:	18:52
Data File Name:	1417.002	Sample Amount:	5 g	Dilution Factor:	20
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	23	1600 [a]	
2	BENZENE	71-43-2	μg/kg	120	528	
3	ETHYLBENZENE	100-41-4	μg/kg	120	7500	
4	TOLUENE	108-88-3	μg/kg	120	1670	
5	O-XYLENE	95-47-6	μg/kg	120	15000	
6	M/P-XYLENE	108-38-3	μg/kg	230	28600	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	109
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	117
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	103
# of out-of-control				0

[a] Not a typical gas pattern. Most of the peaks in the chromatogram correspond to the heavier portion of the chain.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9702\97g1327\1417.102
Method : c:\ezchrom\methods\lufts001.n00
Sample ID : 1417-2 S F=500
Acquired : Feb 12, 1997 18:52:33
Printed : Feb 13, 1997 08:54:46

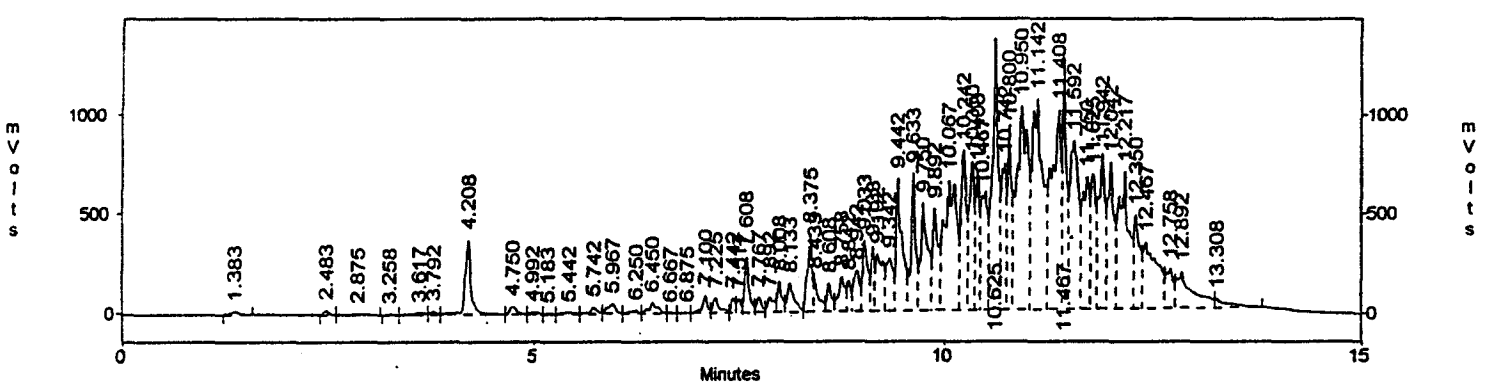
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.21	1911422	373957	16717.80273	114.3
27	7. BFB	8.38	1425444	391464	13088.36816	108.9
G1	1. Gasoline		59222264		21664.09961	2733.7

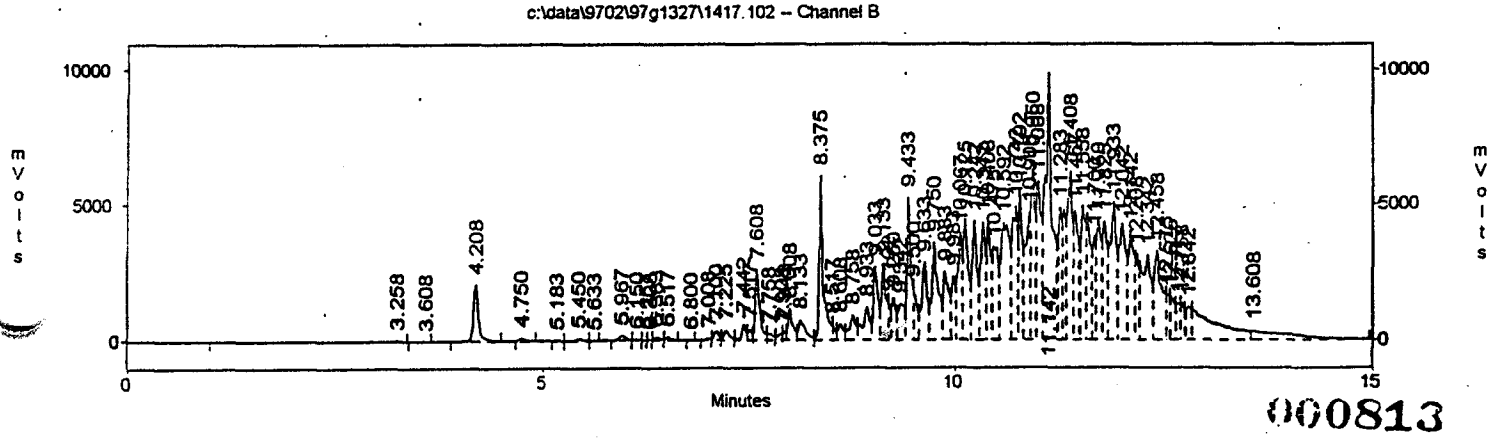
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)	
--	9. MTBE	2.15	0	0	0.00000	0.00	
1	1. Benzene W 20	3.26	201825	43914	2.42964	0.90	450
3	2. TFT (Int.)	4.21	9103531	2016834	1.00000	100.00	
6	3. Toluene W 80	5.45	593755	80555	2.33537	2.84	1420
18	5. Et-Bz W 19	7.44	2169556	582977	1.87976	12.78	6390
20	6. P/M xylene W 82	7.61	10002343	2568864	2.30377	48.83	24,400
24	7. O-xylene W 27	8.01	4468412	1107650	1.93428	25.59	[illegible]
26	8. BFB (Surr.)	8.38	21512046	6047839	2.02209	116.80	

c:\data\9702\97g1327\1417.102 -- Channel A



c:\data\9702\97g1327\1417.102 -- Channel B



000813

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97-1417-3	Received Date:	02/07/97
Sample ID:	**18609-672-092**	Sample Matrix	Soil	Moisture %:	12.9
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1327	Prep. No:	–	Anal. Time:	19:19
Data File Name:	1417.003	Sample Amount:	5 g	Dilution Factor:	20
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	23	752 [a]	
2	BENZENE	71-43-2	μg/kg	110	<23	U
3	ETHYLBENZENE	100-41-4	μg/kg	110	1480	
4	TOLUENE	108-88-3	μg/kg	110	<23	U
5	O-XYLENE	95-47-6	μg/kg	110	3900	
6	M/P-XYLENE	108-38-3	μg/kg	230	6660	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	92
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Not a typical gas pattern. Most of the peaks in the chromatogram correspond to the heavier portion of the chain.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9702\97g1327\1417.003
Method : c:\ezchrom\methods\lufts001.n00
Sample ID : 1417-3 S F=500
Acquired : Feb 12, 1997 19:19:09
Printed : Feb 13, 1997 08:56:14

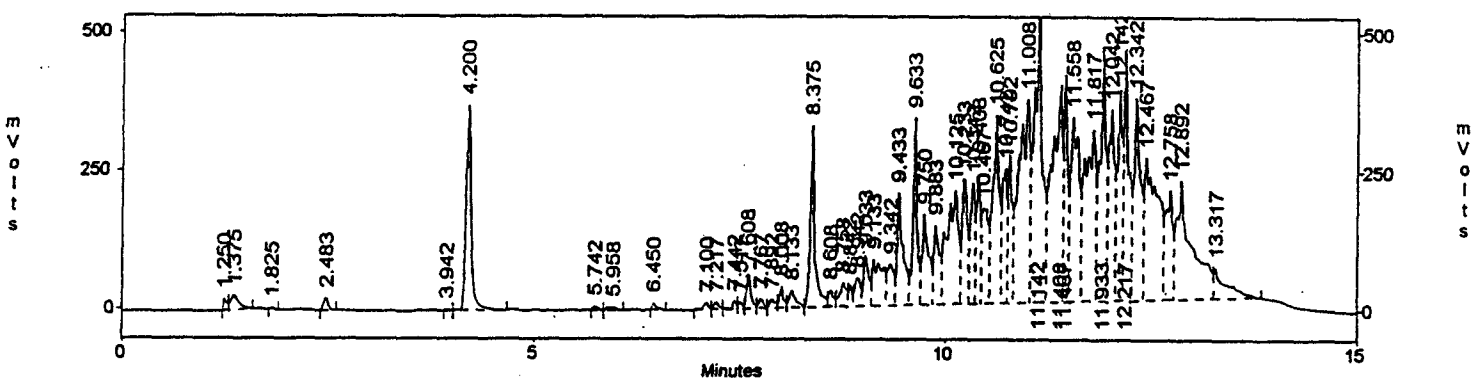
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
6	2. TFT	4.20	1625154	368960	16717.80273	97.2
19	7. BFB	8.38	1205503	327416	13088.36816	92.1
G1	1. Gasoline		28379364		21664.09961	1310.0

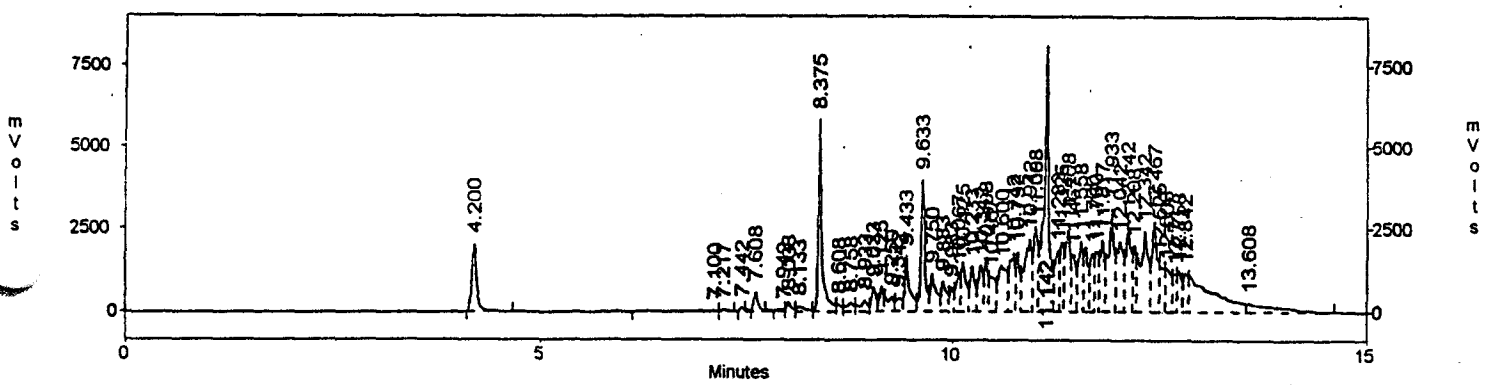
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)	
--	9. MTBE	2.15	0	0	0.00000	0.00	
--	1. Benzene W 20	3.24	0	0	0.00000	0.00	
1	2. TFT (Int.)	4.20	8623252	2007692	1.00000	100.00	
--	3. Toluene W 80	5.43	0	0	0.00000	0.00	
4	5. Et-Bz W 19	7.44	413889	128395	1.87976	2.57	1,285
5	6. P/M xylene W 82	7.61	2249760	578731	2.30377	11.60	5,800
7	7. O-xylene W 27	8.01	1123524	291918	1.93428	6.79	3,395
9	8. BFB (Surr.)	8.38	18756554	5846659	2.02209	107.51	

c:\data\9702\97g1327\1417.003 -- Channel A



c:\data\9702\97g1327\1417.003 -- Channel B



000815

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97-1417-4	Received Date:	02/07/97
Sample ID:	**18609-672-093**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1327	Prep. No:	–	Anal. Time:	19:45
Data File Name:	1417.004	Sample Amount:	5 g	Dilution Factor:	20
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	23	873 [a]	
2	BENZENE	71-43-2	μg/kg	120	<23	U
3	ETHYLBENZENE	100-41-4	μg/kg	120	2260	
4	TOLUENE	108-88-3	μg/kg	120	541	
5	O-XYLENE	95-47-6	μg/kg	120	6520	
6	M/P-XYLENE	108-38-3	μg/kg	230	9740	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	105
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Not a typical gas pattern. Most of the peaks in the chromatogram correspond to the heavier portion of the chain.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000816

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9702\97g1327\1417.004
Method : c:\ezchrom\methods\lufts001.n00
Sample ID : 1417-4 S F=500
Acquired : Feb 12, 1997 19:45:30
Printed : Feb 13, 1997 08:57:01

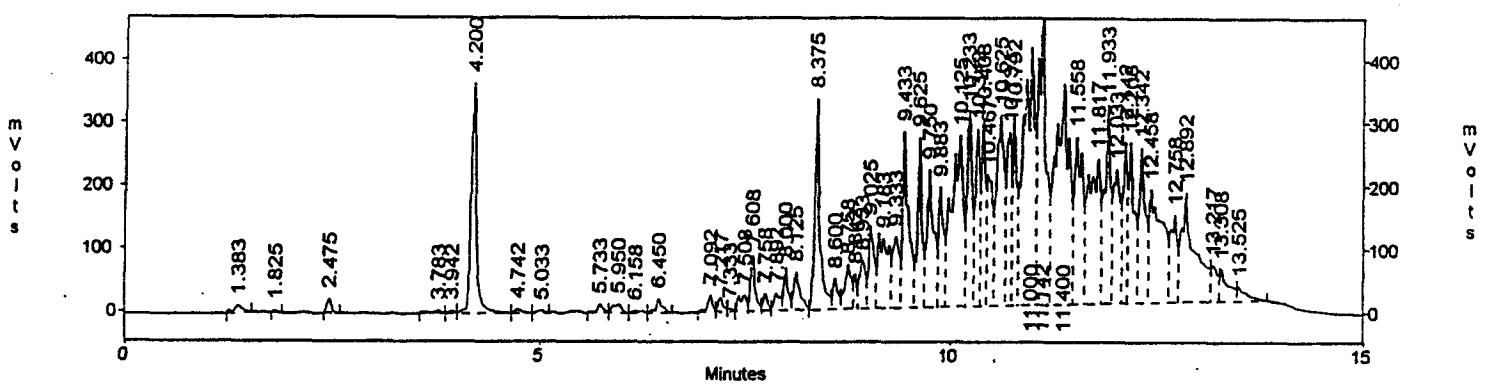
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
6	2. TFT	4.20	1692065	365726	16717.80273	101.2
22	7. BFB	8.38	1378250	335210	13088.36816	105.3
G1	1. Gasoline		32852118		21664.09961	1516.4

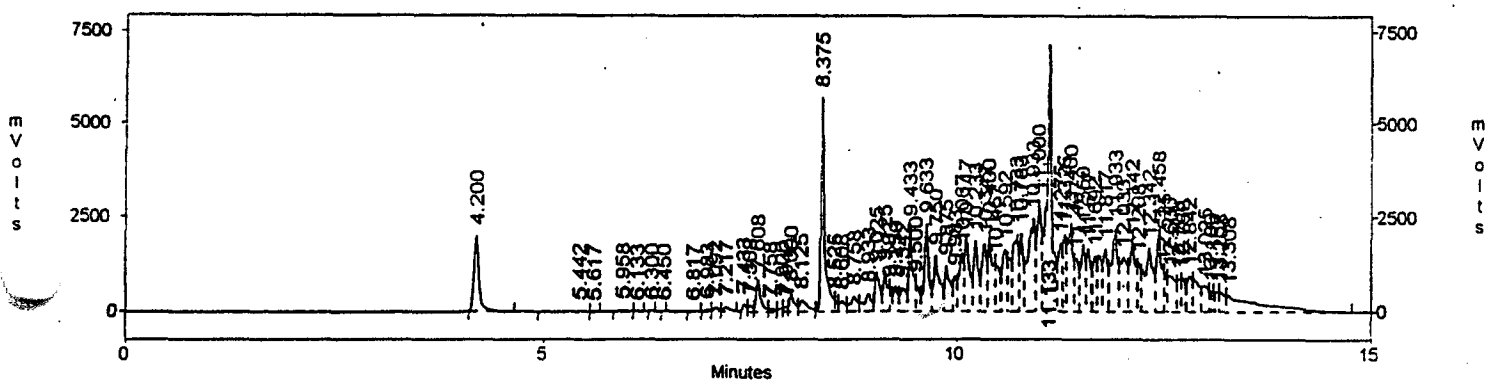
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)	
--	9. MTBE	2.15	0	0	0.00000	0.00	
--	1. Benzene W 20	3.24	0	0	0.00000	0.00	
1	2. TFT (Int.)	4.20	8491051	1968355	1.00000	100.00	
2	3. Toluene W 80	5.44	183244	28917	2.33537	0.94	470
12	5. Et-Bz W 19	7.43	621522	195363	1.87976	3.92	1960
14	6. P/M xylene W 82	7.61	3229102	804810	2.30377	16.90	8,450
18	7. O-xylene W 27	8.00	1842806	498053	1.93428	11.32	5,660
20	8. BFB (Surr.)	8.38	18667334	5715667	2.02209	108.67	

c:\data\9702\97g1327\1417.004 -- Channel A



c:\data\9702\97g1327\1417.004 -- Channel B



000817

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97-1417-5	Received Date:	02/07/97
Sample ID:	18609-672-094	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	02/13/97	Anal. Date:	02/13/97
Batch No:	97G1333	Prep. No:	–	Anal. Time:	16:02
Data File Name:	1417.005	Sample Amount:	5 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	< 0.05	U
2	BENZENE	71-43-2	μg/L	0.5	< 0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	< 0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	< 0.5	U
5	O-XYLENE	95-47-6	μg/L	0.5	< 0.5	U
6	M/P-XYLENE	108-38-3	μg/L	1	< 1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	116
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	120
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000818

2C

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1333		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
1	97G1333-MB-01	97G1333-MB-01	98	109	0
2	97G1333-LCS-01	97G1333-LCS-01	104	96	0
3	97G1333-LSD-01	97G1333-LSD-01	105	98	0
4	18609-672-090	97-1417-1	115	113	0
5	18609-672-094	97-1417-5	116	120	0
6	97-2E-W-674-MS	97-1400-51MS	120	107	0
7	97-2E-W-674-MSD	97-1400-51MSD	115	101	0
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	68-124
S2 = 4-BROMO-FLUOROBENZENE (PID)	71-134

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

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Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1327		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
1	97G1327-MB-01	97G1327-MB-01	74	98	0
2	97G1327-LCS-01	97G1327-LCS-01	81	89	0
3	97G1327-LSD-01	97G1327-LSD-01	84	90	0
4	97-2E-S-677-MS	97-1400-24MS	86	89	0
5	97-2E-S-677-MSD	97-1400-24MSD	89	96	0
6	18609-672-091	97-1417-2	109	117	0
7	18609-672-092	97-1417-3	92	108	0
8	18609-672-093	97-1417-4	105	109	0
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	70-132
S2 = 4-BROMO-FLUOROBENZENE (PID)	65-126

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

000820

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1333		
LCS Filename:	1333G.L01	Date Analyzed:	021397	Time Analyzed:	10:33
LCSD Filename:	1333G.J01	Date Analyzed:	021397	Time Analyzed:	10:56

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	0.959	96	75-122
BENZENE	µg/L	20	0	17.7	89	77-121
ETHYLBENZENE	µg/L	19	0	16.1	85	78-132
TOLUENE	µg/L	80	0	74.6	93	77-134
O-XYLENE	µg/L	27	0	23.0	85	77-133
M/P-XYLENE	µg/L	82	0	67.4	82	81-131
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/L	1	0.962	96	0	23	75-122
BENZENE	µg/L	20	16.8	84	6	22	77-121
ETHYLBENZENE	µg/L	19	16.5	87	2	27	78-132
TOLUENE	µg/L	80	73.7	92	1	29	77-134
O-XYLENE	µg/L	27	23.5	87	2	28	77-133
M/P-XYLENE	µg/L	82	68.6	84	2	25	81-131
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000821

3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1333		
MS Filename:	1333G.M01	Date Analyzed:	021397	Time Analyzed:	16:25
MSD Filename:	1333G.N01	Date Analyzed:	021397	Time Analyzed:	17:13
MS Sample No:	97-2E-W-674	Sample Lab ID:	97-1400-51		

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	1.03	103	75-120
BENZENE	µg/L	20	0	18.1	91	72-121
ETHYLBENZENE	µg/L	19	0	17.6	93	74-132
TOLUENE	µg/L	80	0	77.7	97	77-134
O-XYLENE	µg/L	27	0	25.1	93	74-133
M/P-XYLENE	µg/L	82	0	73.3	89	70-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/L	1	1.03	103	0	23	75-120
BENZENE	µg/L	20	17.6	88	3	22	72-121
ETHYLBENZENE	µg/L	19	17.2	91	2	27	74-132
TOLUENE	µg/L	80	76.0	95	2	24	77-134
O-XYLENE	µg/L	27	23.9	89	4	27	74-133
M/P-XYLENE	µg/L	82	69.8	85	5	32	70-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000822

3B

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1327		
LCS Filename:	1327G.L01	Date Analyzed:	021297	Time Analyzed:	15:43
LCSD Filename:	1327G.J01	Date Analyzed:	021297	Time Analyzed:	16:10

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	1	0	0.910	91	77-122
BENZENE	µg/kg	20	0	19.4	97	72-119
ETHYLBENZENE	µg/kg	19	0	17.0	89	71-134
TOLUENE	µg/kg	80	0	75.8	95	79-129
O-XYLENE	µg/kg	27	0	24.9	92	70-133
M/P-XYLENE	µg/kg	82	0	71.6	87	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	1	0.906	91	0	23	77-122
BENZENE	µg/kg	20	19.4	97	0	23	72-119
ETHYLBENZENE	µg/kg	19	17.5	92	3	31	71-134
TOLUENE	µg/kg	80	74.6	93	2	25	79-129
O-XYLENE	µg/kg	27	25.8	96	4	32	70-133
M/P-XYLENE	µg/kg	82	74.6	91	4	30	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000823

3B

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1327		
MS Filename:	1327G.M01	Date Analyzed:	021297	Time Analyzed:	16:46
MSD Filename:	1327G.N01	Date Analyzed:	021297	Time Analyzed:	17:20
MS Sample No:	97-2E-S-677	Sample Lab ID:	97-1400-24	Moisture, %	17.1

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	1.21	0	0.933	77	65-127
BENZENE	µg/kg	24.1	0	21.8	90	70-121
ETHYLBENZENE	µg/kg	22.9	0	19.2	84	71-134
TOLUENE	µg/kg	96.5	0	82.7	86	79-129
O-XYLENE	µg/kg	32.6	0	27.8	85	70-133
M/P-XYLENE	µg/kg	98.9	0	81.4	82	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	1.21	0.955	79	3	31	65-127
BENZENE	µg/kg	24.1	21.8	90	0	26	70-121
ETHYLBENZENE	µg/kg	22.9	19.4	85	1	26	71-134
TOLUENE	µg/kg	96.5	82.9	86	0	24	79-129
O-XYLENE	µg/kg	32.6	27.9	86	1	30	70-133
M/P-XYLENE	µg/kg	98.9	81.5	82	0	27	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000824

Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Analysis Date:	02/13/97
		Sample Matrix:	Water	Analysis Time:	10:10
Sample ID:	**97G1333-MB-01**	Batch No:	97G1333	Instrument ID:	GC: N
Lab Sample ID:	97G1333-MB-01	Data File Name:	1333G.K01	GC Column:	DB-1
		Heated Purge: (Y/N)	N	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1333-LCS-01	97G1333-LCS-01	Lab Control Spike	1333G.L01	02/13/97	10:33
2	97G1333-LSD-01	97G1333-LSD-01	Lab Control Spike Duplicate	1333G.J01	02/13/97	10:56
3	18609-672-090	97-1417-1	Field Sample	1417.001	02/13/97	15:39
4	18609-672-094	97-1417-5	Field Sample	1417.005	02/13/97	16:02
5	97-2E-W-674-MS	97-1400-51MS	Matrix Spike	1333G.M01	02/13/97	16:25
6	97-2E-W-674-MSD	97-1400-51MSD	Matrix Spike Duplicate	1333G.N01	02/13/97	17:13
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000825

Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Analysis Date:	02/12/97
		Sample Matrix:	Soil	Analysis Time:	15:17
Sample ID:	**97G1327-MB-01**	Batch No:	97G1327	Instrument ID:	GC: N
Lab Sample ID:	97G1327-MB-01	Data File Name:	1327G.K01	GC Column:	DB-1
		Heated Purge: (Y/N)	Y	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1327-LCS-01	97G1327-LCS-01	Lab Control Spike	1327G.L01	02/12/97	15:43
2	97G1327-LSD-01	97G1327-LSD-01	Lab Control Spike Duplicate	1327G.J01	02/12/97	16:10
3	97-2E-S-677-MS	97-1400-24MS	Matrix Spike	1327G.M01	02/12/97	16:46
4	97-2E-S-677-MSD	97-1400-24MSD	Matrix Spike Duplicate	1327G.N01	02/12/97	17:20
5	18609-672-091	97-1417-2	Field Sample	1417.002	02/12/97	18:52
6	18609-672-092	97-1417-3	Field Sample	1417.003	02/12/97	19:19
7	18609-672-093	97-1417-4	Field Sample	1417.004	02/12/97	19:45
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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/12/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97G1325-MB-01	Received Date:	02/12/97
Sample ID:	**97G1325-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1325	Prep. No:	1 of 1	Anal. Time:	19:58
Data File Name:	1325G.K01	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	TBD-0011	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/kg	50	<50	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/12/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97G1329-MB-01	Received Date:	02/12/97
Sample ID:	97G1329-MB-01	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1329	Prep. No:	1 of 1	Anal. Time:	17:48
Data File Name:	1329G.K01	Sample Amount:	1000 mL	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U
2	C_{31}-C_{40} (HEAVY OIL)		mg/L	2.5	<2.5	U
3	TPH AS DIESEL	68334-30-5	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97-1417-2	Received Date:	02/07/97
Sample ID:	18609-672-091	Sample Matrix	Soil	Moisture %:	14.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1325	Prep. No:	1 of 1	Anal. Time:	20:49
Data File Name:	1417.002	Sample Amount:	20.0 g	Dilution Factor:	50

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS MOTOR OIL	TBD-0002	mg/kg	590	870 [a]	
2	C_{31}-C_{40} (HEAVY OIL)		mg/kg	2900	<2900	U
3	TPH AS JP-5	TBD-0011	mg/kg	590	11000	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	113
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Hydrocarbons in Diesel/Motor Oil range.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000860

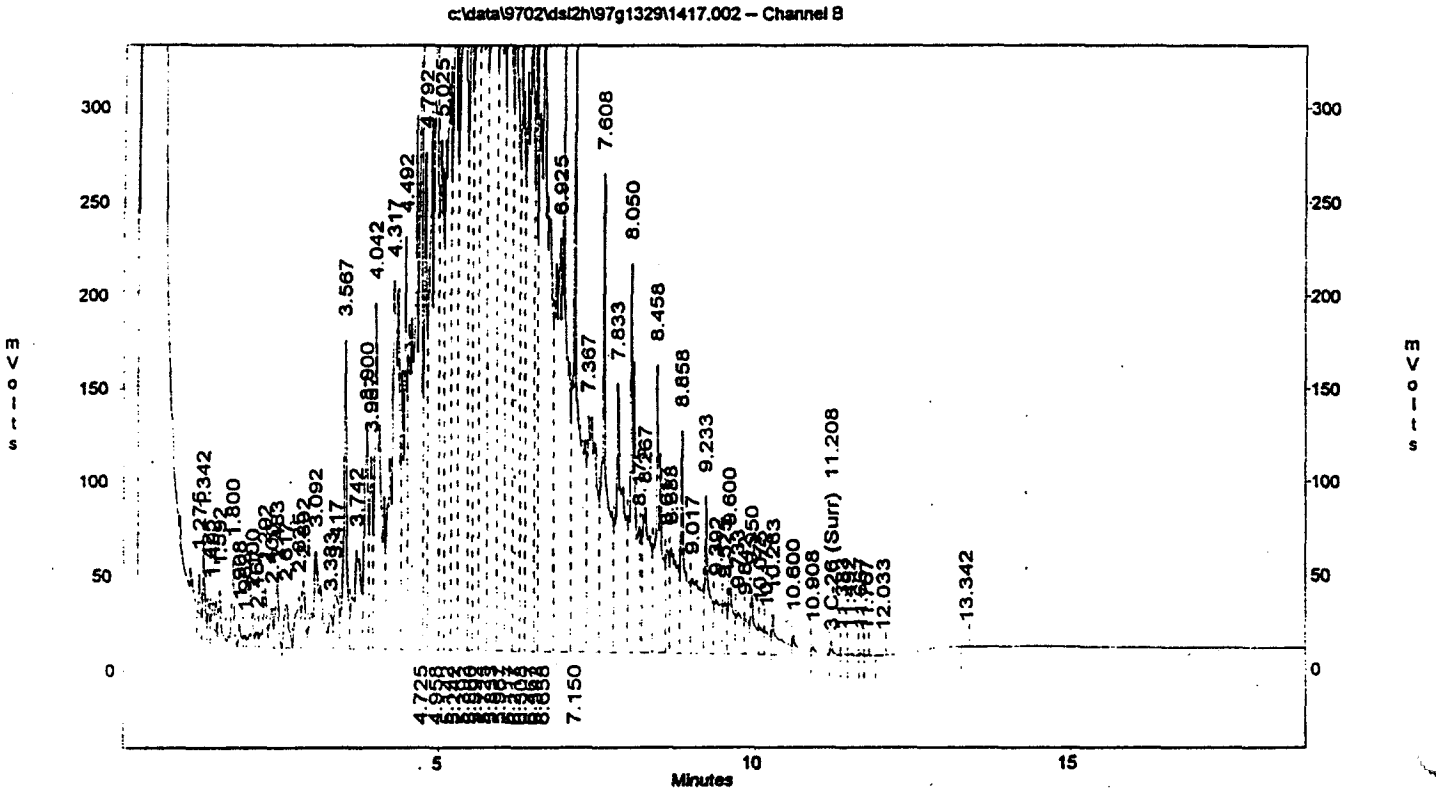
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9702\dsl2h\97g1329\1417.002
Method : c:\ezchrom\methods\j5mo-014.h00
Sample ID : 1417-2 F=2.5
Vial : 2
Volume : 1
Acquired : Feb 12, 1997 20:49:40
Printed : Feb 13, 1997 08:58:11
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.21	18117	1.132
1 Jp-5		62810848	3579.935
2 motor oil		4332968	295.242

85 49.84
~~8950~~ ppm
738 ppm



000881

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97-1417-3	Received Date:	02/07/97
Sample ID:	**18609-672-092**	Sample Matrix	Soil	Moisture %:	12.9
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1325	Prep. No:	1 of 1	Anal. Time:	20:23
Data File Name:	1417.003	Sample Amount:	20.0 g	Dilution Factor:	50

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS MOTOR OIL	TBD-0002	mg/kg	570	680 [a]	
2	C_{31}-C_{40} (HEAVY OIL)		mg/kg	2900	<2900	U
3	TPH AS JP-5	TBD-0011	mg/kg	570	5400	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	70
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Hydrocarbons in Diesel/Motor Oil range.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000862

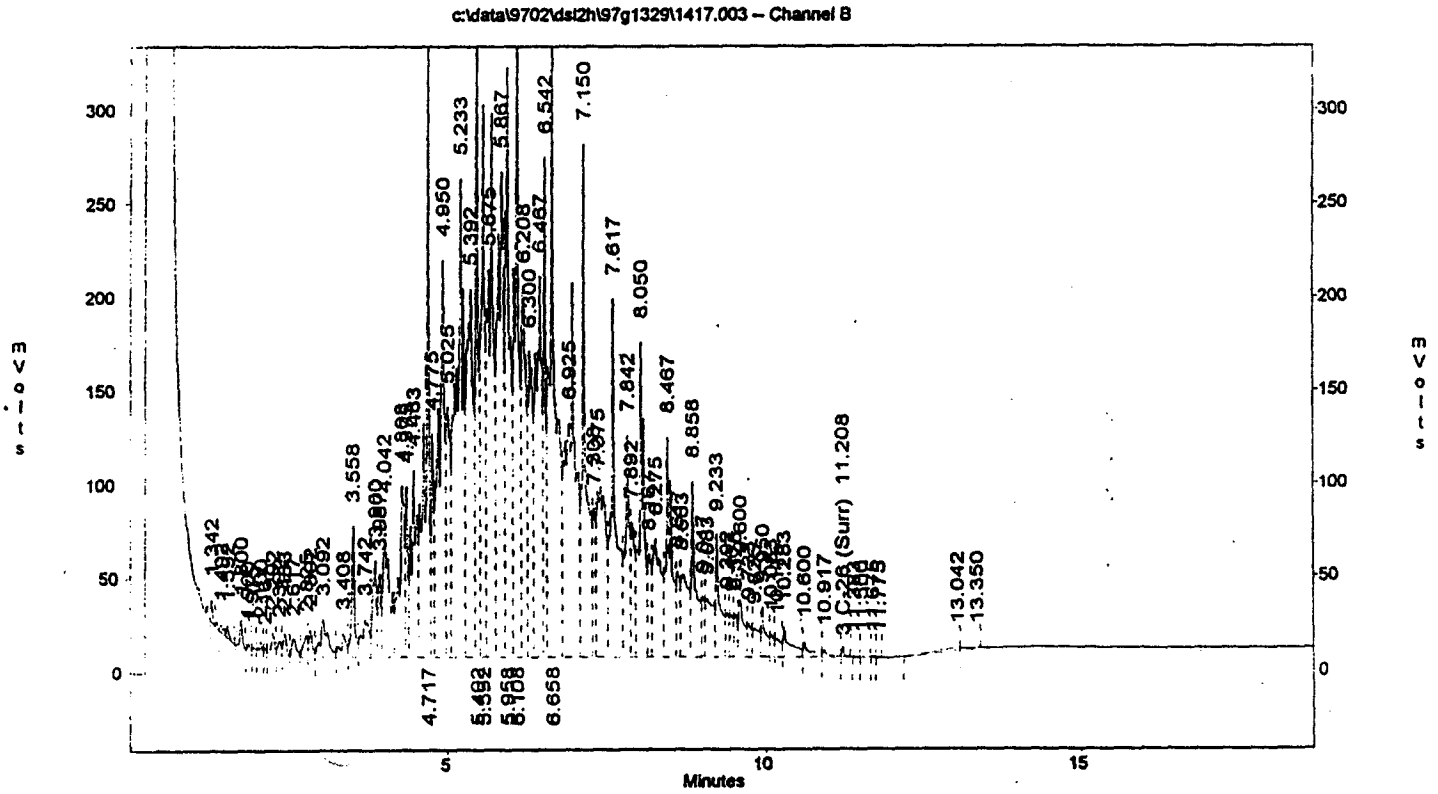
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9702\dsl2h\97g1329\1417.003
Method : c:\ezchrom\methods\j5mo-014.h00
Sample ID : 1417-3 F=2.5
Vial : 3
Volume : 1
Acquired : Feb 12, 1997 20:23:58
Printed : Feb 13, 1997 08:58:39
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.21	11134	0.696
1 Jp-5		33096008	1886.323
2 motor oil		3483719	237.376

4716 ppm
593.4 ppm



000863

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97-1417-4	Received Date:	02/07/97
Sample ID:	**18609-672-093**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1325	Prep. No:	1 of 1	Anal. Time:	21:15
Data File Name:	1417.004	Sample Amount:	20.0 g	Dilution Factor:	50

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS MOTOR OIL	TBD-0002	mg/kg	580	780 [a]	
2	C_{31}-C_{40} (HEAVY OIL)		mg/kg	2900	< 2900	U
3	TPH AS JP-5	TBD-0011	mg/kg	580	7900	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	92
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Hydrocarbons in Diesel/Motor Oil range.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

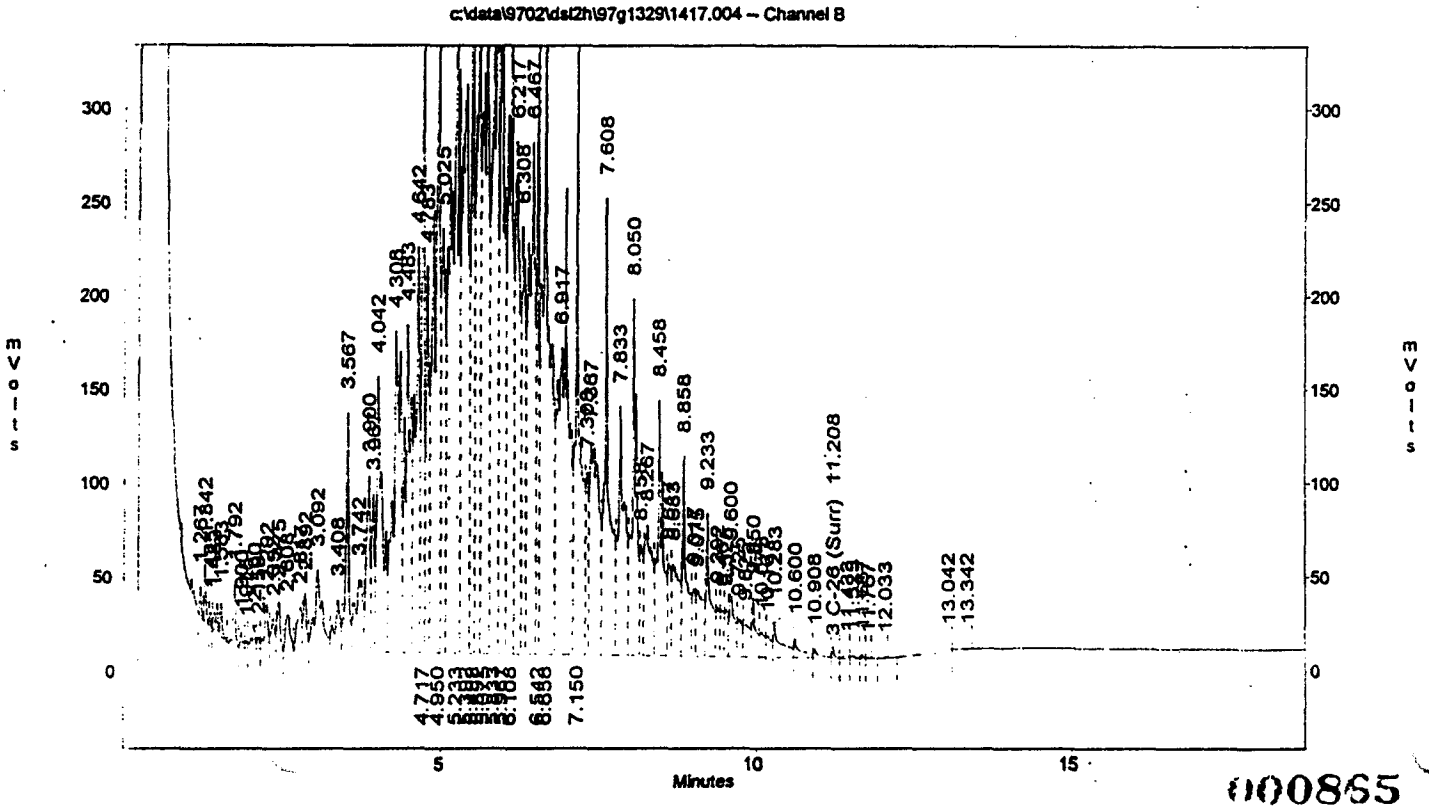
000864

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File	: c:\data\9702\dsl2h\97g1329\1417.004
Method	: c:\ezchrom\methods\j5mo-014.h00
Sample ID	: 1417-4 F=2.5
Vial	: 4
Volume	: 1
Acquired	: Feb 12, 1997 21:15:20
Printed	: Feb 13, 1997 08:59:52
User	: System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.21	14695	0.918
1 Jp-5		48168044	2745.361 — 6863.4ppm
2 motor oil		3950964	269.213 — 673



000865

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/07/97
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	
		Lab Sample ID:	97-1417-5	Received Date:	02/07/97
Sample ID:	18609-672-094	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/12/97	Anal. Date:	02/12/97
Batch No:	97G1329	Prep. No:	1 of 1	Anal. Time:	18:14
Data File Name:	1417.005	Sample Amount:	1000 mL	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	0.5	<0.5	U
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U
3	C_{31}-C_{40} (HEAVY OIL)		mg/L	2.5	<2.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	86
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

000866

2D

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1325		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G1325-MB-01	97G1325-MB-01	96	0
2	18609-672-092	97-1417-3	70	0
3	18609-672-091	97-1417-2	113	0
4	18609-672-093	97-1417-4	92	0
5	97G1325-LCS-01	97G1325-LCS-01	86	0
6	97G1325-LSD-01	97G1325-LSD-01	79	0
7	97-2E-S-691-MS	97-1400-38MS	67	0
8	97-2E-S-691-MSD	97-1400-38MSD	72	0
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25				

S1 = HEXACOSANE, C_{26}

QC Control Limit
50-146

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

000867

2C

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1329		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G1329-MB-01	97G1329-MB-01	96	0
2	18609-672-094	97-1417-5	86	0
3	97G1329-LCS-01	97G1329-LCS-01	93	0
4	97G1329-LSD-01	97G1329-LSD-01	88	0
5				
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25				

QC Control Limit

S1 = HEXACOSANE, C_{26} 50-149

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

000858

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1325		
LCS Filename:	1325G.L01	Date Analyzed:	021297	Time Analyzed:	22:06
LCSD Filename:	1325G.J01	Date Analyzed:	021297	Time Analyzed:	23:49

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS JP-5	mg/kg	50	0	40.4	81	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS JP-5	mg/kg	50	38.8	78	4	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000869

3D

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1325		
MS Filename:	1325G.M01	Date Analyzed:	021397	Time Analyzed:	00:40
MSD Filename:	1325G.N01	Date Analyzed:	021397	Time Analyzed:	01:06
MS Sample No:	97-2E-S-691	Sample Lab ID:	97-1400-38	Moisture, %	22.9

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
TPH AS JP-5	mg/kg	64.9	0	45.8	71	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
TPH AS JP-5	mg/kg	64.9	48.0	74	4	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000870

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1329		
LCS Filename:	1329G.L01	Date Analyzed:	021297	Time Analyzed:	19:06
LCSD Filename:	1329G.J01	Date Analyzed:	021297	Time Analyzed:	19:31

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/L	1	0	0.878	88	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/L	1	0.856	86	2	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

000871

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Analysis Date:	02/12/97
		Sample Matrix:	Soil	Analysis Time:	19:58
Sample ID:	**97G1325-MB-01**	Batch No:	97G1325	Instrument ID:	GC: H
Lab Sample ID:	97G1325-MB-01	Data File Name:	1325G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	18609-672-092	97-1417-3	Field Sample	1417.003	02/12/97	20:23
2	18609-672-091	97-1417-2	Field Sample	1417.002	02/12/97	20:49
3	18609-672-093	97-1417-4	Field Sample	1417.004	02/12/97	21:15
4	97G1325-LCS-01	97G1325-LCS-01	Lab Control Spike	1325G.L01	02/12/97	22:06
5	97G1325-LSD-01	97G1325-LSD-01	Lab Control Spike Duplicate	1325G.J01	02/12/97	23:49
6	97-2E-S-691-MS	97-1400-38MS	Matrix Spike	1325G.M01	02/13/97	00:40
7	97-2E-S-691-MSD	97-1400-38MSD	Matrix Spike Duplicate	1325G.N01	02/13/97	01:06
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000872

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971417
Project ID:	UST672 DO75	Project No:	18609	Analysis Date:	02/12/97
		Sample Matrix:	Water	Analysis Time:	17:48
Sample ID:	**97G1329-MB-01**	Batch No:	97G1329	Instrument ID:	GC: H
Lab Sample ID:	97G1329-MB-01	Data File Name:	1329G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	18609-672-094	97-1417-5	Field Sample	1417.005	02/12/97	18:14
2	97G1329-LCS-01	97G1329-LCS-01	Lab Control Spike	1329G.L01	02/12/97	19:06
3	97G1329-LSD-01	97G1329-LSD-01	Lab Control Spike Duplicate	1329G.J01	02/12/97	19:31
4						
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000873

Applied P & Ch Laboratory

Wet Analysis Results for Method ASTM-D2216

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Anal. Method	ASTM-D2216
Project ID:	UST672 DO75	Service ID:	971417	Collected by:	

Component Name: PERCENT MOISTURE
CAS No: 7732-18-5

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-1417-2	18609-672-091	Soil	02/07/97	02/07/97	02/10/97	97W1523	%Moisture	0.5	14.8	
97-1417-3	18609-672-092	Soil	02/07/97	02/07/97	02/10/97	97W1523	%Moisture	0.5	12.9	
97-1417-4	18609-672-093	Soil	02/07/97	02/07/97	02/10/97	97W1523	%Moisture	0.5	13.2	

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

000914

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

LAB COPY
Form 0019
Field Technical Services
Rev. 08/89

186132

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
UST 672	M.C.A.S. EL TORO

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
18609	THIZAR TINtut-Williams	(714) 263-1146 X620

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
LYNN HORNECKER-SWDIV	Bill SEDLAK- OHM

A.p.C.L.
CHINO Hills, CA.

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	8240	mg/SD Full Range	418.1						REMARKS
1	18609-672-132	2/24/97	0800		X	TRIP BLANK FOR 2/24/97	1	X	X	X						
2	18609-672-133	2/24/97 0915	0915		X	SW. Bottom FLOOR @ 16	1	X	X	X						
3	18609-672-134	2/24/97 0920	0920		X	S.W. SIDE WALL @ 16'	1	X	X	X						
4	18609-672-135	2/24/97 0925	0925		X	S.E. SIDE WALL @ 16'	1	X	X	X						
5	18609-672-136	2/24/97 0933	0933		X	E. SIDE WALL @ ~~16'~~ 14½'	1	X	X	X						
6	18609-672-137	2/24/97 0936	0936		X	NE. SIDE WALL @ 16'	1	X	X	X						
7	18609-672-138	2/24/97 0955	0955		X	S.E. Bottom FLOOR 18'	1	X	X	X						
8					/											
9																
10																

Mark Bannister 2/24/97

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 TO 7	Mark Bannister	Juan C. Rdz	2/24/97	12:30
2					
3					
4					

REMARKS
1) 72 hr. T.A.T.

1578

SAMPLER'S SIGNATURE
Mark Bannister

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

FAX (909) 590-1498

TRANSFER 2
Form 0019
Field Technical Services
Rev. 08/89

186132

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: UST 672
PROJECT LOCATION: M.C.A.S. EL TORO
PROJ. NO.: 18609
PROJECT CONTACT: THIZAR TINTUT-WILLIAMS
PROJECT TELEPHONE NO.: (714) 263-1146 X620
CLIENT'S REPRESENTATIVE: LYNN HORNECKER-SWDIV
PROJECT MANAGER/SUPERVISOR: BILL SEDLAK- OHM

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): 8240, 8015D Full Range, 418.1

A.P.C.L. CHINO HILLS, CA.

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	8240	8015D Full Range	418.1						REMARKS
1	18609-672-132	2/24/97	0800		X	TRIP BLANK FOR 2/24/97	1	X	X	X						
2	18609-672-133	2/24/97 0915	0915		X	SW. Bottom Floor @ 16'	1	X	X	X						
3	18609-672-134	2/24/97 0920	0920		X	S.W. Side Wall @ 16'	1	X	X	X						
4	18609-672-135	2/24/97 0925	0925		X	S.E. Side Wall @ 16'	1	X	X	X						
5	18609-672-136	2/24/97 0933	0933		X	E. Side Wall @ ~~16'~~ 14½'	1	X	X	X						
6	18609-672-137	2/24/97 0936	0936		X	NE. Side Wall @ 16'	1	X	X	X						
7	18609-672-138	2/24/97 0955	0955		X	S.E. Bottom Floor 18'	1	X	X	X						
8																
9																
10																

Mark L Bammil 2/24/97

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 TO 7	Mark L Bammil	Juan C Rdz	2/24/97	12:30
2					
3					
4					

REMARKS
1) ~~72~~ 24 hr. T.A.T.
2) ANALYZE FOR SPLP/TPH if TPH RESULT is >10,000 PPM

SAMPLER'S SIGNATURE: Mark L Bammil

Applied P & Ch Laboratory

Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97G1483-MB-01	Received Date:	02/24/97
Sample ID:	**97G1483-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	8240	Prep. Date:	02/25/97	Anal. Date:	02/25/97
Batch No:	97G1483	Prep. No:	–	Anal. Time:	02:58
Data File Name:	G1483K01	Sample Amount:	25.0 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	25 mL
		Heated Purge: (Y/N) N			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/L	100	< 100	U
2	ACROLEIN	107-02-8	µg/L	100	< 100	U
3	ACRYLONITRILE	107-13-1	µg/L	50	< 50	U
4	BENZENE	71-43-2	µg/L	5	< 5	U
5	BROMODICHLOROMETHANE	75-27-4	µg/L	5	< 5	U
6	BROMOFORM	75-25-2	µg/L	5	< 5	U
7	BROMOMETHANE	74-83-9	µg/L	10	< 10	U
8	2-BUTANONE (MEK)	78-93-3	µg/L	100	< 100	U
9	CARBON DISULFIDE	75-15-0	µg/L	5	< 5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/L	5	< 5	U
11	CHLOROBENZENE	108-90-7	µg/L	5	< 5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	< 5	U
13	CHLOROETHANE	75-00-3	µg/L	10	< 10	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/L	50	< 50	U
15	CHLOROFORM	67-66-3	µg/L	5	< 5	U
16	CHLOROMETHANE	74-87-3	µg/L	10	< 10	U
17	DIBROMOMETHANE	74-95-3	µg/L	5	< 5	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	5	< 5	U
19	1,1-DICHLOROETHANE	75-34-3	µg/L	5	< 5	U
20	1,2-DICHLOROETHANE	107-06-2	µg/L	5	< 5	U
21	1,1-DICHLOROETHENE	75-35-4	µg/L	5	< 5	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	< 5	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	< 5	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/L	5	< 5	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	< 5	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	< 5	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	5	< 5	U
28	ETHYL METHACRYLATE	97-63-2	µg/L	10	< 10	U
29	ETHYLBENZENE	100-41-4	µg/L	5	< 5	U
30	2-HEXANONE	591-78-6	µg/L	50	< 50	U
31	IODOMETHANE	74-88-4	µg/L	5	< 5	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	50	< 50	U
33	METHYLENE CHLORIDE	75-09-2	µg/L	10	< 10	U
34	STYRENE	100-42-5	µg/L	5	< 5	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	< 5	U
36	TETRACHLOROETHENE	127-18-4	µg/L	5	< 5	U
37	TOLUENE	108-88-3	µg/L	5	< 5	U
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	< 5	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	< 5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	µg/L	5	< 5	U
41	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	5	< 5	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	5	< 5	U
43	VINYL ACETATE	108-05-4	µg/L	50	< 50	U
44	VINYL CHLORIDE	75-01-4	µg/L	10	< 10	U
45	O-XYLENE	95-47-6	µg/L	5	< 5	U
46	M/P-XYLENE	108-38-3	µg/L	5	< 5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	101
2	1,2-DICHLOROETHANE-D4	17060-07-0	79-113	97
3	TOLUENE-D8	2037-26-5	89-109	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	100
2	CHLOROBENZENE-D5	3114-55-4	50-200	92
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	102
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97G1477-MB-01	Received Date:	02/24/97
Sample ID:	**97G1477-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8240	Prep. Date:	02/24/97	Anal. Date:	02/24/97
Batch No:	97G1477	Prep. No:	–	Anal. Time:	18:00
Data File Name:	G1477K01	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) Y			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	100	< 100	U
2	ACROLEIN	107-02-8	µg/kg	100	< 100	U
3	ACRYLONITRILE	107-13-1	µg/kg	50	< 50	U
4	BENZENE	71-43-2	µg/kg	5	< 5	U
5	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	< 5	U
6	BROMOFORM	75-25-2	µg/kg	5	< 5	U
7	BROMOMETHANE	74-83-9	µg/kg	10	< 10	U
8	2-BUTANONE (MEK)	78-93-3	µg/kg	100	< 100	U
9	CARBON DISULFIDE	75-15-0	µg/kg	5	< 5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	< 5	U
11	CHLOROBENZENE	108-90-7	µg/kg	5	< 5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	< 5	U
13	CHLOROETHANE	75-00-3	µg/kg	10	< 10	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	50	< 50	U
15	CHLOROFORM	67-66-3	µg/kg	5	< 5	U
16	CHLOROMETHANE	74-87-3	µg/kg	10	< 10	U
17	DIBROMOMETHANE	74-95-3	µg/kg	5	< 5	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5	< 5	U
19	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	< 5	U
20	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	< 5	U
21	1,1-DICHLOROETHENE	75-35-4	µg/kg	5	< 5	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	< 5	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	< 5	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/kg	5	< 5	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	< 5	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	< 5	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5	< 5	U
28	ETHYL METHACRYLATE	97-63-2	µg/kg	10	< 10	U
29	ETHYLBENZENE	100-41-4	µg/kg	5	< 5	U
30	2-HEXANONE	591-78-6	µg/kg	50	< 50	U
31	IODOMETHANE	74-88-4	µg/kg	5	< 5	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	50	< 50	U
33	METHYLENE CHLORIDE	75-09-2	µg/kg	20	< 20	U
34	STYRENE	100-42-5	µg/kg	5	< 5	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	< 5	U
36	TETRACHLOROETHENE	127-18-4	µg/kg	5	< 5	U
37	TOLUENE	108-88-3	µg/kg	5	< 5	U
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	< 5	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	< 5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
41	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5	<5	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5	<5	U
43	VINYL ACETATE	108-05-4	µg/kg	50	<50	U
44	VINYL CHLORIDE	75-01-4	µg/kg	10	<10	U
45	O-XYLENE	95-47-6	µg/kg	5	<5	U
46	M/P-XYLENE	108-38-3	µg/kg	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	76-119	106
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-120	104
3	TOLUENE-D8	2037-26-5	84-116	105
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	100
2	CHLOROBENZENE-D5	3114-55-4	50-200	81
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	83
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-1	Received Date:	02/24/97
Sample ID:	**18609-672-132**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	8240	Prep. Date:	02/25/97	Anal. Date:	02/25/97
Batch No:	97G1483	Prep. No:	–	Anal. Time:	03:38
Data File Name:	1578-01	Sample Amount:	25.0 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	25 mL
		Heated Purge: (Y/N) N			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/L	100	< 100	U
2	ACROLEIN	107-02-8	µg/L	100	< 100	U
3	ACRYLONITRILE	107-13-1	µg/L	50	< 50	U
4	BENZENE	71-43-2	µg/L	5	< 5	U
5	BROMODICHLOROMETHANE	75-27-4	µg/L	5	< 5	U
6	BROMOFORM	75-25-2	µg/L	5	< 5	U
7	BROMOMETHANE	74-83-9	µg/L	10	< 10	U
8	2-BUTANONE (MEK)	78-93-3	µg/L	100	< 100	U
9	CARBON DISULFIDE	75-15-0	µg/L	5	< 5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/L	5	< 5	U
11	CHLOROBENZENE	108-90-7	µg/L	5	< 5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	< 5	U
13	CHLOROETHANE	75-00-3	µg/L	10	< 10	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/L	50	< 50	U
15	CHLOROFORM	67-66-3	µg/L	5	< 5	U
16	CHLOROMETHANE	74-87-3	µg/L	10	< 10	U
17	DIBROMOMETHANE	74-95-3	µg/L	5	< 5	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	5	< 5	U
19	1,1-DICHLOROETHANE	75-34-3	µg/L	5	< 5	U
20	1,2-DICHLOROETHANE	107-06-2	µg/L	5	< 5	U
21	1,1-DICHLOROETHENE	75-35-4	µg/L	5	< 5	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	< 5	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	< 5	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/L	5	< 5	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	< 5	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	< 5	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	5	< 5	U
28	ETHYL METHACRYLATE	97-63-2	µg/L	10	< 10	U
29	ETHYLBENZENE	100-41-4	µg/L	5	< 5	U
30	2-HEXANONE	591-78-6	µg/L	50	< 50	U
31	IODOMETHANE	74-88-4	µg/L	5	< 5	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	50	< 50	U
33	METHYLENE CHLORIDE	75-09-2	µg/L	10	< 10	U
34	STYRENE	100-42-5	µg/L	5	< 5	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	< 5	U
36	TETRACHLOROETHENE	127-18-4	µg/L	5	< 5	U
37	TOLUENE	108-88-3	µg/L	5	< 5	U
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	< 5	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	< 5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	μg/L	5	< 5	U
41	TRICHLOROFLUOROMETHANE	75-69-4	μg/L	5	< 5	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	μg/L	5	< 5	U
43	VINYL ACETATE	108-05-4	μg/L	50	< 50	U
44	VINYL CHLORIDE	75-01-4	μg/L	10	< 10	U
45	O-XYLENE	95-47-6	μg/L	5	< 5	U
46	M/P-XYLENE	108-38-3	μg/L	5	< 5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	109
2	1,2-DICHLOROETHANE-D4	17060-07-0	79-113	97
3	TOLUENE-D8	2037-26-5	89-109	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	97
2	CHLOROBENZENE-D5	3114-55-4	50-200	90
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

001014

Applied P & Ch Laboratory

Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-2	Received Date:	02/24/97
Sample ID:	**18609-672-133**	Sample Matrix	Soil	Moisture %:	13.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8240	Prep. Date:	02/24/97	Anal. Date:	02/24/97
Batch No:	97G1477	Prep. No:	–	Anal. Time:	22:23
Data File Name:	1578-02	Sample Amount:	0.5 g	Dilution Factor:	10
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) Y			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	1100	<1100	U
2	ACROLEIN	107-02-8	µg/kg	1100	<1100	U
3	ACRYLONITRILE	107-13-1	µg/kg	570	<570	U
4	BENZENE	71-43-2	µg/kg	57	<57	U
5	BROMODICHLOROMETHANE	75-27-4	µg/kg	57	<57	U
6	BROMOFORM	75-25-2	µg/kg	57	<57	U
7	BROMOMETHANE	74-83-9	µg/kg	110	<110	U
8	2-BUTANONE (MEK)	78-93-3	µg/kg	1100	<1100	U
9	CARBON DISULFIDE	75-15-0	µg/kg	57	<57	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	57	<57	U
11	CHLOROBENZENE	108-90-7	µg/kg	57	<57	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	57	<57	U
13	CHLOROETHANE	75-00-3	µg/kg	110	<110	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	570	<570	U
15	CHLOROFORM	67-66-3	µg/kg	57	<57	U
16	CHLOROMETHANE	74-87-3	µg/kg	110	<110	U
17	DIBROMOMETHANE	74-95-3	µg/kg	57	<57	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	57	<57	U
19	1,1-DICHLOROETHANE	75-34-3	µg/kg	57	<57	U
20	1,2-DICHLOROETHANE	107-06-2	µg/kg	57	<57	U
21	1,1-DICHLOROETHENE	75-35-4	µg/kg	57	<57	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	57	<57	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	57	<57	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/kg	57	<57	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/kg	57	<57	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	57	<57	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	57	<57	U
28	ETHYL METHACRYLATE	97-63-2	µg/kg	110	<110	U
29	ETHYLBENZENE	100-41-4	µg/kg	57	90	
30	2-HEXANONE	591-78-6	µg/kg	570	<570	U
31	IODOMETHANE	74-88-4	µg/kg	57	<57	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	570	<570	U
33	METHYLENE CHLORIDE	75-09-2	µg/kg	230	<230	U
34	STYRENE	100-42-5	µg/kg	57	<57	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	57	<57	U
36	TETRACHLOROETHENE	127-18-4	µg/kg	57	<57	U
37	TOLUENE	108-88-3	µg/kg	57	<57	U
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	57	<57	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	57	<57	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	μg/kg	57	< 57	U
41	TRICHLOROFLUOROMETHANE	75-69-4	μg/kg	57	< 57	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	μg/kg	57	< 57	U
43	VINYL ACETATE	108-05-4	μg/kg	570	< 570	U
44	VINYL CHLORIDE	75-01-4	μg/kg	110	< 110	U
45	O-XYLENE	95-47-6	μg/kg	57	27	J
46	M/P-XYLENE	108-38-3	μg/kg	57	410	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	76-119	78
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-120	79
3	TOLUENE-D8	2037-26-5	84-116	86
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	104
2	CHLOROBENZENE-D5	3114-55-4	50-200	90
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	93
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

001016

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Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-3	Received Date:	02/24/97
Sample ID:	**18609-672-134R-RE**	Sample Matrix	Soil	Moisture %:	14.9
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	8240	Prep. Date:	02/25/97	Anal. Date:	02/25/97
Batch No:	97G1483	Prep. No:	–	Anal. Time:	09:42
Data File Name:	1578-03A	Sample Amount:	4.0 g	Dilution Factor:	100
Test Level:	Medium			Sparge Size:	25 mL
		Heated Purge: (Y/N) N			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	12000	< 12000	U
2	ACROLEIN	107-02-8	µg/kg	12000	< 12000	U
3	ACRYLONITRILE	107-13-1	µg/kg	5900	< 5900	U
4	BENZENE	71-43-2	µg/kg	590	210	J
5	BROMODICHLOROMETHANE	75-27-4	µg/kg	590	< 590	U
6	BROMOFORM	75-25-2	µg/kg	590	< 590	U
7	BROMOMETHANE	74-83-9	µg/kg	1200	< 1200	U
8	2-BUTANONE (MEK)	78-93-3	µg/kg	12000	< 12000	U
9	CARBON DISULFIDE	75-15-0	µg/kg	590	< 590	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	590	< 590	U
11	CHLOROBENZENE	108-90-7	µg/kg	590	< 590	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	590	< 590	U
13	CHLOROETHANE	75-00-3	µg/kg	1200	< 1200	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	5900	< 5900	U
15	CHLOROFORM	67-66-3	µg/kg	590	< 590	U
16	CHLOROMETHANE	74-87-3	µg/kg	1200	< 1200	U
17	DIBROMOMETHANE	74-95-3	µg/kg	590	< 590	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	590	< 590	U
19	1,1-DICHLOROETHANE	75-34-3	µg/kg	590	< 590	U
20	1,2-DICHLOROETHANE	107-06-2	µg/kg	590	< 590	U
21	1,1-DICHLOROETHENE	75-35-4	µg/kg	590	< 590	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	590	< 590	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	590	< 590	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/kg	590	< 590	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/kg	590	< 590	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	590	< 590	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	590	< 590	U
28	ETHYL METHACRYLATE	97-63-2	µg/kg	1200	< 1200	U
29	ETHYLBENZENE	100-41-4	µg/kg	590	1340	
30	2-HEXANONE	591-78-6	µg/kg	5900	< 5900	U
31	IODOMETHANE	74-88-4	µg/kg	590	< 590	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	5900	< 5900	U
33	METHYLENE CHLORIDE	75-09-2	µg/kg	2400	< 2400	U
34	STYRENE	100-42-5	µg/kg	590	< 590	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	590	< 590	U
36	TETRACHLOROETHENE	127-18-4	µg/kg	590	< 590	U
37	TOLUENE	108-88-3	µg/kg	590	270	J
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	590	< 590	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	590	< 590	U

001017

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	µg/kg	590	< 590	U
41	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	590	< 590	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	590	< 590	U
43	VINYL ACETATE	108-05-4	µg/kg	5900	< 5900	U
44	VINYL CHLORIDE	75-01-4	µg/kg	1200	< 1200	U
45	O-XYLENE	95-47-6	µg/kg	590	2000	
46	M/P-XYLENE	108-38-3	µg/kg	590	6000	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	76-119	45
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-120	73
3	TOLUENE-D8	2037-26-5	84-116	53
# of out-of-control				2

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	129
2	CHLOROBENZENE-D5	3114-55-4	50-200	200
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	107
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

001018

Applied P & Ch Laboratory

Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-3	Received Date:	02/24/97
Sample ID:	**18609-672-134**	Sample Matrix	Soil	Moisture %:	14.9
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	8240	Prep. Date:	02/25/97	Anal. Date:	02/24/97
Batch No:	97G1477	Prep. No:	–	Anal. Time:	23:02
Data File Name:	1578-03	Sample Amount:	0.5 g	Dilution Factor:	10
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) N			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	1200	< 12000	U
2	ACROLEIN	107-02-8	µg/kg	1200	< 12000	U
3	ACRYLONITRILE	107-13-1	µg/kg	590	< 5900	U
4	BENZENE	71-43-2	µg/kg	59	98	
5	BROMODICHLOROMETHANE	75-27-4	µg/kg	59	< 590	U
6	BROMOFORM	75-25-2	µg/kg	59	< 590	U
7	BROMOMETHANE	74-83-9	µg/kg	120	< 1200	U
8	2-BUTANONE (MEK)	78-93-3	µg/kg	1200	< 12000	U
9	CARBON DISULFIDE	75-15-0	µg/kg	59	< 590	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	59	< 590	U
11	CHLOROBENZENE	108-90-7	µg/kg	59	< 590	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	59	< 590	U
13	CHLOROETHANE	75-00-3	µg/kg	120	< 1200	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	590	< 5900	U
15	CHLOROFORM	67-66-3	µg/kg	59	< 590	U
16	CHLOROMETHANE	74-87-3	µg/kg	120	< 1200	U
17	DIBROMOMETHANE	74-95-3	µg/kg	59	< 590	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	59	< 590	U
19	1,1-DICHLOROETHANE	75-34-3	µg/kg	59	< 590	U
20	1,2-DICHLOROETHANE	107-06-2	µg/kg	59	< 590	U
21	1,1-DICHLOROETHENE	75-35-4	µg/kg	59	< 590	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	59	< 590	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	59	< 590	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/kg	59	< 590	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/kg	59	< 590	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	59	< 590	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	59	< 590	U
28	ETHYL METHACRYLATE	97-63-2	µg/kg	120	< 1200	U
29	ETHYLBENZENE	100-41-4	µg/kg	59	2110	
30	2-HEXANONE	591-78-6	µg/kg	590	< 5900	U
31	IODOMETHANE	74-88-4	µg/kg	59	< 590	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	590	< 5900	U
33	METHYLENE CHLORIDE	75-09-2	µg/kg	240	< 2400	U
34	STYRENE	100-42-5	µg/kg	59	< 590	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	59	< 590	U
36	TETRACHLOROETHENE	127-18-4	µg/kg	59	< 590	U
37	TOLUENE	108-88-3	µg/kg	59	360	
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	59	< 590	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	59	< 590	U

001019

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	µg/kg	59	< 590	U
41	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	59	< 590	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	59	< 590	U
43	VINYL ACETATE	108-05-4	µg/kg	590	< 5900	U
44	VINYL CHLORIDE	75-01-4	µg/kg	120	< 1200	U
45	O-XYLENE	95-47-6	µg/kg	59	3570	
46	M/P-XYLENE	108-38-3	µg/kg	59	6790	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	76-119	81
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-120	115
3	TOLUENE-D8	2037-26-5	84-116	98
# of out-of-control				2

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	95
2	CHLOROBENZENE-D5	3114-55-4	50-200	99
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

001020

Applied P & Ch Laboratory

Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-4	Received Date:	02/24/97
Sample ID:	**18609-672-135**	Sample Matrix	Soil	Moisture %:	12.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8240	Prep. Date:	02/24/97	Anal. Date:	02/24/97
Batch No:	97G1477	Prep. No:	–	Anal. Time:	18:38
Data File Name:	1578-04	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) Y			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	110	<110	U
2	ACROLEIN	107-02-8	µg/kg	110	<110	U
3	ACRYLONITRILE	107-13-1	µg/kg	57	<57	U
4	BENZENE	71-43-2	µg/kg	5.7	<5.7	U
5	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.7	<5.7	U
6	BROMOFORM	75-25-2	µg/kg	5.7	<5.7	U
7	BROMOMETHANE	74-83-9	µg/kg	11	<11	U
8	2-BUTANONE (MEK)	78-93-3	µg/kg	110	<110	U
9	CARBON DISULFIDE	75-15-0	µg/kg	5.7	<5.7	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.7	<5.7	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.7	<5.7	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.7	<5.7	U
13	CHLOROETHANE	75-00-3	µg/kg	11	<11	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	57	<57	U
15	CHLOROFORM	67-66-3	µg/kg	5.7	<5.7	U
16	CHLOROMETHANE	74-87-3	µg/kg	11	<11	U
17	DIBROMOMETHANE	74-95-3	µg/kg	5.7	<5.7	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.7	<5.7	U
19	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.7	<5.7	U
20	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.7	<5.7	U
21	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.7	<5.7	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.7	<5.7	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.7	<5.7	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/kg	5.7	<5.7	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.7	<5.7	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.7	<5.7	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.7	<5.7	U
28	ETHYL METHACRYLATE	97-63-2	µg/kg	11	<11	U
29	ETHYLBENZENE	100-41-4	µg/kg	5.7	<5.7	U
30	2-HEXANONE	591-78-6	µg/kg	57	<57	U
31	IODOMETHANE	74-88-4	µg/kg	5.7	<5.7	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	57	<57	U
33	METHYLENE CHLORIDE	75-09-2	µg/kg	23	<23	U
34	STYRENE	100-42-5	µg/kg	5.7	<5.7	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.7	<5.7	U
36	TETRACHLOROETHENE	127-18-4	µg/kg	5.7	<5.7	U
37	TOLUENE	108-88-3	µg/kg	5.7	<5.7	U
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.7	<5.7	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.7	<5.7	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	μg/kg	5.7	<5.7	U
41	TRICHLOROFLUOROMETHANE	75-69-4	μg/kg	5.7	<5.7	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	μg/kg	5.7	<5.7	U
43	VINYL ACETATE	108-05-4	μg/kg	57	<57	U
44	VINYL CHLORIDE	75-01-4	μg/kg	11	<11	U
45	O-XYLENE	95-47-6	μg/kg	5.7	<5.7	U
46	M/P-XYLENE	108-38-3	μg/kg	5.7	<5.7	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	76-119	89
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-120	92
3	TOLUENE-D8	2037-26-5	84-116	105
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	98
2	CHLOROBENZENE-D5	3114-55-4	50-200	77
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	86
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

001022

Applied P & Ch Laboratory

Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-5	Received Date:	02/24/97
Sample ID:	**18609-672-136**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8240	Prep. Date:	02/25/97	Anal. Date:	02/25/97
Batch No:	97G1477	Prep. No:	–	Anal. Time:	00:16
Data File Name:	1578-05	Sample Amount:	5 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) Y			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	120	< 120	U
2	ACROLEIN	107-02-8	µg/kg	120	< 120	U
3	ACRYLONITRILE	107-13-1	µg/kg	58	< 58	U
4	BENZENE	71-43-2	µg/kg	5.8	< 5.8	U
5	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.8	< 5.8	U
6	BROMOFORM	75-25-2	µg/kg	5.8	< 5.8	U
7	BROMOMETHANE	74-83-9	µg/kg	12	< 12	U
8	2-BUTANONE (MEK)	78-93-3	µg/kg	120	< 120	U
9	CARBON DISULFIDE	75-15-0	µg/kg	5.8	< 5.8	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.8	< 5.8	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.8	< 5.8	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.8	< 5.8	U
13	CHLOROETHANE	75-00-3	µg/kg	12	< 12	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	58	< 58	U
15	CHLOROFORM	67-66-3	µg/kg	5.8	< 5.8	U
16	CHLOROMETHANE	74-87-3	µg/kg	12	< 12	U
17	DIBROMOMETHANE	74-95-3	µg/kg	5.8	< 5.8	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.8	< 5.8	U
19	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.8	< 5.8	U
20	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.8	< 5.8	U
21	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.8	< 5.8	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.8	< 5.8	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.8	< 5.8	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/kg	5.8	< 5.8	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.8	< 5.8	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.8	< 5.8	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.8	< 5.8	U
28	ETHYL METHACRYLATE	97-63-2	µg/kg	12	< 12	U
29	ETHYLBENZENE	100-41-4	µg/kg	5.8	< 5.8	U
30	2-HEXANONE	591-78-6	µg/kg	58	< 58	U
31	IODOMETHANE	74-88-4	µg/kg	5.8	< 5.8	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	58	< 58	U
33	METHYLENE CHLORIDE	75-09-2	µg/kg	23	< 23	U
34	STYRENE	100-42-5	µg/kg	5.8	< 5.8	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.8	< 5.8	U
36	TETRACHLOROETHENE	127-18-4	µg/kg	5.8	< 5.8	U
37	TOLUENE	108-88-3	µg/kg	5.8	< 5.8	U
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.8	< 5.8	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.8	< 5.8	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	µg/kg	5.8	< 5.8	U
41	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.8	< 5.8	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.8	< 5.8	U
43	VINYL ACETATE	108-05-4	µg/kg	58	< 58	U
44	VINYL CHLORIDE	75-01-4	µg/kg	12	< 12	U
45	O-XYLENE	95-47-6	µg/kg	5.8	< 5.8	U
46	M/P-XYLENE	108-38-3	µg/kg	5.8	< 5.8	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	76-119	96
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-120	105
3	TOLUENE-D8	2037-26-5	84-116	88
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	79
2	CHLOROBENZENE-D5	3114-55-4	50-200	104
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	102
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

001024

Applied P & Ch Laboratory

Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-6	Received Date:	02/24/97
Sample ID:	**18609-672-137**	Sample Matrix	Soil	Moisture %:	12.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8240	Prep. Date:	02/25/97	Anal. Date:	02/25/97
Batch No:	97G1477	Prep. No:	–	Anal. Time:	00:55
Data File Name:	1578-06	Sample Amount:	0.5 g	Dilution Factor:	10
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) Y			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	1100	<1100	U
2	ACROLEIN	107-02-8	µg/kg	1100	<1100	U
3	ACRYLONITRILE	107-13-1	µg/kg	570	<570	U
4	BENZENE	71-43-2	µg/kg	57	<57	U
5	BROMODICHLOROMETHANE	75-27-4	µg/kg	57	<57	U
6	BROMOFORM	75-25-2	µg/kg	57	<57	U
7	BROMOMETHANE	74-83-9	µg/kg	110	<110	U
8	2-BUTANONE (MEK)	78-93-3	µg/kg	1100	<1100	U
9	CARBON DISULFIDE	75-15-0	µg/kg	57	<57	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	57	<57	U
11	CHLOROBENZENE	108-90-7	µg/kg	57	<57	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	57	<57	U
13	CHLOROETHANE	75-00-3	µg/kg	110	<110	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	570	<570	U
15	CHLOROFORM	67-66-3	µg/kg	57	<57	U
16	CHLOROMETHANE	74-87-3	µg/kg	110	<110	U
17	DIBROMOMETHANE	74-95-3	µg/kg	57	<57	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	57	<57	U
19	1,1-DICHLOROETHANE	75-34-3	µg/kg	57	<57	U
20	1,2-DICHLOROETHANE	107-06-2	µg/kg	57	<57	U
21	1,1-DICHLOROETHENE	75-35-4	µg/kg	57	<57	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	57	<57	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	57	<57	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/kg	57	<57	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/kg	57	<57	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	57	<57	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	57	<57	U
28	ETHYL METHACRYLATE	97-63-2	µg/kg	110	<110	U
29	ETHYLBENZENE	100-41-4	µg/kg	57	7	J
30	2-HEXANONE	591-78-6	µg/kg	570	<570	U
31	IODOMETHANE	74-88-4	µg/kg	57	<57	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	570	<570	U
33	METHYLENE CHLORIDE	75-09-2	µg/kg	230	<230	U
34	STYRENE	100-42-5	µg/kg	57	<57	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	57	<57	U
36	TETRACHLOROETHENE	127-18-4	µg/kg	57	<57	U
37	TOLUENE	108-88-3	µg/kg	57	<57	U
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	57	<57	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	57	<57	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	μg/kg	57	< 57	U
41	TRICHLOROFLUOROMETHANE	75-69-4	μg/kg	57	< 57	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	μg/kg	57	< 57	U
43	VINYL ACETATE	108-05-4	μg/kg	570	< 570	U
44	VINYL CHLORIDE	75-01-4	μg/kg	110	< 110	U
45	O-XYLENE	95-47-6	μg/kg	57	41	J
46	M/P-XYLENE	108-38-3	μg/kg	57	140	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	76-119	84
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-120	104
3	TOLUENE-D8	2037-26-5	84-116	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	87
2	CHLOROBENZENE-D5	3114-55-4	50-200	96
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	106
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

001026

Applied P & Ch Laboratory

Organic Analysis Results for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-7	Received Date:	02/24/97
Sample ID:	**18609-672-138**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8240	Prep. Date:	02/25/97	Anal. Date:	02/25/97
Batch No:	97G1477	Prep. No:	–	Anal. Time:	01:32
Data File Name:	1578-07	Sample Amount:	0.5 g	Dilution Factor:	10
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) Y			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/kg	1100	< 1100	U
2	ACROLEIN	107-02-8	µg/kg	1100	< 1100	U
3	ACRYLONITRILE	107-13-1	µg/kg	530	< 530	U
4	BENZENE	71-43-2	µg/kg	53	< 53	U
5	BROMODICHLOROMETHANE	75-27-4	µg/kg	53	< 53	U
6	BROMOFORM	75-25-2	µg/kg	53	< 53	U
7	BROMOMETHANE	74-83-9	µg/kg	110	< 110	U
8	2-BUTANONE (MEK)	78-93-3	µg/kg	1100	< 1100	U
9	CARBON DISULFIDE	75-15-0	µg/kg	53	< 53	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	53	< 53	U
11	CHLOROBENZENE	108-90-7	µg/kg	53	< 53	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	53	< 53	U
13	CHLOROETHANE	75-00-3	µg/kg	110	< 110	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	530	< 530	U
15	CHLOROFORM	67-66-3	µg/kg	53	< 53	U
16	CHLOROMETHANE	74-87-3	µg/kg	110	< 110	U
17	DIBROMOMETHANE	74-95-3	µg/kg	53	< 53	U
18	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	53	< 53	U
19	1,1-DICHLOROETHANE	75-34-3	µg/kg	53	< 53	U
20	1,2-DICHLOROETHANE	107-06-2	µg/kg	53	< 53	U
21	1,1-DICHLOROETHENE	75-35-4	µg/kg	53	< 53	U
22	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	53	< 53	U
23	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	53	< 53	U
24	1,2-DICHLOROETHENE (TOTAL)	540-59-0	µg/kg	53	< 53	U
25	1,2-DICHLOROPROPANE	78-87-5	µg/kg	53	< 53	U
26	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	53	< 53	U
27	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	53	< 53	U
28	ETHYL METHACRYLATE	97-63-2	µg/kg	110	< 110	U
29	ETHYLBENZENE	100-41-4	µg/kg	53	< 53	U
30	2-HEXANONE	591-78-6	µg/kg	530	< 530	U
31	IODOMETHANE	74-88-4	µg/kg	53	< 53	U
32	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	530	< 530	U
33	METHYLENE CHLORIDE	75-09-2	µg/kg	210	< 210	U
34	STYRENE	100-42-5	µg/kg	53	< 53	U
35	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	53	< 53	U
36	TETRACHLOROETHENE	127-18-4	µg/kg	53	< 53	U
37	TOLUENE	108-88-3	µg/kg	53	< 53	U
38	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	53	< 53	U
39	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	53	< 53	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	TRICHLOROETHENE	79-01-6	µg/kg	53	< 53	U
41	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	53	< 53	U
42	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	53	< 53	U
43	VINYL ACETATE	108-05-4	µg/kg	530	< 530	U
44	VINYL CHLORIDE	75-01-4	µg/kg	110	< 110	U
45	O-XYLENE	95-47-6	µg/kg	53	50	J
46	M/P-XYLENE	108-38-3	µg/kg	53	4	J

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	76-119	93
2	1,2-DICHLOROETHANE-D4	17060-07-0	70-120	104
3	TOLUENE-D8	2037-26-5	84-116	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	BROMOCHLOROMETHANE-D2		50-200	98
2	CHLOROBENZENE-D5	3114-55-4	50-200	106
3	1,4-DIFLUOROBENZENE	540-36-3	50-200	115
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

2C

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1483		

#	Client Sample No	Lab Sample ID	S1 %	#	S2 %	#	S3 %	#	TOT OUT
1	97G1483-MB-01	97G1483-MB-01	101		97		107		0
2	18609-672-132	97-1578-1	109		97		100		0
3	97G1483-LCS-01	97G1483-LCS-01	98		97		106		0
4	97G1483-LSD-01	97G1483-LSD-01	101		101		104		0
5	GRAB-MS	97-1556-1MS	106		100		100		0
6	GRAB-MSD	97-1556-1MSD	110		100		102		0
7	18609-672-134-RE	97-1578-3A	45	*	73		53	*	2
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (BFB)	86-114
S2 = 1,2-DICHLOROETHANE-D4	79-113
S3 = TOLUENE-D8	89-109

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

001029

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1477		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	S3 % #	TOT OUT
1	97G1477-MB-01	97G1477-MB-01	106	104	105	0
2	18609-672-135	97-1578-4	89	92	105	0
3	18609-672-135-MS	97-1578-4MS	79	85	90	0
4	18609-672-135-MSD	97-1578-4MSD	78	92	93	0
5	97G1477-LCS-01	97G1477-LCS-01	88	89	89	0
6	97G1477-LSD-01	97G1477-LSD-01	86	88	88	0
7	18609-672-133	97-1578-2	78	79	86	0
8	18609-672-134	97-1578-3	81	115	98	0
9	18609-672-136	97-1578-5	96	105	88	0
10	18609-672-137	97-1578-6	84	104	92	0
11	18609-672-138	97-1578-7	93	104	107	0
11						
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23						
24						
25						

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (BFB)	76-119
S2 = 1,2-DICHLOROETHANE-D4	70-120
S3 = TOLUENE-D8	84-116

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

001030

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1483		
LCS Filename:	G1483L01	Date Analyzed:	022597	Time Analyzed:	06:57
LCSD Filename:	G1483J01	Date Analyzed:	022597	Time Analyzed:	07:36

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/L	20	0	19.1	96	80-114
CHLOROBENZENE	µg/L	20	0	18.5	93	80-115
1,1-DICHLOROETHENE	µg/L	20	0	20.2	101	80-133
TOLUENE	µg/L	20	0	19.8	99	80-117
TRICHLOROETHENE	µg/L	20	0	19.3	97	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/L	20	19.0	95	1	12	80-114
CHLOROBENZENE	µg/L	20	18.8	94	1	14	80-115
1,1-DICHLOROETHENE	µg/L	20	19.3	96	5	25	80-133
TOLUENE	µg/L	20	19.7	99	0	15	80-117
TRICHLOROETHENE	µg/L	20	19.5	98	2	18	80-120
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

001031

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1483		
MS Filename:	G1483M01	Date Analyzed:	022597	Time Analyzed:	08:16
MSD Filename:	G1483N01	Date Analyzed:	022597	Time Analyzed:	08:56
MS Sample No:	**GRAB**	Sample Lab ID:	97-1556-1		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/L	20	0	16.5	83	77-128
CHLOROBENZENE	µg/L	20	0	18.3	91	80-120
1,1-DICHLOROETHENE	µg/L	20	0	15.9	80	70-152
TOLUENE	µg/L	20	0	18.4	92	75-137
TRICHLOROETHENE	µg/L	20	0	16.6	83	77-138
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/L	20	17.2	86	4	25	77-128
CHLOROBENZENE	µg/L	20	18.9	95	4	19	80-120
1,1-DICHLOROETHENE	µg/L	20	15.6	78	3	41	70-152
TOLUENE	µg/L	20	19.1	96	4	31	75-137
TRICHLOROETHENE	µg/L	20	16.8	84	1	33	77-138
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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001032

