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MCAS EL TORO
SSIC #5090.3

OHM Remediation Services Corp.
1202 Kettner Boulevard
San Diego, California 92101

Oil/Water Separator Site 802
Marine Corps Air Station
El Toro, California

SWDIV Contract No. N68711-93-D-1459 – Delivery Order No. 0112 – Revision 0
OHM Project No. 920242 – Document Control No. SW7023 – November 3, 1999

Site Assessment Report

Appendix A - Tentative Reuse Parcel Location of OWS Site 802; Appendix B - TCE in Groundwater; Appendix C - JEG RFA Information; Appendix D - Excerpts from Law/Crandall Report for OWS Site 802; Appendix E - Station Drawings; Appendix F - Site Photographs; Appendix G - Site Inspection Log; Appendix H - Geophysical Survey Data; Appendix I - Field Soil Boring Logs; Appendix J - Laboratory Analytical Reports; Appendix K - Land Survey Data; Appendix L - Waste Manifests

OHM Remediation Services Corp.
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OHM TRANSMITTAL/DELIVERABLE RECEIPT

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Southwest Division
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San Diego, California 92132-5190

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Site Assessment Report

Oil/Water Separator Site 802
Marine Corps Air Station
El Toro, California

SWDIV Contract No. N68711-93-D-1459, Delivery Order No. 0112
OHM Project No. 920242
Document Control No. SW7023
Revision 0
November 3, 1999

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Abbreviations and Acronyms

bgs	below ground surface
BRAC	Base Realignment and Closure
BTEX	benzene, toluene, ethylbenzene and total xylenes
CA LUFT	California leaking underground fuel tank
CDM	Camp, Dresser & McKee, Inc.
DO	Delivery Order
EPA	U.S. Environmental Protection Agency
ft/ft	feet per foot
gpm	gallons per minute
GPR	ground penetrating radar
JEG	Jacobs Engineering Group Inc.
msl	mean sea level
MTBE	methyl tert-butyl ether
OHM	OHM Remediation Services Corp.
OWS	oil/water separator
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Agreement
ROICC	Resident Officer In Charge of Construction
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
VSI	Visual Site Inspection
VOC	volatile organic compound

Section 1
Introduction

This report describes the site verification and contents removal and disposal activities conducted at oil/water separator (OWS) 802, also known as SWMU 232, at the Marine Corps Air Station El Toro, California (herein after referred to as the Station). OHM Remediation Services Corp. (OHM) performed the work under Delivery Order (DO) 0112 for the Southwest Division Naval Facilities Engineering Command (SWDIV) under Remedial Action Contract No. N68711-93-D-1459.

OHM conducted verification drilling and sampling activities in the vicinity of OWS Site 802, to evaluate the subsurface conditions and to ascertain whether or not a release had occurred. OWS 802 was out of service for approximately a year, and was not in service during field verification activities. Verification drilling activities did not indicate that a release had occurred. The OWS contents were sampled, analyzed, and subsequently identified as non-hazardous. Based on these results, the OWS contents were removed and disposed at an offsite facility. As a result of these activities, no further action is recommended for OWS Site 802.

The Station is located in Orange County, California, approximately 45 miles southeast of the City of Los Angeles, and 1 mile north of the intersection of Interstate 5 (Santa Ana Freeway) and Interstate 405 (San Diego Freeway). The City of Lake Forest is less than 2 miles southeast, and East Irvine is approximately 1 mile to the northwest. The Station covers approximately 4,700 acres. The location of the Station is shown on Figure 1-1.

The Station officially closed on July 2, 1999 in accordance with the Base Closure and Realignment Act of 1993 (BRAC III). According to the El Toro Community Reuse Plan (County of Orange, 1997), OWS Site 802 is located within an area that has been tentatively identified as part of the Transportation Center. The County of Orange issued *The Airport and Open Space Plan Year 2020 Concept* (County of Orange, 1998) in August 1998; and that plan identified the OWS 802 area as part of the Airport Transportation Center. The El Toro Community Reuse Plan working maps are provided in Appendix A.

1.1 Site Description and Background

The OWS 802 is located in the Southwest quadrant of the Station, west of runway 34 L and northwest of the Augua Chinon Wash. The OWS is located on the northwest side of Building 802, as shown on Figure 1-2.

The OWS 802 was a concrete separator with an estimated total capacity of 1000 gallons and an estimated flow capacity of 50 gallons per minute (gpm). No UST was reported to be associated with the OWS. The OWS collected wash water from the drains associated with Building 802 Washracks, separated oil and grease from the wash water, and then discharged it to the sanitary sewer.

1.2 RCRA Facility Assessment

In 1991, Jacobs Engineering Group Inc. (JEG) performed an initial Preliminary Review (PR) and a Visual Site Inspection (VSI) of 307 solid waste management units (SWMUs) within the Station as part of the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA). As part of the RFA, JEG conducted a site visit to observe the condition of OWS 802, identified as SWMU 232, and perform limited site soil sampling. OHM reviewed the JEG RFA report and identified a discrepancy in the site designated as SWMU 232. OWS Site 800F was identified as SWMU 232 in the text; however, the location description, location map, and photographs indicate that site OWS 802 was visited and sampled.

During the sampling visit, JEG advanced one soil boring (232B1), in close proximity to the northeast side of OWS 802, and collected soil samples at five-foot intervals to a depth 25 feet bgs. The samples were analyzed for total petroleum hydrocarbons (TPH) by U.S. Environmental Protection Agency (EPA) Method 418.1, total fuel hydrocarbons by California Leaking Underground Fuel Tank (CA LUFT) Method 8015 modified, and volatile organic compounds (VOCs) by EPA Method 8260. Analysis of the soil samples did not indicate the presence of petroleum hydrocarbons. As a result of these findings JEG concluded there was no indication that a release had occurred and recommended No Further Action for SWMU 232 (OWS 802). A copy of the site VSI evaluation form, figure showing the boring location, and table showing the analytical results are enclosed in Appendix B.

Section 2
Environmental Setting

This section summarizes the general area surrounding the Station and the environmental setting in the vicinity of OWS Site 802.

The Station is located on the southeastern edge of the Tustin Plain and extends into the Santa Ana Mountains. The Tustin Plain slopes gently toward the west-southwest with land surface elevations ranging from approximately 215 feet above mean sea level (msl) at the western corner to approximately 410 feet msl at the eastern edge of the Station. Elevations within the portion of the Station in the Santa Ana Mountains extend upward to 800 feet msl near the northeast corner of the Station. The topography in the area of OWS Site 802 is relatively flat, with an elevation of 271 feet above msl datum.

2.1 Regional Geology

The Station is situated on alluvial materials derived mainly from the Santa Ana Mountains. These Holocene materials consist of coarse-grained stream channel deposits and fine-grained overbank deposits that are up to 300 feet thick (Herndon and Reilly, 1989).

The Holocene alluvial materials conformably overlie Pleistocene sediments predominantly composed of interlayered fine-grained lagoonal and near-shore marine deposits. These materials become increasingly mixed with beach sands, terrace deposits, and stream channel deposits in the eastern portion of the Tustin Plain and along the eastern plain edges. The Quaternary deposits form a heterogeneous mixture of silts and clays, with interbedded sands and fine gravels up to 500 feet thick in the western portion of the Tustin Plain (Singer, 1973).

2.2 Regional Hydrogeology

The Station is situated within the Irvine Groundwater Subbasin, which comprises the southeast segment of the Main Orange County Groundwater Basin. Regional groundwater flow in the Subbasin has been to the west and northwest since the 1940s and is controlled 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 in the shallower groundwater zone, with a slightly higher gradient of 0.008 ft/ft (JEG, 1993).

The depth to groundwater beneath the Station ranges from approximately 45 feet below ground surface (bgs) in the foothills to 240 feet bgs in the deepest portion of the Irvine Subbasin. Groundwater depth in the vicinity of OWS Site 802 is estimated to be 83 feet bgs, based on available water-level data from nearby well 08_UGMW29 and 18_BGMW05D, presented in the Groundwater Monitoring Report (Camp Dresser & McKee, Inc. [CDM] Federal Programs, 1997). These well locations are shown in Figure 1-2.

Groundwater Monitoring Report (Camp Dresser & McKee, Inc. [CDM] Federal Programs, 1997). These well locations are shown in Figure 1-2.

Analyses of groundwater samples collected from well 08_UGMW29 and 18_BGMW05D did not indicate the presence of TPH extractable or purgable constituents, or of the VOCs benzene, toluene, ethylbenzene and total xylenes (BTEX). However, trichloroethene (TCE) was detected in the July 1997 groundwater samples from these wells, indicating that the OWS 800F Site is situated over the IRP Site 24 VOC plume. The source of the TCE, detected in these wells, is the IRP Site 24, not the OWS Site 802. Groundwater remediation for this plume is conducted as part of IRP Site 24. The current TCE in groundwater map, with the location of OWS Site 802 is provided in Appendix B, TCE in Groundwater Map.

Section 3
Record Search

OHM reviewed available background documents and drawings pertaining to OWS Site 802 prior to starting fieldwork.

The Base Realignment and Closure (BRAC) Cleanup Plan (SWDIV, 1998) and the *Oil/Water Separator Survey Report* (Law/Crandall, Inc., 1993) listed OWS 802 as an inactive 1500-gallon capacity concrete OWS in sound condition. The BRAC Cleanup Plan does not identify the OWS 802 as SWMU; however, OWS Site 802 is indicated as SWMU 232 in the RFA Drawing Number 69.

The OWS Separator Survey (Law/Crandall, June 1993) described OWS 802 as a concrete two-stage separator with total capacity of 1500 gallons and an estimated flow capacity of 50 gpm. The OWS was reported to have been installed in 1984. No UST was reported or observed to be associated with this OWS. No automatic shutoff/diversion valves or controls were indicated in the drawings or observed in the field.

The separator received wash water from the washrack drains associated with nearby Building 802; separated oil and grease from the wash water; and discharged the water into the sanitary sewer. The OWS construction appeared sound during the 1993 survey and was listed in active service. Excerpts from the Law/Crandall report pertaining to OWS 802 are included in Appendix C.

OHM obtained information from the Station's Resident Officer In Charge of Construction (ROICC) regarding construction as-built drawings of OWS Site 802. ROICC provided the following drawings: Plot Plan Drawing No. 6148150, Utility Plan Drawing No. 6148090, and Hoist, Compressor and Mec Details Drawing No. 6148158. Copies of these drawings are included in Appendix D.

Section 4
Field Activities

OHM performed field activities at OWS Site 802 to evaluate the possible occurrence of a petroleum hydrocarbon release from use of the OWS, and to implement an in-place closure of the OWS. Field activities included a site inspection; a geophysical survey; sampling, removal, and disposal of the OWS contents; collection and analyses of soil samples from two verification soil borings; and a land survey. Photographs of the field activities are included in Appendix E.

Fieldwork was performed in accordance with the following approved Preliminary Draft DO 0024 documents: Work Plan, Contractor Quality Control Plan Addendum, Waste Management Plan, Chemical Data Acquisition Plan (OHM, 1995a), and Site-Specific Health and Safety Plan (OHM, 1995b).

4.1 Site Inspection

OHM personnel conducted a site inspection on June 14, 1999, to identify the location of OWS 802 using as-built drawings. No evidence of releases or spills near the OWS area was observed. Based on the existing landmarks, OHM proposed the location of the soil borings adjacent to the northwest and southwest boundaries of the OWS. A copy of the Site Inspection Log is included in Appendix F.

4.2 Utility Clearance and Geophysical Survey

The utility clearance consisted of reviewing site-specific utility maps obtained from the Station, reviewing the site inspection log, performing a geophysical survey of the site, and notifying Underground Service Alert of the intent to drill.

On June 14, 1999, Spectrum-Gasch conducted a geophysical survey, using a utility locator and ground-penetrating radar (GPR), to locate the presence of underground utilities in the vicinity of proposed drilling areas. The results of the analog utility locator and GPR surveys indicated the presence of electrical lines and sewer line. A copy of the geophysical survey report is included in Appendix G.

4.3 Verification Drilling Activities

On June 16, 1999, OHM advanced two soil borings (802 SB-01and 802 SB-02) to a depth of 30 feet bgs in close proximity to the OWS 802. The soil boring locations were selected based on a review of as-built drawings and the geophysical survey. These borings were advanced using hollow-stem auger techniques with a CME 75 drilling rig mounted on a limited-access tractor provided by BC^2 Environmental Corporation (an OHM subcontractor). The soil boring locations are shown on Figure 4-1.

Sampling

A total of 7 soil samples (including a duplicate sample) were collected from the soil borings using a California-modified split-spoon sampler. Samples were collected at nominal depth intervals approximately 10, 20, and 30 feet bgs. Soil samples and duplicates collected from the borings were submitted for laboratory analyses. Following the completion of sampling activities, the soil borings were backfilled with cement-bentonite grout to the surface.

The field boring logs describing soil lithology are presented in Appendix H. These boring logs indicate that the subsurface soil in the vicinity of the OWS Site 802 is predominantly composed of sandy clay and clayey sand.

Analyses

Sampling, including sample handling and packaging, was conducted in accordance with the procedures described in the approved Draft Work Plan (OHM, 1995a). The soil samples were analyzed for TPH, extractable and purgeable, using CA LUFT Manual Method 8015 modified; and for VOCs, including methyl tert-butyl ether (MTBE), using EPA Method 8260A.

Results

Concentrations of TPH or VOC analytes (including MTBE) were not detected at or above laboratory reporting limits in the soil samples from borings 802 SB-01and 802 SB-02. The analytical results of the soil samples collected from the verification borings are presented in Table 4-1 and summarized in Figure 4-1. Laboratory analytical reports are provided in Appendix I.

Soil Cuttings Disposal

Soil cuttings generated during drilling operations were drummed, labeled, and stored at the Station's Central Treatment Facility compound (operated by OHM) pending analytical results. Analyses of the boring samples indicated that the soils were non-hazardous. The drummed soils were placed in the clean soil stockpile.

4.4 Land Surveying

After completing the verification drilling, the soil boring locations were surveyed on June 26, 1999 by Cal Vada Surveying, Inc., a California-registered land surveyor. The surveyed locations were measured to ± 0.01 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 msl elevation. The land surveying data for former OWS Site 802 are presented as Appendix J.

4.5 OWS Contents Sampling, Removal, and Disposal

On July 2, 1999, OHM inspected OWS 802 and observed the separator contents to have a slight sheen. An OWS liquid content sample (20242-970) was collected from the primary chamber of

the separator using a Teflon™ bailer. The content sample was submitted for laboratory analysis of TPH (CA LUFT 8015m), ignitability (EPA 1010), metals (EPA 6010A) and mercury (EPA 7470A), pesticides (EPA 8081), and VOCs (EPA 8260A).

The analytical results of the OWS content sample indicated that the liquid would be deemed non-hazardous waste. The results of the analyses are presented in Table 4-2. Laboratory analytical reports are provided in Appendix H.

On October 5 and 6, 1999, OHM removed and disposed of approximately 1,700 gallons of OWS liquid contents and rinse water. Ecology Control Industries (ECI), under subcontract to OHM, provided vacuum truck services to remove and transport the liquid contents and rinsate offsite, with non-hazardous liquid contents and rinsate from OWS sites 800F and 845, to the Crosby & Overton treatment and disposal facility in Long Beach, California. Copies of the Waste Manifests (2) are provided in Appendix K.

Section 5
Conclusions and Recommendations

The following conclusions are based upon information from surveys, existing records, field OWS closure activities and OHM soil sampling data from verification soil borings:

- OWS 802 was used to separate oil and grease from wastewater prior to discharge to the sanitary sewer. Oil and grease have relatively limited mobility in the vadose zone when compared with gasoline.
- The OWS was inspected by Law/Crandall during the 1993 survey and reported to be in apparently sound condition.
- RFA soil analyses from boring 232B1 did not detect the presence TPH (418.1), total fuel hydrocarbons, or VOCs related to the site.
- The depth to groundwater is estimated to be approximately 83 feet bgs based on historical data from local monitoring wells 08_UGMW29 and 18_BGMW05D.
- OWS 802 was not in service for approximately a year prior to field verification activities.
- OWS 802 was evaluated for a potential release of petroleum hydrocarbons. Two verification soil borings were advanced at the site, and soil samples were collected. Analyses of these soil samples did not detect the presence of TPH extractable, TPH purgeable, BTEX and MTBE analytes in any of these soil samples.
- The OWS tank contents was sampled and analyzed. Analyses of this sample indicated that the liquid contained in the OWS was non-hazardous. As a result, the contents were removed, the separator was rinsed, and the OWS contents and rinse water were disposed offsite.

Based on the information provided in this report, there is no evidence of a release of petroleum hydrocarbons to the vadose zone at OWS Site 802. OWS 802 contents were removed and disposed offsite. Therefore, on behalf of the Station, OHM recommends that this report be submitted to the California Regional Water Quality Control Board, Santa Ana Region, and that "No Further Action" status be requested for OWS Site 802 (also known as SWMU 232).

OHM also recommends that the BCP (SWDIV 1999) be modified to indicate that OWS 802 is SWMU 232, and that references to SWMU 232 as site OWS 800F be deleted.

Section 6
References

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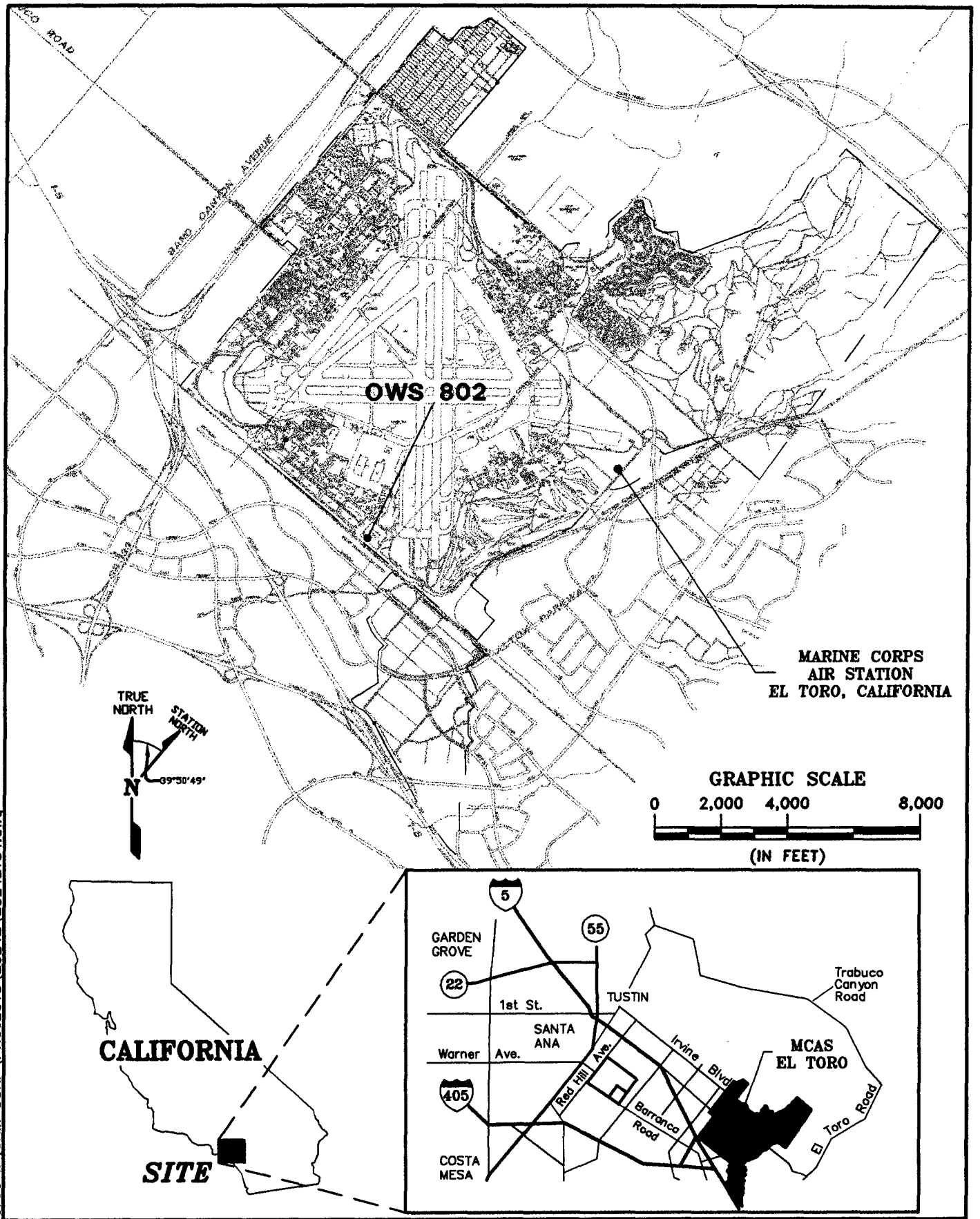
SWDIV, see Southwest Division Naval Facilities Engineering Command.