3B

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1477		
LCS Filename:	G1477L01	Date Analyzed:	022497	Time Analyzed:	20:30
LCSD Filename:	G1477J01	Date Analyzed:	022497	Time Analyzed:	21:08

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/kg	50	0	52.1	104	80-121
CHLOROBENZENE	µg/kg	50	0	51.1	102	80-118
1,1-DICHLOROETHENE	µg/kg	50	0	50.2	100	68-134
TOLUENE	µg/kg	50	0	46.0	92	80-119
TRICHLOROETHENE	µg/kg	50	0	50.2	100	80-121
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/kg	50	48.6	97	7	19	80-121
CHLOROBENZENE	µg/kg	50	47.2	94	8	18	80-118
1,1-DICHLOROETHENE	µg/kg	50	48.1	96	4	33	68-134
TOLUENE	µg/kg	50	42.9	86	7	17	80-119
TRICHLOROETHENE	µg/kg	50	47.4	95	5	19	80-121
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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001033

3B

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1477		
MS Filename:	G1477M01	Date Analyzed:	022497	Time Analyzed:	19:15
MSD Filename:	G1477N01	Date Analyzed:	022497	Time Analyzed:	19:53
MS Sample No:	**18609-672-135**	Sample Lab ID:	97-1578-4	Moisture, %	12.4

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/kg	57.1	0	52.7	92	80-122
CHLOROBENZENE	µg/kg	57.1	0	52.8	92	75-120
1,1-DICHLOROETHENE	µg/kg	57.1	0	47.9	84	58-146
TOLUENE	µg/kg	57.1	0	48.0	84	60-138
TRICHLOROETHENE	µg/kg	57.1	0	48.7	85	71-155
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/kg	57.1	61.5	108	16	20	80-122
CHLOROBENZENE	µg/kg	57.1	60.2	105	13	22	75-120
1,1-DICHLOROETHENE	µg/kg	57.1	56.3	99	16	44	58-146
TOLUENE	µg/kg	57.1	54.4	95	12	46	60-138
TRICHLOROETHENE	µg/kg	57.1	55.9	98	14	42	71-155
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

Applied P & Ch Laboratory

Method Blank Summary for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Analysis Date:	02/25/97
		Sample Matrix:	Water	Analysis Time:	02:58
Sample ID:	**97G1483-MB-01**	Batch No:	97G1483	Instrument ID:	GC/MS: G
Lab Sample ID:	97G1483-MB-01	Data File Name:	G1483K01	GC Column:	VOCOL
		Heated Purge: (Y/N)	N	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	18609-672-132	97-1578-1	Field Sample	1578-01	02/25/97	03:38
2	97G1483-LCS-01	97G1483-LCS-01	Lab Control Spike	G1483L01	02/25/97	06:57
3	97G1483-LSD-01	97G1483-LSD-01	Lab Control Spike Duplicate	G1483J01	02/25/97	07:36
4	GRAB-MS	97-1556-1MS	Matrix Spike	G1483M01	02/25/97	08:16
5	GRAB-MSD	97-1556-1MSD	Matrix Spike Duplicate	G1483N01	02/25/97	08:56
6	18609-672-134-RE	97-1578-3A	Field Sample	1578-03A	02/25/97	09:42
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Applied P & Ch Laboratory

Method Blank Summary for Method 8240

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Analysis Date:	02/24/97
		Sample Matrix:	Soil	Analysis Time:	18:00
Sample ID:	**97G1477-MB-01**	Batch No:	97G1477	Instrument ID:	GC/MS: C
Lab Sample ID:	97G1477-MB-01	Data File Name:	G1477K01	GC Column:	DB-5.624
		Heated Purge: (Y/N)	Y	Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	18609-672-135	97-1578-4	Field Sample	1578-04	02/24/97	18:38
2	18609-672-135-MS	97-1578-4MS	Matrix Spike	G1477M01	02/24/97	19:15
3	18609-672-135-MSD	97-1578-4MSD	Matrix Spike Duplicate	G1477N01	02/24/97	19:53
4	97G1477-LCS-01	97G1477-LCS-01	Lab Control Spike	G1477L01	02/24/97	20:30
5	97G1477-LSD-01	97G1477-LSD-01	Lab Control Spike Duplicate	G1477J01	02/24/97	21:08
6	18609-672-133	97-1578-2	Field Sample	1578-02	02/24/97	22:23
7	18609-672-134	97-1578-3	Field Sample	1578-03	02/24/97	23:02
8	18609-672-136	97-1578-5	Field Sample	1578-05	02/25/97	00:16
9	18609-672-137	97-1578-6	Field Sample	1578-06	02/25/97	00:55
10	18609-672-138	97-1578-7	Field Sample	1578-07	02/25/97	01:32
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23						
24						
25						

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97G1484-MB-01	Received Date:	02/24/97
Sample ID:	**97G1484-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/24/97	Anal. Date:	02/24/97
Batch No:	97G1484	Prep. No:	1 of 1	Anal. Time:	17:47
Data File Name:	1484G.K01	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	102
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

001074

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-2	Received Date:	02/24/97
Sample ID:	**18609-672-133**	Sample Matrix	Soil	Moisture %:	13.0
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/24/97	Anal. Date:	02/24/97
Batch No:	97G1484	Prep. No:	1 of 1	Anal. Time:	21:44
Data File Name:	1578.002	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	11	226 [a]	

Surrogates		Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26} 630-01-3	50-146	87
# of out-of-control			0

[a] Mixture of JP5 and Diesel.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

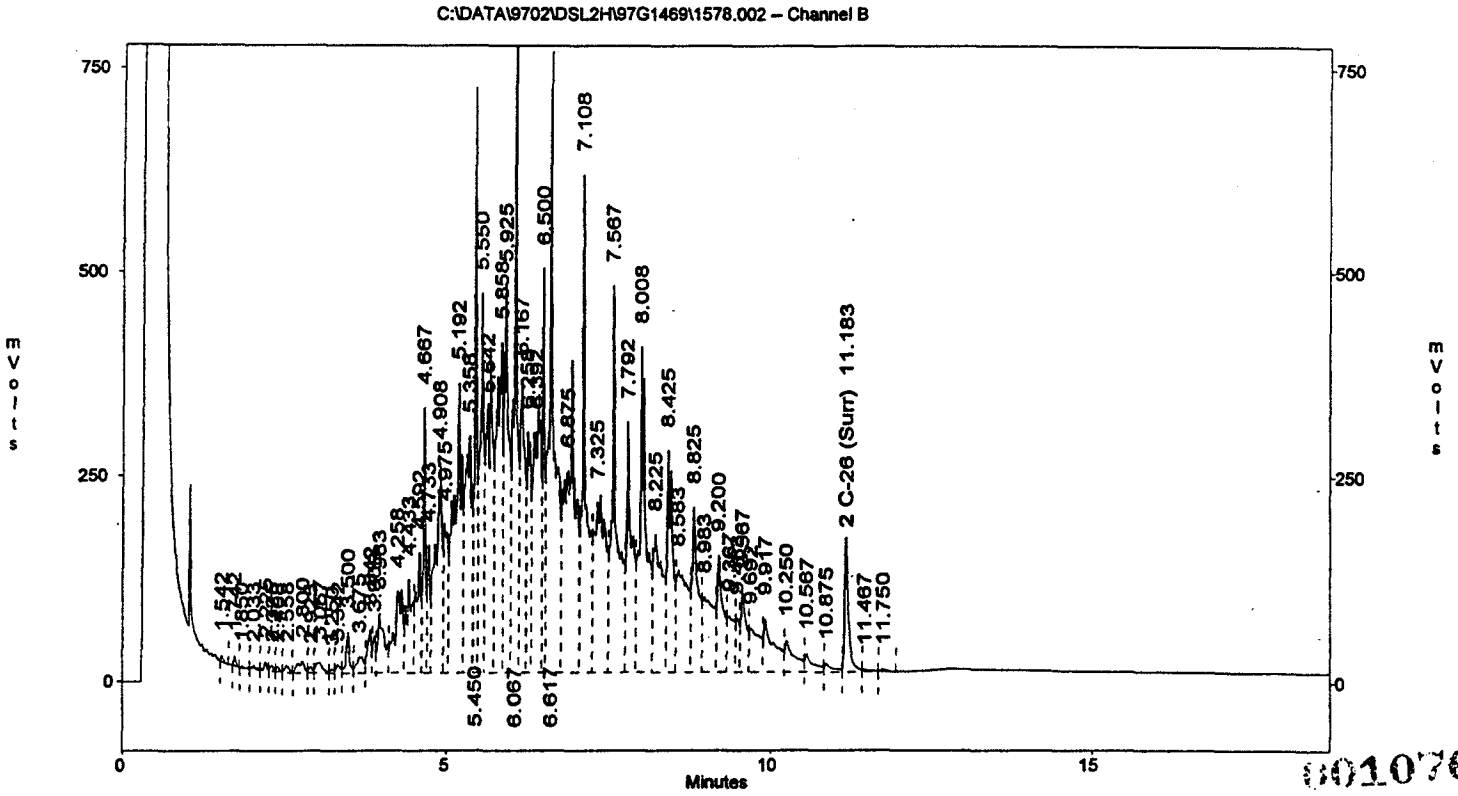
001075

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9702\DSL2H\97G1469\1578.002
Method : C:\EZCHROM\METHODS\Dsl2-022.h00
Sample ID : 1578-2 F=0.05
Vial : 13
Volume : 1
Acquired : Feb 24, 1997 21:44:13
Printed : Feb 24, 1997 22:03:03
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.18	688218	43.273
1 DIESEL		66821600	3925.350



001076

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-3	Received Date:	02/24/97
Sample ID:	**18609-672-134**	Sample Matrix	Soil	Moisture %:	14.9
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/24/97	Anal. Date:	02/25/97
Batch No:	97G1484	Prep. No:	1 of 1	Anal. Time:	09:22
Data File Name:	1578.103	Sample Amount:	20.0 g	Dilution Factor:	100

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	1200	6200	

Surrogates		Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26} 630-01-3	50-146	68
# of out-of-control			0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

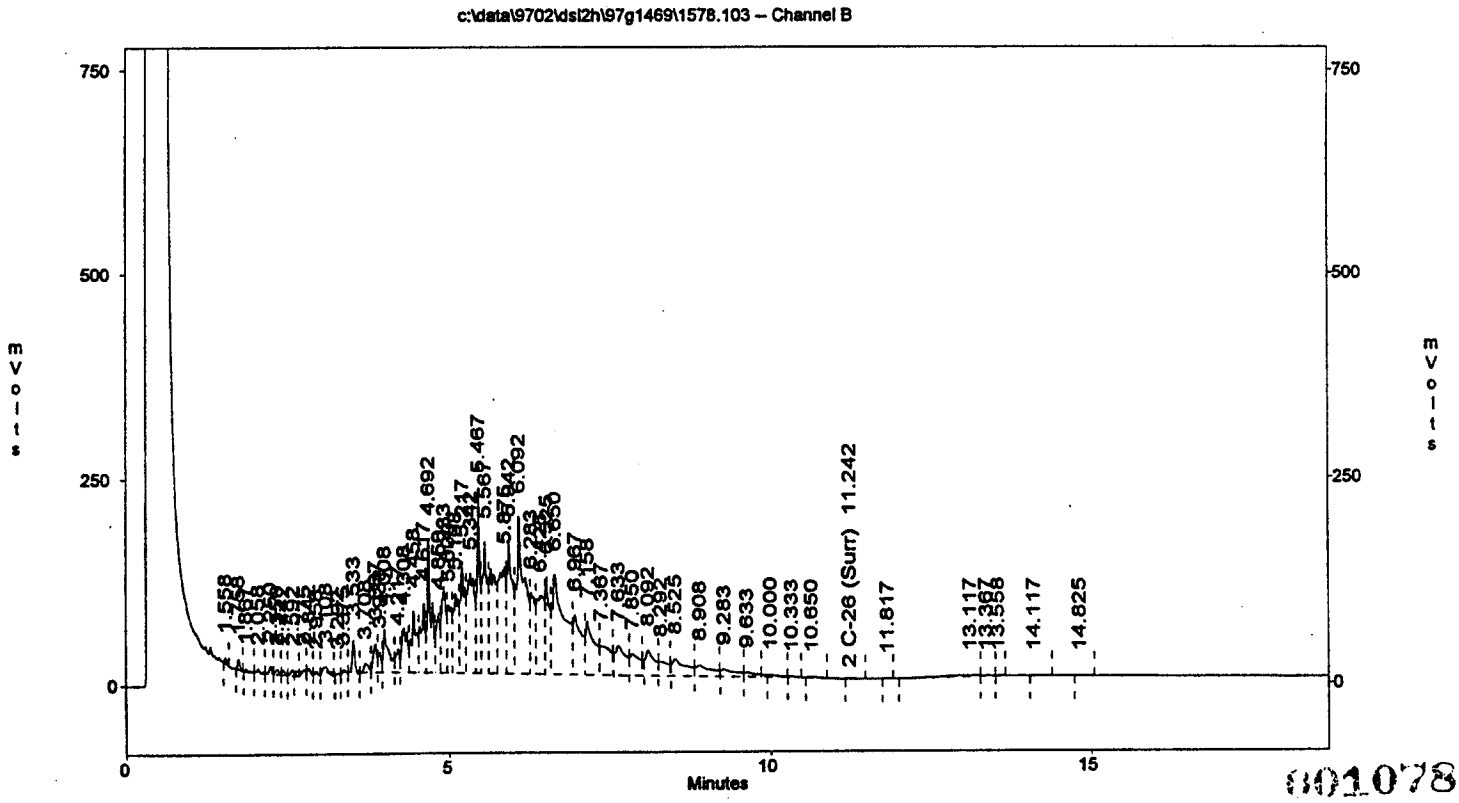
001077

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9702\dsl2h\97g1469\1578.103
Method : c:\ezchrom\methods\dsl2-022.h00
Sample ID : 1578-3 F=5
Vial : 14
Volume : 1
Acquired : Feb 25, 1997 09:22:26
Printed : Feb 25, 1997 10:17:39
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.24	5369	0.338
1 DIESEL		18033332	1059.345



001078

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-4	Received Date:	02/24/97
Sample ID:	**18609-672-135**	Sample Matrix	Soil	Moisture %:	12.4
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/24/97	Anal. Date:	02/24/97
Batch No:	97G1484	Prep. No:	1 of 1	Anal. Time:	22:37
Data File Name:	1578.004	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	11	36 [a]	

Surrogates		Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26} 630-01-3	50-146	117
# of out-of-control			0

[a]Similar to diesel. Sample also contains 28 mg/kg (dry based) of motor oil range hydrocarbons.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

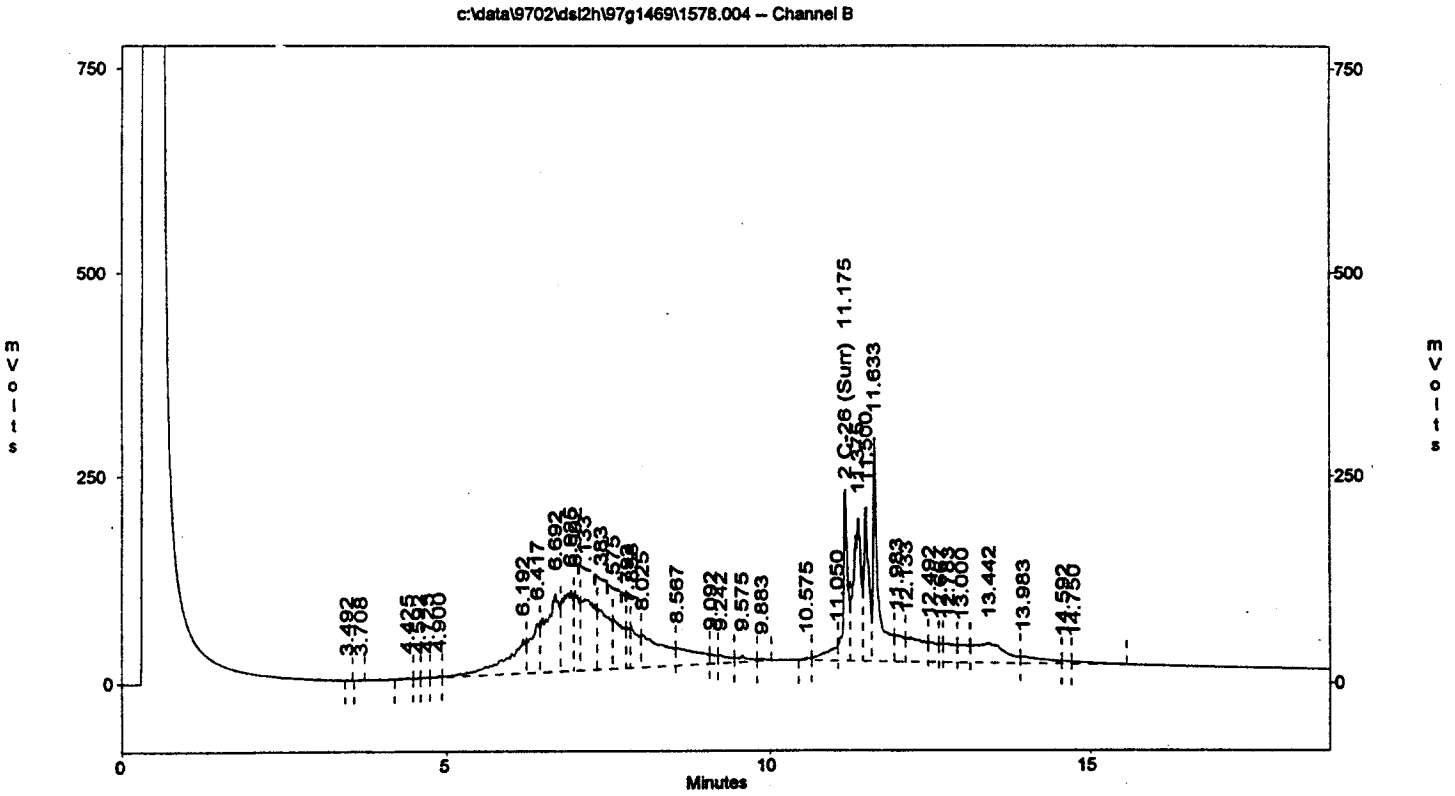
001079

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9702\dsl2h\97g1469\1578.004
Method : c:\ezchrom\methods\dsl2-022.h00
Sample ID : 1578-4 F=0.05
Vial : 15
Volume : 1
Acquired : Feb 24, 1997 22:37:03
Printed : Feb 25, 1997 15:47:37
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.18	932647	58.642
1 DIESEL		10757051	631.909



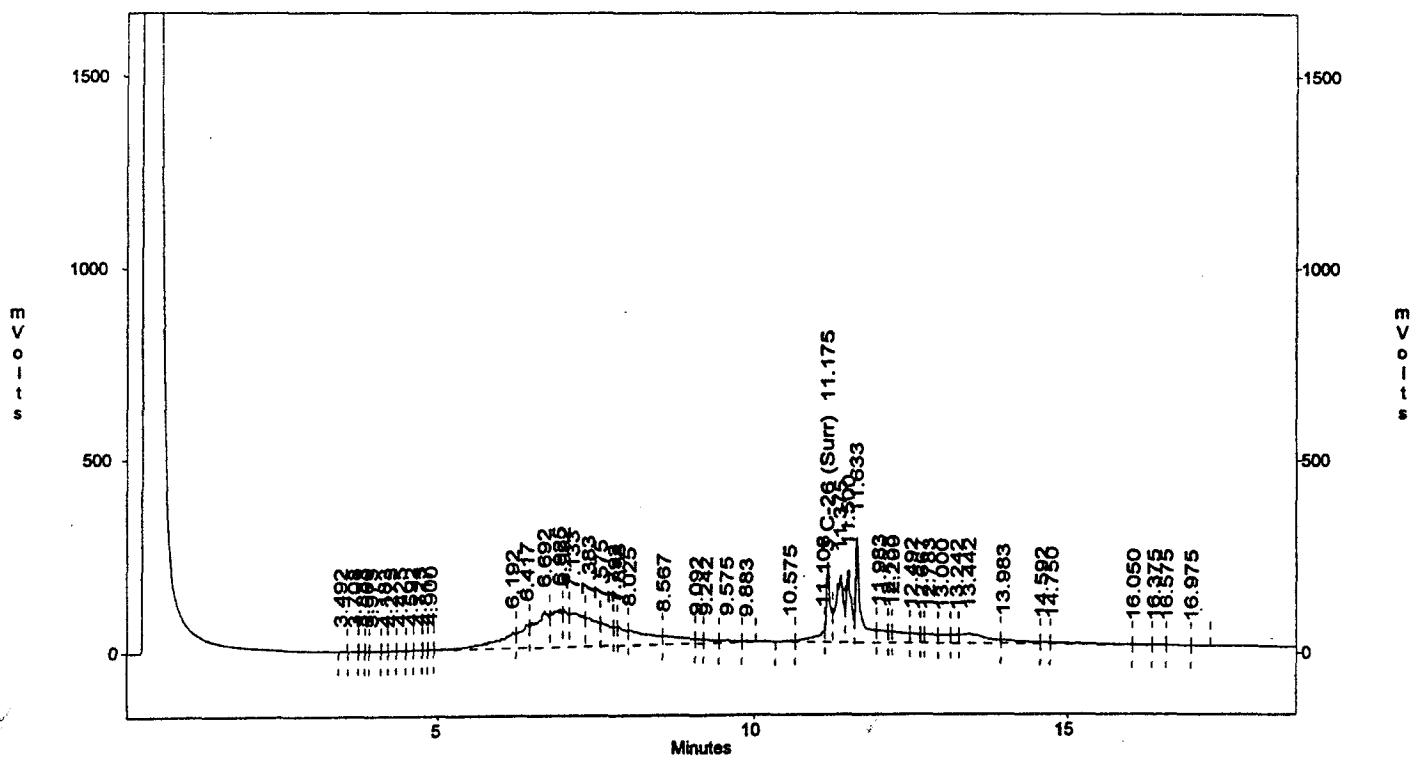
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9702\dsl2h\97g1469\1578.004
Method : c:\ezchrom\methods\j5mo-014.h00
Sample ID : 1578-4 F=0.05
Vial : 15
Volume : 1
Acquired : Feb 24, 1997 22:37:03
Printed : Feb 25, 1997 10:27:50
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.18	838514	51.935
1 Jp-5		8809245	499.057
2 motor oil 11.2~16		6968868	482.910

c:\data\9702\dsl2h\97g1469\1578.004 – Channel B



Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-5	Received Date:	02/24/97
Sample ID:	**18609-672-136**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/24/97	Anal. Date:	02/24/97
Batch No:	97G1484	Prep. No:	1 of 1	Anal. Time:	23:03
Data File Name:	1578.005	Sample Amount:	20.0 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	86
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

001082

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-6	Received Date:	02/24/97
Sample ID:	**18609-672-137**	Sample Matrix	Soil	Moisture %:	12.0
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/24/97	Anal. Date:	02/25/97
Batch No:	97G1484	Prep. No:	1 of 1	Anal. Time:	09:47
Data File Name:	1578.106	Sample Amount:	20.0 g	Dilution Factor:	100

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	1100	6200	

Surrogates		Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26} 630-01-3	50-146	86
# of out-of-control			0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

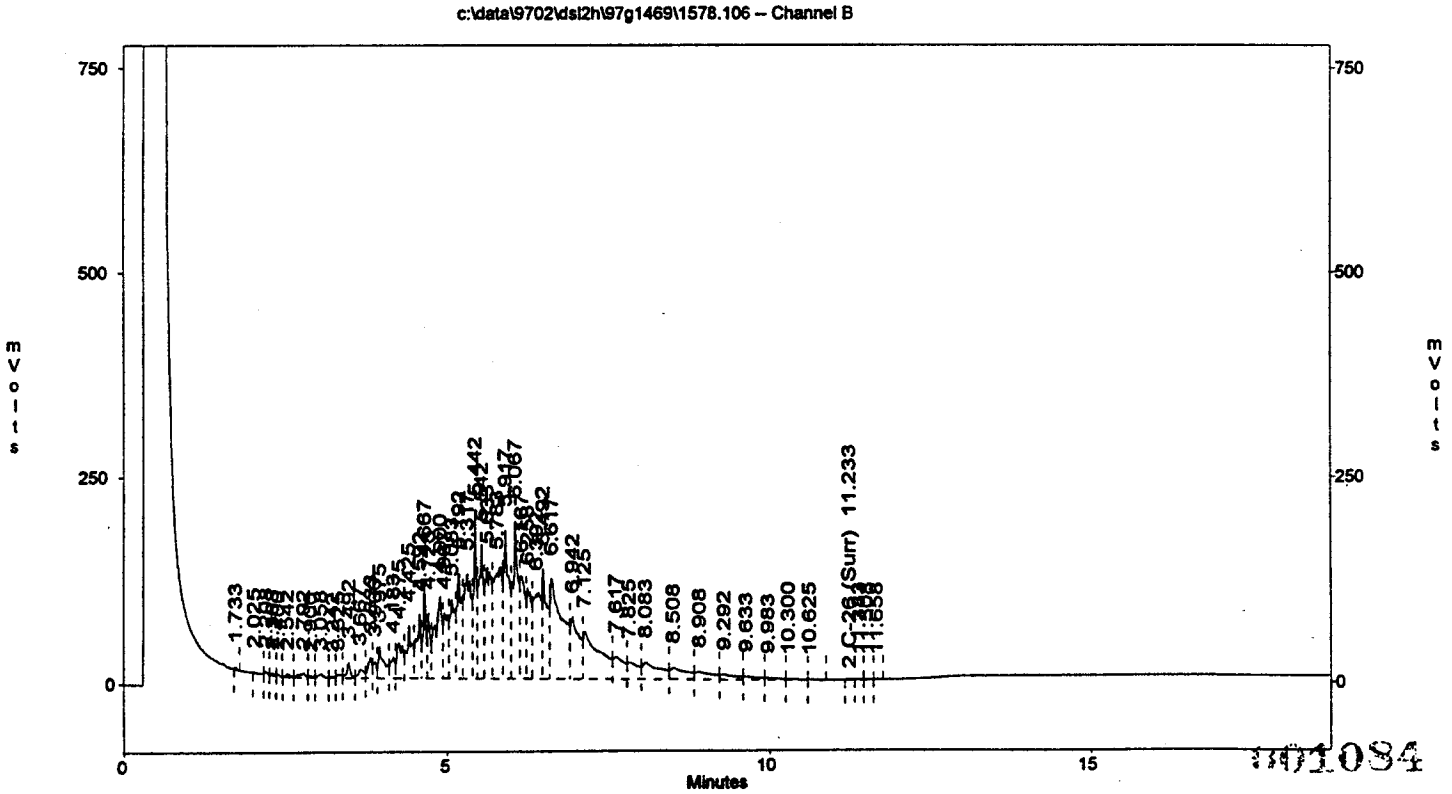
001083

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9702\dsl2h\97g1469\1578.106
Method : c:\ezchrom\methods\dsl2-022.h00
Sample ID : 1578-6 F=5
Vial : 17
Volume : 1
Acquired : Feb 25, 1997 09:47:58
Printed : Feb 25, 1997 10:21:08
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.23	6811	0.428
1 DIESEL		18630064	1094.400



001084

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/24/97
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	
		Lab Sample ID:	97-1578-7	Received Date:	02/24/97
Sample ID:	**18609-672-138**	Sample Matrix	Soil	Moisture %:	5.3
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	02/24/97	Anal. Date:	02/25/97
Batch No:	97G1484	Prep. No:	1 of 1	Anal. Time:	10:14
Data File Name:	1578.107	Sample Amount:	20.0 g	Dilution Factor:	50

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	530	2800	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	80
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

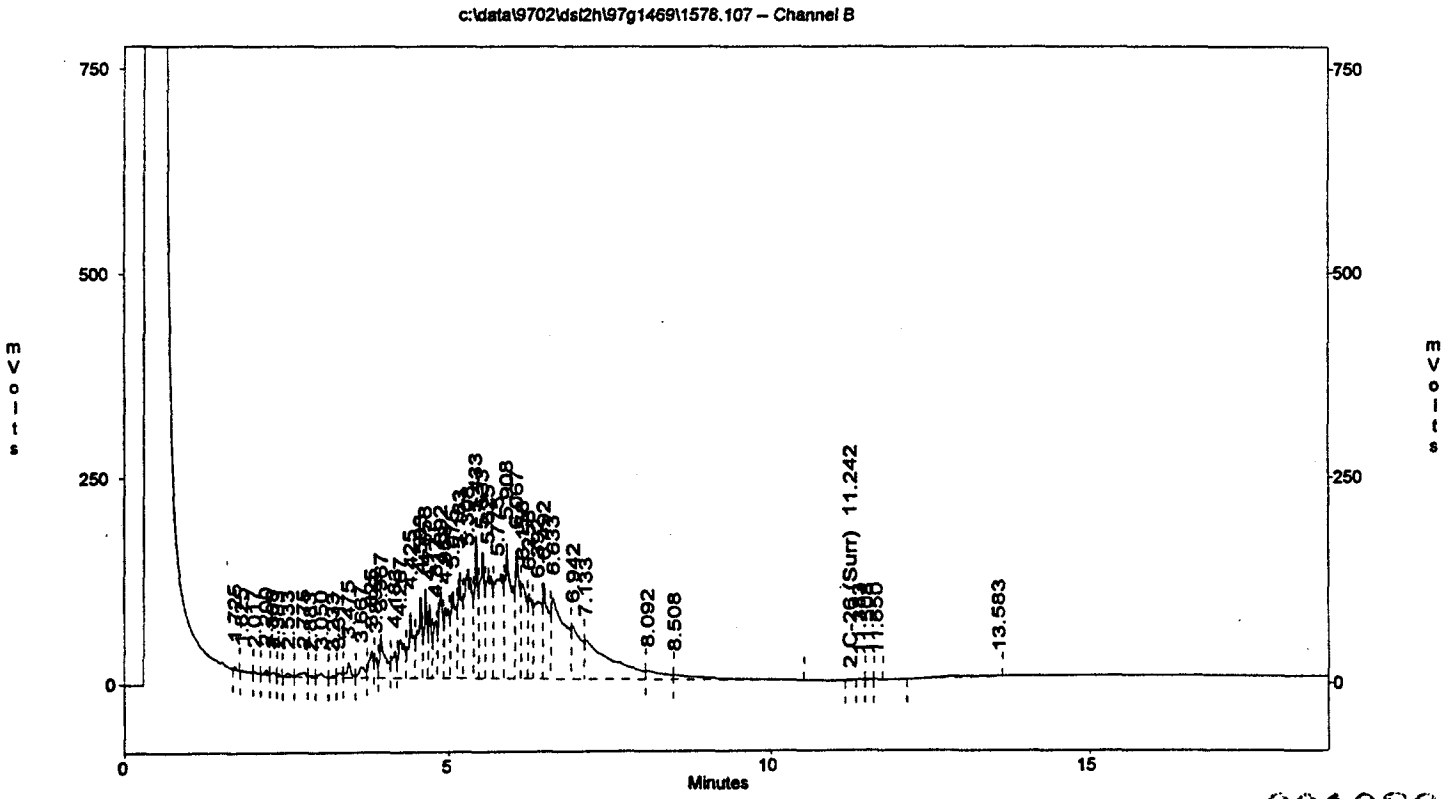
001085

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9702\dsl2h\97g1469\1578.107
Method : C:\EZCHROM\METHODS\dsl2-022.h00
Sample ID : 1578-7 F=2.5
Vial : 18
Volume : 1
Acquired : Feb 25, 1997 10:14:37
Printed : Feb 25, 1997 11:14:56
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.24	12692	0.798
1 DIESEL		18063652	1061.126



001086

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1484		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G1484-MB-01	97G1484-MB-01	102	0
2	97G1484-LCS-01	97G1484-LCS-01	87	0
3	97G1484-LSD-01	97G1484-LSD-01	90	0
4	18609-672-135-MS	97-1578-4MS	88	0
5	18609-672-135-MSD	97-1578-4MSD	89	0
6	18609-672-133	97-1578-2	87	0
7	18609-672-135	97-1578-4	117	0
8	18609-672-136	97-1578-5	86	0
9	18609-672-134	97-1578-3	68	0
10	18609-672-137	97-1578-6	86	0
11	18609-672-138	97-1578-7	80	0
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

S1 = HEXACOSANE, C_{26}

QC Control Limit
50-146

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

001087

3D

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1484		
LCS Filename:	1484G.L01	Date Analyzed:	022497	Time Analyzed:	18:14
LCSD Filename:	1484G.J01	Date Analyzed:	022497	Time Analyzed:	18:40

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS JP-5	mg/kg	50	0	42.9	86	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS JP-5	mg/kg	50	43.6	87	1	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

_____

001088

3D

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1484		
MS Filename:	1484G.M01	Date Analyzed:	022497	Time Analyzed:	20:51
MSD Filename:	1484G.N01	Date Analyzed:	022497	Time Analyzed:	21:18
MS Sample No:	**18609-672-135**	Sample Lab ID:	97-1578-4	Moisture, %	12.4

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS JP-5	mg/kg	57.1	36	86.4	88	65-134
# of Out-of-control					1	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS JP-5	mg/kg	57.1	86.9	89	1	30	65-134
# of Out-of-control				1	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: MS/MSD out of control due to matrix interference.

001089

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971578
Project ID:	UST 672 MCAS El Toro	Project No:	18609	Analysis Date:	02/24/97
		Sample Matrix:	Soil	Analysis Time:	17:47
Sample ID:	**97G1484-MB-01**	Batch No:	97G1484	Instrument ID:	GC: H
Lab Sample ID:	97G1484-MB-01	Data File Name:	1484G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1484-LCS-01	97G1484-LCS-01	Lab Control Spike	1484G.L01	02/24/97	18:14
2	97G1484-LSD-01	97G1484-LSD-01	Lab Control Spike Duplicate	1484G.J01	02/24/97	18:40
3	18609-672-135-MS	97-1578-4MS	Matrix Spike	1484G.M01	02/24/97	20:51
4	18609-672-135-MSD	97-1578-4MSD	Matrix Spike Duplicate	1484G.N01	02/24/97	21:18
5	18609-672-133	97-1578-2	Field Sample	1578.002	02/24/97	21:44
6	18609-672-135	97-1578-4	Field Sample	1578.004	02/24/97	22:37
7	18609-672-136	97-1578-5	Field Sample	1578.005	02/24/97	23:03
8	18609-672-134	97-1578-3	Field Sample	1578.103	02/25/97	09:22
9	18609-672-137	97-1578-6	Field Sample	1578.106	02/25/97	09:47
10	18609-672-138	97-1578-7	Field Sample	1578.107	02/25/97	10:14
11						
12						
13						
14						
15						
16						
17						
18						
19						
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22						
23						
24						
25						

001090

Applied P & Ch Laboratory

Wet Analysis Results for Method ASTM-D2216

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Anal. Method	ASTM-D2216
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	

Component Name: PERCENT MOISTURE
CAS No: 7732-18-5

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-1578-2	18609-672-133	Soil	02/24/97	02/24/97	02/24/97	97W1757	%Moisture	0.5	13.0	
97-1578-3	18609-672-134	Soil	02/24/97	02/24/97	02/24/97	97W1757	%Moisture	0.5	14.9	
97-1578-4	18609-672-135	Soil	02/24/97	02/24/97	02/24/97	97W1757	%Moisture	0.5	12.4	
97-1578-5	18609-672-136	Soil	02/24/97	02/24/97	02/24/97	97W1757	%Moisture	0.5	13.2	
97-1578-6	18609-672-137	Soil	02/24/97	02/24/97	02/24/97	97W1757	%Moisture	0.5	12.0	
97-1578-7	18609-672-138	Soil	02/24/97	02/24/97	02/24/97	97W1757	%Moisture	0.5	5.3	

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

001111

Applied P & Ch Laboratory

Wet Analysis Results for Method 418.1

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Anal. Method	418.1
Project ID:	UST 672 MCAS El Toro	Service ID:	971578	Collected by:	

Component Name: TRPH
CAS No: 9999-148

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-1578-2	18609-672-133	Soil	02/24/97	02/24/97	02/25/97	97W1774	mg/kg	11	249	
97-1578-3	18609-672-134	Soil	02/24/97	02/24/97	02/25/97	97W1774	mg/kg	12	5440	
97-1578-4	18609-672-135	Soil	02/24/97	02/24/97	02/25/97	97W1774	mg/kg	11	224	
97-1578-5	18609-672-136	Soil	02/24/97	02/24/97	02/25/97	97W1774	mg/kg	12	44	
97-1578-6	18609-672-137	Soil	02/24/97	02/24/97	02/25/97	97W1774	mg/kg	11	4200	
97-1578-7	18609-672-138	Soil	02/24/97	02/24/97	02/25/97	97W1774	mg/kg	11	2770	
97W1774-MB-01	97W1774-MB-01	Soil	02/24/97	02/24/97	02/25/97	97W1774	mg/kg	10	< 10	U

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

001112

O.H. M[illegible]RIALS CORP. • P.O. BOX 551 • FINDLAY, OH 4[illegible]551 • 419-423-3526

PROJECT NAME: UST 672	PROJECT LOCATION: MCAS EL TORO
PROJ. NO.: 18609	PROJECT CONTACT: THIZAR TINTUT-WILLIAMS
PROJECT TELEPHONE NO.: (714) 263-1146 620	
CLIENT'S REPRESENTATIVE: LYNN HORNECKER, SWDIV	PROJECT MANAGER/SUPERVISOR: BILL SEDLAK, OHM

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): ~~8015 M (gas)~~, 8020, 8015M (full range), 1312 (SPLP), 418.1

APCL Chino Hills, C[illegible]

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	~~8015 M (gas)~~	8020	8015M (full range)	1312 (SPLP)	418.1				REMARKS
1	18609-672-139	2/25/97	0800			TRIP BLANK (2/25/97)	1		X	X	X	X				
2	18609-672-140	2/25/97	0835			NE WALL @ 7'	1		X	X	X	X				
3	18609-672-141	2/25/97	0836			NE WALL @ 7'	1		X	X	X	X				
4	18609-672-142	2/25/97	0841			NW WALL @ 7'	1		X	X	X	X				
5																
6																
7																
8																
9																
10																

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 to 4		Juan Carlos Rel[illegible]	2/26/97	15:00
2					
3					
4					

REMARKS: 1.) 24 h TAT (except 1312 @ 72

SAMPLER'S SIGNATURE: 2/26/97

Applied P & Ch Laboratory

Organic Analysis Results for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97G1528-MB-01	Received Date:	02/26/97
Sample ID:	**97G1528-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	8020	Prep. Date:	02/27/97	Anal. Date:	02/27/97
Batch No:	97G1528	Prep. No:	–	Anal. Time:	10:46
Data File Name:	1528G.K01	Sample Amount:	5 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
3	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
4	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
5	M/P-XYLENE	108-38-3	μg/L	1	<1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	95
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97G1526-MB-01	Received Date:	02/26/97
Sample ID:	**97G1526-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	8020	Prep. Date:	02/27/97	Anal. Date:	02/27/97
Batch No:	97G1526	Prep. No:	-	Anal. Time:	01:29
Data File Name:	1526G.K01	Sample Amount:	1 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) Y			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5	<5	U
2	ETHYLBENZENE	100-41-4	µg/kg	5	<5	U
3	TOLUENE	108-88-3	µg/kg	5	<5	U
4	O-XYLENE	95-47-6	µg/kg	5	<5	U
5	M/P-XYLENE	108-38-3	µg/kg	10	<10	U
6	GASOLINE	8006-61-9	mg/kg	1	<1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	101
2	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

002213

Applied P & Ch Laboratory

Organic Analysis Results for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97-1603-11	Received Date:	02/26/97
Sample ID:	**18609-672-139**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	8020	Prep. Date:	02/27/97	Anal. Date:	02/27/97
Batch No:	97G1528	Prep. No:	-	Anal. Time:	12:56
Data File Name:	1603.011	Sample Amount:	5 mL	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/L	0.5	<0.5	U
2	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
3	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
4	O-XYLENE	95-47-6	μg/L	0.5	<0.5	U
5	M/P-XYLENE	108-38-3	μg/L	1	<1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	109
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	94
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

002225

Applied P & Ch Laboratory

Organic Analysis Results for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97-1603-12	Received Date:	02/26/97
Sample ID:	**18609-672-140**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	8020	Prep. Date:	02/27/97	Anal. Date:	02/27/97
Batch No:	97G1526	Prep. No:	-	Anal. Time:	07:24
Data File Name:	1603.012	Sample Amount:	1 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL

Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.7	<5.7	U
2	ETHYLBENZENE	100-41-4	µg/kg	5.7	<5.7	U
3	TOLUENE	108-88-3	µg/kg	5.7	<5.7	U
4	O-XYLENE	95-47-6	µg/kg	5.7	<5.7	U
5	M/P-XYLENE	108-38-3	µg/kg	11	<11	U
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	118
2 4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	112
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	101
# of out-of-control			0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

002226

Applied P & Ch Laboratory

Organic Analysis Results for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97-1603-13	Received Date:	02/26/97
Sample ID:	**18609-672-141**	Sample Matrix	Soil	Moisture %:	10.9
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	8020	Prep. Date:	02/27/97	Anal. Date:	02/27/97
Batch No:	97G1526	Prep. No:	–	Anal. Time:	07:47
Data File Name:	1603.013	Sample Amount:	1 g	Dilution Factor:	1
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) Y			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/kg	5.6	< 5.6	U
2	ETHYLBENZENE	100-41-4	μg/kg	5.6	< 5.6	U
3	TOLUENE	108-88-3	μg/kg	5.6	< 5.6	U
4	O-XYLENE	95-47-6	μg/kg	5.6	< 5.6	U
5	M/P-XYLENE	108-38-3	μg/kg	11	< 11	U
1	GASOLINE	8006-61-9	mg/kg	1.1	< 1.1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	121
2	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	89
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

002227

Applied P & Ch Laboratory

Organic Analysis Results for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97-1603-14	Received Date:	02/26/97
Sample ID:	**18609-672-142**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	8020	Prep. Date:	02/27/97	Anal. Date:	02/27/97
Batch No:	97G1526	Prep. No:	–	Anal. Time:	13:55
Data File Name:	1603.114	Sample Amount:	4 g	Dilution Factor:	100
Test Level:	Low			Sparge Size:	5 mL
		Heated Purge: (Y/N) Y			

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	μg/kg	540	<540	U
2	ETHYLBENZENE	100-41-4	μg/kg	540	3100	
3	TOLUENE	108-88-3	μg/kg	540	<540	U
4	O-XYLENE	95-47-6	μg/kg	540	5900	
5	M/P-XYLENE	108-38-3	μg/kg	1100	16000	
1	GASOLINE	8006-61-9	mg/kg	110	<110 [a]	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	114
2	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	97
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks which originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

002228

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9702\97g1506\1603.114
Method : c:\ezchrom\methods\lufts003.n00
Sample ID : 1603-14 s f=500
Acquired : Feb 27, 1997 13:55:58
Printed : Feb 28, 1997 16:16:29

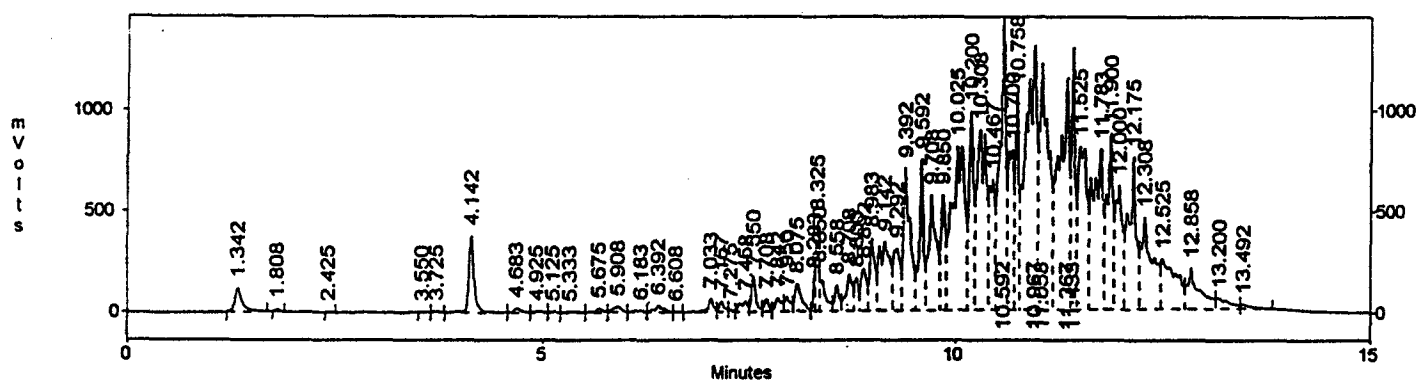
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
6	2. TFT	4.14	1721079	375768	19848.28320	86.7
26	7. BFB	8.32	1133531	444645	11742.15820	96.5
G1	1. Gasoline		46686448		17389.22266	2684.8

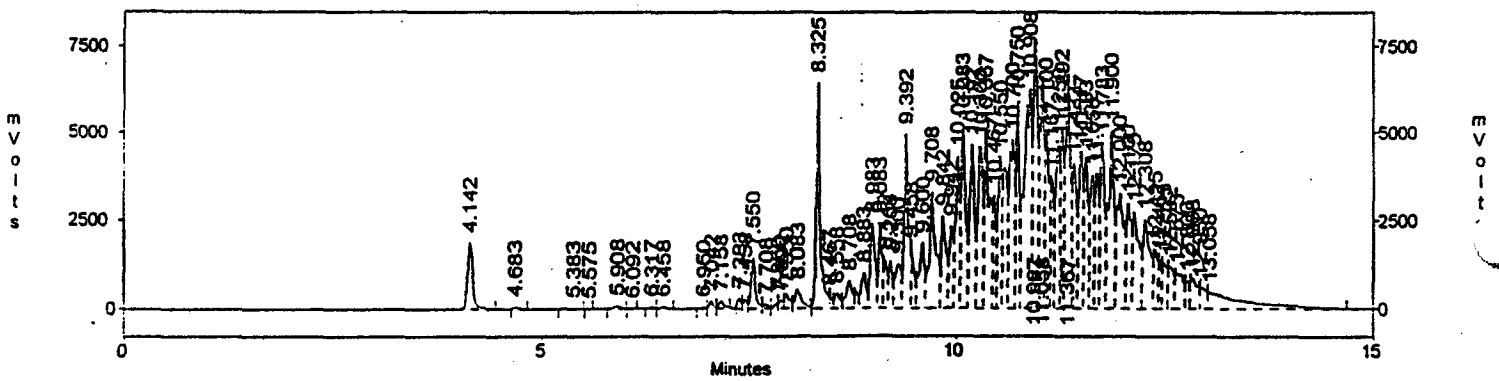
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.14	0	0	0.00000	0.00
--	1. Benzene W 20	3.22	0	0	0.00000	0.00
1	2. TFT (Int.)	4.14	7887051	1843594	1.00000	100.00
3	3. Toluene W 80	5.38	172998	25279	2.17633	0.96
12	5. Et-Bz W 19	7.38	877746	294428	1.78529	5.80
14	6. P/M xylene W 82	7.55	5406493	1442817	2.21794	29.33
18	7. O-xylene W 27	7.95	1813195	420494	1.89073	11.11
20	8. BFB (Surr.)	8.32	20739974	6449151	2.30790	113.90

c:\data\9702\97g1506\1603.114 -- Channel A



c:\data\9702\97g1506\1603.114 -- Channel B



2C

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1528		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G1528-MB-01	97G1528-MB-01	108	0
2	97G1528-LCS-01	97G1528-LCS-01	117	0
3	97G1528-LSD-01	97G1528-LSD-01	114	0
4	18609-672-139	97-1603-11	109	0
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S1 = 4-BROMO-FLUOROBENZENE (PID)

QC Control Limit
71-134

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1528		
LCS Filename:	1528G.L01	Date Analyzed:	022797	Time Analyzed:	11:54
LCSD Filename:	1528G.J01	Date Analyzed:	022797	Time Analyzed:	12:16

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/L	20	0	20.0	100	77-121
ETHYLBENZENE	µg/L	19	0	20.1	106	78-132
TOLUENE	µg/L	80	0	79.3	99	77-134
O-XYLENE	µg/L	27	0	29.7	110	77-133
M/P-XYLENE	µg/L	82	0	86.8	106	81-131
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/L	20	19.7	99	1	22	77-121
ETHYLBENZENE	µg/L	19	19.6	103	3	27	78-132
TOLUENE	µg/L	80	77.1	96	3	24	77-134
O-XYLENE	µg/L	27	29.1	108	2	27	77-133
M/P-XYLENE	µg/L	82	84.3	103	3	32	81-131
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

002232

3B

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1526		
LCS Filename:	1526G.L01	Date Analyzed:	022797	Time Analyzed:	01:53
LCSD Filename:	1526G.J01	Date Analyzed:	022797	Time Analyzed:	02:17

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/kg	100	0	92.0	92	72-119
ETHYLBENZENE	µg/kg	95	0	89.7	94	71-134
TOLUENE	µg/kg	400	0	338	85	79-129
O-XYLENE	µg/kg	135	0	120	89	70-133
M/P-XYLENE	µg/kg	410	0	338	82	72-133
GASOLINE	mg/kg	5	0	5.05	101	77-122
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/kg	100	90.9	91	1	26	72-119
ETHYLBENZENE	µg/kg	95	91.1	96	2	26	71-134
TOLUENE	µg/kg	400	373	93	9	24	79-129
O-XYLENE	µg/kg	135	128	95	7	30	70-133
M/P-XYLENE	µg/kg	410	378	92	11	27	72-133
GASOLINE	mg/kg	5	5.64	113	11	31	77-122
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

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002233

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1526		
MS Filename:	1526G.M01	Date Analyzed:	022797	Time Analyzed:	10:44
MSD Filename:	1526G.N01	Date Analyzed:	022797	Time Analyzed:	11:32
MS Sample No:	**18609-2-151**	Sample Lab ID:	97-1603-9	Moisture, %	6.3

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/kg	107	0	104	97	70-121
ETHYLBENZENE	µg/kg	101	0	124	123	71-134
TOLUENE	µg/kg	427	0	397	93	79-129
O-XYLENE	µg/kg	144	0	177	123	70-133
M/P-XYLENE	µg/kg	438	0	446	102	72-133
GASOLINE	mg/kg	5.34	0	6.69	125	65-127
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/kg	107	99.5	93	4	26	70-121
ETHYLBENZENE	µg/kg	101	106	105	16	26	71-134
TOLUENE	µg/kg	427	398	93	0	24	79-129
O-XYLENE	µg/kg	144	148	103	18	30	70-133
M/P-XYLENE	µg/kg	438	401	92	10	27	72-133
GASOLINE	mg/kg	5.34	6.08	114	9	31	65-127
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

002234

Applied P & Ch Laboratory

Method Blank Summary for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Analysis Date:	02/27/97
		Sample Matrix:	Water	Analysis Time:	10:46
Sample ID:	**97G1528-MB-01**	Batch No:	97G1528	Instrument ID:	GC: B
Lab Sample ID:	97G1528-MB-01	Data File Name:	1528G.K01	GC Column:	RTX-5
		Heated Purge: (Y/N)	N	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1528-LCS-01	97G1528-LCS-01	Lab Control Spike	1528G.L01	02/27/97	11:54
2	97G1528-LSD-01	97G1528-LSD-01	Lab Control Spike Duplicate	1528G.J01	02/27/97	12:16
3	18609-672-139	97-1603-11	Field Sample	1603.011	02/27/97	12:56
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002235

Applied P & Ch Laboratory

Method Blank Summary for Method 8020

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Analysis Date:	02/27/97
		Sample Matrix:	Soil	Analysis Time:	01:29
Sample ID:	**97G1526-MB-01**	Batch No:	97G1526	Instrument ID:	GC: N
Lab Sample ID:	97G1526-MB-01	Data File Name:	1526G.K01	GC Column:	DB-1
		Heated Purge: (Y/N)	Y	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1526-LCS-01	97G1526-LCS-01	Lab Control Spike	1526G.L01	02/27/97	01:53
2	97G1526-LSD-01	97G1526-LSD-01	Lab Control Spike Duplicate	1526G.J01	02/27/97	02:17
3	18609-2-143	97-1603-1	Field Sample	1603.001	02/27/97	02:40
4	18609-2-144	97-1603-2	Field Sample	1603.002	02/27/97	03:04
5	18609-2-146	97-1603-3	Field Sample	1603.003	02/27/97	03:28
6	18609-2-145	97-1603-4	Field Sample	1603.004	02/27/97	03:51
7	18609-2-147	97-1603-5	Field Sample	1603.005	02/27/97	04:15
8	18609-2-148	97-1603-6	Field Sample	1603.006	02/27/97	04:38
9	18609-2-149	97-1603-7	Field Sample	1603.007	02/27/97	05:02
10	18609-672-140	97-1603-12	Field Sample	1603.012	02/27/97	07:24
11	18609-672-141	97-1603-13	Field Sample	1603.013	02/27/97	07:47
12	18609-2-150	97-1603-8	Field Sample	1603.008	02/27/97	09:22
13	18609-2-151	97-1603-9	Field Sample	1603.009	02/27/97	09:45
14	18609-2-152	97-1603-10	Field Sample	1603.010	02/27/97	10:09
15	18609-2-151-MS	97-1603-9MS	Matrix Spike	1526G.M01	02/27/97	10:44
16	18609-2-151-MSD	97-1603-9MSD	Matrix Spike Duplicate	1526G.N01	02/27/97	11:32
17	18609-672-142	97-1603-14	Field Sample	1603.114	02/27/97	13:55
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002236

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97G1527-MB-01	Received Date:	02/26/97
Sample ID:	**97G1527-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/26/97	Anal. Date:	02/27/97
Batch No:	97G1527	Prep. No:	1 of 1	Anal. Time:	02:05
Data File Name:	1527G.K01	Sample Amount:	20 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	106
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

002261

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97-1603-1	Received Date:	02/26/97
Sample ID:	**18609-2-143**	Sample Matrix	Soil	Moisture %:	5.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/26/97	Anal. Date:	02/27/97
Batch No:	97G1527	Prep. No:	1 of 1	Anal. Time:	04:50
Data File Name:	1603.001	Sample Amount:	20 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	120	
2	MOTOR OIL/LUBRICATE OIL	TBD-0002	mg/kg	11	180	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	83
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

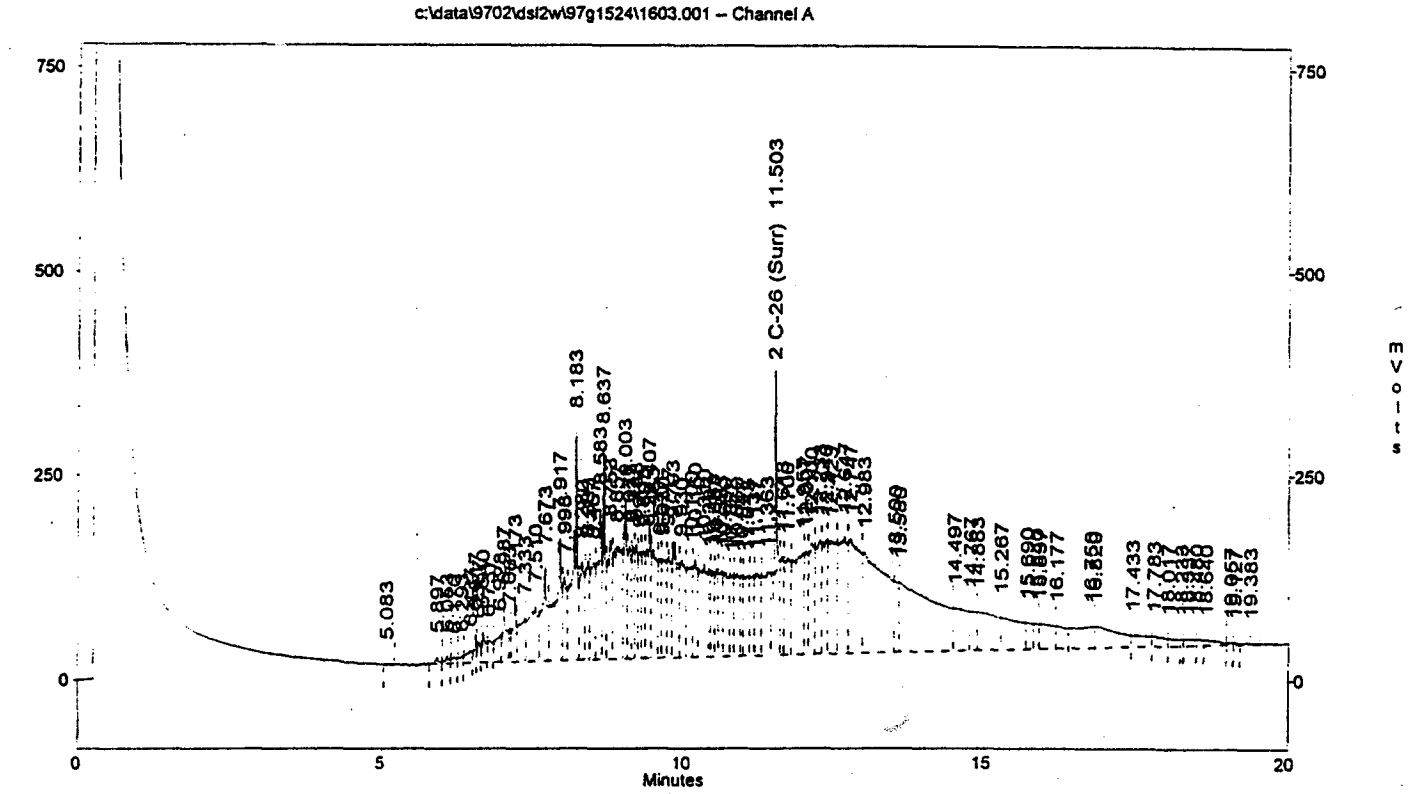
002252

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9702\dsl2w\97g1524\1603.001
Method : c:\ezchrom\methods\dsl2-001.w00
Sample ID : 1603-1 F=0.05
Vial : 17
Volume : 1
Acquired : Feb 27, 1997 04:50:09
Printed : Mar 20, 1997 18:04:52
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.50	379239	41.635
1 Diesel		27166748	2300.546



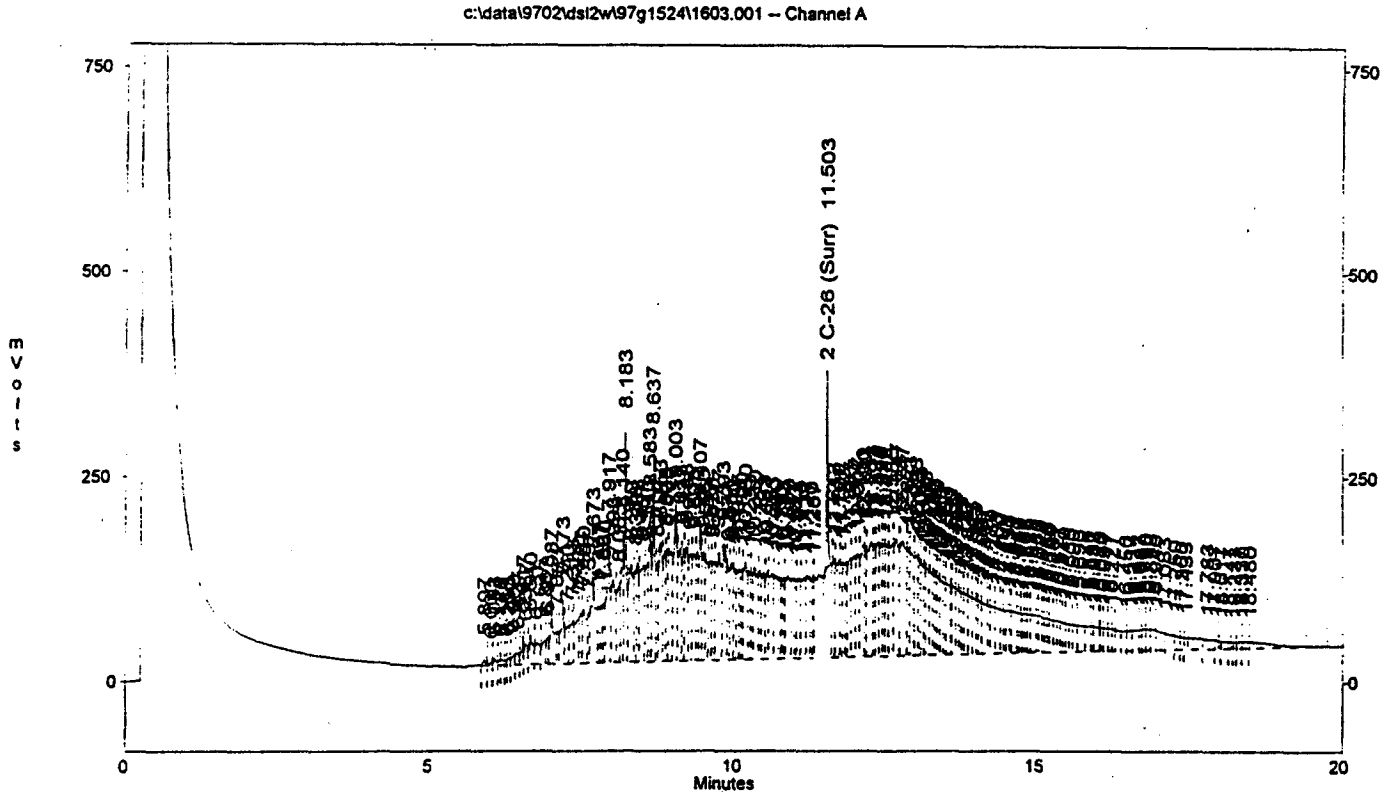
002263

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9702\dsl2w\97g1524\1603.001
Method : c:\ezchrom\methods\j5mo-001.w00
Sample ID : 1603-1 F=0.05
Vial : 17
Volume : 1
Acquired : Feb 27, 1997 04:50:09
Printed : Feb 28, 1997 13:06:47
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.50	322295	28.606
1 Jp-5		6902227	680.134
2 Motor oil	11.6-16 min	20368914	3404.355



002254

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97-1603-12	Received Date:	02/26/97
Sample ID:	**18609-672-140**	Sample Matrix	Soil	Moisture %:	11.9
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/26/97	Anal. Date:	02/27/97
Batch No:	97G1527	Prep. No:	1 of 1	Anal. Time:	10:19
Data File Name:	1603.012	Sample Amount:	20 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	MOTOR OIL/LUBRICATE OIL	TBD-0002	mg/kg	11	52	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	79
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

002292

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97-1603-13	Received Date:	02/26/97
Sample ID:	**18609-672-141**	Sample Matrix	Soil	Moisture %:	10.9
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/26/97	Anal. Date:	02/27/97
Batch No:	97G1527	Prep. No:	1 of 1	Anal. Time:	10:46
Data File Name:	1603.013	Sample Amount:	20 g	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	MOTOR OIL/LUBRICATE OIL	TBD-0002	mg/kg	11	42	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	78
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

002294

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97-1603-14	Received Date:	02/26/97
Sample ID:	**18609-672-142**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	02/26/97	Anal. Date:	02/27/97
Batch No:	97G1527	Prep. No:	1 of 1	Anal. Time:	11:14
Data File Name:	1603.014	Sample Amount:	20 g	Dilution Factor:	50

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	540	7000	
2	MOTOR OIL/LUBRICATE OIL	TBD-0002	mg/kg	540	1400	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	95
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

002296

2D

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1527		

#	Client Sample No	Lab Sample ID	S1 %	#	TOT OUT
1	97G1527-MB-01	97G1527-MB-01	106		0
2	97G1527-LCS-01	97G1527-LCS-01	102		0
3	97G1527-LSD-01	97G1527-LSD-01	100		0
4	18609-2-143-MS	97-1603-1MS	84		0
5	18609-2-143-MSD	97-1603-1MSD	75		0
6	18609-2-143	97-1603-1	83		0
7	18609-2-144	97-1603-2	73		0
8	18609-2-146	97-1603-3	75		0
9	18609-2-145	97-1603-4	87		0
10	18609-2-147	97-1603-5	68		0
11	18609-2-148	97-1603-6	97		0
12	18609-2-149	97-1603-7	84		0
13	18609-2-150	97-1603-8	68		0
14	18609-2-151	97-1603-9	71		0
15	18609-2-152	97-1603-10	75		0
16	18609-672-140	97-1603-12	79		0
17	18609-672-141	97-1603-13	78		0
18	18609-672-142	97-1603-14	95		0
19					
20					
21					
22					
23					
24					
25					

QC Control Limit

S1 = HEXACOSANE, C_{26} 50-146

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

3D

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1527		
LCS Filename:	1527G.L01	Date Analyzed:	022797	Time Analyzed:	02:32
LCSD Filename:	1527G.J01	Date Analyzed:	022797	Time Analyzed:	03:00

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	47.9	96	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	45.7	91	5	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

002300

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G1527		
MS Filename:	1527G.M01	Date Analyzed:	022797	Time Analyzed:	03:55
MSD Filename:	1527G.N01	Date Analyzed:	022797	Time Analyzed:	04:22
MS Sample No:	**18609-2-143**	Sample Lab ID:	97-1603-1	Moisture, %	5.1

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	52.7	120	178	110	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	52.7	169	93	17	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

002301

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Analysis Date:	02/27/97
		Sample Matrix:	Soil	Analysis Time:	02:05
Sample ID:	**97G1527-MB-01**	Batch No:	97G1527	Instrument ID:	GC: W
Lab Sample ID:	97G1527-MB-01	Data File Name:	1527G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G1527-LCS-01	97G1527-LCS-01	Lab Control Spike	1527G.L01	02/27/97	02:32
2	97G1527-LSD-01	97G1527-LSD-01	Lab Control Spike Duplicate	1527G.J01	02/27/97	03:00
3	18609-2-143-MS	97-1603-1MS	Matrix Spike	1527G.M01	02/27/97	03:55
4	18609-2-143-MSD	97-1603-1MSD	Matrix Spike Duplicate	1527G.N01	02/27/97	04:22
5	18609-2-143	97-1603-1	Field Sample	1603.001	02/27/97	04:50
6	18609-2-144	97-1603-2	Field Sample	1603.002	02/27/97	05:17
7	18609-2-146	97-1603-3	Field Sample	1603.003	02/27/97	05:45
8	18609-2-145	97-1603-4	Field Sample	1603.004	02/27/97	06:12
9	18609-2-147	97-1603-5	Field Sample	1603.005	02/27/97	07:34
10	18609-2-148	97-1603-6	Field Sample	1603.006	02/27/97	08:01
11	18609-2-149	97-1603-7	Field Sample	1603.007	02/27/97	08:29
12	18609-2-150	97-1603-8	Field Sample	1603.008	02/27/97	08:56
13	18609-2-151	97-1603-9	Field Sample	1603.009	02/27/97	09:24
14	18609-2-152	97-1603-10	Field Sample	1603.010	02/27/97	09:51
15	18609-672-140	97-1603-12	Field Sample	1603.012	02/27/97	10:19
16	18609-672-141	97-1603-13	Field Sample	1603.013	02/27/97	10:46
17	18609-672-142	97-1603-14	Field Sample	1603.014	02/27/97	11:14
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002302

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97G1608-MB-01	Received Date:	02/26/97
Sample ID:	**97G1608-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	03/05/97	Anal. Date:	03/07/97
Batch No:	97G1608	Prep. No:	1 of 1	Anal. Time:	00:49
Data File Name:	1608G.K01	Sample Amount:	1000 mL	Dilution Factor:	1

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	92
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	02/26/97
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	
		Lab Sample ID:	97-1603-14	Received Date:	02/26/97
Sample ID:	**18609-672-142**	Sample Matrix	Soil	Moisture %:	6.6
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	03/05/97	Anal. Date:	03/07/97
Batch No:	97G1608	Prep. No:	1 of 1	Anal. Time:	03:26
Data File Name:	1603.î4	Sample Amount:	1000 mL	Dilution Factor:	0.02

Leach Method: SPLP

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	0.01	1.10 [a]	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	66
# of out-of-control				0

[a] Additional analysis requested on 03/03/97.

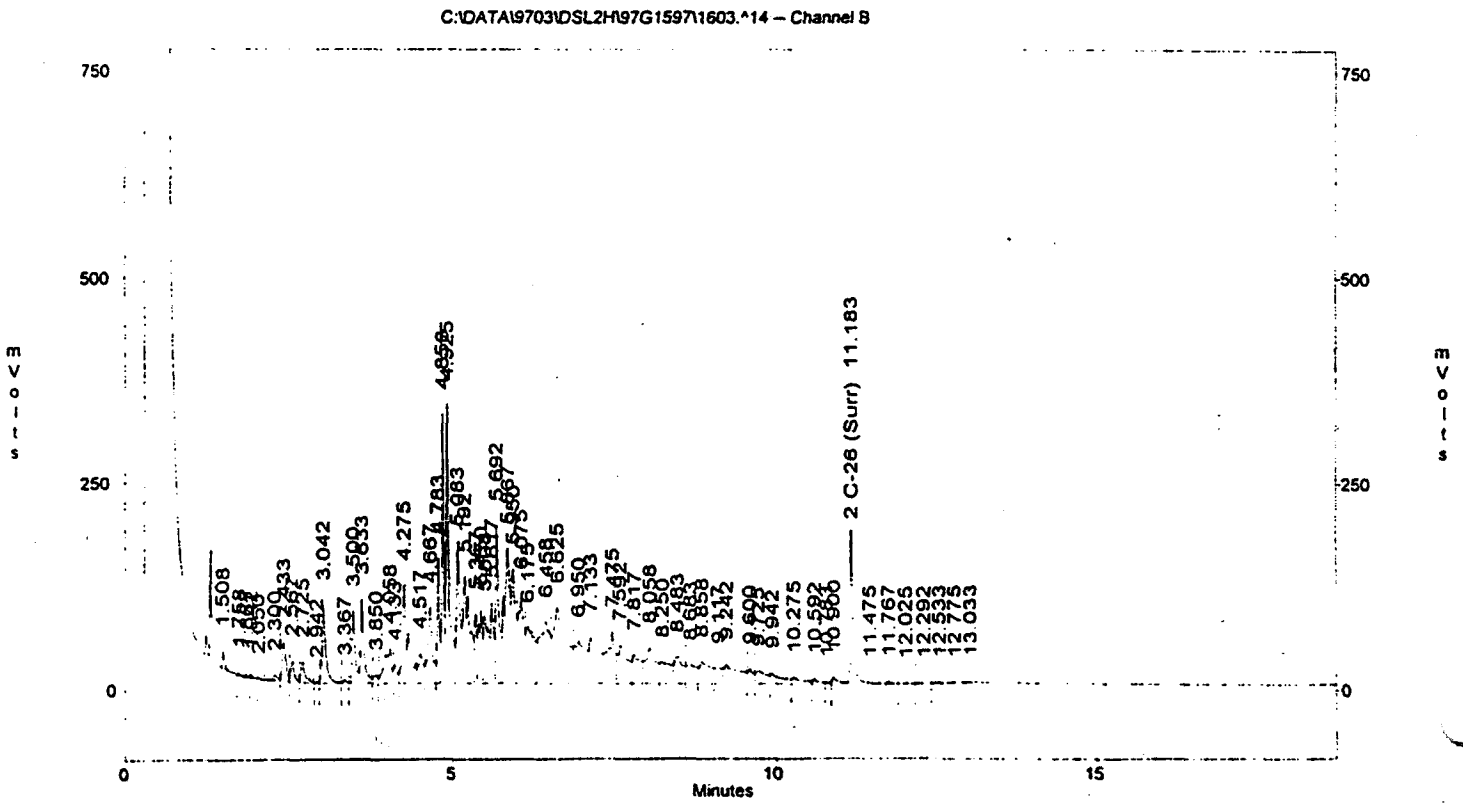
Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9703\DSL2H\97G1597\1603.^14
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : @s 1603-14 f=0.001
Vial : 30
Volume : 1
Acquired : Mar 07, 1997 03:26:25
Printed : Mar 07, 1997 03:45:16
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.18	528102	33.206
1 DIESEL		18762746	1102.194



002327

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	971603
Project ID:	UST 9002/9001	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G1608		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G1608-MB-01	97G1608-MB-01	92	0
2	97G1608-LCS-01	97G1608-LCS-01	85	0
3	97G1608-LSD-01	97G1608-LSD-01	83	0
4	18609-672-142-MS	97-1603-14MS	70	0
5	18609-672-142-MSD	97-1603-14MSD	71	0
6	18609-672-142	97-1603-14	66	0
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QC Control Limit

S1 = HEXACOSANE, C_{26} 50-149

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

002328

Applied P & Ch Laboratory

Wet Analysis Results for Method ASTM-D2216

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Anal. Method	ASTM-D2216
Project ID:	UST 9002/9001	Service ID:	971603	Collected by:	

Component Name: PERCENT MOISTURE
CAS No: 7732-18-5

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-1603-1	18609-2-143	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	5.1	
97-1603-2	18609-2-144	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	7.5	
97-1603-3	18609-2-146	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	7.1	
97-1603-4	18609-2-145	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	8.5	
97-1603-5	18609-2-147	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	11.3	
97-1603-6	18609-2-148	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	9.8	
97-1603-7	18609-2-149	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	7.9	
97-1603-8	18609-2-150	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	6.6	
97-1603-9	18609-2-151	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	6.3	
97-1603-10	18609-2-152	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	9.1	
97-1603-12	18609-672-140	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	11.9	
97-1603-13	18609-672-141	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	10.9	
97-1603-14	18609-672-142	Soil	02/26/97	02/26/97	02/27/97	97W1818	%Moisture	0.5	6.6	

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

002350

Applied P & Ch Laboratory

Wet Analysis Results for Method 418.1

Client Name: OHM Remediation Services (Irvine) Project No: 18609 Anal. Method 418.1
Project ID: UST 9002/9001 Service ID: 971603 Collected by:

Component Name: TRPH
CAS No: 9999-148

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-1603-12	18609-672-140	Soil	02/26/97	02/26/97	02/27/97	97W1813	mg/kg	10	71	
97-1603-13	18609-672-141	Soil	02/26/97	02/26/97	02/27/97	97W1813	mg/kg	10	86	
97-1603-14	18609-672-142	Soil	02/26/97	02/26/97	02/27/97	97W1813	mg/kg	10	6950	
97W1813-MB-01	97W1813-MB-01	Soil	02/26/97	02/26/97	02/27/97	97W1813	mg/kg	10	<10	U

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

002351

Services Corp.

CHAIN-OF-CUSTODY RECORD

From Dwayne

Form 0619
Field Technical Services
Rev. 08/89

182493

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
L.A.D. UST 672B	M.C.A.S. EL TORO

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
18609	DWAYNE ISHIDA	(714) 263-1146

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
LYNN HORNECKER-SWDIV	BILL SEDLAK-OHM

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS / SPLP	TVPH	TEPH	B	T	E	X	SPLP	REMARKS
1	18609-672-385	8/18/97	1215		X	672SB-01 @ 9.5-10	× 0.9	ND	970	ND	ND	4400	17K		xylenes = 17,000 ug/kg
2	18609-672-386		1230		X	672SB-01 @ 14.5-15		ND	4800			ND	2600		
3	18609-672-387		1235		X	672SB-01 @ 19.5-20		ND	700			2K	7800		N/C non of ND<5000 for benz + tol.
4	18609-672-388		1258		X	672SB-01 @ 29.5-30		ND	200	X		16K	56K		X = 2,900 ug/kg BENZENE. requested 8260 confirm.
5	18609-672-389		1301		X	672SB-01 @ ~~29-29.5~~ 39-39.5		ND	5400			4700	48000		
6	18609-672-390	8/18/97	1302		X	672SB-01 @ ~~29.5-30~~ 39.5-40	× 1.3	ND	4800			ND	6000		
7															All TVPH hits do not look like gasoline
8							SPLP per Julie 6/30/97								All TEPH hits look like JP-5
9															
10															

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 to 6	Marla R. Pierce	[illegible]	8/18/97	1305
2					
3					
4					

REMARKS

1.) 5 DAY T.A.T.
2.) SAMPLE END OF SLEEVE WITH (*) ON CAP.
3.) HOLD 1312 PENDING RESULTS

SAMPLER'S SIGNATURE: Marla R. Pierce

Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

LAB COPY
Form 001
Technical Service
Rev. 08/8

182493

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
L.A.D. UST 672B	M.C.A.S. EL TORO

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
18609	DWAYNE ISHIDA	(714) 263-1196

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
LYNN HORNECKER-SWDIV	BILL SEDLAK-OHM

A.P.C.L.
CHINO HILLS, CA.

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TPH-Purgable	TPH-Extractable	8020	1312					REMARKS
1	18609-672-385	6/18/97	1215		X	672SB-01 @ 9.5-10	2	X	X	X						
2	18609-672-386		1230		X	672SB-01 @ 14.5-15	2	X	X	X						
3	18609-672-387		1235		X	672SB-01 @ 19.5-20	2	X	X	X						
4	18609-672-388		1258		X	672SB-01 @ 29.5-30	2	X	X	X						
5	18609-672-389		1301		X	672SB-01 @ 29-29.5	1	X	X	X	X					
6	18609-672-390	6/18/97	1302		X	672SB-01 @ 29.5-30	1	X	X	X	X					
7																
8																
9																
10																

6/18/97

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 to 6			6/18/97	1500
2					
3					
4					

REMARKS
1.) 5 DAY T.A.T.
2.) Sample END of Sleeve with (*) on Cap.
3.) HOLD 1312 PENDING RESULTS

SAMPLER'S SIGNATURE

36904

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

From: Dwayne

Field Technical Ser Form Rev. 0

182494

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: L.A.D UST 672

PROJECT LOCATION: M.C.A.S. EL TORO

PROJ. NO.: 12609

PROJECT CONTACT: DWAYNE ISHIDA

PROJECT TELEPHONE NO.: (714) 263-1146

CLIENT'S REPRESENTATIVE: LYNN HORNECKER-SWDIV

PROJECT MANAGER/SUPERVISOR: BILL SEDLAK

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS SPLP	TVPH	TEPH	B	T	E	X	SPLP	REMARKS
1	12609-672-391	9/18/97	1341		X	672SB-02 @ 9.5-10		ND	40	ND	ND	3000	10,700		10,700 ug/kg xylene
2	12609-672-392	9/18/97	1347		X	672SB-02 @ 14.5-15		ND	700	↓	↓	600	2600		
3	12609-672-393	9/18/97	1353		X	672SB-02 @ 19.5-20		ND	880			1000	ND		
4	12609-672-394	9/18/97	1415		X	672SB-02 @ ~~19.5~~ 29.5-30		ND	650			600	ND		
5	12609-672-395	9/18/97	1420		X	672SB-02 @ 39.5-40	× 0.7	ND	500			ND	4400		
6															TVPH ≠ gasoline
7															TEPH = JP-5
8							SPLP per Julie 6/30/97								
9															
10															

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 TO 3	Mark Bar	[illegible]	9/18/97	15:25
2					
3					
4					

REMARKS

1) 5 DAY T.A.T.
2) SAMPLE END OF CAP WITH (*) ON CAP.
3) HOLD 1312 PENDING RESULTS

SAMPLER'S SIGNATURE: Mark Bar

...AI Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

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Rev. 08

182494

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: L.A.D UST 672
PROJECT LOCATION: M.C.A.S. EL TORO
PROJ. NO.: 18609
PROJECT CONTACT: DWAYNE ISHIDA
PROJECT TELEPHONE NO.: (714) 263-1146
CLIENT'S REPRESENTATIVE: LYNN HORNECKER-SUDIV
PROJECT MANAGER/SUPERVISOR: BILL SEDLAK

A.P.C.L.
CHINO HILLS, CA

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TPH-PURGEABLE	TPH-EXTRACTABLE	8020	1312-(HOLD)					REMARKS
1	18609-672-391	4/18/97	1341		X	672SB-02 @ 9.5-10	2	X	X	X						
2	18609-672-392	4/18/97	1347		X	672SB-02 @ 14.5-15	2	X	X	X						
3	18609-672-393	4/18/97	1353		X	672SB-02 @ 19.5-20	2	X	X	X						
4	18609-672-394	4/18/97	1415		X	672SB-02 @ ~~14.5~~ 29.5-30	2	X	X	X						
5	18609-672-395	4/18/97	1420		X	672SB-02 @ 39.5-40	2	X	X	X	X					
6																
7																
8																
9																
10																

Marlin Bonn 4/18/97

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 TO 3	Marlin Bonn	[illegible]	4/18/97	5:25
2					
3					
4					

REMARKS
1) 5 DAY T.A.T.
2) SAMPLE END OF CAP WITH (*) ON CAP.
3) HOLD 1312 PENDING RESULTS

SAMPLER'S SIGNATURE: Marlin Bonn

20693

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97G2924-MB-01	Received Date:	07/02/97
Sample ID:	**97G2924-MB-01**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	07/02/97	Anal. Date:	07/02/97
Batch No:	97G2924	Prep. No:	-	Anal. Time:	10:17
Data File Name:	G2924K01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5	<5	U
2	BROMOBENZENE	108-86-1	µg/kg	5	<5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5	<5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	<5	U
5	BROMOFORM	75-25-2	µg/kg	5	<5	U
6	BROMOMETHANE	74-83-9	µg/kg	5	<5	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5	<5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5	<5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5	<5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	<5	U
11	CHLOROBENZENE	108-90-7	µg/kg	5	<5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	<5	U
13	CHLOROETHANE	75-00-3	µg/kg	5	<5	U
14	CHLOROFORM	67-66-3	µg/kg	5	<5	U
15	CHLOROMETHANE	74-87-3	µg/kg	5	<5	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5	<5	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5	<5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5	<5	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5	<5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5	<5	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5	<5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	10	<10	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5	<5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5	<5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5	<5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	<5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	<5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	10	<10	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	<5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	<5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	<5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5	<5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5	<5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	10	<10	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	<5	U
36	ETHYLBENZENE	100-41-4	µg/kg	5	<5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5	<5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5	<5	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	0.5	<0.5	U

36911

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5	<5	U
42	STYRENE	100-42-5	µg/kg	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	0.5	<0.5	U
46	TOLUENE	108-88-3	µg/kg	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5	<5	U
57	O-XYLENE	95-47-6	µg/kg	5	<5	U
58	M/P-XYLENE	108-38-3	µg/kg	5	<5	U
59	XYLENES (TOTAL)	1330-20-7	µg/kg	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	108
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	109
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	109
4	TOLUENE-D8	2037-26-5	81-116	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	95
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	89
3	FLUOROBENZENE	462-06-6	50-200	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36912

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D.-UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-4	Received Date:	06/18/97
Sample ID:	**18609-672-388**	Sample Matrix	Soil	Moisture %:	8.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	07/02/97	Anal. Date:	07/02/97
Batch No:	97G2924	Prep. No:	-	Anal. Time:	15:23
Data File Name:	2898-04	Sample Amount:	4 g	Dilution Factor:	1000
Methanol Vol.	10 mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5500	< 5500	U
2	BROMOBENZENE	108-86-1	µg/kg	5500	< 5500	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5500	< 5500	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5500	< 5500	U
5	BROMOFORM	75-25-2	µg/kg	5500	< 5500	U
6	BROMOMETHANE	74-83-9	µg/kg	5500	< 5500	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5500	< 5500	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5500	2300	J
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5500	< 5500	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5500	< 5500	U
11	CHLOROBENZENE	108-90-7	µg/kg	5500	< 5500	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5500	< 5500	U
13	CHLOROETHANE	75-00-3	µg/kg	5500	< 5500	U
14	CHLOROFORM	67-66-3	µg/kg	5500	< 5500	U
15	CHLOROMETHANE	74-87-3	µg/kg	5500	< 5500	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5500	< 5500	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5500	< 5500	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5500	1100	J
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5500	< 5500	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5500	< 5500	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5500	< 5500	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5500	< 5500	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5500	< 5500	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5500	< 5500	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5500	< 5500	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5500	< 5500	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5500	< 5500	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5500	< 5500	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5500	< 5500	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5500	< 5500	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5500	< 5500	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5500	< 5500	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5500	< 5500	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5500	< 5500	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5500	< 5500	U
36	ETHYLBENZENE	100-41-4	µg/kg	5500	4200	J
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5500	< 5500	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5500	2700	J
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5500	< 5500	U

36913

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5500	6000	
41	N-PROPYLBENZENE	103-65-1	µg/kg	5500	2800	J
42	STYRENE	100-42-5	µg/kg	5500	<5500	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5500	<5500	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5500	<5500	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5500	<5500	U
46	TOLUENE	108-88-3	µg/kg	5500	<5500	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5500	<5500	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5500	<5500	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5500	<5500	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5500	<5500	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5500	<5500	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5500	<5500	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5500	<5500	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5500	26000	
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5500	8000	
56	VINYL CHLORIDE	75-01-4	µg/kg	5500	<5500	U
57	O-XYLENE	95-47-6	µg/kg	5500	<5500	U
58	M/P-XYLENE	108-38-3	µg/kg	5500	18000	
59	XYLENES (TOTAL)	1330-20-7	µg/kg	5500	18000	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	101
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	103
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	109
4	TOLUENE-D8	2037-26-5	81-116	93
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	100
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	89
3	FLUOROBENZENE	462-06-6	50-200	101
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G2924		

#	Client Sample No	Lab Sample ID	S1 %	#	S2 %	#	S3 %	#	S4 %	#	TOT OUT
2	97G2924-CCV-01	97G2924-CCV-01	105		107		102		93		0
3	97G2924-MB-01	97G2924-MB-01	108		109		109		101		0
4	97G2924-LCS-01	97G2924-LCS-01	107		106		101		94		0
5	97G2924-LSD-01	97G2924-LSD-01	105		104		100		92		0
6	27-SB00-001-MS	97-3077-13MS	109		109		106		95		0
7	27-SB00-001-MSD	97-3077-13MSD	107		108		106		92		0
8	18609-672-388	97-2898-4	101		103		109		93		0
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (BFB)	86-114
S2 = DIBROMOFLUOROMETHANE	85-116
S3 = 1,2-DICHLOROETHANE-D4	80-119
S4 = TOLUENE-D8	81-116

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

36915

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G2924		
LCS Filename:	G2924L01	Date Analyzed:	070297	Time Analyzed:	10:51
LCSD Filename:	G2924J01	Date Analyzed:	070297	Time Analyzed:	11:25

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/L	50	0	50.0	100	80-121
CHLOROBENZENE	µg/L	50	0	52.9	106	80-118
1,1-DICHLOROETHENE	µg/L	50	0	50.4	101	68-134
TOLUENE	µg/L	50	0	49.7	99	80-119
TRICHLOROETHENE	µg/L	50	0	57.2	114	80-121
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/L	50	49.1	98	2	20	80-121
CHLOROBENZENE	µg/L	50	52.4	105	1	22	80-118
1,1-DICHLOROETHENE	µg/L	50	51.4	103	2	44	68-134
TOLUENE	µg/L	50	49.0	98	1	46	80-119
TRICHLOROETHENE	µg/L	50	56.9	114	0	42	80-121
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

36916

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G2924		
MS Filename:	G2924M01	Date Analyzed:	070297	Time Analyzed:	11:59
MSD Filename:	G2924N01	Date Analyzed:	070297	Time Analyzed:	12:33
MS Sample No:	**27-SB00-001**	Sample Lab ID:	97-3077-13		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/L	50	0	44.5	89	80-122
CHLOROBENZENE	µg/L	50	0	45.9	92	75-120
1,1-DICHLOROETHENE	µg/L	50	0	52.3	105	58-146
TOLUENE	µg/L	50	0	43.9	88	60-138
TRICHLOROETHENE	µg/L	50	0	51.4	103	71-155
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/L	50	45.4	91	2	20	80-122
CHLOROBENZENE	µg/L	50	46.4	93	1	22	75-120
1,1-DICHLOROETHENE	µg/L	50	53.2	106	1	44	58-146
TOLUENE	µg/L	50	43.9	88	0	46	60-138
TRICHLOROETHENE	µg/L	50	51.0	102	1	42	71-155
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

36917

Applied P & Ch Laboratory

Method Blank Summary for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Analysis Date:	07/02/97
		Sample Matrix:	Water	Analysis Time:	10:17
Sample ID:	**97G2924-MB-01**	Batch No:	97G2924	Instrument ID:	GC/MS: X
Lab Sample ID:	97G2924-MB-01	Data File Name:	G2924K01	GC Column:	DB-5.624
		Heated Purge: (Y/N)	N	Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G2924-LCS-01	97G2924-LCS-01	Lab Control Spike	G2924L01	07/02/97	10:51
2	97G2924-LSD-01	97G2924-LSD-01	Lab Control Spike Duplicate	G2924J01	07/02/97	11:25
3	27-SB00-001-MS	97-3077-13MS	Matrix Spike	G2924M01	07/02/97	11:59
4	27-SB00-001-MSD	97-3077-13MSD	Matrix Spike Duplicate	G2924N01	07/02/97	12:33
5	18609-672-388	97-2898-4	Field Sample	2898-04	07/02/97	15:23
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

36918

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/20/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97G2794-MB-01	Received Date:	06/20/97
Sample ID:	**97G2794-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	19:10
Data File Name:	2794G.K01	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	90
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36934

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/08/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97G2995-MB-01	Received Date:	07/08/97
Sample ID:	**97G2995-MB-01**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:		Anal. Date:	07/08/97
Batch No:	97G2995	Prep. No:	1 of 1	Anal. Time:	15:37
Data File Name:	2995G.K01	Sample Amount:	250 mL	Dilution Factor:	1
Extract Vol.	0.5 mL	Leach Method:	SPLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	SPLP TPH AS DIESEL	68334-30-5	mg/L	0.5	<0.5	U
2	SPLP TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	101
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36935

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM-Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-1	Received Date:	06/18/97
Sample ID:	**18609-672-385**	Sample Matrix	Soil	Moisture %:	12.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	21:43
Data File Name:	2898.001	Sample Amount:	20.0 g	Dilution Factor:	100
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	1100	9700 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	1100	< 1100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	44
# of out-of-control				1

[a] Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36936

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

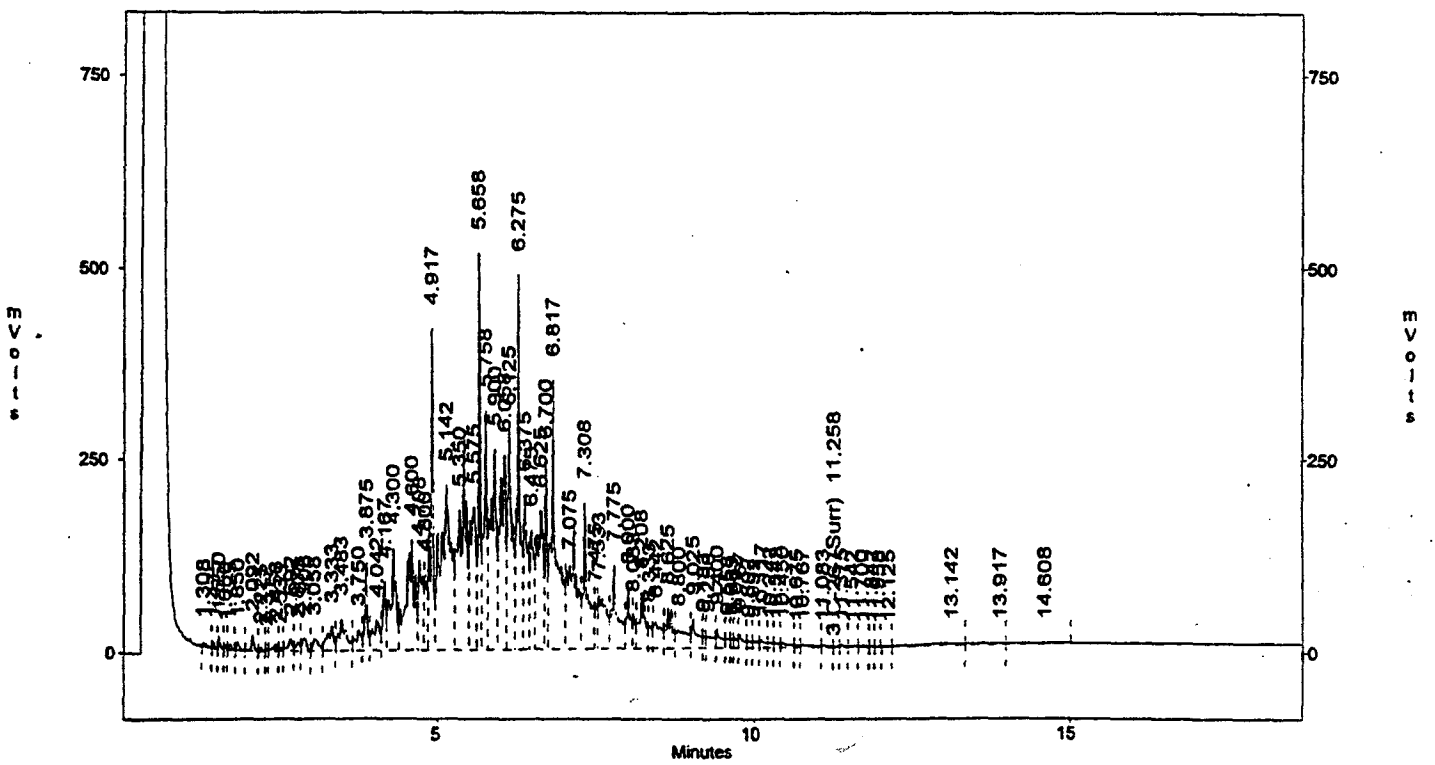
File : c:\data\9706\dsl2h\97g2794\2898.001
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : 2898-1 f=5
Vial : 7
Volume : 1
Acquired : Jun 20, 1997 21:43:23
Printed : Jun 24, 1997 15:00:39
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.26	3943	0.239
1 Jp-5		29794392	1698.453
2 motor oil		239446	14.714

13-16

c:\data\9706\dsl2h\97g2794\2898.001 -- Channel B



36937

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-1	Received Date:	06/18/97
Sample ID:	**18609-672-385**	Sample Matrix	Soil	Moisture %:	12.4
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	07/07/97	Anal. Date:	07/08/97
Batch No:	97G2995	Prep. No:	1 of 1	Anal. Time:	17:57
Data File Name:	2898.01	Sample Amount:	500 mL	Dilution Factor:	1
Extract Vol.	0.5 mL	Leach Method:	SPLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	SPLP TPH AS DIESEL	68334-30-5	mg/L	0.5	0.9 [a]	
2	SPLP TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	101
# of out-of-control				0

[a]Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

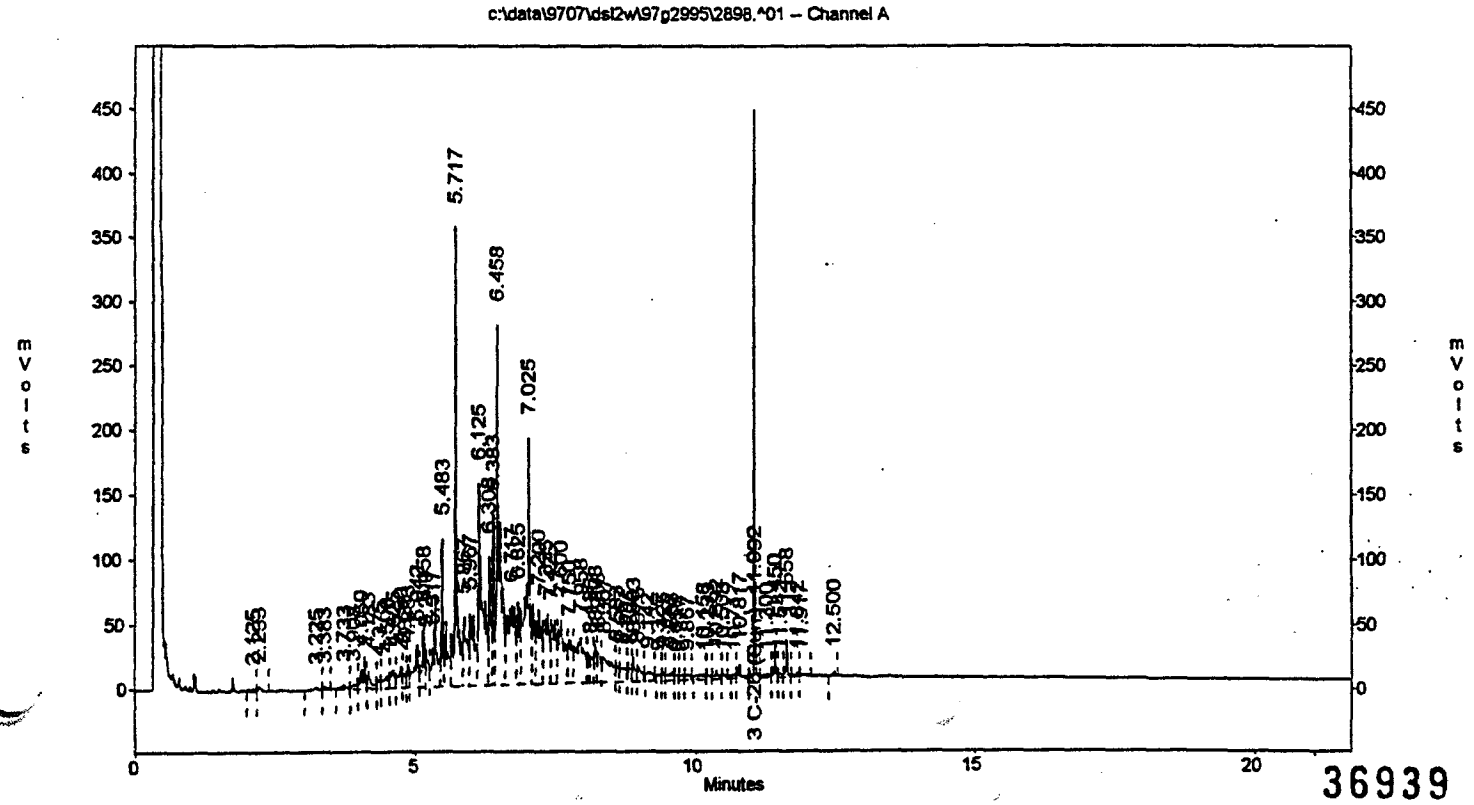
36938

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9707\dsl2w\97g2995\2898.^01
Method : c:\ezchrom\methods\j5mo-004.w00
Sample ID : 2898-1 @S F=0.001
Vial : 31
Volume : 2
Acquired : Jul 08, 1997 17:57:33
Printed : Jul 09, 1997 15:17:01
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.09	552842	44.024
1 Jp-5 (2.2-8)		8588043	884.515
2 Motor oil (8-16)		1922766	188.486



36939

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-2	Received Date:	06/18/97
Sample ID:	**18609-672-386**	Sample Matrix	Soil	Moisture %:	9.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	22:08
Data File Name:	2898.002	Sample Amount:	20.0 g	Dilution Factor:	100
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	1100	4800 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	1100	< 1100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	71
# of out-of-control				0

[a] Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36940

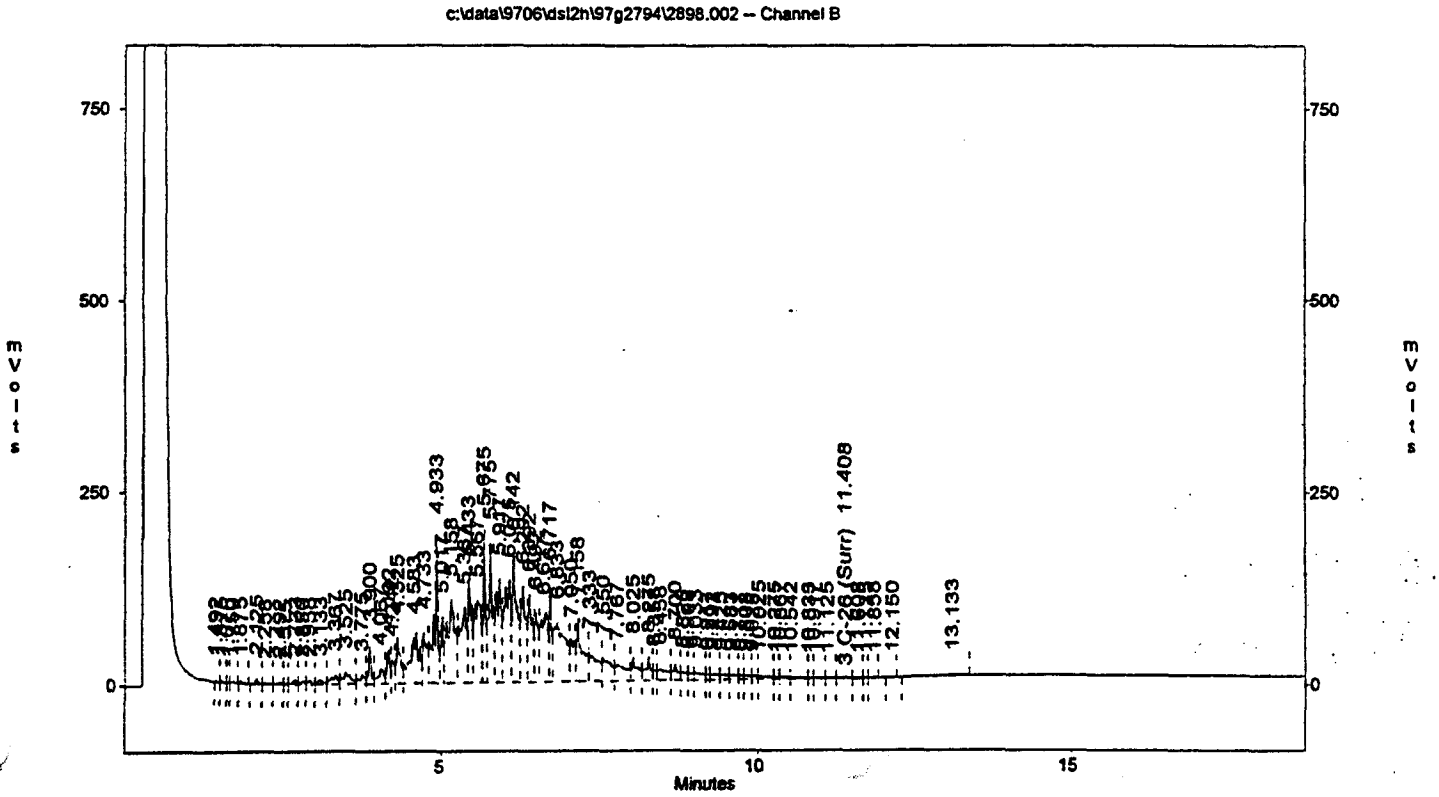
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.002
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : 2898-2 f=5
Vial : 8
Volume : 1
Acquired : Jun 20, 1997 22:08:45
Printed : Jun 24, 1997 15:03:47
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.41	7751	0.469
1 Jp-5		15166616	864.585
2 motor oil		49104	3.018

JP-5



36941

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-3	Received Date:	06/18/97
Sample ID:	**18609-672-387**	Sample Matrix	Soil	Moisture %:	13.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	22:34
Data File Name:	2898.003	Sample Amount:	20.0 g	Dilution Factor:	100
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	1200	7400 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	1200	< 1200	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	87
# of out-of-control				0

[a]Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

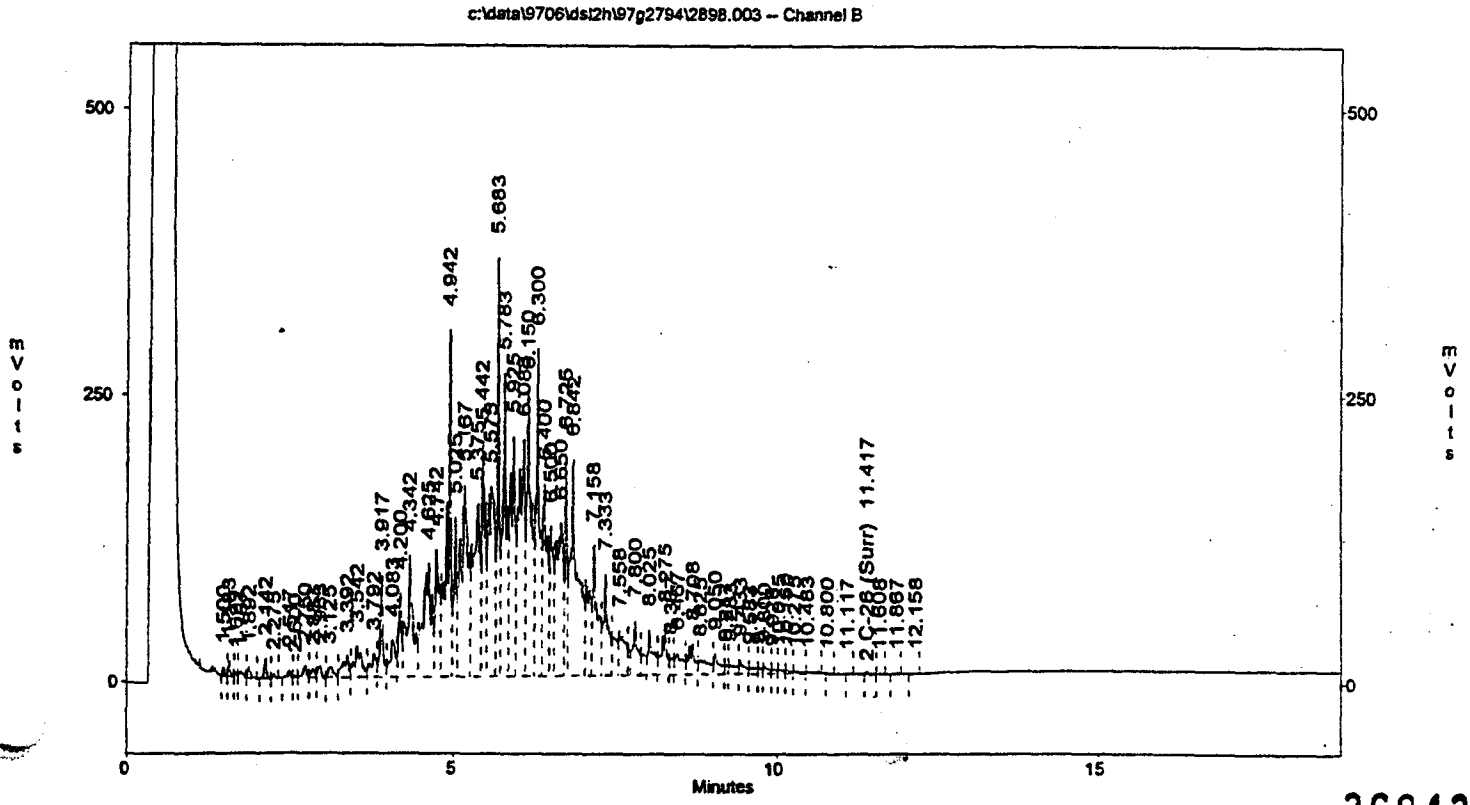
36942

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.003
Method : c:\ezchrom\methods\dsl2-022.h00
Sample ID : 2898-3 f=5
Vial : 9
Volume : 1
Acquired : Jun 20, 1997 22:34:05
Printed : Jun 24, 1997 16:14:13
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.42	6929	0.436
1 DIESEL		23226580	1364.416



36943

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-4	Received Date:	06/18/97
Sample ID:	**18609-672-388**	Sample Matrix	Soil	Moisture %:	8.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/23/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	22:13
Data File Name:	2898.204	Sample Amount:	20.0 g	Dilution Factor:	10
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	110	2100 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	110	<110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	111
# of out-of-control				0

[a]Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36944

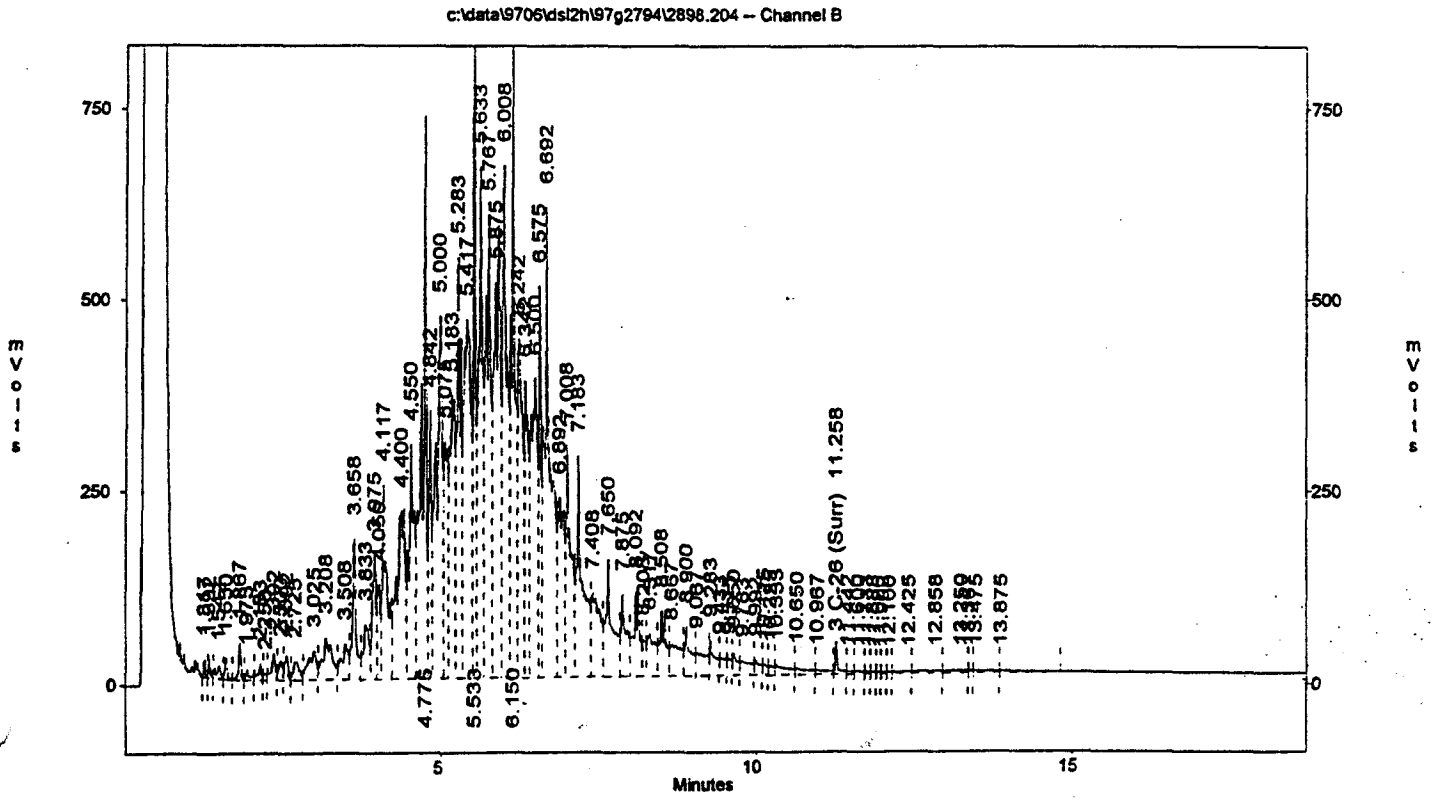
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.204
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : %97g2794 f=.5
Vial : 20
Volume : 1
Acquired : Jun 23, 1997 22:13:03
Printed : Jun 24, 1997 15:04:37
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.26	109470	6.626
1 Jp-5		66992080	3818.937
2 motor oil		426663	26.219

11.3-16



36945

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-5	Received Date:	06/18/97
Sample ID:	**18609-672-389**	Sample Matrix	Soil	Moisture %:	3.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/21/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	00:15
Data File Name:	2898.005	Sample Amount:	20.0 g	Dilution Factor:	100
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	1000	5400 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	1000	< 1000	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	62
# of out-of-control				0

[a]Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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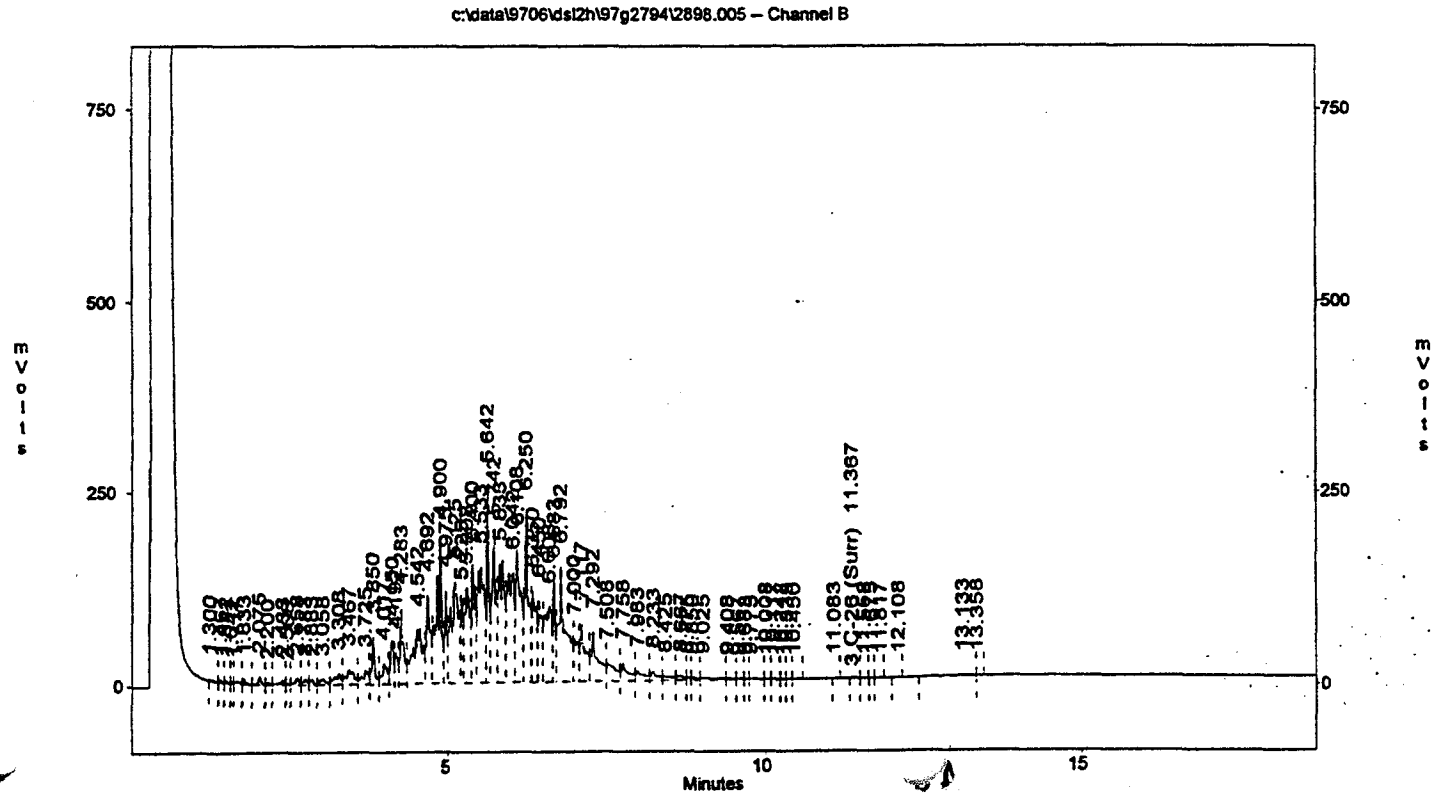
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.005
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : 2898-5 f=5
Vial : 11
Volume : 1
Acquired : Jun 21, 1997 00:15:32
Printed : Jun 24, 1997 15:05:28
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.37	4872	0.295
1 Jp-5		18323866	1044.567
2 motor oil		36620	2.250

11.4-16



36947

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-6	Received Date:	06/18/97
Sample ID:	**18609-672-390**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/23/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	20:56
Data File Name:	2898.206	Sample Amount:	20.0 g	Dilution Factor:	50
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	520	4800 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	520	< 520	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	84
# of out-of-control				0

[a]Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36948

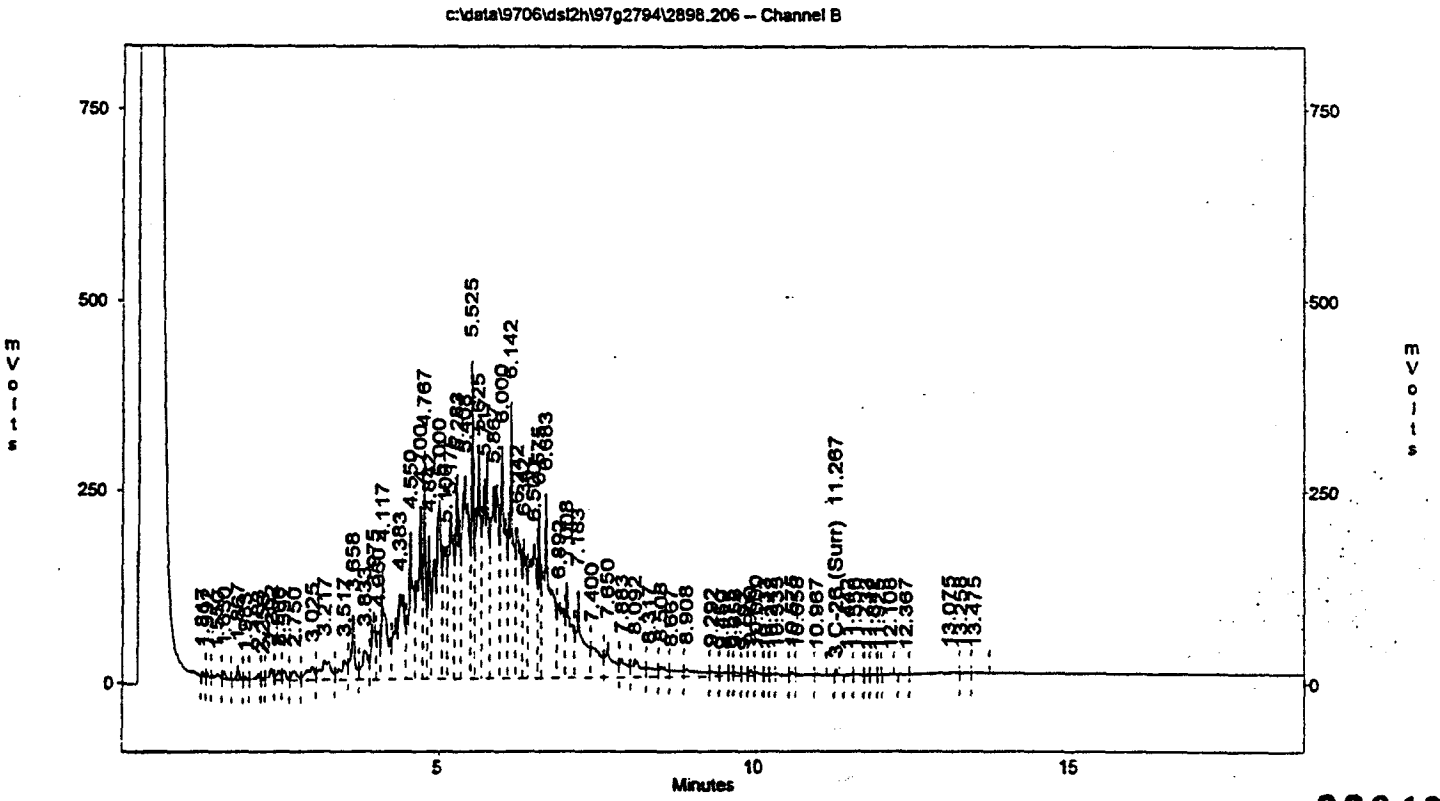
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.206
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : %97g2794 f=2.5
Vial : 21
Volume : 1
Acquired : Jun 23, 1997 20:56:41
Printed : Jun 24, 1997 15:08:47
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.27	13261	0.803
1 Jp-5		32098312	1829.790
2 motor oil		72907	4.480

1.3-1b



36949

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-6	Received Date:	06/18/97
Sample ID:	**18609-672-390**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	07/07/97	Anal. Date:	07/08/97
Batch No:	97G2995	Prep. No:	1 of 1	Anal. Time:	18:25
Data File Name:	2898.06	Sample Amount:	500 mL	Dilution Factor:	1
Extract Vol.	0.5 mL	Leach Method:	SPLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	SPLP TPH AS DIESEL	68334-30-5	mg/L	0.5	1.3 [a]	
2	SPLP TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	96
# of out-of-control				0

[a]Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

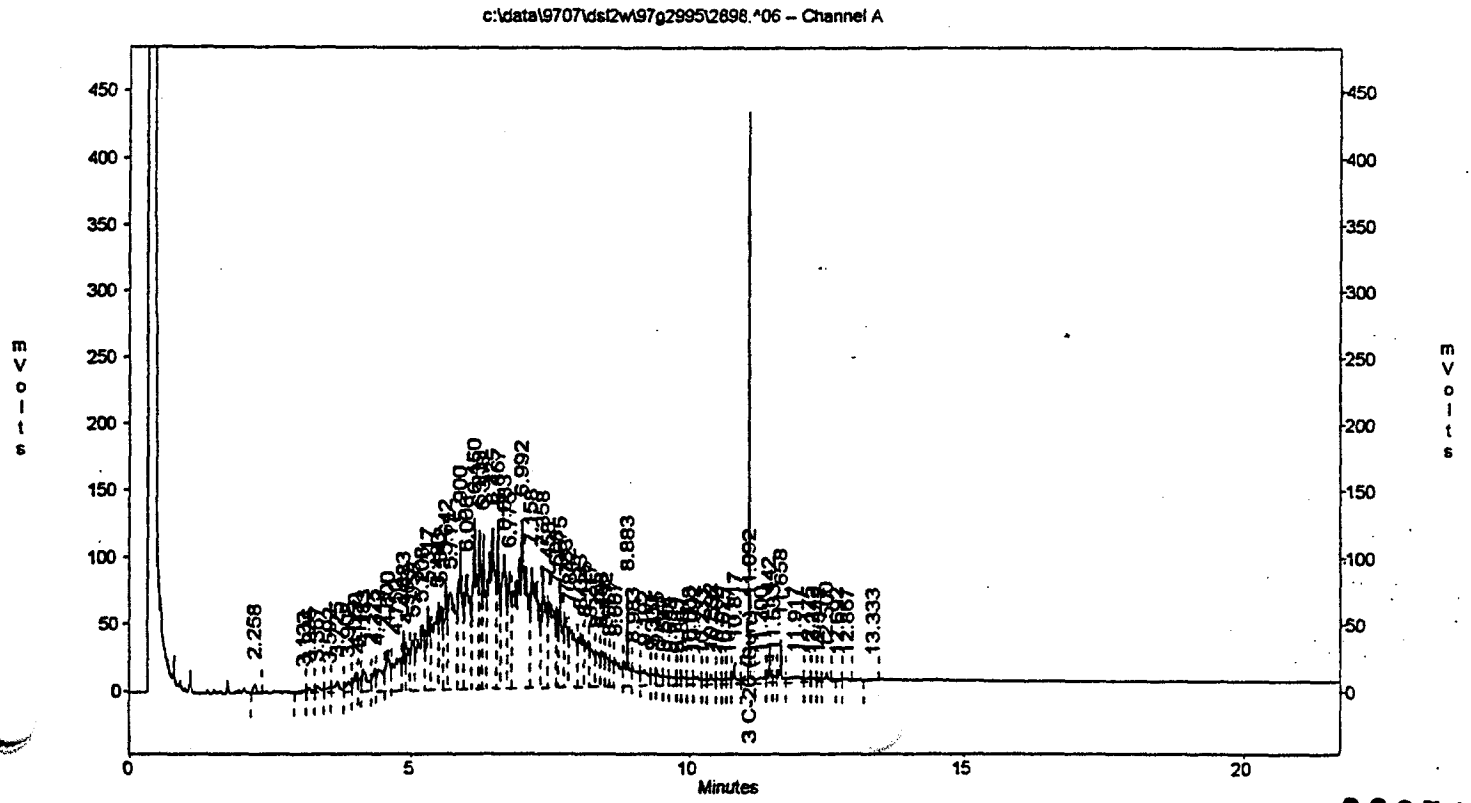
36950

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9707\dsl2w\97g2995\2898.^06
Method : c:\ezchrom\methods\j5mo-004.w00
Sample ID : 2898-6 @S F=0.001
Vial : 32
Volume : 2
Acquired : Jul 08, 1997 18:25:29
Printed : Jul 09, 1997 15:16:18
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.09	557584	44.402
1 Jp-5		12511387	1288.595
2 Motor oil		2994438	293.541



36951

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-7	Received Date:	06/18/97
Sample ID:	**18609-672-391**	Sample Matrix	Soil	Moisture %:	23.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/23/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	21:22
Data File Name:	2898.207	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	13	40 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	13	24	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	78
# of out-of-control				0

[a]Similar to JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36952

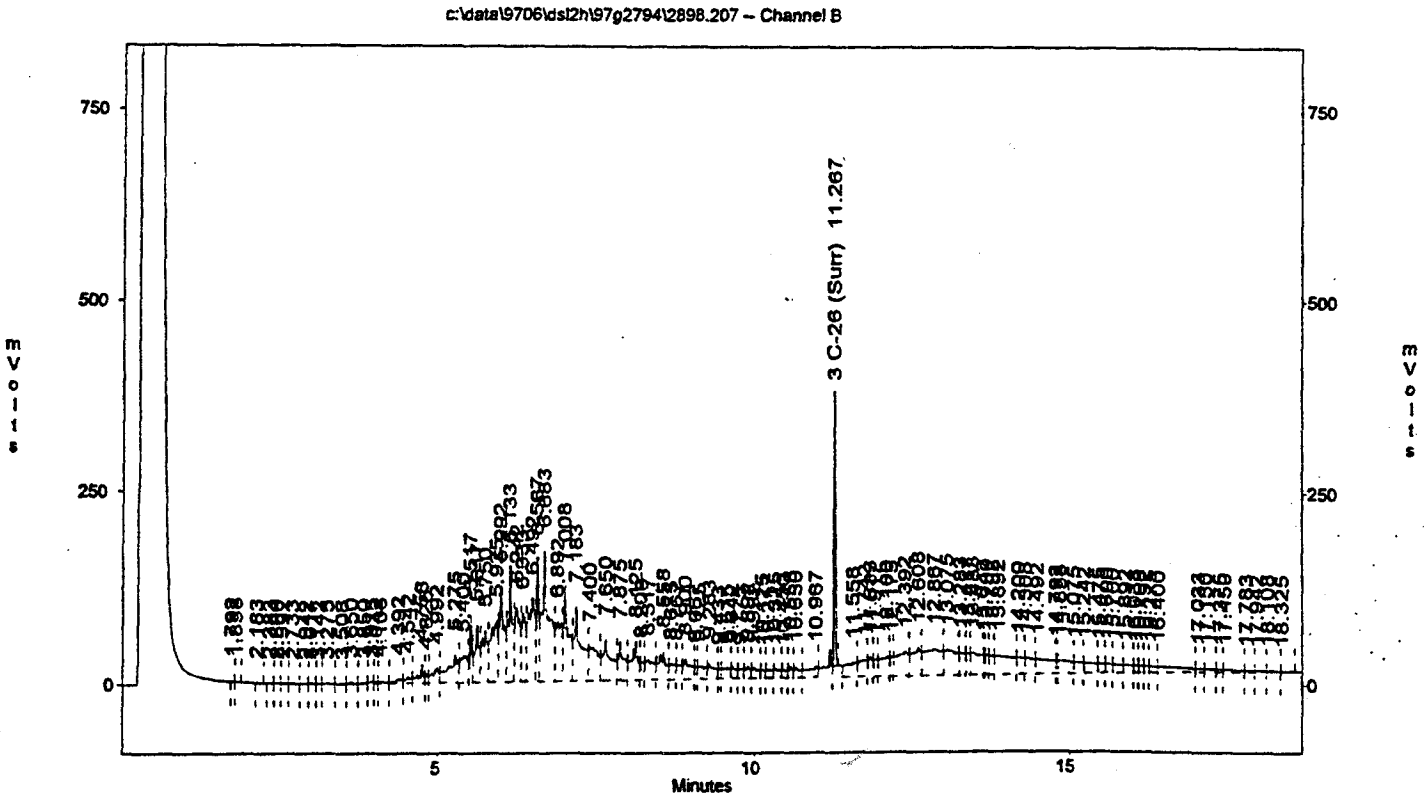
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.207
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : %97g2794 f=.05
Vial : 22
Volume : 1
Acquired : Jun 23, 1997 21:22:17
Printed : Jun 24, 1997 15:07:55
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.27	619354	37.486
1 Jp-5		10697061	609.795
2 motor oil		5871961	360.844

113-16



36953

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-8	Received Date:	06/18/97
Sample ID:	**18609-672-392**	Sample Matrix	Soil	Moisture %:	11.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/21/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	01:31
Data File Name:	2898.008	Sample Amount:	20.0 g	Dilution Factor:	50
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	560	1700 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	560	< 560	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	97
# of out-of-control				0

[a]Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36954

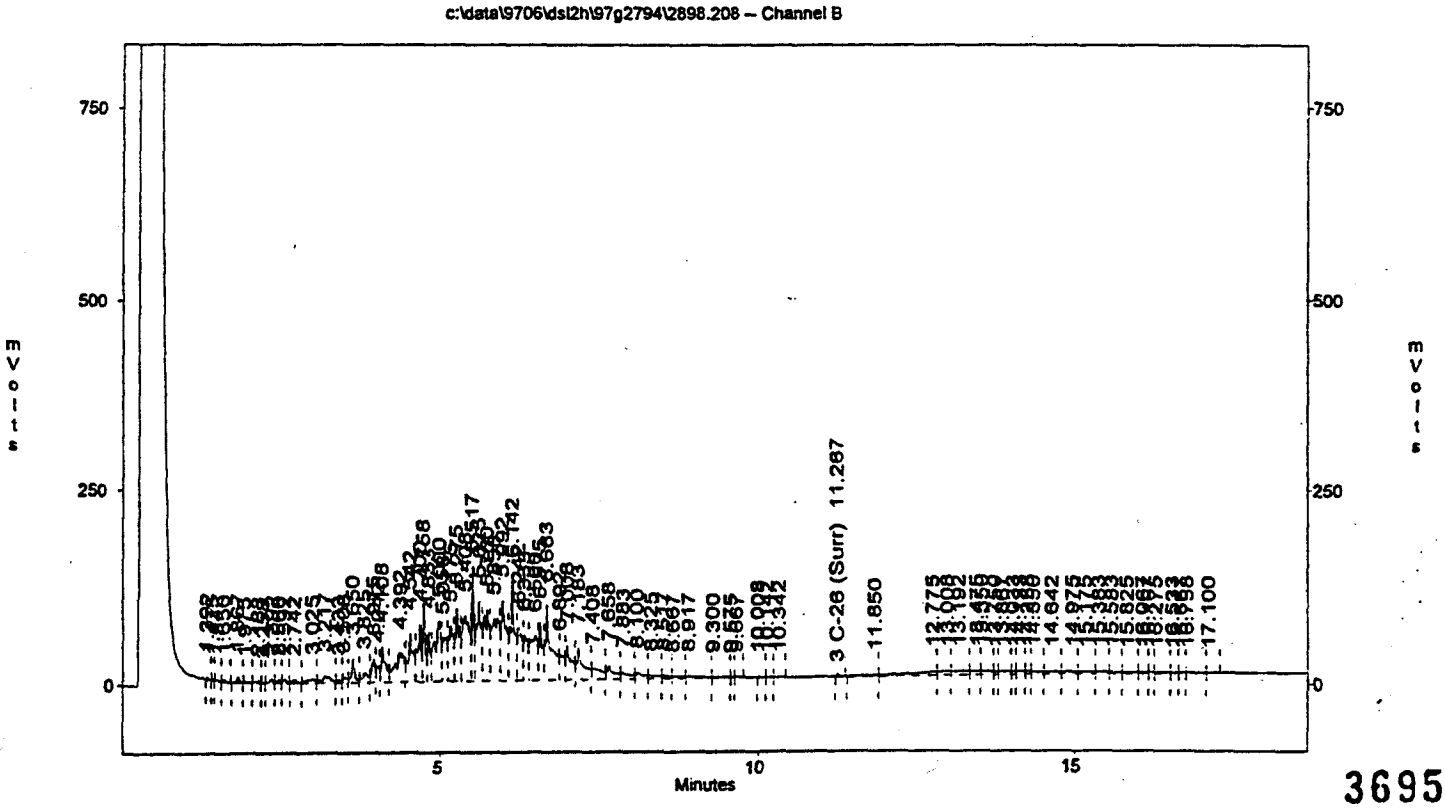
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.208
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : %97g2794 f=2.5
Vial : 23
Volume : 1
Acquired : Jun 23, 1997 21:47:40
Printed : Jun 24, 1997 15:09:52
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.27	9771	0.591
1 Jp-5		10856949	618.909
2 motor oil		821311	50.471

11.3-16



36955

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-9	Received Date:	06/18/97
Sample ID:	**18609-672-393**	Sample Matrix	Soil	Moisture %:	13.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/21/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	01:57
Data File Name:	2898.009	Sample Amount:	20.0 g	Dilution Factor:	10
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	120	880 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	120	<120	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	104
# of out-of-control				0

[a]Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36956

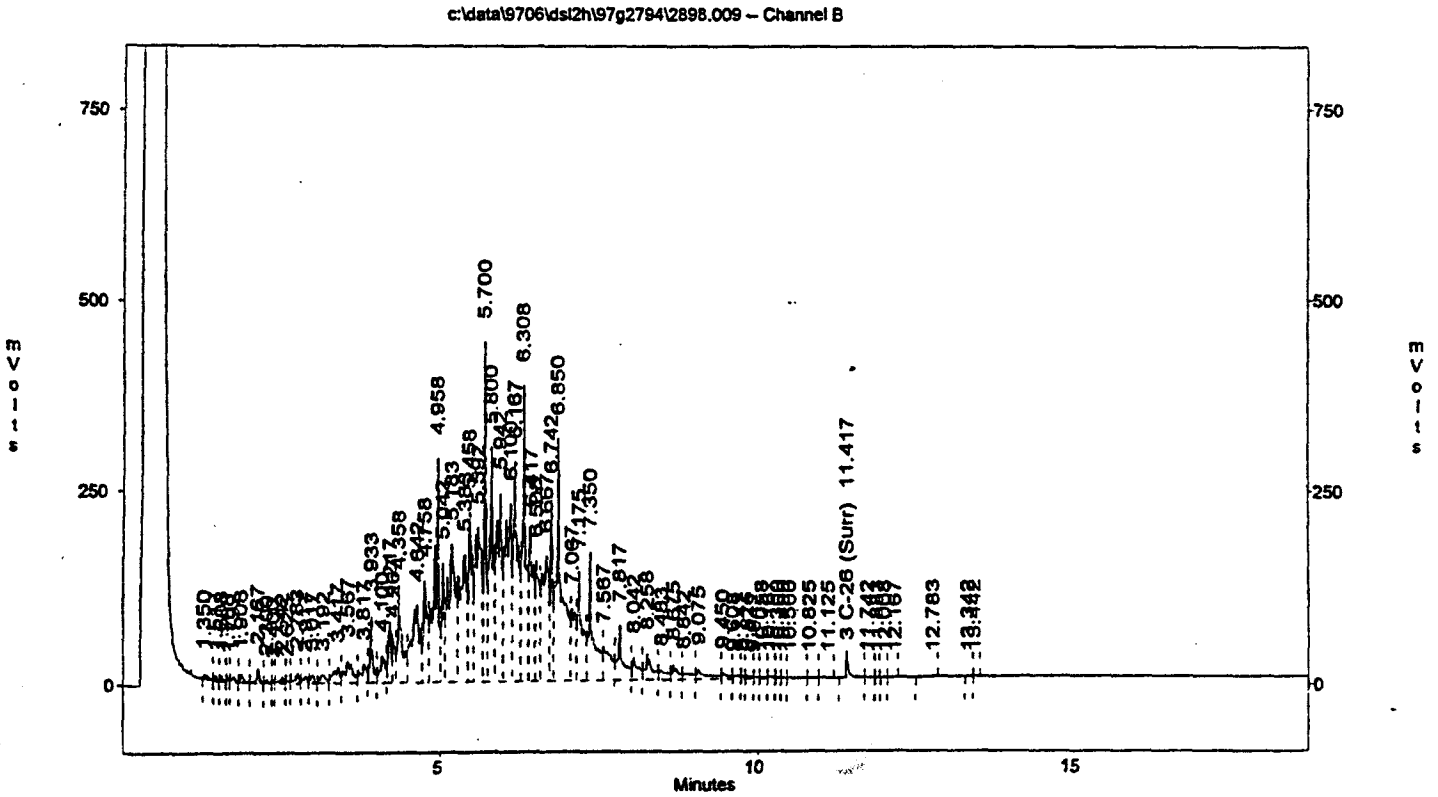
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.009
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : 2898-9 f.5
Vial : 15
Volume : 1
Acquired : Jun 21, 1997 01:57:16
Printed : Jun 24, 1997 15:10:53
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.42	82412	4.988
1 Jp-5		26704084	1522.288
2 motor oil		7364	0.453

11.5-16



36957

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-10	Received Date:	06/18/97
Sample ID:	**18609-672-394**	Sample Matrix	Soil	Moisture %:	11.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/21/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	02:22
Data File Name:	2898.010	Sample Amount:	20.0 g	Dilution Factor:	10
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	110	650 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	110	< 110	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	92
# of out-of-control				0

[a] Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

36958

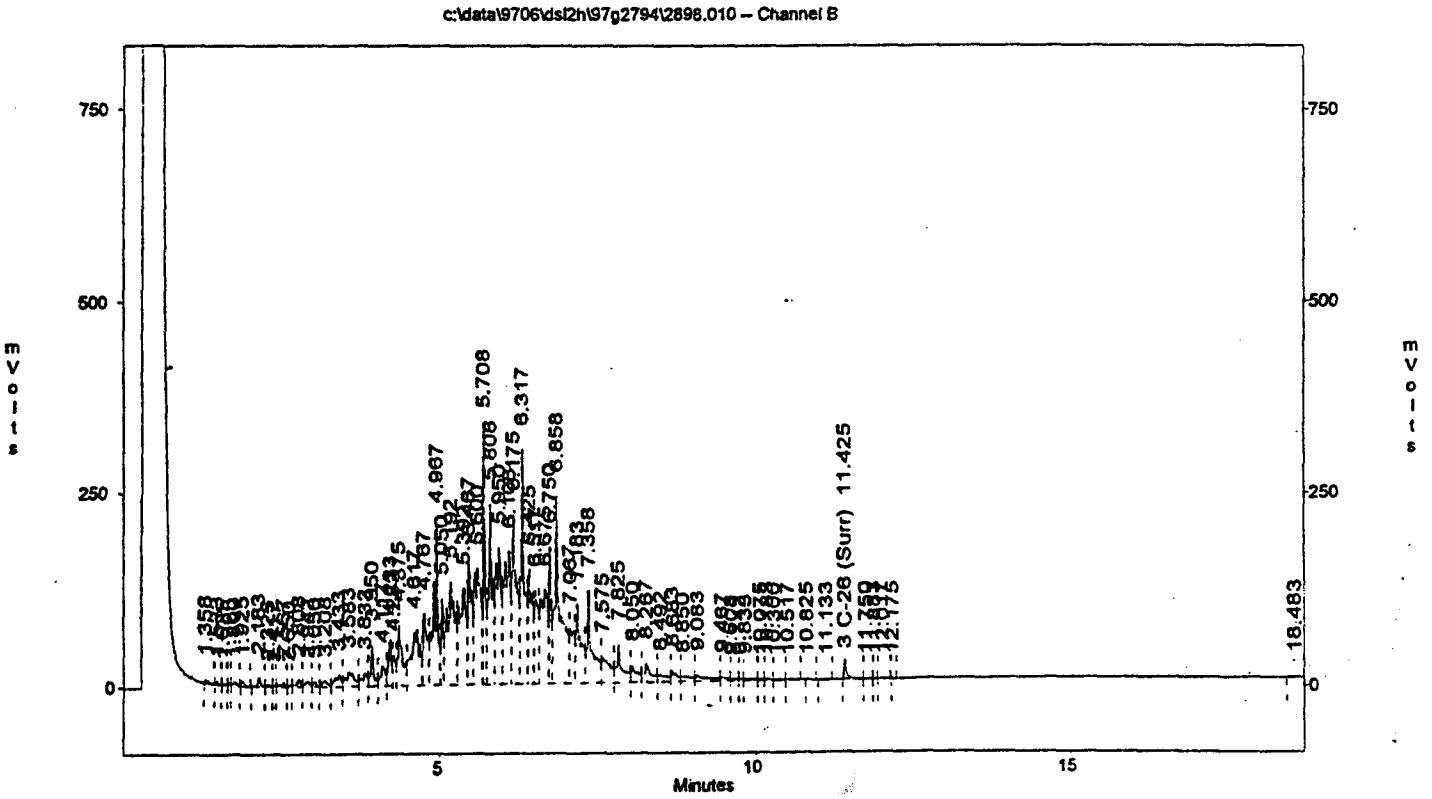
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.010
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : 2898-10 f=.5
Vial : 16
Volume : 1
Acquired : Jun 21, 1997 02:22:48
Printed : Jun 24, 1997 15:13:40
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.43	73996	4.479
1 Jp-5		20060620	1143.572
2 motor oil		5335	0.328

11.576



36959

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-11	Received Date:	06/18/97
Sample ID:	**18609-672-395**	Sample Matrix	Soil	Moisture %:	2.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/20/97	Anal. Date:	06/21/97
Batch No:	97G2794	Prep. No:	1 of 1	Anal. Time:	02:48
Data File Name:	2898.011	Sample Amount:	20.0 g	Dilution Factor:	100
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	1000	5100 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	1000	< 1000	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	59
# of out-of-control				0

[a] Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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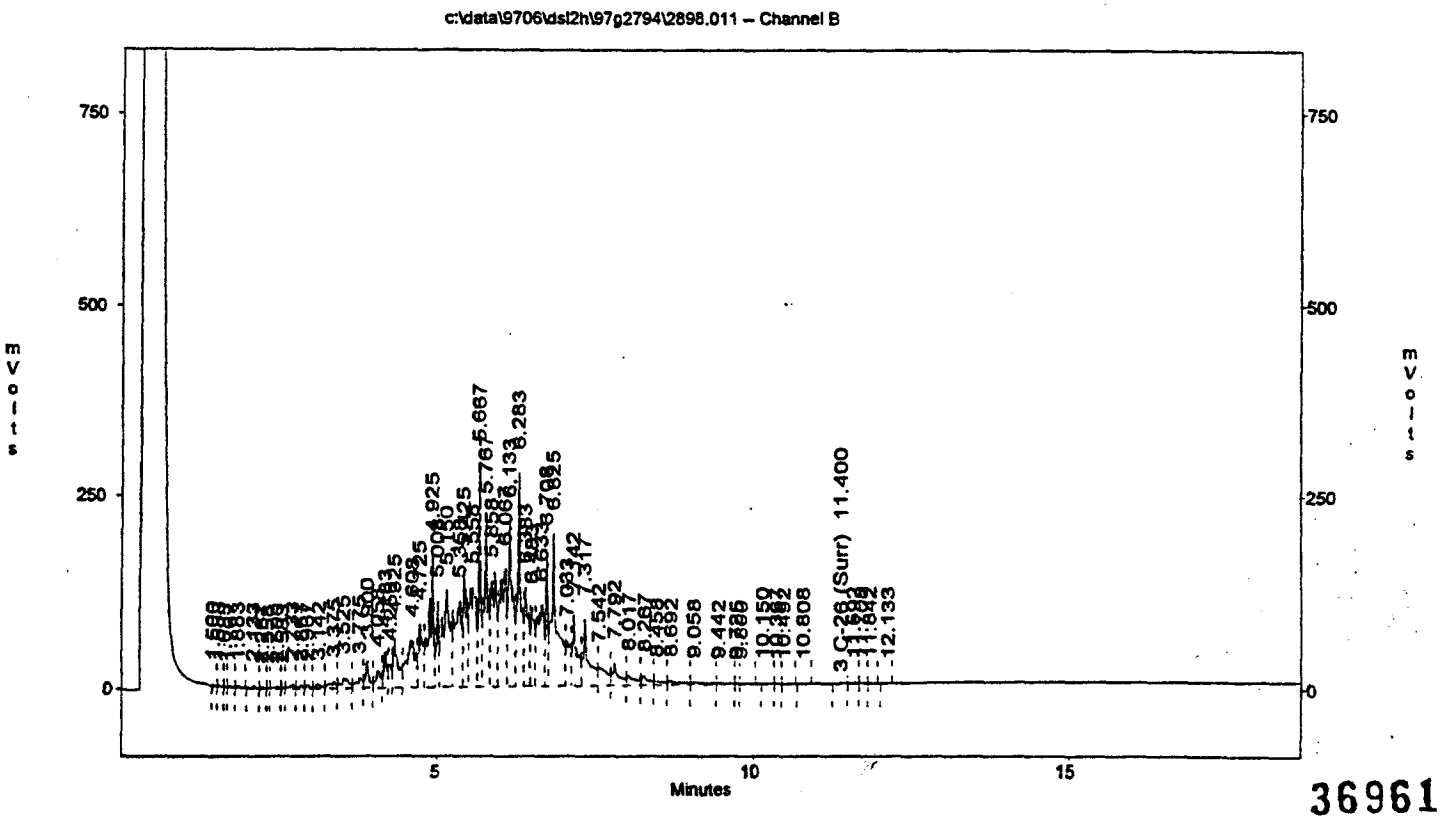
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9706\dsl2h\97g2794\2898.011
Method : c:\ezchrom\methods\j5mo-016.h00
Sample ID : 2898-11 f=5
Vial : 17
Volume : 1
Acquired : Jun 21, 1997 02:48:13
Printed : Jun 24, 1997 15:14:13
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.40	5141	0.311
1 Jp-5		17425796	993.371
2 motor oil		12603	0.774

11.5-16



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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-11	Received Date:	06/18/97
Sample ID:	**18609-672-395**	Sample Matrix	Soil	Moisture %:	2.8
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	07/07/97	Anal. Date:	07/08/97
Batch No:	97G2995	Prep. No:	1 of 1	Anal. Time:	18:53
Data File Name:	2898.i1	Sample Amount:	500 mL	Dilution Factor:	1
Extract Vol.	0.5 mL	Leach Method:	SPLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	SPLP TPH AS DIESEL	68334-30-5	mg/L	0.5	0.7 [a]	
2	SPLP TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	87
# of out-of-control				0

[a]Similar to JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

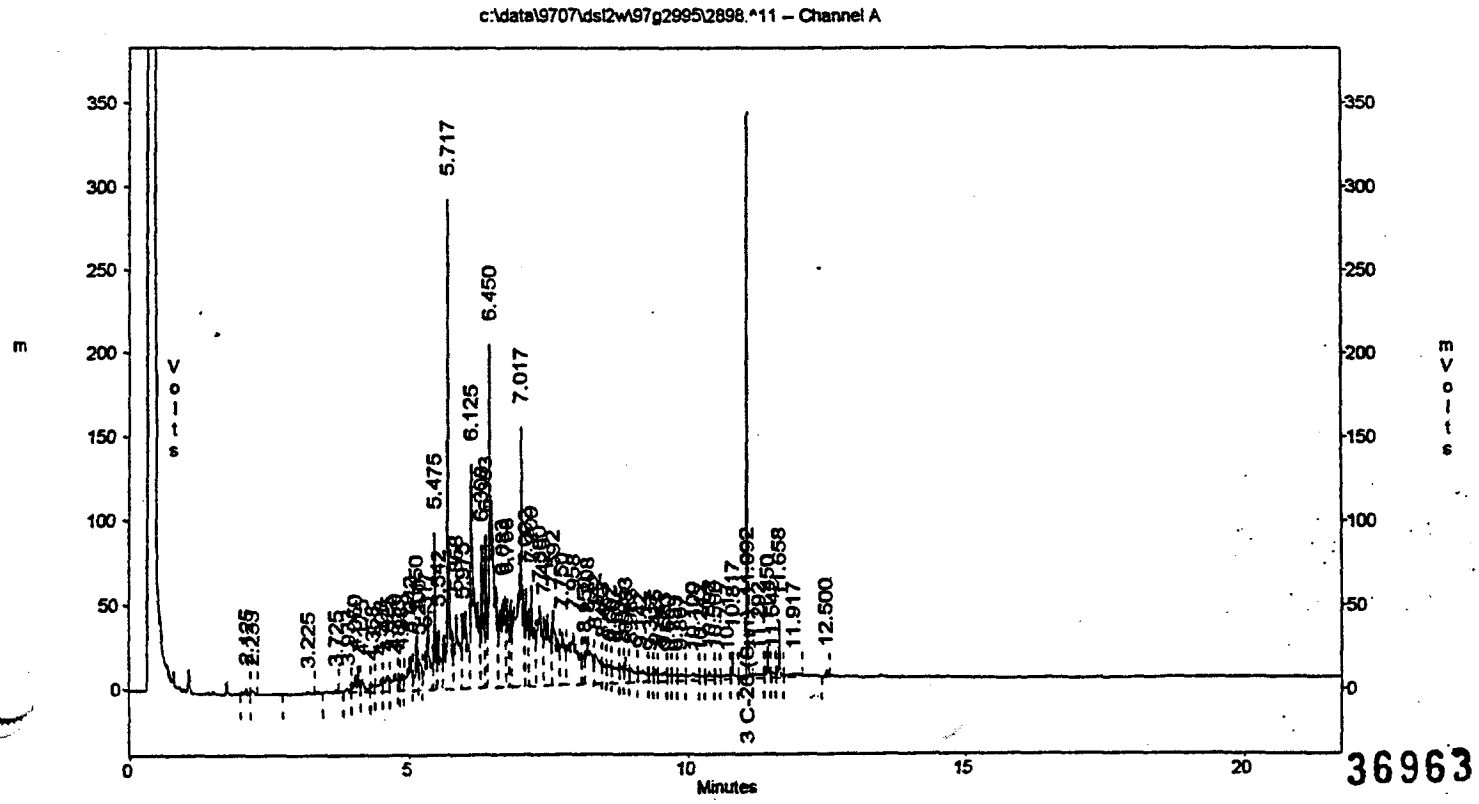
36962

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9707\dsl2w\97g2995\2898.^11
Method : c:\ezchrom\methods\j5mo-004.w00
Sample ID : 2898-11 @S F=0.001
Vial : 33
Volume : 2
Acquired : Jul 08, 1997 18:53:35
Printed : Jul 09, 1997 15:15:59
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.09	477730	38.043
1 Jp-5		7102938	731.558
2 Motor oil		1745455	171.105



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Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2794		

#	Client Sample No	Lab Sample ID	S1 %	#	TOT OUT
1	97G2794-MB-01	97G2794-MB-01	90		0
2	97G2794-LCS-01	97G2794-LCS-01	84		0
3	97G2794-LSD-01	97G2794-LSD-01	91		0
4	18609-672-392-MS	97-2898-8MS	105		0
6	18609-672-385	97-2898-1	44	D	1
7	18609-672-386	97-2898-2	71		0
8	18609-672-387	97-2898-3	87		0
9	18609-672-389	97-2898-5	62		0
10	18609-672-392	97-2898-8	97		0
11	18609-672-393	97-2898-9	104		0
12	18609-672-394	97-2898-10	92		0
13	18609-672-395	97-2898-11	59		0
14	18609-672-390	97-2898-6	84		0
15	18609-672-391	97-2898-7	78		0
16	18609-672-388	97-2898-4	111		0
17					
18					
19					
20					
21					
22					
23					
24					
25					

QC Control Limit

S1 = HEXACOSANE, C_{26} 50-146

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

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Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G2995		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G2995-MB-01	97G2995-MB-01	101	0
2	97G2995-LCS-01	97G2995-LCS-01	87	0
3	97G2995-LSD-01	97G2995-LSD-01	97	0
4	18609-672-395-MS	97-2898-11MS	71	0
5	18609-672-395-MSD	97-2898-11MSD	65	0
6	18609-672-385	97-2898-1	101	0
7	18609-672-390	97-2898-6	96	0
8	18609-672-395	97-2898-11	87	0
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

QC Control Limit

S1 = HEXACOSANE, C_{26} 50-149

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

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Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2794		
LCS Filename:	2794G.L01	Date Analyzed:	062097	Time Analyzed:	19:35
LCSD Filename:	2794G.J01	Date Analyzed:	062097	Time Analyzed:	20:01

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	48.7	97	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	51.4	103	6	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2794		
MS Filename:	2794G.M01	Date Analyzed:	062097	Time Analyzed:	20:52
MSD Filename:	2794G.N01	Date Analyzed:	062097	Time Analyzed:	21:18
MS Sample No:	**18609-672-392**	Sample Lab ID:	97-2898-8	Moisture, %	11.0

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	56.2	1700	2480	1388 *	65-134
# of Out-of-control					1	

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: MS/MSD out of control due to matrix interference.

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Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G2995	Leach Method:	SPLP
LCS Filename:	2995G.L01	Date Analyzed:	070897	Time Analyzed:	16:04
LCSD Filename:	2995G.J01	Date Analyzed:	070897	Time Analyzed:	16:32

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
SPLP TPH AS DIESEL	mg/L	4.0	0	3.50	88	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
SPLP TPH AS DIESEL	mg/L	4.0	3.57	89	1	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2995	Leach Method:	SPLP
MS Filename:	2995G.M01	Date Analyzed:	070897	Time Analyzed:	17:00
MSD Filename:	2995G.N01	Date Analyzed:	070897	Time Analyzed:	17:29
MS Sample No:	**18609-672-395**	Sample Lab ID:	97-2898-11	Moisture, %	2.8

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
SPLP TPH AS DIESEL	mg/L	4.0	1	6.10	128	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
SPLP TPH AS DIESEL	mg/L	4.0	5.06	102	23	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Analysis Date:	06/20/97
		Sample Matrix:	Soil	Analysis Time:	19:10
Sample ID:	**97G2794-MB-01**	Batch No:	97G2794	Instrument ID:	GC: H
Lab Sample ID:	97G2794-MB-01	Data File Name:	2794G.K01	GC Column:	DB-1
		Heated Purge: (Y/N)	N	Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G2794-LCS-01	97G2794-LCS-01	Lab Control Spike	2794G.L01	06/20/97	19:35
2	97G2794-LSD-01	97G2794-LSD-01	Lab Control Spike Duplicate	2794G.J01	06/20/97	20:01
3	18609-672-392-MS	97-2898-8MS	Matrix Spike	2794G.M01	06/20/97	20:52
4	18609-672-392-MSD	97-2898-8MSD	Matrix Spike Duplicate	2794G.N01	06/20/97	21:18
5	18609-672-385	97-2898-1	Field Sample	2898.001	06/20/97	21:43
6	18609-672-386	97-2898-2	Field Sample	2898.002	06/20/97	22:08
7	18609-672-387	97-2898-3	Field Sample	2898.003	06/20/97	22:34
8	18609-672-389	97-2898-5	Field Sample	2898.005	06/21/97	00:15
9	18609-672-392	97-2898-8	Field Sample	2898.008	06/21/97	01:31
10	18609-672-393	97-2898-9	Field Sample	2898.009	06/21/97	01:57
11	18609-672-394	97-2898-10	Field Sample	2898.010	06/21/97	02:22
12	18609-672-395	97-2898-11	Field Sample	2898.011	06/21/97	02:48
13	18609-672-390	97-2898-6	Field Sample	2898.206	06/23/97	20:56
14	18609-672-391	97-2898-7	Field Sample	2898.207	06/23/97	21:22
15	18609-672-388	97-2898-4	Field Sample	2898.204	06/23/97	22:13
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

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Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Analysis Date:	07/08/97
		Sample Matrix:	Water	Analysis Time:	15:37
Sample ID:	**97G2995-MB-01**	Batch No:	97G2995	Instrument ID:	GC: W
Lab Sample ID:	97G2995-MB-01	Data File Name:	2995G.K01	GC Column:	DB-1
Leach Method:	SPLP	Heated Purge: (Y/N)	N	Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G2995-LCS-01	97G2995-LCS-01	Lab Control Spike	2995G.L01	07/08/97	16:04
2	97G2995-LSD-01	97G2995-LSD-01	Lab Control Spike Duplicate	2995G.J01	07/08/97	16:32
3	18609-672-395-MS	97-2898-11MS	Matrix Spike	2995G.M01	07/08/97	17:00
4	18609-672-395-MSD	97-2898-11MSD	Matrix Spike Duplicate	2995G.N01	07/08/97	17:29
5	18609-672-385	97-2898-1	Field Sample	2898.01	07/08/97	17:57
6	18609-672-390	97-2898-6	Field Sample	2898.06	07/08/97	18:25
7	18609-672-395	97-2898-11	Field Sample	2898.11	07/08/97	18:53
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/20/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97G2787-MB-01	Received Date:	06/20/97
Sample ID:	**97G2787-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	11:21
Data File Name:	2787G.K01	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1	<1	U
2	BENZENE	71-43-2	μg/kg	5	<5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5	<5	U
4	TOLUENE	108-88-3	μg/kg	5	<5	U
5	O-XYLENE	95-47-6	μg/kg	5	<5	U
6	M/P-XYLENE	108-38-3	μg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	79
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	85
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-1	Received Date:	06/18/97
Sample ID:	**18609-672-385**	Sample Matrix	Soil	Moisture %:	12.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	12:41
Data File Name:	2898.001	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	230	<230 [a]	U
2	BENZENE	71-43-2	μg/kg	1100	<1100	U
3	ETHYLBENZENE	100-41-4	μg/kg	1100	4400	
4	TOLUENE	108-88-3	μg/kg	1100	<1100	U
5	O-XYLENE	95-47-6	μg/kg	1100	2000	
6	M/P-XYLENE	108-38-3	μg/kg	2300	15000	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	105
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	124
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	97
# of out-of-control				0

[a] Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Gasoline/BTXE, GC analysis by FID/PID

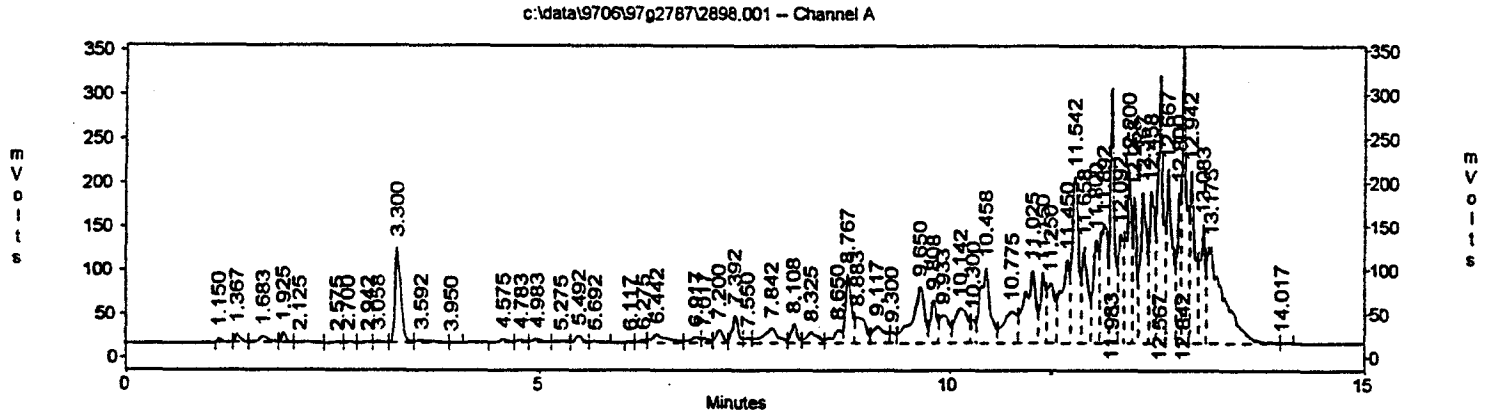
File : c:\data\9706\97g2787\2898.001
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-1 s f=1000
Acquired : Jun 20, 1997 12:41:22
Printed : Jun 20, 1997 14:06:38

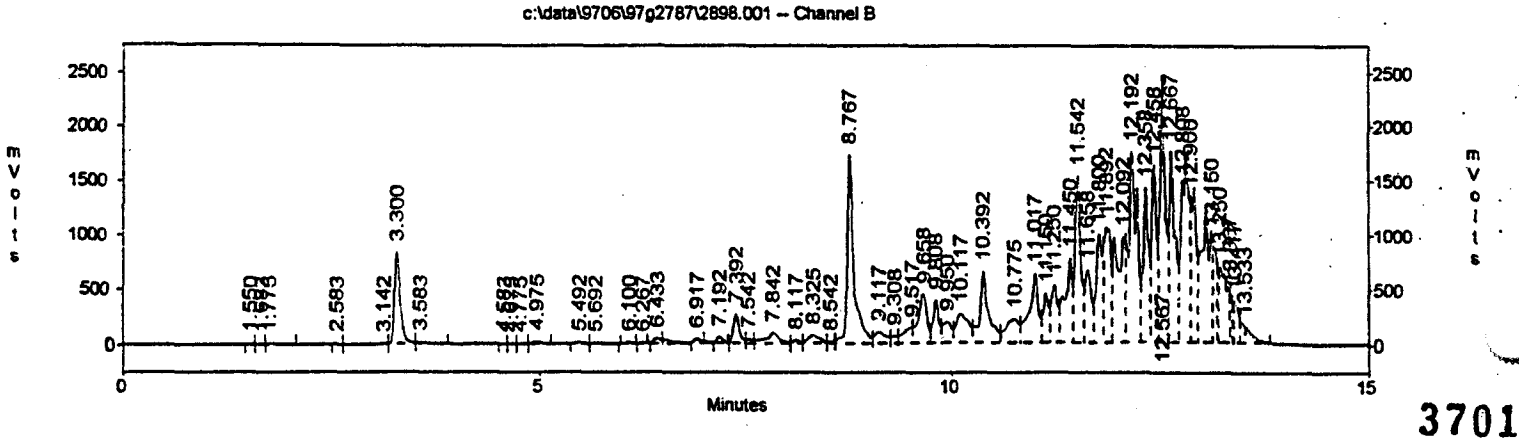
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
10	2. TFT	3.30	534333	108285	5785.04590	92.4
31	7. BFB	8.77	382649	78360	3643.39600	105.0
G1	1. Gasoline		15391591		7145.51855	2154.0

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
3	9. MTBE	1.77	91241	9321	0.70867	3.13
--	10. MEK	2.30	0	0	0.00000	0.00
4	1. Benzene W 20	2.58	13476	2936	2.66149	0.12
6	2. TFT (Int.)	3.30	4111442	836229	1.00000	100.00
9	3. Toluene W 80	4.68	22319	4666	2.51133	0.22
18	5. Et-Bz W 19	7.19	322740	61457	2.01620	3.89
19	6. P/M xylene W 82	7.39	1327616	269524	2.51298	12.85
22	7. O-xylene W 27	8.12	168076	30692	2.14892	1.90
25	8. BFB (Surr.)	8.77	10037126	1727624	1.97965	123.32





37014

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-2	Received Date:	06/18/97
Sample ID:	**18609-672-386**	Sample Matrix	Soil	Moisture %:	9.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	13:08
Data File Name:	2898.002	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	220	<220 [a]	U
2	BENZENE	71-43-2	μg/kg	1100	<1100	U
3	ETHYLBENZENE	100-41-4	μg/kg	1100	<1100	U
4	TOLUENE	108-88-3	μg/kg	1100	<1100	U
5	O-XYLENE	95-47-6	μg/kg	1100	<1100	U
6	M/P-XYLENE	108-38-3	μg/kg	2200	2600	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	118
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	103
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	96
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.
Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37015

Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9706\97g2787\2898.002
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-2 s f=1000
Acquired : Jun 20, 1997 13:08:02
Printed : Jun 20, 1997 14:07:26

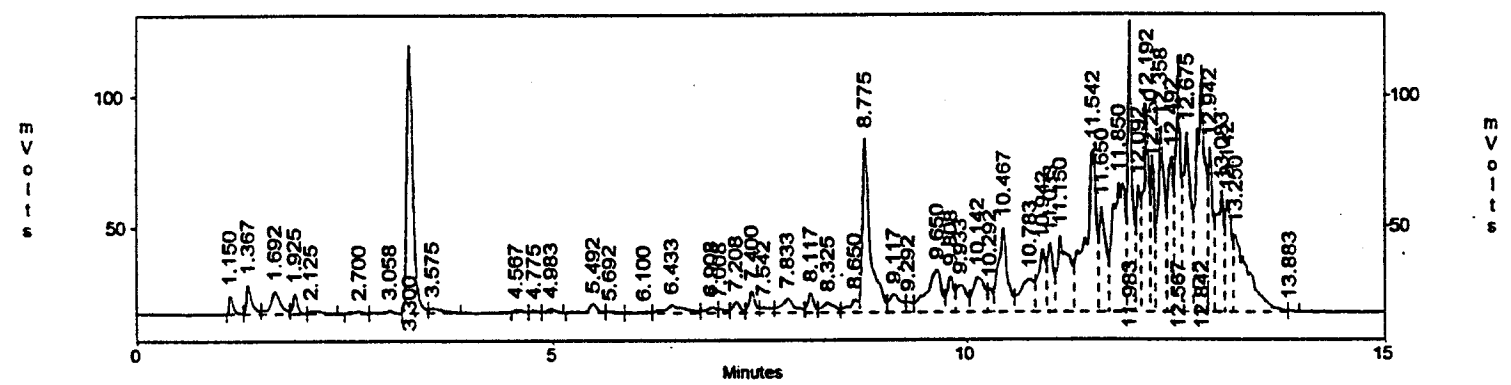
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
8	2. TFT	3.30	519476	102022	5785.04590	89.8
26	7. BFB	8.77	431405	66217	3643.39600	118.4
G1	1. Gasoline		5468700		7145.51855	765.3