Figures



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

CONTRACT NAME: SWDIV

DRAWN BY: R. PIRMORADIAN	DATE: 10/06/99	
CHECKED BY:	DATE: 11-4-99	
APPROVED BY: DR	DATE: 04/9/99	
PROJECT MANAGER:	DATE: 11/5/99	

FACILITY LOCATION MAP
OWS 802

MARINE CORPS AIR STATION EL TORO, CALIFORNIA

AUTOCAD FILE No.	PLOT SCALE	SHEET	OF	SCALE	DOCUMENT CONTROL No.	OHM PROJECT No.	FIGURE No.	REVISION
20242134.DWG	1=1	1	1	1"=4,000'	SW7023	20242	FIG 1-1	0

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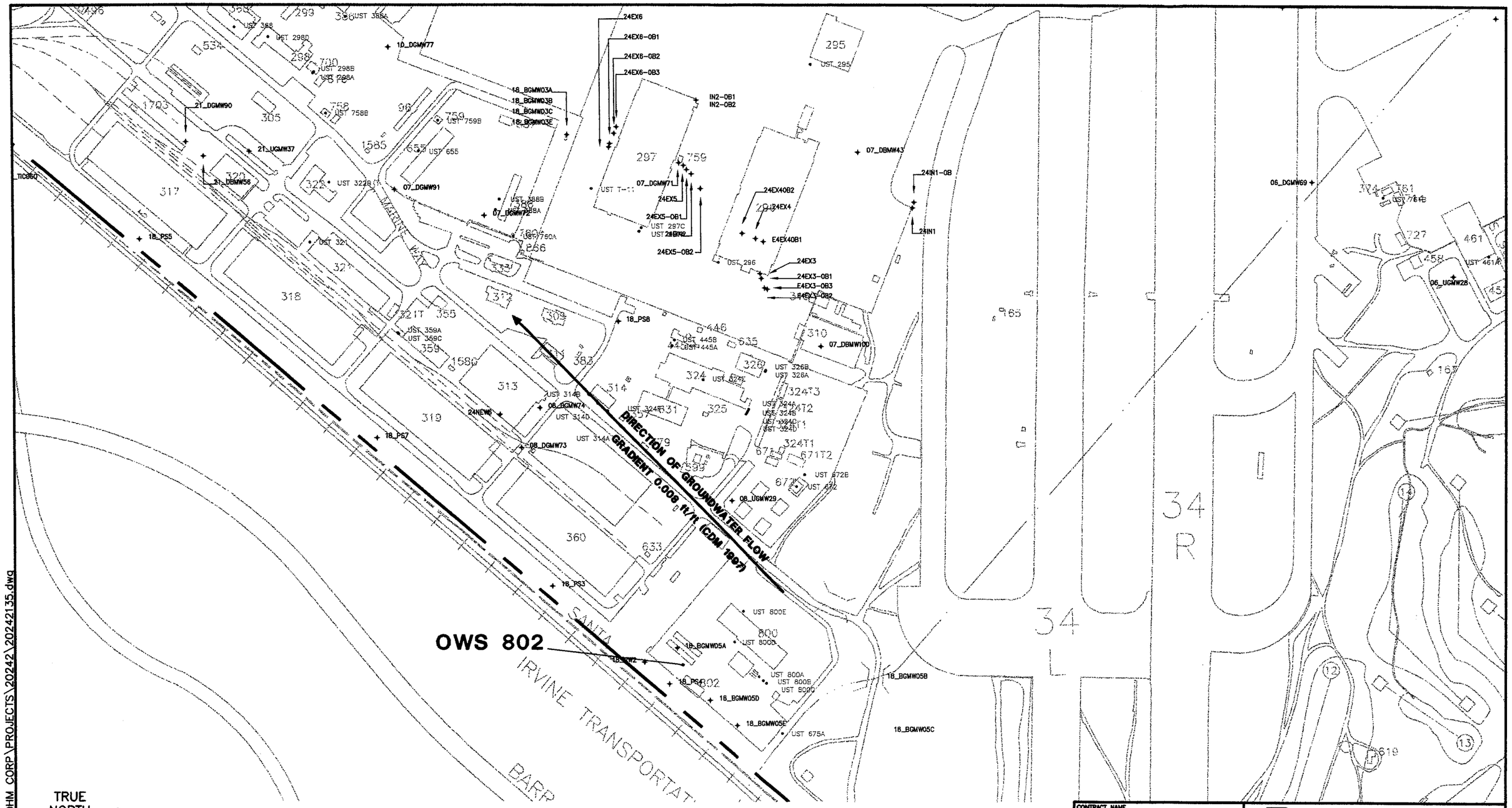

REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED

CONTRACT NAME	SWDIV
DRAWN BY	R. PIRMORADIAN
DATE	11/01/99
CHECKED BY	GJB
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DATE	11/9/99
PROJECT MANAGER	U Sedlak
DATE	11/5/99
AUTOCAD FILE No.	20242135.DWG

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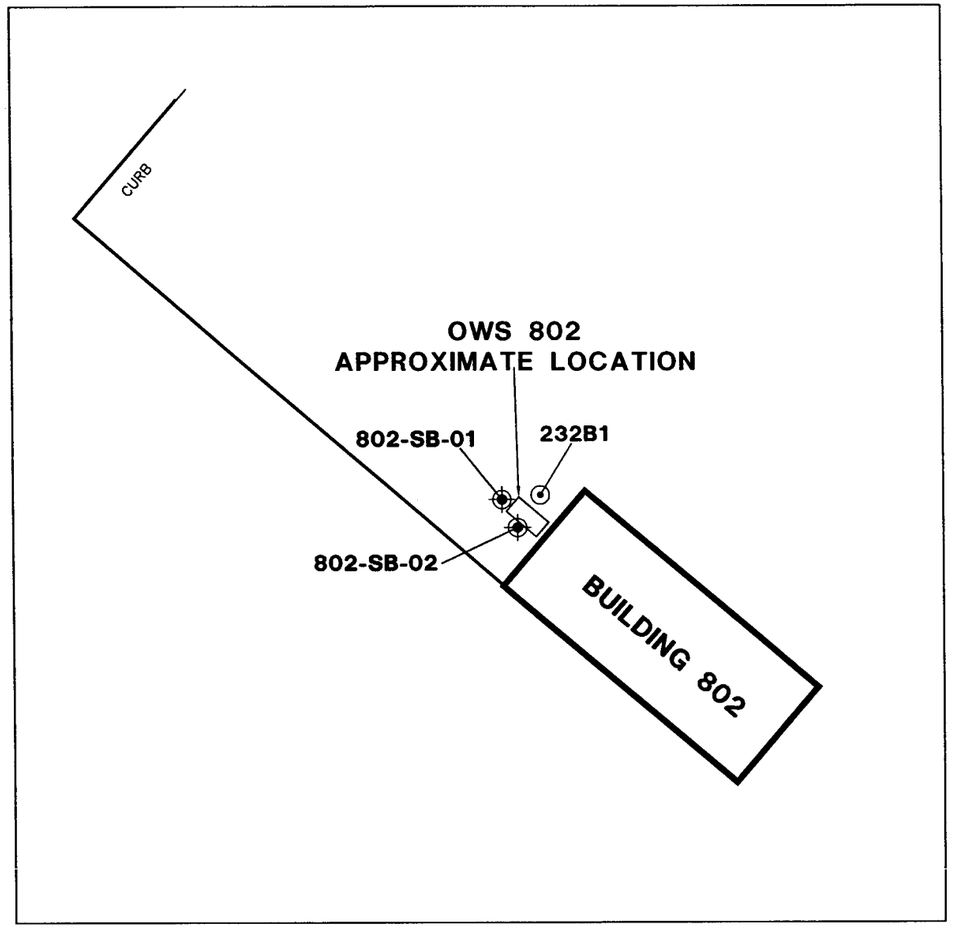
IRVINE, CA

LOCATION MAP
OWS 802

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
1"=400'	1	1	SW7023	20242	FIG 1-2



OWS 802 SAMPLE LOCATION and DATA SUMMARY

Boring Number	Location Northing (NAD 83)	Easting (NAD 83)	Elevation (ft amsl)	Sample Number	Depth (ft bgs)	CA LUFT 8015M TPH as: Diesel mg/kg	Gasoline mg/kg	Motor Oil mg/kg	EPA 8260A VOCs: Benzene µg/kg	Ethylbenzene µg/kg	Methyl tert-butyl ether µg/kg	Toluene µg/kg	Xylenes (total) µg/kg
OWS-802-SB01													
	2186582.04	6109907.88	271.38										
				20242-939	10.5	10 U	1.0 U	10 U	5.2 U	5.2 U	10 U	5.2 U	16 U
				20242-940	20.5	11 U	1.1 U	11 U	5.7 U	5.7 U	11 U	5.7 U	17 U
				20242-941	30.5	12 U	1.2 U	12 U	5.8 U	5.8 U	12 U	5.8 U	17 U
OWS-802-SB02													
	2186572.80	6109913.02	271.51										
				20242-942	10.5	11 U	1.1 U	11 U	5.6 U	5.6 U	11 U	5.6 U	17 U
				20242-943	11.0	11 U	1.1 U	11 U	5.5 U	5.5 U	11 U	5.5 U	17 U
				20242-944	20.5	12 U	1.2 U	12 U	6.0 U	6.0 U	12 U	6.0 U	18 U
				20242-945	30.5	12 U	1.2 U	12 U	5.9 U	5.9 U	12 U	5.9 U	18 U

NAD 83 - North American Datum, 1983
ft amsl - Feet above mean sea level
ft bgs - Feet below ground surface
CA LUFT - California leaking underground fuel tank
EPA - US Environmental Protection Agency
mg/kg - milligrams per kilogram
TPH - total petroleum hydrocarbons
U - not detected at or above the stated reporting limit
µg/kg - micrograms per kilogram

NOTE:
Analytical results for RFA boring 232 SB-1 are enclosed in Appendix B

EXPLANATION:

802-SB-01 SOIL VERIFICATION BORING (OHM 1999)

232B1 RFA BORING (JEG 1993)

DATE OF SURVEY: 06-01-99

N

GRAPHIC SCALE

0 25 50 100

(IN FEET)

REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED
01	97102-142.DWG BY CALVADA SURVEYING, INC.	6/26/99	

CONTRACT NAME SWDIV				OHM Remediation Services Corp. A Subsidiary of OHM Corporation IRVINE, CA	
DRAWN BY R. PIRMORADIAN	DATE 11/01/99			SITE PLAN OWS 802	
CHECKED BY	DATE 11-9-99				
APPROVED BY DR	DATE 11/4/99				
PROJECT MANAGER	DATE 11/5/99			MARINE CORPS AIR STATION EL TORO, CALIFORNIA	
AUTOCAD FILE No. 20242133.DWG					
SCALE 1"=50'	SHEET 1	OF 1	DOCUMENT CONTROL No. SW7023	OHM PROJECT No. 20242	DRAWING No. FIG 4-1

Oct 06, 1999 - 15:29:45 I:\OHM CORP\PROJECTS\20242\20242133.dwg

Tables

Table 4 - 1
Summary of Analytical Results for Soil Boring Samples — OWS 802

Sample Identification		20242-939	20242-940	20242-941	20242-942	20242-943	20242-944	20242-945
Location Code		OWS-802-SB01	OWS-802-SB01	OWS-802-SB01	OWS-802-SB02	OWS-802-SB02	OWS-802-SB02	OWS-802-SB02
Date Sampled		06/16/99	06/16/99	06/16/99	06/16/99	06/16/99	06/16/99	06/16/99
Depth (feet below ground surface)		10.5	20.5	30.5	10.5	11.0	20.5	30.5
	Unit							
CA LUFT 8015M								
TPH as Diesel	mg/kg	10 U	11 U	12 U	11 U	11 U	12 U	12 U
TPH as Gasoline	mg/kg	1.0 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U
TPH as Motor Oil	mg/kg	10 U	11 U	12 U	11 U	11 U	12 U	12 U
EPA 8260A								
1,1,1-Trichloroethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
1,1,2,2-Tetrachloroethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
1,1,2-Trichloroethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
1,1-Dichloroethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
1,1-Dichloroethene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
1,2-Dichloroethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
1,2-Dichloropropane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
2-Butanone (MEK)	µg/kg	52 U	57 U	58 U	56 U	55 U	60 U	59 U
2-Chloroethyl vinyl ether	µg/kg	52 UJ	57 UJ	58 UJ	56 UJ	55 UJ	60 UJ	59 UJ
2-Hexanone	µg/kg	52 UJ	57 UJ	58 UJ	56 UJ	55 UJ	60 UJ	59 UJ
4-Methyl-2-pentanone (MIBK)	µg/kg	52 U	57 U	58 U	56 U	55 U	60 U	59 U
Acetone	µg/kg	52 UJ	57 UJ	58 UJ	56 UJ	55 UJ	60 UJ	59 UJ
Benzene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Bromodichloromethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Bromoform	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Bromomethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Carbon disulfide	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Carbon tetrachloride	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Chlorobenzene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Chloroethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Chloroform	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Chloromethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
cis-1,2-Dichloroethene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
cis-1,3-Dichloropropene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Dibromochloromethane	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Ethylbenzene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Methyl tert-butyl ether (MTBE)	µg/kg	10 U	11 U	12 U	11 U	11 U	12 U	12 U
Methylene chloride	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U

Table 4 - 1
Summary of Analytical Results for Soil Boring Samples — OWS 802

Sample Identification		20242-939	20242-940	20242-941	20242-942	20242-943	20242-944	20242-945
Location Code		OWS-802-SB01	OWS-802-SB01	OWS-802-SB01	OWS-802-SB02	OWS-802-SB02	OWS-802-SB02	OWS-802-SB02
Date Sampled		06/16/99	06/16/99	06/16/99	06/16/99	06/16/99	06/16/99	06/16/99
Depth (feet below ground surface)		10.5	20.5	30.5	10.5	11.0	20.5	30.5
	Unit							
Styrene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Tetrachloroethene	µg/kg	5.2 U	5.7 U	1 J	5.6 U	5.5 U	6.0 U	5.9 U
Toluene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
trans-1,2-Dichloroethene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
trans-1,3-Dichloropropene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Trichloroethene	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Vinyl acetate	µg/kg	52 UJ	57 UJ	58 UJ	56 UJ	55 UJ	60 UJ	59 UJ
Vinyl chloride	µg/kg	5.2 U	5.7 U	5.8 U	5.6 U	5.5 U	6.0 U	5.9 U
Xylenes (total)	µg/kg	16 U	17 U	17 U	17 U	17 U	18 U	18 U

Table 4 - 1
Summary of Analytical Results for Soil Boring Samples — OWS 802

CA LUFT - California leaking underground fuel tank
EPA - US Environmental Protection Agency
J - estimated value
M - modified
mg/kg - milligrams per kilogram
OHM - OHM Remediation Services Corp.
OWS - oil water separator
SB - soil boring
TPH - total petroleum hydrocarbons
U - not detected at or above the stated reporting limit
µg/kg - micrograms per kilogram

Table 4 - 2
Summary of Analytical Results for Tank Contents Sample — OWS 802

Sample Identification		20242-970
Location Code		OWS-802-Tnk Content
Date Sampled		07/02/99
	Unit	
CA LUFT 8015M		
TPH as Diesel	mg/L	0.58
TPH as Gasoline	mg/L	0.1 U
TPH as Motor Oil	mg/L	0.5
EPA 1010		
Ignitability	°C	100 >
EPA 6010A		
Antimony	µg/L	6.9 J
Arsenic	µg/L	77.2
Barium	µg/L	1130
Beryllium	µg/L	0.47 J
Cadmium	µg/L	300
Chromium	µg/L	240
Cobalt	µg/L	53.5
Copper	µg/L	428
Lead	µg/L	367
Molybdenum	µg/L	14.3
Nickel	µg/L	141
Selenium	µg/L	3.3 U
Silver	µg/L	3.1 J
Thallium	µg/L	2.0 U
Vanadium	µg/L	235
Zinc	µg/L	3340
EPA 7470A		
Mercury	µg/L	0.33 J
EPA 8081		
4,4'-DDD	µg/L	0.1 U
4,4'-DDE	µg/L	0.1 U
4,4'-DDT	µg/L	0.1 U
Aldrin	µg/L	0.05 U
alpha-BHC	µg/L	0.05 U
Aroclor-1016	µg/L	1 U
Aroclor-1221	µg/L	1 U
Aroclor-1232	µg/L	1 U

Table 4 - 2
Summary of Analytical Results for Tank Contents Sample — OWS 802

Sample Identification		20242-970
Location Code		OWS-802-Tnk Content
Date Sampled		07/02/99
	Unit	
Aroclor-1242	µg/L	1 U
Aroclor-1248	µg/L	1 U
Aroclor-1254	µg/L	1 U
Aroclor-1260	µg/L	1 U
Beta-BHC	µg/L	0.05 U
Chlordane	µg/L	2 U
Delta-BHC	µg/L	0.05 U
Dieldrin	µg/L	0.1 U
Endosulfan I	µg/L	0.05 U
Endosulfan II	µg/L	0.1 U
Endosulfan sulfate	µg/L	0.5 U
Endrin	µg/L	0.1 U
Endrin aldehyde	µg/L	0.1 U
Endrin ketone	µg/L	0.1 U
gamma-BHC	µg/L	0.05 U
Heptachlor	µg/L	0.05 U
Heptachlor epoxide	µg/L	0.05 U
Methoxychlor	µg/L	2 U
Toxaphene	µg/L	5 U
EPA 8260A		
1,1,1-Trichloroethane	µg/L	5 U
1,1,2,2-Tetrachloroethane	µg/L	5 U
1,1,2-Trichloroethane	µg/L	5 U
1,1-Dichloroethane	µg/L	5 U
1,1-Dichloroethene	µg/L	5 U
1,2-Dichloroethane	µg/L	5 U
1,2-Dichloropropane	µg/L	5 U
2-Butanone (MEK)	µg/L	50 U
2-Chloroethyl vinyl ether	µg/L	50 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	5 U
Bromodichloromethane	µg/L	5 U