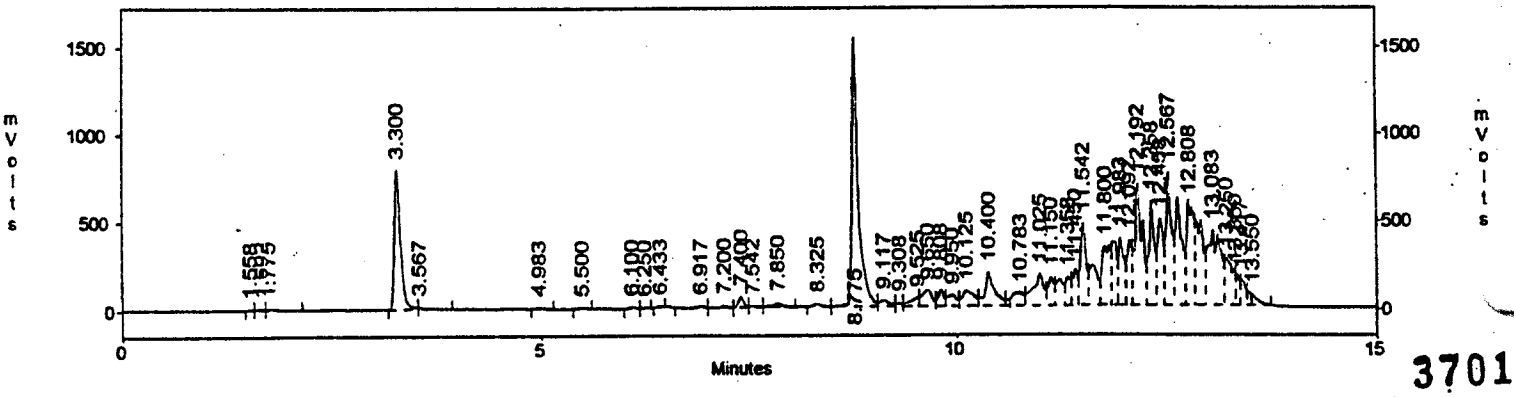
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
3	9. MTBE	1.77	83681	9162	0.70867	2.91
--	10. MEK	2.30	0	0	0.00000	0.00
--	1. Benzene W 20	2.63	0	0	0.00000	0.00
4	2. TFT (Int.)	3.30	4059834	794972	1.00000	100.00
--	3. Toluene W 80	4.73	0	0	0.00000	0.00
12	5. Et-Bz W 19	7.20	19303	7666	2.01620	0.24
13	6. P/M xylene W 82	7.40	237253	55963	2.51298	2.33
--	7. O-xylene W 27	8.05	0	0	0.00000	0.00
17	8. BFB (Surr.)	8.77	8317422	1538708	1.97965	103.49

c:\data\9706\97g2787\2898.002 -- Channel A



c:\data\9706\97g2787\2898.002 -- Channel B



37016

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-3	Received Date:	06/18/97
Sample ID:	**18609-672-387**	Sample Matrix	Soil	Moisture %:	13.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	13:34
Data File Name:	2898.003	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	230	< 230 [a]	U
2	BENZENE	71-43-2	μg/kg	1200	< 1200	U
3	ETHYLBENZENE	100-41-4	μg/kg	1200	2000	
4	TOLUENE	108-88-3	μg/kg	1200	< 1200	U
5	O-XYLENE	95-47-6	μg/kg	1200	< 1200	U
6	M/P-XYLENE	108-38-3	μg/kg	2300	7800	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	114
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	113
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	97
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37017

Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9706\97g2787\2898.003
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-3 s f=1000
Acquired : Jun 20, 1997 13:34:44
Printed : Jun 20, 1997 14:08:36

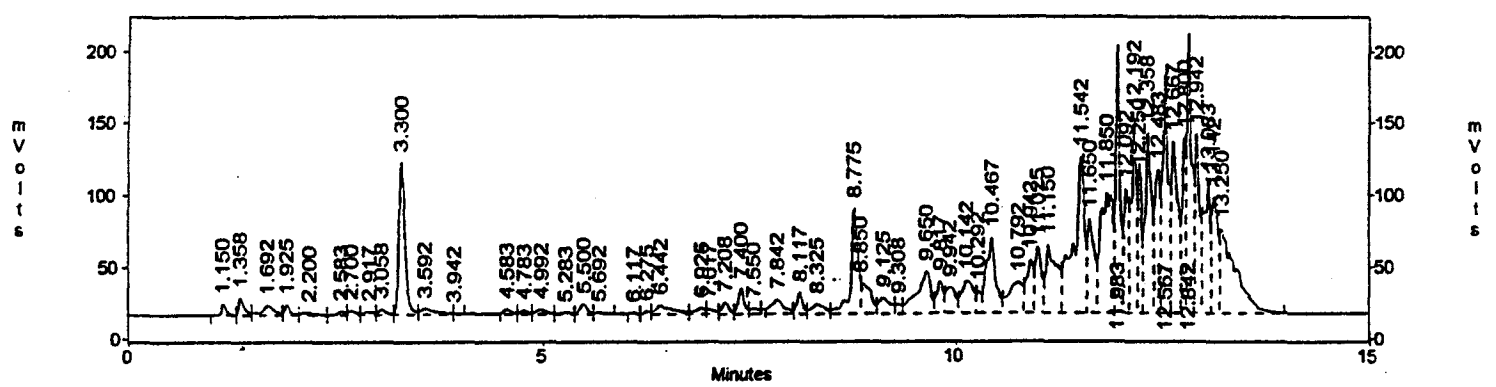
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
10	2. TFT	3.30	536961	105847	5785.04590	92.8
30	7. BFB	8.77	417252	73033	3643.39600	114.5
G1	1. Gasoline		9535171		7145.51855	1334.4

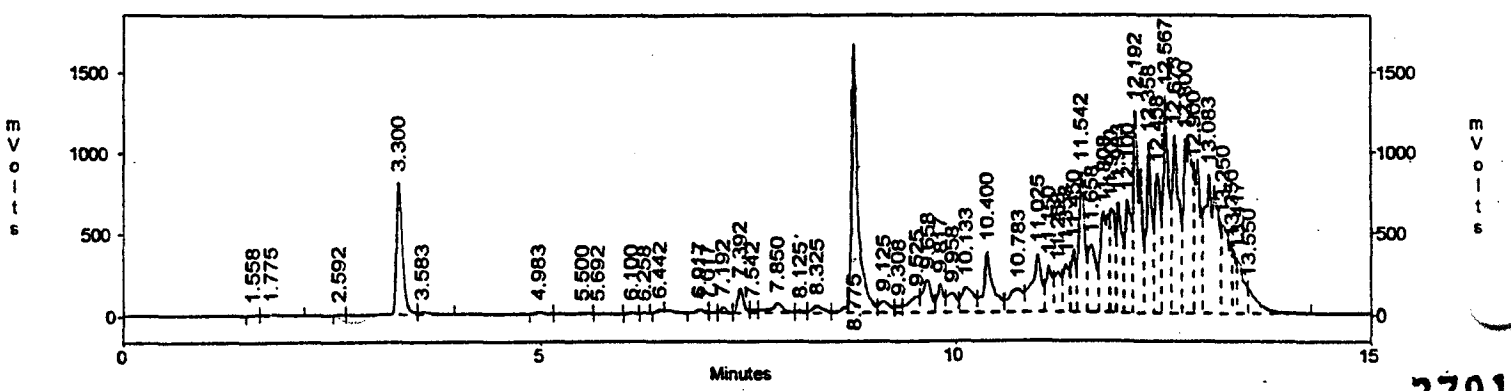
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.77	115294	8743	0.70867	3.96
--	10. MEK	2.30	0	0	0.00000	0.00
3	1. Benzene W 20	2.59	29597	6115	2.66149	0.27
4	2. TFT (Int.)	3.30	4109164	812512	1.00000	100.00
--	3. Toluene W 80	4.73	0	0	0.00000	0.00
14	5. Et-Bz W 19	7.19	148926	32930	2.01620	1.80
15	6. P/M xylene W 82	7.39	698001	144517	2.51298	6.76
18	7. O-xylene W 27	8.13	87692	17403	2.14892	0.99
20	8. BFB (Surr.)	8.77	9267445	1662705	1.97965	113.92

c:\data\9706\97g2787\2898.003 -- Channel A



c:\data\9706\97g2787\2898.003 -- Channel B



3701B

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-4	Received Date:	06/18/97
Sample ID:	**18609-672-388**	Sample Matrix	Soil	Moisture %:	8.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	18:47
Data File Name:	2898.004	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	220	<220 [a]	U
2	BENZENE	71-43-2	μg/kg	1100	2900	
3	ETHYLBENZENE	100-41-4	μg/kg	1100	16000	
4	TOLUENE	108-88-3	μg/kg	1100	<1100	U
5	O-XYLENE	95-47-6	μg/kg	1100	7500	
6	M/P-XYLENE	108-38-3	μg/kg	2200	48700	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	115
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	117
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	93
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37019

File : c:\data\9706\97g2787\2898.004
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-4 s f=1000
Acquired : Jun 20, 1997 18:47:51
Printed : Jun 23, 1997 15:26:25

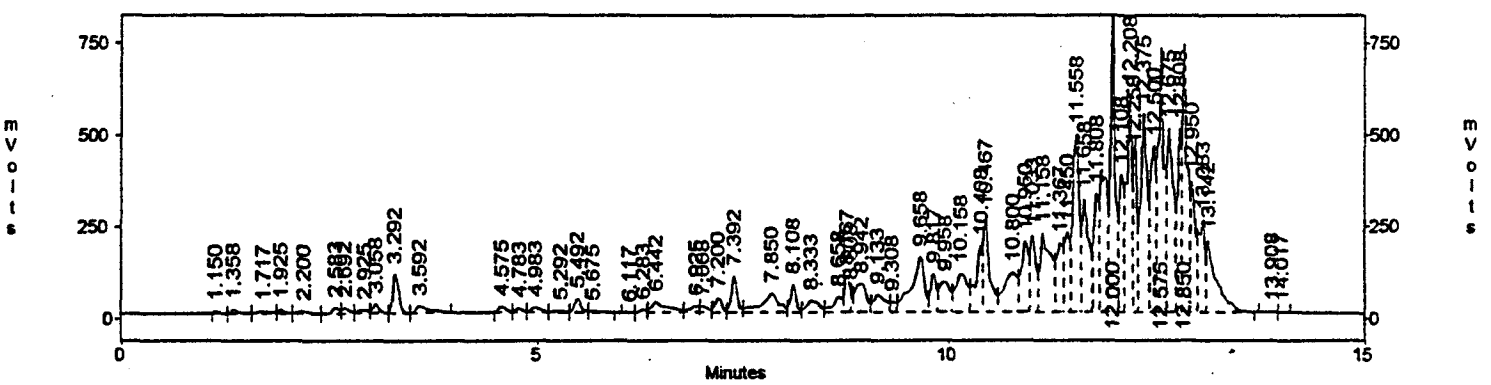
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
10	2. TFT	3.29	511213	106184	5785.04590	88.4
29	7. BFB	8.77	419711	99312	3643.39600	115.2
G1	1. Gasoline		20742118		7145.51855	2902.8

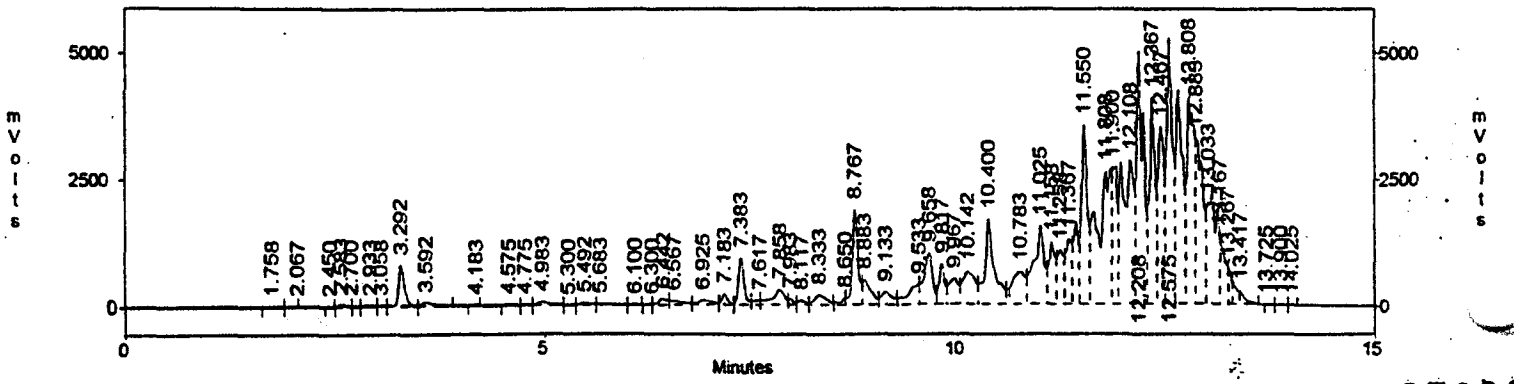
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
1	9. MTBE	1.76	38048	4103	0.70867	1.34
--	10. MEK	2.30	0	0	0.00000	0.00
4	1. Benzene W 20	2.58	282962	52897	2.66149	2.66
8	2. TFT (Int.)	3.29	4003778	809938	1.00000	100.00
12	3. Toluene W 80	4.78	70784	12934	2.51133	0.70
22	5. Et-Bz W 19	7.18	1170994	226630	2.01620	14.51
23	6. P/M xylene W 82	7.38	4469669	937544	2.51298	44.42
26	7. O-xylene W 27	7.98	585429	136396	2.14892	6.80
30	8. BFB (Surr.)	8.77	9300708	1884779	1.97965	117.34

c:\data\9706\97g2787\2898.004 -- Channel A



c:\data\9706\97g2787\2898.004 -- Channel B



37020

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-5	Received Date:	06/18/97
Sample ID:	**18609-672-389**	Sample Matrix	Soil	Moisture %:	3.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	19:14
Data File Name:	2898.005	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	210	<210 [a]	U
2	BENZENE	71-43-2	μg/kg	1000	<1000	U
3	ETHYLBENZENE	100-41-4	μg/kg	1000	4400	
4	TOLUENE	108-88-3	μg/kg	1000	<1000	U
5	O-XYLENE	95-47-6	μg/kg	1000	<1000	U
6	M/P-XYLENE	108-38-3	μg/kg	2100	4800	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	83
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	110
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	92
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9706\97g2787\2898.005
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-5 s f=1000
Acquired : Jun 20, 1997 19:14:27
Printed : Jun 23, 1997 15:39:09

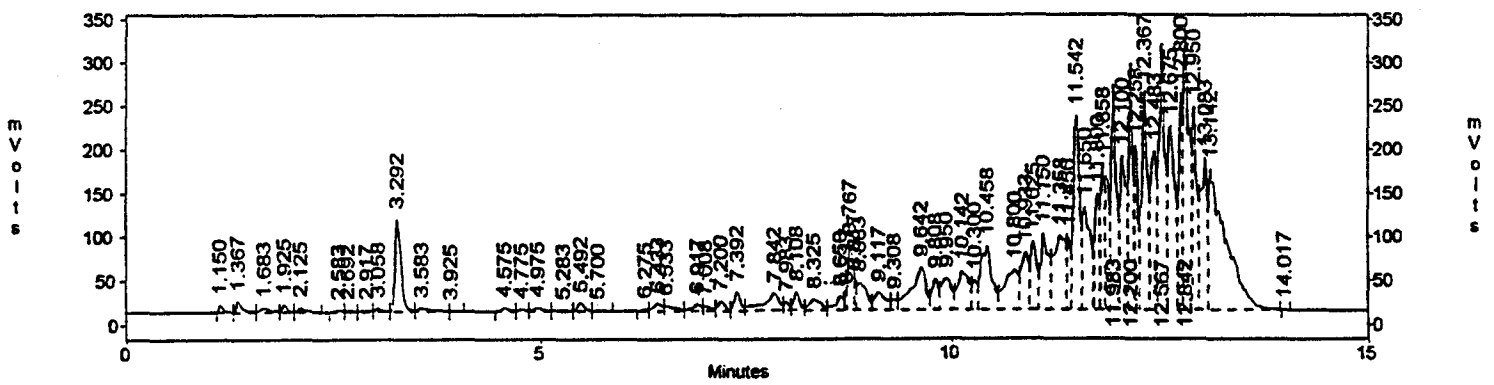
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
10	2. TFT	3.29	525267	106094	5785.04590	90.8
32	7. BFB	8.77	302892	74370	3643.39600	83.1
G1	1. Gasoline		14258527		7145.51855	1995.5

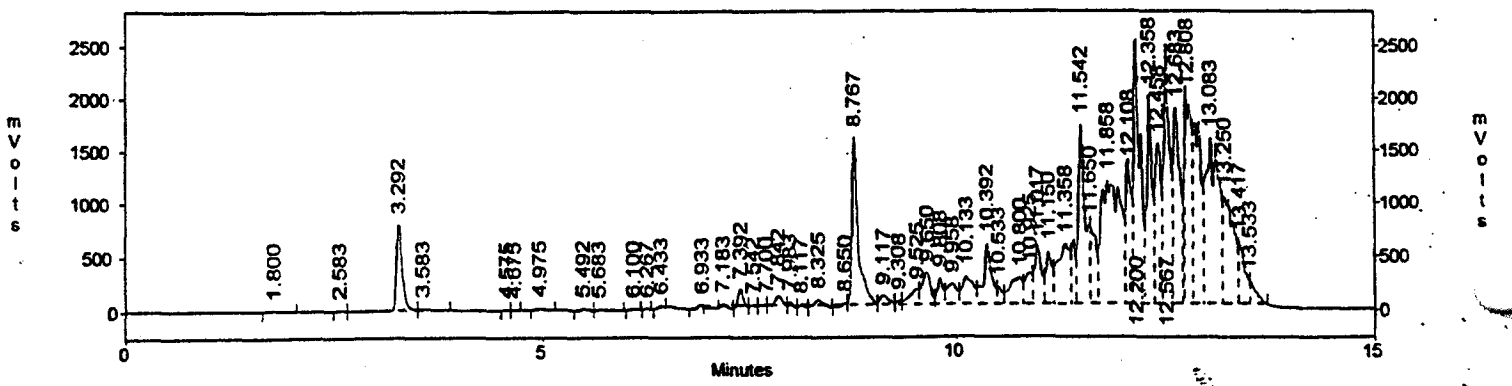
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
1	9. MTBE	1.80	41355	4102	0.70867	1.48
--	10. MEK	2.30	0	0	0.00000	0.00
2	1. Benzene W 20	2.58	27699	5671	2.66149	0.26
3	2. TFT (Int.)	3.29	3935205	797592	1.00000	100.00
6	3. Toluene W 80	4.68	9438	2460	2.51133	0.10
14	5. Et-Bz W 19	7.18	333343	10152	2.01620	4.20
15	6. P/M xylene W 82	7.39	455148	139058	2.51298	4.60
19	7. O-xylene W 27	7.98	49722	30894	2.14892	0.59
23	8. BFB (Surr.)	8.77	8587108	1575200	1.97965	110.23

c:\data\9706\97g2787\2898.005 – Channel A



c:\data\9706\97g2787\2898.005 – Channel B



37022

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-6	Received Date:	06/18/97
Sample ID:	**18609-672-390**	Sample Matrix	Soil	Moisture %:	4.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	19:41
Data File Name:	2898.006	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	210	< 210 [a]	U
2	BENZENE	71-43-2	μg/kg	1000	< 1000	U
3	ETHYLBENZENE	100-41-4	μg/kg	1000	< 1000	U
4	TOLUENE	108-88-3	μg/kg	1000	< 1000	U
5	O-XYLENE	95-47-6	μg/kg	1000	1000	
6	M/P-XYLENE	108-38-3	μg/kg	2100	5000	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	81
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	108
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	90
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37023

Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9706\97g2787\2898.006
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-6 s f=1000
Acquired : Jun 20, 1997 19:41:02
Printed : Jun 23, 1997 15:28:10

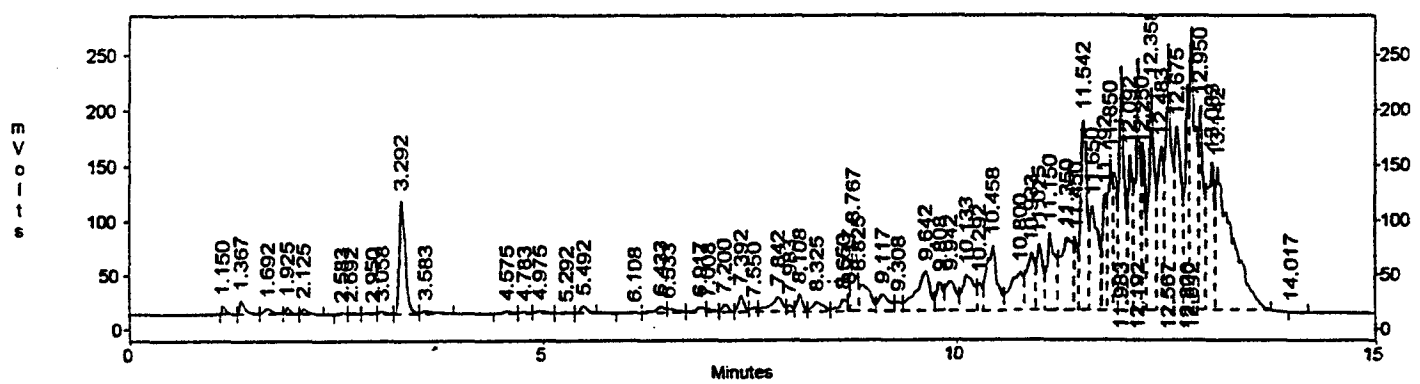
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
10	2. TFT	3.29	513589	103131	5785.04590	88.8
31	7. BFB	8.77	296986	70335	3643.39600	81.5
G1	1. Gasoline		11135895		7145.51855	1558.4

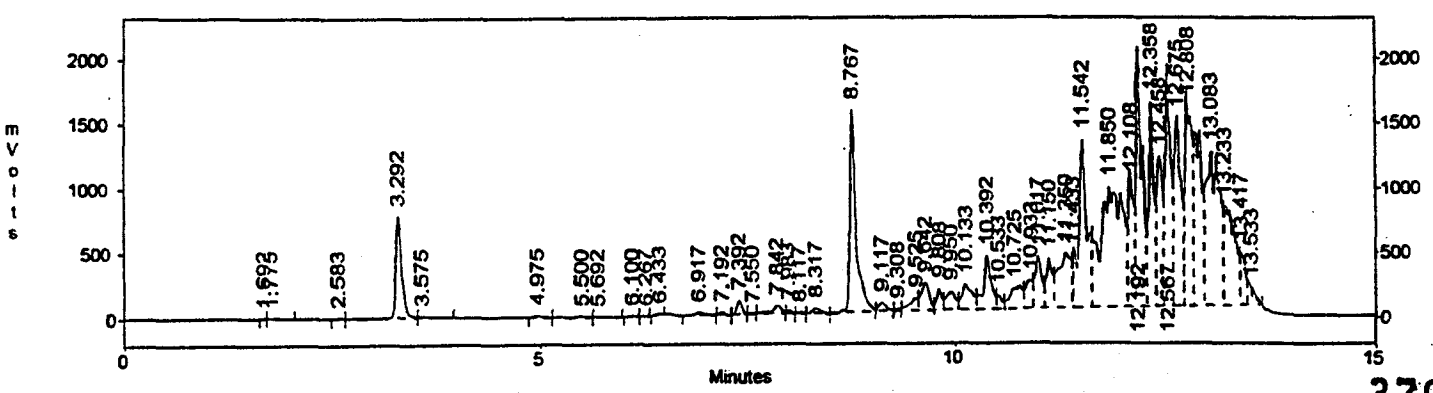
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.77	42652	4674	0.70867	1.55
--	10. MEK	2.30	0	0	0.00000	0.00
3	1. Benzene W 20	2.58	18683	3809	2.66149	0.18
4	2. TFT (Int.)	3.29	3888622	779512	1.00000	100.00
--	3. Toluene W 80	4.73	0	0	0.00000	0.00
13	5. Et-Bz W 19	7.19	62052	22615	2.01620	0.79
14	6. P/M xylene W 82	7.39	461227	108384	2.51298	4.72
17	7. O-xylene W 27	7.98	86385	28888	2.14892	1.03
20	8. BFB (Surr.)	8.77	8349952	1555294	1.97965	108.47

c:\data\9706\97g2787\2898.006 -- Channel A



c:\data\9706\97g2787\2898.006 -- Channel B



37024

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-7	Received Date:	06/18/97
Sample ID:	**18609-672-391**	Sample Matrix	Soil	Moisture %:	23.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	-	Anal. Time:	20:07
Data File Name:	2898.007	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	260	<260 [a]	U
2	BENZENE	71-43-2	μg/kg	1300	<1300	U
3	ETHYLBENZENE	100-41-4	μg/kg	1300	3000	
4	TOLUENE	108-88-3	μg/kg	1300	<1300	U
5	O-XYLENE	95-47-6	μg/kg	1300	1000	
6	M/P-XYLENE	108-38-3	μg/kg	2600	9700	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	80
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	113
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	91
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37025

File : c:\data\9706\97g2787\2898.007
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-7 s f=1000
Acquired : Jun 20, 1997 20:07:36
Printed : Jun 23, 1997 15:29:39

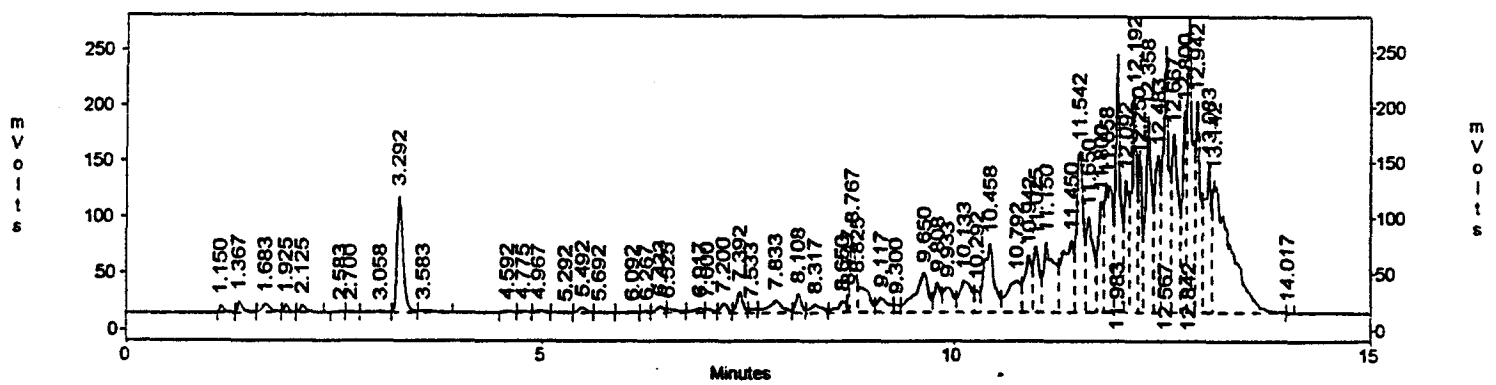
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
9	2. TFT	3.29	514419	103449	5785.04590	88.9
31	7. BFB	8.77	294156	70139	3643.39600	80.7
G1	1. Gasoline		10547594		7145.51855	1476.1

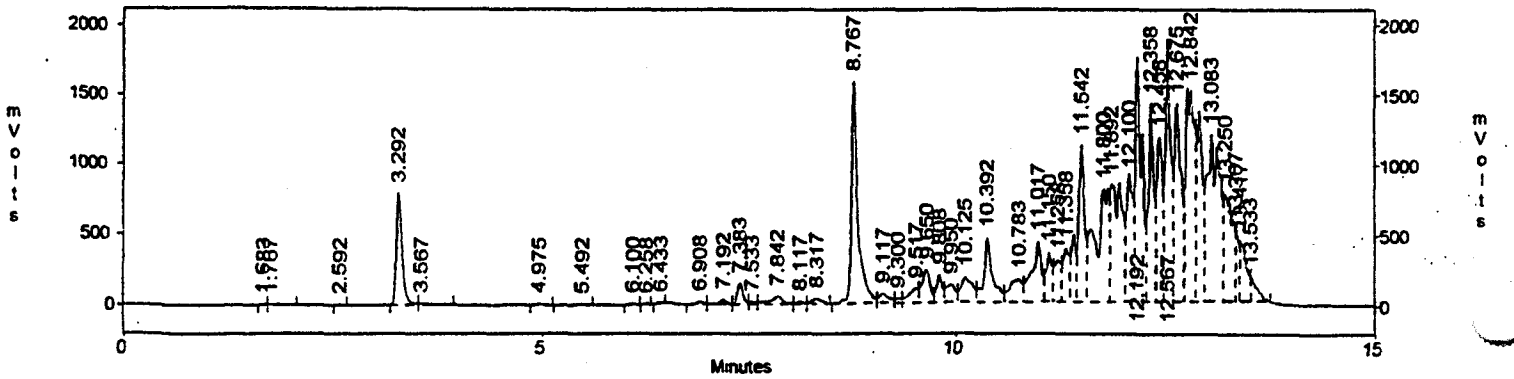
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.77	44732	5066	0.70867	1.61
--	10. MEK	2.30	0	0	0.00000	0.00
3	1. Benzene W 20	2.59	11271	2563	2.66149	0.11
4	2. TFT (Int.)	3.29	3924849	786183	1.00000	100.00
--	3. Toluene W 80	4.73	0	0	0.00000	0.00
12	5. Et-Bz W 19	7.19	180732	31910	2.01620	2.28
13	6. P/M xylene W 82	7.38	726947	150362	2.51298	7.37
16	7. O-xylene W 27	8.12	85906	18693	2.14892	1.02
18	8. BFB (Surr.)	8.77	8760336	1579890	1.97965	112.75

c:\data\9706\97g2787\2898.007 -- Channel A



c:\data\9706\97g2787\2898.007 -- Channel B



37026

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-8	Received Date:	06/18/97
Sample ID:	**18609-672-392**	Sample Matrix	Soil	Moisture %:	11.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	20:34
Data File Name:	2898.008	Sample Amount:	4 g	Dilution Factor:	100
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	110	<110 [a]	U
2	BENZENE	71-43-2	μg/kg	560	<560	U
3	ETHYLBENZENE	100-41-4	μg/kg	560	600	
4	TOLUENE	108-88-3	μg/kg	560	<560	U
5	O-XYLENE	95-47-6	μg/kg	560	<560	U
6	M/P-XYLENE	108-38-3	μg/kg	1100	2600	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	88
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	103
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	95
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37027

Applied P & CH Laboratory
Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9706\97g2787\2898.008
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-8 s f=500
Acquired : Jun 20, 1997 20:34:09
Printed : Jun 23, 1997 15:31:09

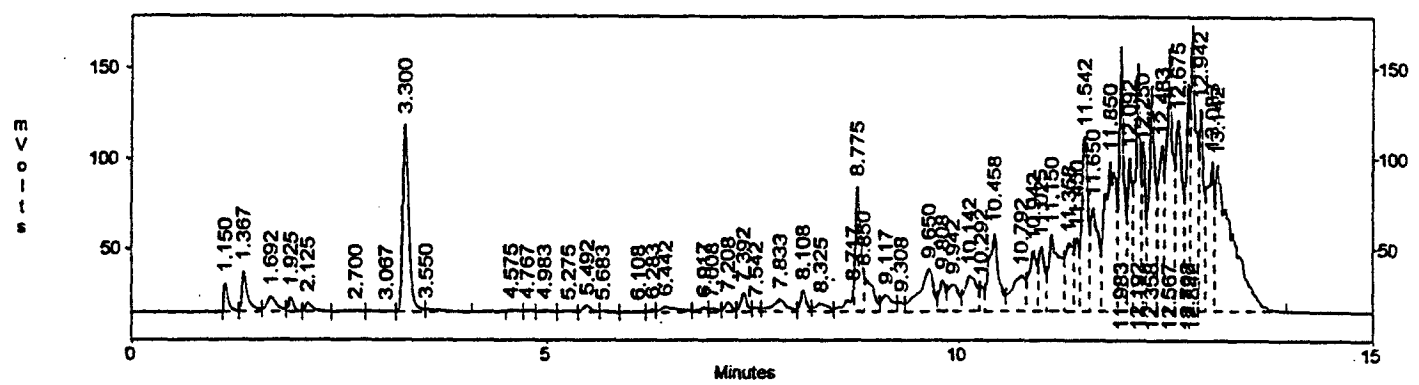
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
8	2. TFT	3.30	534055	104018	5785.04590	92.3
28	7. BFB	8.77	322663	69262	3643.39600	88.6
G1	1. Gasoline		7231990		7145.51855	1012.1

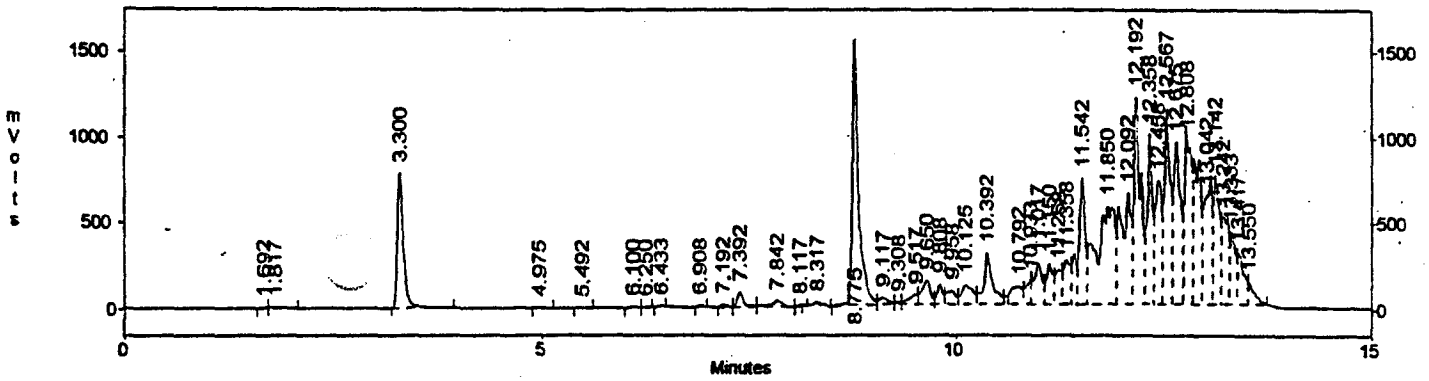
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.82	58128	6078	0.70867	2.01
--	10. MEK	2.30	0	0	0.00000	0.00
--	1. Benzene W 20	2.63	0	0	0.00000	0.00
3	2. TFT (Int.)	3.30	4089387	784345	1.00000	100.00
--	3. Toluene W 80	4.73	0	0	0.00000	0.00
10	5. Et-Bz W 19	7.19	84322	18591	2.01620	1.02
11	6. P/M xylene W 82	7.39	474812	84188	2.51298	4.62
13	7. O-xylene W 27	8.12	56279	12624	2.14892	0.64
15	8. BFB (Surr.)	8.77	8377556	1547651	1.97965	103.48

c:\data\9706\97g2787\2898.008 -- Channel A



c:\data\9706\97g2787\2898.008 -- Channel B



37028

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-9	Received Date:	06/18/97
Sample ID:	**18609-672-393**	Sample Matrix	Soil	Moisture %:	13.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	22:06
Data File Name:	2898.009	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	230	< 230 [a]	U
2	BENZENE	71-43-2	μg/kg	1200	< 1200	U
3	ETHYLBENZENE	100-41-4	μg/kg	1200	1000	
4	TOLUENE	108-88-3	μg/kg	1200	< 1200	U
5	O-XYLENE	95-47-6	μg/kg	1200	< 1200	U
6	M/P-XYLENE	108-38-3	μg/kg	2300	< 2300	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	115
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	91
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	106
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37029

Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9706\97g2787\2898.009
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-9 s f=1000
Acquired : Jun 20, 1997 22:06:04
Printed : Jun 23, 1997 15:32:33

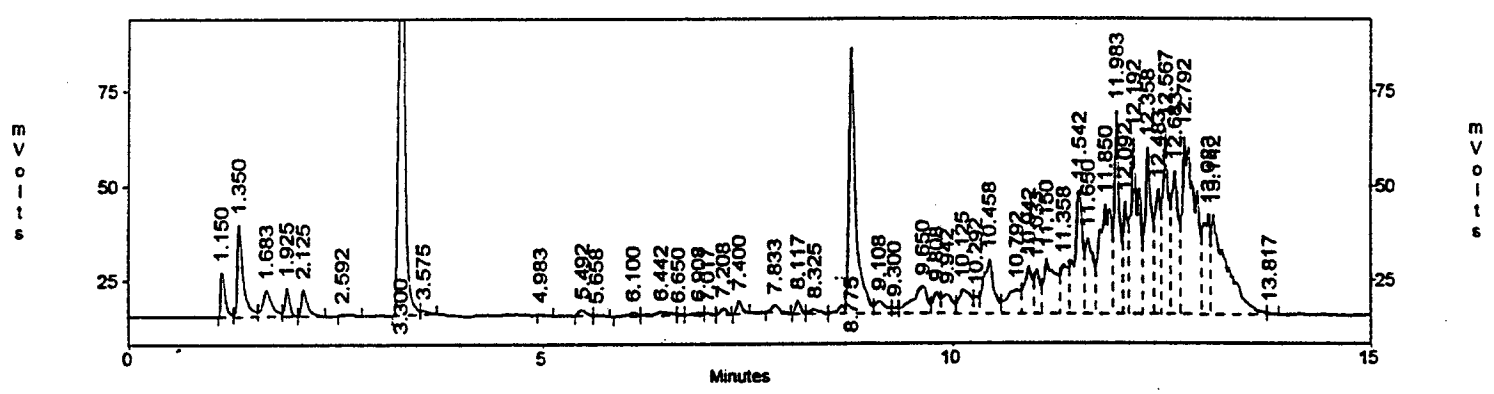
Channel A Results

Nc.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	3.30	589963	116922	5785.04590	102.0
22	7. BFB	8.77	419805	70474	3643.39600	115.2
G1	1. Gasoline		2955267		7145.51855	413.6

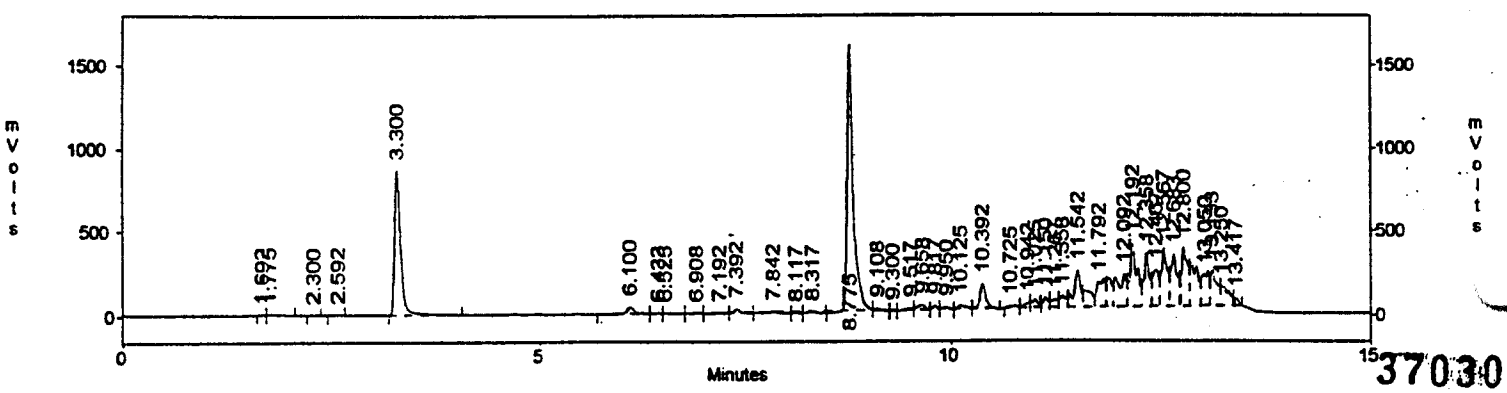
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.77	48982	4754	0.70867	1.52
3	10. MEK	2.30	5588	929	0.00000	0.00
4	1. Benzene W 20	2.59	7552	1570	2.66149	0.06
5	2. TFT (Int.)	3.30	4556089	871577	1.00000	100.00
--	3. Toluene W 80	4.73	0	0	0.00000	0.00
10	5. Et-Bz W 19	7.19	110622	975	2.01620	1.20
11	6. P/M xylene W 82	7.39	4774	20671	2.51298	0.04
13	7. O-xylene W 27	8.12	91684	8669	2.14892	0.94
15	8. BFB (Surr.)	8.77	8165357	1599986	1.97965	90.53

c:\data\9706\97g2787\2898.009 – Channel A



c:\data\9706\97g2787\2898.009 – Channel B



37030

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-10	Received Date:	06/18/97
Sample ID:	**18609-672-394**	Sample Matrix	Soil	Moisture %:	11.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	22:32
Data File Name:	2898.010	Sample Amount:	4 g	Dilution Factor:	100
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	110	<110 [a]	U
2	BENZENE	71-43-2	µg/kg	570	<570	U
3	ETHYLBENZENE	100-41-4	µg/kg	570	600	
4	TOLUENE	108-88-3	µg/kg	570	<570	U
5	O-XYLENE	95-47-6	µg/kg	570	<570	U
6	M/P-XYLENE	108-38-3	µg/kg	1100	<1100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	119
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	98
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	93
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37031

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9706\97g2787\2898.010
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-10 s f=500
Acquired : Jun 20, 1997 22:32:34
Printed : Jun 23, 1997 15:33:26

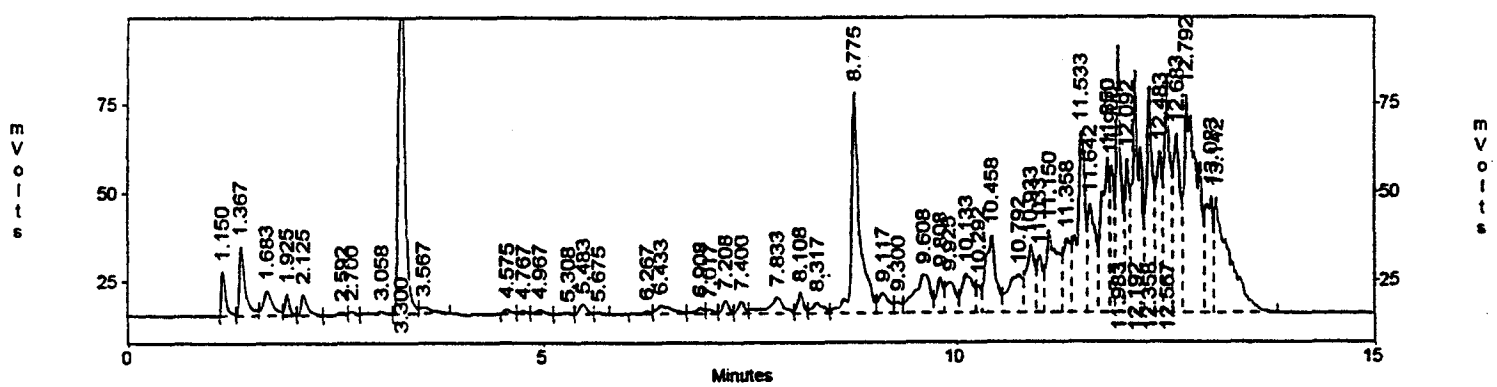
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
9	2. TFT	3.30	534821	104837	5785.04590	92.4
26	7. BFB	8.77	433190	62194	3643.39600	118.9
G1	1. Gasoline		4449654		7145.51855	622.7

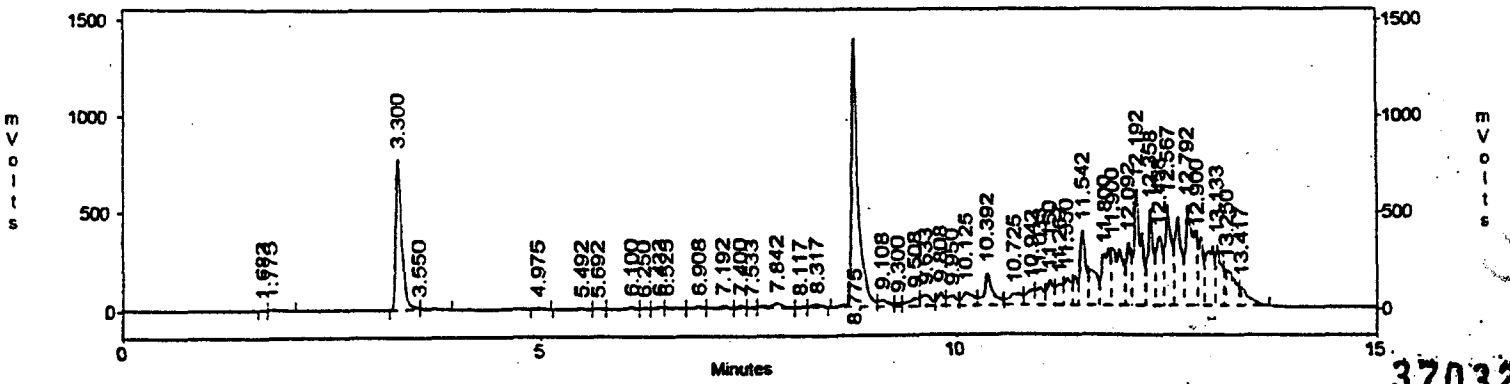
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.77	43705	5145	0.70867	1.54
--	10. MEK	2.30	0	0	0.00000	0.00
--	1. Benzene W 20	2.63	0	0	0.00000	0.00
3	2. TFT (Int.)	3.30	4001631	775213	1.00000	100.00
--	3. Toluene W 80	4.73	0	0	0.00000	0.00
13	5. Et-Bz W 19	7.19	82311	13540	2.01620	1.02
14	6. P/M xylene W 82	7.40	61240	13122	2.51298	0.61
17	7. O-xylene W 27	8.12	31713	7125	2.14892	0.37
19	8. BFB (Surr.)	8.77	7795175	1388946	1.97965	98.40

c:\data\9706\97g2787\2898.010 -- Channel A



c:\data\9706\97g2787\2898.010 -- Channel B



37032

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	06/18/97
Project ID:	L.A.D. UST 672B	Service ID:	972898	Collected by:	
		Lab Sample ID:	97-2898-11	Received Date:	06/18/97
Sample ID:	**18609-672-395**	Sample Matrix	Soil	Moisture %:	2.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/20/97	Anal. Date:	06/20/97
Batch No:	97G2787	Prep. No:	–	Anal. Time:	23:52
Data File Name:	2898.011	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	210	< 210 [a]	U
2	BENZENE	71-43-2	μg/kg	1000	< 1000	U
3	ETHYLBENZENE	100-41-4	μg/kg	1000	< 1000	U
4	TOLUENE	108-88-3	μg/kg	1000	< 1000	U
5	O-XYLENE	95-47-6	μg/kg	1000	< 1000	U
6	M/P-XYLENE	108-38-3	μg/kg	2100	4400	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	74
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	92
# of out-of-control				0

[a]Sample chrmatogram contains peaks originated from JP-5.

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37033

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9706\97g2787\2898.011
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 2898-11 s f=1000
Acquired : Jun 20, 1997 23:52:12
Printed : Jun 23, 1997 15:34:36

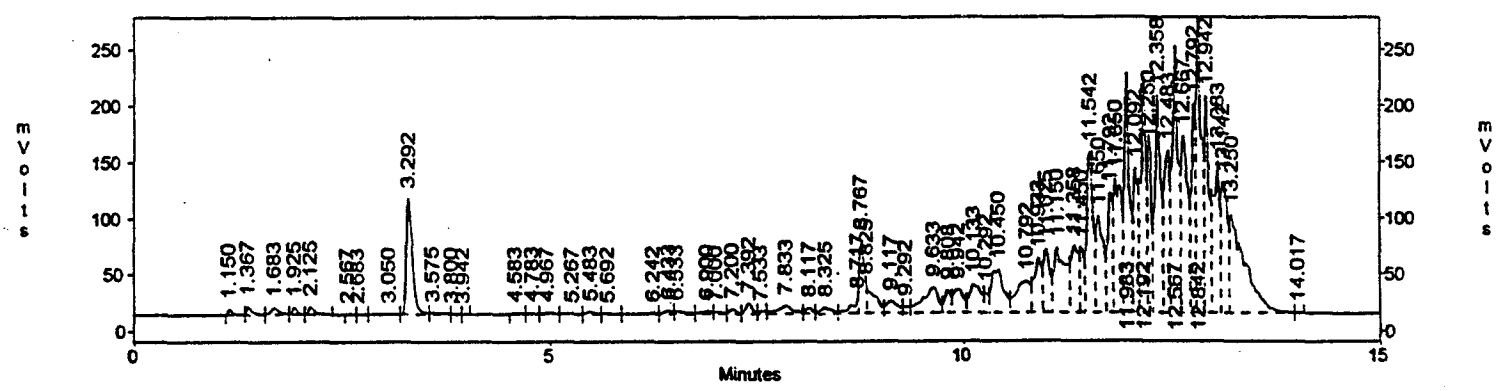
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
9	2. TFT	3.29	521012	102857	5785.04590	90.1
31	7. BFB	8.77	272529	64587	3643.39600	74.8
G1	1. Gasoline		9185393		7145.51855	1285.5

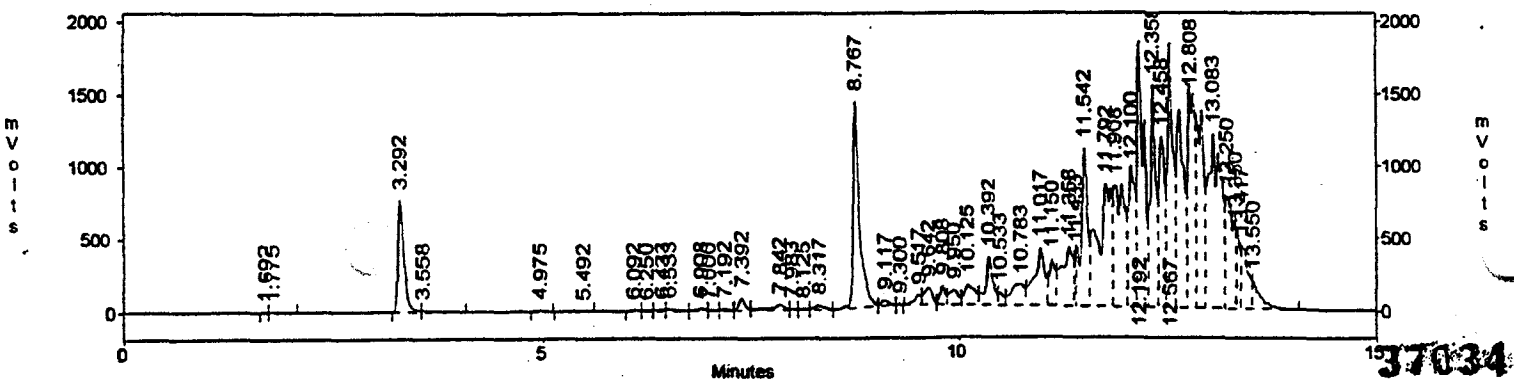
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.77	46555	5319	0.70867	1.70
--	10. MEK	2.30	0	0	0.00000	0.00
--	1. Benzene W 20	2.63	0	0	0.00000	0.00
3	2. TFT (Int.)	3.29	3857424	762160	1.00000	100.00
--	3. Toluene W 80	4.73	0	0	0.00000	0.00
13	5. Et-Bz W 19	7.19	63468	13871	2.01620	0.82
14	6. P/M xylene W 82	7.39	412652	83902	2.51298	4.26
16	7. O-xylene W 27	7.98	32951	9010	2.14892	0.40
19	8. BFB (Surr.)	8.77	7799644	1424262	1.97965	102.14

c:\data\9706\97g2787\2898.011 – Channel A



c:\data\9706\97g2787\2898.011 – Channel B



37034

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2787		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
1	97G2787-MB-01	97G2787-MB-01	79	85	0
2	97G2787-LCS-01	97G2787-LCS-01	111	99	0
3	97G2787-LSD-01	97G2787-LSD-01	110	100	0
4	18609-672-385	97-2898-1	105	124	0
5	18609-672-386	97-2898-2	118	103	0
6	18609-672-387	97-2898-3	114	113	0
7	18609-672-386-MS	97-2898-2MS	100	107	0
8	18609-672-386-MSD	97-2898-2MSD	103	107	0
9	18609-672-388	97-2898-4	115	117	0
10	18609-672-389	97-2898-5	83	110	0
11	18609-672-390	97-2898-6	81	108	0
12	18609-672-391	97-2898-7	80	113	0
13	18609-672-392	97-2898-8	88	103	0
14	18609-672-393	97-2898-9	115	91	0
15	18609-672-394	97-2898-10	119	98	0
16	18609-672-395	97-2898-11	74	102	0
17					
18					
19					
20					
21					
22					
23					
24					
25					

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	70-132
S2 = 4-BROMO-FLUOROBENZENE (PID)	65-126

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

37035

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2787		
LCS Filename:	2787G.L01	Date Analyzed:	062097	Time Analyzed:	11:47
LCSD Filename:	2787G.J01	Date Analyzed:	062097	Time Analyzed:	12:14

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	5	0	5.36	107	77-122
BENZENE	µg/kg	100	0	114	114	72-119
ETHYLBENZENE	µg/kg	95	0	94.5	99	71-134
TOLUENE	µg/kg	400	0	392	98	79-129
O-XYLENE	µg/kg	135	0	136	101	70-133
M/P-XYLENE	µg/kg	410	0	391	95	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	5	5.17	103	4	23	77-122
BENZENE	µg/kg	100	111	111	3	23	72-119
ETHYLBENZENE	µg/kg	95	93.2	98	1	31	71-134
TOLUENE	µg/kg	400	384	96	2	25	79-129
O-XYLENE	µg/kg	135	134	99	2	32	70-133
M/P-XYLENE	µg/kg	410	385	94	1	30	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

37036

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2787		
MS Filename:	2787G.M01	Date Analyzed:	062097	Time Analyzed:	17:01
MSD Filename:	2787G.N01	Date Analyzed:	062097	Time Analyzed:	17:28
MS Sample No:	**18609-672-386**	Sample Lab ID:	97-2898-2	Moisture, %	9.0

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	1100	840	1880	95	65-127
BENZENE	µg/kg	22000	0	25700	117	70-121
ETHYLBENZENE	µg/kg	20800	260	23300	111	71-134
TOLUENE	µg/kg	88000	0	86800	99	79-129
O-XYLENE	µg/kg	29600	0	33900	115	70-133
M/P-XYLENE	µg/kg	90200	2600	94100	101	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	1100	1950	101	6	31	65-127
BENZENE	µg/kg	22000	24600	112	4	26	70-121
ETHYLBENZENE	µg/kg	20800	21800	104	7	26	71-134
TOLUENE	µg/kg	88000	84700	96	3	24	79-129
O-XYLENE	µg/kg	29600	32100	108	6	30	70-133
M/P-XYLENE	µg/kg	90200	90500	97	4	27	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

37037

Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	972898
Project ID:	L.A.D. UST 672B	Project No:	18609	Analysis Date:	06/20/97
		Sample Matrix:	Soil	Analysis Time:	11:21
Sample ID:	**97G2787-MB-01**	Batch No:	97G2787	Instrument ID:	GC: B
Lab Sample ID:	97G2787-MB-01	Data File Name:	2787G.K01	GC Column:	RTX-5
		Heated Purge: (Y/N)	Y	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G2787-LCS-01	97G2787-LCS-01	Lab Control Spike	2787G.L01	06/20/97	11:47
2	97G2787-LSD-01	97G2787-LSD-01	Lab Control Spike Duplicate	2787G.J01	06/20/97	12:14
3	18609-672-385	97-2898-1	Field Sample	2898.001	06/20/97	12:41
4	18609-672-386	97-2898-2	Field Sample	2898.002	06/20/97	13:08
5	18609-672-387	97-2898-3	Field Sample	2898.003	06/20/97	13:34
6	18609-672-386-MS	97-2898-2MS	Matrix Spike	2787G.M01	06/20/97	17:01
7	18609-672-386-MSD	97-2898-2MSD	Matrix Spike Duplicate	2787G.N01	06/20/97	17:28
8	18609-672-388	97-2898-4	Field Sample	2898.004	06/20/97	18:47
9	18609-672-389	97-2898-5	Field Sample	2898.005	06/20/97	19:14
10	18609-672-390	97-2898-6	Field Sample	2898.006	06/20/97	19:41
11	18609-672-391	97-2898-7	Field Sample	2898.007	06/20/97	20:07
12	18609-672-392	97-2898-8	Field Sample	2898.008	06/20/97	20:34
13	18609-672-393	97-2898-9	Field Sample	2898.009	06/20/97	22:06
14	18609-672-394	97-2898-10	Field Sample	2898.010	06/20/97	22:32
15	18609-672-395	97-2898-11	Field Sample	2898.011	06/20/97	23:52
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

37038

Applied P & Ch Laboratory

Wet Analysis Results for Method ASTM-D2216

Client Name: OHM Remediation Services (Irvine) Project No: 18609 Anal. Method ASTM-D2216
Project ID: L.A.D. UST 672B Service ID: 972898 Collected by:

Component Name: Moisture, percent in soil
CAS No: 7732-18-5

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-2898-1	18609-672-385	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	12.4	
97-2898-2	18609-672-386	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	9.0	
97-2898-3	18609-672-387	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	13.5	
97-2898-4	18609-672-388	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	8.7	
97-2898-5	18609-672-389	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	3.7	
97-2898-6	18609-672-390	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	4.7	
97-2898-7	18609-672-391	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	23.7	
97-2898-8	18609-672-392	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	11.0	
97-2898-9	18609-672-393	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	13.8	
97-2898-10	18609-672-394	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	11.8	
97-2898-11	18609-672-395	Soil	06/18/97	06/18/97	06/23/97	97W3681	%Moisture	0.5	2.8	

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

37050

9/12/97

OHM Remediation Services Corp
Subsidiary of OHM Corporation
U.S. Route 224 East • Findlay, Ohio 45840 • (419) 423-3526

CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

209506

FORM 0019 REV. 2-97

OHM's LAB COORDINATOR: Dwayne Ishida	LAB COORDINATOR'S PHONE: (714) 263-1146	LAB COORDINATOR'S FAX: (714) 475-5433	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
PROJECT NAME: UST 672 verification drilling	PROJECT LOCATION: MCAS El Toro	PROJECT NUMBER: 18609	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
PROJECT CONTACT: Dwayne Ishida	PROJECT PHONE NUMBER: 263-1146	PROJECT FAX: 475-5433	LABORATORY ADDRESS		ADDRESS
PROJECT ADDRESS: 230 Main St.	CITY, STATE AND ZIPCODE: Irvine CA 92709	CLIENT: SW DIV	CITY, STATE AND ZIPCODE: Chino, CA		CITY, STATE AND ZIPCODE
PROJECT MANAGER: Bill Sedlak	PROJECT MANAGER'S PHONE: (714) 263-1146	PROJECT MANAGER'S FAX: (714) 263-1147			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: 8015 gas	8015 TPH full	8260 range						Comments
1	18609-478	S	9/4/97	0900	ice	1	-	5d	x	x	x						APCL
2	18609-480	S	9/4/97	0911	ice	1	-	5d	x	x							1312 - TPH
3	18609-481	S	9/4/97	0916	ice	1	-	5d	x	x	x						1312 - TPH
4	18609-484	S	9/4/97	0930	ice	1	-	5d	x	x							
5	18609-487	S	9/4/97	0952	ice	1	-	5d	x	x							
6	18609-490	S	9/4/97	1008	ice	1	-	5d	x	x	x						
7	18609-491	~~W~~ S	9/4/97	0730	HCl	1	-	5d	x	~~x~~							delete 9/5/97
8	18609-492	W	9/4/97	1040	HCl	3	-	5d	x	x							
9																	
10																	

9/4/97

SAMPLES COLLECTED BY:

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
		9/4/97	1500	

Distribution: White - Laboratory (To be returned with Analytical Report); Golden [illegible]ject File; Yellow - Project Data Manager

Project Information Section
For Project Personnel Only
Do Not Submit to Laboratory

	Sample Point Location	Sample Type G	C	F
478	(1) UST672-SB04 @ 20-20.5	x		
480	(2) UST672-SB04 @ 30-30.5	x		
481	(3) @ 35-35.5	x		
484	(4) @ 50-50.5	x		
487	(5) @ 65-65.5	x		
490	(6) @ 80-80.5	x		
	(7) TRIP BLANK (9/4/97)			
	(8) RINSATE ~~(UST672)~~ 672 SB04			

Comments
1260 added 9/12/97 per Julie (via Cathy) Rad, APCL

Sample Type: G - G[illegible] C - Composite, F - Field Sa[illegible]
QC [illegible] Control Sample

OHM Remediation Services Corp
Subsidiary of OHM Corporation
U.S. Route 224 East • Findlay, Ohio 45840 • (419) 423-3526

CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

209507

FORM 0019 REV. 2-97

OHM's LAB COORDINATOR: Dwayne Ishida	LAB COORDINATOR'S PHONE: (714) 263-1146	LAB COORDINATOR'S FAX: (714) 475-5433	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
PROJECT NAME: UST 672 verification drilling	PROJECT LOCATION: MCAS El Toro	PROJECT NUMBER: 18609	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
PROJECT CONTACT: Dwayne Ishida	PROJECT PHONE NUMBER: 263-1146	PROJECT FAX: 475-5433	LABORATORY ADDRESS		ADDRESS
PROJECT ADDRESS: 230 Main St.	CITY, STATE AND ZIPCODE: Irvine, CA 92709	CLIENT: SW DIV	CITY, STATE AND ZIPCODE: Chino, CA (805)		CITY, STATE AND ZIPCODE
PROJECT MANAGER: Bill Sedlak	PROJECT MANAGER'S PHONE: 263-1146	PROJECT MANAGER'S FAX: 263-1147			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: 8015 gas/8020	TPH full range	8260						Comments
1	18609-493	SOIL	9/4/97	1242	ice	1	D	5d	X	X	X						Level D
2	18609-494	↓	9/4/97	1301	ice	1	D	5d	X	X							↓
3	18609-495	↓	9/4/97	1323	ice	1	D	5d	X	X	X						↓
4	18609-496	↓	9/4/97	1330	ice	1	D	5d	X	X							↓
5	18609-497	↓	9/4/97	1345	ice	1	D	5d	X	X							↓
6	18609-498	↓	9/4/97	1357	ice	1	D	5d	X	X	X						↓
7	18609-499	↓	9/4/97	1362	ice	1	D	5d	X	X							↓
8																	
9																	
10																	

APCL

SAMPLES COLLECTED BY:	COURIER AND AIR BILL NUMBER:			COOLER TEMPERATURE UPON RECEIPT:
RELINQUISHED BY: [signature] 9/4/97	RECEIVED BY: [signature]	DATE: 9/4/97	TIME: 1566	SAMPLE'S CONDITION UPON RECEIPT:

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

Project Information Section
For Project Personnel Only
Do Not Submit to Laborator

	Sample Point Location	G	C	F
493	(1) UST672-SB05 @ 25-25.5	X		
494	(2) @ 45-45.5	X		
495	(3) @ 55-55.5	X		
496	(4) @ 60-60.5	X		
497	(5) @ 70-70.5	X		
498	(6) @ 80-80.5	X		
499	(7) @ 44.5-45			

Comments
8260 added. 9/12/97 [signature]
Julie (via Cathy)
Rad, APCL [signature]

Sample Type: G - Grab, C - Composite, F - Field S
QC - Quality Control Sample

OHM Remediation Services Corp
Subsidiary of OHM Corporation
U.S. Route 224 East • Findlay, Ohio 45840 • (419) 423-3526

CHAIN-OF-CUSTODY RECORD

PROJECT FILE CARD
209506

FORM 0019 REV. 2-97

OHM LAB COORDINATOR: Dwayne Ishida	LAB COORDINATOR'S PHONE: (714) 263-1146	LAB COORDINATOR'S FAX: (714) 475-5433	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
PROJECT NAME: UST 672 verification drilling	PROJECT LOCATION: MCAS El Toro	PROJECT NUMBER: 18609	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
PROJECT CONTACT: Dwayne Ishida	PROJECT PHONE NUMBER: 263-1146	PROJECT FAX: 475-5433	LABORATORY ADDRESS		ADDRESS
PROJECT ADDRESS: 230 Main St.	CITY, STATE AND ZIPCODE: Irvine, CA 92709	CLIENT: SW DIV	CITY, STATE AND ZIPCODE: Chino, CA		CITY, STATE AND ZIPCODE
PROJECT MANAGER: Bill Sedlak	PROJECT MANAGER'S PHONE: (714) 263-1146	PROJECT MANAGER'S FAX: (714) 263-1147			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: 8015 gas	Analyses: 8015 TPH full range							Comments
1	18609-478	S	9/4/97	0900	ice	1	–	5d	x	x							APCL
2	18609-480	S	9/4/97	0911	ice	1	–	5d	x	x							
3	18609-481	S	9/4/97	0916	ice	1	–	5d	x	x							
4	18609-484	S	9/4/97	0930	ice	1	–	5d	x	x							
5	18609-487	S	9/4/97	0952	ice	1	–	5d	x	x							
6	18609-490	S	9/4/97	1008	ice	1	–	5d	x	x							
7	18609-491	W ~~S~~	9/4/97	0730	HCl	1	–	5d	x	W							
8	18609-492	W	9/4/97	1040	HCl	3	–	5d	x	x							
9																	
10																	

9/4/97

SAMPLES COLLECTED BY:	COURIER AND AIR BILL NUMBER:			COOLER TEMPERATURE UPON RECEIPT:
RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE S CONDITION UPON RECEIPT
		9/4/97	1506	

209506

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

OHM Remediation Services Corp
Subsidiary of OHM Corporation
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CHAIN-OF-CUSTODY RECORD

PROJECT FILE CARD
209507

FORM 0019 REV. 2-97

OHM's LAB COORDINATOR: Dwayne Ishida	LAB COORDINATOR'S PHONE: (714) 263-1146	LAB COORDINATOR'S FAX: (714) 475-5433	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
PROJECT NAME: UST 672 verification drilling	PROJECT LOCATION: MCAS El Toro	PROJECT NUMBER: 18609	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
PROJECT CONTACT: Dwayne Ishida	PROJECT PHONE NUMBER: 263-1146	PROJECT FAX: 475-5433	LABORATORY ADDRESS		ADDRESS
PROJECT ADDRESS: 230 Main St.	CITY, STATE AND ZIPCODE: Irvine, CA 92709	CLIENT: SW DIV	CITY, STATE AND ZIPCODE: Chino, CA (8015)		CITY, STATE AND ZIPCODE
PROJECT MANAGER: Bill Sedlak	PROJECT MANAGER'S PHONE: 263-1146	PROJECT MANAGER'S FAX: 263-1147			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T	Analyses: 8015 gas	Analyses: 8020	Analyses: TPH full range						Comments
1	18609-493	SOIL	9/4/97	1242	ice	1	D	5d	X	X							Level D
2	18609-494	↓	9/4/97	1301	ice	1	D	5d	X	X							↓
3	18609-495		9/4/97	1323	ice	1	D	5d	X	X							
4	18609-496		9/4/97	1330	ice	1	D	5d	X	X							
5	18609-497		9/4/97	1345	ice	1	D	5d	X	X							
6	18609-498		9/4/97	1357	ice	1	D	5d	X	X							
7	18609-499		9/4/97	1362	ice	1	D	5d	X	X							
8																	
9																	
10																	

APCL

SAMPLES COLLECTED BY:	COURIER AND AIR BILL NUMBER:			COOLER TEMPERATURE UPON RECEIPT:
RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE S CONDITION UPON RECEIPT
		9/4/97	1500	

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

209904

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/12/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	
		Lab Sample ID:	97G3741-MB-01	Received Date:	09/12/97
Sample ID:	**97G3741-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260	Prep. Date:	09/12/97	Anal. Date:	09/12/97
Batch No:	97G3741	Prep. No:	–	Anal. Time:	18:14
Data File Name:	G3741K01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	0.5	<0.5	U
2	BROMOBENZENE	108-86-1	µg/L	0.5	<0.5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/L	1.5	<1.5	U
4	BROMODICHLOROMETHANE	75-27-4	mg/L	0.5	<0.5	U
5	BROMOFORM	75-25-2	mg/L	0.5	<0.5	U
6	BROMOMETHANE	74-83-9	µg/L	10	<10	U
7	N-BUTYLBENZENE	104-51-8	µg/L	10	<10	U
8	SEC-BUTYLBENZENE	135-98-8	µg/L	10	<10	U
9	TERT-BUTYLBENZENE	98-06-6	µg/L	10	<10	U
10	CARBON TETRACHLORIDE	56-23-5	µg/L	10	<10	U
11	CHLOROBENZENE	108-90-7	µg/L	10	<10	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/L	10	<10	U
13	CHLOROETHANE	75-00-3	µg/L	10	<10	U
14	CHLOROFORM	67-66-3	µg/L	10	<10	U
15	CHLOROMETHANE	74-87-3	µg/L	10	<10	U
16	2-CHLOROTOLUENE	95-49-8	µg/L	10	<10	U
17	4-CHLOROTOLUENE	106-43-4	µg/L	10	<10	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/L	10	<10	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/L	10	<10	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/L	10	<10	U
21	DIBROMOMETHANE	74-95-3	µg/L	10	<10	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/L	10	<10	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/L	10	<10	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/L	5	<5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	5	<5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/L	5	<5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/L	5	<5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/L	5	<5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	0.5	<0.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	<5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	<5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/L	5	<5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/L	5	<5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/L	0.5	<0.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	<5	U
36	ETHYLBENZENE	100-41-4	µg/L	5	<5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/L	5	<5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/L	5	<5	U
39	METHYLENE CHLORIDE	75-09-2	µg/L	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/L	0.5	< 0.5	U
41	N-PROPYLBENZENE	103-65-1	µg/L	5	< 5	U
42	STYRENE	100-42-5	µg/L	5	< 5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/L	5	< 5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	< 5	U
45	TETRACHLOROETHENE	127-18-4	µg/L	5	< 5	U
46	TOLUENE	108-88-3	µg/L	5	< 5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/L	5	< 5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	5	< 5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	< 5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	< 5	U
51	TRICHLOROETHENE	79-01-6	µg/L	5	< 5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	5	< 5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	5	< 5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/L	5	< 5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/L	5	< 5	U
56	VINYL CHLORIDE	75-01-4	µg/L	5	< 5	U
57	XYLENES (TOTAL)	1330-20-7	µg/L	5	< 5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	101
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	101
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	101
4	TOLUENE-D8	2037-26-5	81-116	96
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	103
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	96
3	FLUOROBENZENE	462-06-6	50-200	101
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

20913

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/12/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	
		Lab Sample ID:	97G3734-MB-01	Received Date:	09/12/97
Sample ID:	**97G3734-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/12/97	Anal. Date:	09/12/97
Batch No:	97G3734	Prep. No:	–	Anal. Time:	14:32
Data File Name:	G3734K01	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5	< 5	U
2	BROMOBENZENE	108-86-1	µg/kg	5	< 5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5	< 5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	< 5	U
5	BROMOFORM	75-25-2	µg/kg	5	< 5	U
6	BROMOMETHANE	74-83-9	µg/kg	5	< 5	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5	< 5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5	< 5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5	< 5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	< 5	U
11	CHLOROBENZENE	108-90-7	µg/kg	5	< 5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	< 5	U
13	CHLOROETHANE	75-00-3	µg/kg	5	< 5	U
14	CHLOROFORM	67-66-3	µg/kg	5	< 5	U
15	CHLOROMETHANE	74-87-3	µg/kg	5	< 5	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5	< 5	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5	< 5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5	< 5	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5	< 5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5	< 5	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5	< 5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5	< 5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5	< 5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5	< 5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5	< 5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	< 5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	< 5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5	< 5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	< 5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	< 5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	< 5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5	< 5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5	< 5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5	< 5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	< 5	U
36	ETHYLBENZENE	100-41-4	µg/kg	5	< 5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5	< 5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5	< 5	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5	< 5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5	<5	U
42	STYRENE	100-42-5	µg/kg	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5	<5	U
46	TOLUENE	108-88-3	µg/kg	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5	<5	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	105
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	107
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	105
4	TOLUENE-D8	2037-26-5	81-116	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	97
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	90
3	FLUOROBENZENE	462-06-6	50-200	101
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/13/97
Project ID:	UST-672 Verification Drilling	Service ID:	973847	Collected by:	
		Lab Sample ID:	97G3734-MB-02	Received Date:	09/13/97
Sample ID:	**97G3734-MB-02**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/13/97	Anal. Date:	09/13/97
Batch No:	97G3734	Prep. No:	–	Anal. Time:	01:38
Data File Name:	G3734K02	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5	<5	U
2	BROMOBENZENE	108-86-1	µg/kg	5	<5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5	<5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	<5	U
5	BROMOFORM	75-25-2	µg/kg	5	<5	U
6	BROMOMETHANE	74-83-9	µg/kg	5	<5	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5	<5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5	<5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5	<5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	<5	U
11	CHLOROBENZENE	108-90-7	µg/kg	5	<5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	<5	U
13	CHLOROETHANE	75-00-3	µg/kg	5	<5	U
14	CHLOROFORM	67-66-3	µg/kg	5	<5	U
15	CHLOROMETHANE	74-87-3	µg/kg	5	<5	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5	<5	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5	<5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5	<5	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5	<5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5	<5	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5	<5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5	<5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5	<5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5	<5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5	<5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	<5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	<5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5	<5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	<5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	<5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	<5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5	<5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5	<5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5	<5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	<5	U
36	ETHYLBENZENE	100-41-4	µg/kg	5	<5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5	<5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5	<5	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5	<5	U
42	STYRENE	100-42-5	µg/kg	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5	<5	U
46	TOLUENE	108-88-3	µg/kg	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5	<5	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	93
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	96
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	89
4	TOLUENE-D8	2037-26-5	81-116	90
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	98
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	93
3	FLUOROBENZENE	462-06-6	50-200	97
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishi
		Lab Sample ID:	97-3847-1	Received Date:	09/04/97
Sample ID:	**18609-478**	Sample Matrix	Soil	Moisture %:	13.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260	Prep. Date:	09/12/97	Anal. Date:	09/12/97
Batch No:	97G3741	Prep. No:	–	Anal. Time:	20:58
Data File Name:	3847-01	Sample Amount:	4.0 g	Dilution Factor:	1000
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5800	< 5800	U
2	BROMOBENZENE	108-86-1	µg/kg	5800	< 5800	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5800	< 5800	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5800	< 5800	U
5	BROMOFORM	75-25-2	µg/kg	5800	< 5800	U
6	BROMOMETHANE	74-83-9	µg/kg	5800	1700	J
7	N-BUTYLBENZENE	104-51-8	µg/kg	5800	1900	J
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5800	810	J
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5800	< 5800	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5800	< 5800	U
11	CHLOROBENZENE	108-90-7	µg/kg	5800	< 5800	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5800	< 5800	U
13	CHLOROETHANE	75-00-3	µg/kg	5800	< 5800	U
14	CHLOROFORM	67-66-3	µg/kg	5800	< 5800	U
15	CHLOROMETHANE	74-87-3	µg/kg	5800	< 5800	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5800	< 5800	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5800	< 5800	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5800	< 5800	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5800	< 5800	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5800	< 5800	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5800	< 5800	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5800	< 5800	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5800	< 5800	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5800	< 5800	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5800	< 5800	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5800	< 5800	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5800	< 5800	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5800	< 5800	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5800	< 5800	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5800	< 5800	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5800	< 5800	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5800	< 5800	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5800	< 5800	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5800	< 5800	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5800	< 5800	U
36	ETHYLBENZENE	100-41-4	µg/kg	5800	< 5800	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5800	< 5800	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5800	1200	J
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5800	< 5800	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5800	3200	J
41	N-PROPYLBENZENE	103-65-1	µg/kg	5800	540	J
42	STYRENE	100-42-5	µg/kg	5800	< 5800	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5800	< 5800	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5800	< 5800	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5800	< 5800	U
46	TOLUENE	108-88-3	µg/kg	5800	< 5800	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5800	< 5800	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5800	< 5800	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5800	< 5800	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5800	< 5800	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5800	< 5800	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5800	< 5800	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5800	< 5800	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5800	9000	
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5800	2600	J
56	VINYL CHLORIDE	75-01-4	µg/kg	5800	< 5800	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12000	730	J

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	97
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	98
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	97
4	TOLUENE-D8	2037-26-5	81-116	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	104
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	98
3	FLUOROBENZENE	462-06-6	50-200	102
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-3	Received Date:	09/04/97
Sample ID:	**18609-481**	Sample Matrix	Soil	Moisture %:	12.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260	Prep. Date:	09/12/97	Anal. Date:	09/12/97
Batch No:	97G3741	Prep. No:	–	Anal. Time:	21:30
Data File Name:	3847-03	Sample Amount:	4.0 g	Dilution Factor:	10000
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	57000	< 57000	U
2	BROMOBENZENE	108-86-1	µg/kg	57000	< 57000	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	57000	< 57000	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	57000	< 57000	U
5	BROMOFORM	75-25-2	µg/kg	57000	< 57000	U
6	BROMOMETHANE	74-83-9	µg/kg	57000	15000	J
7	N-BUTYLBENZENE	104-51-8	µg/kg	57000	11000	J
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	57000	12000	J
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	57000	< 57000	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	57000	< 57000	U
11	CHLOROBENZENE	108-90-7	µg/kg	57000	< 57000	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	57000	< 57000	U
13	CHLOROETHANE	75-00-3	µg/kg	57000	< 57000	U
14	CHLOROFORM	67-66-3	µg/kg	57000	< 57000	U
15	CHLOROMETHANE	74-87-3	µg/kg	57000	< 57000	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	57000	< 57000	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	57000	< 57000	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	57000	4100	J
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	57000	< 57000	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	57000	< 57000	U
21	DIBROMOMETHANE	74-95-3	µg/kg	57000	< 57000	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	57000	< 57000	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	57000	< 57000	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	57000	< 57000	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	57000	< 57000	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	57000	< 57000	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	57000	< 57000	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	57000	< 57000	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	57000	< 57000	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	57000	< 57000	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	57000	< 57000	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	57000	< 57000	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	57000	< 57000	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	57000	< 57000	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	57000	< 57000	U
36	ETHYLBENZENE	100-41-4	µg/kg	57000	7600	J
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	57000	< 57000	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	57000	19000	J
39	METHYLENE CHLORIDE	75-09-2	µg/kg	57000	< 57000	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	57000	80000	
41	N-PROPYLBENZENE	103-65-1	µg/kg	57000	11000	J
42	STYRENE	100-42-5	µg/kg	57000	< 57000	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	57000	< 57000	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	57000	< 57000	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	57000	< 57000	U
46	TOLUENE	108-88-3	µg/kg	57000	< 57000	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	57000	< 57000	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	57000	< 57000	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	57000	< 57000	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	57000	< 57000	U
51	TRICHLOROETHENE	79-01-6	µg/kg	57000	< 57000	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	57000	< 57000	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	57000	< 57000	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	57000	150000	
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	57000	43000	J
56	VINYL CHLORIDE	75-01-4	µg/kg	57000	< 57000	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	110000	66000	J