Table 4 - 2
Summary of Analytical Results for Tank Contents Sample — OWS 802

Sample Identification		20242-970
Location Code		OWS-802-Tnk Content
Date Sampled		07/02/99
	Unit	
Bromoform	µg/L	5 U
Bromomethane	µg/L	5 U
Carbon disulfide	µg/L	5 U
Carbon tetrachloride	µg/L	5 U
Chlorobenzene	µg/L	5 U
Chloroethane	µg/L	5 U
Chloroform	µg/L	5 U
Chloromethane	µg/L	5 U
cis-1,2-Dichloroethene	µg/L	5 U
cis-1,3-Dichloropropene	µg/L	5 U
Dibromochloromethane	µg/L	5 U
Ethylbenzene	µg/L	5 U
Methyl tert-butyl ether (MTBE)	µg/L	10 U
Methylene chloride	µg/L	5 U
Styrene	µg/L	5 U
Tetrachloroethene	µg/L	5 U
Toluene	µg/L	0.7 J
trans-1,2-Dichloroethene	µg/L	5 U
trans-1,3-Dichloropropene	µg/L	5 U
Trichloroethene	µg/L	5 U
Vinyl acetate	µg/L	50 U
Vinyl chloride	µg/L	5 U
Xylenes (total)	µg/L	2 J
EPA 8270		
1,2,4-Trichlorobenzene	µg/L	10 U
1,2-Dichlorobenzene	µg/L	10 U
1,3-Dichlorobenzene	µg/L	10 U
1,4-Dichlorobenzene	µg/L	10 U
2,4,5-Trichlorophenol	µg/L	25 U
2,4,6-Trichlorophenol	µg/L	10 U
2,4-Dichlorophenol	µg/L	10 U
2,4-Dimethylphenol	µg/L	10 U
2,4-Dinitrophenol	µg/L	25 U
2,4-Dinitrotoluene	µg/L	10 U

Table 4 - 2
Summary of Analytical Results for Tank Contents Sample — OWS 802

Sample Identification		20242-970
Location Code		OWS-802-Tnk Content
Date Sampled		07/02/99
	Unit	
2,6-Dinitrotoluene	µg/L	10 U
2-Chloronaphthalene	µg/L	10 U
2-Chlorophenol	µg/L	10 U
2-Methyl-4,6-dinitrophenol	µg/L	25 U
2-Methylnaphthalene	µg/L	10 U
2-Methylphenol	µg/L	10 U
2-Nitroaniline	µg/L	25 U
2-Nitrophenol	µg/L	10 U
3,3'-Dichlorobenzidine	µg/L	10 U
3-Methyl-4-chlorophenol	µg/L	10 U
3-Nitroaniline	µg/L	25 U
4-Bromophenyl phenyl ether	µg/L	10 U
4-Chloroaniline	µg/L	10 U
4-Chlorophenyl phenyl ether	µg/L	10 U
4-Methylphenol	µg/L	10 U
4-Nitroaniline	µg/L	25 U
4-Nitrophenol	µg/L	25 U
Acenaphthene	µg/L	10 U
Acenaphthylene	µg/L	10 U
Anthracene	µg/L	10 U
Benzo[a]anthracene	µg/L	10 U
Benzo[a]pyrene	µg/L	10 U
Benzo[b]fluoranthene	µg/L	10 U
Benzo[ghi]perylene	µg/L	10 U
Benzo[k]fluoranthene	µg/L	10 U
Bis (2-chloroethoxy)methane	µg/L	10 U
Bis (2-chloroethyl)ether	µg/L	10 U
Bis (2-chloroisopropyl)ether	µg/L	10 U
Bis (2-ethylhexyl)phthalate	µg/L	3 J
Butyl benzyl phthalate	µg/L	10 U
Chrysene	µg/L	10 U
Di-n-butyl phthalate	µg/L	10 U
Di-n-octyl phthalate	µg/L	10 U
Dibenz[a,h]anthracene	µg/L	10 U

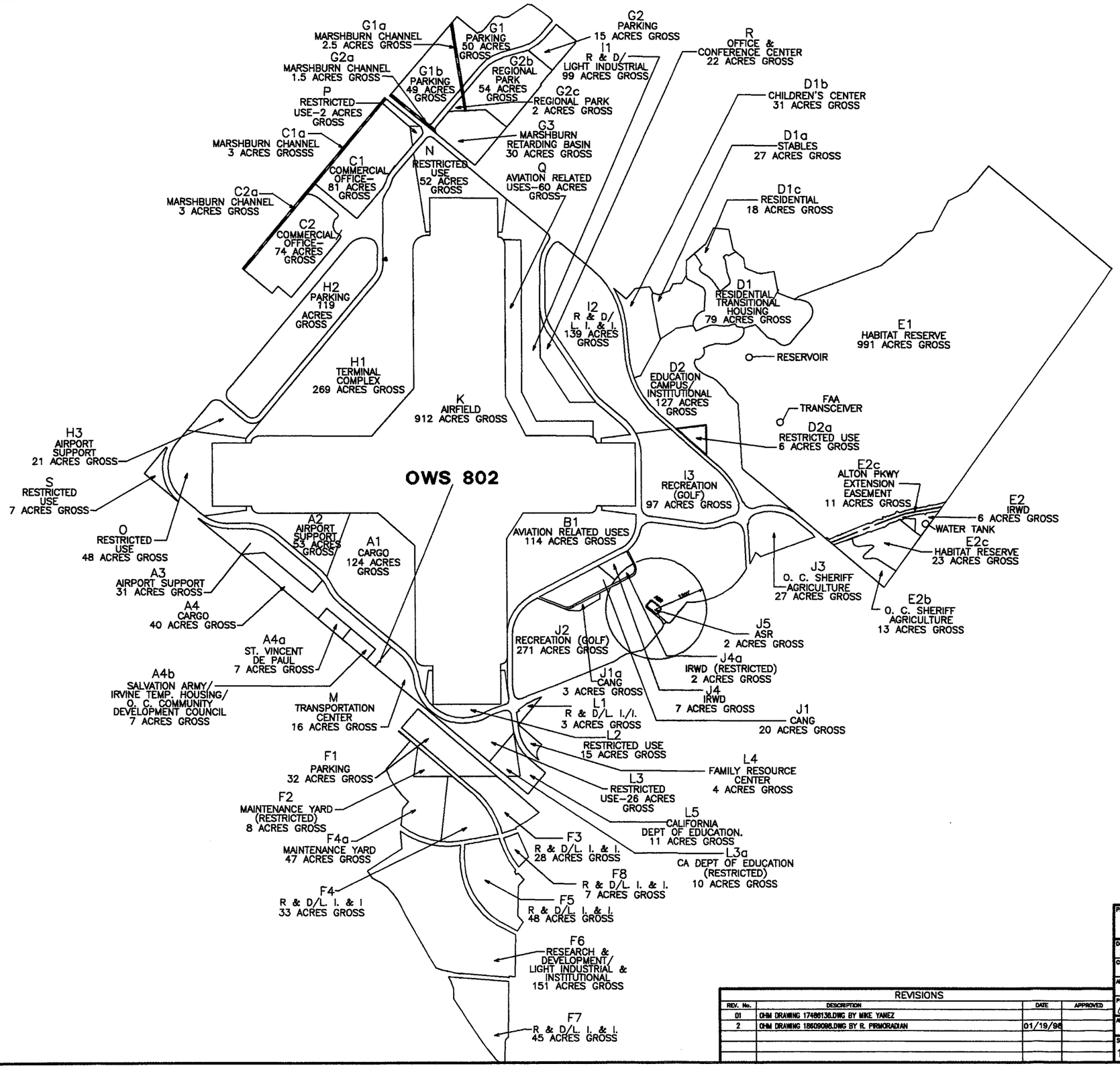
Table 4 - 2
Summary of Analytical Results for Tank Contents Sample — OWS 802

Sample Identification		20242-970
Location Code		OWS-802-Tnk Content
Date Sampled		07/02/99
	Unit	
Dibenzofuran	µg/L	10 U
Diethyl phthalate	µg/L	10 U
Dimethyl phthalate	µg/L	10 U
Fluoranthene	µg/L	10 U
Fluorene	µg/L	10 U
Hexachlorobenzene	µg/L	10 U
Hexachlorobutadiene	µg/L	10 U
Hexachlorocyclopentadiene	µg/L	10 U
Hexachloroethane	µg/L	10 U
Indeno[1,2,3-cd]pyrene	µg/L	10 U
N-Nitrosodi-n-propylamine	µg/L	10 U
N-Nitrosodiphenylamine	µg/L	10 U
Naphthalene	µg/L	10 U
Nitrobenzene	µg/L	10 U
Pentachlorophenol	µg/L	11 U
Phenanthrene	µg/L	10 U
Phenol	µg/L	10 U
Pyrene	µg/L	10 U

Table 4 - 2
Summary of Analytical Results for Tank Contents Sample — OWS 802

CA LUFT - California leaking underground fuel tank
EPA - US Environmental Protection Agency
J - estimated value
M - modified
mg/L - milligrams per liter
OHM - OHM Remediation Services Corp.
OWS - oil water separator
TPH - total petroleum hydrocarbons
U - not detected at or above the stated reporting limit
µg/L - micrograms per liter
°C - degress Celsius

Appendix A
Tentative Reuse Parcel Location of OWS Site 802



GRAPHIC SCALE
0 600 1,200 2,400
(IN FEET)

REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED
01	OHM DRAWING 17486136.DWG BY MIKE YANEZ		
2	OHM DRAWING 18609098.DWG BY R. PIRMORADIAN	01/19/98	

PROJECT: SWDIV

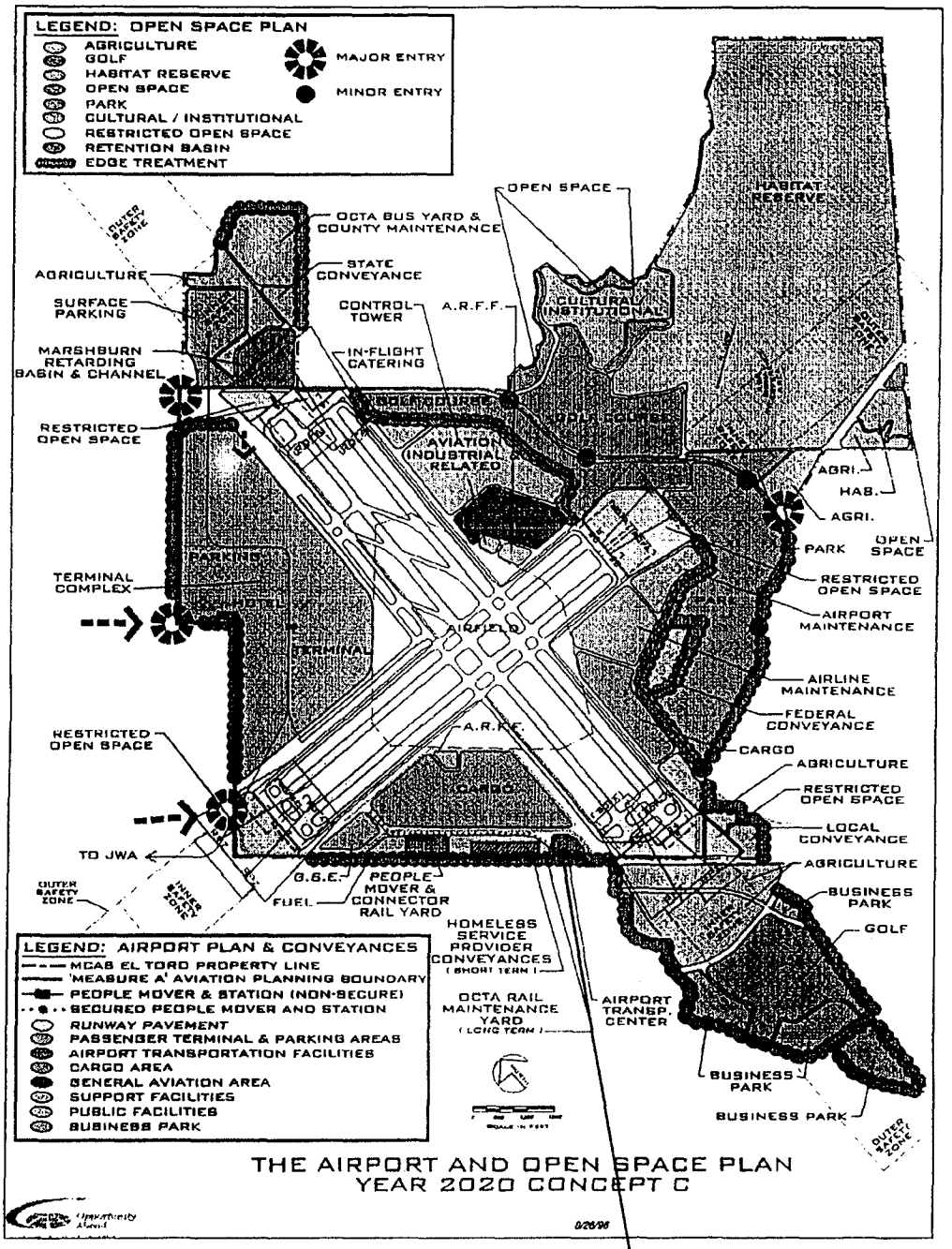
OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

DRAWN BY: R. PIRMORADIAN — DATE: 10/06/99
CHECKED BY: — DATE: 11-9-99
APPROVED BY: — DATE: 11/4/99
PROJECT MANAGER: — DATE: 11/5/99
AUTOCAD FILE No.: 20242136.DWG

EL TORO COMMUNITY REUSE PLAN
1997 WORKING MAP LAND USES/
CONVEYANCES GROSS ACRES
OWS 802
MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
1"=2,400'	1	1	SW7023	20242	FIG A-1

Oct 06, 1999 - 4:57 I:\OHM CORP\PROJECTS\20242\20242136.dwg


LEGEND: OPEN SPACE PLAN
AGRICULTURE
GOLF
HABITAT RESERVE
OPEN SPACE
PARK
CULTURAL / INSTITUTIONAL
RESTRICTED OPEN SPACE
RETENTION BASIN
EDGE TREATMENT
MAJOR ENTRY
MINOR ENTRY
OUTER SAFETY ZONE
OCTA BUS YARD & COUNTY MAINTENANCE
STATE CONVEYANCE
AGRICULTURE
SURFACE PARKING
CONTROL TOWER
A.R.F.F.
IN-FLIGHT CATERING
MARSHBURN RETARDING BASIN & CHANNEL
RESTRICTED OPEN SPACE
AVIATION (INDUSTRIAL & RELATED)
OPEN SPACE
HABITAT RESERVE
CULTURAL INSTITUTIONAL
AGRI.
HAB.
AGRI.
PARK
OPEN SPACE
RESTRICTED OPEN SPACE
AIRPORT MAINTENANCE
TERMINAL COMPLEX
PARKING
TERMINAL
AIRFIELD
AIRLINE MAINTENANCE
FEDERAL CONVEYANCE
RESTRICTED OPEN SPACE
A.R.F.F.
CARGO
AGRICULTURE
RESTRICTED OPEN SPACE
LOCAL CONVEYANCE
TO JWA
AGRICULTURE
OUTER SAFETY ZONE
INNER SAFETY ZONE
G.S.E.
FUEL
PEOPLE MOVER & CONNECTOR RAIL YARD
BUSINESS PARK
GOLF
HOMELESS SERVICE PROVIDER CONVEYANCES (SHORT TERM)
OCTA RAIL MAINTENANCE YARD (LONG TERM)
AIRPORT TRANSP. CENTER
BUSINESS PARK
BUSINESS PARK
OUTER SAFETY ZONE
LEGEND: AIRPORT PLAN & CONVEYANCES
MCAS EL TORO PROPERTY LINE
'MEASURE A' AVIATION PLANNING BOUNDARY
PEOPLE MOVER & STATION (NON-SECURE)
SECURED PEOPLE MOVER AND STATION
RUNWAY PAVEMENT
PASSENGER TERMINAL & PARKING AREAS
AIRPORT TRANSPORTATION FACILITIES
CARGO AREA
GENERAL AVIATION AREA
SUPPORT FACILITIES
PUBLIC FACILITIES
BUSINESS PARK
THE AIRPORT AND OPEN SPACE PLAN
YEAR 2020 CONCEPT C
Opportunity Ahead
0/26/96

OWS 902

Appendix B
JEG RFA Information

MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA
INSTALLATION RESTORATION PROGRAM
FINAL RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) FACILITY ASSESSMENT REPORT

PREPARED BY:
Southwest Division, Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, California 92132-5190

THROUGH:
CONTRACT #N68711-89-D-9296
CTO #193
DOCUMENT CONTROL NO:
CLE-C01-01F193-S2-0001

WITH:
Jacobs Engineering Group, Inc.
3655 Nobel Drive, Suite 200
San Diego, California 92122

In association with:
International Technology Corporation
CH2M HILL

M. W. Arends 7/16/93

Mike Arends, P.E. — Date
CLEAN Project Manager
CH2M HILL, Inc.

Raoul Portillo 15 July 1993

Raoul Portillo — Date
CLEAN Technical Reviewer
Jacobs Engineering Group Inc.

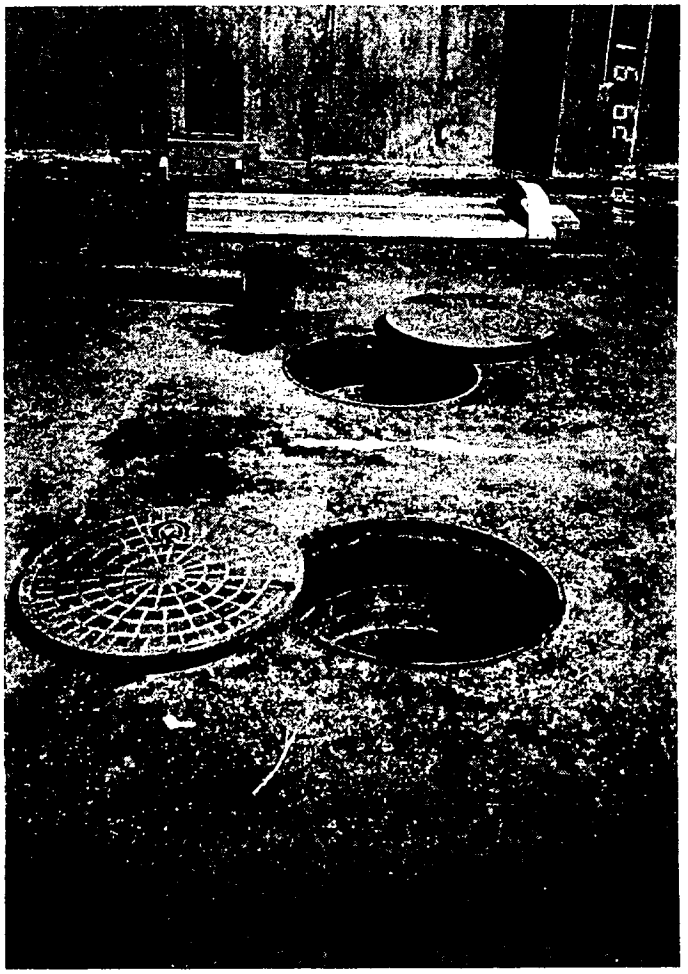
Evaluation Form
SWMU/Area of Concern
Number 232

Name: Oil/Water Separator 800-F

Location: Southwest of Building 800

Size: 1,500 gallons

Date of Site Visit: 25 April 1991



Period of Operation

Installed in 1984
Currently active

Evaluation Form
SWMU/Area of Concern
Number 232

Unit Characteristics

Tank 800-F is a 1,500-gallon, concrete-lined oil/water separator. The tank was installed in 1984 near the northern side of the washrack at Building 800 (SWMU/AOC Number 299). The oil/water separator has two 3-ft diameter manhole covers that lead to the two sections of the oil/water separator. There were no significant stains on the asphalt surface around the covers of the oil/water separator. Since the oil/water separator is located underground, its physical condition could not be visually observed.