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	96
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	96
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	95
4	TOLUENE-D8	2037-26-5	81-116	90
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	106
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	99
3	FLUOROBENZENE	462-06-6	50-200	104
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ish
		Lab Sample ID:	97-3847-6	Received Date:	09/04/97
Sample ID:	**18609-490**	Sample Matrix	Soil	Moisture %:	3.3
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/13/97	Anal. Date:	09/13/97
Batch No:	97G3734	Prep. No:	-	Anal. Time:	02:16
Data File Name:	3847-06	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.2	< 5.2	U
2	BROMOBENZENE	108-86-1	µg/kg	5.2	< 5.2	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.2	< 5.2	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.2	< 5.2	U
5	BROMOFORM	75-25-2	µg/kg	5.2	< 5.2	U
6	BROMOMETHANE	74-83-9	µg/kg	5.2	< 5.2	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.2	< 5.2	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.2	< 5.2	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.2	< 5.2	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.2	< 5.2	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.2	< 5.2	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.2	< 5.2	U
13	CHLOROETHANE	75-00-3	µg/kg	5.2	< 5.2	U
14	CHLOROFORM	67-66-3	µg/kg	5.2	< 5.2	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.2	< 5.2	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.2	< 5.2	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.2	< 5.2	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.2	< 5.2	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.2	< 5.2	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.2	< 5.2	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.2	< 5.2	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5.2	< 5.2	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.2	< 5.2	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.2	< 5.2	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.2	< 5.2	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.2	< 5.2	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.2	< 5.2	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.2	< 5.2	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.2	< 5.2	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.2	< 5.2	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.2	< 5.2	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.2	< 5.2	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.2	< 5.2	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.2	< 5.2	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.2	< 5.2	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.2	< 5.2	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.2	< 5.2	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.2	< 5.2	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.2	< 5.2	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.2	< 5.2	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.2	< 5.2	U
42	STYRENE	100-42-5	µg/kg	5.2	< 5.2	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.2	< 5.2	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.2	< 5.2	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.2	< 5.2	U
46	TOLUENE	108-88-3	µg/kg	5.2	< 5.2	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.2	< 5.2	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.2	< 5.2	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.2	< 5.2	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.2	< 5.2	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.2	< 5.2	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.2	< 5.2	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.2	< 5.2	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.2	< 5.2	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.2	< 5.2	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.2	< 5.2	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	10	< 10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	95
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	98
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	92
4	TOLUENE-D8	2037-26-5	81-116	95
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	125
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	119
3	FLUOROBENZENE	462-06-6	50-200	129
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishi
		Lab Sample ID:	97-3847-9	Received Date:	09/04/97
Sample ID:	**18609-493**	Sample Matrix	Soil	Moisture %:	8.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/13/97	Anal. Date:	09/13/97
Batch No:	97G3734	Prep. No:	–	Anal. Time:	02:55
Data File Name:	3847-09	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.5	< 5.5	U
2	BROMOBENZENE	108-86-1	µg/kg	5.5	< 5.5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.5	< 5.5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.5	< 5.5	U
5	BROMOFORM	75-25-2	µg/kg	5.5	< 5.5	U
6	BROMOMETHANE	74-83-9	µg/kg	5.5	< 5.5	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.5	< 5.5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.5	< 5.5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.5	< 5.5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.5	< 5.5	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.5	< 5.5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.5	< 5.5	U
13	CHLOROETHANE	75-00-3	µg/kg	5.5	< 5.5	U
14	CHLOROFORM	67-66-3	µg/kg	5.5	< 5.5	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.5	< 5.5	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.5	< 5.5	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.5	< 5.5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.5	< 5.5	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.5	< 5.5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.5	< 5.5	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.5	< 5.5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5.5	< 5.5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.5	< 5.5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.5	< 5.5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.5	< 5.5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.5	< 5.5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.5	< 5.5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.5	< 5.5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.5	< 5.5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.5	< 5.5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.5	< 5.5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.5	< 5.5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.5	< 5.5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.5	< 5.5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.5	< 5.5	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.5	< 5.5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.5	< 5.5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.5	< 5.5	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.5	< 5.5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.5	< 5.5	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.5	< 5.5	U
42	STYRENE	100-42-5	µg/kg	5.5	< 5.5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.5	< 5.5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.5	< 5.5	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.5	< 5.5	U
46	TOLUENE	108-88-3	µg/kg	5.5	< 5.5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.5	< 5.5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.5	< 5.5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.5	< 5.5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.5	< 5.5	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.5	< 5.5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.5	< 5.5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.5	< 5.5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.5	< 5.5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.5	< 5.5	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.5	< 5.5	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	11	< 11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	95
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	96
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	93
4	TOLUENE-D8	2037-26-5	81-116	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	117
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	108
3	FLUOROBENZENE	462-06-6	50-200	122
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishi
		Lab Sample ID:	97-3847-11	Received Date:	09/04/97
Sample ID:	**18609-495**	Sample Matrix	Soil	Moisture %:	16.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/13/97	Anal. Date:	09/13/97
Batch No:	97G3734	Prep. No:	-	Anal. Time:	09:21
Data File Name:	3847-11A	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	6.0	<6.0	U
2	BROMOBENZENE	108-86-1	µg/kg	6.0	<6.0	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	6.0	<6.0	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.0	<6.0	U
5	BROMOFORM	75-25-2	µg/kg	6.0	<6.0	U
6	BROMOMETHANE	74-83-9	µg/kg	6.0	<6.0	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	6.0	<6.0	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	6.0	<6.0	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	6.0	<6.0	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.0	<6.0	U
11	CHLOROBENZENE	108-90-7	µg/kg	6.0	<6.0	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.0	<6.0	U
13	CHLOROETHANE	75-00-3	µg/kg	6.0	<6.0	U
14	CHLOROFORM	67-66-3	µg/kg	6.0	<6.0	U
15	CHLOROMETHANE	74-87-3	µg/kg	6.0	<6.0	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	6.0	<6.0	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	6.0	<6.0	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	6.0	<6.0	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	6.0	<6.0	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	6.0	<6.0	U
21	DIBROMOMETHANE	74-95-3	µg/kg	6.0	<6.0	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	6.0	<6.0	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	6.0	<6.0	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	6.0	<6.0	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	6.0	<6.0	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.0	<6.0	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.0	<6.0	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.0	<6.0	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.0	<6.0	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.0	<6.0	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.0	<6.0	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	6.0	<6.0	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	6.0	<6.0	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	6.0	<6.0	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.0	<6.0	U
36	ETHYLBENZENE	100-41-4	µg/kg	6.0	<6.0	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	6.0	<6.0	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	6.0	<6.0	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	6.0	<6.0	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	6.0	2	J
41	N-PROPYLBENZENE	103-65-1	µg/kg	6.0	<6.0	U
42	STYRENE	100-42-5	µg/kg	6.0	<6.0	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	6.0	<6.0	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.0	<6.0	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	6.0	<6.0	U
46	TOLUENE	108-88-3	µg/kg	6.0	<6.0	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	6.0	<6.0	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	6.0	<6.0	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.0	<6.0	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.0	<6.0	U
51	TRICHLOROETHENE	79-01-6	µg/kg	6.0	<6.0	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	6.0	<6.0	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	6.0	<6.0	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	6.0	2	J
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	6.0	<6.0	U
56	VINYL CHLORIDE	75-01-4	µg/kg	6.0	<6.0	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	94
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	104
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	97
4	TOLUENE-D8	2037-26-5	81-116	89
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	108
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	108
3	FLUOROBENZENE	462-06-6	50-200	103
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishid
		Lab Sample ID:	97-3847-14	Received Date:	09/04/97
Sample ID:	**18609-498**	Sample Matrix	Soil	Moisture %:	2.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/13/97	Anal. Date:	09/13/97
Batch No:	97G3734	Prep. No:	–	Anal. Time:	03:33
Data File Name:	3847-14	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.1	< 5.1	U
2	BROMOBENZENE	108-86-1	µg/kg	5.1	< 5.1	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.1	< 5.1	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.1	< 5.1	U
5	BROMOFORM	75-25-2	µg/kg	5.1	< 5.1	U
6	BROMOMETHANE	74-83-9	µg/kg	5.1	< 5.1	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.1	< 5.1	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.1	< 5.1	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.1	< 5.1	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.1	< 5.1	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.1	< 5.1	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.1	< 5.1	U
13	CHLOROETHANE	75-00-3	µg/kg	5.1	< 5.1	U
14	CHLOROFORM	67-66-3	µg/kg	5.1	< 5.1	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.1	< 5.1	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.1	< 5.1	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.1	< 5.1	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.1	< 5.1	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.1	< 5.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.1	< 5.1	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.1	< 5.1	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5.1	< 5.1	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.1	< 5.1	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.1	< 5.1	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.1	< 5.1	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.1	< 5.1	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.1	< 5.1	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.1	< 5.1	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.1	< 5.1	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.1	< 5.1	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.1	< 5.1	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.1	< 5.1	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.1	< 5.1	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.1	< 5.1	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.1	< 5.1	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.1	< 5.1	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.1	< 5.1	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.1	< 5.1	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.1	< 5.1	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.1	< 5.1	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.1	< 5.1	U
42	STYRENE	100-42-5	µg/kg	5.1	< 5.1	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.1	< 5.1	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.1	< 5.1	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.1	< 5.1	U
46	TOLUENE	108-88-3	µg/kg	5.1	< 5.1	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.1	< 5.1	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.1	< 5.1	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.1	< 5.1	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.1	< 5.1	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.1	< 5.1	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.1	< 5.1	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.1	< 5.1	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.1	< 5.1	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.1	< 5.1	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.1	< 5.1	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	10	< 10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	96
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	96
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	90
4	TOLUENE-D8	2037-26-5	81-116	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	117
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	109
3	FLUOROBENZENE	462-06-6	50-200	122
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

20991

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3734		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	S3 % #	S4 % #	TOT OUT
1	97G3734-MB-01	97G3734-MB-01	105	107	105	102	0
2	97G3734-LCS-01	97G3734-LCS-01	91	97	93	94	0
3	97G3734-LSD-01	97G3734-LSD-01	94	99	92	93	0
4	OPRA-IF-001-MS	97-3901-1MS	100	105	103	98	0
5	OPRA-IF-001-MSD	97-3901-1MSD	99	104	102	98	0
6	97G3734-MB-02	97G3734-MB-02	93	96	89	90	0
7	18609-490	97-3847-6	95	98	92	95	0
8	18609-493	97-3847-9	95	96	93	94	0
9	18609-498	97-3847-14	96	96	90	97	0
10	18609-495	97-3847-11	94	104	97	89	0
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	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (BFB)	86-114
S2 = DIBROMOFLUOROMETHANE	85-116
S3 = 1,2-DICHLOROETHANE-D4	80-119
S4 = TOLUENE-D8	81-116

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

20994

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3741		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	S3 % #	S4 % #	TOT OUT
2	97G3741-LCS-01	97G3741-LCS-01	102	103	103	101	0
3	97G3741-LSD-01	97G3741-LSD-01	94	96	95	93	0
4	18609-478-MS	97-3847-1MS	99	98	99	94	0
5	18609-478-MSD	97-3847-1MSD	99	100	99	93	0
6	18609-478	97-3847-1	97	98	97	92	0
7	18609-481	97-3847-3	96	96	95	90	0
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	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (BFB)	86-114
S2 = DIBROMOFLUOROMETHANE	85-116
S3 = 1,2-DICHLOROETHANE-D4	80-119
S4 = TOLUENE-D8	81-116

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3734		
LCS Filename:	G3734L01	Date Analyzed:	091297	Time Analyzed:	15:11
LCSD Filename:	G3734J01	Date Analyzed:	091297	Time Analyzed:	15:50

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/kg	50	0	48.9	98	80-121
CHLOROBENZENE	µg/kg	50	0	48.7	97	80-118
1,1-DICHLOROETHENE	µg/kg	50	0	48.3	97	68-134
TOLUENE	µg/kg	50	0	48.9	98	80-119
TRICHLOROETHENE	µg/kg	50	0	46.8	94	80-121
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/kg	50	49.4	99	1	20	80-121
CHLOROBENZENE	µg/kg	50	49.2	98	1	22	80-118
1,1-DICHLOROETHENE	µg/kg	50	48.7	97	0	44	68-134
TOLUENE	µg/kg	50	49.3	99	1	46	80-119
TRICHLOROETHENE	µg/kg	50	47.1	94	0	42	80-121
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

20996

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3734		
MS Filename:	G3734M01	Date Analyzed:	091297	Time Analyzed:	16:40
MSD Filename:	G3734N01	Date Analyzed:	091297	Time Analyzed:	17:18
MS Sample No:	**OPRA-IF-001**	Sample Lab ID:	97-3901-1	Moisture, %	2.6

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/kg	51.3	0	54.9	107	80-122
CHLOROBENZENE	µg/kg	51.3	0	54.6	106	75-120
1,1-DICHLOROETHENE	µg/kg	51.3	0	61.5	120	58-146
TOLUENE	µg/kg	51.3	0	53.7	105	60-138
TRICHLOROETHENE	µg/kg	51.3	0	53.1	104	71-155
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/kg	51.3	55.9	109	2	20	80-122
CHLOROBENZENE	µg/kg	51.3	55.5	108	2	22	75-120
1,1-DICHLOROETHENE	µg/kg	51.3	61.6	120	0	44	58-146
TOLUENE	µg/kg	51.3	55.2	108	3	46	60-138
TRICHLOROETHENE	µg/kg	51.3	52.2	102	2	42	71-155
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

21007

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3741		
LCS Filename:	G3741L01	Date Analyzed:	091297	Time Analyzed:	18:47
LCSD Filename:	G3741J01	Date Analyzed:	091297	Time Analyzed:	19:19

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/L	50	0	51.5	103	80-121
CHLOROBENZENE	µg/L	50	0	53.4	107	80-118
1,1-DICHLOROETHENE	µg/L	50	0	52.8	106	68-134
TOLUENE	µg/L	50	0	50.2	100	80-119
TRICHLOROETHENE	µg/L	50	0	53.0	106	80-121
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/L	50	48.4	97	6	20	80-121
CHLOROBENZENE	µg/L	50	50.1	100	7	22	80-118
1,1-DICHLOROETHENE	µg/L	50	49.3	99	7	44	68-134
TOLUENE	µg/L	50	47.1	94	6	46	80-119
TRICHLOROETHENE	µg/L	50	57.3	115	8	42	80-121
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

21012

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3741		
MS Filename:	G3741M01	Date Analyzed:	091297	Time Analyzed:	19:52
MSD Filename:	G3741N01	Date Analyzed:	091297	Time Analyzed:	20:25
MS Sample No:	**18609-478**	Sample Lab ID:	97-3847-1	Moisture, %	13.5

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/kg	57800	0	67400	117	80-122
CHLOROBENZENE	µg/kg	57800	0	63700	110	75-120
1,1-DICHLOROETHENE	µg/kg	57800	0	70400	122	58-146
TOLUENE	µg/kg	57800	0	62500	108	60-138
TRICHLOROETHENE	µg/kg	57800	0	68800	119	71-155
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/kg	57800	71200	123 *	5	20	80-122
CHLOROBENZENE	µg/kg	57800	65600	113	3	22	75-120
1,1-DICHLOROETHENE	µg/kg	57800	69700	121	1	44	58-146
TOLUENE	µg/kg	57800	64100	111	3	46	60-138
TRICHLOROETHENE	µg/kg	57800	66700	115	3	42	71-155
# of Out-of-control				1	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

21023

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		CCV Data File:	G3734Q01	Instrument ID:	C

Batch No: 97G3734

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			09/12/97 12:21	7068828	12.86	5392279	19.88	2645740	24.59
CCV Upper Limit				14137656	13.36	10784558	20.38	5291480	25.09
CCV Lower Limit				3534414	12.36	2696139	19.38	1322870	24.09
1	97G3734-MB-01	97G3734-MB-01	09/12/97 14:32	7167231	12.87	5247732	19.89	2391377	24.60
2	97G3734-LCS-01	97G3734-LCS-01	09/12/97 15:11	7150744	12.87	5274669	19.89	2620199	24.59
3	97G3734-LSD-01	97G3734-LSD-01	09/12/97 15:50	6981746	12.87	5230539	19.89	2568050	24.59
4	OPRA-IF-001-MS	97-3901-1MS	09/12/97 16:40	7359823	12.87	5592854	19.89	2670706	24.60
5	OPRA-IF-001-MSD	97-3901-1MSD	09/12/97 17:18	7488315	12.87	5583806	19.89	2615809	24.60
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IS-1 = FLUOROBENZENE
IS-2 = CHLOROBENZENE-D5
IS-3 = 1,4-DICHLOROBENZENE-D4

Area Upper Limit = +100% of CCV internanl standard area
Area Lower Limit = - 50% of CCV internanl standard area
RT Upper Limit = +0.50 minutes of CCV internanl standard RT
RT Lower Limit = - 0.50 minutes of CCV internanl standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

21111

Applied P & Ch Laboratory

Volatile Organic Instrument Performance Check for Method 8260

Bromofluorobenzene (BFB), Part II

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	BFB Inj. Date:	09/12/97	Batch No:	97G3734
		BFB Inj. Time:	23:43	Sequence No:	97G3734
Project No:	18609	Instrument ID:	C	GC Column:	DB-5.624
Data File Name:	G3734P02	Heated Purge: (Y/N)	Y	Column ID:	0.32 mm

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	97G3734-CCV-02	97G3734-CCV-02	G3734Q02	09/13/97	00:21
2	97G3734-MB-02	97G3734-MB-02	G3734K02	09/13/97	01:38
3	18609-490	97-3847-6	3847-06	09/13/97	02:16
4	18609-493	97-3847-9	3847-09	09/13/97	02:55
5	18609-498	97-3847-14	3847-14	09/13/97	03:33
6	18609-495	97-3847-11	3847-11A	09/13/97	09:21
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Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		CCV Data File:	G3734Q02	Instrument ID:	C

Batch No: 97G3734

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			09/13/97 00:21	7395524	12.85	5591733	19.88	2729314	24.59
CCV Upper Limit				14791048	13.35	11183466	20.38	5458628	25.09
CCV Lower Limit				3697762	12.35	2795866	19.38	1364657	24.09
1	97G3734-MB-02	97G3734-MB-02	09/13/97 01:38	7202244	12.86	5458190	19.87	2534872	24.58
2	18609-490	97-3847-6	09/13/97 02:16	9555358	12.86	7012388	19.88	3256106	24.58
3	18609-493	97-3847-9	09/13/97 02:55	9002666	12.86	6546737	19.88	2939488	24.58
4	18609-498	97-3847-14	09/13/97 03:33	9020515	12.86	6540247	19.88	2984231	24.58
5	18609-495	97-3847-11	09/13/97 09:21	7587904	12.84	6058054	19.85	2957367	24.56
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IS-1 = FLUOROBENZENE
IS-2 = CHLOROBENZENE-D5
IS-3 = 1,4-DICHLOROBENZENE-D4

Area Upper Limit = +100% of CCV internanl standard area
Area Lower Limit = - 50% of CCV internanl standard area
RT Upper Limit = +0.50 minutes of CCV internanl standard RT
RT Lower Limit = - 0.50 minutes of CCV internanl standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

21123

Applied P & Ch Laboratory

Volatile Organic Instrument Performance Check for Method 8260

Bromofluorobenzene (BFB), Part II

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	BFB Inj. Date:	09/12/97	Batch No:	97G3741
		BFB Inj. Time:	17:09	Sequence No:	97G3741
Project No:	18609	Instrument ID:	Q	GC Column:	DB-5.624
Data File Name:	G3741P01	Heated Purge: (Y/N)	N	Column ID:	0.32 mm

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	97G3741-CCV-01	97G3741-CCV-01	G3741Q01	09/12/97	17:41
2	97G3741-MB-01	97G3741-MB-01	G3741K01	09/12/97	18:14
3	97G3741-LCS-01	97G3741-LCS-01	G3741L01	09/12/97	18:47
4	97G3741-LSD-01	97G3741-LSD-01	G3741J01	09/12/97	19:19
5	18609-478-MS	97-3847-1MS	G3741M01	09/12/97	19:52
6	18609-478-MSD	97-3847-1MSD	G3741N01	09/12/97	20:25
7	18609-478	97-3847-1	3847-01	09/12/97	20:58
8	18609-481	97-3847-3	3847-03	09/12/97	21:30
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Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		CCV Data File:	G3741Q01	Instrument ID:	Q

Batch No: 97G3741

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			09/12/97 17:41	1955232	11.40	770429	17.53	656033	21.69
CCV Upper Limit				3910464	11.90	1540858	18.03	1312066	22.19
CCV Lower Limit				977616	10.90	385214	17.03	328016	21.19
1	97G3741-MB-01	97G3741-MB-01	09/12/97 18:14	1979851	11.39	797096	17.53	631160	21.69
2	97G3741-LCS-01	97G3741-LCS-01	09/12/97 18:47	1846784	11.40	729399	17.53	617543	21.69
3	97G3741-LSD-01	97G3741-LSD-01	09/12/97 19:19	1846642	11.39	728104	17.53	609327	21.69
4	18609-478-MS	97-3847-1MS	09/12/97 19:52	1827205	11.39	725032	17.53	574749	21.69
5	18609-478-MSD	97-3847-1MSD	09/12/97 20:25	1891225	11.39	761222	17.53	601763	21.69
6	18609-478	97-3847-1	09/12/97 20:58	1987552	11.38	803459	17.52	639887	21.68
7	18609-481	97-3847-3	09/12/97 21:30	2024515	11.38	812843	17.52	646776	21.68
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS-1 = FLUOROBENZENE
IS-2 = CHLOROBENZENE-D5
IS-3 = 1,4-DICHLOROBENZENE-D4

Area Upper Limit = +100% of CCV internanl standard area
Area Lower Limit = - 50% of CCV internanl standard area
RT Upper Limit = +0.50 minutes of CCV internanl standard RT
RT Lower Limit = - 0.50 minutes of CCV internanl standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/10/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	
		Lab Sample ID:	97G3697-MB-01	Received Date:	09/10/97
Sample ID:	**97G3697-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	13:54
Data File Name:	3697G.K01	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1	< 1	U
2	BENZENE	71-43-2	μg/kg	5	< 5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5	< 5	U
4	TOLUENE	108-88-3	μg/kg	5	< 5	U
5	TOLUENE	1330-20-7	μg/kg	5	< 5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	90
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	98
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21166

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3697g.k01
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : mb s f=5
Acquired : Sep 10, 1997 13:54:34
Printed : Sep 10, 1997 14:09:39

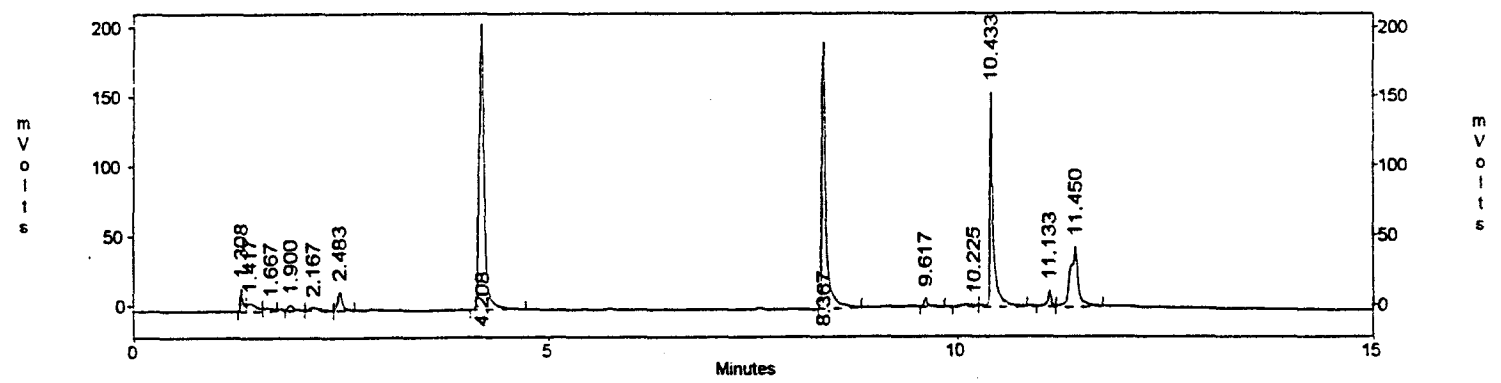
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.21	893063	205068	12605.34375	70.8
8	7. BFB	8.37	636933	191480	7089.23193	89.8
11	10.3-Br-Cl-Bz	10.43	508961	154211	5071.21387	100.4
G1	1. Gasoline		502921		11762.49512	42.8

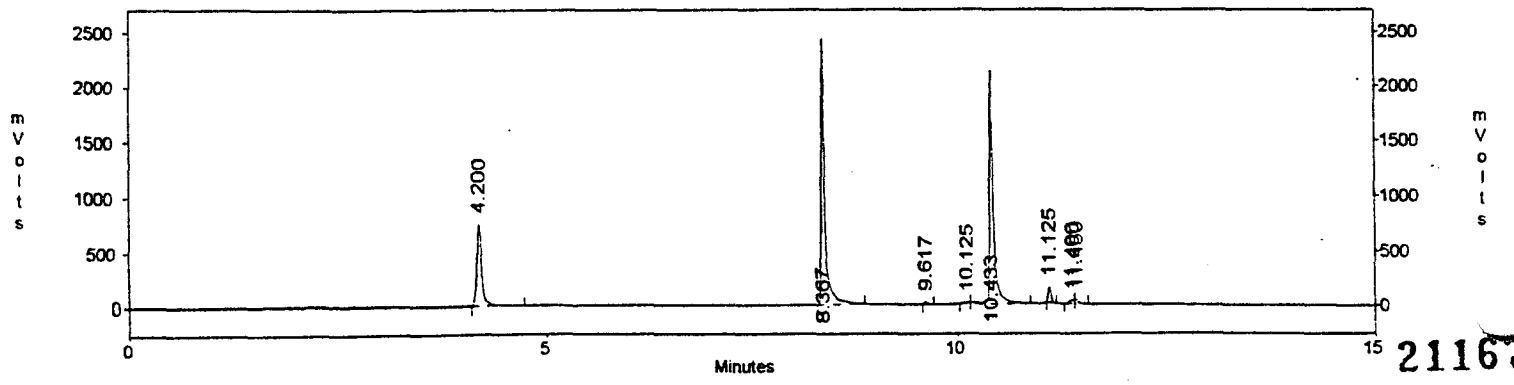
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3258115	753358	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.37	7990835	2431274	2.49216	98.41
5	10. 3-Br-Cl-Bz	10.43	6712059	2118429	1.93321	106.56

C:\DATA\9709\97g3697\3697g.k01 -- Channel A



C:\DATA\9709\97g3697\3697g.k01 -- Channel B



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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/08/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	
		Lab Sample ID:	97G3674-MB-01	Received Date:	09/08/97
Sample ID:	**97G3674-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	09/08/97	Anal. Date:	09/08/97
Batch No:	97G3674	Prep. No:	–	Anal. Time:	13:54
Data File Name:	3674G.K01	Sample Amount:		Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	TOLUENE	1330-20-7	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	110
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	114
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21168

Gasoline/BTXE, GC analysis by FID/PID

File : C:\DATA\9709\97g3674\3674g.k01
Method : c:\ezchrom\methods\Luft048.b00
Sample ID : mb w f=1
Acquired : Sep 08, 1997 11:46:18
Printed : Sep 08, 1997 12:01:58

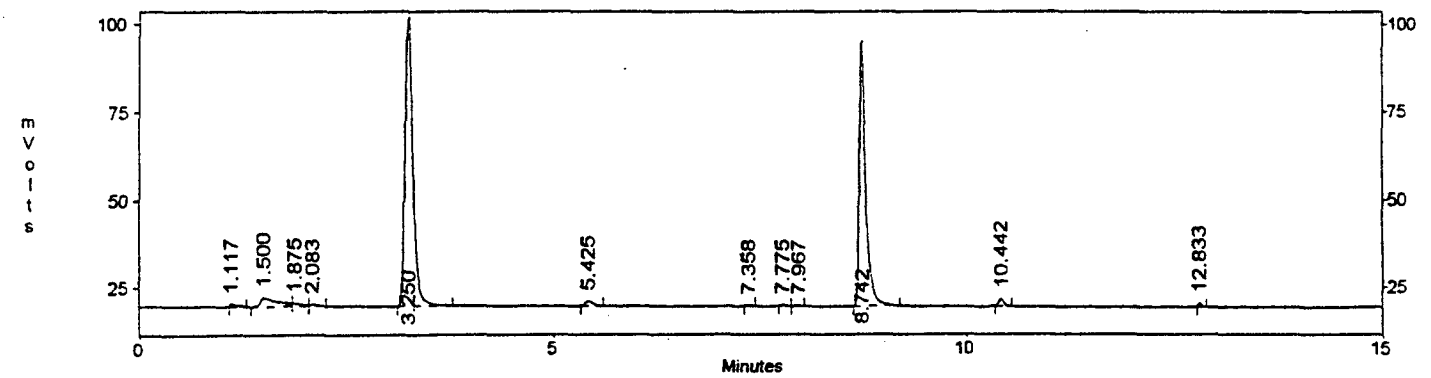
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
5	2. TFT	3.25	570693	82462	6076.81787	93.9
10	7. BFB	8.74	422091	75847	3851.70581	109.6
G1	1. Gasoline		35853		4664.44092	7.7

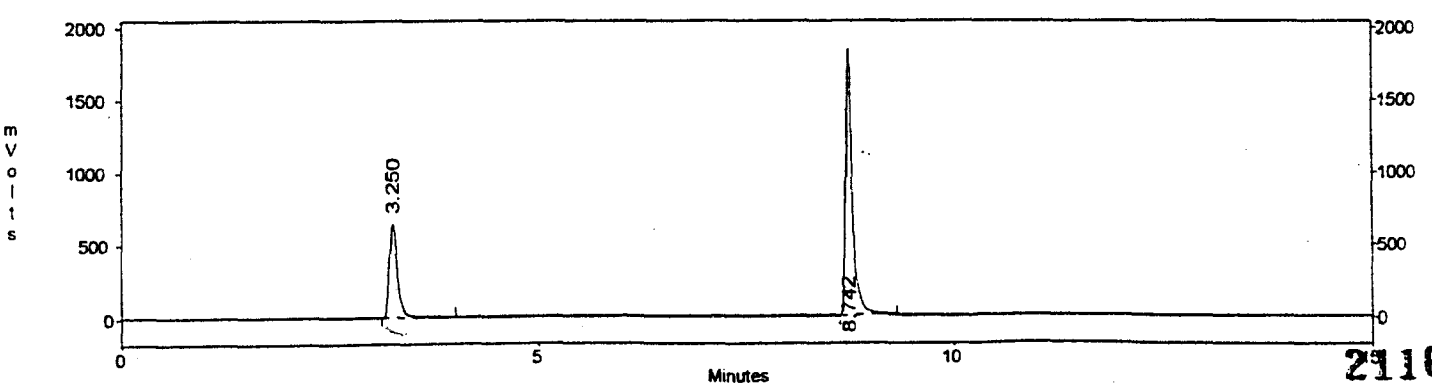
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	1.77	0	0	0.00000	0.00
--	10. MEK	2.30	0	0	0.00000	0.00
--	1. Benzene W 20	2.58	0	0	0.00000	0.00
1	2. TFT (Int.)	3.25	4460329	639056	1.00000	100.00
--	3. Toluene W 80	4.68	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.18	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.39	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.74	10358947	1839030	2.03435	114.16

C:\DATA\9709\97g3674\3674g.k01 -- Channel A



C:\DATA\9709\97g3674\3674g.k01 -- Channel B



21169

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/08/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	
		Lab Sample ID:	97G3674-MB-02	Received Date:	09/08/97
Sample ID:	**97G3674-MB-02**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	09/08/97	Anal. Date:	09/08/97
Batch No:	97G3674	Prep. No:	-	Anal. Time:	13:08
Data File Name:	3674G.K02	Sample Amount:		Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	TOLUENE	1330-20-7	μg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	105
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	115
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	91
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21170

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID

File : C:\DATA\9709\97g3674\3674g.k02
Method : c:\ezchrom\methods\Luft048.b00
Sample ID : mb @s w f=1
Acquired : Sep 08, 1997 13:08:46
Printed : Sep 08, 1997 13:24:27

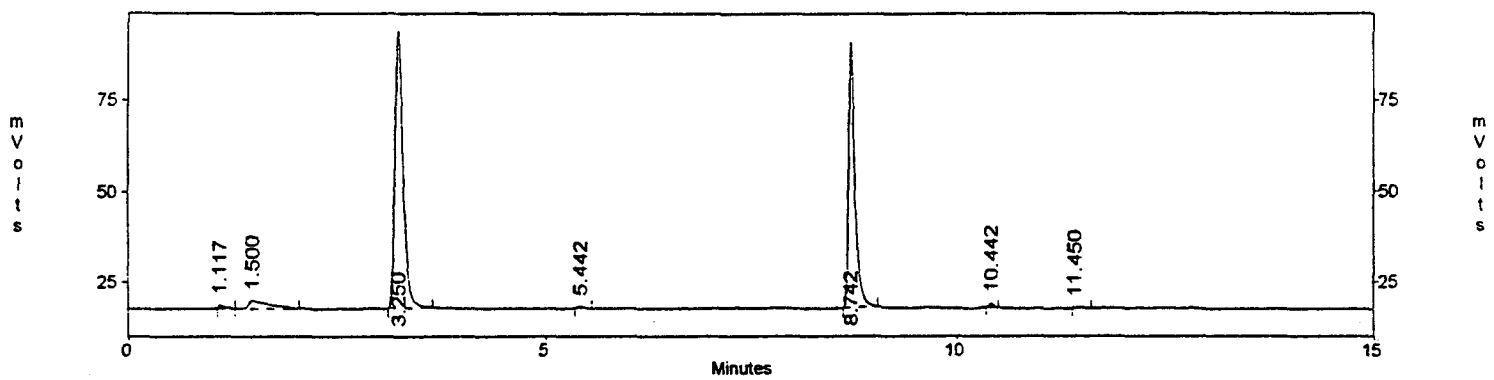
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
3	2. TFT	3.25	536740	76594	6076.81787	88.3
5	7. BFB	8.74	404703	73274	3851.70581	105.1
G1	1. Gasoline		10325		4664.44092	2.2

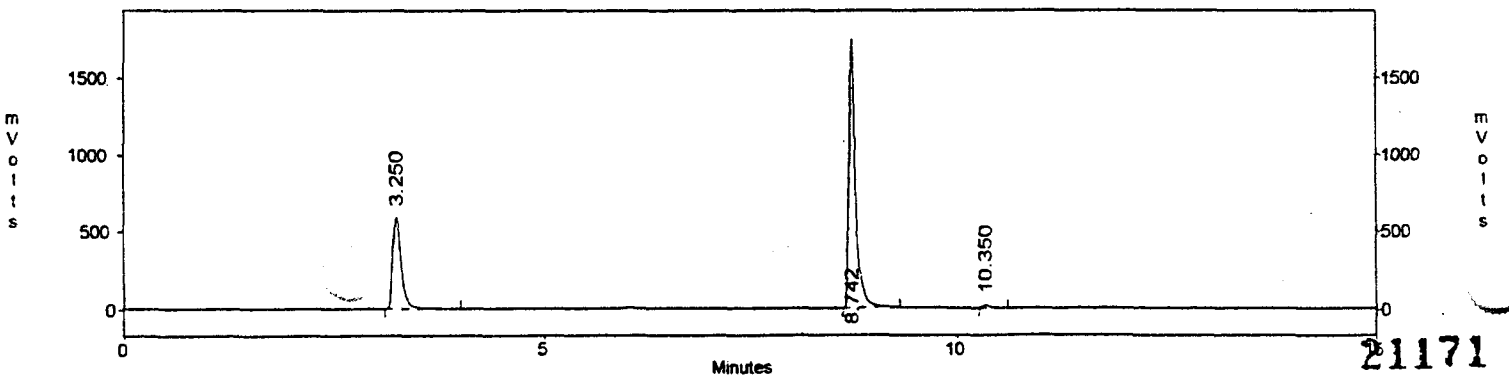
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	1.77	0	0	0.00000	0.00
--	10. MEK	2.30	0	0	0.00000	0.00
--	1. Benzene W 20	2.58	0	0	0.00000	0.00
1	2. TFT (Int.)	3.25	4210936	588968	1.00000	100.00
--	3. Toluene W 80	4.68	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.18	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.39	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.74	9867713	1745658	2.03435	115.19

C:\DATA\9709\97g3674\3674g.k02 -- Channel A



C:\DATA\9709\97g3674\3674g.k02 -- Channel B



21171

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-1	Received Date:	09/04/97
Sample ID:	**18609-478**	Sample Matrix	Soil	Moisture %:	13.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	16:58
Data File Name:	3847.001	Sample Amount:	4 g	Dilution Factor:	100
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	120	<120 [a]	U
2	BENZENE	71-43-2	μg/kg	580	<580	U
3	ETHYLBENZENE	100-41-4	μg/kg	580	<580	U
4	TOLUENE	108-88-3	μg/kg	580	<580	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	1700	<1700	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	103
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21172

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9709\97g3697\3847.001
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : 3847-1 s f=500
Acquired : Sep 10, 1997 16:58:56
Printed : Sep 11, 1997 13:53:34

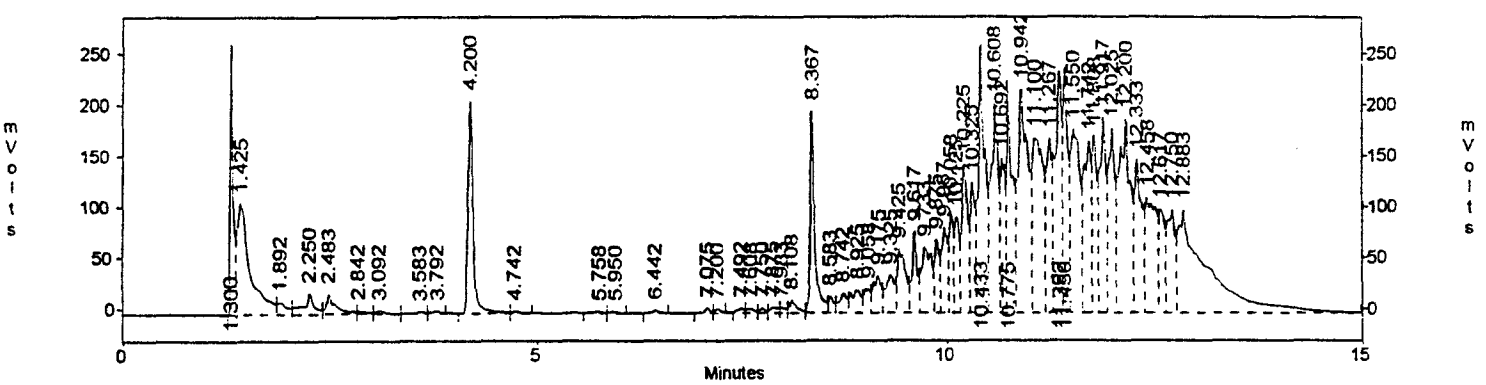
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
10	2. TFT	4.20	910533	208111	12605.34375	72.2
23	7. BFB	8.37	730926	197775	7089.23193	103.1
39	10.3-Br-Cl-Bz	10.43	1522496	261322	5071.21387	300.2
G1	1. Gasoline		20422718		11762.49512	1736.3

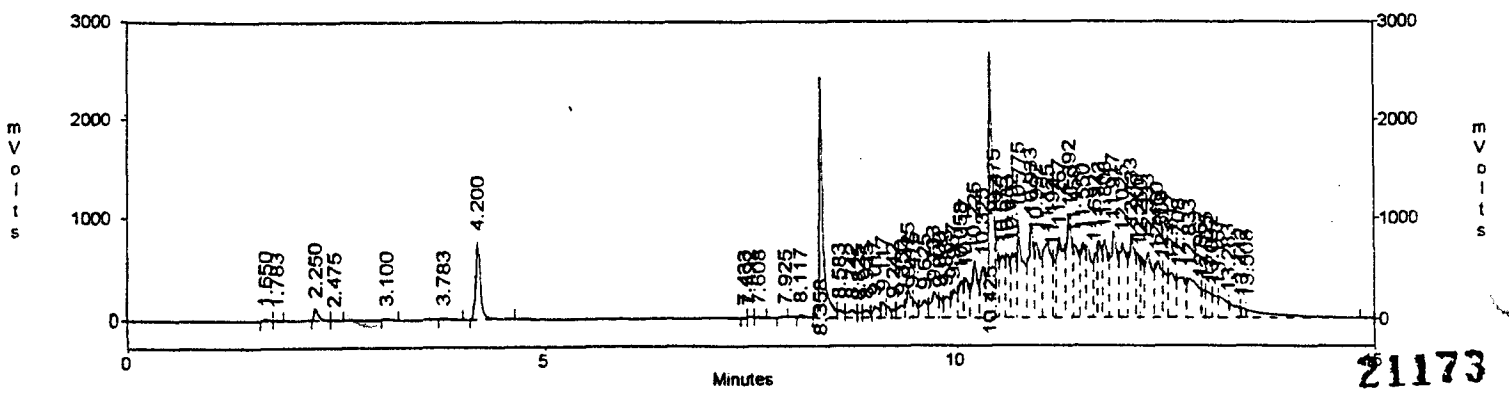
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
3	9. MTBE	2.25	388559	103576	0.79978	15.01
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
7	2. TFT (Int.)	4.20	3236648	763334	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
8	5. Et-Bz W 19	7.43	22922	8010	2.56232	0.28
10	6. P/M xylene W 82	7.61	59286	14264	3.32514	0.55
11	7. O-xylene W 27	7.93	15117	4278	2.91125	0.16
13	8. BFB (Surr.)	8.36	8000885	2420883	2.49216	99.19
33	10. 3-Br-Cl-Bz	10.43	8607802	2690515	1.93321	137.57

c:\data\9709\97g3697\3847.001 -- Channel A



c:\data\9709\97g3697\3847.001 -- Channel B



21173

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-2	Received Date:	09/04/97
Sample ID:	**18609-480**	Sample Matrix	Soil	Moisture %:	15.3
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	-	Anal. Time:	16:33
Data File Name:	3847.002	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	240	<240 [a]	U
2	BENZENE	71-43-2	μg/kg	1200	<1200	U
3	ETHYLBENZENE	100-41-4	μg/kg	1200	<1200	U
4	TOLUENE	108-88-3	μg/kg	1200	<1200	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	3500	<3500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	111
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21174

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9709\97g3697\3847.002
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : 3847-2 s f=1000
Acquired : Sep 10, 1997 16:33:18
Printed : Sep 11, 1997 13:54:19

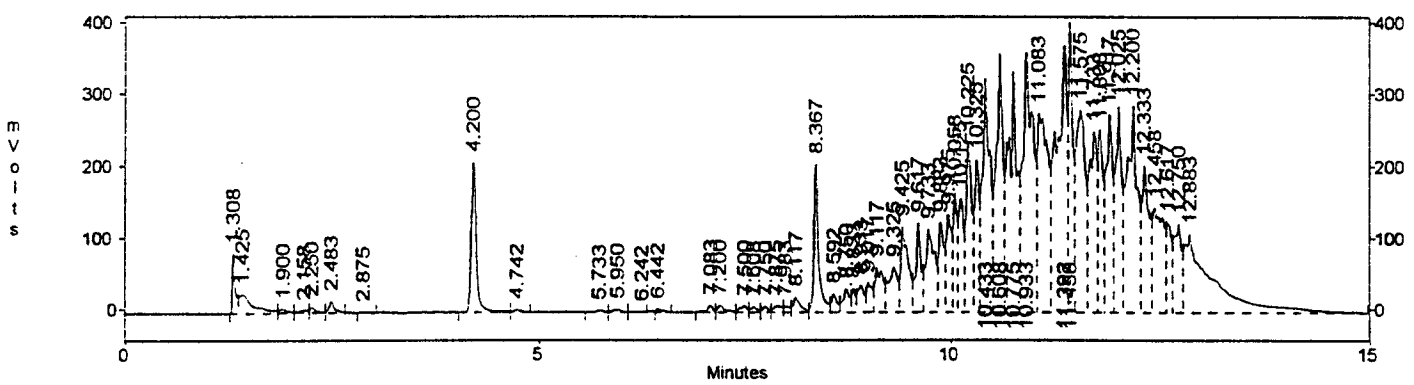
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
8	2. TFT	4.20	911969	209212	12605.34375	72.3
22	7. BFB	8.37	786978	205946	7089.23193	111.0
39	10.3-Br-Cl-Bz	10.43	2141750	325053	5071.21387	422.3
G1	1. Gasoline		31619926		11762.49512	2688.2

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	2.25	149753	41562	0.79978	5.81
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
3	2. TFT (Int.)	4.20	3223163	763416	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
6	5. Et-Bz W 19	7.43	49578	18785	2.56232	0.60
8	6. P/M xylene W 82	7.61	89041	23560	3.32514	0.83
10	7. O-xylene W 27	8.02	121652	23131	2.91125	1.30
12	8. BFB (Surr.)	8.37	8005570	2468969	2.49216	99.66
32	10. 3-Br-Cl-Bz	10.43	12883405	2914815	1.93321	206.76

c:\data\9709\97g3697\3847.002 – Channel A



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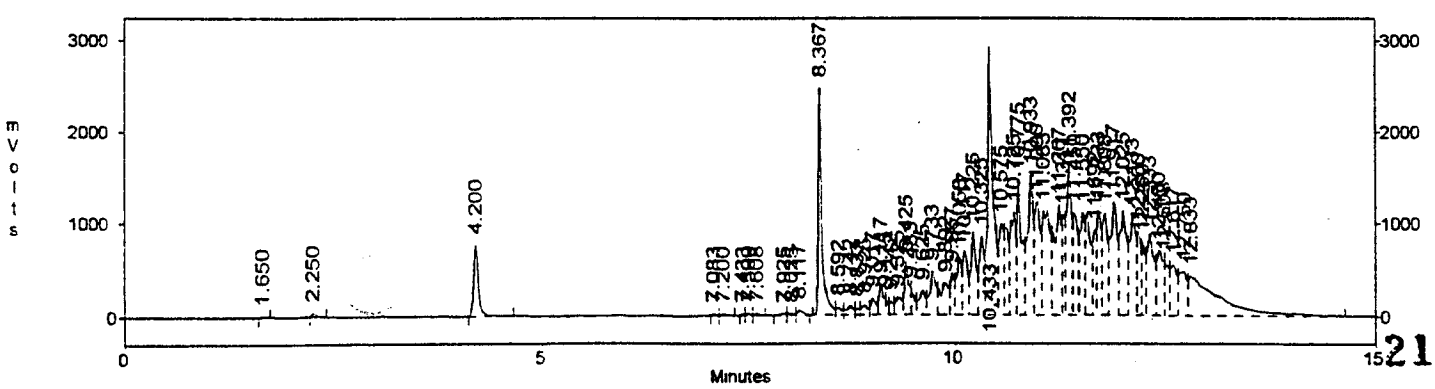


21175

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-3	Received Date:	09/04/97
Sample ID:	**18609-481**	Sample Matrix	Soil	Moisture %:	12.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	-	Anal. Time:	16:07
Data File Name:	3847.003	Sample Amount:	4 g	Dilution Factor:	200
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	230	<230 [a]	U
2	BENZENE	71-43-2	μg/kg	1100	<1100	U
3	ETHYLBENZENE	100-41-4	μg/kg	1100	<1100	U
4	TOLUENE	108-88-3	μg/kg	1100	<1100	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	3400	<3400	U

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	107
2 4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control			0

Internal Standard		Control Limit, %	IS Rec.%
1 α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control			0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21176

Gasoline/BTXE, GC analysis by FID/PID (System N)

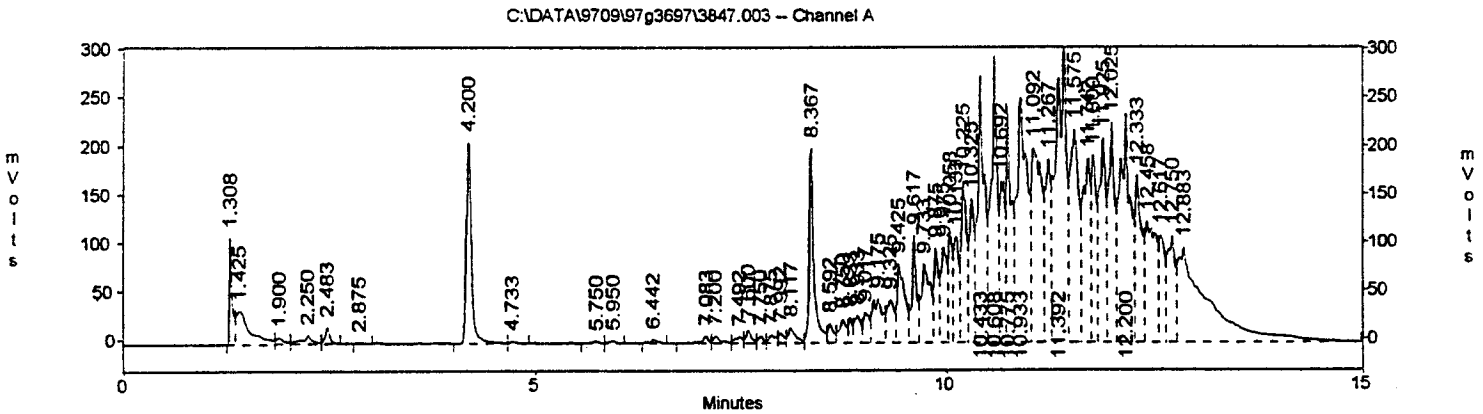
File : C:\DATA\9709\97g3697\3847.003
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-3 s f=1000
Acquired : Sep 10, 1997 16:07:52
Printed : Sep 10, 1997 16:22:57

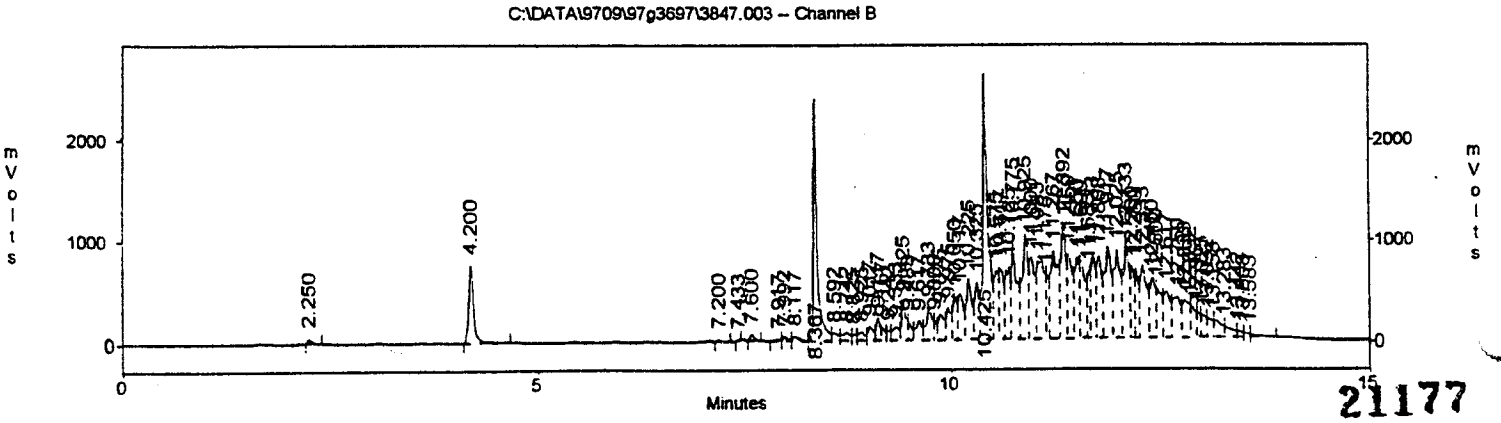
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.20	909557	208026	12605.34375	72.2
20	7. BFB	8.37	760897	201447	7089.23193	107.3
37	10.3-Br-Cl-Bz	10.43	1646514	275725	5071.21387	324.7
G1	1. Gasoline		23662146		11762.49512	2011.7

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
1	9. MTBE	2.25	154859	42601	0.79978	6.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
2	2. TFT (Int.)	4.20	3227995	761951	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
4	5. Et-Bz W 19	7.43	18166	7921	2.56232	0.22
5	6. P/M xylene W 82	7.60	198974	57665	3.32514	1.85
7	7. O-xylene W 27	7.99	166086	41398	2.91125	1.77
9	8. BFB (Surr.)	8.37	8004692	2418086	2.49216	99.50
30	10. 3-Br-Cl-Bz	10.43	11004627	2650908	1.93321	176.35





21177

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-4	Received Date:	09/04/97
Sample ID:	**18609-484**	Sample Matrix	Soil	Moisture %:	17.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/11/97	Anal. Date:	09/11/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	01:22
Data File Name:	3847.004	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	6.1	<6.1	U
3	ETHYLBENZENE	100-41-4	μg/kg	6.1	<6.1	U
4	TOLUENE	108-88-3	μg/kg	6.1	<6.1	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	18	<18	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	91
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21178

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3847.004
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-4 s f=5
Acquired : Sep 11, 1997 01:22:00
Printed : Sep 11, 1997 01:37:05

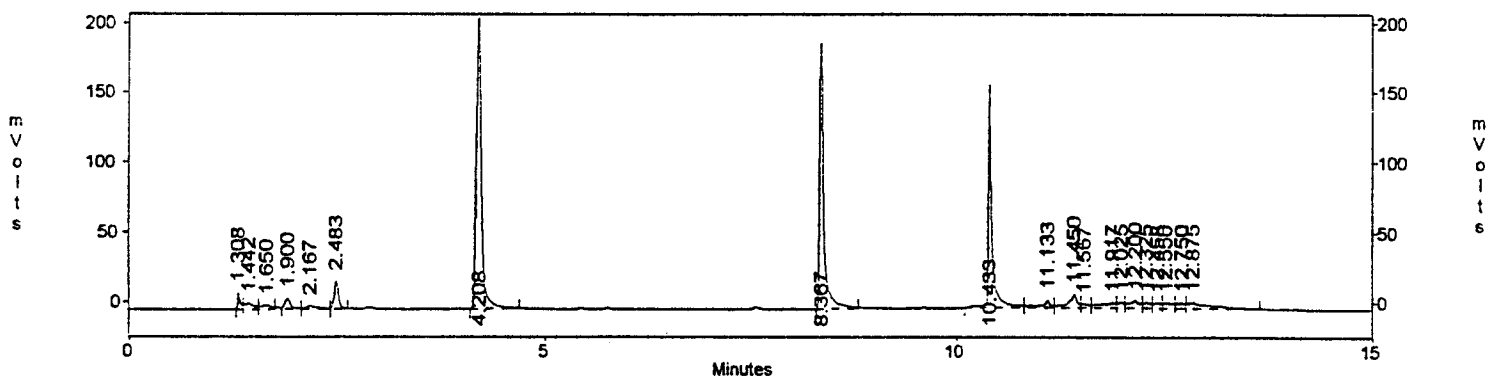
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.21	904119	208742	12605.34375	71.7
8	7. BFB	8.37	643266	190239	7089.23193	90.7
9	10.3-Br-Cl-Bz	10.43	532512	159188	5071.21387	105.0
G1	1. Gasoline		357295		11762.49512	30.4

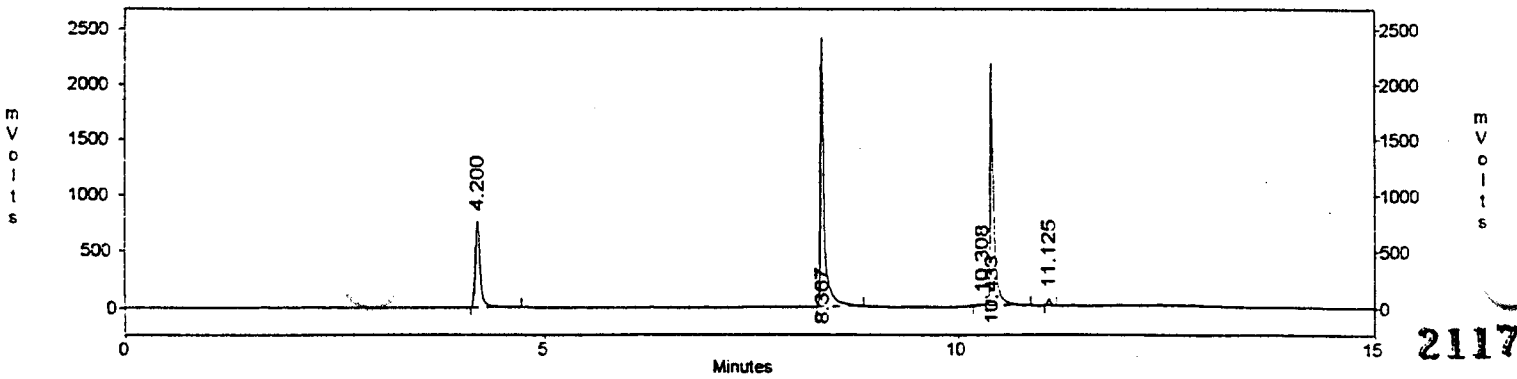
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. RF	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3242018	759391	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.37	8026032	2416537	2.49216	99.34
4	10. 3-Br-Cl-Bz	10.43	6697502	2173759	1.93321	106.86

C:\DATA\9709\97g3697\3847.004 -- Channel A



C:\DATA\9709\97g3697\3847.004 -- Channel B



21179

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-5	Received Date:	09/04/97
Sample ID:	**18609-487**	Sample Matrix	Soil	Moisture %:	13.6
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/11/97	Anal. Date:	09/11/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	00:30
Data File Name:	3847.005	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	5.8	<5.8	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.8	<5.8	U
4	TOLUENE	108-88-3	μg/kg	5.8	<5.8	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	17	<17	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	92
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21180

Applied [illegible] Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3847.005
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-5 s f=5
Acquired : Sep 11, 1997 00:30:45
Printed : Sep 11, 1997 00:45:49

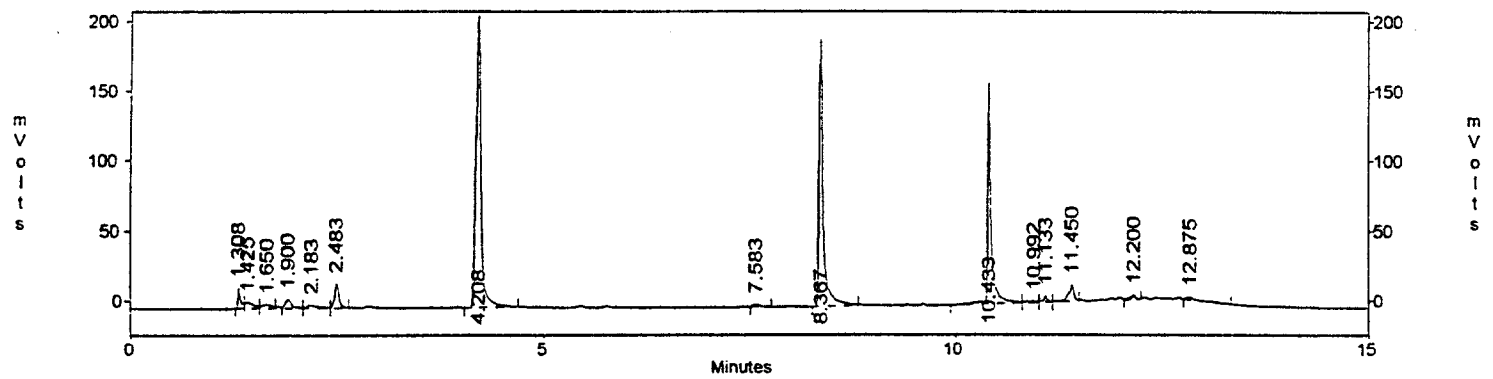
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.21	907665	208762	12605.34375	72.0
9	7. BFB	8.37	649147	190450	7089.23193	91.6
10	10.3-Br-Cl-Bz	10.43	514692	158181	5071.21387	101.5
G1	1. Gasoline		225265		11762.49512	19.2

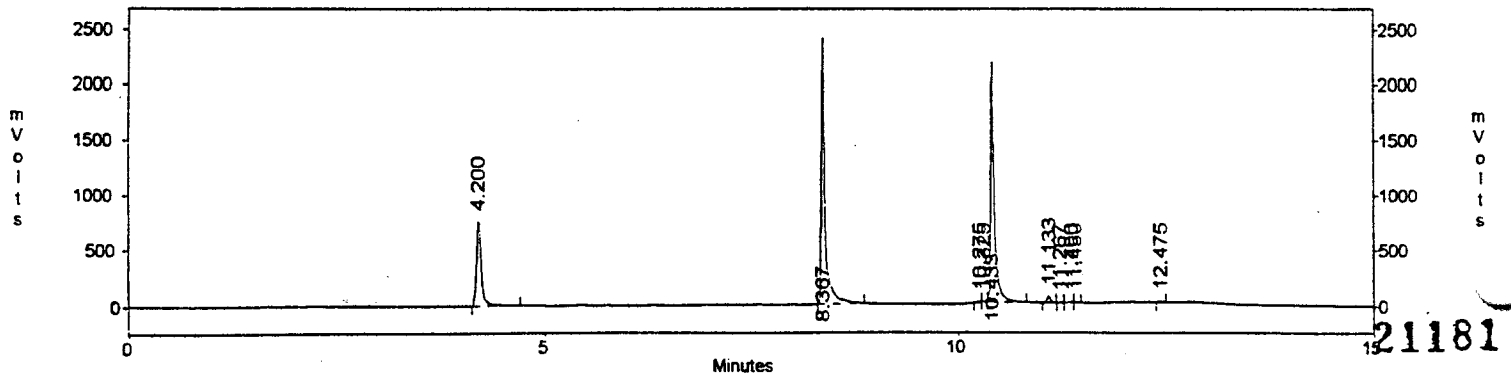
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3237636	756644	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.37	8001631	2418522	2.49216	99.17
5	10. 3-Br-Cl-Bz	10.43	6600991	2177452	1.93321	105.46

C:\DATA\9709\97g3697\3847.005 – Channel A



C:\DATA\9709\97g3697\3847.005 – Channel B



21181

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-6	Received Date:	09/04/97
Sample ID:	**18609-490**	Sample Matrix	Soil	Moisture %:	3.3
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/11/97	Anal. Date:	09/11/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	00:56
Data File Name:	3847.006	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.0	<1.0	U
2	BENZENE	71-43-2	μg/kg	5.2	<5.2	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.2	<5.2	U
4	TOLUENE	108-88-3	μg/kg	5.2	<5.2	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	90
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21182

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3847.006
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-6 s f=5
Acquired : Sep 11, 1997 00:56:24
Printed : Sep 11, 1997 01:11:28

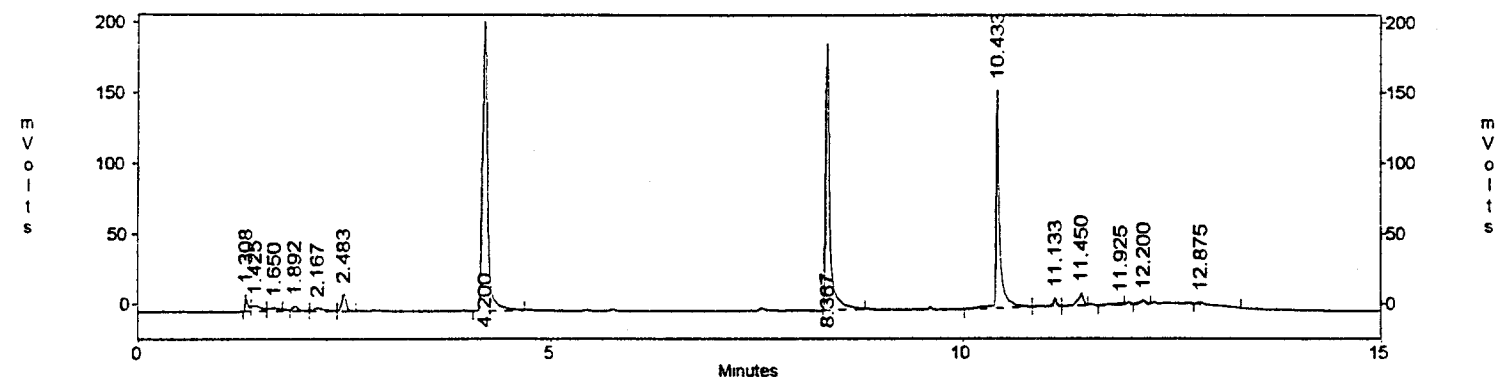
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.20	900376	206207	12605.34375	71.4
8	7. BFB	8.37	638349	189568	7089.23193	90.0
9	10.3-Br-Cl-Bz	10.43	511521	155345	5071.21387	100.9
G1	1. Gasoline		153185		11762.49512	13.0

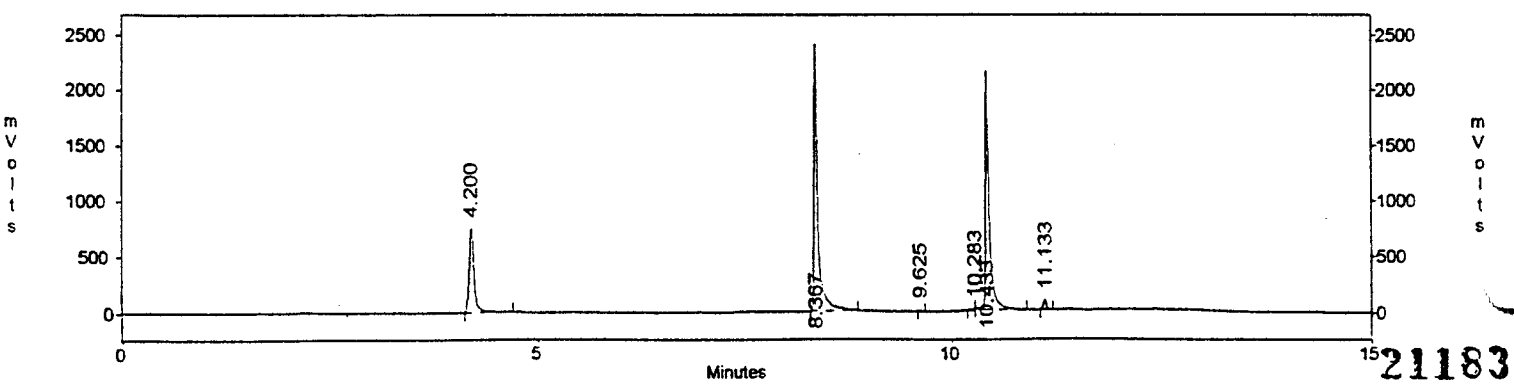
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3225474	752895	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.37	7980353	2413516	2.49216	99.28
5	10. 3-Br-Cl-Bz	10.43	6636274	2154139	1.93321	106.43

C:\DATA\9709\97g3697\3847.006 -- Channel A



C:\DATA\9709\97g3697\3847.006 -- Channel B



21183

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-7	Received Date:	09/04/97
Sample ID:	**18609-491**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	09/08/97	Anal. Date:	09/08/97
Batch No:	97G3674	Prep. No:	–	Anal. Time:	20:03
Data File Name:	3847.007	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	XYLENES (TOTAL)	1330-20-7	μg/L	1.5	<1.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	113
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	117
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21184

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID

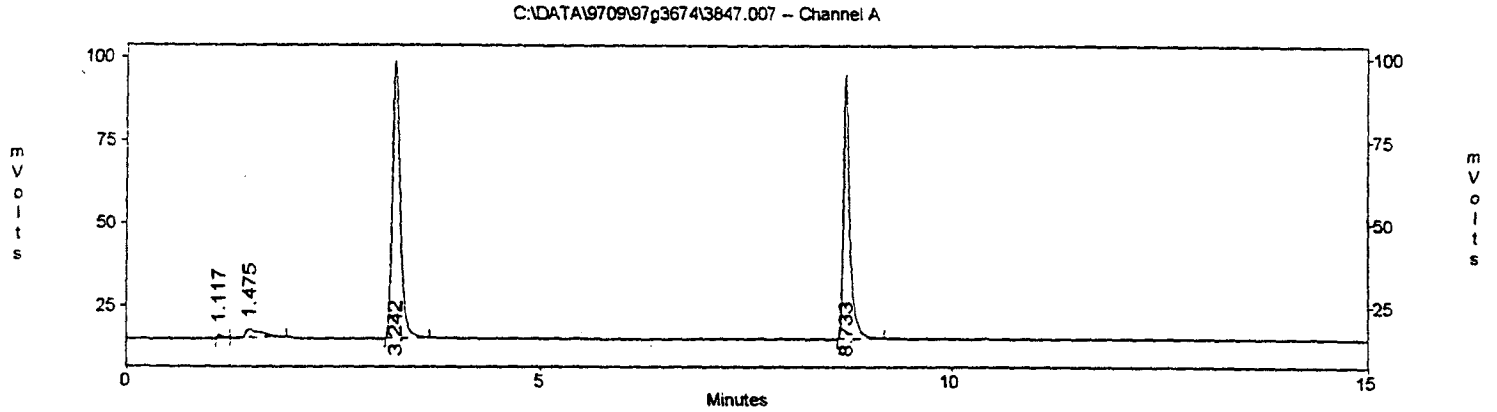
File : C:\DATA\9709\97g3674\3847.007
Method : c:\ezchrom\methods\Luft048.b00
Sample ID : 3847-7 w f=1
Acquired : Sep 08, 1997 20:03:01
Printed : Sep 08, 1997 20:18:41

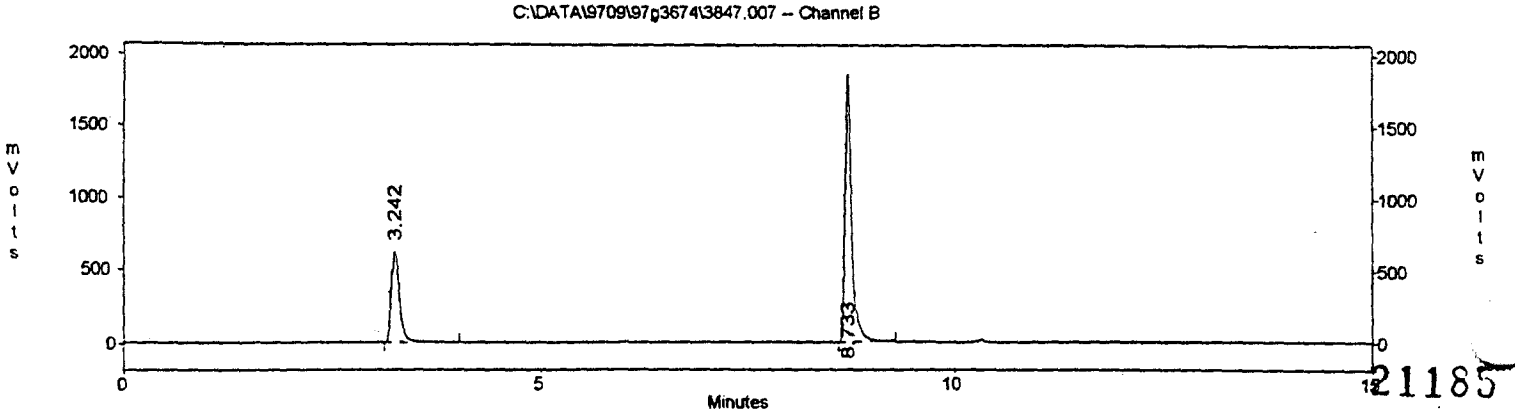
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
3	2. TFT	3.24	572193	83850	6076.81787	94.2
4	7. BFB	8.73	435122	79872	3851.70581	113.0
G1	1. Gasoline		0		4664.44092	0.0

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	1.77	0	0	0.00000	0.00
--	10. MEK	2.30	0	0	0.00000	0.00
--	1. Benzene W 20	2.58	0	0	0.00000	0.00
1	2. TFT (Int.)	3.24	4328113	623349	1.00000	100.00
--	3. Toluene W 80	4.68	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.18	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.39	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.73	10258359	1862948	2.03435	116.51





21185

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-8	Received Date:	09/04/97
Sample ID:	**18609-492**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	09/08/97	Anal. Date:	09/08/97
Batch No:	97G3674	Prep. No:	-	Anal. Time:	20:23
Data File Name:	3847.008	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05 [a]	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	XYLENES (TOTAL)	1330-20-7	μg/L	1.5	<1.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	116
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	116
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains a peak which corresponds to an unknown compound.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21186

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID

File : C:\DATA\9709\97g3674\3847.008
Method : c:\ezchrom\methods\Luft048.b00
Sample ID : 3847-8 w f=1
Acquired : Sep 08, 1997 20:23:47
Printed : Sep 08, 1997 20:39:27

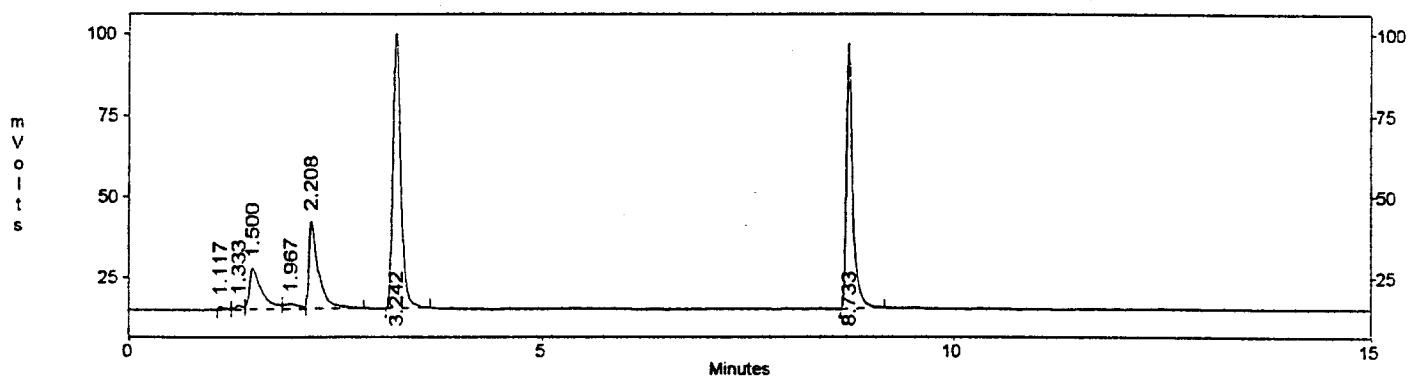
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
6	2. TFT	3.24	578879	84939	6076.81787	95.3
7	7. BFB	8.73	444993	81974	3851.70581	115.5
G1	1. Gasoline		239060		4664.44092	51.3

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	1.77	0	0	0.00000	0.00
2	10. MEK	2.21	1524058	165869	0.00000	0.00
--	1. Benzene W 20	2.58	0	0	0.00000	0.00
3	2. TFT (Int.)	3.24	4438434	636654	1.00000	100.00
--	3. Toluene W 80	4.68	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.18	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.39	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
4	8. BFB (Surr.)	8.73	10501148	1916291	2.03435	116.30

C:\DATA\9709\97g3674\3847.008 -- Channel A



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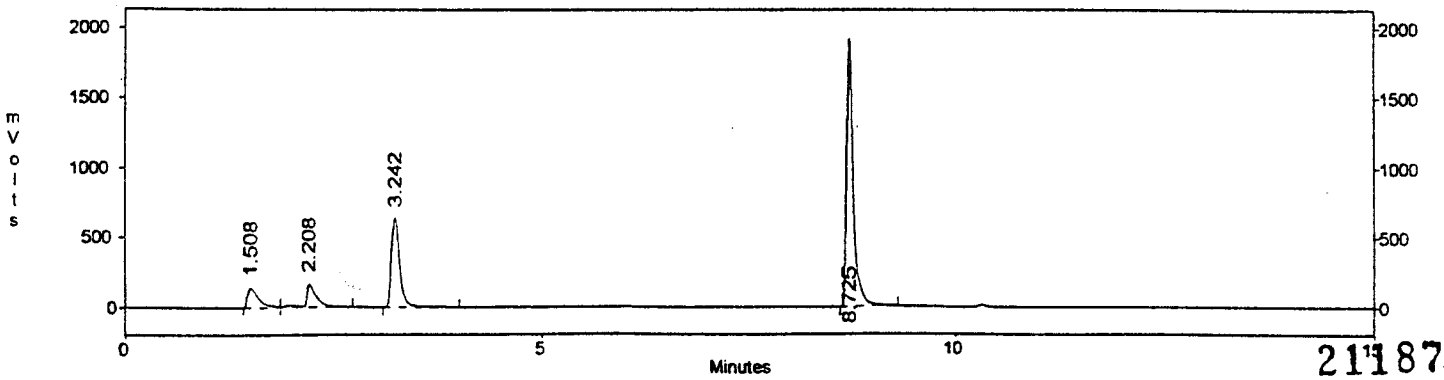

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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-9	Received Date:	09/04/97
Sample ID:	**18609-493**	Sample Matrix	Soil	Moisture %:	8.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	23:14
Data File Name:	3847.009	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.5	<5.5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.5	<5.5	U
4	TOLUENE	108-88-3	μg/kg	5.5	<5.5	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	92
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21188

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3847.009
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-9 s f=5
Acquired : Sep 10, 1997 23:14:50
Printed : Sep 10, 1997 23:29:55

Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
6	2. TFT	4.20	918086	212296	12605.34375	72.8
7	7. BFB	8.37	651347	198507	7089.23193	91.9
8	10.3-Br-Cl-Bz	10.43	630908	169574	5071.21387	124.4
G1	1. Gasoline		1002386		11762.49512	85.2

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
2	2. TFT (Int.)	4.20	3278722	772852	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
3	8. BFB (Surr.)	8.37	8103575	2518241	2.49216	99.17
5	10. 3-Br-Cl-Bz	10.43	6892680	2315873	1.93321	108.74

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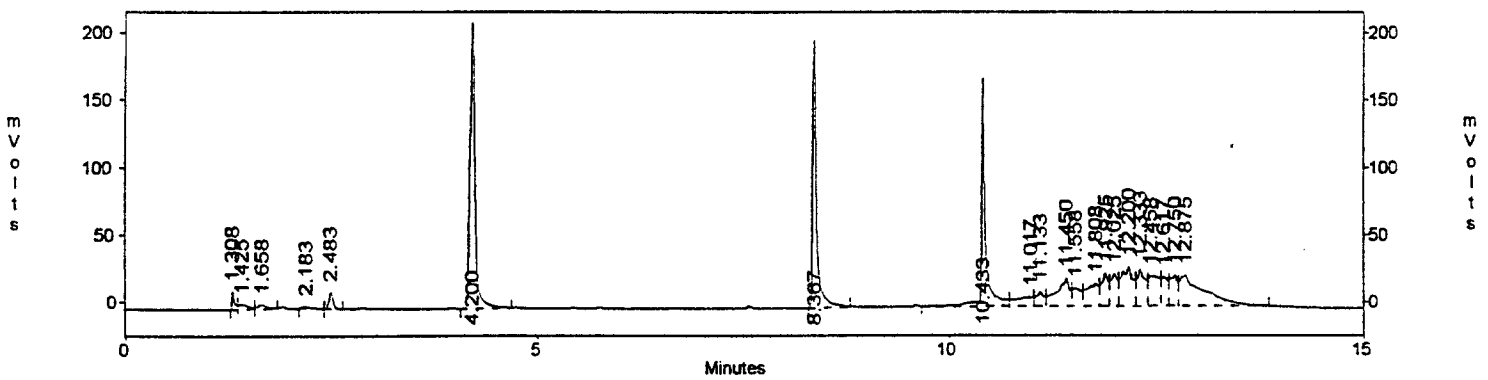
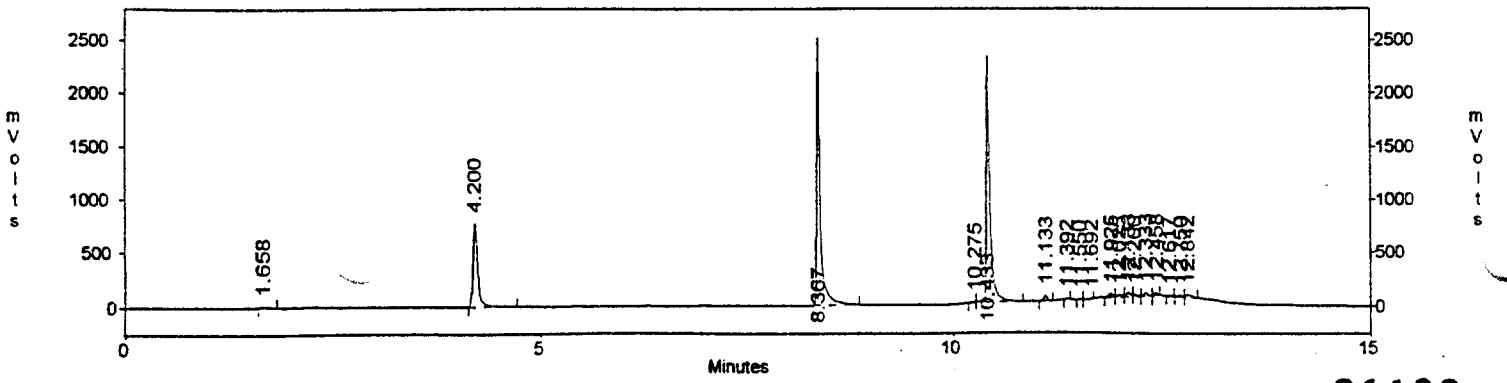


C:\DATA\9709\97g3697\3847.009 -- Channel B



21189

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-10	Received Date:	09/04/97
Sample ID:	**18609-494**	Sample Matrix	Soil	Moisture %:	6.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	22:49
Data File Name:	3847.010	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1 [a]	U
2	BENZENE	71-43-2	μg/kg	5.3	<5.3	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.3	<5.3	U
4	TOLUENE	108-88-3	μg/kg	5.3	<5.3	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	91
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21190

Applied P & CH Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3847.010
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-10 s f=5
Acquired : Sep 10, 1997 22:49:12
Printed : Sep 10, 1997 23:04:15

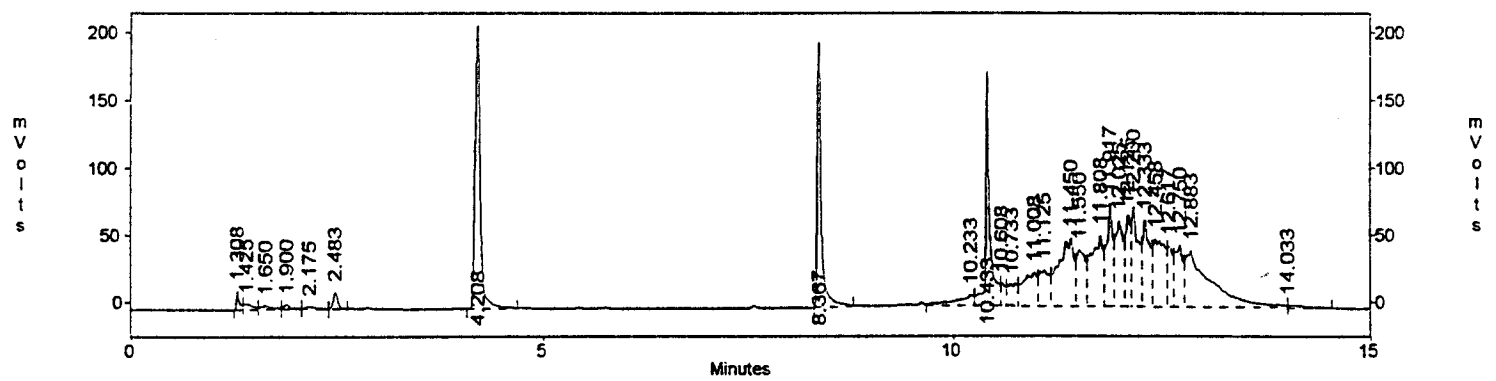
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.21	903993	210493	12605.34375	71.7
8	7. BFB	8.37	644174	197301	7089.23193	90.9
10	10.3-Br-Cl-Bz	10.43	649848	173529	5071.21387	128.1
G1	1. Gasoline		3218151		11762.49512	273.6

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3242176	764709	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.37	7994896	2484845	2.49216	98.95
5	10. 3-Br-Cl-Bz	10.43	6416151	2243548	1.93321	102.37

C:\DATA\9709\97g3697\3847.010 -- Channel A



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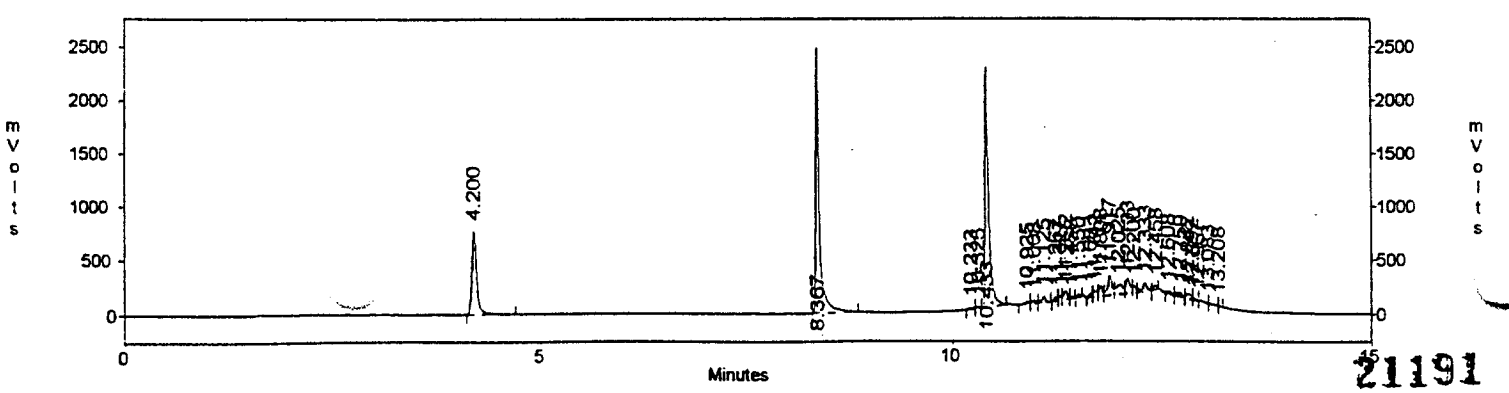


21191

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-11	Received Date:	09/04/97
Sample ID:	**18609-495**	Sample Matrix	Soil	Moisture %:	16.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	22:23
Data File Name:	3847.011	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2 [a]	U
2	BENZENE	71-43-2	μg/kg	6.0	<6.0	U
3	ETHYLBENZENE	100-41-4	μg/kg	6.0	<6.0	U
4	TOLUENE	108-88-3	μg/kg	6.0	<6.0	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	18	<18	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	93
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	98
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21192