Waste Characteristics

Oily water

Possible Migration Pathways

Subsurface soil

Evidence of Release

None observed

Exposure Potential

Authorized on-Station personnel

Recommendations

This UST has not been tank tested. Although no evidence of a release was indicated from the records review or the VSI, it is difficult to assess the potential for release from this underground SWMU/AOC. For this reason, a sampling visit is suggested for this UST.

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						
232	Oil/Water Separator (69)	B1	5	98	NA	NA	Methylene Chloride-16 B * Acetone-44 *	NA	NA	NA	NFA	TPH/TFH < 100 ppm VOCs < CRDL
			5 (Duplicate)	ND	NA	NA	Methylene Chloride-40 B * Acetone-53 *	NA	NA	NA		
			10	ND	NA	NA	Methylene Chloride-15 B * Acetone-35 *	NA	NA	NA		
			15	ND	NA	NA	Methylene Chloride-17 B * Acetone-33 *	NA	NA	NA		
			20	ND	NA	NA	Methylene Chloride-14 B * Acetone-53 *	NA	NA	NA		
			25	ND	NA	NA	Methylene Chloride-12 B * Acetone-39 *	NA	NA	NA		

CRDL - Contract Required Detection Limit

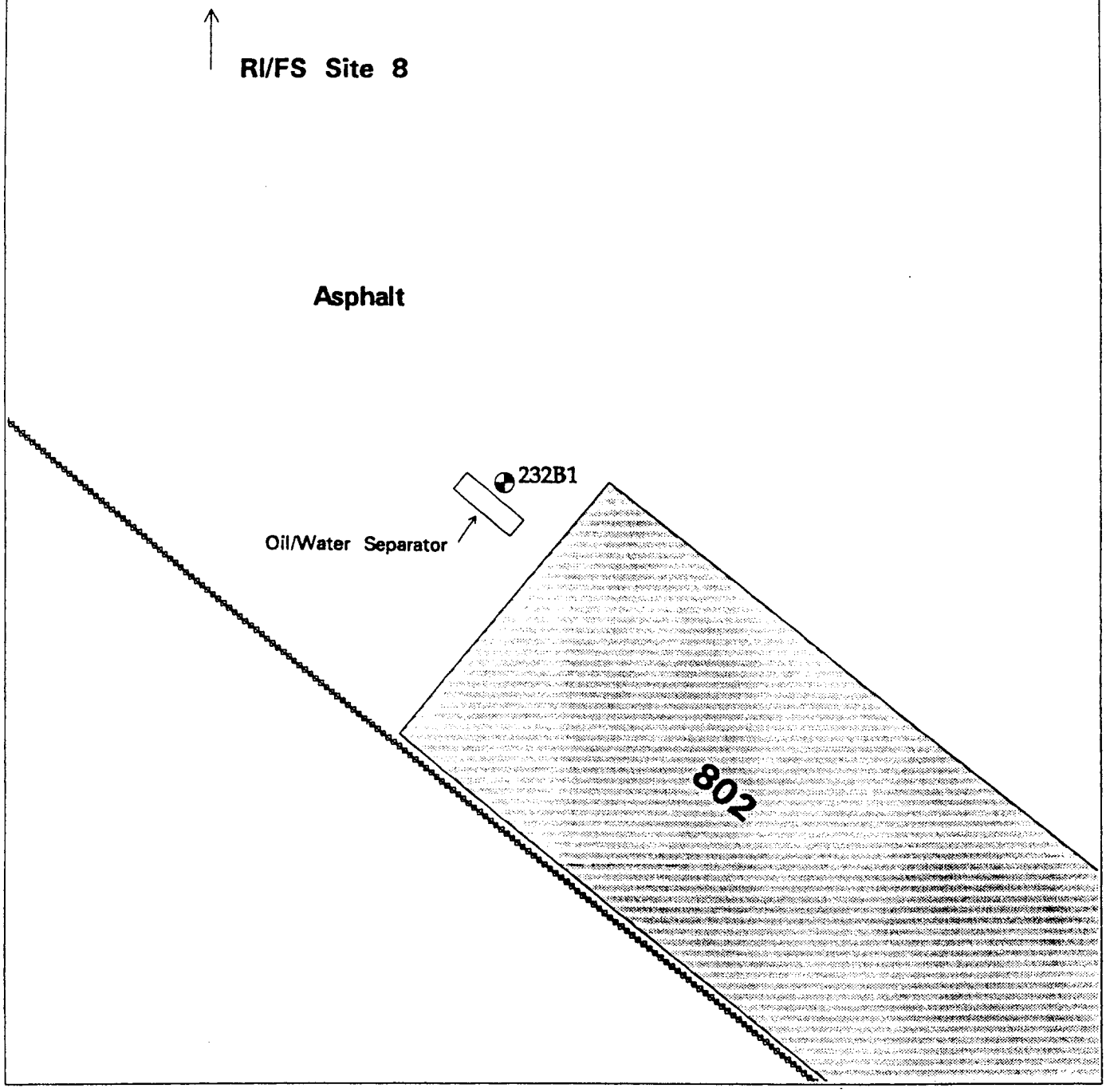


Figure 69 Sample Location Map

SWMU/AOC Number and Type:
232 - Oil/Water Separator

Boring Location and Number:

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

Features:

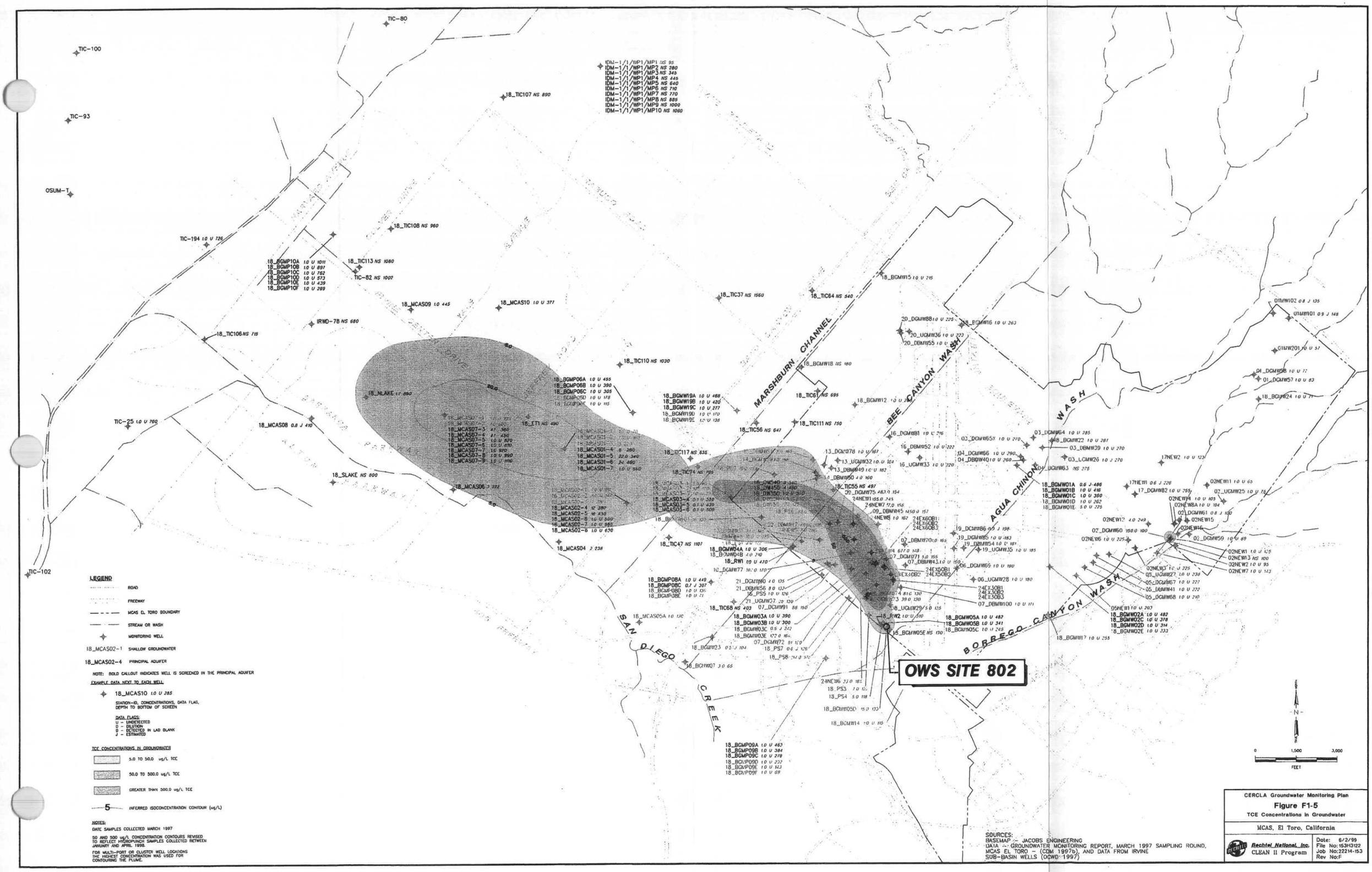
- Building
- Concrete
- Fence
- Railroad

Scale

0 10 20 40 Feet

MCAS El Toro
RCRA Facility Assessment

Appendix C
TCE in Groundwater


OWS SITE 802
MARSHBURN CHANNEL
BEE CANYON WASH
AGUA CHINDIN WASH
BORREGO CANYON WASH
SAN DIEGO CREEK
LEGEND
ROAD
FREEWAY
MCAS EL TORO BOUNDARY
STREAM OR WASH
MONITORING WELL
18_MCAS02-1 SHALLOW GROUNDWATER
18_MCAS02-4 PRINCIPAL AQUIFER
NOTE: BOLD CALLOUT INDICATES WELL IS SCREENED IN THE PRINCIPAL AQUIFER
EXAMPLE DATA NEXT TO EACH WELL
18_MCAS10 1.0 U 285
STATION-ID, CONCENTRATIONS, DATA FLAG, DEPTH TO BOTTOM OF SCREEN
DATA FLAGS:
U - UNDETECTED
D - DILUTION
B - DETECTED IN LAB BLANK
J - ESTIMATED
TCE CONCENTRATIONS IN GROUNDWATER
5.0 TO 50.0 ug/L TCE
50.0 TO 500.0 ug/L TCE
GREATER THAN 500.0 ug/L TCE
5 INFERRED ISOCONCENTRATION CONTOUR (ug/L)
NOTES:
DATE SAMPLES COLLECTED MARCH 1997
50 AND 500 ug/L CONCENTRATION CONTOURS REVISED TO REFLECT HYDROPUNCH SAMPLES COLLECTED BETWEEN JANUARY AND APRIL 1998.
FOR MULTI-PORT OR CLUSTER WELL LOCATIONS THE HIGHEST CONCENTRATION WAS USED FOR CONTOURING THE PLUME.
SOURCES:
BASEMAP - JACOBS ENGINEERING
DATA - GROUNDWATER MONITORING REPORT, MARCH 1997 SAMPLING ROUND, MCAS EL TORO - (CDM 1997b), AND DATA FROM IRVINE SUB-BASIN WELLS (OCWD 1997)
N
0 1,500 3,000
FEET
CERCLA Groundwater Monitoring Plan
Figure F1-5
TCE Concentrations in Groundwater
MCAS, El Toro, California
Rechtel National, Inc.
CLEAN II Program
Date: 6/2/99
File No: 153H3122
Job No: 22214-153
Rev No: F

Appendix D
Excerpts from Law/Crandall Report for OWS Site 802

OIL/WATER SEPARATOR SURVEY

EL TORO MARINE CORPS AIR STATION

EL TORO, CALIFORNIA

FOR

DEPARTMENT OF THE NAVY

SOUTHWEST DIVISION

NAVAL FACILITIES ENGINEERING COMMAND

IQ Contract No. N68711-92-D-4652, Delivery Order No. 001

Prepared by Law/Crandall, Incoporated (LCI)

(LCI Project No. S92174.FB)

April 1, 1993

LAW/CRANDALL, INC.

ENGINEERING AND ENVIRONMENTAL SERVICES

ONE OF THE LAW COMPANIES

5.34 OIL/WATER (O/W) SEPARATOR DATA SHEETS

MARINE CORPS AIR STATION: El Toro Marine Corp Air Station

DATE OF SURVEY: January 1993

SURVEY TEAM: Chris Sandall/Mac Mehta

CONTRACT NO: N68711-92-D-4652

PHYSICAL CHARACTERISTICS

O/W Separator I.D.: 802

Location: Northwest of Building No. 802

Inlet Pipe Size(s)/Slope(s)/Run(s): 6 inches, slope = 1/8 inch per foot, run = 10 feet

Outlet Pipe Size(s)/Slopes(s)/Run(s): 6 inches, slope unknown, run approximately 15 feet to manhole

O/W Separator Constructed of: Precast concrete

O/W Separator Type: 2-Stage Gravity Separator

Interior Dimensions: 7 feet x 4 feet 11 inches x 4 feet 10 inches (l x w x d)

Estimated Capacity: 1000 gal

Monitoring/Leak Detection Devices: none observed

Discharge Point: sewer

Discharge Point verified by (document reference): Naval Facilities Drawing No. 6148090 and visual observations

Lateral Connections between the Discharge Point and Oil/Water Separator: None

O/W SEPARATOR CONDITION AT TIME OF SURVEY

In Use? Yes

Depth of Solids: First chamber 6 feet sludge- sludge above inlet pipe. Second chamber 2.5 feet sludge

Depth of Liquid: None observed in first chamber- all sludge

Floating Material Depth: Sludge

Other (e.g., odor): Slight detergent odor

Structural Condition: Appears sound- needs cleaning

Run-off Into Oil/Water Separator/Port: negligible

TANKS/AUTOMATIC VALVES/APPURTENANCES

Is Tank Associated with the Oil/Water Separator? None reported/observed

Automatic Shutoff/Diversion Valves associated with Oil/Water Separator: None reported/observed

Other:

MAINTENANCE/INSPECTION FREQUENCIES AND WASTE DISPOSAL

Written Maintenance/Inspection Schedules? None observed

Location of written schedules: not applicable

Frequency of Maintenance/Inspection Activities: As needed

Maintenance/Inspection Performed by: FMD

Sediment Removal/Disposal: FMD

Water Removal/Disposal: FMD

Oil Removal/Disposal: ENRMO

Written History of Problems? none observed

O/W SEPARATOR USES

Activities (e.g. truck washing) Discharging to O/W Separator: Heavy off-road vehicles with muddy "dirt" tires

Chemicals used in activities tributary to Oil/Water Separator: Fuels, sediments, oil, grease, antifreeze, detergent

Are special management activities employed to control sedimentation or other materials: None observed

Estimated frequency of activity/volume of waste produced: Appears as though daily, 5 - 50 gpm

Upstream inlets open to run-off? No

Square footage of area open to run-off: not applicable

Estimated run-off coefficient: not applicable

Materials Storage Areas Upstream of inlet and contacting storm water: not applicable

Potential Pollutants from Upstream Storage Areas: na

AS-BUILT DRAWINGS/SPECIFICATIONS/ENGINEERING REPORTS

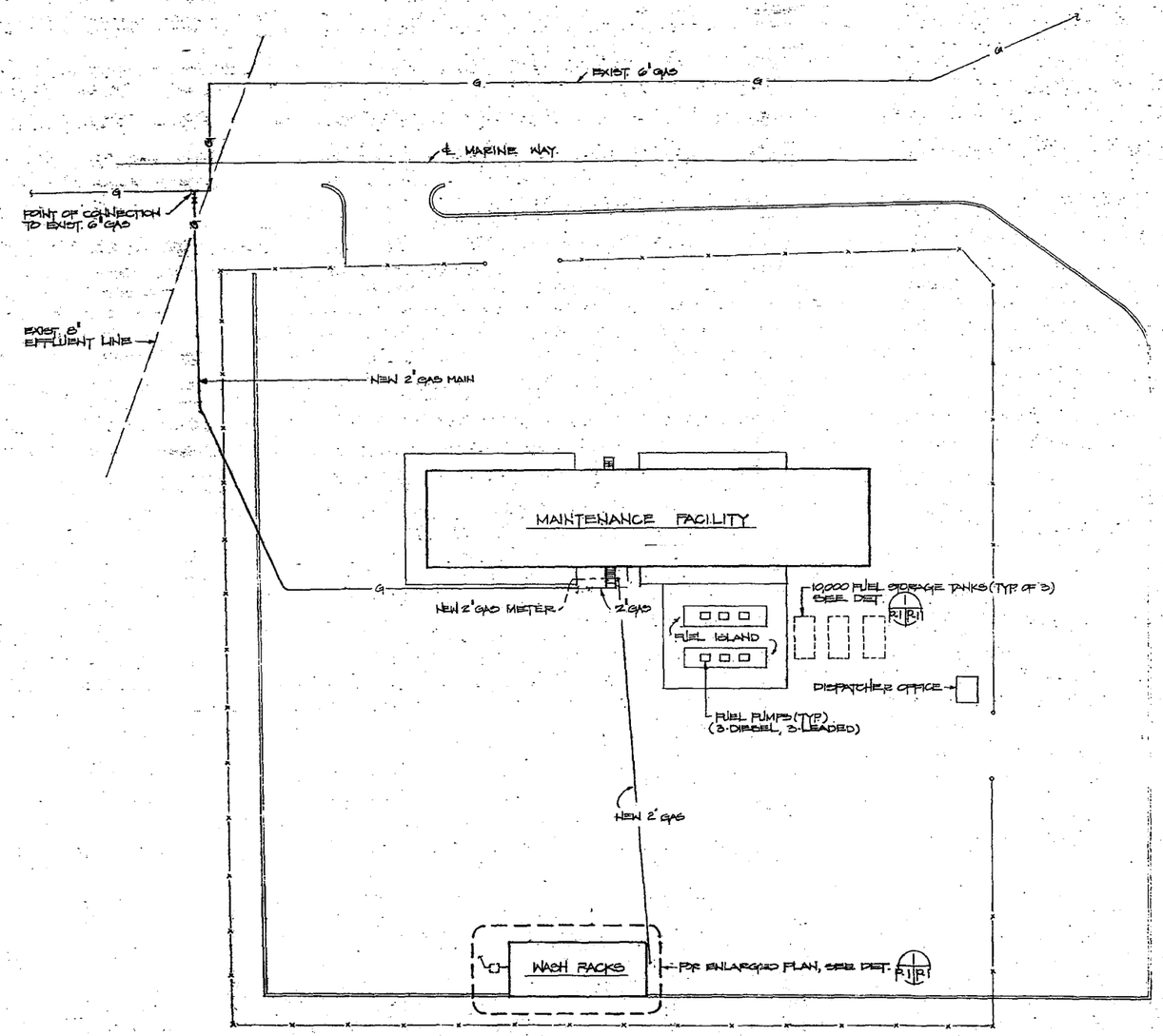
The following documents are available for this oil/water separator and are maintained

in the location indicated:

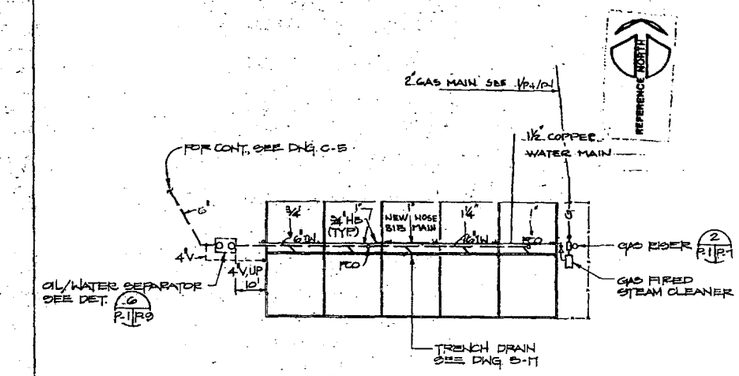
What appear to be bid drawings under contract 80-C-9828 located in the reproduction room, 2nd floor Building No. 368, El Toro MCAS

Appendix E
Station Drawings

REVISIONS				
SYM	DESCRIPTION	PREP'D BY	DATE	APPROVED
	AS BUILT CONDITION SHOWN	C. HO	4-9-86	



PLOT PLAN
SCALE: 1"=40'



ENLARGED PLAN - WASH RACKS
SCALE: 1" = 20'

NOTES:

1. FOR WATER AND SEWER & OTHER UTILITY LINES, SEE DWG. C-3
2. LOCATE HOSE BIBBS 18" ABOVE FINISHED FLOOR, PROVIDE SOV ON EACH RIDER.
3. EXTEND 4" VENT ABOVE LOW POINT OF ROOF.