Gasoline/BTXE, GC analysis by FID/PID (System N)

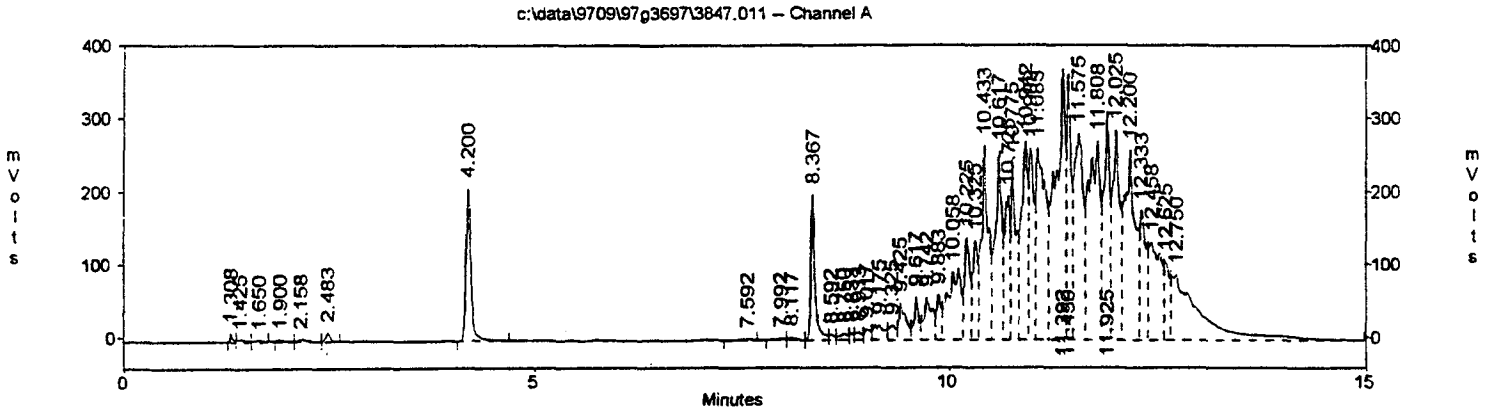
File : c:\data\9709\97g3697\3847.011
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : 3847-11 s f=5
Acquired : Sep 10, 1997 22:23:40
Printed : Sep 11, 1997 13:55:12

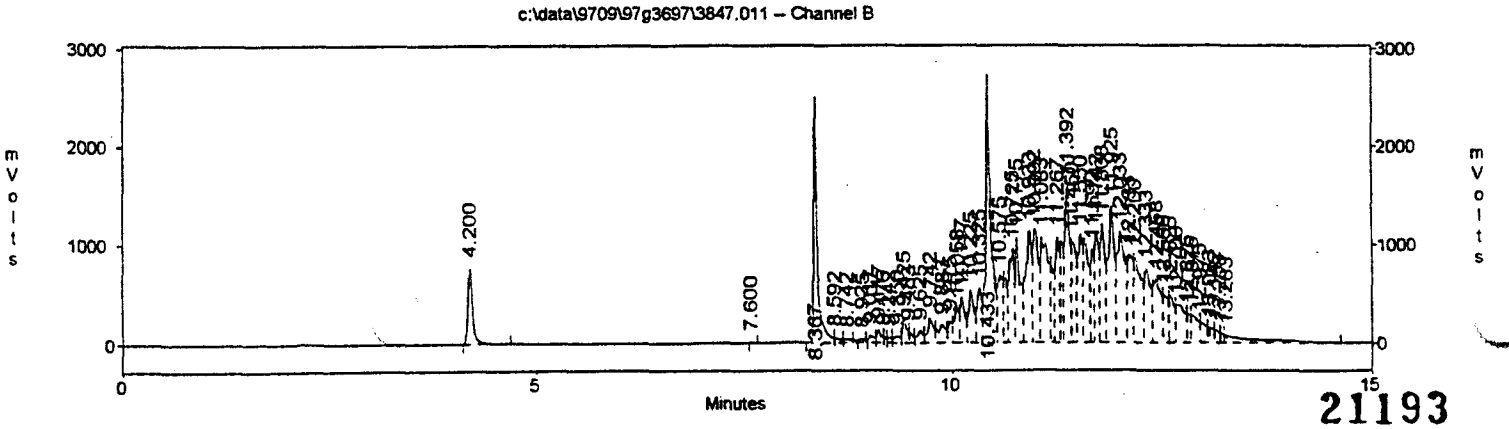
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.20	904224	209129	12605.34375	71.7
11	7. BFB	8.37	659754	200804	7089.23193	93.1
26	10.3-Br-Cl-Bz	10.43	1553998	267531	5071.21387	306.4
G1	1. Gasoline		24971144		11762.49512	2122.9

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3241788	761145	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
2	6. P/M xylene W 82	7.60	22249	7946	3.32514	0.21
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
3	8. BFB (Surr.)	8.37	7869686	2502610	2.49216	97.41
22	10. 3-Br-Cl-Bz	10.43	11147347	2727776	1.93321	177.87





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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-12	Received Date:	09/04/97
Sample ID:	**18609-496**	Sample Matrix	Soil	Moisture %:	10.1
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	21:57
Data File Name:	3847.012	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.6	<5.6	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.6	<5.6	U
4	TOLUENE	108-88-3	μg/kg	5.6	<5.6	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	17	<17	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	92
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21194

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3847.012
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-12 s f=5
Acquired : Sep 10, 1997 21:57:58
Printed : Sep 10, 1997 22:13:02

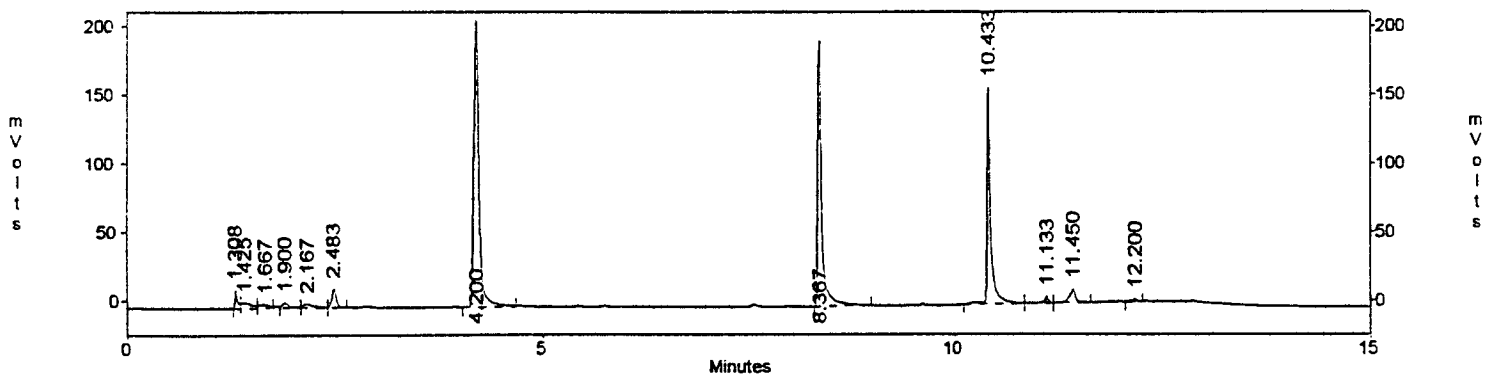
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.20	907666	209180	12605.34375	72.0
8	7. BFB	8.37	653441	193820	7089.23193	92.2
9	10.3-Br-Cl-Bz	10.43	514478	158378	5071.21387	101.5
G1	1. Gasoline		177969		11762.49512	15.1

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3250967	761547	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.37	8079793	2453206	2.49216	99.73
4	10. 3-Br-Cl-Bz	10.43	6814962	2191258	1.93321	108.44

C:\DATA\9709\97g3697\3847.012 – Channel A



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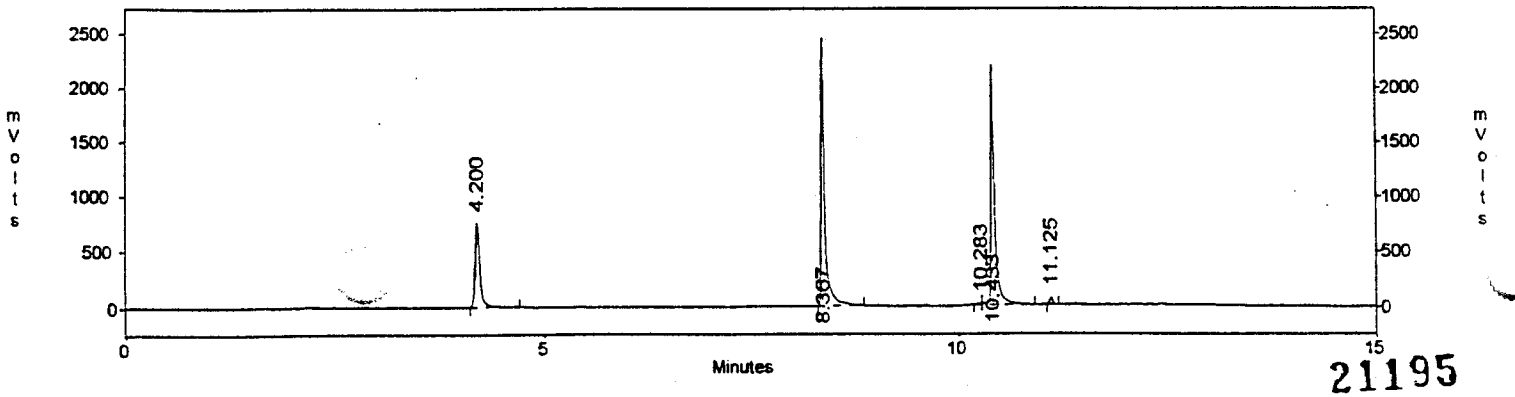


21195

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-13	Received Date:	09/04/97
Sample ID:	**18609-497**	Sample Matrix	Soil	Moisture %:	7.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	21:32
Data File Name:	3847.013	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.4	<5.4	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.4	<5.4	U
4	TOLUENE	108-88-3	μg/kg	5.4	<5.4	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	92
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21196

Applied P & Cn Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3847.013
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-13 s f=5
Acquired : Sep 10, 1997 21:32:28
Printed : Sep 10, 1997 21:47:31

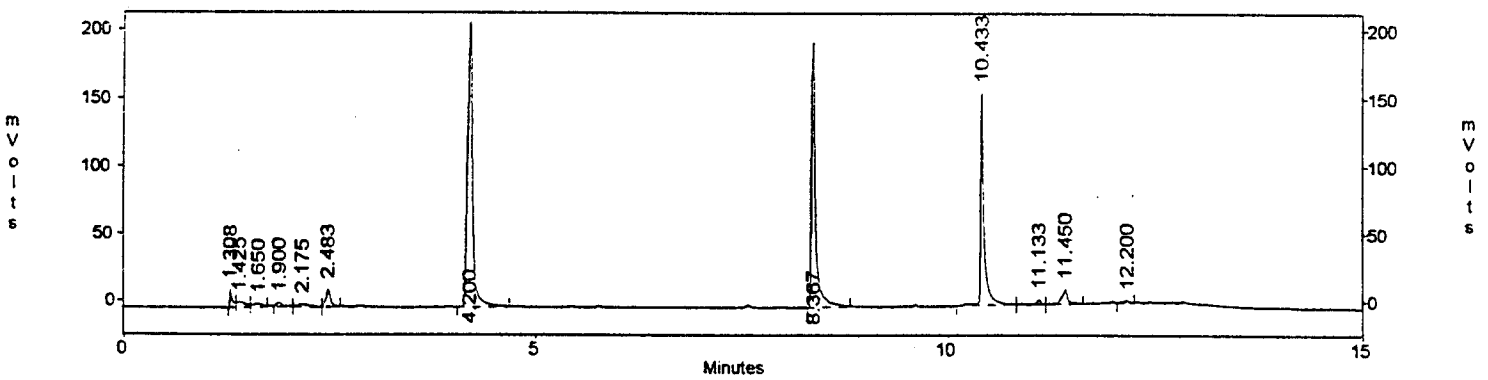
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.20	909065	210272	12605.34375	72.1
8	7. BFB	8.37	650387	195715	7089.23193	91.7
9	10.3-Br-Cl-Bz	10.43	509757	157142	5071.21387	100.5
G1	1. Gasoline		170017		11762.49512	14.5

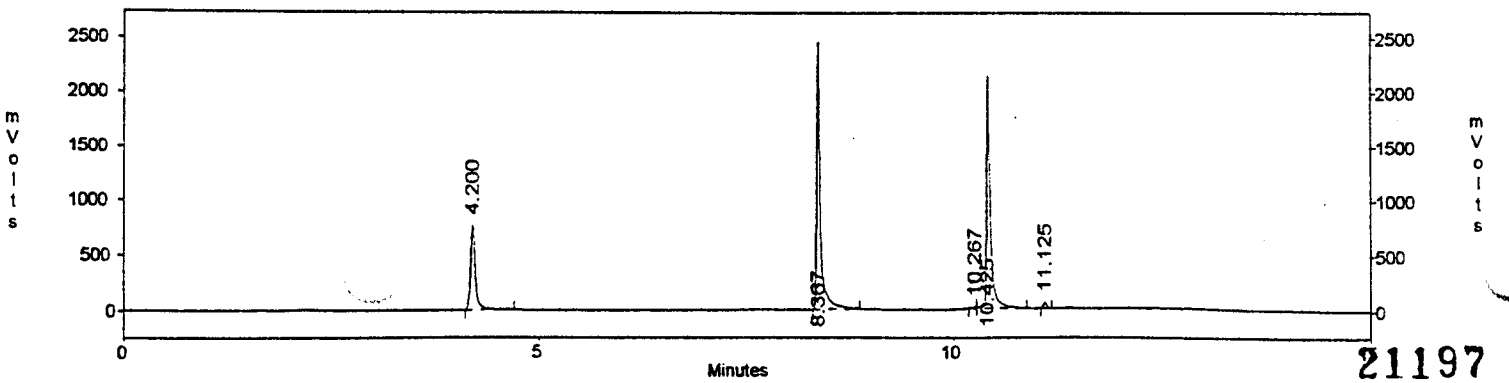
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3274769	771866	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.37	8094260	2469547	2.49216	99.18
4	10. 3-Br-Cl-Bz	10.43	6766207	2148416	1.93321	106.88

C:\DATA\9709\97g3697\3847.013 – Channel A



C:\DATA\9709\97g3697\3847.013 – Channel B



21197

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-14	Received Date:	09/04/97
Sample ID:	**18609-498**	Sample Matrix	Soil	Moisture %:	2.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	21:07
Data File Name:	3847.014	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.0	<1.0	U
2	BENZENE	71-43-2	μg/kg	5.1	<5.1	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.1	<5.1	U
4	TOLUENE	108-88-3	μg/kg	5.1	<5.1	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	15	<15	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	91
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21198

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3847.014
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-14 s f=5
Acquired : Sep 10, 1997 21:07:03
Printed : Sep 10, 1997 21:22:06

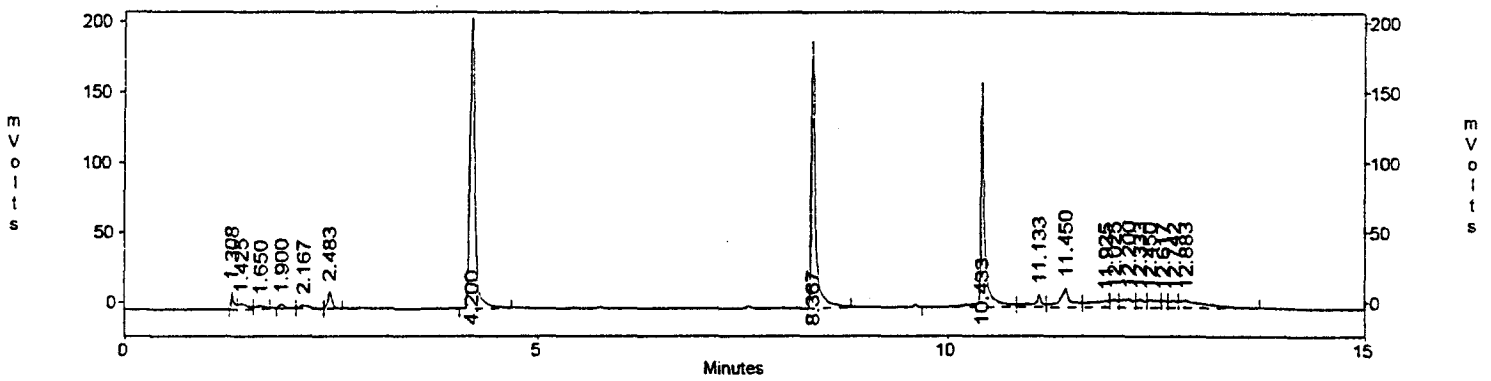
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.20	904512	207170	12605.34375	71.8
8	7. BFB	8.37	645671	190643	7089.23193	91.1
9	10.3-Br-Cl-Bz	10.43	568448	161118	5071.21387	112.1
G1	1. Gasoline		389076		11762.49512	33.1

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3262114	760793	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.37	8047331	2417912	2.49216	98.99
5	10. 3-Br-Cl-Bz	10.43	6814688	2199340	1.93321	108.06

C:\DATA\9709\97g3697\3847.014 – Channel A



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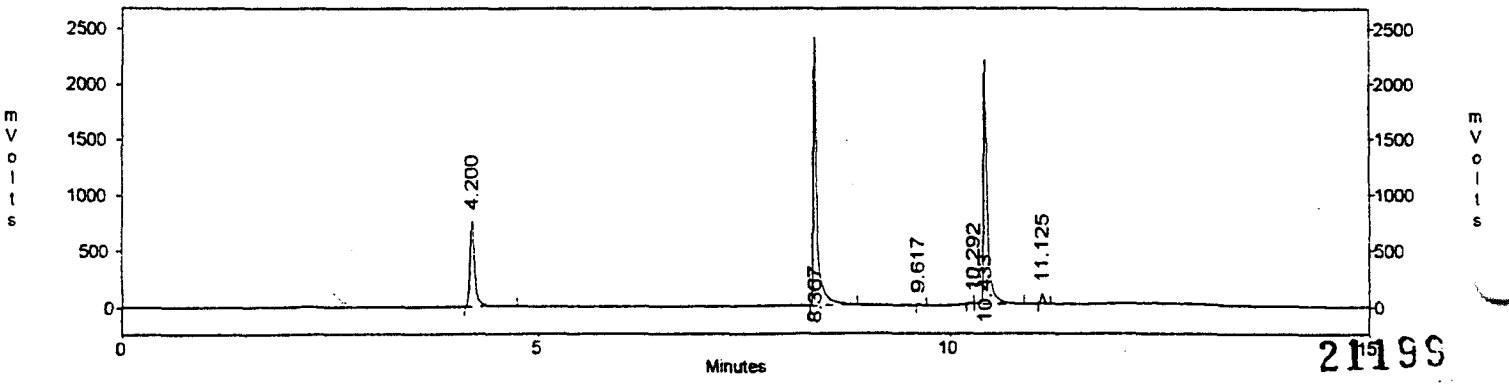


21199

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-15	Received Date:	09/04/97
Sample ID:	**18609-499**	Sample Matrix	Soil	Moisture %:	4.9
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/10/97	Anal. Date:	09/10/97
Batch No:	97G3697	Prep. No:	–	Anal. Time:	20:41
Data File Name:	3847.015	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.3	<5.3	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.3	<5.3	U
4	TOLUENE	108-88-3	μg/kg	5.3	<5.3	U
5	XYLENES (TOTAL)	1330-20-7	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	92
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21200

Applied P & CH Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3847.015
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3847-15 s f=5
Acquired : Sep 10, 1997 20:41:25
Printed : Sep 10, 1997 20:56:29

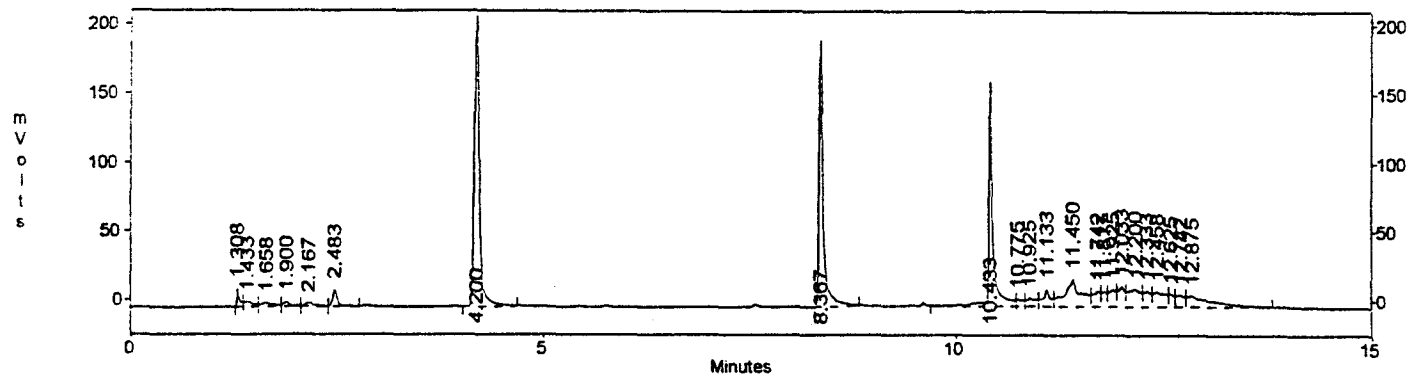
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.20	916953	211169	12605.34375	72.7
8	7. BFB	8.37	651481	193272	7089.23193	91.9
9	10.3-Br-Cl-Bz	10.43	593444	162801	5071.21387	117.0
G1	1. Gasoline		776610		11762.49512	66.0

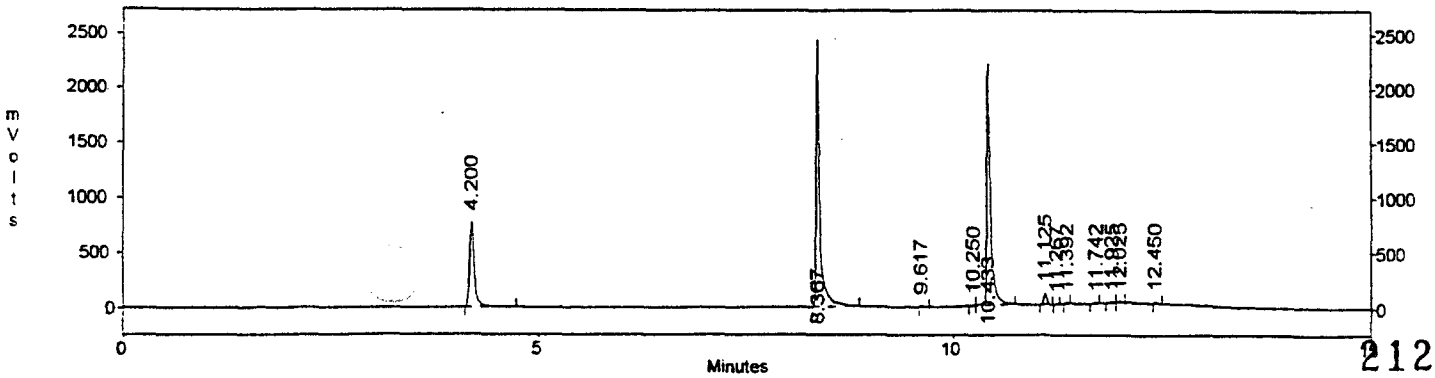
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
1	2. TFT (Int.)	4.20	3298044	774664	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
2	8. BFB (Surr.)	8.37	8110222	2448889	2.49216	98.67
5	10. 3-Br-Cl-Bz	10.43	6730501	2205346	1.93321	105.56

C:\DATA\9709\97g3697\3847.015 – Channel A



C:\DATA\9709\97g3697\3847.015 – Channel B



21201

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project Id:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3674		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
1	97G3674-LCS-01	97G3674-LCS-01	117	118	0
2	97G3674-LSD-01	97G3674-LSD-01	117	107	0
3	97G3674-MB-02	97G3674-MB-02	105	115	0
4	97G3674-MB-01	97G3674-MB-01	110	114	0
5	18609-491	97-3847-7	113	117	0
6	18609-492	97-3847-8	116	116	0
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	68-124
S2 = 4-BROMO-FLUOROBENZENE (PID)	71-134

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

21202

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3697		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
1	97G3697-MB-01	97G3697-MB-01	90	98	0
2	97G3697-LCS-01	97G3697-LCS-01	102	88	0
3	97G3697-LSD-01	97G3697-LSD-01	102	99	0
4	18609-481	97-3847-3	107	99	0
5	18609-480	97-3847-2	111	100	0
6	18609-478	97-3847-1	103	99	0
7	18609-499-MS	97-3847-15MS	102	98	0
8	18609-499-MSD	97-3847-15MSD	96	100	0
9	18609-499	97-3847-15	92	99	0
10	18609-498	97-3847-14	91	99	0
11	18609-497	97-3847-13	92	99	0
12	18609-496	97-3847-12	92	100	0
13	18609-495	97-3847-11	93	98	0
14	18609-494	97-3847-10	91	99	0
15	18609-493	97-3847-9	92	99	0
16	18609-487	97-3847-5	92	99	0
17	18609-490	97-3847-6	90	99	0
18	18609-484	97-3847-4	91	99	0
19					
20					
21					
22					
23					
24					
25					

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	70-132
S2 = 4-BROMO-FLUOROBENZENE (PID)	65-126

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

21203

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3674		
LCS Filename:	3674G.L01	Date Analyzed:	090897	Time Analyzed:	12:11
LCSD Filename:	3674G.J01	Date Analyzed:	090897	Time Analyzed:	12:33

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	0.890	89	75-122
BENZENE	µg/L	20	0	17.3	87	77-121
ETHYLBENZENE	µg/L	19	0	17.9	94	78-132
TOLUENE	µg/L	80	0	74.8	94	77-134
O-XYLENE	µg/L	27	0	26.3	97	77-133
M/P-XYLENE	µg/L	82	0	74.7	91	81-131
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/L	1	1.05	105	16	23	75-122
BENZENE	µg/L	20	20.9	105	19	22	77-121
ETHYLBENZENE	µg/L	19	17.8	94	0	27	78-132
TOLUENE	µg/L	80	73.9	92	2	29	77-134
O-XYLENE	µg/L	27	25.7	95	2	28	77-133
M/P-XYLENE	µg/L	82	74.3	91	0	25	81-131
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

21204

Applied Research Laboratory

Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9709\97g3674\3674g.101
Method : c:\ezchrom\methods\luft048.b00
Sample ID : lcs w f=1 gc6503
Acquired : Sep 08, 1997 12:11:36
Printed : Sep 09, 1997 15:19:42

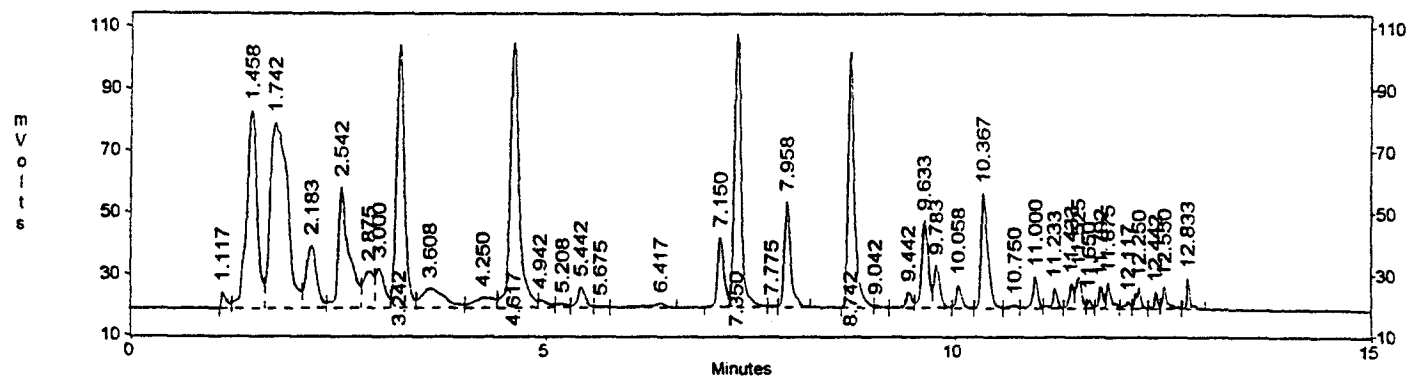
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
8	2. TFT	3.24	581748	84933	6076.81787	95.7
21	7. BFB	8.74	450080	82611	3851.70581	116.9
G1	1. Gasoline		4153073		4664.44092	890.4

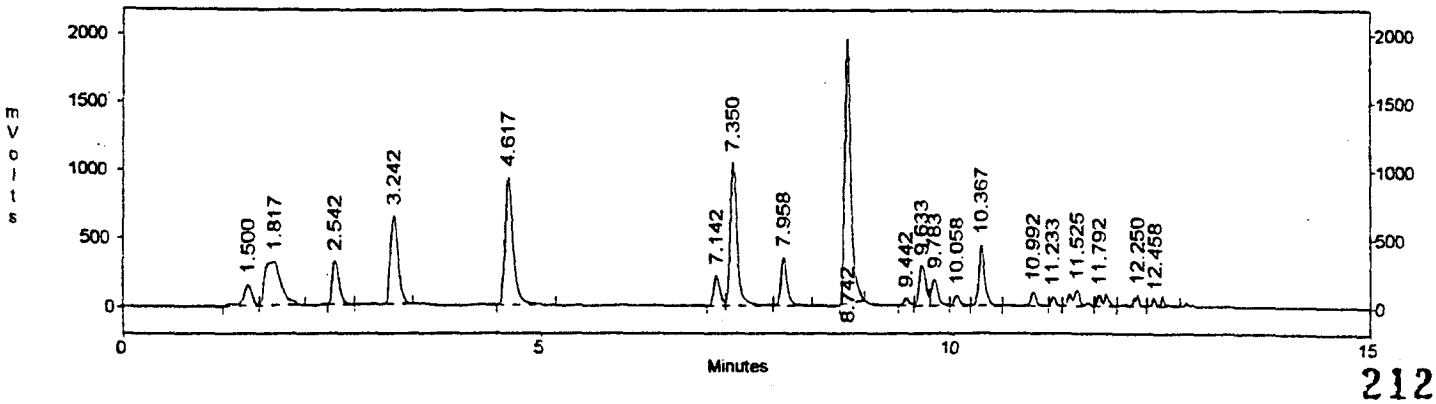
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.82	4253635	318826	0.79537	125.53
--	10. MEK	2.30	0	0	0.00000	0.00
3	1. Benzene W 20	2.54	1760356	312680	2.39397	17.26
4	2. TFT (Int.)	3.24	4260251	641987	1.00000	100.00
5	3. Toluene W 80	4.62	6426602	935665	2.01691	74.79
6	5. Et-Bz W 19	7.14	1170473	217780	1.53434	17.91
7	6. P/M xylene W 82	7.35	6041827	1052331	1.89905	74.68
8	7. O-xylene W 27	7.96	1867159	347097	1.66665	26.30
9	8. BFB (Surr.)	8.74	10208449	1947248	2.03435	117.79

c:\data\9709\97g3674\3674g.I01 – Channel A



c:\data\9709\97g3674\3674g.I01 – Channel B



21205

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID

File : C:\DATA\9709\97g3674\3674g.j01
Method : c:\ezchrom\methods\Luft048.b00
Sample ID : lcsd w f=1 gc6503
Acquired : Sep 08, 1997 12:33:10
Printed : Sep 08, 1997 12:48:54

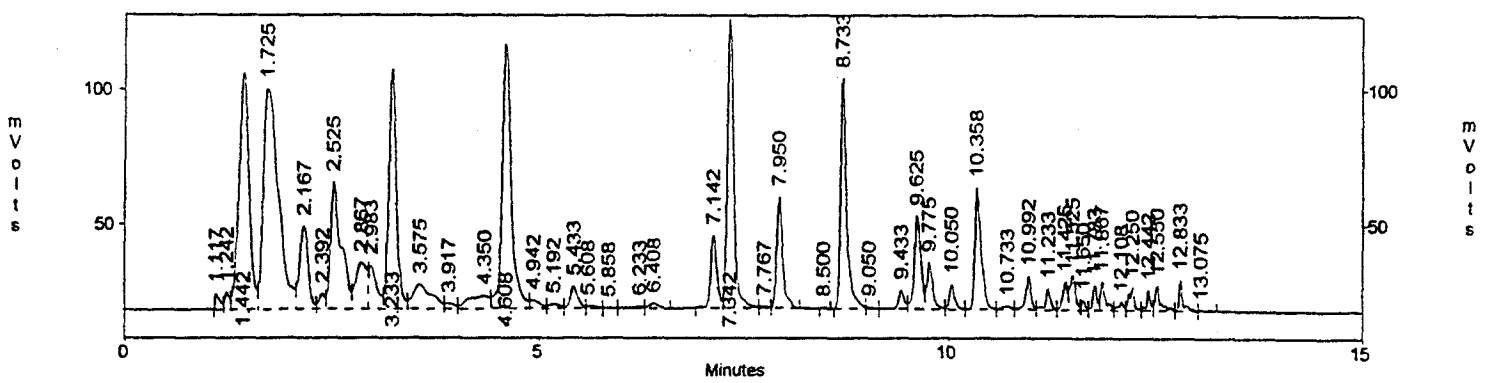
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
10	2. TFT	3.23	581261	89189	6076.81787	95.7
27	7. BFB	8.73	451241	85542	3851.70581	117.2
G1	1. Gasoline		4917108		4664.44092	1054.2

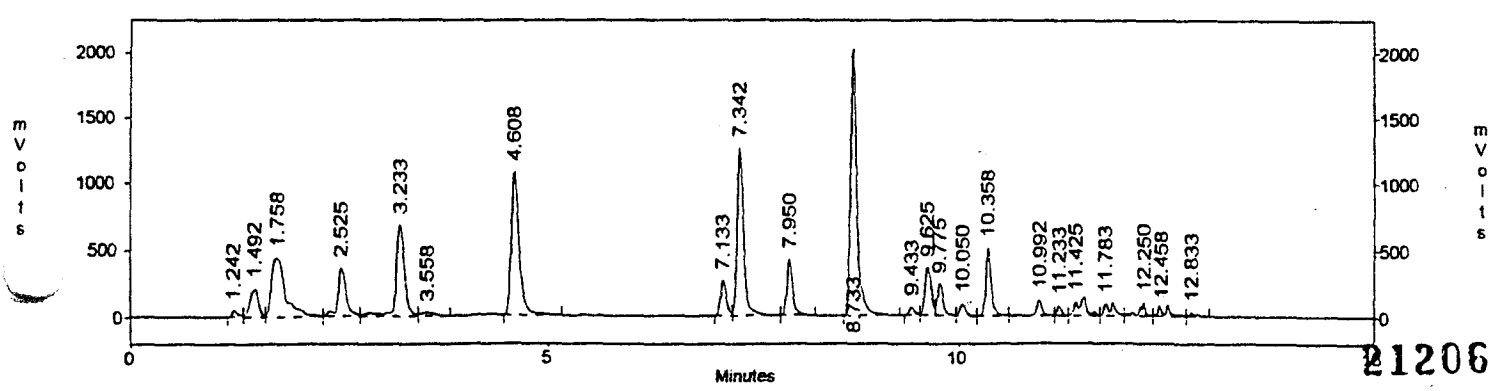
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
3	9. MTBE	1.76	5115849	436076	0.79537	131.41
--	10. MEK	2.30	0	0	0.00000	0.00
4	1. Benzene W 20	2.53	2445558	355928	2.39397	20.87
5	2. TFT (Int.)	3.23	4894757	682896	1.00000	100.00
7	3. Toluene W 80	4.61	7290661	1071069	2.01691	73.85
8	5. Et-Bz W 19	7.13	1337597	259008	1.53434	17.81
9	6. P/M xylene W 82	7.34	6909520	1264466	1.89905	74.33
10	7. O-xylene W 27	7.95	2099606	418158	1.66665	25.74
11	8. BFB (Surr.)	8.73	10614966	2014731	2.03435	106.60

C:\DATA\9709\97g3674\3674g.j01 -- Channel A



C:\DATA\9709\97g3674\3674g.j01 -- Channel B



21206

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3697		
LCS Filename:	3697G.L01	Date Analyzed:	091097	Time Analyzed:	14:24
LCSD Filename:	3697G.J01	Date Analyzed:	091097	Time Analyzed:	14:50

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	5	0	5.12	102	77-122
BENZENE	µg/kg	100	0	79.1	79	72-119
ETHYLBENZENE	µg/kg	95	0	78.8	83	71-134
TOLUENE	µg/kg	400	0	319	80	79-129
O-XYLENE	µg/kg	135	0	103	76	70-133
M/P-XYLENE	µg/kg	410	0	298	73	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	5	5.12	102	0	23	77-122
BENZENE	µg/kg	100	86.3	86	8	23	72-119
ETHYLBENZENE	µg/kg	95	80.9	85	2	31	71-134
TOLUENE	µg/kg	400	358	90	12	25	79-129
O-XYLENE	µg/kg	135	110	81	6	32	70-133
M/P-XYLENE	µg/kg	410	327	80	9	30	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

21207

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3697\3697g.101
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : lcs s f=5 gc6503
Acquired : Sep 10, 1997 14:24:42
Printed : Sep 10, 1997 14:39:48

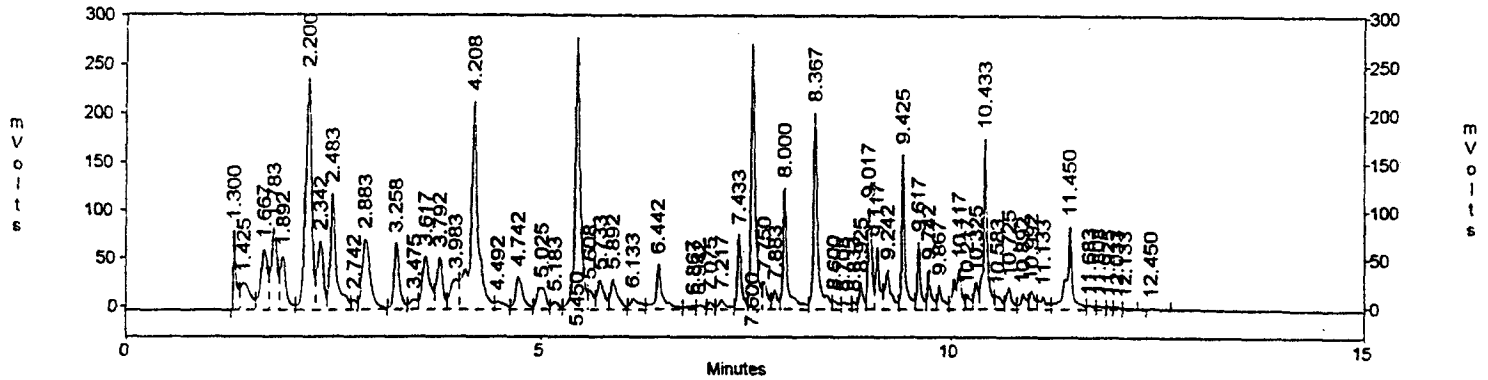
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
16	2. TFT	4.21	1409123	215645	12605.34375	111.8
36	7. BFB	8.37	722645	204751	7089.23193	101.9
51	10.3-Br-Cl-Bz	10.43	587660	177124	5071.21387	115.9
G1	1. Gasoline		12050216		11762.49512	1024.5

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
5	9. MTBE	2.18	3273806	627326	0.79978	118.69
11	1. Benzene W 20	3.27	1840623	411580	3.37302	15.82
15	2. TFT (Int.)	4.20	3448724	766905	1.00000	100.00
18	3. Toluene W 80	5.45	6972221	1711298	3.16927	63.79
22	5. Et-Bz W 19	7.43	1392476	418211	2.56232	15.76
23	6. P/M xylene W 82	7.60	6824477	1801928	3.32514	59.51
26	7. O-xylene W 27	7.99	2073595	660650	2.91125	20.65
28	8. BFB (Surr.)	8.37	7599773	2550162	2.49216	88.42
44	10. 3-Br-Cl-Bz	10.43	7013903	2354123	1.93321	105.20

C:\DATA\9709\97g3697\3697g.I01 – Channel A



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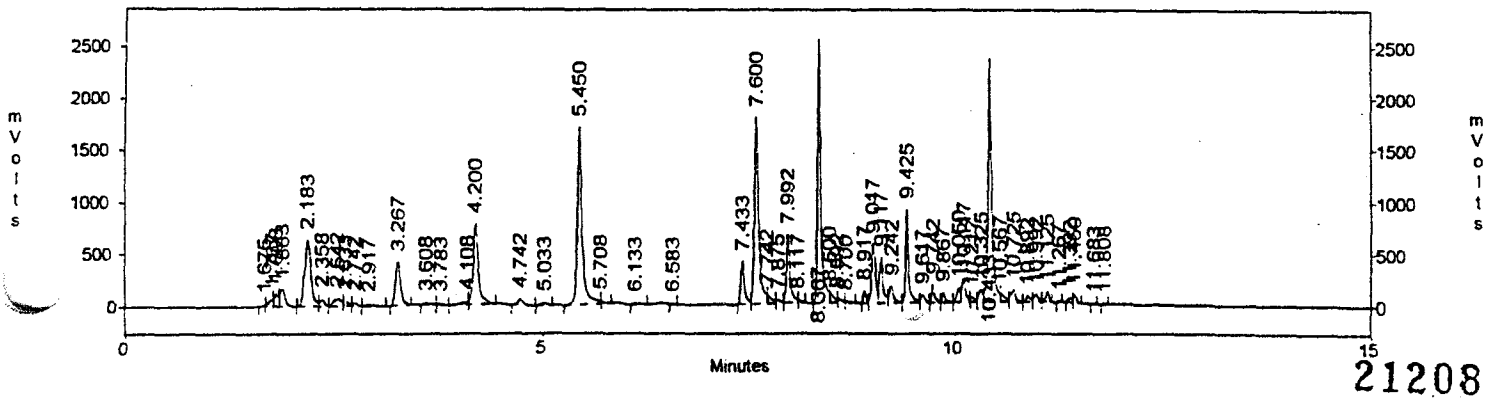


21208

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9709\97g3697\3697g.j01
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : lcsd s/f=5 gc6503
Acquired : Sep 10, 1997 14:50:35
Printed : Sep 11, 1997 11:40:56

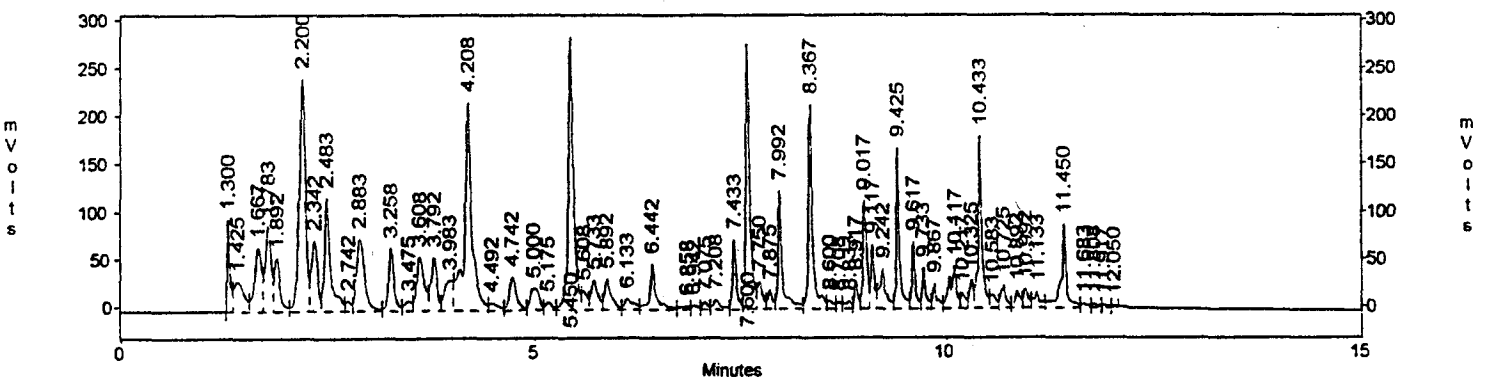
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
16	2. TFT	4.21	1425604	217281	12605.34375	113.1
36	7. BFB	8.37	724009	213984	7089.23193	102.1
51	10.3-Br-Cl-Bz	10.43	605177	180080	5071.21387	119.3
G1	1. Gasoline		12053326		11762.49512	1024.7

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
5	9. MTBE	2.18	3244577	617487	0.79978	130.03
11	1. Benzene W 20	3.26	1815856	392125	3.37302	17.26
16	2. TFT (Int.)	4.20	3119915	778118	1.00000	100.00
20	3. Toluene W 80	5.45	7071428	1734405	3.16927	71.52
23	5. Et-Bz W 19	7.43	1293990	391392	2.56232	16.19
24	6. P/M xylene W 82	7.60	6782924	1816132	3.32514	65.38
27	7. O-xylene W 27	7.99	2001029	658174	2.91125	22.03
29	8. BFB (Surr.)	8.37	7715458	2657926	2.49216	99.23
45	10. 3-Br-Cl-Bz	10.43	7174401	2402557	1.93321	118.95

c:\data\9709\97g3697\3697g.j01 – Channel A



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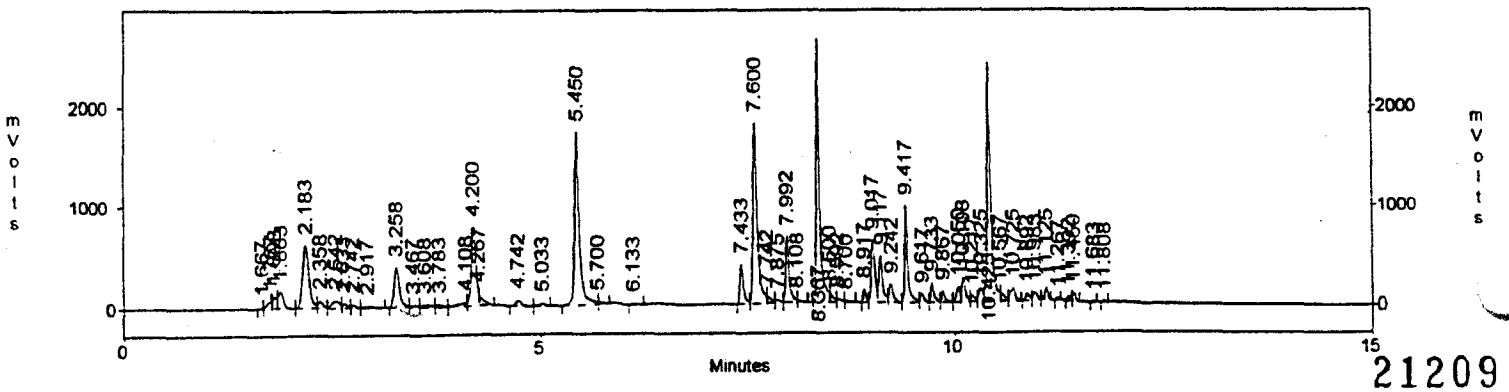


21209

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3697		
MS Filename:	3697G.M01	Date Analyzed:	091097	Time Analyzed:	19:23
MSD Filename:	3697G.N01	Date Analyzed:	091097	Time Analyzed:	19:49
MS Sample No:	**18609-499**	Sample Lab ID:	97-3847-15	Moisture, %	4.9

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	5.26	0	5.27	100	65-127
BENZENE	µg/kg	105	0	86.6	82	70-121
ETHYLBENZENE	µg/kg	99.9	0	84.4	84	71-134
TOLUENE	µg/kg	421	0	377	90	79-129
O-XYLENE	µg/kg	142	0	114	80	70-133
M/P-XYLENE	µg/kg	431	0	338	78	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	5.26	4.77	91	9	31	65-127
BENZENE	µg/kg	105	87.4	83	1	26	70-121
ETHYLBENZENE	µg/kg	99.9	84.8	85	1	26	71-134
TOLUENE	µg/kg	421	381	90	0	24	79-129
O-XYLENE	µg/kg	142	115	81	1	30	70-133
M/P-XYLENE	µg/kg	431	341	79	1	27	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

21210

Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9709\97g3697\3697g.m01
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : S3847-15 s f=5 ms
Acquired : Sep 10, 1997 19:23:36
Printed : Sep 11, 1997 11:38:06

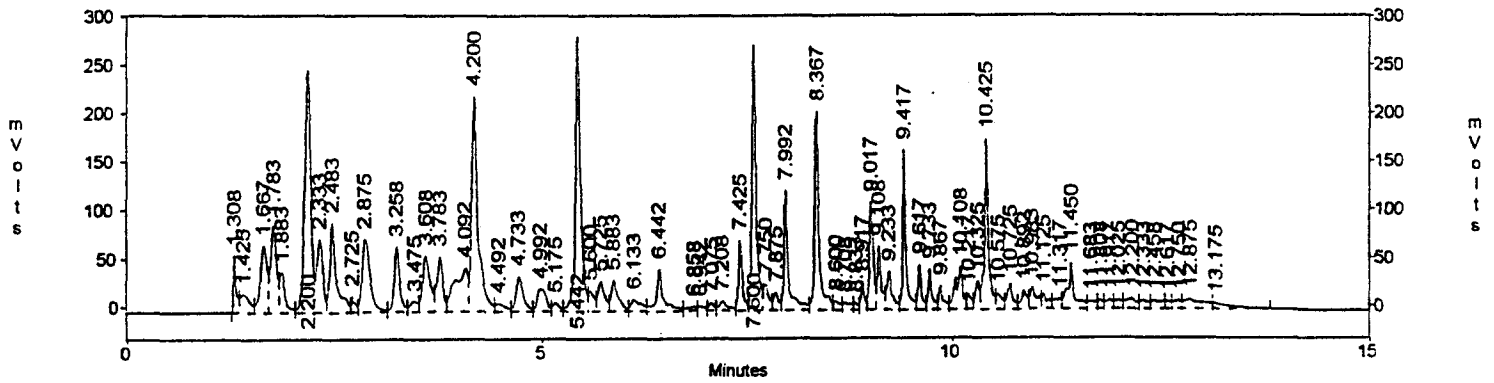
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
16	2. TFT	4.20	1183990	221539	12605.34375	93.9
36	7. BFB	8.37	725383	205012	7089.23193	102.3
51	10.3-Br-Cl-Bz	10.43	611915	175813	5071.21387	120.7
G1	1. Gasoline		11788090		11762.49512	1002.2

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
5	9. MTBE	2.18	3264846	635476	0.79978	130.24
11	1. Benzene W 20	3.26	1742388	394621	3.37302	16.48
14	2. TFT (Int.)	4.20	3134447	790175	1.00000	100.00
18	3. Toluene W 80	5.44	7129819	1734291	3.16927	71.77
22	5. Et-Bz W 19	7.43	1289740	390512	2.56232	16.06
23	6. P/M xylene W 82	7.60	6698301	1778445	3.32514	64.27
26	7. O-xylene W 27	7.99	1975718	644780	2.91125	21.65
28	8. BFB (Surr.)	8.36	7660292	2503445	2.49216	98.06
44	10. 3-Br-Cl-Bz	10.43	7107163	2389220	1.93321	117.29

c:\data\9709\97g3697\3697g.m01 – Channel A



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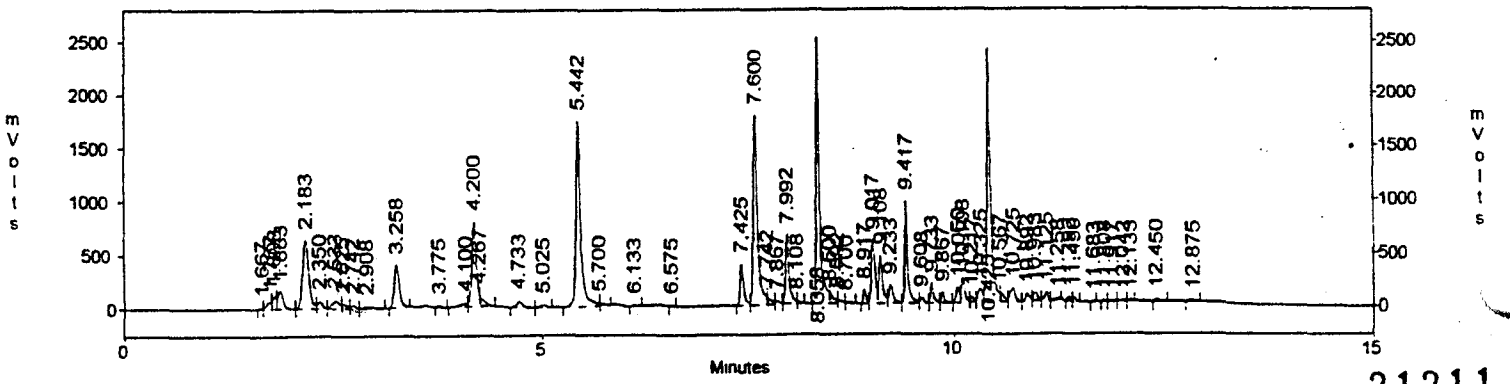


21211

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9709\97g3697\3697g.n01
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : $3847-15 s f=5 msd
Acquired : Sep 10, 1997 19:49:05
Printed : Sep 11, 1997 11:38:41

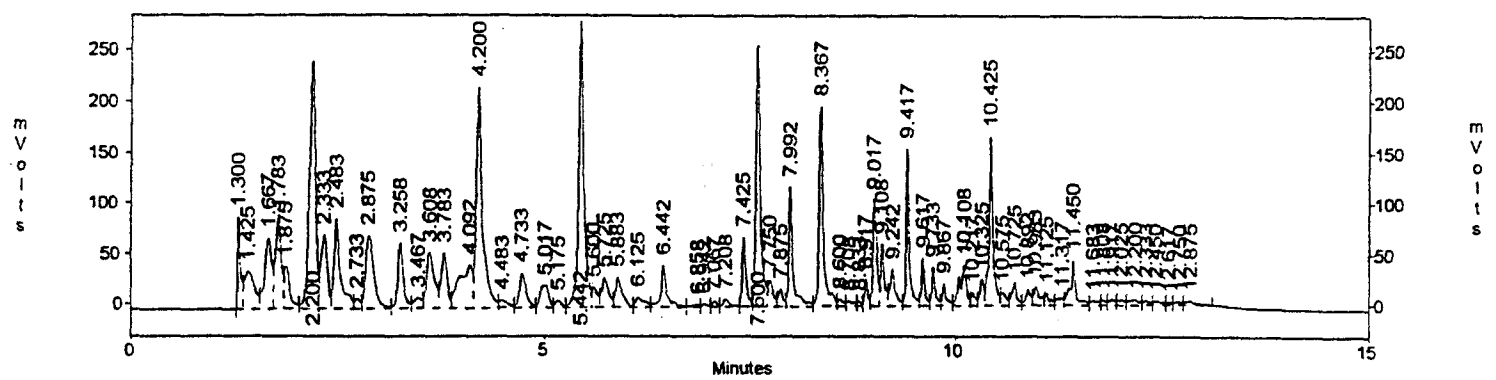
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
16	2. TFT	4.20	1154435	217050	12605.34375	91.6
36	7. BFB	8.37	684114	197144	7089.23193	96.5
51	10.3-Br-Cl-Bz	10.43	568944	165424	5071.21387	112.2
G1	1. Gasoline		10662673		11762.49512	906.5

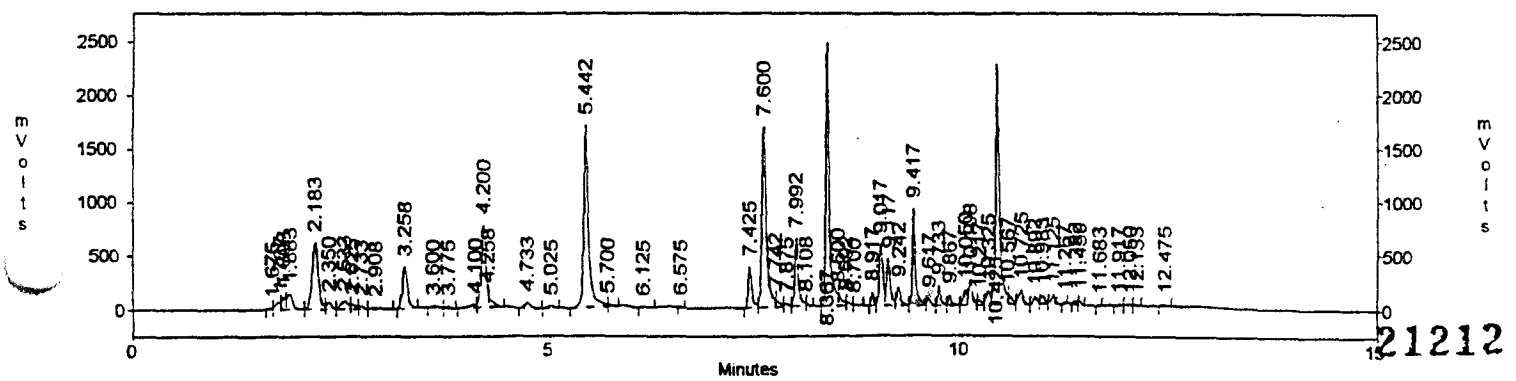
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
5	9. MTBE	2.18	3215108	620597	0.79978	131.86
11	1. Benzene W 20	3.26	1709082	385466	3.37302	16.62
15	2. TFT (Int.)	4.20	3048660	772835	1.00000	100.00
19	3. Toluene W 80	5.44	6997958	1707162	3.16927	72.43
23	5. Et-Bz W 19	7.43	1260404	373624	2.56232	16.13
24	6. P/M xylene W 82	7.60	6566942	1682278	3.32514	64.78
27	7. O-xylene W 27	7.99	1936261	625981	2.91125	21.82
29	8. BFB (Surr.)	8.37	7575275	2462313	2.49216	99.70
45	10. 3-Br-Cl-Bz	10.43	6976177	2253084	1.93321	118.37

c:\data\9709\97g3697\3697g.n01 -- Channel A



c:\data\9709\97g3697\3697g.n01 -- Channel B



21212

Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Analysis Date:	09/08/97
		Sample Matrix:	Water	Analysis Time:	11:46
Sample ID:	**97G3674-MB-01**	Batch No:	97G3674	Instrument ID:	GC: B
Lab Sample ID:	97G3674-MB-01	Data File Name:	3674G.K01	GC Column:	RTX-5
		Heated Purge: (Y/N)	N	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G3674-LCS-01	97G3674-LCS-01	Lab Control Spike	3674G.L01	09/08/97	12:11
2	97G3674-LSD-01	97G3674-LSD-01	Lab Control Spike Duplicate	3674G.J01	09/08/97	12:33
3						
4						
5						
6						
7						
8						
9						
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21213

Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Analysis Date:	09/08/97
		Sample Matrix:	Water	Analysis Time:	11:46
Sample ID:	**97G3674-MB-02**	Batch No:	97G3674	Instrument ID:	GC: B
Lab Sample ID:	97G3674-MB-02	Data File Name:	3674G.K02	GC Column:	RTX-5
Leach Method:	SPLP	Heated Purge: (Y/N)	N	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	18609-491	97-3847-7	Field Sample	3847.007	09/08/97	20:03
2	18609-492	97-3847-8	Field Sample	3847.008	09/08/97	20:23
3						
4						
5						
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Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Analysis Date:	09/10/97
		Sample Matrix:	Soil	Analysis Time:	13:54
Sample ID:	**97G3697-MB-01**	Batch No:	97G3697	Instrument ID:	GC: N
Lab Sample ID:	97G3697-MB-01	Data File Name:	3697G.K01	GC Column:	DB-1
		Heated Purge: (Y/N)	Y	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G3697-LCS-01	97G3697-LCS-01	Lab Control Spike	3697G.L01	09/10/97	14:24
2	97G3697-LSD-01	97G3697-LSD-01	Lab Control Spike Duplicate	3697G.J01	09/10/97	14:50
3	18609-481	97-3847-3	Field Sample	3847.003	09/10/97	16:07
4	18609-480	97-3847-2	Field Sample	3847.002	09/10/97	16:33
5	18609-478	97-3847-1	Field Sample	3847.001	09/10/97	16:58
6	18609-499-MS	97-3847-15MS	Matrix Spike	3697G.M01	09/10/97	19:23
7	18609-499-MSD	97-3847-15MSD	Matrix Spike Duplicate	3697G.N01	09/10/97	19:49
8	18609-499	97-3847-15	Field Sample	3847.015	09/10/97	20:41
9	18609-498	97-3847-14	Field Sample	3847.014	09/10/97	21:07
10	18609-497	97-3847-13	Field Sample	3847.013	09/10/97	21:32
11	18609-496	97-3847-12	Field Sample	3847.012	09/10/97	21:57
12	18609-495	97-3847-11	Field Sample	3847.011	09/10/97	22:23
13	18609-494	97-3847-10	Field Sample	3847.010	09/10/97	22:49
14	18609-493	97-3847-9	Field Sample	3847.009	09/10/97	23:14
15	18609-487	97-3847-5	Field Sample	3847.005	09/11/97	00:30
16	18609-490	97-3847-6	Field Sample	3847.006	09/11/97	00:56
17	18609-484	97-3847-4	Field Sample	3847.004	09/11/97	01:22
18						
19						
20						
21						
22						
23						
24						
25						

21215

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/05/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	
		Lab Sample ID:	97G3666-MB-01	Received Date:	09/05/97
Sample ID:	**97G3666-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/05/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	19:36
Data File Name:	3666G.K01	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	87
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

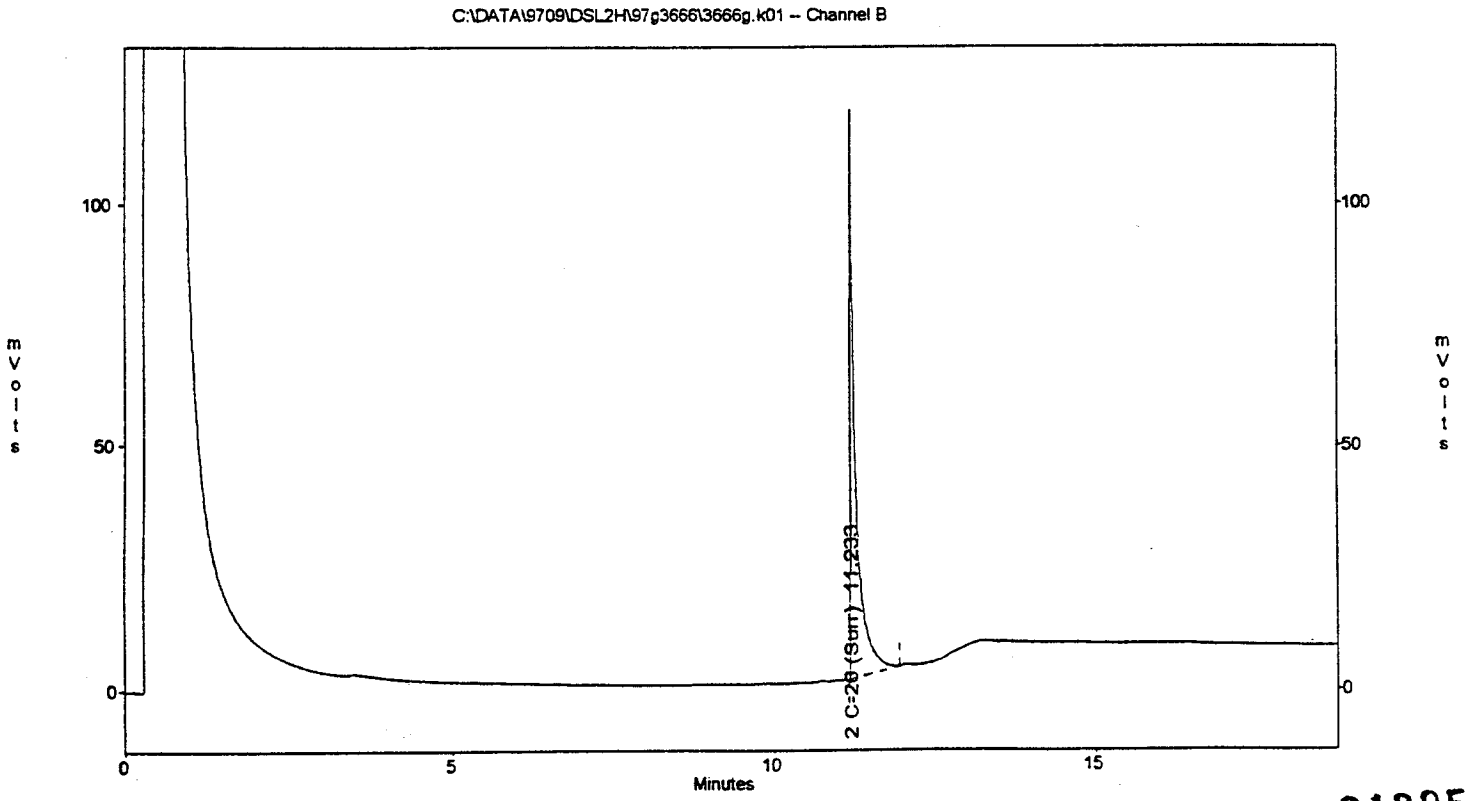
21294

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3666g.k01
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : f=.05
Vial : 1
Volume : 1
Acquired : Sep 05, 1997 19:36:52
Printed : Sep 05, 1997 19:55:41
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.23	690920	43.443
1 DIESEL		0	0.000



21295

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	
		Lab Sample ID:	97G3755-MB-01	Received Date:	09/16/97
Sample ID:	**97G3755-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/16/97	Anal. Date:	09/16/97
Batch No:	97G3755	Prep. No:	1 of 1	Anal. Time:	22:18
Data File Name:	3755G.K01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL	Leach Method:	SPLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	SPLP TPH AS DIESEL	68334-30-5	mg/L	0.5	<0.5	U
2	SPLP MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	73
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

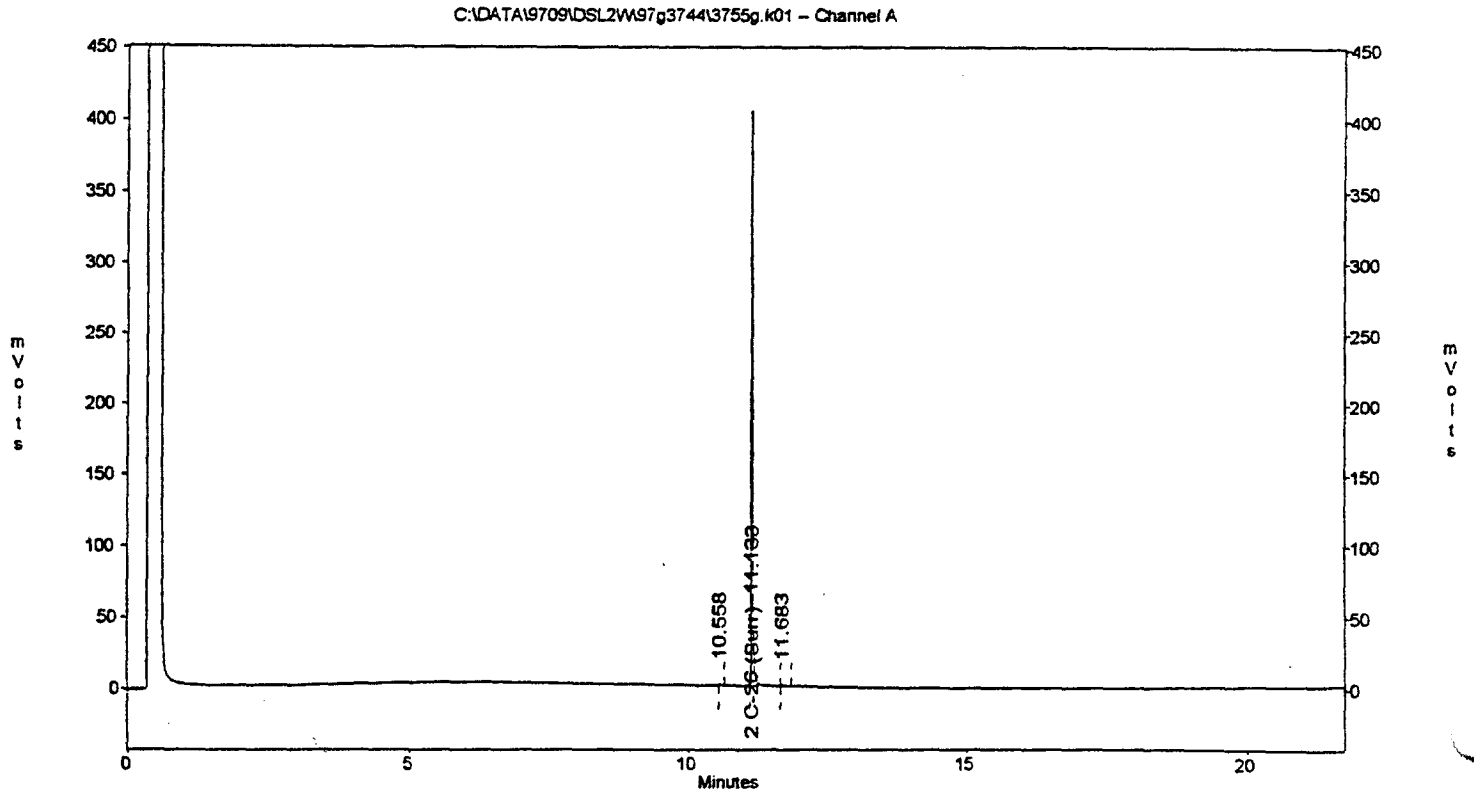
21296

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2W\97g3744\3755g.k01
Method : c:\ezchrom\methods\Dsl2-005.w00
Sample ID : #97g3755,w f=.001
Vial : 16
Volume : 1
Acquired : Sep 16, 1997 22:18:31
Printed : Sep 16, 1997 22:40:20
User : System
File Desc. : 0

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.13	595889	36.423
1 Diesel		2306	0.118



21297

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-1	Received Date:	09/04/97
Sample ID:	**18609-478**	Sample Matrix	Soil	Moisture %:	13.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/08/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	10:15
Data File Name:	3847.001	Sample Amount:	20.0 g	Dilution Factor:	100
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	1200	5400 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	1200	< 1200	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	0
# of out-of-control				1

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Similar to JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

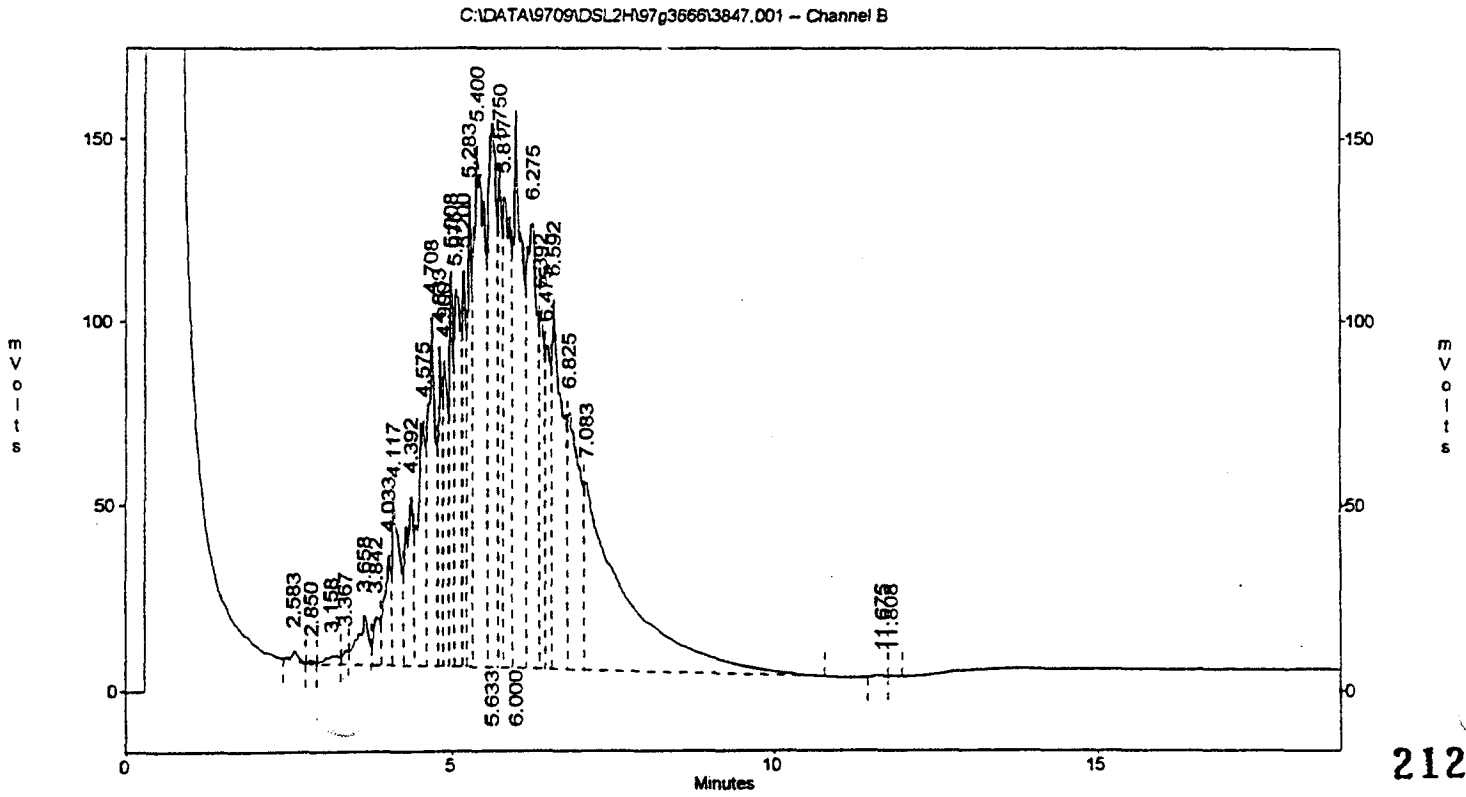
21298

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.001
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : 3847-1 f=5
Vial : 7
Volume : 1
Acquired : Sep 08, 1997 10:15:47
Printed : Sep 08, 1997 10:34:36
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.29	0	0.000
1 DIESEL		18320612	1076.221



21299

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-2	Received Date:	09/04/97
Sample ID:	**18609-480**	Sample Matrix	Soil	Moisture %:	15.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/08/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	14:04
Data File Name:	3847.002	Sample Amount:	20.0 g	Dilution Factor:	100
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	1200	23000 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	1200	< 1200	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	0
# of out-of-control				1

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Similar to JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

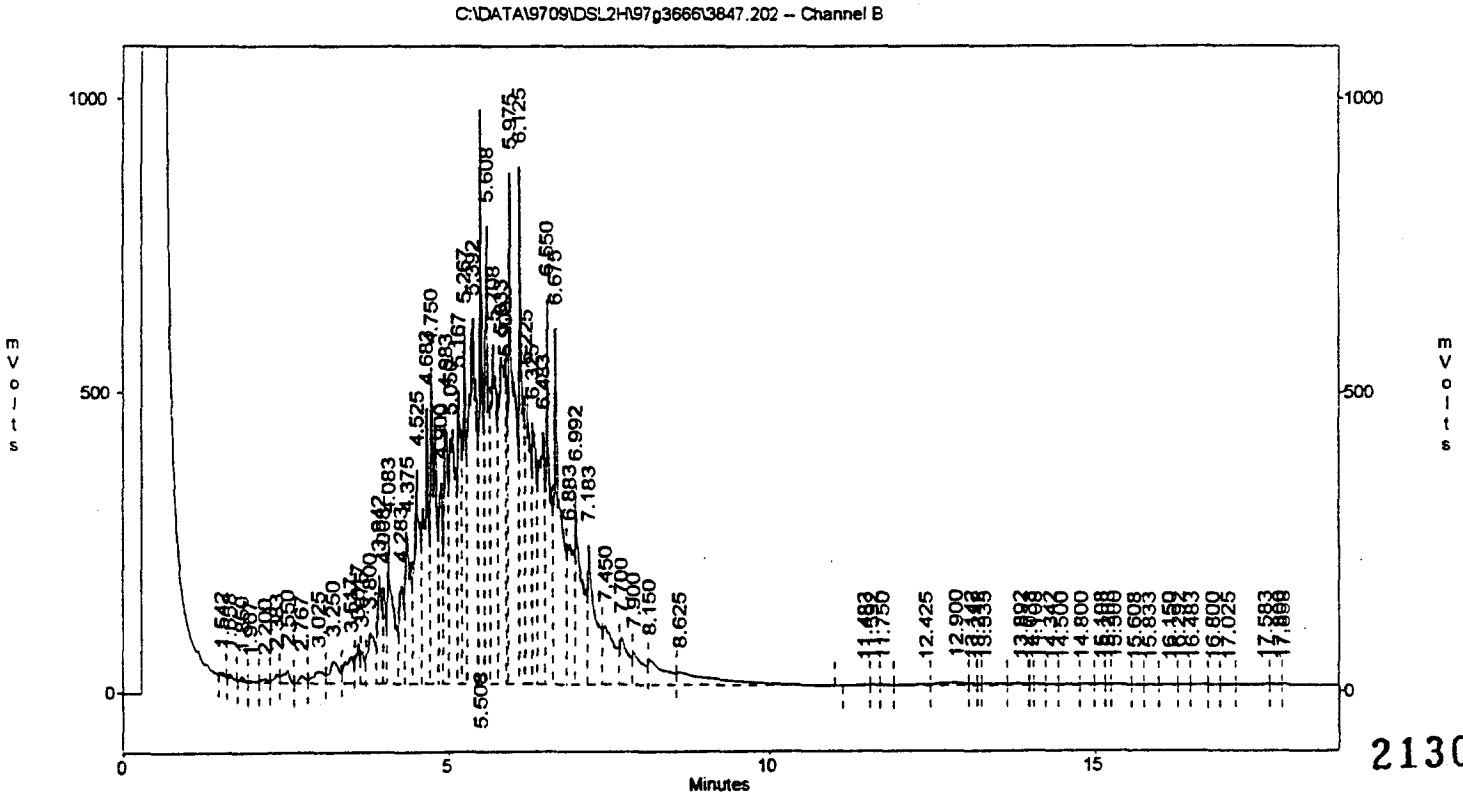
21300

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.202
Method : c:\ezchrom\methods\dsl2-022.h00
Sample ID : %97g3666 f=5
Vial : 9
Volume : 1
Acquired : Sep 08, 1997 14:04:23
Printed : Sep 09, 1997 16:16:19
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.23	0	0.000
1 DIESEL		76890208	4516.817



21301

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-3	Received Date:	09/04/97
Sample ID:	**18609-481**	Sample Matrix	Soil	Moisture %:	12.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/08/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	15:20
Data File Name:	3847.203	Sample Amount:	20.0 g	Dilution Factor:	100
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	1100	7200 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	1100	< 1100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	0
# of out-of-control				1

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Simolar to JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

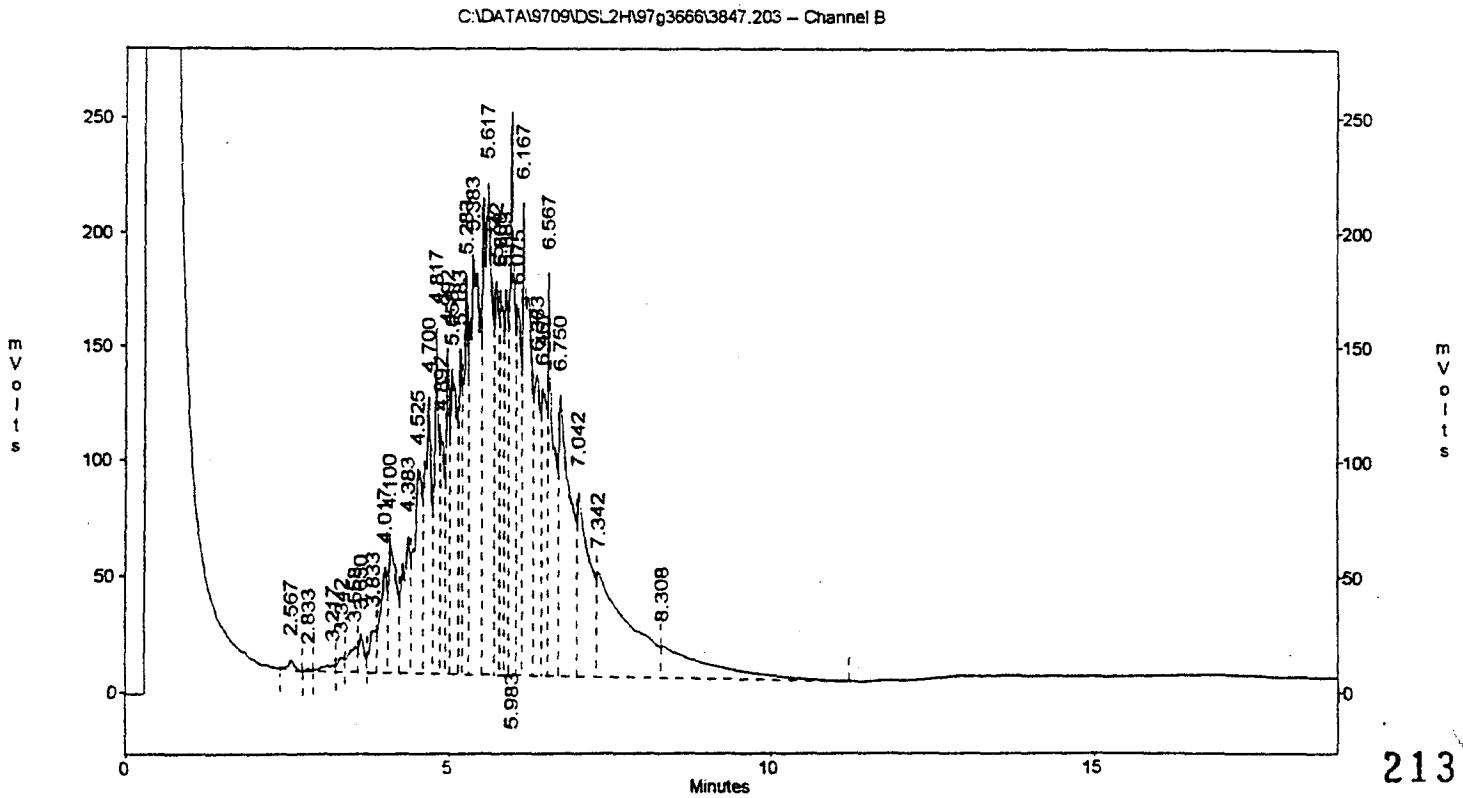
21302

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.203
Method : c:\ezchrom\methods\dsl2-022.h00
Sample ID : %97g3666 f=5
Vial : 11
Volume : 1
Acquired : Sep 08, 1997 15:20:38
Printed : Sep 09, 1997 16:22:08
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.23	0	0.000
1 DIESEL		24856596	1460.169



21303

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-4	Received Date:	09/04/97
Sample ID:	18609-484	Sample Matrix	Soil	Moisture %:	17.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/06/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	01:32
Data File Name:	3847.004	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	88
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