66 105
APR 15 1985

IF SHEET IS LESS THAN 28" X 40" IT IS A REDUCED PRINT — SCALE REDUCED ACCORDINGLY

P.1

GRAPHIC SCALE
1" = 20'
1" = 40'

DSGN. R. LEE/TBK
DR. TBK
CHK. SJC
SUPV. A. J. Lewis
ENGR. IN CHG.
FIRE PROT. ENGR. E. SM
BRANCH HEAD
DIRECTOR Weak 4-30-84 DATE
SATISFACTORY TO DATE
TITLE
APPROVED DATE
30 APR 1984

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
WESTERN DIVISION
SAN BRUNO, CALIFORNIA

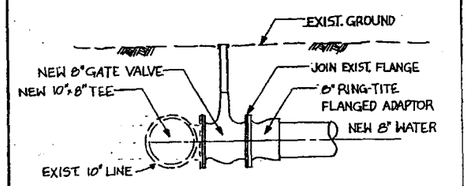
MARINE CORPS AIR STATION EL TORO CALIF
MAINTENANCE FACILITY
P-050 FY 1984

PLOT PLAN

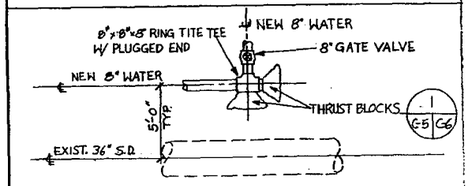
SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	6148150
SCALE AS NOTED		CONST. CONTR. NO. N62474-80-C-9828
		SPEC. 12-80-9828 SHEET 66 OF 99

U.S. GPO: 1977-781-010

REVISIONS				
SYM	DESCRIPTION	PREPD BY	DATE	APPROVED
	AS BUILT CONDITIONS SHOWN	D. CHUCK	4-11-86	JTD

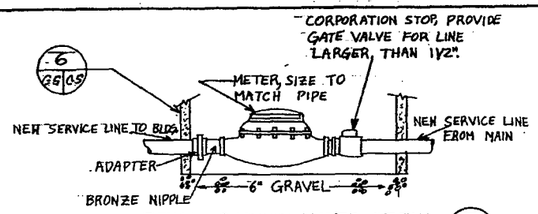


1 (C-5 | C-5) EXIST. 10" TO NEW 8" WATER
N.T.S.



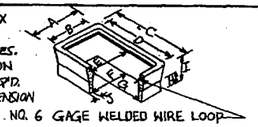
2 (C-5 | C-5) NEW 8" TO NEW 8" WATER
N.T.S.

3 (C-5 | C-5) NEW 8" TO NEW 3" WATER
N.T.S.



TYPICAL SERVICE METER DETAIL (9 | C-5 | C-5)

NOTES FOR WATER METER BOX
1. PROVIDE 1/4" STEEL PLATE TRAFFIC COVER W/ FINGER HOLES.
2. PROVIDE CONCRETE EXTENSION WITH THE METER BOX AS REQ'D.
3. PROVIDE KNOCKOUTS ON EXTENSION AS REQ'D FOR PIPES.
4. COVER SHALL BE STAMPED "WATER METER".
5. PROVIDE 7" Ø LID IN STIL COVER OF 4" VALVE.



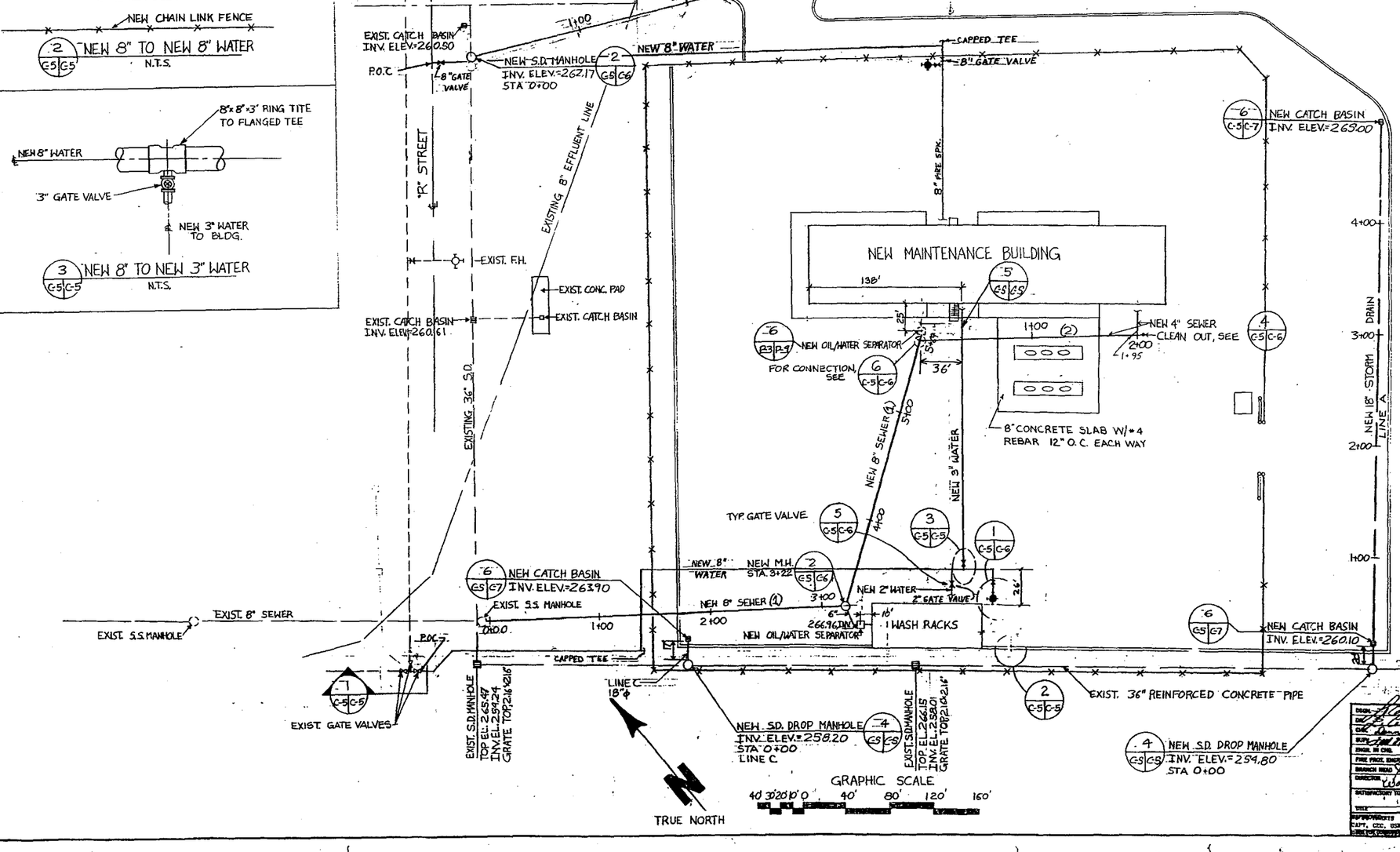
MINIMUM DIMENSIONS

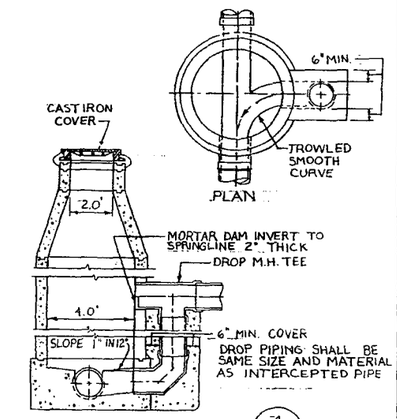
MAX. METER SIZE	A	B	C	D	E	F	G	H	I	J
3/4"	16	10	15	14	8	11	17	-	12	1"
1"	35	11	22	18	10	12	20	-	12	1"
1 1/2"	18	14	25	23	12	13	24	-	12	1 1/8"
2"-3"	22	17	35	30	16	17	30	5	12	1 3/8"
4"	18	14	46	42	12	15	43	-	12	1 1/2"

TYPICAL METER BOX DETAIL (6 | C-5 | C-5)

GENERAL UTILITY NOTES

1. CONNECTION TO EXISTING WATER, SEWER, AND GAS LINES SHALL BE ACCOMPLISHED IN A MANNER WHICH WILL MAINTAIN THE STRUCTURAL INTEGRITY OF THE EXISTING LINES TO A LEVEL IN KEEPING WITH THEIR DESIGN FUNCTION. DIFFERENTIAL SETTLING AT POINTS OF CONNECTIONS BETWEEN NEW AND EXISTING PIPES SHALL BE PREVENTED THROUGH PROPER GRADING TECHNIQUES. IN ALL CASES, PIPE ELEVATIONS AT THE POINT OF CONNECTION TO EXISTING SEWER AND WATER LINES MUST BE VERIFIED BEFORE START OF CONSTRUCTION.





DROP MANHOLE (4 | C-5 | C-5)

LEGEND

- NEW STORM DRAIN & CATCHBASIN
- EXIST. STORM DRAIN & CATCHBASIN
- EXIST. WATER SERVICE W/ GATE VALVE
- EXISTING GAS
- EXIST. SANITARY SEWER & MANHOLE
- EXISTING EFFLUENT LINE
- NEW LINES
- NEW GATE VALVE
- NEW SEWER MANHOLE
- EXISTING FIRE HYDRANT
- NEW FIRE HYDRANT
- P.O.C. POINT OF CONNECTION

NOTE: FOR TYPICAL TRENCH SECTION FOR BOTH WATER AND SEWER LINES SEE (3 | C-6 | C-6)

RECEIVED SHEET 6 of 105 APR 15 1993

IF SHEET IS LESS THAN 28" X 40" IT IS A REDUCED PRINT — SCALE REDUCED ACCORDINGLY

C-5

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
WESTERN DIVISION
SAN BRUNO, CALIFORNIA

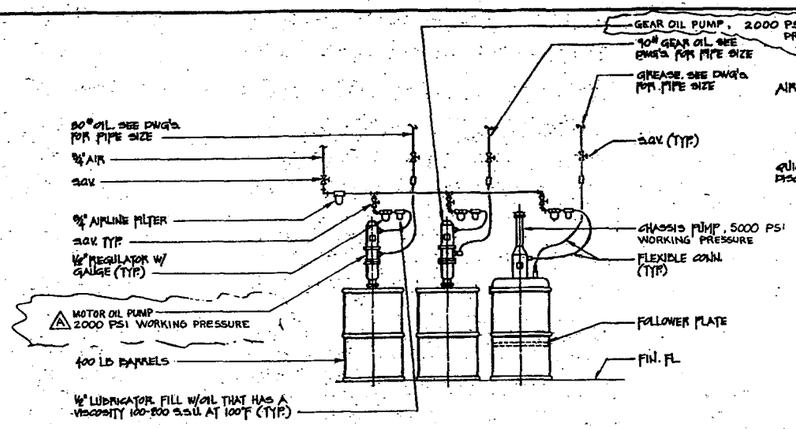
MARINE CORPS AIR STATION
EL TORO, CALIFORNIA
MAINTENANCE FACILITY, P-050
UTILITY PLAN

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	6148090
SCALE 1" = 40'		CONST. CONTR. NO. N62474-80-C-9828 SPEC. 12-80-9828 SHEET 6 OF

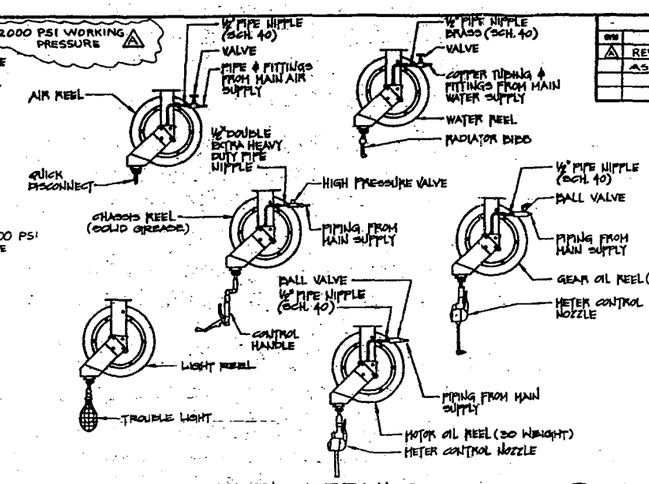
U.S. GPO 1977-701-010

REVISIONS				
SYM	DESCRIPTION	PREPD BY	DATE	APPROVED
A	REV. OIL PUMP SIZES (CON.A)	R. Zak	10-4-84	
	AS BUILT	C. HO	4-9-86	

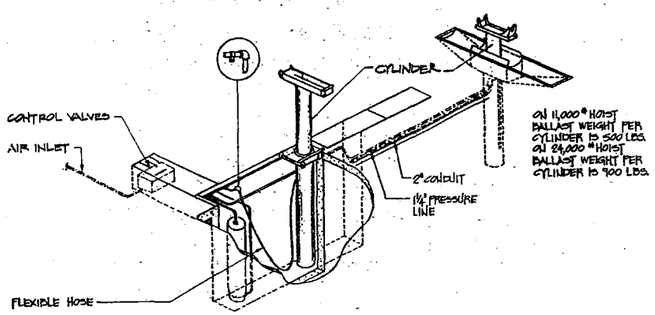
NOTE:
MOUNT HOSE REELS TO ROOF BEAM
SEE STRUCTURAL DWGS. S-8, S-9



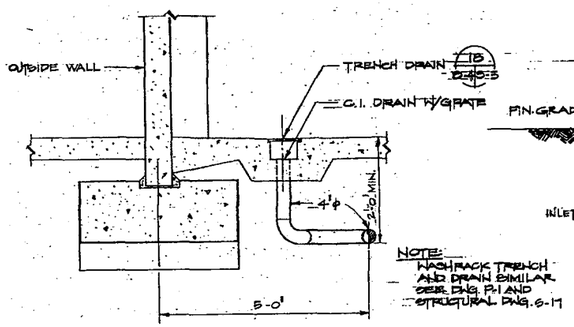
TYP. AIR PUMP HOOK-UP DETAIL (2 / P-7 | P-9)
NO SCALE



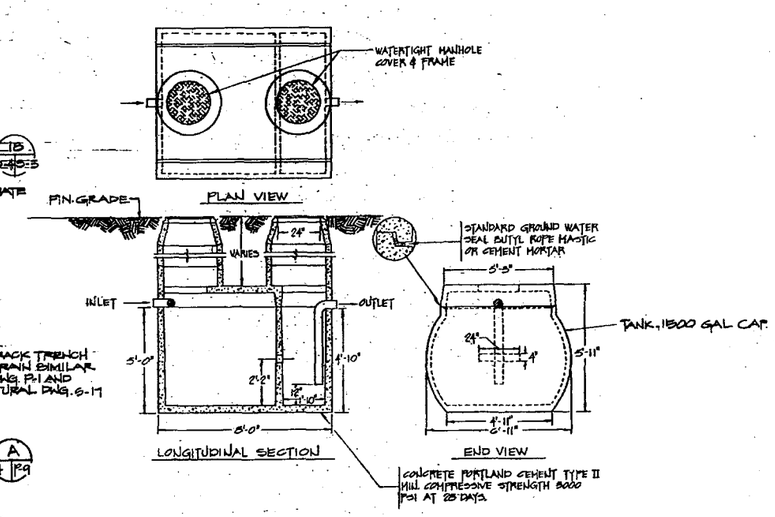
HOSE REEL DETAILS (3 / P-3, P-4 | P-9)
NO SCALE



HYDRAULIC HOIST DETAIL (4 / P-3, P-4 | P-9)
NO SCALE

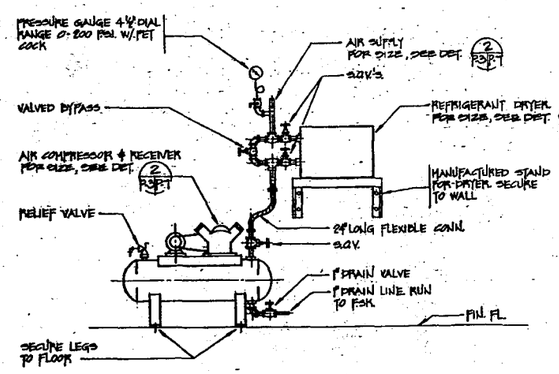


SECTION (A / P-3, P-4 | P-9)
NO SCALE



OIL / WATER SEPARATOR (6 / P-1, P-3 | P-9)
NO SCALE

OIL/WATER SEPARATOR	INLET INV. EL.	OUTLET INV. EL.
MAINTENANCE FACILITY	266.91	266.41
WASH RACKS	267.40	266.96



AIR COMPRESSOR DETAIL (7 / P-7 | P-9)
NO SCALE

RECORD
74 of 105
APR 15 1986
35 MM

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IT IS A REDUCED PRINT —
SCALE REDUCED ACCORDINGLY

P-9

DSGN. R. Lees/NHC/TBK
DR. TBK
CHK. SSC
SUPV. Arch. J. Rum
ENGR. IN CHG. Cadle
FIRE PROT. ENGR. ESD
BRANCH HEAD A. Gaughin
DIRECTOR Wolff 4-30-84
SUBMITTED TO / DATE
TITLE
APPROVED BY / DATE ATT. CEC, USN 30 APR 1984

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
WESTERN DIVISION
SAN BRUNO, CALIFORNIA

MARINE CORPS AIR STATION EL TORO CALIF
MAINTENANCE FACILITY
P-080 FY 1984

HOIST, COMPRESSOR & MISC. DETAILS

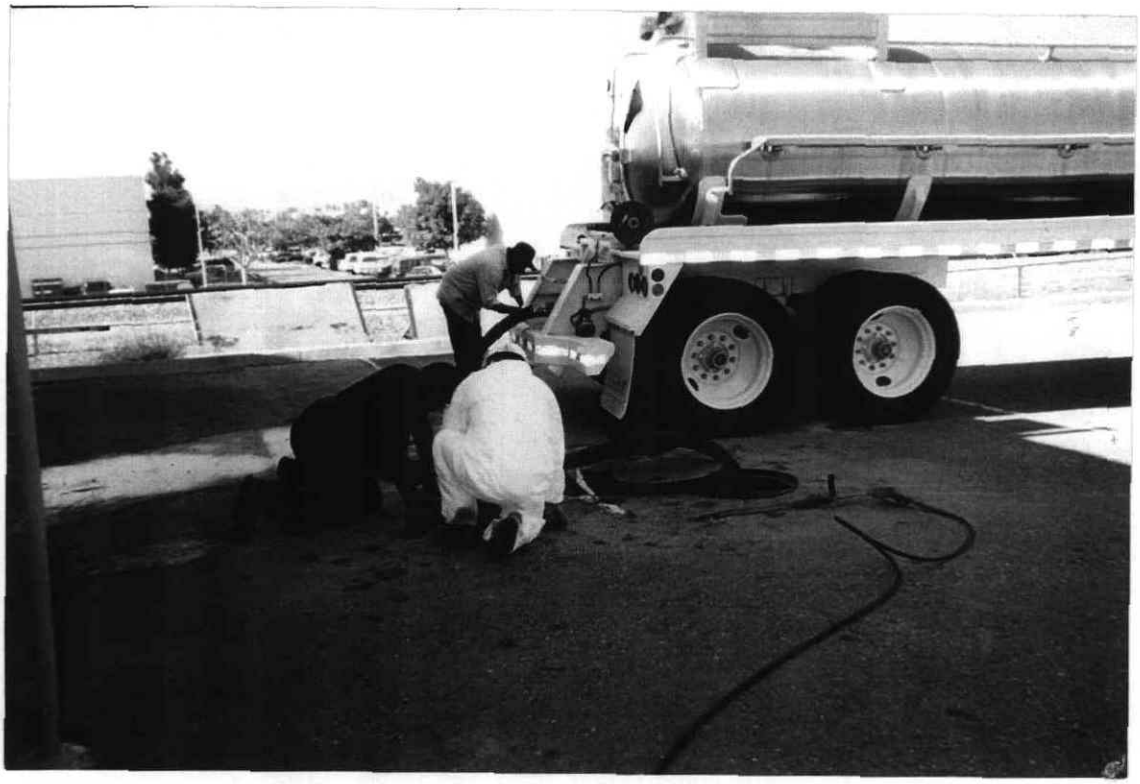
SIZE	CODE IDENT. NO.	MANUF. DRAWING NO.
F	80091	6148158

SCALE AS NOTED — CONST. CONTR. NO. 80-C-9828 — SPEC. 12-80-9828 — SHEET 74 OF 99

U.S. GPO 1977-791-910

Appendix F
Site Photographs

Photograph No. 1: Oil/water separator (OWS) 802 during contents removal and Building 802



Photograph No. 2: OWS 802 during contents removal.

Appendix G
Site Inspection Log

SITE ASSESSMENT LOG
MCAS El Toro
REMEDIATION OF VARIOUS UST SITES
20242, D.O. 112

~~UST~~ OWS SITE: 802

Field Observations by: D. Rawal **Date:** June, 14, 1999.

~~**Former UST**~~ OWS **area:** Paved or Unpaved

Paved: Concrete or Asphalt
Unpaved: Open dirt area
Any Visible Sprinkler System: Yes / No OWS 802, Part of Bldg 802 for treatment of oily wastewater.

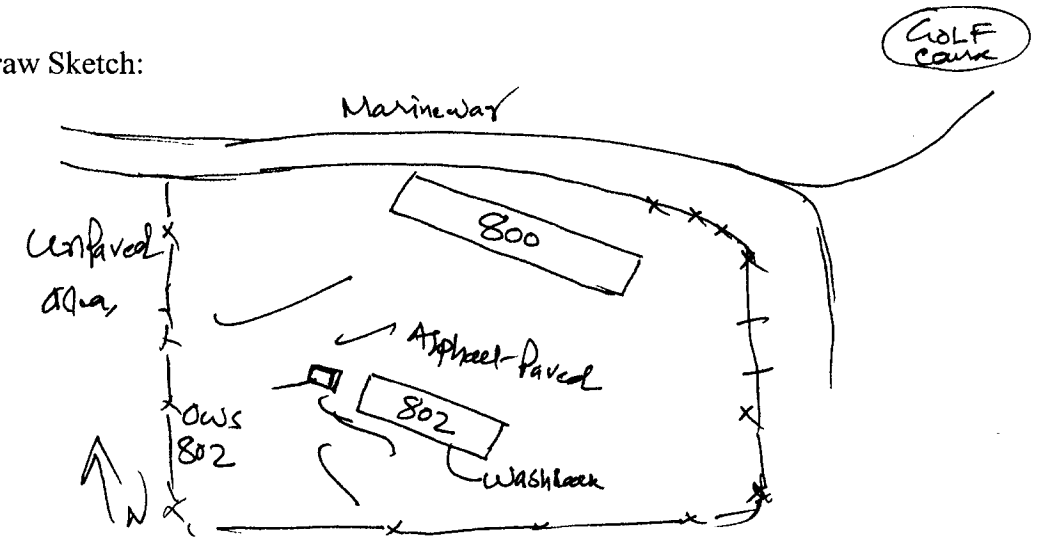
-Nearest Building or Structure Distance: Building 802, Washrack, Appx. 5 feet Northwest.

-Any Underground Piping/Lines, or Transformer Observed: None,

-Overhead Utility Lines/Poles: None

-Site Setup Constrains: None,

Draw Sketch:



Additional Field Notes:
No Spill or Stains observed around OWS 802. RFA Boring observed next to OWS 802. OWS filled with Product. No UST associated with OWS. SWMU 232 Seems to be OWS 802 Not OWS 800F, As mentioned in RFA.

Appendix H
Geophysical Survey Data

SPECTRUM

GASCH
• GEOPHYSICS •

Results of Subsurface Investigation

Buildings 800 and 802
Marine Corps Air Station El Toro
Irvine, California

Prepared for: **OHM Remediation Corporation**
Irvine, California

Date of Investigation: June 14, 1999

Prepared by:

Jim Pfoser
Project Manager
Spectrum-Gasch Geophysics
15260 Sky High Road
Escondido, CA 92025

REGISTERED GEOPHYSICIST
LAURA L. CATHCART
No. 1017
Exp. 12/99
STATE OF CALIFORNIA

Laura Cathcart
Registered Geophysicist No. 1017

Warranty:

Spectrum-Gasch Geophysics was retained to conduct a subsurface investigation of the above facility to characterize the shallow subsurface. Our findings are subject to certain limitations due to site conditions and the instruments employed. We conducted this investigation in a manner consistent with our profession using similar methods. No other warranty as to the performance or deliverables is expressed or implied.

Contents

Introduction

Methods

Results and Conclusions

Figure 1	Area of Subsurface Investigation, Building 802, MCAS El Toro, Irvine, California
Figure 2	Area of Subsurface Investigation, Building 800, MCAS El Toro, Irvine, California
Appendix A	Base Utility Maps for Buildings 802 and 800

Results of Subsurface Investigation
Buildings 802 and 800
MCAS El Toro
Irvine, California

Introduction

On June 14, 1999 Spectrum-Gasch Geophysics conducted a subsurface investigation at Buildings 802 and 800 at MCAS El Toro in Irvine, California. The purpose was to investigate one area at each building for detectable subsurface utilities. An area approximately 32 by 31 feet was investigated at Building 802 and an area approximately 27 by 24 feet was investigated at Building 800.

Methods

The equipment used in this investigation consisted of a Fisher TW-6 shallow-focus terrain conductivity meter, Dynatel 500A cable locator, Radiodetection RD400 utility locator, and a GSSI SIR-3 ground penetrating radar (GPR) unit coupled to a 500-MHz antenna.

GPR and EM utility-locating methods were used in the areas of interest to delineate the surface trace of detectable conduits and to identify buried objects having no surface expression. The following paragraphs discuss the methods used.

1.) The areas were investigated for detectable subsurface utilities or other buried features. Utilities which were exposed above ground in the vicinity of each area were directly connected to, traced out, and mapped on a site map (Figures 1 and 2).

2.) The areas were investigated with a passive electromagnetic receiver tuned to 50/60 Hz, radio, and audio frequencies to detect buried utilities that might reradiate an electromagnetic field.

3.) The areas were investigated with two crew members operating a matched frequency transmitter and receiver. We conducted bi-directional traverses to detect increases in signal strength which might suggest subsurface utilities. Each suspected signal increase was further investigated to discern a signal-propagating utility.

4.) GPR data from seven traverses at Building 802 and seven traverses at Building 800 were collected. A map of these traverses is presented in Figures 1 and 2, respectively. GPR data were produced in the form of vertical cross sections and interpreted in the field for anomalies whose signatures might indicate the presence of subsurface conduits or other features of interest.

Results and Conclusions

Building 802

The surface trace of detected utilities was marked on the ground with spray paint using a color code established by the American Public Works Association. A site map with geophysical interpretation of the proposed boring locations is presented in Figure 1. Drilling and excavation activities should be kept a minimum of two feet away from detected utilities.

The penetration depth of the GPR signal was approximately 1 foot in the areas investigated. As a consequence, some subsurface utilities may not have been detected due to the shallow penetration of the GPR. Because of this limitation, Spectrum cannot guarantee that all nonmetallic conduits, such as sewers and pvc water lines, have been identified within the area of investigation.

Base utility maps for this area are included in Appendix A.

Building 800

The surface trace of detected utilities was marked on the ground with spray paint using a color code established by the American Public Works Association. A site map with geophysical interpretation of the area investigated is presented in Figure 2. Drilling and excavation activities should be kept a minimum of two feet away from detected utilities.

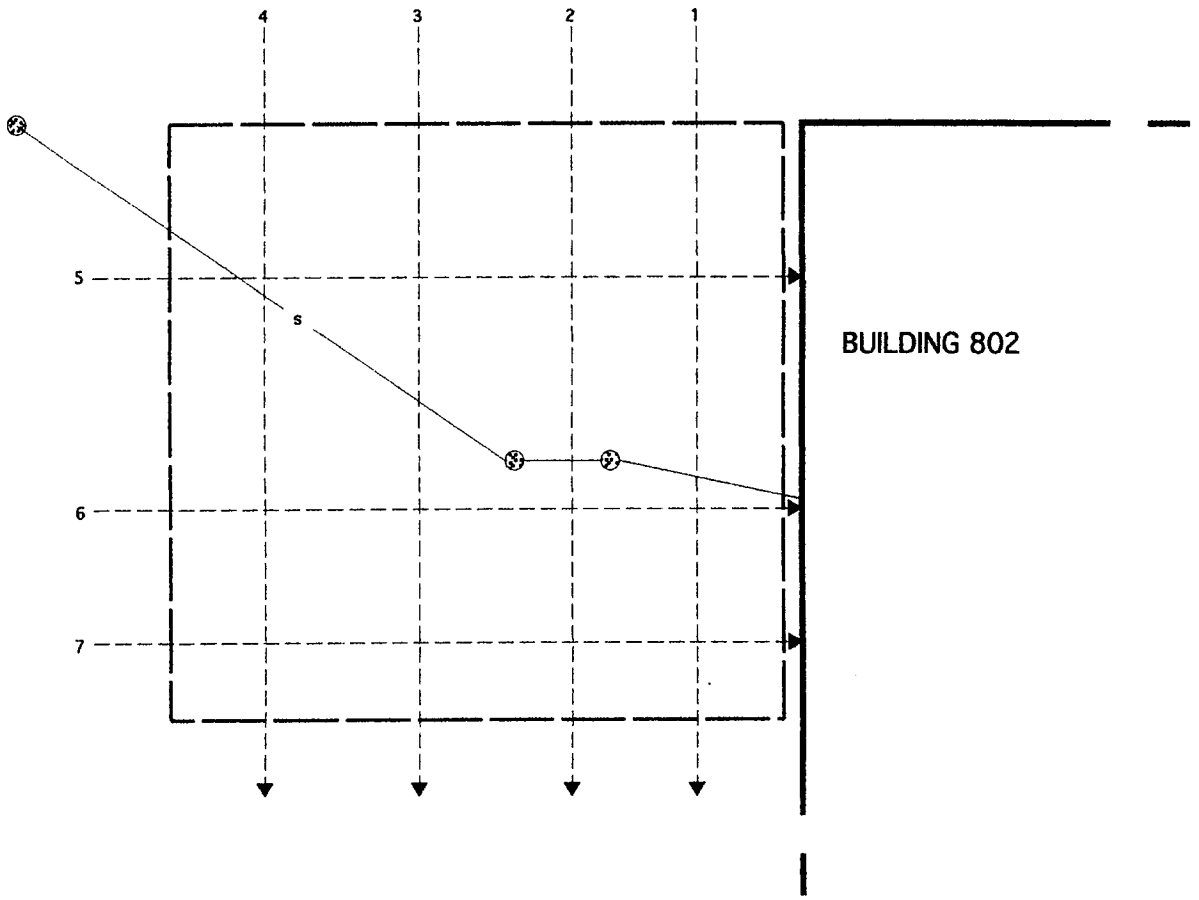
The penetration depth of the GPR signal was approximately 1 foot in the area investigated. As a consequence, some subsurface utilities may not have been detected due to the shallow penetration of the GPR. Because of this limitation, Spectrum cannot guarantee that all nonmetallic conduits, such as sewers and pvc water lines, have been identified within the area of investigation.

One technique that allows for higher resolution of the GPR signal as well as deeper penetration involves the use of a GSSI SIR-10A GPR unit coupled to a bi-static antenna array. This arrangement uses two coupled antennas to achieve greater resolution and deeper penetration depending on the near-surface soils. Although more expensive, this system is ideal for areas where deeper penetration is needed to locate utilities or USTs.

Base utility maps for this area are included in Appendix A.

FIGURE 1
AREA OF SUBSURFACE INVESTIGATION
BUILDING 802
MCAS EL TORO
IRVINE, CALIFORNIA

SPECTRUM-GASCH
GEOPHYSICS
15260 Sky High Road, Escondido, CA 92025



EXPLANATION

Area of subsurface investigation	CONDUITS	
Sewer lid	— s —	Sewer
GPR traverse with number	——— —	Trend continues

N

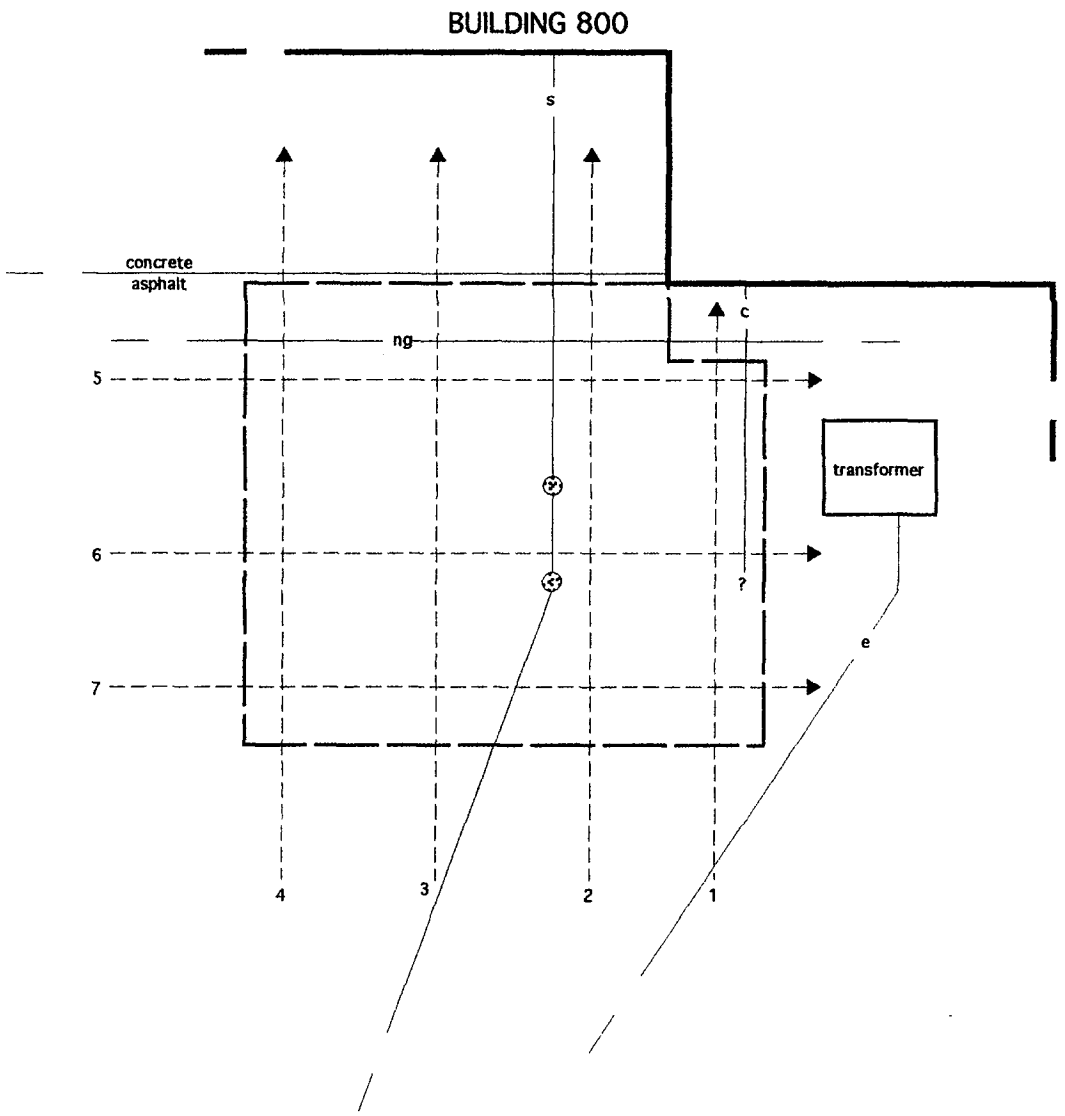
0 5 10
One inch equals approximately 10 feet

Project Number: 9906142M
Date of Investigation: June 14, 1999
Map by J. Pfoser

Not all below ground facilities may be represented on this map

FIGURE 2
AREA OF SUBSURFACE INVESTIGATION
BUILDING 800
MCAS EL TORO
IRVINE, CALIFORNIA

SPECTRUM-GASCH
GEOPHYSICS
15260 Sky High Road, Escondido, CA 92025



EXPLANATION

Area of subsurface investigation	CONDUITS	
Sewer lid	— s —	Sewer
GPR traverse with number	— ng —	Natural gas
	— e —	Electric
	— c —	Conduit
	— —	Trend continues

N

0 5 10
One inch equals approximately 10 feet

Project Number: 9906142M
Date of Investigation: June 14, 1999
Map by J. Pfoser

Not all below ground facilities may be represented on this map

Appendix I
Field Soil Boring Logs

802
SB01

OHM REMEDIATION SERVICES CORP.