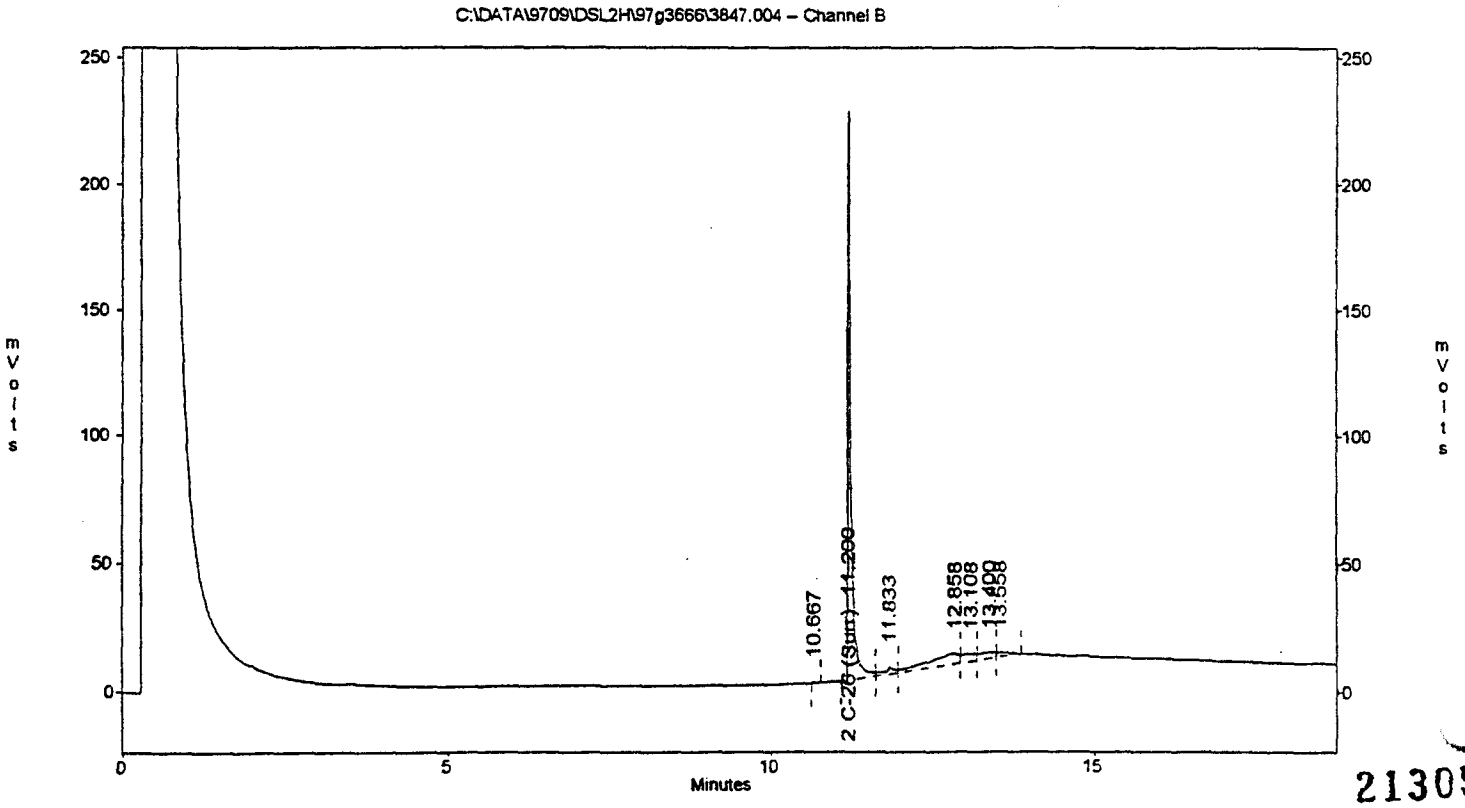
21304

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.004
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : 3847-4 f=.05
Vial : 13
Volume : 1
Acquired : Sep 06, 1997 01:32:25
Printed : Sep 06, 1997 01:51:14
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.20	699300	43.970
1 DIESEL		1824	0.107



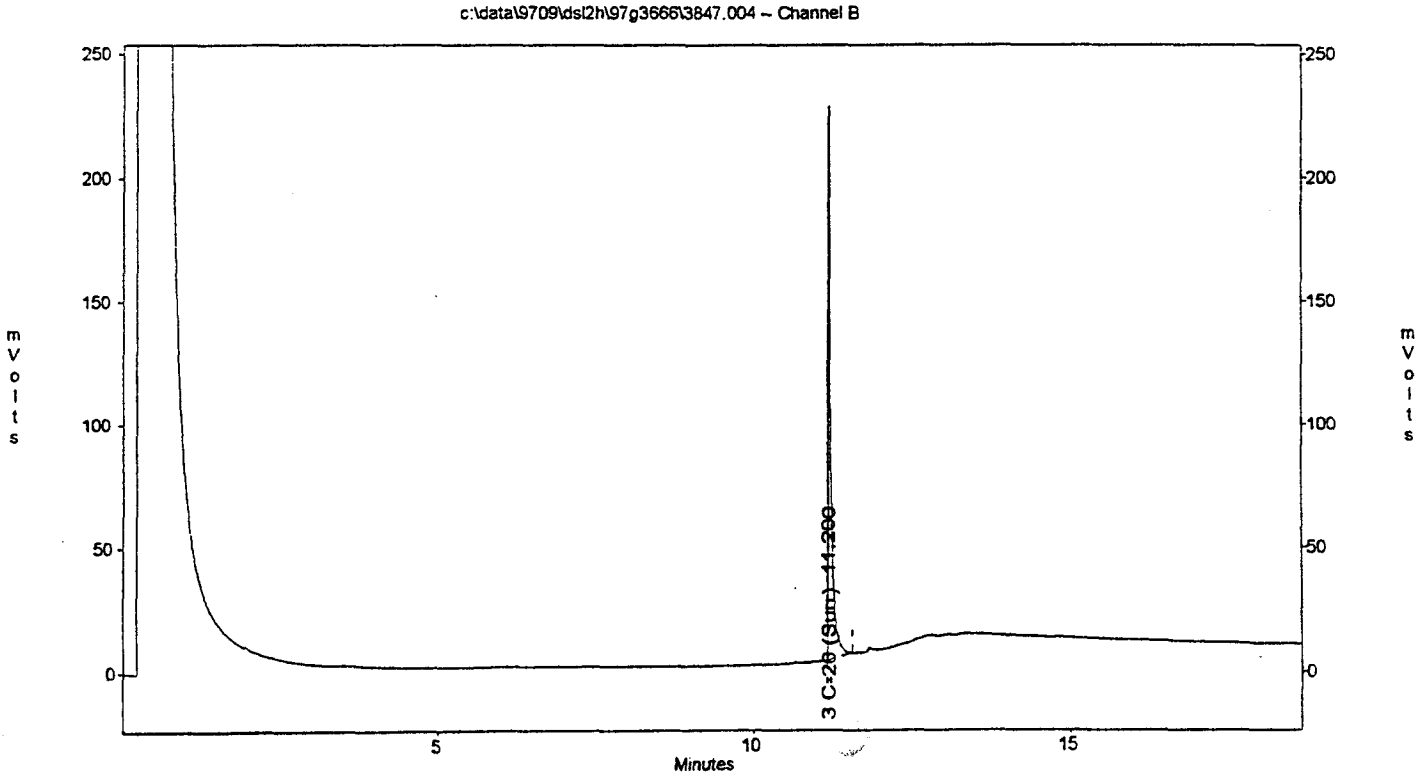
21305

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3666\3847.004
Method : c:\ezchrom\methods\j5mo-017.h00
Sample ID : 3847-4 f=.05
Vial : 13
Volume : 1
Acquired : Sep 06, 1997 01:32:25
Printed : Sep 09, 1997 11:18:39
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.20	672351	44.451
1 Jp-5		0	0.000
2 motor oil		672351	38.771



21306

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-5	Received Date:	09/04/97
Sample ID:	**18609-487**	Sample Matrix	Soil	Moisture %:	13.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/06/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	01:57
Data File Name:	3847.005	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	90
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21307

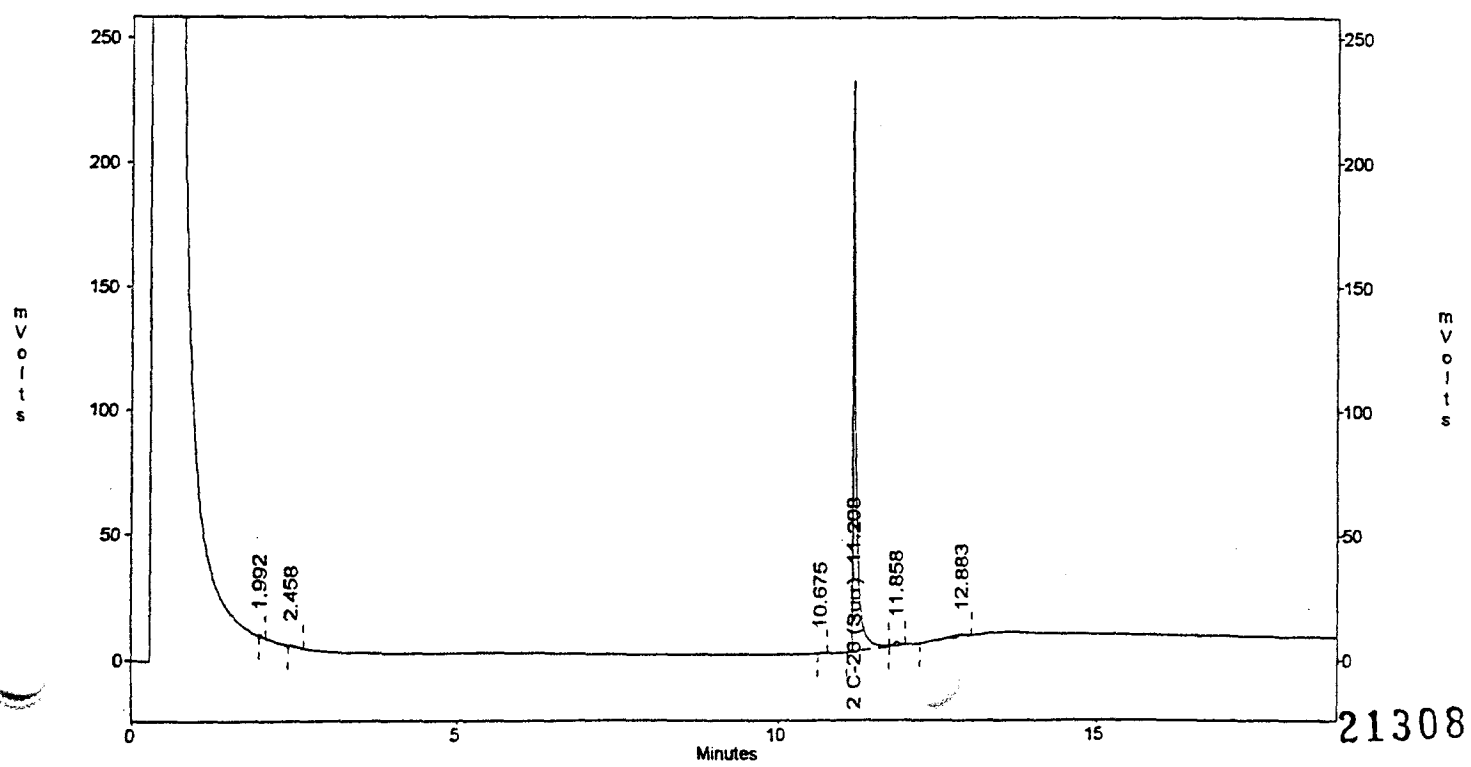
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.005
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : 3847-5 f=.05
Vial : 14
Volume : 1
Acquired : Sep 06, 1997 01:57:41
Printed : Sep 06, 1997 02:16:29
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.21	714180	44.906
1 DIESEL		1525	0.090

C:\DATA\9709\DSL2H\97g3666\3847.005 -- Channel B



21308

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-6	Received Date:	09/04/97
Sample ID:	**18609-490**	Sample Matrix	Soil	Moisture %:	3.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/06/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	02:23
Data File Name:	3847.006	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	76
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

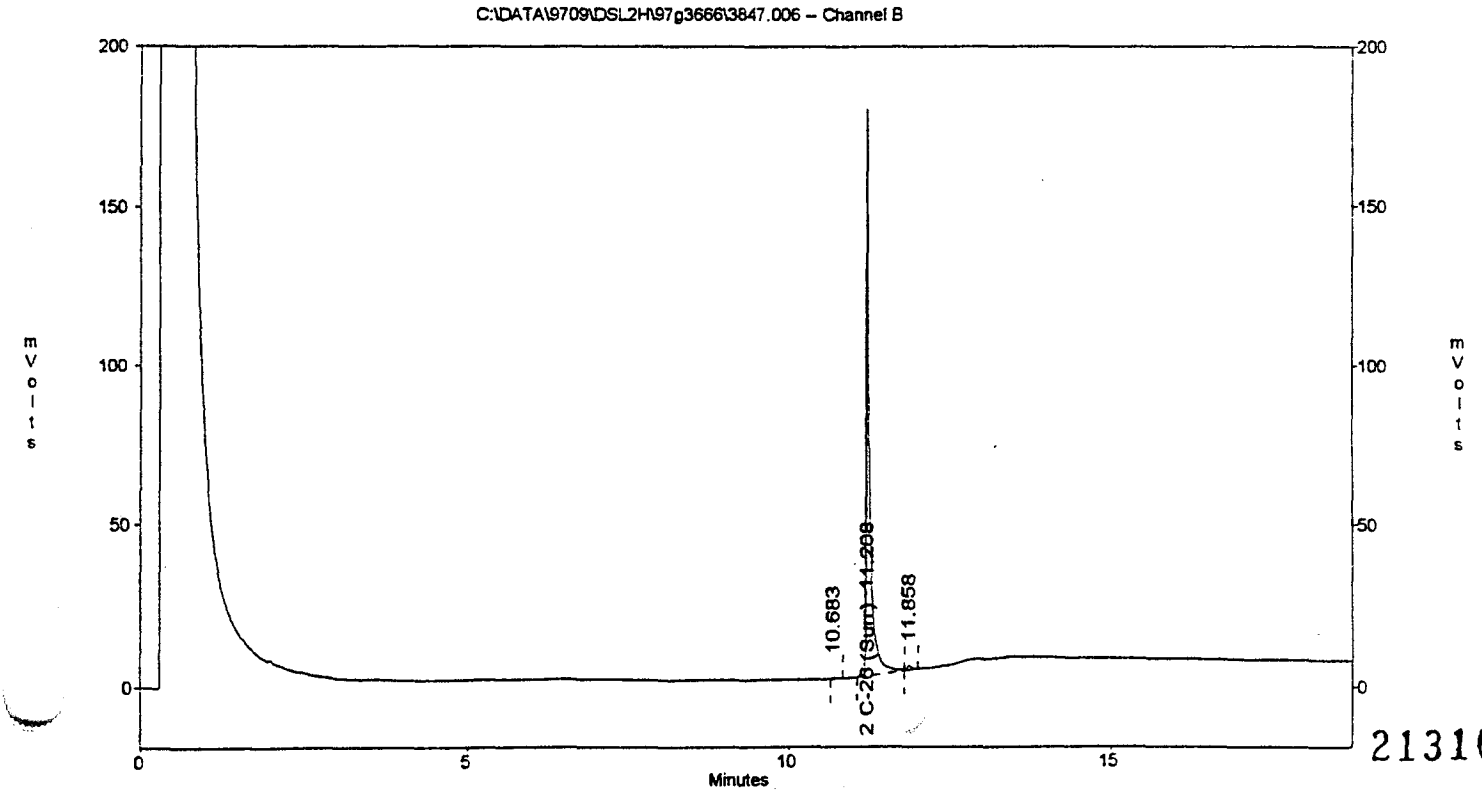
21309

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.006
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : 3847-6 f=.05
Vial : 15
Volume : 1
Acquired : Sep 06, 1997 02:23:02
Printed : Sep 06, 1997 02:41:51
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.21	609616	38.331
1 DIESEL		1759	0.103



21310

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-8	Received Date:	09/04/97
Sample ID:	**18609-492**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/05/97
Batch No:	97G3664	Prep. No:	1 of 1	Anal. Time:	20:10
Data File Name:	3847.008	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	0.5	< 0.5	U
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	< 0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	109
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains a peak which corresponds to an unknown compound.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

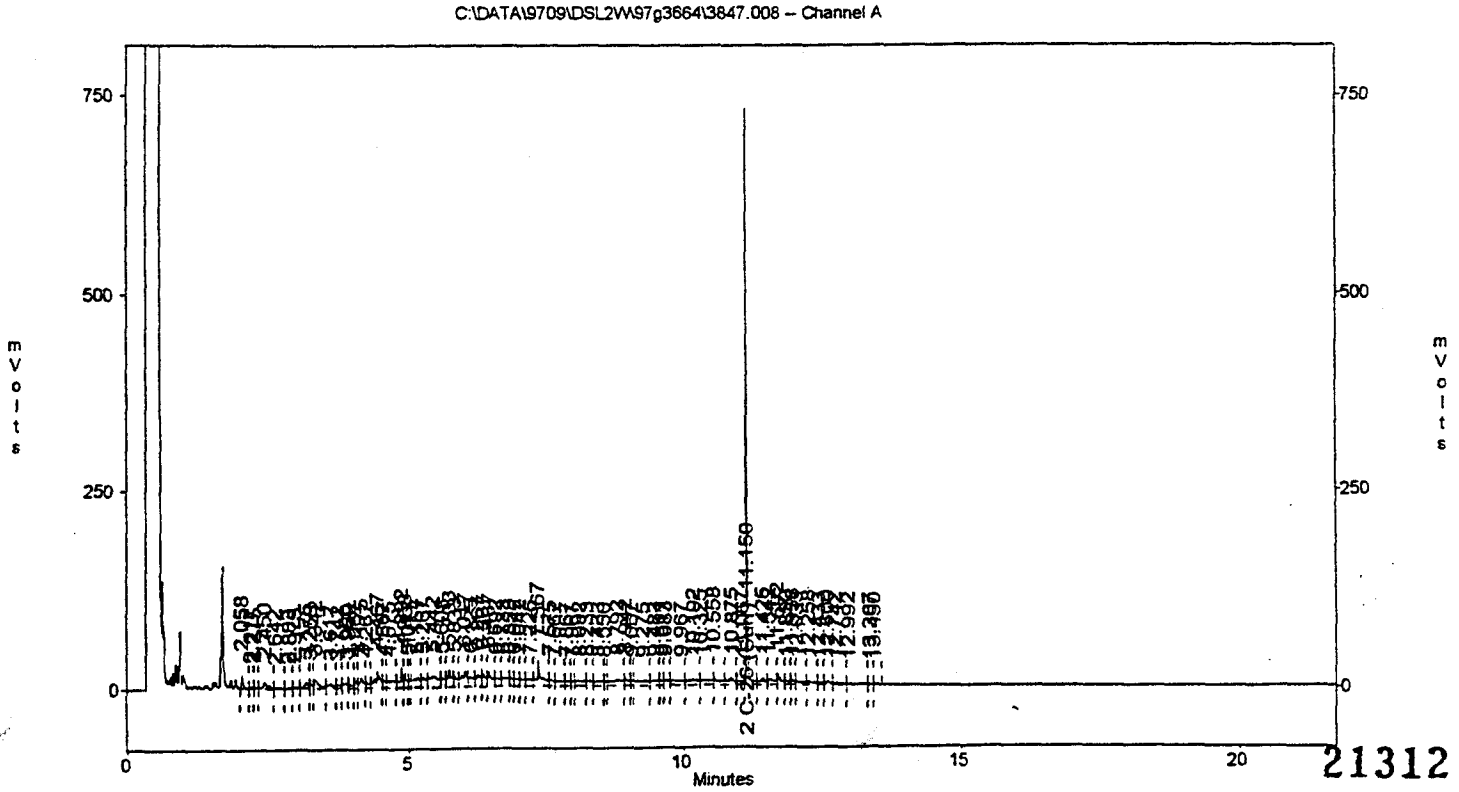
21311

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2W\97g3664\3847.008
Method : c:\ezchrom\methods\Dsl2-005.w00
Sample ID : 3847-8 f=.001
Vial : 7
Volume : 1
Acquired : Sep 05, 1997 20:10:11
Printed : Sep 05, 1997 20:32:02
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.15	888257	54.293
1 Diesel		3790684	194.240



21312

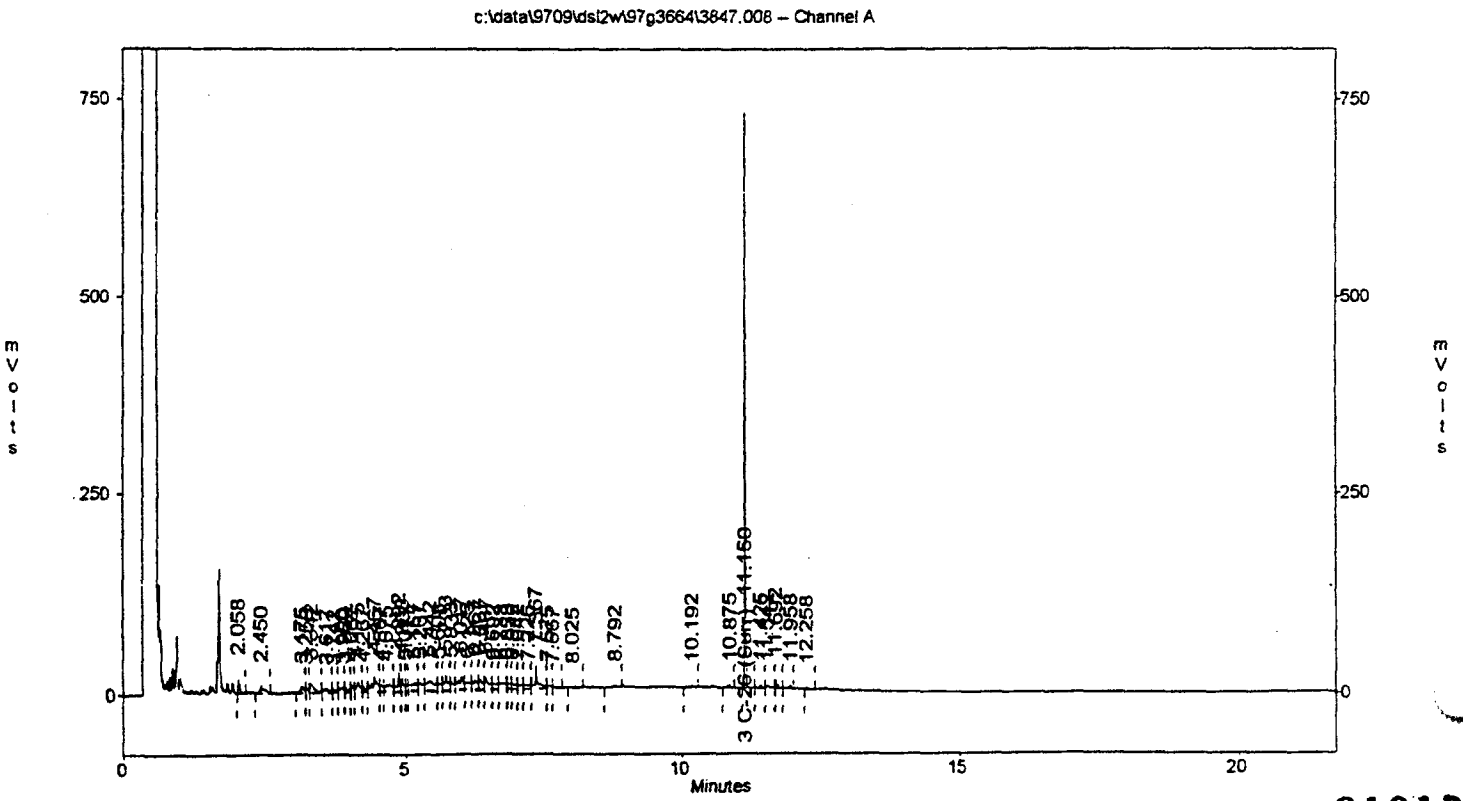
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2w\97g3664\3847.008
Method : c:\ezchrom\methods\j5mo-007.w00
Sample ID : 3847-8 f=.001
Vial : 7
Volume : 1
Acquired : Sep 05, 1997 20:10:11
Printed : Sep 09, 1997 11:57:40
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.15	833005	51.694
1 Jp-5		1840920	88.310
2 Motor oil		88054	6.649

(11.2-16)



21313

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-9	Received Date:	09/04/97
Sample ID:	**18609-493**	Sample Matrix	Soil	Moisture %:	8.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/06/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	02:48
Data File Name:	3847.009	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	83
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

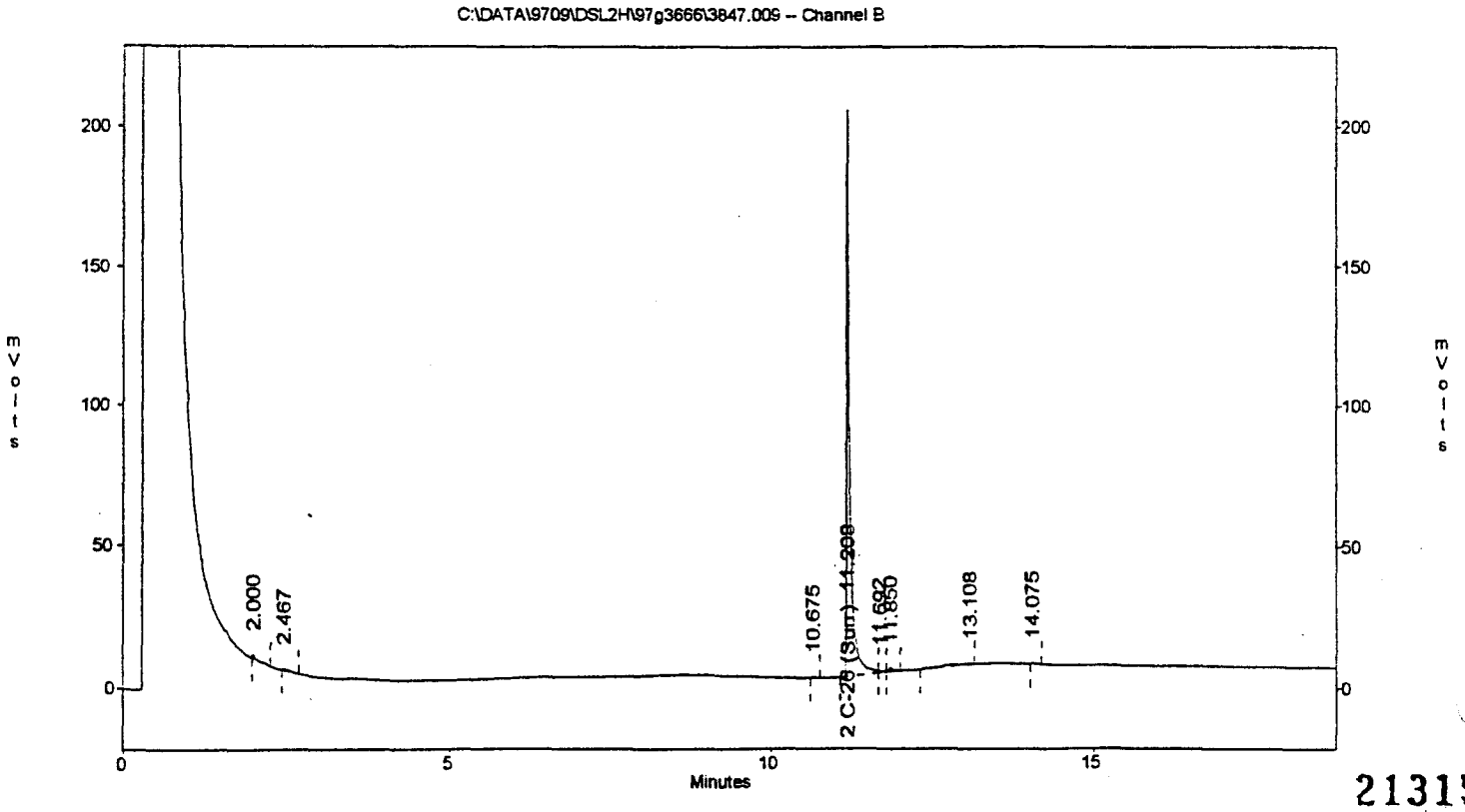
Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.009
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : 3847-9 f=.05
Vial : 16
Volume : 1
Acquired : Sep 06, 1997 02:48:18
Printed : Sep 06, 1997 03:07:06
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.21	657653	41.351
1 DIESEL		1817	0.107



21315

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-10	Received Date:	09/04/97
Sample ID:	**18609-494**	Sample Matrix	Soil	Moisture %:	6.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/06/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	03:13
Data File Name:	3847.010	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	150 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	94
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Similar to JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

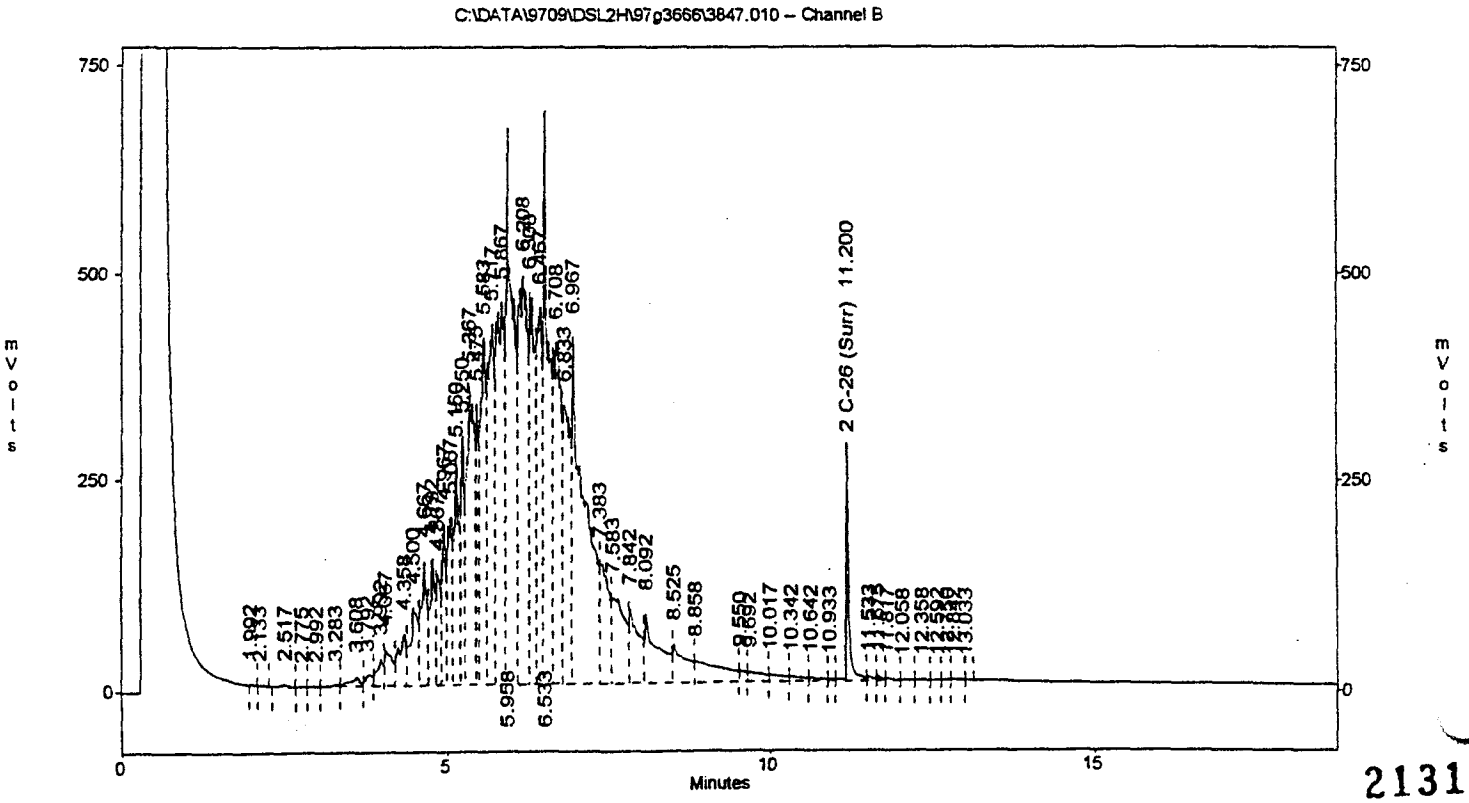
21316

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.010
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : 3847-10 f=.05
Vial : 17
Volume : 1
Acquired : Sep 06, 1997 03:13:43
Printed : Sep 06, 1997 03:32:33
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.20	751276	47.238
1 DIESEL		60416368	3549.083



21317

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-11	Received Date:	09/04/97
Sample ID:	**18609-495**	Sample Matrix	Soil	Moisture %:	16.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/08/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	15:46
Data File Name:	3847.111	Sample Amount:	20.0 g	Dilution Factor:	5
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	60	530 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	60	<60	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	0
# of out-of-control				1

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Similar to JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

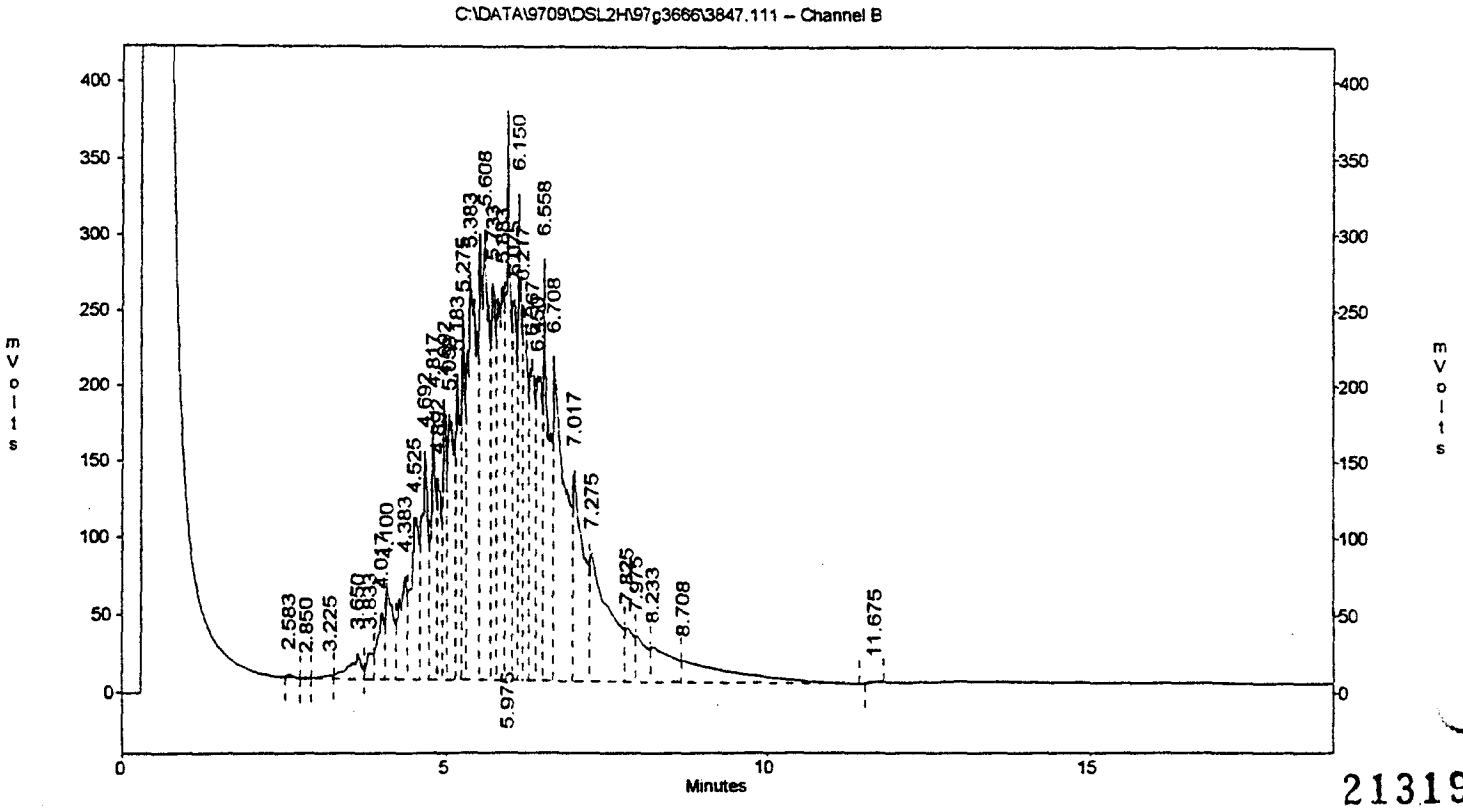
21318

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.111
Method : c:\ezchrom\methods\dsl2-022.h00
Sample ID : %97g3666 f=.25
Vial : 18
Volume : 1
Acquired : Sep 08, 1997 15:46:01
Printed : Sep 09, 1997 16:30:32
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.23	0	0.000
1 DIESEL		25497624	2085.263



21319

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-12	Received Date:	09/04/97
Sample ID:	18609-496	Sample Matrix	Soil	Moisture %:	10.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/06/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	04:04
Data File Name:	3847.012	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	72
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

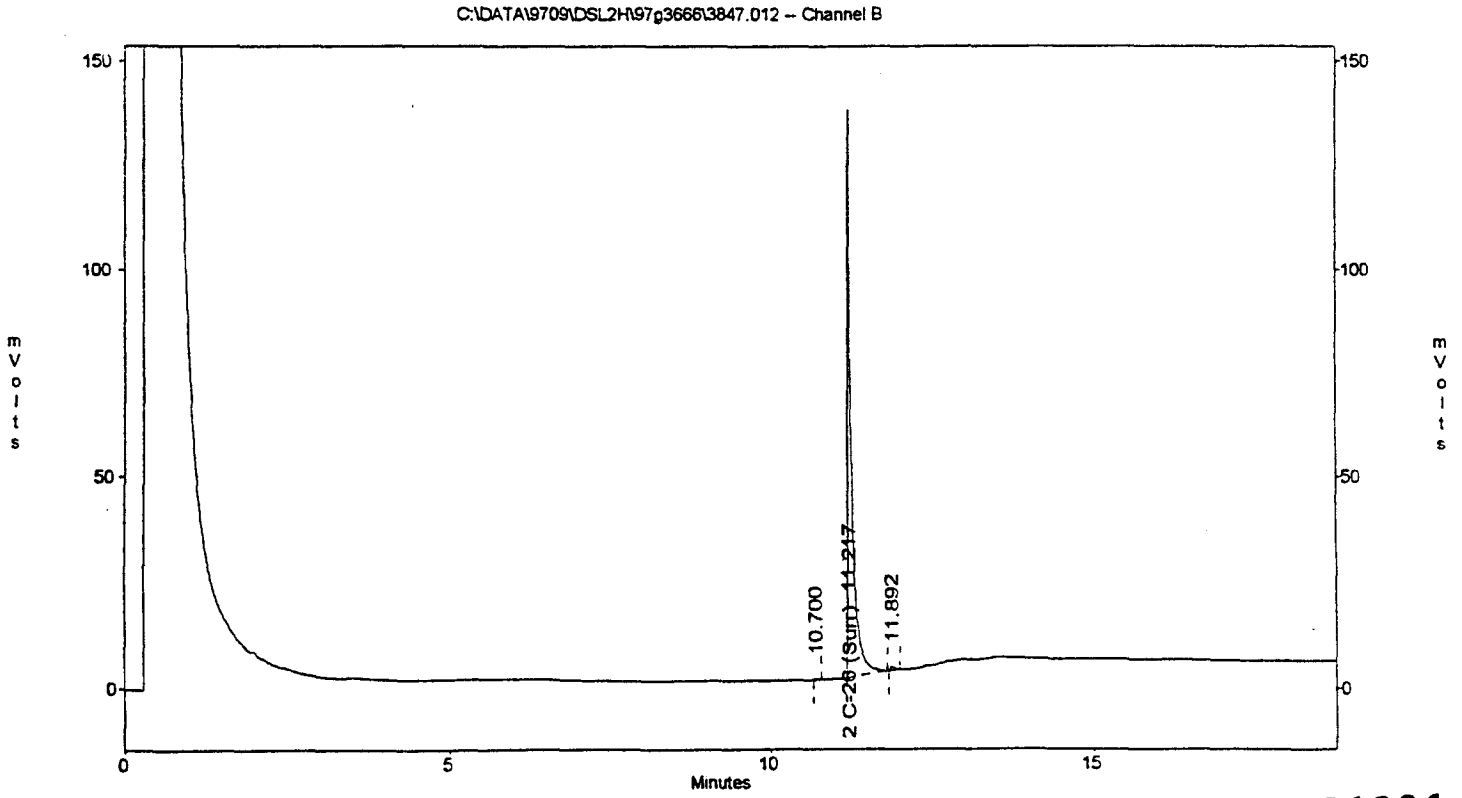
21320

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.012
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : 3847-12 f=.05
Vial : 19
Volume : 1
Acquired : Sep 06, 1997 04:04:38
Printed : Sep 06, 1997 04:23:26
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.22	574845	36.145
1 DIESEL		1083	0.064



21321

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-13	Received Date:	09/04/97
Sample ID:	18609-497	Sample Matrix	Soil	Moisture %:	7.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/06/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	04:29
Data File Name:	3847.013	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	79
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

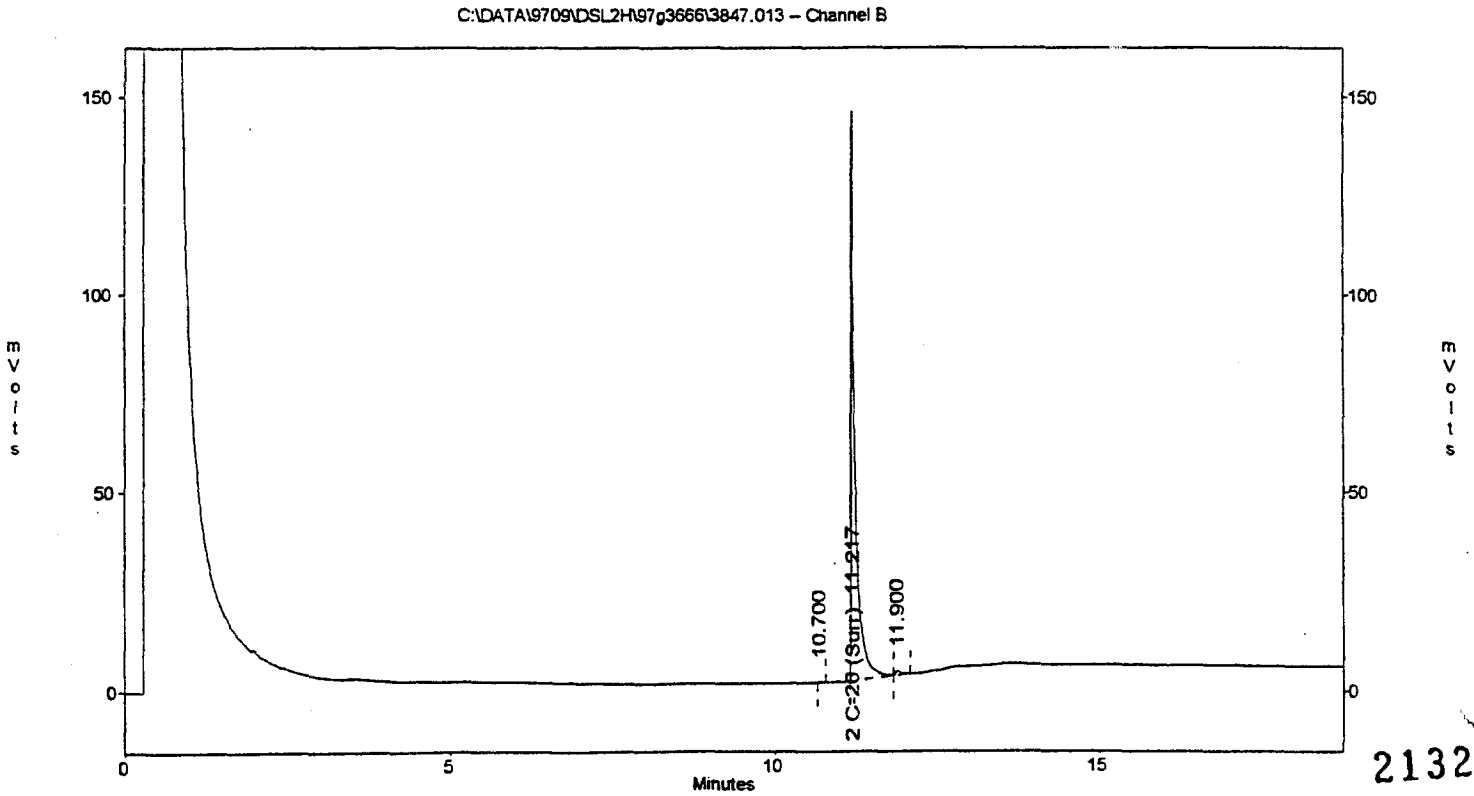
21322

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.013
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : 3847-13 f=.05
Vial : 20
Volume : 1
Acquired : Sep 06, 1997 04:29:52
Printed : Sep 06, 1997 04:48:41
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.22	624787	39.285
1 DIESEL		1060	0.062



21323

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-14	Received Date:	09/04/97
Sample ID:	18609-498	Sample Matrix	Soil	Moisture %:	2.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/06/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	05:45
Data File Name:	3847.014	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	68
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

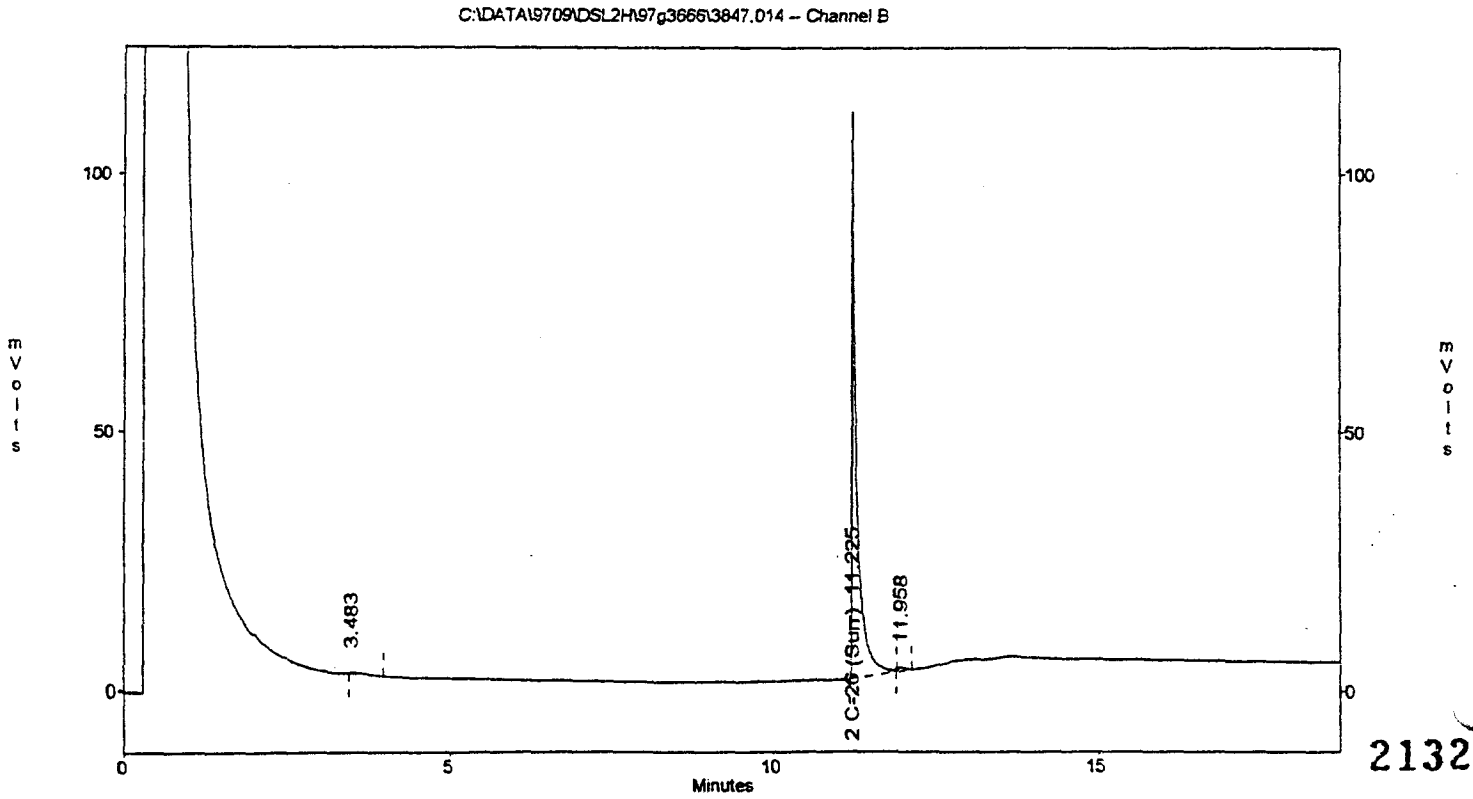
21324

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.014
Method : c:\ezchrom\methods\Ds12-022.h00
Sample ID : 3847-14 f=.05
Vial : 21
Volume : 1
Acquired : Sep 06, 1997 05:45:30
Printed : Sep 06, 1997 06:04:18
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.23	543851	34.196
1 DIESEL		3982	0.234



21325

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-15	Received Date:	09/04/97
Sample ID:	18609-499	Sample Matrix	Soil	Moisture %:	4.9
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/06/97
Batch No:	97G3666	Prep. No:	1 of 1	Anal. Time:	06:10
Data File Name:	3847.015	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	87
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

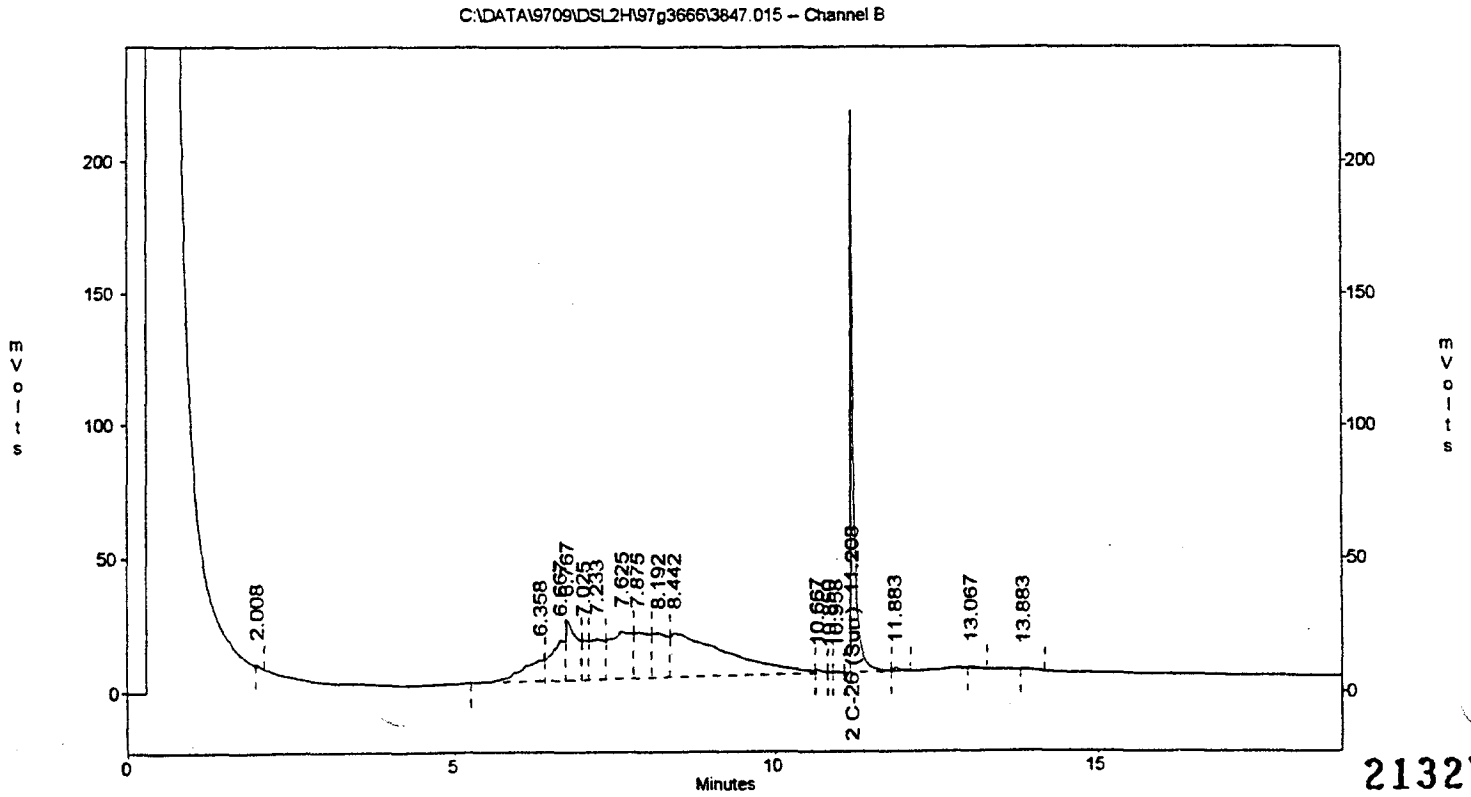
21326

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3847.015
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : 3847-15 f=.05
Vial : 22
Volume : 1
Acquired : Sep 06, 1997 06:10:50
Printed : Sep 06, 1997 06:29:39
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.21	690025	43.387
1 DIESEL		3054451	179.430



21327

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/05/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	
		Lab Sample ID:	97G3664-MB-01	Received Date:	09/05/97
Sample ID:	**97G3664-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/05/97	Anal. Date:	09/05/97
Batch No:	97G3664	Prep. No:	1 of 1	Anal. Time:	17:18
Data File Name:	3664G.K01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	0.5	< 0.5	U
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	< 0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	106
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

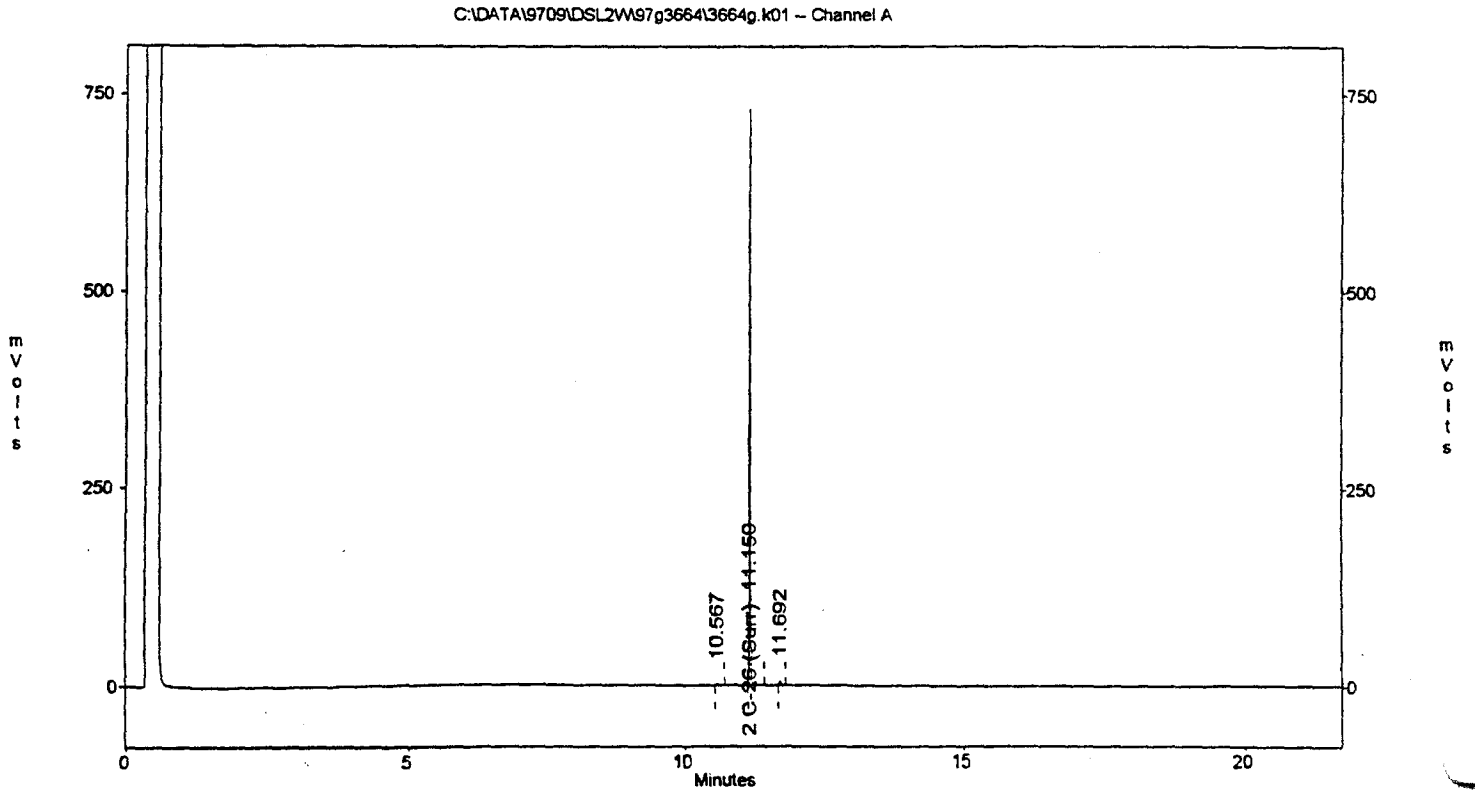
21328

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File	: C:\DATA\9709\DSL2W\97g3664\3664g.k01
Method	: c:\ezchrom\methods\Ds12-005.w00
Sample ID	: f=.001
Vial	: 1
Volume	: 1
Acquired	: Sep 05, 1997 17:18:34
Printed	: Sep 05, 1997 17:40:23
User	: System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.15	865013	52.872
1 Diesel		3087	0.158



21329

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-2	Received Date:	09/04/97
Sample ID:	**18609-480**	Sample Matrix	Soil	Moisture %:	15.3
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/16/97	Anal. Date:	09/18/97
Batch No:	97G3755	Prep. No:	1 of 1	Anal. Time:	15:37
Data File Name:	3847.002	Sample Amount:	1000 mL	Dilution Factor:	10
Extract Vol.	1.0 mL	Leach Method:	SPLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	SPLP TPH AS DIESEL	68334-30-5	mg/L	5	22 [a]	
2	SPLP MOTOR OIL	TBD-0002	mg/L	5	< 5 [a]	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	62
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

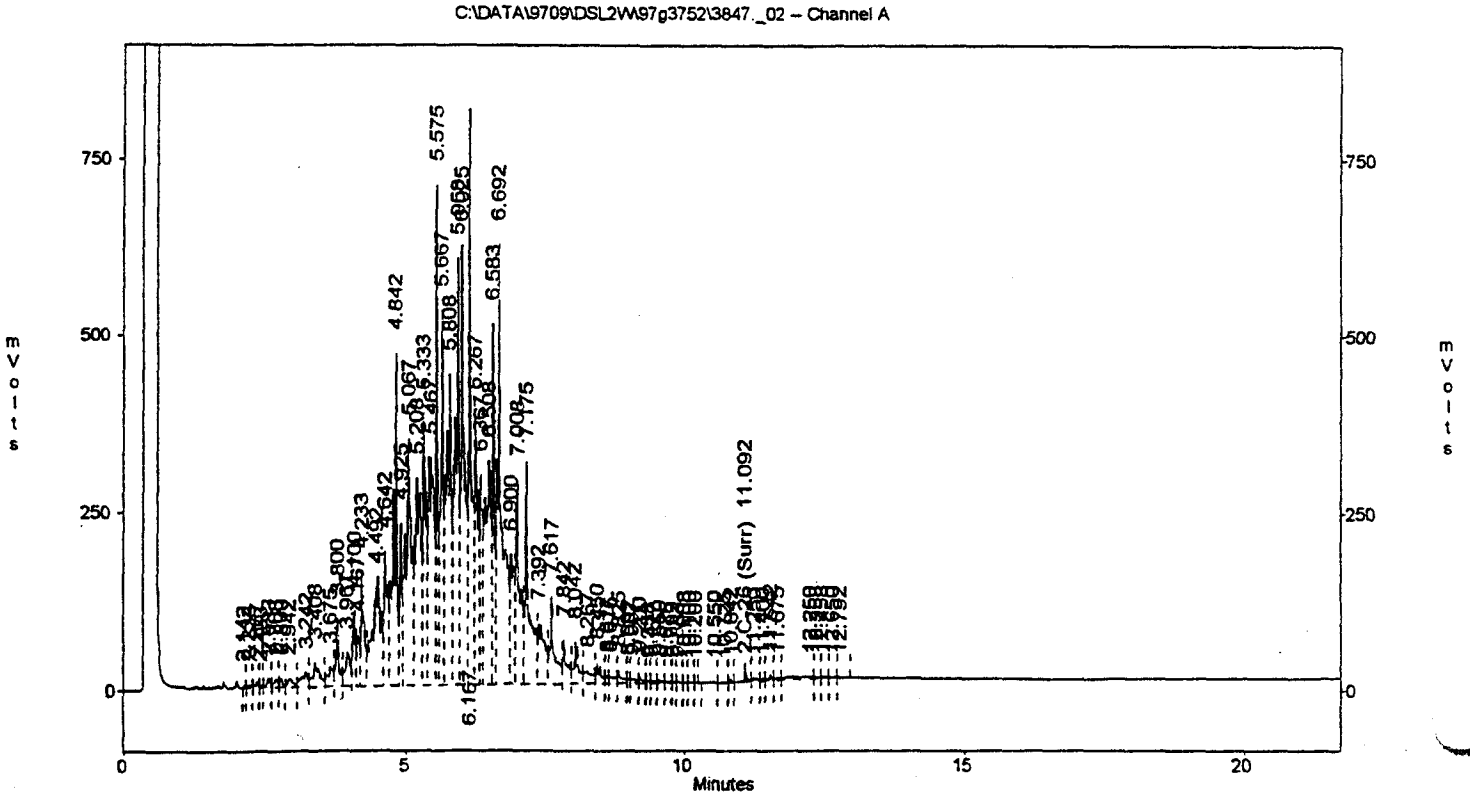
21330

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2W\97g3752\3847._02
Method : c:\ezchrom\methods\dsl2-005.w00
Sample ID : %97g3755 @s f=.01
Vial : 23
Volume : 1
Acquired : Sep 18, 1997 15:37:27
Printed : Sep 19, 1997 14:41:30
User : System
File Desc. : 0

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.09	50781	3.104
1 Diesel		46164324	2365.529



21331

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/04/97
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida
		Lab Sample ID:	97-3847-3	Received Date:	09/04/97
Sample ID:	**18609-481**	Sample Matrix	Soil	Moisture %:	12.7
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/16/97	Anal. Date:	09/17/97
Batch No:	97G3755	Prep. No:	1 of 1	Anal. Time:	01:07
Data File Name:	3847.03	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL	Leach Method:	SPLP		

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	SPLP TPH AS DIESEL	68334-30-5	mg/L	0.5	2.0 [a]	
2	SPLP MOTOR OIL	TBD-0002	mg/L	0.5	<0.5 [a]	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	83
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from JP-5.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

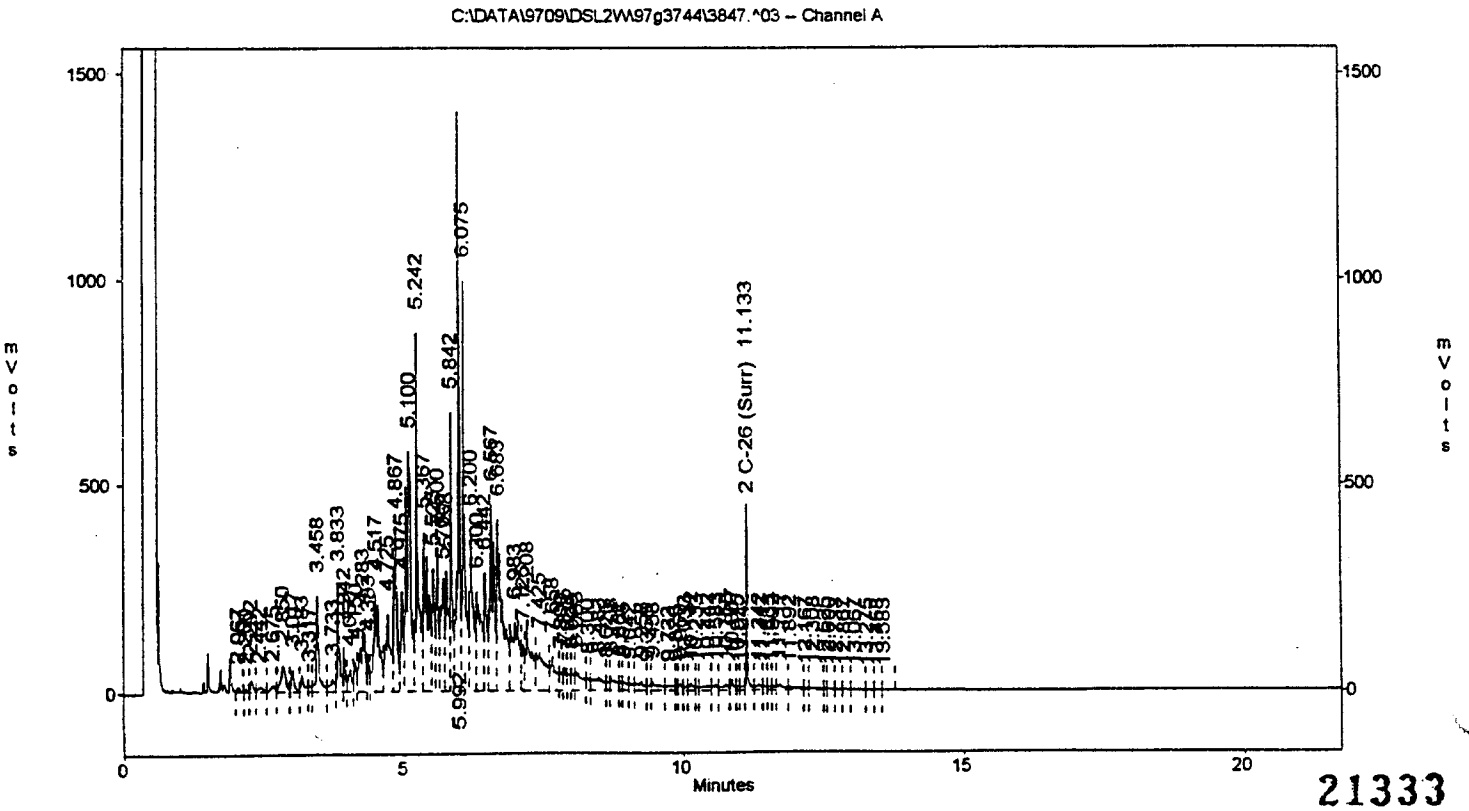
21332

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2W\97g3744\3847.^03
Method : c:\ezchrom\methods\dsl2-005.w00
Sample ID : 3847-3 @s f=.001
Vial : 22
Volume : 1
Acquired : Sep 17, 1997 01:07:54
Printed : Sep 19, 1997 14:45:05
User : System
File Desc. : 0

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.13	678175	41.452
1 Diesel		44651588	2288.014



21333

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3664		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G3664-MB-01	97G3664-MB-01	106	0
2	97G3664-LCS-01	97G3664-LCS-01	119	0
3	97G3664-LSD-01	97G3664-LSD-01	130	0
4	18609-492	97-3847-8	109	0
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

S1 = HEXACOSANE, C_{26}

QC Control Limit
50-149

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

21334

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3666		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G3666-MB-01	97G3666-MB-01	87	0
2	97G3666-LCS-01	97G3666-LCS-01	116	0
3	97G3666-LSD-01	97G3666-LSD-01	116	0
4	18609-484-MS	97-3847-4MS	102	0
5	18609-484-MSD	97-3847-4MSD	101	0
6	18609-484	97-3847-4	88	0
7	18609-487	97-3847-5	90	0
8	18609-490	97-3847-6	76	0
9	18609-493	97-3847-9	83	0
10	18609-494	97-3847-10	94	0
11	18609-496	97-3847-12	72	0
12	18609-497	97-3847-13	79	0
13	18609-498	97-3847-14	68	0
14	18609-499	97-3847-15	87	0
15	18609-478	97-3847-1	D	1
16	18609-480	97-3847-2	D	1
17	18609-481	97-3847-3	D	1
18	18609-495	97-3847-11	D	1
19				
20				
21				
22				
23				
24				
25				

S1 = HEXACOSANE, C_{26}

QC Control Limit
50-146

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

21335

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3755		

#	Client Sample No	Lab Sample ID	S1 %	#	TOT OUT
1	97G3755-MB-01	97G3755-MB-01	73		0
2	97G3755-LCS-01	97G3755-LCS-01	83		0
3	97G3755-LSD-01	97G3755-LSD-01	83		0
4	18609-481	97-3847-3	83		0
5	18609-480-MS	97-3847-2MS	42	D	1
6	18609-480	97-3847-2	62		0
7	18609-480-MSD	97-3847-2MSD	94		0
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

S1 = HEXACOSANE, C_{26}

QC Control Limit
50-149

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

21336

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3664		
LCS Filename:	3664G.L01	Date Analyzed:	090597	Time Analyzed:	17:46
LCSD Filename:	3664G.J01	Date Analyzed:	090597	Time Analyzed:	18:15

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/L	1	0	1.12	112	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/L	1	1.28	128	13	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

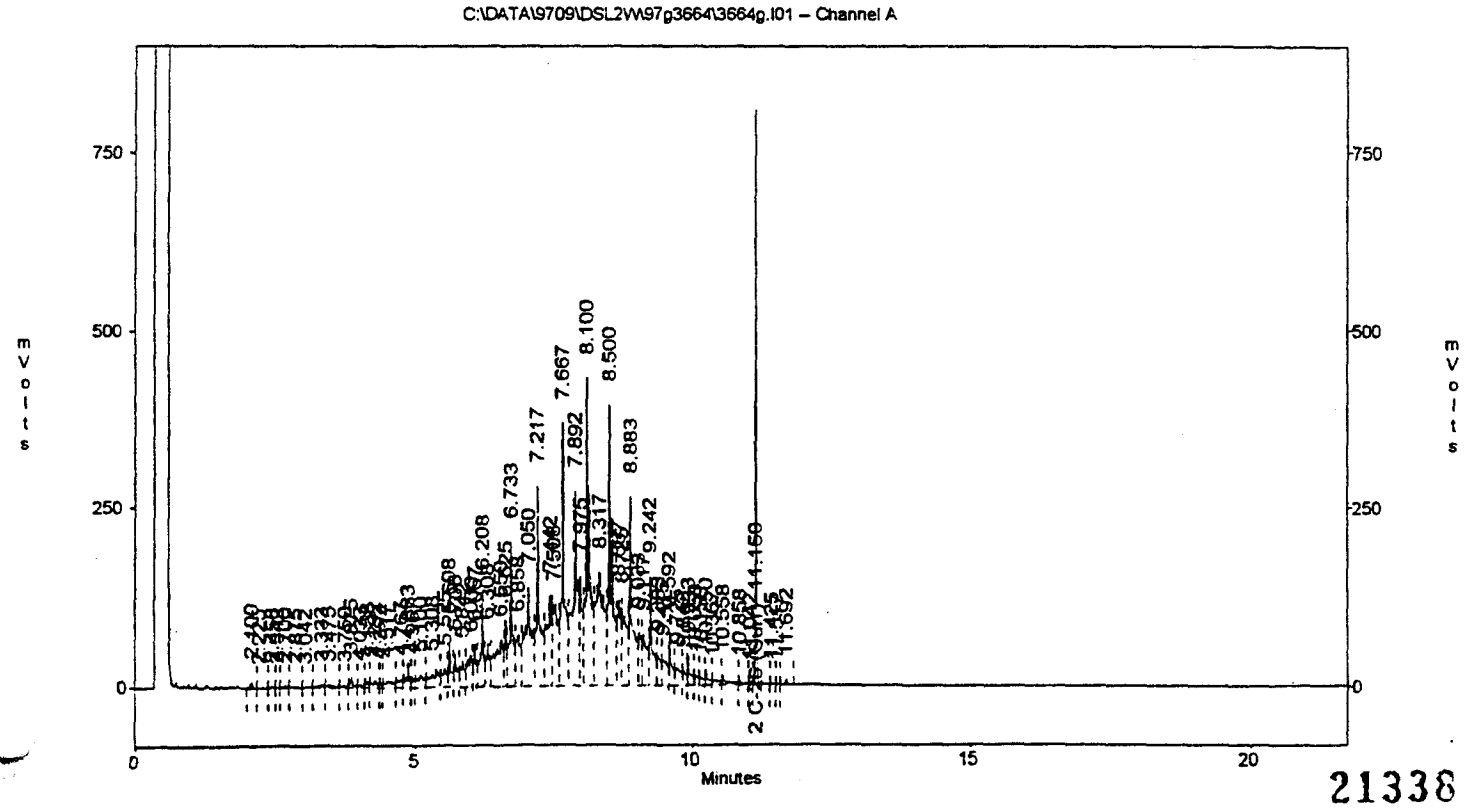
21337

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2W\97g3664\3664g.101
Method : c:\ezchrom\methods\Dsl2-005.w00
Sample ID : f=.001
Vial : 2
Volume : 1
Acquired : Sep 05, 1997 17:46:59
Printed : Sep 05, 1997 18:08:49
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.15	977130	59.725
1 Diesel		21914776	1122.946



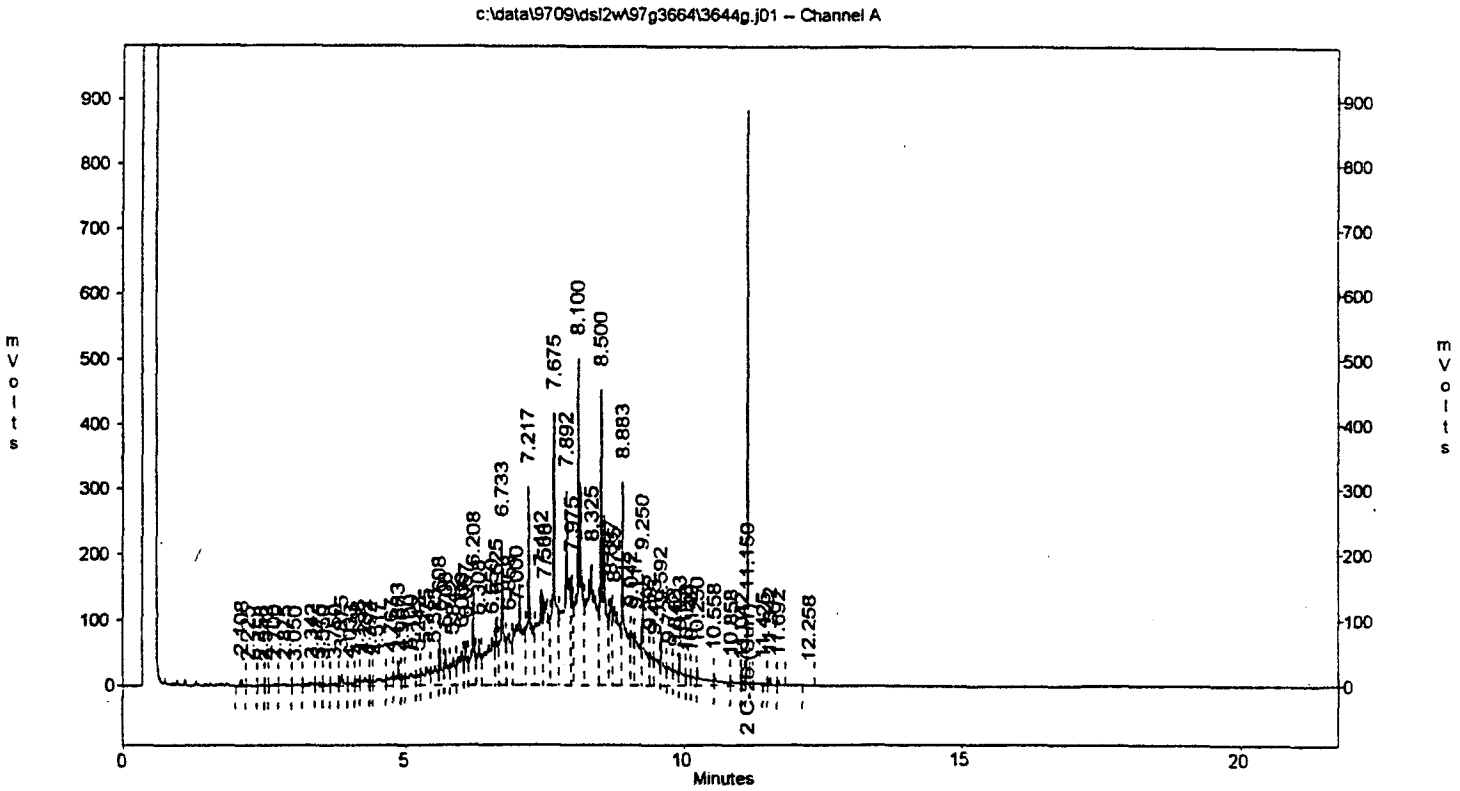
21338

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2w\97g3664\3644g.j01
Method : c:\ezchrom\methods\dsl2-005.w00
Sample ID : f=.001
Vial : 3
Volume : 1
Acquired : Sep 05, 1997 18:15:33
Printed : Sep 08, 1997 08:45:00
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.15	1060536	64.823
1 Diesel		24917752	1276.823



21339

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3666		
LCS Filename:	3666G.L01	Date Analyzed:	090597	Time Analyzed:	20:02
LCSD Filename:	3666G.J01	Date Analyzed:	090597	Time Analyzed:	20:27

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	56.3	113	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	56.4	113	0	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

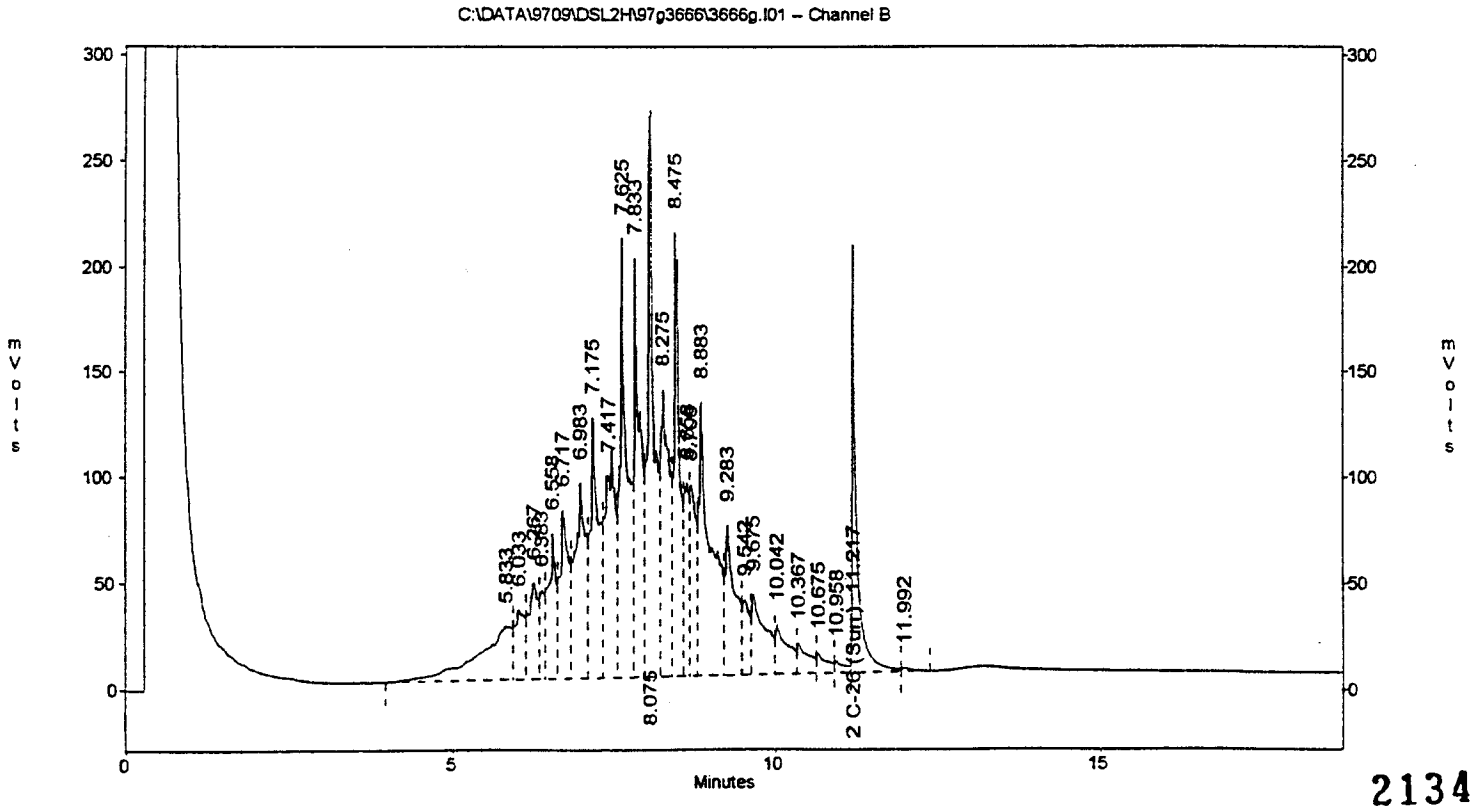
21340

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3666g.101
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : f=.05
Vial : 2
Volume : 1
Acquired : Sep 05, 1997 20:02:18
Printed : Sep 05, 1997 20:21:07
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.22	926265	58.241
1 DIESEL		19169854	1126.109