Geologic Log

BOREHOLE NUMBER: SB01
SHEET 1 OF ___

PROJECT NO.	920242	DATE: 6-16-99	DRILLNG CO.: BC2
CLIENT:	SWDIV		DRILL RIG MODEL: LAR - CME75
LOCATION:	MCAS, EL TORO		DRILLER: Ramon Zepeda
LOGGED BY:	G.Berger		DRILLING METHOD HSA — HOLE DIAMETE 8-inch

BORING COMPLETION DATA:

DEPTH TO WATER:				
TIME				
DATE				

TIME	DEPTH	PID/FID HNU OVA (PPM)	BLOWS/ 6 IN PRESSURE (PSI)	RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	WELL DETAIL	SOIL/ROCK SYMBOL	GRAPHIC LOG	
	5									
	10									
1300		0	12 13 17		939			SP		SAND (SP): Pale brown 10YR6/3; 95+% fine-med sand - well sorted - poorly graded. Dry No odor
	15									
	20									

802-SB-01

1 of 4 17

<C:/EXCEL/ElToroBORELOG.xls>

OHM
REMEDIATION
SERVICES CORP.

LOCATION: 802
DATE: 6-16-99

BOREHOLE NUMBER: SB01
SHEET ___ OF ___

TIME	DEPTH	PID/FID HNU OVA (PPM)	BLOWS/ 6 IN PRESSURE (PSI)	RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	WELL DETAIL	SOIL/ROCK SYSMBOL	GRAPHIC LOG	FIELD SOIL DESCRIPTION
1305	20	0.0	11 14 17		940			CL		802 SB01 Silty CLAY (CL): V dark. grayish brown; 10YR 3/2; dense-mod plastic (almost CH) becomes slightly sandy in places - NO ODOR.
	25									
	30									
1315		0	13 15 19		941			SC		~~sla~~ clayey SAND (SC): yell brn 10YR 5/6; 80% fine sand; 20% clayey silt. MOIST, COHESIVE, NO ODOR.
	35									Boring ENDS Here ~~Sa~~ Drill 30' Sample 31.5'
	40									
	45									

<C:/EXCEL/ElToroBORELOG.xls>

802-SB-02

OHM REMEDIATION SERVICES CORP.

Geologic Log

BOREHOLE NUMBER: SB02

SHEET 1 OF ___

PROJECT NO.	920242	DATE: 6-16-99	DRILLNG CO.: BC2
CLIENT:	SWDIV		DRILL RIG MODEL: LAR - CME 75
LOCATION:	MCAS, EL TORO		DRILLER: Ramon Zepeda
LOGGED BY:	G.Berger		DRILLING METHOD HSA — HOLE DIAMETE 8-inch

BORING COMPLETION DATA:

DEPTH TO WATER:				
TIME				
DATE				

TIME	DEPTH	PID/FID HNU OVA (PPM)	BLOWS/ 6 IN PRESSURE (PSI)	RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	WELL DETAIL	SOIL/ROCK SYMBOL	GRAPHIC LOG	
	5									hand auger
	10				~~920~~ 942					
1350		0.0	10					SC		Clayey SAND (SC): brown 10YR4/3 ~~50~~ 80% fine sand, 20 ~~30~~ silt & clay; moist. No odor.
		0	15							
			16							
	15				~~937~~ 943					
	20									

802-SB-02

<C:/EXCEL/ElToroBORELOG.xls>

OHM
REMEDIATION
SERVICES CORP.

LOCATION: 802
DATE: 6-16-99

BOREHOLE NUMBER: SB02
SHEET 2 OF ___

802-SB02

TIME	DEPTH	PID/FID HNU OVA (PPM)	BLOWS/ 6 IN PRESSURE (PSI)	RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	WELL DETAIL	SOIL/ROCK SYSMBOL	GRAPHIC LOG	FIELD SOIL DESCRIPTION
1405	20	0	14 16 19		944			CL-SC		20-21.5 ~~cl~~ Sandy CLAY (CL-SC): dark. gr. brn. 10YR 4/2 : Stiff dense 60% silty Clay - 40% fine sand mod. plast. MOIST
	25									
	30									30-31.5
1420 ~~1445~~		0	15 17 18		945					sandy SILT (ML): ~~dark~~ yll brn 10YR 5/6 ; 60% SILT 40% fine SAND. NO ODOR MOIST.
										Boring Ends.
	35									
	40									
	45									

<C:/EXCEL/ElToroBORELOG.xls>

802 .SB 02

Appendix J
Laboratory Analytical Reports

COMPLETED (BW 7/27)

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

Tank Contents – 800F, 802, 845

218442

FORM 0019 REV. 2-97

LAB COORDINATOR	LAB COORDINATOR'S PHONE	LAB COORDINATOR'S FAX	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
Bienkowski	949-660-7537	949-475-5433	994621	APCL	IT

T NAME	PROJECT LOCATION	PROJECT NUMBER	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
Tbio	MCAS El Toro – DO 112	20242	409-590-1828		Dwayne Ishida

T CONTACT	PROJECT PHONE NUMBER	PROJECT FAX	LABORATORY ADDRESS	ADDRESS
Bienkowski	949-451-1665	—	15760 Magnolia	3349 Michelson, Suite 200

T ADDRESS	CITY, STATE AND ZIPCODE	CLIENT	CITY, STATE, AND ZIPCODE	CITY, STATE, AND ZIPCODE
—		SWDIV	Chino, CA	Irvine, CA 92612

T MANAGER	PROJECT MANAGER'S PHONE	PROJECT MANAGER'S FAX
Jerllak	~~48~~ 949-661-1661	

Sample Identifier	Matrix	Date 1999	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: EPA 8260 + MTBE	TPH-Purgeable	TPH-Extractable	EPA 8021/8240	EPA 6010-Metals	Flashpoint	EPA 3620	Comments
20242-967	W	7-2	0700	HCL	2	III	5DA	X							
20242-968	PRODUCT	7-2	0845	4°C	3	III	5DA	X	X	X	X	X	X	X	☆ PRODUCT
20242-969	W	7-2	1030	4°C	9	III	5DA	X	X	X	X	X	X	X	
20242-970	W	7-2	1130	4°C	9	III	5DA	X	X	X	X	X	X	X	
20242-971	PRODUCT ~~W~~	7-2	1215	4°C	3	III	5DA	X	X	X	X	X	X	X	☆ PRODUCT

ES COLLECTED BY	COURIER AND AIR BILL NUMBER	COOLER TEMPERATURE UPON RECEIPT
C. PARRISH	COURIER	

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
[illegible]	[illegible]	7-2-99	[illegible]	

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 Laboratory

Tank Contents
800F, 802, 845

Sample Point Location	Sample Type: G	C	F	QC
1. TRIP BLANK	X			X
2. ~~BLDG 845~~	X			
UST ~~TANK~~ 845B (D)				
3. ~~BLDG 800~~	X			
UST ~~TANK~~ 800F				
4. ~~BLDG 800~~	X			
UST ~~TANK~~ 802				
5 ~~BLDG 845~~				
UST ~~TANK~~ 845A (D)	X			

Comments

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

994621

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
217050
FORM 0019 REV. 2-97

BORING 800F / [redacted]

OHM's LAB COORDINATOR	LAB COORDINATOR'S PHONE	LAB COORDINATOR'S FAX	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
L. BIENKOWSKI	949-660-7537	949-475-5433	994234	APCL	IT GROUP
PROJECT NAME	**PROJECT LOCATION**	**PROJECT NUMBER**	**LABORATORY PHONE**	**LABORATORY FAX**	**RECIPIENT NAME**
EL TORO MCAS	EL TORO BLDG 800	20242	909-370-1828		DWAYNE ISHIDA
PROJECT CONTACT	**PROJECT PHONE NUMBER**	**PROJECT FAX**	**LABORATORY ADDRESS**		**ADDRESS**
L. BIENKOWSKI	—	—	13760 MAGNOLIA		3347 MICHELSON STR 200
PROJECT ADDRESS	**CITY, STATE AND ZIPCODE**	**CLIENT**	**CITY, STATE AND ZIPCODE**		**CITY, STATE, AND ZIPCODE**
—	—	SWDIV	CHINO, CA		IRVINE CA.
PROJECT MANAGER	**PROJECT MANAGER'S PHONE**	**PROJECT MANAGER'S FAX**			
B. SEDLAK	949-261-6441	—			

Item	Sample Identifier	Matrix	Date 1994	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: EPA 8015 TPH-D	EPA 8015 TPH-G	EPA 8260 + MTBE						Comments
1	20242.930	$	6-16	0925	4°C	1	III	5DA	X	X	X						
2	20242-931	$	6-16	0935	4°C	1	III	5DA	X	X	X						
3	20242-932	$	6-16	0945	4°C	1	III	5DA	X	X	X						
4	20242-933	Soil	6-16	1100	4°C	1	III	5D	X	X	X						
5	20242-934	Soil	6-16	1110	4°C	1	III	5D	X	X	X						
6	20242-935	Soil	6-16	1120	4°C	1	III	5D	X	X	X						
7	20242-936	Soil	6-16	~~1120~~ 1125	4°C	1	III	5D	X	X	X						
8							~~III~~ 9YB										
9																	
10																	

SAMPLES COLLECTED BY: CARY PARRISH
COURIER AND AIR BILL NUMBER: COURIER
COOLER TEMPERATURE UPON RECEIPT:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Cary Parrish	[illegible]	6-16-94	1610	

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 Laboratory

OWS 800F

Sample Point Location	Sample Type G	C	F	QC
1. 800F-SB-01 9½-10' BGS	X			
2. 800F-SB-01 20½-21' BGS	X			
3. 800F-SB-01 30½-31' BGS	X			
4. 800F-SB-02 11-11.5' BGS	X			
5. 800F-SB-02 20.5-21.0' BGS	X			
6 800F-SB02 30.5-31.0' BGS	X			
7 800F-SB-02 31.0-31.5' BGS	X			X
DUPLICATE OF 20242-935				

Comments

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

994234

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8081

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/02/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99-4621-4	Received Date:	07/02/1999
Sample ID:	**20242-970**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: R
Anal. Method:	SW8081	Prep. Date:	07/08/99	Anal. Date:	07/09/99
Batch No:	99G3438	Prep. No:	1 of 1	Anal. Time:	15:02
Data File Name:	4621.004	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/L	0.05	<0.05	U
2	BETA-BHC	319-85-7	µg/L	0.05	<0.05	U
3	ALPHA-BHC	319-84-6	µg/L	0.05	<0.05	U
4	DELTA-BHC	319-86-8	µg/L	0.05	<0.05	U
5	GAMMA-BHC	58-89-9	µg/L	0.05	<0.05	U
6	CHLORDANE	57-74-9	µg/L	2	<2	U
7	4,4'-DDD	72-54-8	µg/L	0.1	<0.1	U
8	4,4'-DDE	72-55-9	µg/L	0.1	<0.1	U
9	4,4'-DDT	50-29-3	µg/L	0.1	<0.1	U
10	DIELDRIN	60-57-1	µg/L	0.1	<0.1	U
11	ENDOSULFAN I	959-98-8	µg/L	0.05	<0.05	U
12	ENDOSULFAN II	33213-65-9	µg/L	0.1	<0.1	U
13	ENDOSULFAN SULFATE	1031-07-8	µg/L	0.5	<0.5	U
14	ENDRIN	72-20-8	µg/L	0.1	<0.1	U
15	ENDRIN ALDEHYDE	7421-93-4	µg/L	0.1	<0.1	U
16	ENDRIN KETONE	53494-70-5	µg/L	0.1	<0.1	U
17	HEPTACHLOR	76-44-8	µg/L	0.05	<0.05	U
18	HEPTACHLOR EPOXIDE	1024-57-3	µg/L	0.05	<0.05	U
19	METHOXYCHLOR	72-43-5	µg/L	2	<2	U
20	TOXAPHENE	8001-35-2	µg/L	5	<5	U
21	AROCLOR-1016	12674-11-2	µg/L	1	<1	U
22	AROCLOR-1221	11104-28-2	µg/L	1	<1	U
23	AROCLOR-1232	11141-16-5	µg/L	1	<1	U
24	AROCLOR-1242	53469-21-9	µg/L	1	<1	U
25	AROCLOR-1248	12672-29-6	µg/L	1	<1	U
26	AROCLOR-1254	11097-69-1	µg/L	1	<1	U
27	AROCLOR-1260	11096-82-5	µg/L	1	<1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	2051-24-3	31-147	75
2	2,4,5,6-TETRACHLORO-M-XYLENE	877-09-8	33-146	65
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE (DBC)	1770-80-5	50-200	82
# of out-of-control				0

Not Detected 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

135159

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/02/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99-4621-4	Received Date:	07/02/1999
Sample ID:	**20242-970**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	07/07/99	Anal. Date:	07/07/99
Batch No:	99G3410	Prep. No:	-	Anal. Time:	20:02
Data File Name:	4621.004	Sample Amount:	5.0 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	0.1	<0.1	U

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	74-138	92
# of out-of-control			0

Not Detected 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

135291

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/02/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99-4621-4	Received Date:	07/02/1999
Sample ID:	**20242-970**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	07/07/99	Anal. Date:	07/10/99
Batch No:	99G3402	Prep. No:	1 of 1	Anal. Time:	03:54
Data File Name:	4621.004	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	0.1	0.58 [a]	
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	0.5	

Surrogates			Control Limit, %	Surro. Rec.%
1	OCTACOSANE, C_{28}	630-02-4	26-152	74
# of out-of-control				0

[a] Mixture 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

135319

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/02/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99-4621-4	Received Date:	07/02/1999
Sample ID:	**20242-970**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	µg/L	10	6.9	B	P		99M2118L	07/07/99	07/07/99	1	6010
ARSENIC	7440-38-2	µg/L	5	77.2		P		99M2118L	07/07/99	07/07/99	1	6010
BARIUM	7440-39-3	µg/L	10	1130		P		99M2118L	07/07/99	07/07/99	1	6010
BERYLLIUM	7440-41-7	µg/L	2	0.47	B	P		99M2118L	07/07/99	07/07/99	1	6010
CADMIUM	7440-43-9	µg/L	2	300		P		99M2118L	07/07/99	07/07/99	1	6010
CHROMIUM	7440-47-3	µg/L	5	240		P		99M2118L	07/07/99	07/07/99	1	6010
COBALT	7440-48-4	µg/L	5	53.5		P		99M2118L	07/07/99	07/07/99	1	6010
COPPER	7440-50-8	µg/L	10	428		P		99M2118L	07/07/99	07/07/99	1	6010
LEAD	7439-92-1	µg/L	5	367		P		99M2118L	07/07/99	07/07/99	1	6010
MERCURY	7439-97-6	µg/L	0.5	0.33	B	CV		99M2123N	07/07/99	07/07/99	1	7470
MOLYBDENUM	7439-98-7	µg/L	5	14.3		P		99M2118L	07/07/99	07/07/99	1	6010
NICKEL	7440-02-0	µg/L	5	141		P		99M2118L	07/07/99	07/07/99	1	6010
SELENIUM	7782-49-2	µg/L	10	<3.3	U	P		99M2118L	07/07/99	07/07/99	1	6010
SILVER	7440-22-4	µg/L	10	3.1	B	P		99M2118L	07/07/99	07/07/99	1	6010
THALLIUM	7440-28-0	µg/L	10	<2.0	U	P		99M2118L	07/07/99	07/07/99	1	6010
VANADIUM	7440-62-2	µg/L	10	235		P		99M2118L	07/07/99	07/07/99	1	6010
ZINC	7440-66-6	µg/L	5	3340		P		99M2118L	07/07/99	07/07/99	1	6010

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

135373

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8260A

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/02/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99-4621-4	Received Date:	07/02/1999
Sample ID:	**20242-970**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	SW8260A	Prep. Date:	07/13/99	Anal. Date:	07/13/99
Batch No:	9963485	Prep. No:	–	Anal. Time:	13:37
Data File Name:	4621-04	Sample Amount:	5 mL	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	ACETONE	67-64-1	µg/L	50	<50	U
2	BENZENE	71-43-2	µg/L	5	<5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/L	5	<5	U
4	BROMOFORM	75-25-2	µg/L	5	<5	U
5	BROMOMETHANE	74-83-9	µg/L	5	<5	U
6	2-BUTANONE (MEK)	78-93-3	µg/L	50	<50	U
7	CARBON DISULFIDE	75-15-0	µg/L	5	<5	U
8	CARBON TETRACHLORIDE	56-23-5	µg/L	5	<5	U
9	CHLOROBENZENE	108-90-7	µg/L	5	<5	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	<5	U
11	CHLOROETHANE	75-00-3	µg/L	5	<5	U
12	2-CHLOROETHYLVINYLEHTER	110-75-8	µg/L	50	<50	U
13	CHLOROFORM	67-66-3	µg/L	5	<5	U
14	CHLOROMETHANE	74-87-3	µg/L	5	<5	U
15	1,1-DICHLOROETHANE	75-34-3	µg/L	5	<5	U
16	1,2-DICHLOROETHANE	107-06-2	µg/L	5	<5	U
17	1,1-DICHLOROETHENE	75-35-4	µg/L	5	<5	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	<5	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	<5	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	<5	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	<5	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	5	<5	U
23	ETHYLBENZENE	100-41-4	µg/L	5	<5	U
24	2-HEXANONE	591-78-6	µg/L	50	<50	U
25	METHYLENE CHLORIDE	75-09-2	µg/L	5	<5	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	50	<50	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/L	10	<10	U
28	STYRENE	100-42-5	µg/L	5	<5	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
30	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
31	TOLUENE	108-88-3	µg/L	5	0.7	J
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
34	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
35	VINYL ACETATE	108-05-4	µg/L	50	<50	U
36	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
37	XYLENES (TOTAL)	1330-20-7	µg/L	15	2	J

Surrogates	Control Limit, %	Surro. Rec.%

135019

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	75-125	111
2	DIBROMOFLUOROMETHANE	1868-53-7	75-125	96
3	1,2-DICHLOROETHANE-D4	17060-07-0	62-139	112
4	TOLUENE-D8	2037-26-5	75-125	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	99
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	82
3	FLUOROBENZENE	462-06-6	50-200	99
# of out-of-control				0