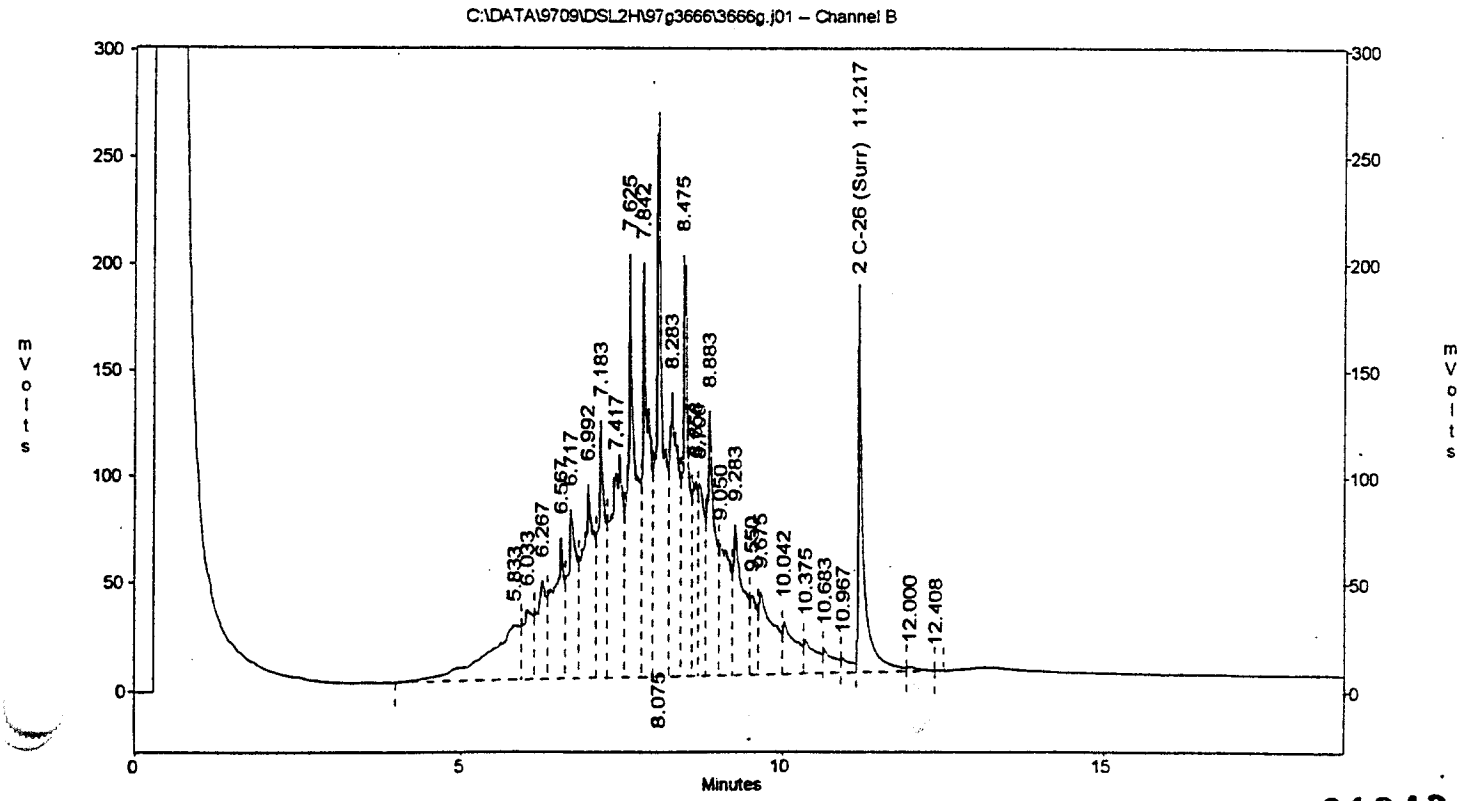
21341

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3666g.j01
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : f=.05
Vial : 3
Volume : 1
Acquired : Sep 05, 1997 20:27:39
Printed : Sep 05, 1997 20:46:28
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.22	923828	58.088
1 DIESEL		19215742	1128.804



21342

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3666		
MS Filename:	3666G.M01	Date Analyzed:	090597	Time Analyzed:	20:53
MSD Filename:	3666G.N01	Date Analyzed:	090597	Time Analyzed:	21:18
MS Sample No:	**18609-484**	Sample Lab ID:	97-3847-4	Moisture, %	17.4

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	60.5	0	59.3	98	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	60.5	61.6	102	4	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: _____

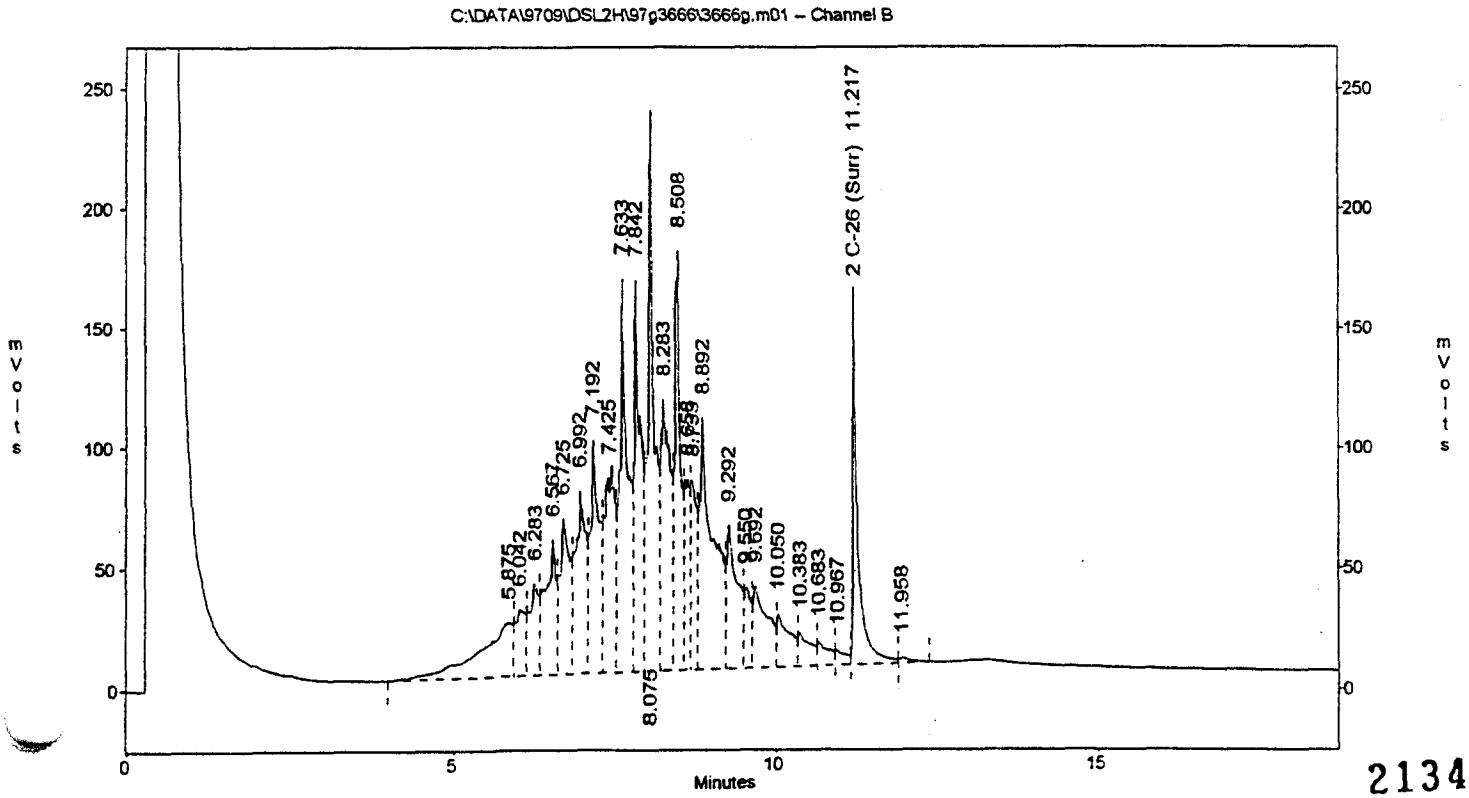
21343

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3666g.m01
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : $3847-4 f=.05
Vial : 4
Volume : 1
Acquired : Sep 05, 1997 20:53:00
Printed : Sep 05, 1997 21:11:51
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.22	815108	51.252
1 DIESEL		16680780	979.891



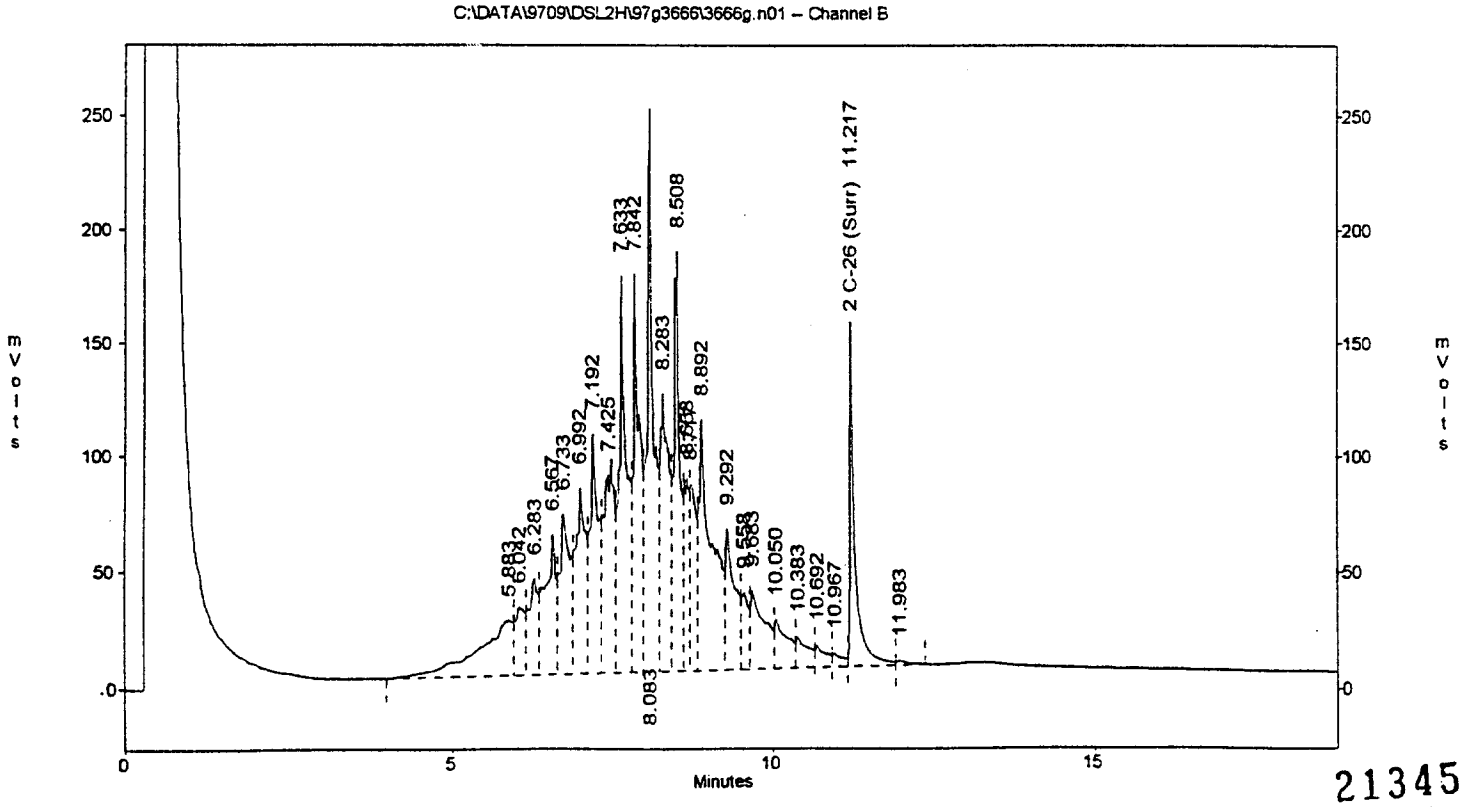
21344

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2H\97g3666\3666g.n01
Method : c:\ezchrom\methods\Dsl2-022.h00
Sample ID : $3847-4 f=.05
Vial : 5
Volume : 1
Acquired : Sep 05, 1997 21:18:23
Printed : Sep 05, 1997 21:37:13
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.22	804433	50.580
1 DIESEL		17325964	1017.792



21345

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3755	Leach Method:	SPLP
LCS Filename:	3755G.L01	Date Analyzed:	091697	Time Analyzed:	22:46
LCSD Filename:	3755G.J01	Date Analyzed:	091697	Time Analyzed:	23:14

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
SPLP TPH AS DIESEL	mg/L	50	0	48.9	98	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
SPLP TPH AS DIESEL	mg/L	50	50.0	100	2	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

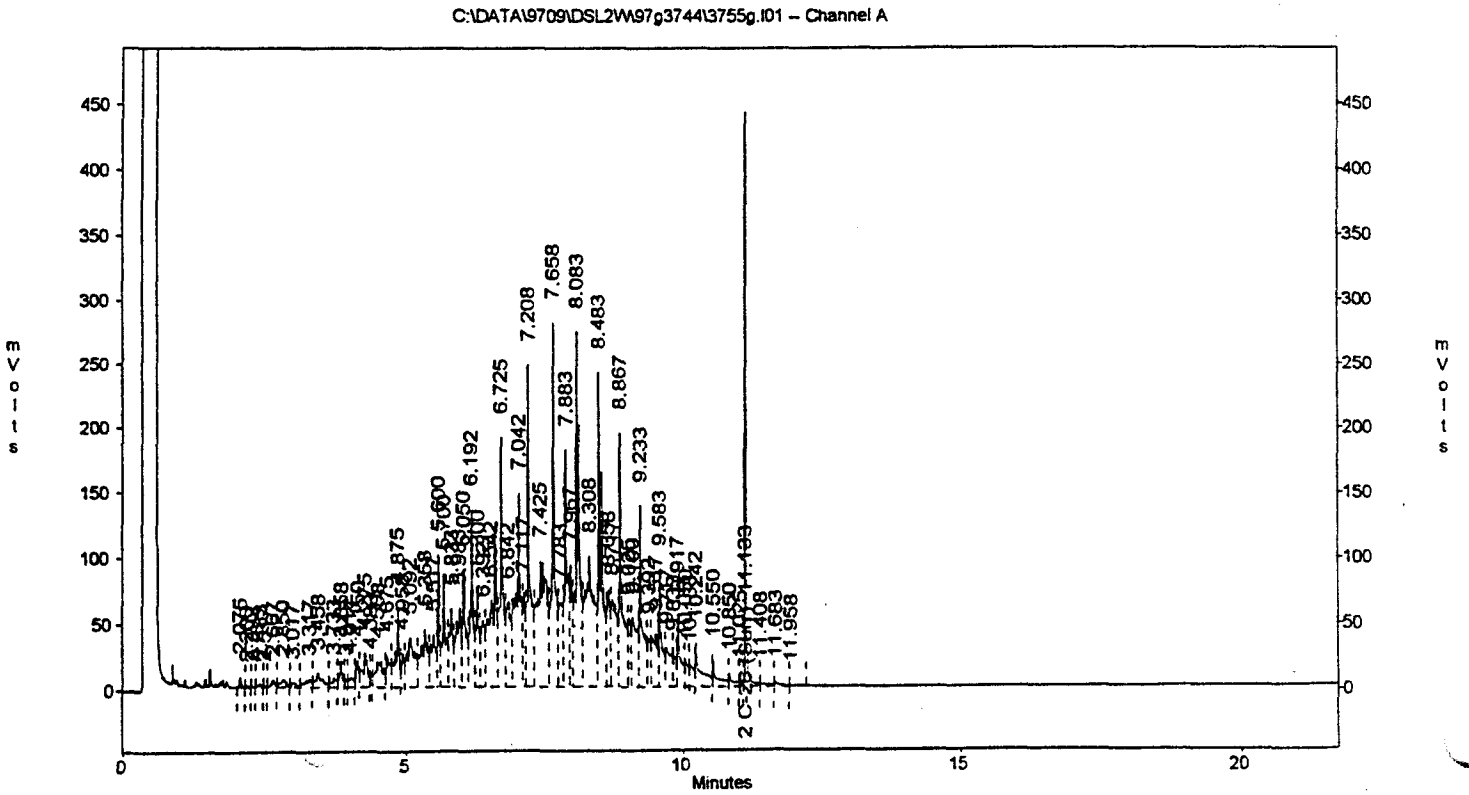
21346

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File	: C:\DATA\9709\DSL2W\97g3744\3755g.101
Method	: c:\ezchrom\methods\Dsl2-005.w00
Sample ID	: f=.001
Vial	: 17
Volume	: 1
Acquired	: Sep 16, 1997 22:46:36
Printed	: Sep 16, 1997 23:08:27
User	: System
File Desc.	: 0

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.13	682522	41.718
1 Diesel		19079546	977.664



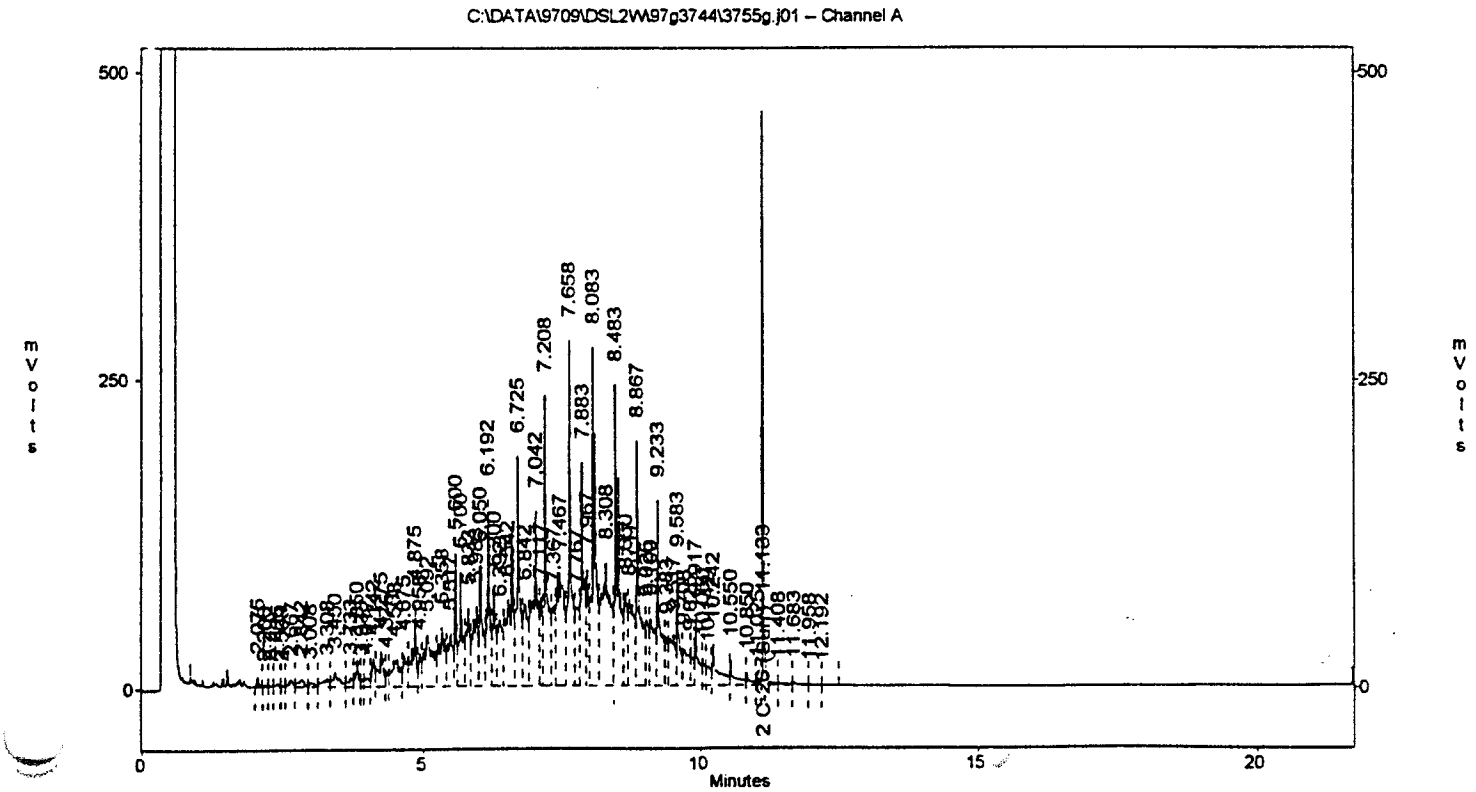
21347

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2W\97g3744\3755g.j01
Method : c:\ezchrom\methods\Dsl2-005.w00
Sample ID : f=.001
Vial : 18
Volume : 1
Acquired : Sep 16, 1997 23:14:57
Printed : Sep 16, 1997 23:36:48
User : System
File Desc. : 0

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.13	681341	41.646
1 Diesel		19527198	1000.603



21348

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3755	Leach Method:	SPLP
MS Filename:	3755G.M02	Date Analyzed:	091897	Time Analyzed:	14:40
MSD Filename:	3755G.N02	Date Analyzed:	091897	Time Analyzed:	20:52
MS Sample No:	**18609-480**	Sample Lab ID:	97-3847-2	Moisture, %	15.3

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec%	#	QC Limit, % REC
SPLP TPH AS DIESEL	mg/L	50	22	0	-43	*	65-134
# of Out-of-control					1		

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec%	#	RPD%	#	QC Limit, % RPD	QC Limit, % REC
SPLP TPH AS DIESEL	mg/L	50	287	530	*	235	*	30	65-134
# of Out-of-control				1		1			

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits D - Spiked components diluted out

Comments: MS/MSD out of control limit, due to sample matrix interference

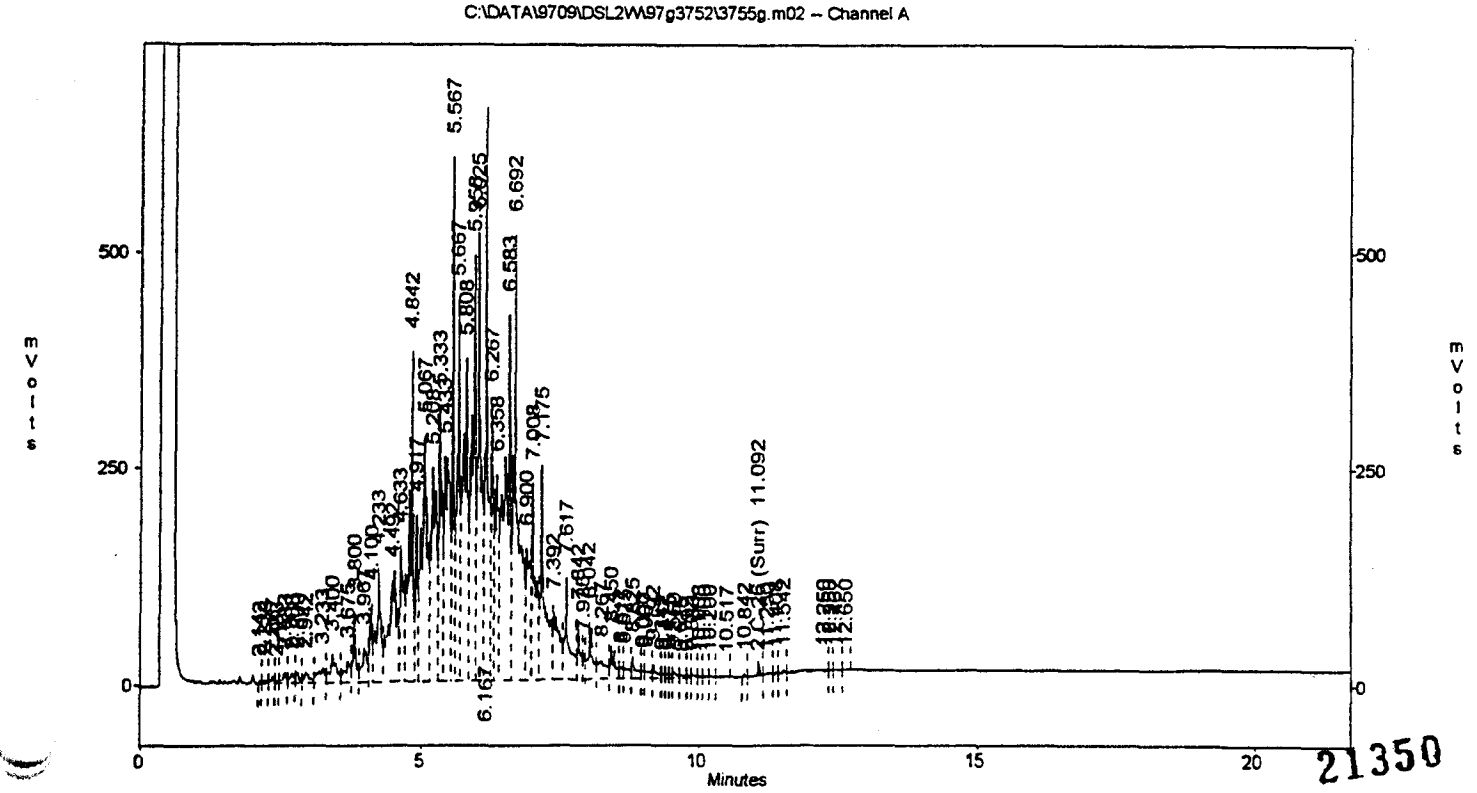
21349

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : C:\DATA\9709\DSL2W\97g3752\3755g.m02
Method : c:\ezchrom\methods\dsl2-005.w00
Sample ID : %97g3755 @s f=.01
Vial : 21
Volume : 1
Acquired : Sep 18, 1997 14:40:46
Printed : Sep 19, 1997 14:39:35
User : System
File Desc. : 0

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.09	33994	2.078
1 Diesel		38158784	1955.313



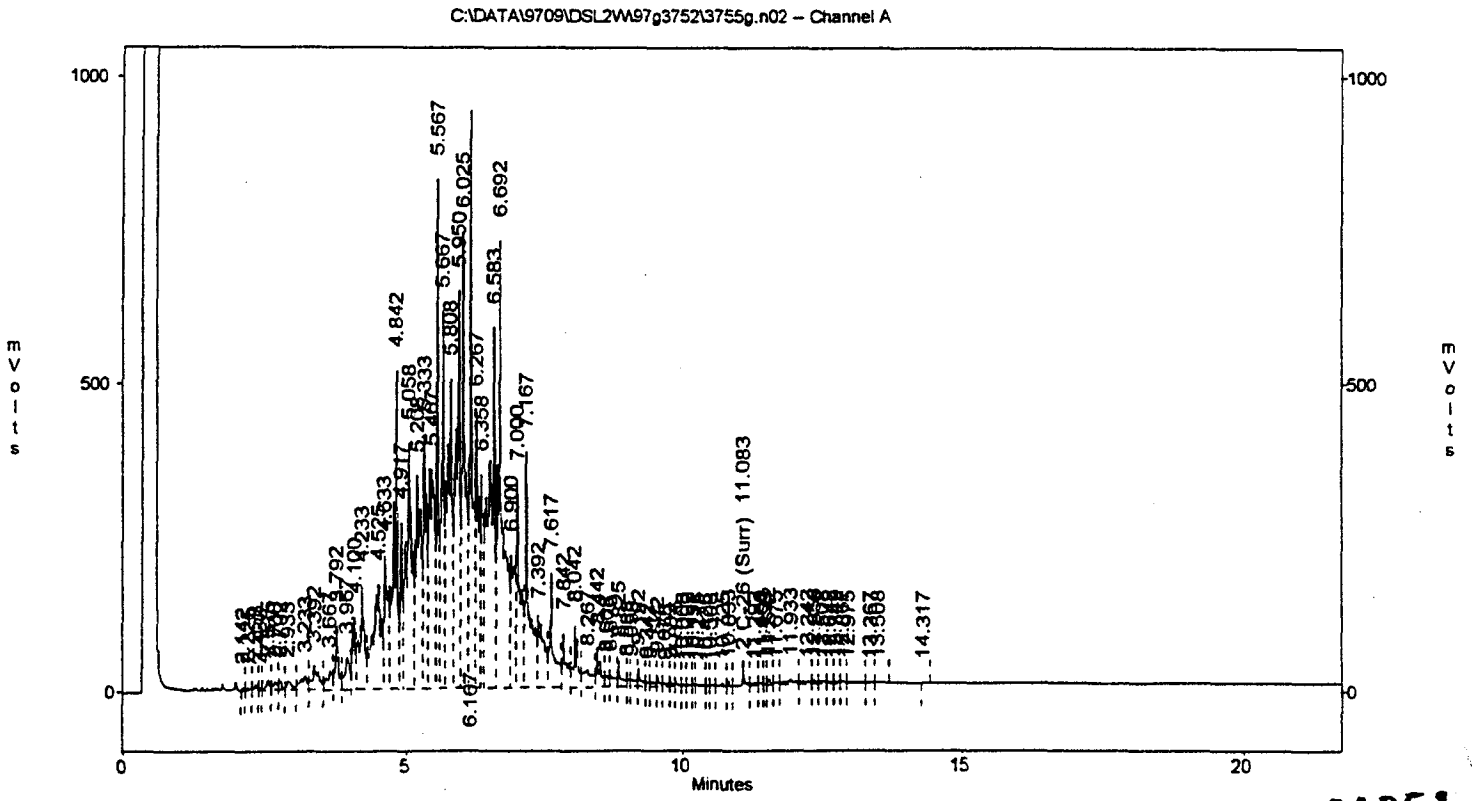
21350

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File	: C:\DATA\9709\DSL2W\97g3752\3755g.n02
Method	: c:\ezchrom\methods\dsl2-005.w00
Sample ID	: %97g3755 @s f=.01
Vial	: 22
Volume	: 1
Acquired	: Sep 18, 1997 20:52:36
Printed	: Sep 19, 1997 14:39:44
User	: System
File Desc.	: 0

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.08	77192	4.718
1 Diesel		53269192	2729.593



21351

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Analysis Date:	09/05/97
		Sample Matrix:	Water	Analysis Time:	17:18
Sample ID:	**97G3564-MB-01**	Batch No:	97G3664	Instrument ID:	GC: W
Lab Sample ID:	97G3664-MB-01	Data File Name:	3664G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G3664-LCS-01	97G3664-LCS-01	Lab Control Spike	3664G.L01	09/05/97	17:46
2	97G3664-LSD-01	97G3664-LSD-01	Lab Control Spike Duplicate	3644G.J01	09/05/97	18:15
3	18609-492	97-3847-8	Field Sample	3847.008	09/05/97	20:10
4						
5						
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21352

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Analysis Date:	09/05/97
		Sample Matrix:	Soil	Analysis Time:	19:36
Sample ID:	97G3666-MB-01	Batch No:	97G3666	Instrument ID:	GC: H
Lab Sample ID:	97G3666-MB-01	Data File Name:	3666G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G3666-LCS-01	97G3666-LCS-01	Lab Control Spike	3666G.L01	09/05/97	20:02
2	97G3666-LSD-01	97G3666-LSD-01	Lab Control Spike Duplicate	3666G.J01	09/05/97	20:27
3	18609-484-MS	97-3847-4MS	Matrix Spike	3666G.M01	09/05/97	20:53
4	18609-484-MSD	97-3847-4MSD	Matrix Spike Duplicate	3666G.N01	09/05/97	21:18
5	18609-484	97-3847-4	Field Sample	3847.004	09/06/97	01:32
6	18609-487	97-3847-5	Field Sample	3847.005	09/06/97	01:57
7	18609-490	97-3847-6	Field Sample	3847.006	09/06/97	02:23
8	18609-493	97-3847-9	Field Sample	3847.009	09/06/97	02:48
9	18609-494	97-3847-10	Field Sample	3847.010	09/06/97	03:13
10	18609-496	97-3847-12	Field Sample	3847.012	09/06/97	04:04
11	18609-497	97-3847-13	Field Sample	3847.013	09/06/97	04:29
12	18609-498	97-3847-14	Field Sample	3847.014	09/06/97	05:45
13	18609-499	97-3847-15	Field Sample	3847.015	09/06/97	06:10
14	18609-478	97-3847-1	Field Sample	3847.001	09/08/97	10:15
15	18609-480	97-3847-2	Field Sample	3847.002	09/08/97	14:04
16	18609-481	97-3847-3	Field Sample	3847.203	09/08/97	15:20
17	18609-495	97-3847-11	Field Sample	3847.111	09/08/97	15:46
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21353

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973847
Project ID:	UST 672 Verification Drilling	Project No:	18609	Analysis Date:	09/16/97
		Sample Matrix:	Water	Analysis Time:	22:18
Sample ID:	**97G3755-MB-01**	Batch No:	97G3755	Instrument ID:	GC: W
Lab Sample ID:	97G3755-MB-01	Data File Name:	3755G.K01	GC Column:	DB-1
Leach Method:	SPLP			Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G3755-LCS-01	97G3755-LCS-01	Lab Control Spike	3755G.L01	09/16/97	22:46
2	97G3755-LSD-01	97G3755-LSD-01	Lab Control Spike Duplicate	3755G.J01	09/16/97	23:14
3	18609-481	97-3847-3	Field Sample	3847.003	09/17/97	01:07
4	18609-480-MS	97-3847-2MS	Matrix Spike	3755G.M02	09/18/97	14:40
5	18609-480	97-3847-2	Field Sample	3847.002	09/18/97	15:37
6	18609-480-MSD	97-3847-2MSD	Matrix Spike Duplicate	3755G.N02	09/18/97	20:52
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21354

Applied P & Ch Laboratory

Wet Analysis Results for Method ASTM-D2216

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Anal. Method	ASTM-D2216
Project ID:	UST 672 Verification Drilling	Service ID:	973847	Collected by:	Dwayne Ishida

Component Name: Moisture, percent in soil

CAS No: 7732-18-5

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-3847-1	18609-478	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	13.5	
97-3847-2	18609-480	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	15.3	
97-3847-3	18609-481	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	12.7	
97-3847-4	18609-484	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	17.4	
97-3847-5	18609-487	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	13.6	
97-3847-6	18609-490	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	3.3	
97-3847-9	18609-493	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	8.5	
97-3847-10	18609-494	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	6.2	
97-3847-11	18609-495	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	16.7	
97-3847-12	18609-496	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	10.1	
97-3847-13	18609-497	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	7.7	
97-3847-14	18609-498	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	2.7	
97-3847-15	18609-499	Soil	09/04/97	09/04/97	09/05/97	97W4832	%Moisture	0.5	4.9	

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

21476

Appendix F
Regulatory Correspondence

STATE OF CALIFORNIA—CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
3737 MAIN STREET, SUITE 500
RIVERSIDE, CA 92501-3339
PHONE: (909) 782-4130
FAX: (909) 781-6288

August 13, 1996

Mr. Wayne D. Lee
Headquarters
Marine Corps Air Station El Toro
Environmental and Safety
P.O. Box 95001
Santa Ana, CA 92709-5001

SUBJECT: CASE CLOSURES, FORMER UNDERGROUND STORAGE TANKS AT SITES 14, 54A, 263, 272, and 374B

Dear Mr. Lee:

This is in response to the subject underground storage tanks (USTs) closure reports dated from 2/20/96 to 3/8/96 received by us July 5, 1996. Due to the high concentrations (12,000 to > 25,000) reported for Total Petroleum Hydrocarbons (TPH), we cannot approve closure of these sites. Contaminated UST sites with elevated levels of TPH require additional investigation to determine migration potential. It has been our experience that very high levels of TPH may contain soluble levels of contaminants, volatile or semi-volatile components, that may migrate over wide areas and potentially contaminate water resources. We recommend analysis of leaching potential using Method 1312, Synthetic Precipitation Leaching Procedure for volatile analytes. Method 1312 is designed to determine the mobility of both organic and inorganic analytes present in samples of soils and wastes. The additional data may be reported, for our review, in the form of an addendum to the case closure reports already submitted. Remediation or closure will be determined based on the results of the leaching procedure test.

If you have any questions regarding this matter, please contact me at (909) 782-4998.

Sincerely,

Lawrence Vitale

Lawrence Vitale
DoD Section

cc: LT Hope Katcharian, Marine Corps Air Station El Toro
Mr. Bill Diekman, Orange County Health Care Agency
Mr. John Adams Jr., State Water Resources Control Board, Division of Clean

Appendix G
Site Photographs

Photograph No. 1: Underground storage tanks (USTs) 672 and 672B in-place.

Photograph No. 2: USTs 672 and 672B removed from excavation.

Photograph No. 3: USTs 672 and 672B excavation following removal of the USTs.

Photograph No. 4: Site Restoration of USTs 672 and 672B excavation.

Appendix H
Marine Chemist Certification and Tank Refuse Disposal Receipt

Thomas D. Beck & Assoc., Inc.
dba HARBOR TESTING LABORATORY
24 HOUR PHONE: (310) 492-9646

MARINE CHEMIST CERTIFICATE

Serial # 8210

C'M	EL TORO M.C.A.S	MARCH 3 [redacted] 97
Requested by	Vessel Owner or Agent	Date
SEE BELOW	UNDERGROUND TK	EL MCAS
Vessel	Type of Vessel	Specific Location of Vessel
WASTE OIL	LEL, O_2, VISUAL	0720
Last Cargo	Tests Performed	Time Survey Completed

UNDERGROUND STORAGE TANK 672 FROM BLDG 672

TESTED: 0% LEL
20.8%
SAFE FOR HOT WORK
NOT SAFE FOR WORKERS TO ENTER - NOT TESTED FOR SPECIFIC TOXICS

USA MICROBRED S/N 2070 CALIBRATED @ 0600 HRS 3/4/97

In the event of any physical or atmospheric changes adversely affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

QUALIFICATIONS: Transfer of ballast or manipulation of valves or closure equipment tending to alter conditions in pipe lines, tanks or compartments subject to gas accumulation, unless specifically approved in this Certificate, requires inspection and endorsement or reissue of Certificate for the spaces so affected. All lines, vents, heating coils, valves, and similarly enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated.

STANDARD SAFETY DESIGNATIONS (partial list, paraphrased from NFPA 306 Subsections 2-3.1 through 2-3.5, and Subsection 6-3.2)

SAFE FOR WORKERS: Means that in the compartment or space so designated; (a) the oxygen content of the atmosphere is at least 19.5 percent by volume; and that, (b) toxic materials in the atmosphere are within permissible concentrations; and that, (c) the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's Certificate.

NOT SAFE FOR WORKERS: Means that in the compartment or space so designated, the requirements of Safe for Workers have not been met.

ENTER WITH RESTRICTIONS: Means that in any compartment or space so designated, entry for work may be made only if conditions of proper protective equipment, clothing, and time are as specified.

SAFE FOR HOT WORK: Means that in the compartment so designated: (a) oxygen content of the atmosphere is at least 19.5 percent by volume, with the exception of inerted spaces or where external hot work is to be performed; and that, (b) the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit; and that, (c) the residues are not capable of producing a higher concentration than permitted by (b) above under existing atmospheric conditions in the presence of fire, and while maintained as directed on the Marine Chemist's Certificate; and further, that, (d) all adjacent spaces containing or having contained flammable or combustible materials have been cleaned sufficiently to prevent the spread of fire, or are satisfactorily inerted, or, in the case of fuel tanks or lube oil tanks, or engine room or fire room bilges, have been treated in accordance with the Marine Chemist's requirements.

NOT SAFE FOR HOT WORK: Means that in the compartment so designated, the requirements of Safe for Hot Work have not been met.

CHEMIST'S ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under Section 2-5 of NFPA 306 and understands conditions and limitations under which it was issued."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed _____ Name _____ Company _____ 04HM 2/3/97 Date

Signed _____ Marine Chemist _____ 590 Certificate No.

DD FORM 1348-1A (SC), JUL 91 ISSUE RELEASE/RECEIPT DOCUMENT

DI OD CE NT	RI FROM	MA S	UI NS IS T	QUANTITY	SER	SUPPLEMENTARY ADDRESS	SIG	FUND	DISTRIBUTION	PROJECT	PRI	RDD EEA DLT DE	ADV	RI	OP	CONTROL	MOST

LBS 64,860

M60050 - 7168 - A109

9680-00- Scrap Metal

1. TOTAL PRICE

UNIT PRICE		DOLLARS	CTS
DOLLARS	CTS		

2. SHIP FROM: Environmental MCAS El Toro IO 95001 CA. Santa Ana 92709 Inv. 92650

3. SHIP TO: 5X0189 DRMO MCAS El Toro IO 21 CA

4. MARK FOR

5. DCC DATE: 7168

6. MMFC

7. FRT RATE

8. TYPE CARGO

10. QTY. RECD

11. UP

12. UNIT WEIGHT: 64860

13. UNIT CUBE

14. UFC

15. SL

16. FREIGHT CLASSIFICATION NOMENCLATURE: Non Ferrous Scrap Metal

17. ITEM NOMENCLATURE

18. TY CONT

19. NO CONT

20. TOTAL WEIGHT

21. TOTAL CUBE

22. RECEIVED BY: D. Leigh

23. DATE RECEIVED: 6-17-97

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORT ACCORDING TO APPLICABLE REGULATIONS FOR DOT AND ICC.

PROCEEDS FROM THE SALE OF RECYCLABLE WASTES AND MATERIALS TO BE CREDITED TO FUND CITE NUMBER:

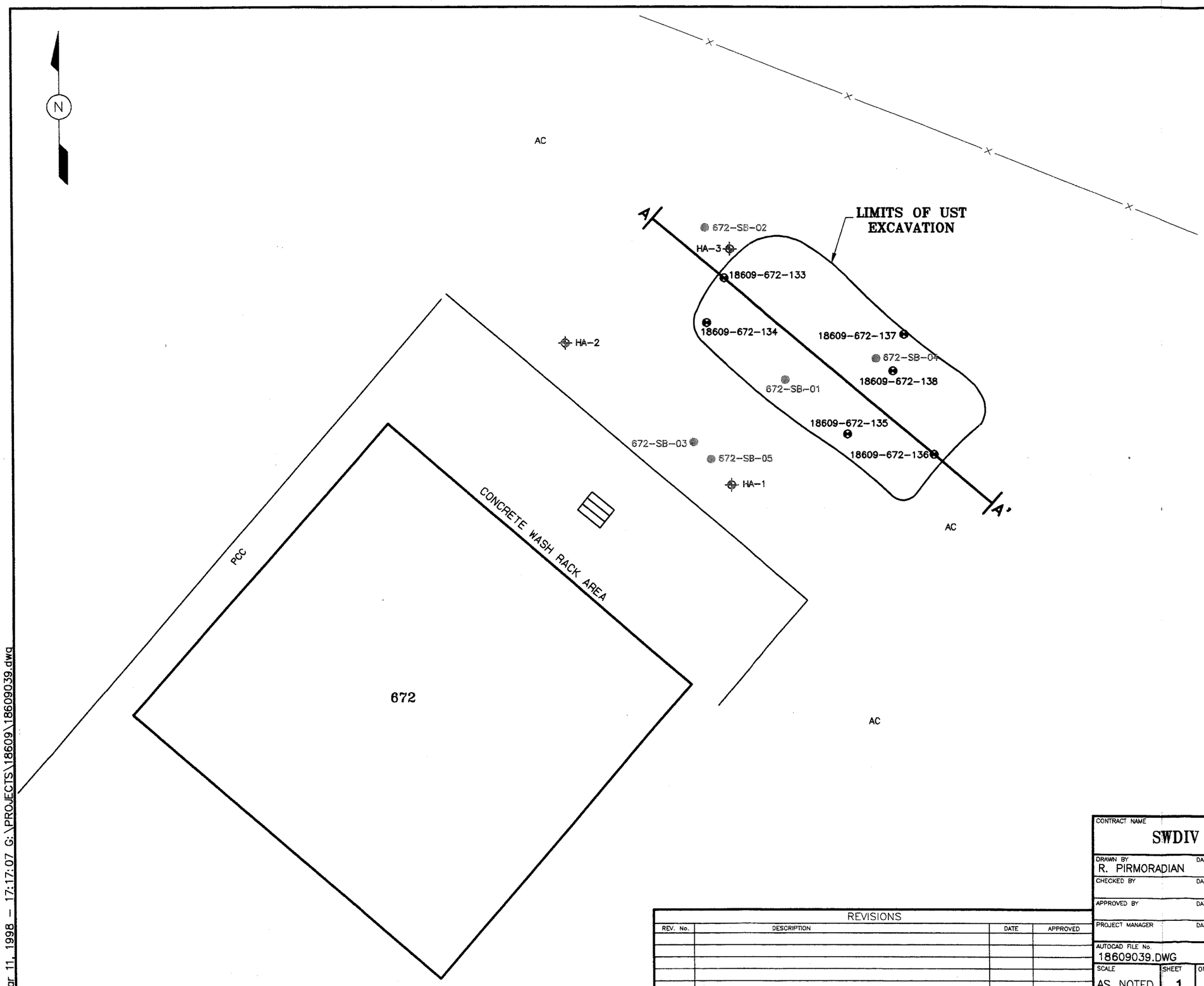
17F3875.27RM/007/60050/000027/3C/000000/06005098004

DRMO EL TORO

PREVIOUS EDITION MAY BE USED

S/N 0102-LF-016-4100

Appendix I
Land Survey Report and Soil Sample Locations



SAMPLE COORDINATE LISTING

DESCRIPTION	NORTHING	EASTING
672-SB-01	2187405.56	6110449.55
672-SB-02	2187421.43	6110441.15
672-SB-03	2187399.06	6110439.98
672-SB-04	2187407.80	6110458.97
672-SB-05	2187397.26	6110441.78
18609-672-133	2187416.19	6110443.11
18609-672-134	2187411.53	6110441.31
18609-672-135	2187399.89	6110455.99
18609-672-136	2187397.77	6110464.89
18609-672-137	2187410.32	6110461.77
18609-672-138	2187406.49	6110460.64
HA-1	2187394.56	6110443.89
HA-2	2187409.41	6110426.63
HA-3	2187419.20	6110443.72

REFERENCE:
CALVADA AND TOWILL SURVEY DATA

EXPLANATION:

AC– ASPHALT CONCRETE
PCC– PORTLAND CEMENT CONCRETE

HA-3 HAND AUGER BORING

18609-672-133 CONFIRMATION SOIL SAMPLE FROM THE EXCAVATION

672-SB-02 HOLLOW STEM AUGER SOIL BORING

GRAPHIC SCALE

10 0 5 10

(IN FEET)

REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED

CONTRACT NAME: SWDIV

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

DRAWN BY: R. PIRMORADIAN DATE: 03/11/98
CHECKED BY DATE
APPROVED BY DATE
PROJECT MANAGER DATE
AUTOCAD FILE No. 18609039.DWG

SITE PLAN
USTs 672 AND 672B

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW3618	18609	

Mar 11, 1998 – 17:17:07 G:\PROJECTS\18609\18609039.dwg

Appendix J
Compaction Test Field Reports

R. T. FRANKIAN & ASSOCIATES

234 SOUTH BUENA VISTA STREET
BURBANK, CALIFORNIA 91505

Telephone: (213) 849-6876
Telecopier: (213) 849-1920

June 16, 1997

OHM Remediation Services Corporation
2031 Main Street
Irvine, California 92614

Job No. 97-009-20

Attention: Mr. Dhananjay Rawal

Subject: Report of Observation & Testing
Backfill of Excavation
Site 672
Marine Corps Air Station
El Toro, California

Gentlemen:

INTRODUCTION

This report presents the results of our observation and testing services performed for the backfill of the excavation resulting from the removal of two underground storage tanks (USTs) from the area designated as Site 672. Our services included observing the preparation of the site for backfill, and inspection and testing of the placement of compacted fill which consisted of imported soils. The services we performed related to Site 672 were conducted from February 24 through March 4, 1997.

RICHARD T. FRANKIAN GE 321
CHARLES A. ALDRICH GE 2000
KENNETH S. PITCHER GE 688, EMERITUS

Geotechnical Engineering | *Engineering Geology*

ALAN F. WING GE 899
CLIN L. TWITCHELL RG 694
ALBERT J. PACAL CE 38587

The grading work was performed by OHM Remediation Services Corporation, General Contractor, under our observation and testing in accordance with the recommendations and requirements contained in the following documents:

- Scope of Work for Geotechnical Engineering (Soils and Foundation), prepared for the Marine Corps Air Station Delivery Order No. 0070, El Toro, California dated December, 1996.

- Section 02220 General Excavation, Filling, and Backfilling Specification dated June, 1992.

The layout of the Marine Corps Air Station in El Toro and the approximate location of the excavation resulting from the removal of the USTs is shown on the Location Map, Figure 1. The layout of the excavation is shown on the Plot Plan, Figure 2.

SUMMARY OF PROJECT SPECIFICATIONS

The specifications for the project require that the bottom of the excavation be approved by a representative of the Project Civil Engineer for conformance with the project specifications prior to fill placement operations. After stabilization of the subgrade to a firm and unyielding condition, backfill placement and compaction could then commence. It is required that fill soils be compacted to a minimum of 90 percent of the maximum dry density as determined by the ASTM D-1557-91 Test Method except for the upper 12 inches of backfill. It is required that the upper 12 inches of backfill be compacted to 95 percent relative compaction except in landscape areas where 90 percent relative compaction is sufficient.

GRADING OPERATIONS

After removal of the underground storage tank, the exposed bottom of the area to be filled was inspected and approved by a representative of the Project Civil Engineer. Any significant organic material or deleterious debris which was present at the time of excavation was removed and placed outside the fill area. After stabilization of the subgrade to a firm and unyielding condition, backfill placement and compaction commenced. The soil backfill was placed in thin lifts, moisture conditioned, and compacted to a minimum of 90 percent of the soil's maximum dry density as determined by the ASTM D-1557-91 Test Method. The upper 12 inches of backfill was compacted to a minimum of 95 percent of the maximum dry density.

GRADING EQUIPMENT

The fill material was placed and spread into thin lifts with a Case 580SK turbo backhoe. The soil was moisture conditioned as required using a garden hose. The soils were compacted with a vibratory plate attached to the Case 580SK backhoe.

FIELD OBSERVATION AND TESTING

After approval of the excavation bottom, compacted fill within the excavation area was placed and compacted under the observation of our field representative. The limits of compacted fill are shown on the attached Plot Plan, Figure 2. The deepest portion of the excavation was at an elevation of approximately 268 feet. Fill soils were then placed in the bottom of the excavation and compacted in accordance with the project specifications to an approximate finish grade elevation of 282 feet.

Field density tests were performed at frequent intervals to determine the degree of compaction being attained. In general, one field density determination was made for each 500 cubic yards of fill placed, or for each 2 vertical feet of fill placed. With the exception of the final series of tests, each field density test was taken at a depth of about 6 to 12 inches below the then-existing working surface of the fill.

The Sand Cone Method (ASTM Designation D-1556-90) was utilized for the field density determinations. Field density tests were taken at the approximate locations shown on the attached Plot Plan, Figure 2. The test results are shown on the attached tabulation entitled, "Field Density Test Results." This tabulation includes the approximate elevation at which each test was performed.

GRADING RESULTS

Field density tests were accepted only where the tests indicated that at least 90 percent of the maximum dry density had been obtained except in the upper 12 inches where 95 percent of the maximum dry density is required. Any areas in which tests were not acceptable were reworked until acceptable test results were obtained.

CONCLUSIONS AND RECOMMENDATIONS

Based on our observations and test results, backfill placement and compaction, comply with the project specifications. The locations of all the backfill areas must be adequately surveyed for location, depth and elevation, so that the presence of the fill can be factored into future development schemes. This firm should be consulted

regarding planned improvements in the area, so that appropriate recommendations may be presented.

-oOo-

The following documents are attached and complete this report:

- Location Map (Figure 1)
- Plot Plan (Figure 2)
- Tabulation of Field Density Test Results
- Appendix - Laboratory Compaction Tests

Respectfully submitted,

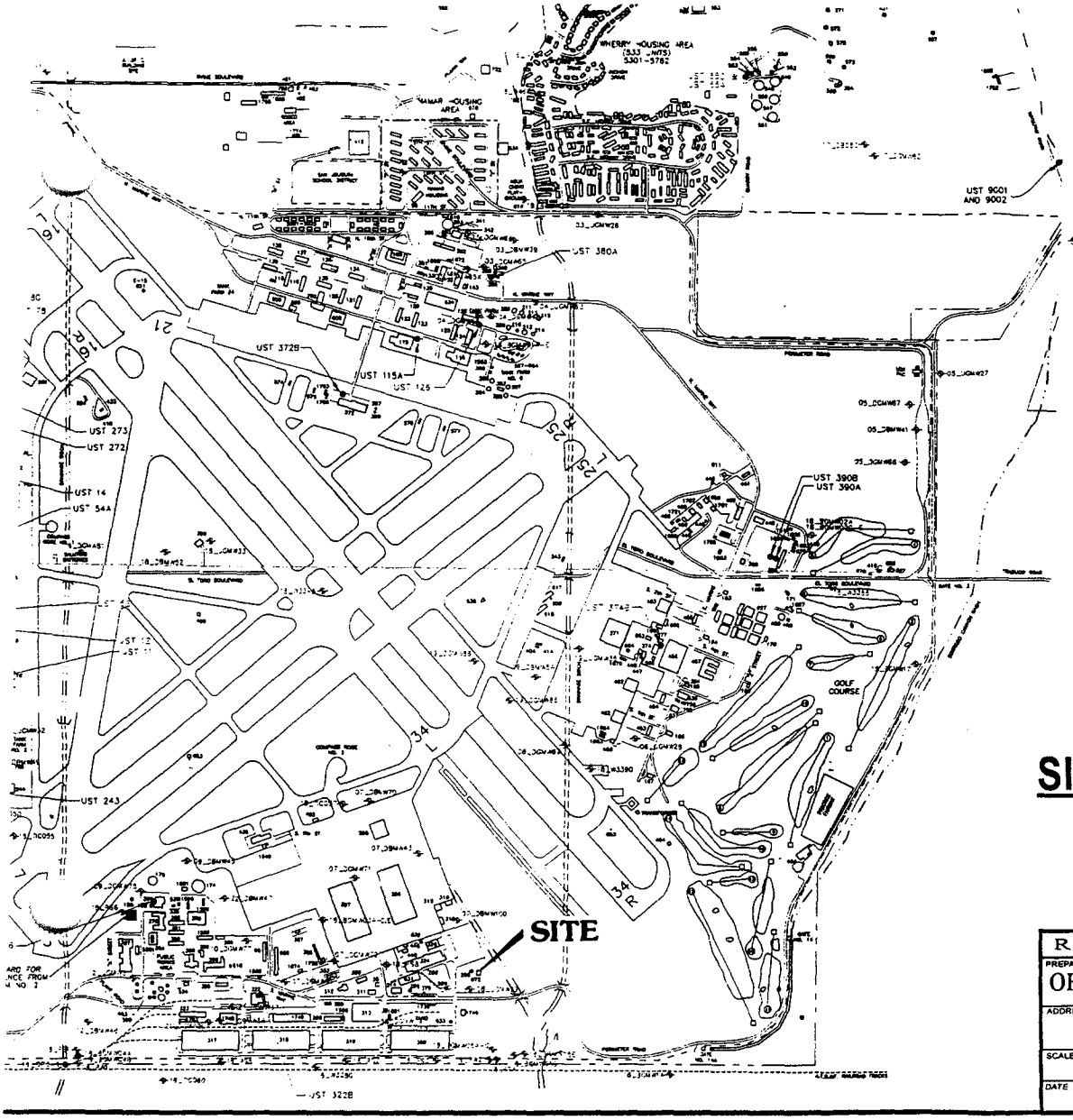
R. T. FRANKIAN & ASSOCIATES

Alan W. Rasplicka

by: Alan W. Rasplicka, P.E.
Project Civil Engineer

REGISTERED PROFESSIONAL ENGINEER
ALAN W. RASPLICKA
No. C053575
Exp. 6/30/99
CIVIL
STATE OF CALIFORNIA

AWR/sjc(3)



REFERENCE:
STATION MAP DATED 4-30-97 BY OHM REMEDIATION SERVICES CORP.

LEGEND:

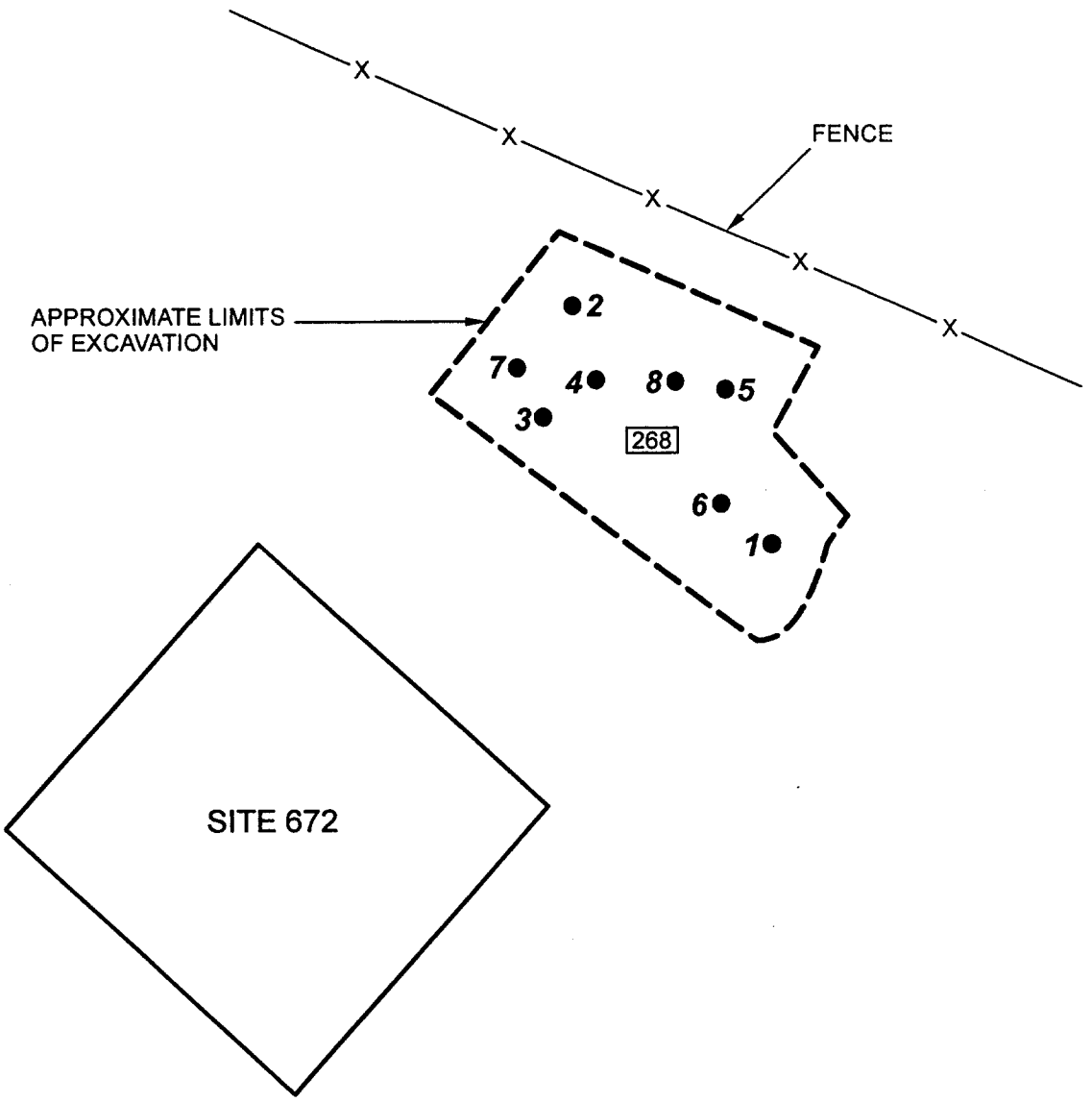
- ● APPROXIMATE LOCATION OF UST
- EXISTING GROUNDWATER MONITORING WELL

0 1200 2400
SCALE IN FEET

SITE LOCATION MAP

SITE 672

R.T. FRANKIAN & ASSOCIATES		
PREPARED FOR: OHM REMEDIATION SERVICES CORP.		
ADDRESS: MCAS EL TORO, EL TORO, CALIFORNIA		
SCALE: 1" = 1200'	DRAWN BY: Mohammed	CHECKED BY: AWR
DATE: 6-16-97	FIGURE 1	JOB NO.: 97-009-20



PLOT PLAN

SITE 672

LEGEND:

8 ● FIELD DENSITY TEST LOCATION AND NUMBER

268 APPROXIMATE BOTTOM ELEVATION

N

R.T. FRANKIAN & ASSOCIATES		
PREPARED FOR OHM REMEDIATION SERVICES CORP.		
ADDRESS MCAS EL TORO EL TORO, CALIFORNIA		
SCALE 1" = 20'	DRAWN BY Mohammed	CHECKED BY AWR
DATE 6-16-97	FIGURE 2	JOB NO. 97-009-20

97-009-20 REPORT DATED

JOB NO. [illegible]-00[illegible]0 CLIE[illegible] OF[illegible] REM[illegible]ATI[illegible] SER[illegible]CES

TABULATION - FIELD DENSITY TEST RESULTS

TEST NO.	DATE	LOCATION	ELEVATION	FIELD DRY DENSITY p.c.f.	FIELD MOISTURE %	MAX. DRY DENSITY p.c.f.	PERCENT COMPACTION
1	2/27/97	Site 672 Ramp	278	127	10	136	93
2	2/27/97	Site 672	270	129	10	136	95
3	2/28/97	Site 672	272½	128	11	136	94
4	2/28/97	Site 672	274	124	11	132	94
5	2/28/97	Site 672	276	119	9	132	90
6	2/28/97	Site 672	277½	126	10	132	90
7	3/03/97	Site 672	280	126	10	132	96
8	3/04/97	Site 672	281½	132	10	139	95

R.T. FRANKIAN & ASSOCIATES
Theoretical and Applied Earth Mechanics

APPENDIX

LABORATORY COMPACTION TESTS

APPENDIX

LABORATORY COMPACTION TESTS

The maximum dry density and optimum moisture content of each soil type utilized in the compacted fill were determined in the laboratory in accordance with ASTM Soil Compaction Method D 1557-91. The maximum densities of the soil samples were obtained on the sample portion passing the #4 sieve, and field density test results were adjusted, where required, for gravel content. The results of the laboratory compaction tests are as follows:

Soil Type	Soil Description and Classification	Maximum Dry Density (pcf)	Optimum Moisture Content
A	Dark gray sandy gravel (GP)	139	8.0%
B	Light to medium brown fine to medium silty sand with minor clay (SM)	127	9.5%
C	Crushed gravel and sand soils mixture (SW/SP)	136	7.0%
D	Dark brown fine to medium sand with 1/4-inch gravel (SW/SP)	134	8.0%
E	Brown clayey silt (ML)	118	14.5%
F	Light brown sandy silt (SM)	128	12.0
G	Silty fine to medium sand with 1/4-inch gravel (SW/SP)	132	8.5%
H	Dark brown sandy silt (ML)	130	11.5%
I	Light to dark brown fine clayey silt with sand (SM/ML)	126	11.0%

Appendix K
Soil Boring Logs

Geologic Log of Boring SB01

Project: MCAS EL TORO	Northing	Drilling Company: GREG DRILLING	
Project Number: 18609	Easting	Drill Rig: "RHINO" RIG	Begin Drilling: 6/18/97
Client: SW DIV	TOC Elevation	Driller: T.RIDER	End Drilling: 6/18/97
Location: BUILDING 672	GS Elevation	Drill Method: HSA	Well Completion Date
Geologist: J. DIEBENOW	DIAGRAM NOT TO SCALE		
Borehole Diameter: 6 INCHES	Total Depth of Borehole: 40.0 FEET	Depth to Water	

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
	0							CEMENT-BENTONITE GROUT
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
Poorly Graded Sand with Silt (SP/SM) - olive brown (2.5YR 4/4) - 90% fine to coarse sand, <10% non plastic fines, trace peasize gravel	9	SP/SM					6	
							6	
	10				950		6	
	11							
	12							
	13							
Poorly Graded Sand with Silt (SP/SM) - olive gray (5YR 4/2) - 90% fine to medium sand, moist to slightly moist, very strong odor	14	SP/SM					6	
							6	
	15				1402		6	
	16							
	17							
	18							
Poorly Graded Sand with Silt (SP/SM) dark grayish brown (2.5YR 4/2) same as above, 80% non plastic fines, 20% fine sand, dense, trace	19	SP/SM						
	20				1280			

Geologic Log of Boring SB01

Project	MCAS EL TORO	Project Number	18609

Continued from previous page

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
peasize gravel	20							CEMENT-BENTONITE GROUT
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							
Poorly Graded Sand (SP) - olive brown (2.5YR 6/4) fine to medium grain, strong odor	29	SP			1162		6	
	30						6	
							6	
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
Poorly Graded Sand (SP), light yellowish brown (2.5YR 6/4) fine sand, loose, odor	39	SP			1330		6	
							6	
	40						6	

Geologic Log of Boring SB02

Project	MCAS EL TORO	Northing		Drilling Company	GREG DRILLING
Project Number	18609	Easting		Drill Rig	"RHINO" RIG	Begin Drilling	6/18/97
Client	SW DIV	TOC Elevation		Driller	T.RIDER	End Drilling	6/18/97
Location	BUILDING 672	GS Elevation		Drill Method	HSA	Well Completion Date	
Geologist	J. DIEBENOW	DIAGRAM NOT TO SCALE					
Borehole Diameter	6 INCHES	Total Depth of Borehole	41.0 FEET	Depth to Water			

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
	0							CEMENT-BENTONITE GROUT
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
Silty Sand (SM) - dark yellowish brown (10YR 3/6) - 70% fine sand, 20% low plastic fines, slightly moist, slightly micaceous	10	SM			930		6 6 6	
	11							
	12							
	13							
	14							
Silty Sand (SM) - mottled brownish and gray - poorly graded sand, slightly moist	15	SM			899		6 6 6	
	16							
	17							
	18							
	19							
Sandy Silt (ML) - dark yellowish brown (10YR 4/4) - 60% non plastic	20	ML			905		6	

Geologic Log of Boring SB02

Project: MCAS EL TORO | Project Number: 18609

Continued from previous page

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
fines	20			X			6	CEMENT-BENTONITE GROUT
	21						6	
	22							
	23							
	24							
	25							
	26							
	27							
	28							
	29							
Sandy Silt (ML) - dark yellowish brown (10YR 3/6) - 80% non to low plastic fines, slightly moist, sand in shoe, strong odor, very dense	30	ML		X	350		6	
							6	
	31						6	
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
Poorly Graded Sand (SP) - light olive brown (2.5YR 5/6) - slightly moist to dry, very loose fine to coarse sand	40	SP		X	1342		6	
							6	
	41						6	

Geologic Log of Boring SB03

Project	MCAS EL TORO	Northing		Drilling Company	BC2
Project Number	18609	Easting		Drill Rig	CME 85	Begin Drilling	9/5/97
Client	SW DIV	TOC Elevation		Driller	STEVE	End Drilling	9/5/97
Location	BUILDING 672	GS Elevation		Drill Method	HSA	Well Completion Date	
Geologist	A. SIDDIQUI	DIAGRAM NOT TO SCALE			
Borehole Diameter	8 INCHES	Total Depth of Borehole	80.0 FEET	Depth to Water	

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
Hand augered top 5 feet.	0							CEMENT-BENTONITE GROUT
	1							
	2							
	3							
	4							
Silty Sand (SM) - dark yellowish brown (10YR 4/4) - 75% fine to medium sand, 25% low plastic fines, slightly moist	5	SM			14.8			
	6							
	7							
	8							
	9							
Same as above	10	SM						
	11							
Sand (SP) - olive gray (5YR 5/2) - 95% fine to medium sand, 5% non plastic fines, slightly moist	12	SP						
Silty Sand (SM) - dark yellowish brown (10YR 4/6) - 80% fine to medium sand, 20% non plastic fines, slightly moist	13	SM						
	14							
	15							
	16							
	17							
Silty Sand (SM) - dark yellowish brown (10YR 3/6) - 65% fine sand, 35% low plastic fines, slightly moist	18	SM						
	19							
Sandy Silt (ML) - dark brown (10YR 3/3) - 70% low plastic fines, 30%	20	ML						

OHM Remediation Services Corp.

GEOL_WELL 18609672.GPJ OHM.GDT 1/2/98

Geologic Log of Boring SB03

Project MCAS EL TORO | Project Number 18609

Continued from previous page

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
fine sand, slightly moist	20				4.6			CEMENT-BENTONITE GROUT
	21							
	22							
	23							
Amount of silt is variable 20-40%	24							
	25				230			
Silty Sand (SM) - Same as above	26	SM						
Silty Sand (SM) - dark yellowish brown (10YR 3/6) - 70% fine sand, 30% non-low plastic fines, slightly moist	27	SM						
	28							
	29							
	30							
Silty Sand (SM) - Same as above	31	SM						
At places grades into Sandy Silt	32							
Sandy Silt (ML) - dark yellowish brown (10YR 4/4) - 85% low plastic fines, 15% fine sand, slightly moist	33	ML						
	34							
Silty Sand (SM) - dark yellowish brown (10YR 4/4) - 75% fine sand, 25% non plastic fines, slightly moist	35	SM						
	36							
	37							
Sand (SP) - light olive brown (2.5YR 5/4) - 95% fine to medium sand, 5% non plastic fines, slightly moist	38	SP						
	39							
	40							
Sand (SP) - light yellowish brown (2.5YR 6/4) - same as above, well sorted fine grained sand	41	SP						
	42							

Geologic Log of Boring SB03

Project	MCAS EL TORO	Project Number	18609

Continued from previous page

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
	42							CEMENT-BENTONITE GROUT
	43							
	44							
	45							
Sand (SP/SM) - yellowish brown (10YR 5/4) - 90% fine to medium (dominantly fine) grained sand, 10% non plastic fines, slightly moist	46	SP/SM						
	47							
	48							
	49							
	50							
	51							
Silty Sand (SM) - dark yellowish brown (10YR 3/4) - 80% fine to medium sand, 20% non plastic fines, slightly moist, strong HC odor	52	SM						
Sand (SP/SM) - light olive brown (2.5YR 5/4)	53	SP/SM						
	54							
Silty Sand (SM) - dark yellowish brown (10YR 4/6) - 70% very fine sand, 30% low plastic fines, slightly moist	55	SM						
	56							
	57							
Amount of fines variable 25%-40%	58							
	59							
Silty Sand (SM) - Same as above	60	SM						
	61							
	62							
Silty Sand (SM) - light olive brown (2.5YR 5/6) - 80% fine sand, 20% non plastic fines, slightly moist	63	SM						
	64							

Geologic Log of Boring SB03

Project	MCAS EL TORO	Project Number	18609

Continued from previous page

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
	64							
	65							
	66							
Sand (SP/SM) - light yellowish brown (2.5YR 6/4) - 90% fine to medium sand, 10% non plastic fines, slightly moist	67	SP/SM						
	68							
	69							
Sand (SP) - light olive brown (2.5YR 5/4) - 95% fine to medium sand, 5% no plastic fines, slightly moist	70	SP						
	71							
Silty Sand (SM) - olive brown (2.5YR 4/4) - 75% fine sand, 25% non plastic fines, slightly moist	72	SM						
	73							
	74							
Sand (SP) - light olive brown (2.5YR 5/4) - 95% fine to medium sand, 5% non plastic fines, slightly moist	75	SP						
	76							
	77							
	78							
	79							
	80							

CEMENT-BENTONITE GROUT

Geologic Log of Boring SB04

Project: MCAS EL TORO	Northing	Drilling Company: BC2	
Project Number: 18609	Easting	Drill Rig: CME 85	Begin Drilling: 9/4/97
Client: SW DIV	TOC Elevation	Driller: STEVE	End Drilling: 9/4/97
Location: BUILDING 672	GS Elevation	Drill Method: HSA	Well Completion Date
Geologist: A. SIDDIQUI	DIAGRAM NOT TO SCALE		
Borehole Diameter: 8 INCHES	Total Depth of Borehole: 80.5 FEET	Depth to Water	

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
Asphalt	0							CEMENT-BENTONITE GROUT
Hand auger to 5 feet	1							
	2							
	3							
	4							
Silty Sand (SM) - dark greenish gray (10YR 4/2) - 70% fine to medium sand, 15% fine angular gravel, 15% non plastic fines, slightly moist, loose	5	SM			7.5	4	6	
SAMPLE NUMBER 18609-475	6					5	6	
						6	6	
	7							
	8							
Silty Sand (SM) - dark yellowish brown (10YR 3/6) - 70% fine to medium sand, 30% non plastic fines, trace fine gravel, slightly moist, medium dense	9	SM			25	8	6	
SAMPLE NUMBER 18609-476	10					9	6	
						11	6	
	11							
	12							
	13							
Silty Sand (SM) - dark yellowish brown (10YR 4/6) - 85% fine to medium sand, 15% non plastic fines, slightly moist, medium dense, discolored to dark gray at places, strong hydrocarbon odor	14	SM			53	8	6	
SAMPLE NUMBER 18609-477	15					10	6	
						11	6	
	16							
	17							
	18							
Sandy Silt (ML) - dark yellowish brown (10YR 3/4) - 70% low plastic fines, 30% fine sand, slightly moist, very stiff	19	ML			300	10	6	
	20					13	6	

Geologic Log of Boring SB04

Project	MCAS EL TORO	Project Number	18609

Continued from previous page

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
SAMPLE NUMBER 18609-478	20					17	6	CEMENT-BENTONITE GROUT
	21							
	22							
	23							
Silty Sand (SM) - olive brown (2.5YR 4/4) - 80% fine to medium sand, 20% non plastic fines, slightly moist, medium dense, hydrocarbon staining, strong hydrocarbon odor, at places saturated with hydrocarbon	24	SM			150	15	6	
						18	6	
SAMPLE NUMBER 18609-479	25					27	6	
	26							
	27							
	28							
Silty Sand (SM) - olive brown (10YR 4/3) - 70% fine sand, 30% fines, slightly moist, medium dense, very well graded, strong hydrocarbon odor	29	SM			200	16	6	
						22	6	
SAMPLE NUMBER 18609-480	30					25	6	
Elastic Silts (MH) - dark olive brown (2.5YR 4/3) - 100% medium to high plastic fines, slightly moist, very stiff	31	MH						
	32							
	33							
Silty Sand (SM) - dark yellowish brown (10YR 4/6) - 60% very fine sand, 40% low platic fines, slightly moist, medium dense, at places grades into sandy silt	34	SM			230	16	6	
						20	6	
SAMPLE NUMBER 18609-481	35					26	6	
	36							
	37							
	38							
Sand (SP) - light yellowish brown (2.5YR 6/4) - 95% fine to medium sand, <5% non plastic fines, moist, medium dense	39	SP			20	14	6	
						17	6	
SAMPLE NUMBER 18609-482	40					27	6	
	41							
	42							

Geologic Log of Boring SB04

Project: MCAS EL TORO | Project Number: 18609

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DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
	42							CEMENT-BENTONITE GROUT
	43							
Same as above - light yellowish brown (2.5YR 6/4)	44	SP			3	14	6	
						17	6	
SAMPLE NUMBER 18609-483	45					20	6	
	46							
	47							
	48							
Well Graded Sand with Silt (SW/SM) - light olive brown (2.5YR 5/4) - 90% fine sand, 10% non plastic fines, slightly moist, medium dense	49	SW/SM			17	14	6	
						18	6	
SAMPLE NUMBER 18609-484	50					22	6	
	51							
	52							
	53							
Same as above	54	SW/SM			8	13	6	
						16	6	
SAMPLE NUMBER 18609-485	55					21	6	
	56							
	57							
	58							
Silty Sand (SM) - light olive brown (10YR 5/4) - 75% fine sand, 25% non plastic fines, slightly moist, medium dense	59	SM			18	10	6	
						13	6	
SAMPLE NUMBER 18609-486	60					21	6	
	61							
	62							
	63							
	64							

Geologic Log of Boring SB04

Project: MCAS EL TORO | Project Number: 18609

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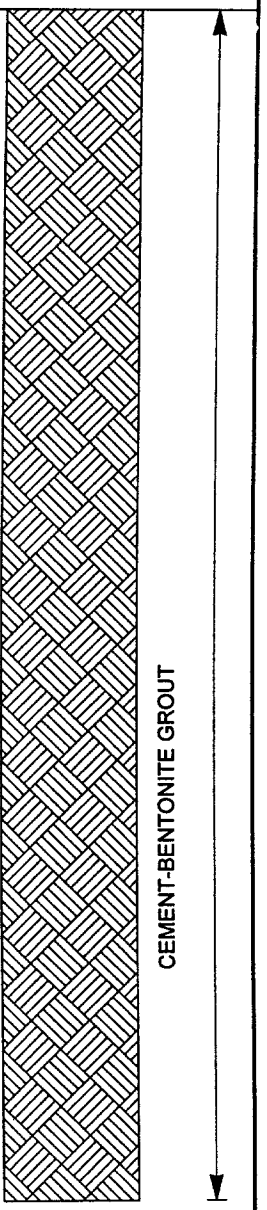
DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)
Same as above	64	SM			14	14	6
						20	6
SAMPLE NUMBER 18609-487	65					28	6
	66						
	67						
	68						
Same as above	69	SM			11	14	6
						19	6
Sand (SP/SM) - dark yellowish brown (10YR 4/6) - 90% fine to medium sand, 10% non plastic fines, slightly moist, medium dense **SAMPLE NUMBER 18609-488**	70	SP/SM				28	6
	71						
	72						
	73						
Silty Sand (SM) - olive brown (2.5YR 4/4) - 75% fine to medium sand, 25% non plastic fines, slightly moist, dense	74	SM			8	16	6
						21	6
SAMPLE NUMBER 18609-489	75					30	6
	76						
	77						
	78						
Sand (SP) - light olive brown (2.5YR 5/4) - 95% fine to medium sand, <5% non plastic fines, slightly moist to moist, dense	79	SP			12	19	
						24	
SAMPLE NUMBER 18609-490	80					30	

WELL DETAIL



Geologic Log of Boring SB05

Project: MCAS EL TORO	Northing	Drilling Company: BC2	
Project Number: 18609	Easting	Drill Rig: CME 85	Begin Drilling: 9/4/97
Client: SW DIV	TOC Elevation	Driller: STEVE	End Drilling: 9/4/97
Location: BUILDING 672	GS Elevation	Drill Method: HSA	Well Completion Date
Geologist: A. SIDDIQUI	DIAGRAM NOT TO SCALE		
Borehole Diameter: 8 INCHES	Total Depth of Borehole: 80.5 FEET	Depth to Water	

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
Asphalt	0							CEMENT-BENTONITE GROUT
Hand auger first 5 feet	1							
	2							
	3							
	4							
Silty Sand (SM) - dark yellowish brown (10YR 3/4) - 70% fine to medium sand, 30% low plastic fines, slightly moist, loose	5	SM		X	12	5	6	
						6	6	
	6					6	6	
	7							
	8							
Silty Sand (SM) - Same as above	9	SM		X	16	7	6	
						8	6	
	10					10	6	
	11							
	12							
	13							
Silty Sand (SM) - dark yellowish brown (10YR 3/6) - 75% fine to medium sand, 25% non to low plastic fines, medium dense	14	SM		X	15	8	6	
						10	6	
	15					11	6	
	16							
	17							
	18							
	19	SM		X	10	8	6	
Sandy Silt (ML) - dark yellowish brown (10YR 3/4) - 70% low plastic	20	ML				10	6	

Geologic Log of Boring SB05

Project: MCAS EL TORO | Project Number: 18609

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DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
fines, 30% fine sand, slightly moist, stiff	20					12	6	CEMENT-BENTONITE GROUT
	21							
	22							
	23							
Silty Sand (SM) - olive brown (2.5YR 4/4) - 80% fine to medium sand, 20% non plastic fines, slightly moist, trace fine _____ gravel, medium dense	24	SM			27	7	6	
						11	6	
	25					14	6	
	26							
	27							
	28							
Silty Sand (SM) - olive brown (2.5YR 4/4) - 60% fine sand, 40% non-low plastic fines, slightly moist, medium dense	29	SM			15	9	6	
						12	6	
	30					14	6	
	31							
	32							
	33							
Silty Sand (SM) - dark yellowish brown (10YR 4/6) - 75% fine sand, 25% non plastic fines, slightly moist, medium dense	34	SM			17	10	6	
						13	6	
	35					16	6	
	36							
	37							
	38							
Sand (SP) - light olive brown (2.5YR 5/4) - 95% fine to medium sand, <5% non plastic fines, slightly moist, medium dense	39	SP			14	10	6	
						13	6	
	40					14	6	
	41							
	42							

Geologic Log of Boring SB05

Project: MCAS EL TORO | Project Number: 18609

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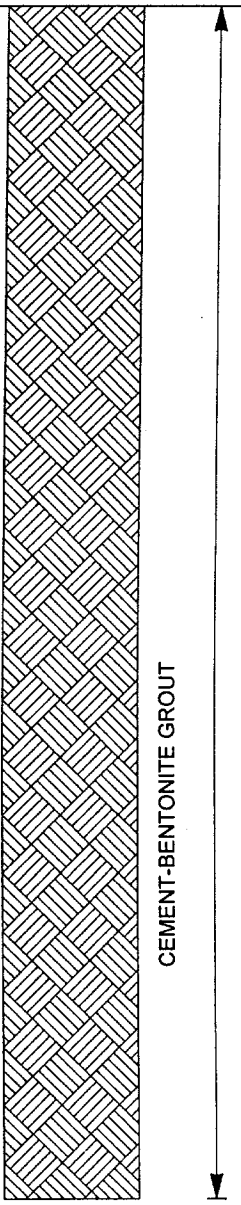
DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)	WELL DETAIL
	42							CEMENT-BENTONITE GROUT
	43							
Same as above	44	SP			92	13	6	
						15	6	
	45					16	6	
	46							
	47							
	48							
Sand (SP) - light olive brown (2.5YR 5/4) - 95% fine to medium sand, 5% non plastic fines, slightly moist, medium dense	49	SP				14	6	
					50	18	6	
	50					21	6	
	51							
	52							
	53							
Silty Sand (SM) - dark yellowish brown (10YR 4/4) - 60% fine sand, 40% low plastic fines, moist, medium dense	54	SM			70	14	6	
						17	6	
	55					23	6	
	56							
	57							
	58							
Silty Sand (SM) - dark yellowish brown (10YR 4/6) - 75% fine sand, 25% non plastic fines, slightly moist, medium dense, well graded	59	SM			14	14	6	
						16	6	
	60					20	6	
	61							
	62							
	63							
	64							

Geologic Log of Boring SB05

Project: MCAS EL TORO | Project Number: 18609

Continued from previous page

DESCRIPTION	Depth (feet)	Soil Group	Graphic Log	Samples	PID/FID (ppm)	Blows/6 in.	Recovery (inches)
Silty Sand (SM) - light olive brown (2.5YR 5/4) - 80% sand, 20% non plastic fines, slightly moist, medium dense	64	SM			14	16	6
						20	6
	65					25	6
	66						
	67						
	68						
Sand (SP/SM) - dark yellowish brown (10YR 4/6) - 90% fine to medium (fine dominant) sand, 10% non plastic fines, slightly moist, dense	69	SP/SM			16	15	6
						22	6
	70					27	6
	71						
	72						
	73						
Silty Sand (SM) - olive brown (2.5YR 4/3) - 70% fine to medium sand, 25% non plastic fines, 5% rock fragments, slightly moist	74	SM			21	12	6
						14	6
Sand with Silt (SP/SM) - light olive brown (2.5YR 5/4) -90% fine to medium (little coarse), 10% non plastic fines, slightly moist	75	SP/SM				16	6
	76						
	77						
	78						
Sand (SP) - light yellowish brown (2.5YR 6/3) - 95% fine to medium sand, 5% non plastic fines, trace fine sub rounded gravel slightly moist, medium dense	79	SP			13	11	6
						15	6
	80					18	6

WELL DETAIL