Not Detected 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

135020

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8270B

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/02/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99-4621-4	Received Date:	07/02/1999
Sample ID:	**20242-970**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC/MS: D
Anal. Method:	SW8270B	Prep. Date:	07/07/99	Anal. Date:	07/10/99
Batch No:	99G3412	Prep. No:	1 of 1	Anal. Time:	18:59
Data File Name:	4621-04	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/L	10	<10	U
2	ACENAPHTHYLENE	208-96-8	µg/L	10	<10	U
3	ANTHRACENE	120-12-7	µg/L	10	<10	U
4	BENZO[A]ANTHRACENE	56-55-3	µg/L	10	<10	U
5	BENZO[A]PYRENE	50-32-8	µg/L	10	<10	U
6	BENZO[B]FLUORANTHENE	205-99-2	µg/L	10	<10	U
7	BENZO[G,H,I]PERYLENE	191-24-2	µg/L	10	<10	U
8	BENZO[K]FLUORANTHENE	207-08-9	µg/L	10	<10	U
9	BIS(2-CHLOROETHOXY)METHANE	111-91-1	µg/L	10	<10	U
10	BIS(2-CHLOROETHYL)ETHER	111-44-4	µg/L	10	<10	U
11	BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	µg/L	10	<10	U
12	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	µg/L	10	3	J
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/L	10	<10	U
14	BUTYL BENZYL PHTHALATE	85-68-7	µg/L	10	<10	U
15	3-METHYL-4-CHLOROPHENOL	59-50-7	µg/L	10	<10	U
16	4-CHLOROANILINE	106-47-8	µg/L	10	<10	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/L	10	<10	U
18	2-CHLOROPHENOL	95-57-8	µg/L	10	<10	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/L	10	<10	U
20	CHRYSENE	218-01-9	µg/L	10	<10	U
21	DI-N-BUTYLPHTHALATE	84-74-2	µg/L	10	<10	U
22	DI-N-OCTYLPHTHALATE	117-84-0	µg/L	10	<10	U
23	DIBENZ[A,H]ANTHRACENE	53-70-3	µg/L	10	<10	U
24	DIBENZOFURAN	132-64-9	µg/L	10	<10	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/L	10	<10	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/L	10	<10	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/L	10	<10	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/L	10	<10	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/L	10	<10	U
30	DIETHYL PHTHALATE	84-66-2	µg/L	10	<10	U
31	DIMETHYL PHTHALATE	131-11-3	µg/L	10	<10	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/L	10	<10	U
33	2-METHYL-4,6-DINITROPHENOL	534-52-1	µg/L	25	<25	U
34	2,4-DINITROPHENOL	51-28-5	µg/L	25	<25	U
35	2,4-DINITROTOLUENE	121-14-2	µg/L	10	<10	U
36	2,6-DINITROTOLUENE	606-20-2	µg/L	10	<10	U
37	FLUORANTHENE	206-44-0	µg/L	10	<10	U
38	FLUORENE	86-73-7	µg/L	10	<10	U
39	HEXACHLOROBENZENE	118-74-1	µg/L	10	<10	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/L	10	<10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/L	10	< 10	U
42	HEXACHLOROETHANE	67-72-1	µg/L	10	< 10	U
43	INDENO[1,2,3-CD]PYRENE	193-39-5	µg/L	10	< 10	U
44	2-METHYLNAPHTHALENE	91-57-6	µg/L	10	< 10	U
45	4-METHYLPHENOL	106-44-5	µg/L	10	< 10	U
46	2-METHYLPHENOL	95-48-7	µg/L	10	< 10	U
47	NAPHTHALENE	91-20-3	µg/L	10	< 10	U
48	2-NITROANILINE	88-74-4	µg/L	25	< 25	U
49	3-NITROANILINE	99-09-2	µg/L	25	< 25	U
50	4-NITROANILINE	100-01-6	µg/L	25	< 25	U
51	NITROBENZENE	98-95-3	µg/L	10	< 10	U
52	2-NITROPHENOL	88-75-5	µg/L	10	< 10	U
53	4-NITROPHENOL	100-02-7	µg/L	25	< 25	U
54	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/L	10	< 10	U
55	N-NITROSODIPHENYLAMINE	86-30-6	µg/L	10	< 10	U
56	PENTACHLOROPHENOL	87-86-5	µg/L	11 [a]	< 11	U
57	PHENANTHRENE	85-01-8	µg/L	10	< 10	U
58	PHENOL	108-95-2	µg/L	10	< 10	U
59	PYRENE	129-00-0	µg/L	10	< 10	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	10	< 10	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/L	25	< 25	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/L	10	< 10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	43-125	61
2	2-FLUOROPHENOL	367-12-4	25-125	40
3	NITROBENZENE-D5	4165-60-0	32-125	69
4	PHENOL-D5	4165-62-2	25-125	29
5	TERPHENYL-D14	1718-51-0	42-126	58
6	2,4,6-TRIBROMOPHENOL	118-79-6	25-134	59
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	82
2	CHRYSENE-D12	1719-03-5	50-200	93
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	82
4	NAPHTHALENE-D8	1146-65-2	50-200	87
5	PERYLENE-D12	1520-96-3	50-200	69
6	PHENANTHRENE-D10	1517-22-2	50-200	82
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.
[a] MDL reported

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

135085

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Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-15	Received Date:	06/16/1999
Sample ID:	**20242-939**	Sample Matrix	Soil	Moisture %:	3.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	06/22/99	Anal. Date:	06/22/99
Batch No:	99G3167	Prep. No:	–	Anal. Time:	21:51
Data File Name:	4234-15	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	ACETONE	67-64-1	µg/kg	52	<52	U
2	BENZENE	71-43-2	µg/kg	5.2	<5.2	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.2	<5.2	U
4	BROMOFORM	75-25-2	µg/kg	5.2	<5.2	U
5	BROMOMETHANE	74-83-9	µg/kg	5.2	<5.2	U
6	2-BUTANONE (MEK)	78-93-3	µg/kg	52	<52	U
7	CARBON DISULFIDE	75-15-0	µg/kg	5.2	<5.2	U
8	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.2	<5.2	U
9	CHLOROBENZENE	108-90-7	µg/kg	5.2	<5.2	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.2	<5.2	U
11	CHLOROETHANE	75-00-3	µg/kg	5.2	<5.2	U
12	CHLOROFORM	67-66-3	µg/kg	5.2	<5.2	U
13	CHLOROMETHANE	74-87-3	µg/kg	5.2	<5.2	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	52	<52	U
15	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.2	<5.2	U
16	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.2	<5.2	U
17	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.2	<5.2	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.2	<5.2	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.2	<5.2	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.2	<5.2	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.2	<5.2	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.2	<5.2	U
23	ETHYLBENZENE	100-41-4	µg/kg	5.2	<5.2	U
24	2-HEXANONE	591-78-6	µg/kg	52	<52	U
25	METHYLENE CHLORIDE	75-09-2	µg/kg	5.2	<5.2	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	52	<52	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/kg	10	<10	U
28	STYRENE	100-42-5	µg/kg	5.2	<5.2	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.2	<5.2	U
30	TETRACHLOROETHENE	127-18-4	µg/kg	5.2	<5.2	U
31	TOLUENE	108-88-3	µg/kg	5.2	<5.2	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.2	<5.2	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.2	<5.2	U
34	TRICHLOROETHENE	79-01-6	µg/kg	5.2	<5.2	U
35	VINYL ACETATE	108-05-4	µg/kg	52	<52	U
36	VINYL CHLORIDE	75-01-4	µg/kg	5.2	<5.2	U
37	XYLENES (TOTAL)	1330-20-7	µg/kg	16	<16	U

Surrogates	Control Limit, %	Surro. Rec.%

115744

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	65-135	89
2	DIBROMOFLUOROMETHANE	1868-53-7	65-135	84
3	1,2-DICHLOROETHANE-D4	17060-07-0	52-149	108
4	TOLUENE-D8	2037-26-5	65-135	106
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	88
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	75
3	FLUOROBENZENE	462-06-6	50-200	95
# of out-of-control				0

Not Detected 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

115745

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Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-16	Received Date:	06/16/1999
Sample ID:	**20242-940**	Sample Matrix	Soil	Moisture %:	11.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	06/22/99	Anal. Date:	06/22/99
Batch No:	99G3167	Prep. No:	–	Anal. Time:	22:21
Data File Name:	4234-16	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	ACETONE	67-64-1	µg/kg	57	<57	U
2	BENZENE	71-43-2	µg/kg	5.7	<5.7	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.7	<5.7	U
4	BROMOFORM	75-25-2	µg/kg	5.7	<5.7	U
5	BROMOMETHANE	74-83-9	µg/kg	5.7	<5.7	U
6	2-BUTANONE (MEK)	78-93-3	µg/kg	57	<57	U
7	CARBON DISULFIDE	75-15-0	µg/kg	5.7	<5.7	U
8	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.7	<5.7	U
9	CHLOROBENZENE	108-90-7	µg/kg	5.7	<5.7	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.7	<5.7	U
11	CHLOROETHANE	75-00-3	µg/kg	5.7	<5.7	U
12	CHLOROFORM	67-66-3	µg/kg	5.7	<5.7	U
13	CHLOROMETHANE	74-87-3	µg/kg	5.7	<5.7	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	57	<57	U
15	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.7	<5.7	U
16	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.7	<5.7	U
17	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.7	<5.7	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.7	<5.7	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.7	<5.7	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.7	<5.7	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.7	<5.7	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.7	<5.7	U
23	ETHYLBENZENE	100-41-4	µg/kg	5.7	<5.7	U
24	2-HEXANONE	591-78-6	µg/kg	57	<57	U
25	METHYLENE CHLORIDE	75-09-2	µg/kg	5.7	<5.7	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	57	<57	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/kg	11	<11	U
28	STYRENE	100-42-5	µg/kg	5.7	<5.7	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.7	<5.7	U
30	TETRACHLOROETHENE	127-18-4	µg/kg	5.7	<5.7	U
31	TOLUENE	108-88-3	µg/kg	5.7	<5.7	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.7	<5.7	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.7	<5.7	U
34	TRICHLOROETHENE	79-01-6	µg/kg	5.7	<5.7	U
35	VINYL ACETATE	108-05-4	µg/kg	57	<57	U
36	VINYL CHLORIDE	75-01-4	µg/kg	5.7	<5.7	U
37	XYLENES (TOTAL)	1330-20-7	µg/kg	17	<17	U

Surrogates	Control Limit, %	Surro. Rec.%

115746

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	65-135	89
2	DIBROMOFLUOROMETHANE	1868-53-7	65-135	85
3	1,2-DICHLOROETHANE-D4	17060-07-0	52-149	113
4	TOLUENE-D8	2037-26-5	65-135	105
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	96
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	82
3	FLUOROBENZENE	462-06-6	50-200	100
# of out-of-control				0

Not Detected 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

115747

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Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-17	Received Date:	06/16/1999
Sample ID:	**20242-941**	Sample Matrix	Soil	Moisture %:	13.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	06/22/99	Anal. Date:	06/22/99
Batch No:	99G3167	Prep. No:	–	Anal. Time:	22:52
Data File Name:	4234-17	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	ACETONE	67-64-1	µg/kg	58	<58	U
2	BENZENE	71-43-2	µg/kg	5.8	<5.8	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.8	<5.8	U
4	BROMOFORM	75-25-2	µg/kg	5.8	<5.8	U
5	BROMOMETHANE	74-83-9	µg/kg	5.8	<5.8	U
6	2-BUTANONE (MEK)	78-93-3	µg/kg	58	<58	U
7	CARBON DISULFIDE	75-15-0	µg/kg	5.8	<5.8	U
8	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.8	<5.8	U
9	CHLOROBENZENE	108-90-7	µg/kg	5.8	<5.8	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.8	<5.8	U
11	CHLOROETHANE	75-00-3	µg/kg	5.8	<5.8	U
12	CHLOROFORM	67-66-3	µg/kg	5.8	<5.8	U
13	CHLOROMETHANE	74-87-3	µg/kg	5.8	<5.8	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	58	<58	U
15	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.8	<5.8	U
16	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.8	<5.8	U
17	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.8	<5.8	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.8	<5.8	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.8	<5.8	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.8	<5.8	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.8	<5.8	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.8	<5.8	U
23	ETHYLBENZENE	100-41-4	µg/kg	5.8	<5.8	U
24	2-HEXANONE	591-78-6	µg/kg	58	<58	U
25	METHYLENE CHLORIDE	75-09-2	µg/kg	5.8	<5.8	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	58	<58	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/kg	12	<12	U
28	STYRENE	100-42-5	µg/kg	5.8	<5.8	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.8	<5.8	U
30	TETRACHLOROETHENE	127-18-4	µg/kg	5.8	1	J
31	TOLUENE	108-88-3	µg/kg	5.8	<5.8	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.8	<5.8	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.8	<5.8	U
34	TRICHLOROETHENE	79-01-6	µg/kg	5.8	<5.8	U
35	VINYL ACETATE	108-05-4	µg/kg	58	<58	U
36	VINYL CHLORIDE	75-01-4	µg/kg	5.8	<5.8	U
37	XYLENES (TOTAL)	1330-20-7	µg/kg	17	<17	U

Surrogates	Control Limit, %	Surro. Rec.%

115748

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	65-135	87
2	DIBROMOFLUOROMETHANE	1868-53-7	65-135	91
3	1,2-DICHLOROETHANE-D4	17060-07-0	52-149	120
4	TOLUENE-D8	2037-26-5	65-135	103
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	70
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	59
3	FLUOROBENZENE	462-06-6	50-200	73
# of out-of-control				0

Not Detected 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

115749

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Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-18	Received Date:	06/16/1999
Sample ID:	**20242-942**	Sample Matrix	Soil	Moisture %:	10.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	06/22/99	Anal. Date:	06/22/99
Batch No:	99G3167	Prep. No:	–	Anal. Time:	23:23
Data File Name:	4234-18	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	ACETONE	67-64-1	µg/kg	56	<56	U
2	BENZENE	71-43-2	µg/kg	5.6	<5.6	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.6	<5.6	U
4	BROMOFORM	75-25-2	µg/kg	5.6	<5.6	U
5	BROMOMETHANE	74-83-9	µg/kg	5.6	<5.6	U
6	2-BUTANONE (MEK)	78-93-3	µg/kg	56	<56	U
7	CARBON DISULFIDE	75-15-0	µg/kg	5.6	<5.6	U
8	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.6	<5.6	U
9	CHLOROBENZENE	108-90-7	µg/kg	5.6	<5.6	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.6	<5.6	U
11	CHLOROETHANE	75-00-3	µg/kg	5.6	<5.6	U
12	CHLOROFORM	67-66-3	µg/kg	5.6	<5.6	U
13	CHLOROMETHANE	74-87-3	µg/kg	5.6	<5.6	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	56	<56	U
15	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.6	<5.6	U
16	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.6	<5.6	U
17	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.6	<5.6	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.6	<5.6	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.6	<5.6	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.6	<5.6	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.6	<5.6	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.6	<5.6	U
23	ETHYLBENZENE	100-41-4	µg/kg	5.6	<5.6	U
24	2-HEXANONE	591-78-6	µg/kg	56	<56	U
25	METHYLENE CHLORIDE	75-09-2	µg/kg	5.6	<5.6	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	56	<56	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/kg	11	<11	U
28	STYRENE	100-42-5	µg/kg	5.6	<5.6	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.6	<5.6	U
30	TETRACHLOROETHENE	127-18-4	µg/kg	5.6	<5.6	U
31	TOLUENE	108-88-3	µg/kg	5.6	<5.6	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.6	<5.6	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.6	<5.6	U
34	TRICHLOROETHENE	79-01-6	µg/kg	5.6	<5.6	U
35	VINYL ACETATE	108-05-4	µg/kg	56	<56	U
36	VINYL CHLORIDE	75-01-4	µg/kg	5.6	<5.6	U
37	XYLENES (TOTAL)	1330-20-7	µg/kg	17	<17	U

Surrogates	Control Limit, %	Surro. Rec.%

115750

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	65-135	91
2	DIBROMOFLUOROMETHANE	1868-53-7	65-135	92
3	1,2-DICHLOROETHANE-D4	17060-07-0	52-149	117
4	TOLUENE-D8	2037-26-5	65-135	106
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	70
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	59
3	FLUOROBENZENE	462-06-6	50-200	73
# of out-of-control				0

Not Detected 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 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-19	Received Date:	06/16/1999
Sample ID:	**20242-943**	Sample Matrix	Soil	Moisture %:	9.3
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	06/22/99	Anal. Date:	06/22/99
Batch No:	99G3167	Prep. No:	–	Anal. Time:	23:54
Data File Name:	4234-19	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	ACETONE	67-64-1	µg/kg	55	<55	U
2	BENZENE	71-43-2	µg/kg	5.5	<5.5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.5	<5.5	U
4	BROMOFORM	75-25-2	µg/kg	5.5	<5.5	U
5	BROMOMETHANE	74-83-9	µg/kg	5.5	<5.5	U
6	2-BUTANONE (MEK)	78-93-3	µg/kg	55	<55	U
7	CARBON DISULFIDE	75-15-0	µg/kg	5.5	<5.5	U
8	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.5	<5.5	U
9	CHLOROBENZENE	108-90-7	µg/kg	5.5	<5.5	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.5	<5.5	U
11	CHLOROETHANE	75-00-3	µg/kg	5.5	<5.5	U
12	CHLOROFORM	67-66-3	µg/kg	5.5	<5.5	U
13	CHLOROMETHANE	74-87-3	µg/kg	5.5	<5.5	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	55	<55	U
15	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.5	<5.5	U
16	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.5	<5.5	U
17	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.5	<5.5	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.5	<5.5	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.5	<5.5	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.5	<5.5	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.5	<5.5	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.5	<5.5	U
23	ETHYLBENZENE	100-41-4	µg/kg	5.5	<5.5	U
24	2-HEXANONE	591-78-6	µg/kg	55	<55	U
25	METHYLENE CHLORIDE	75-09-2	µg/kg	5.5	<5.5	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	55	<55	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/kg	11	<11	U
28	STYRENE	100-42-5	µg/kg	5.5	<5.5	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.5	<5.5	U
30	TETRACHLOROETHENE	127-18-4	µg/kg	5.5	<5.5	U
31	TOLUENE	108-88-3	µg/kg	5.5	<5.5	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.5	<5.5	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.5	<5.5	U
34	TRICHLOROETHENE	79-01-6	µg/kg	5.5	<5.5	U
35	VINYL ACETATE	108-05-4	µg/kg	55	<55	U
36	VINYL CHLORIDE	75-01-4	µg/kg	5.5	<5.5	U
37	XYLENES (TOTAL)	1330-20-7	µg/kg	17	<17	U

Surrogates	Control Limit, %	Surro. Rec.%

115752

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	65-135	89
2	DIBROMOFLUOROMETHANE	1868-53-7	65-135	90
3	1,2-DICHLOROETHANE-D4	17060-07-0	52-149	118
4	TOLUENE-D8	2037-26-5	65-135	104
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	73
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	62
3	FLUOROBENZENE	462-06-6	50-200	76
# of out-of-control				0

Not Detected 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

115753

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Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-20	Received Date:	06/16/1999
Sample ID:	**20242-944**	Sample Matrix	Soil	Moisture %:	17.1
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3167	Prep. No:	–	Anal. Time:	00:25
Data File Name:	4234-20	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	ACETONE	67-64-1	µg/kg	60	<60	U
2	BENZENE	71-43-2	µg/kg	6.0	<6.0	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.0	<6.0	U
4	BROMOFORM	75-25-2	µg/kg	6.0	<6.0	U
5	BROMOMETHANE	74-83-9	µg/kg	6.0	<6.0	U
6	2-BUTANONE (MEK)	78-93-3	µg/kg	60	<60	U
7	CARBON DISULFIDE	75-15-0	µg/kg	6.0	<6.0	U
8	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.0	<6.0	U
9	CHLOROBENZENE	108-90-7	µg/kg	6.0	<6.0	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.0	<6.0	U
11	CHLOROETHANE	75-00-3	µg/kg	6.0	<6.0	U
12	CHLOROFORM	67-66-3	µg/kg	6.0	<6.0	U
13	CHLOROMETHANE	74-87-3	µg/kg	6.0	<6.0	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	60	<60	U
15	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.0	<6.0	U
16	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.0	<6.0	U
17	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.0	<6.0	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.0	<6.0	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.0	<6.0	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.0	<6.0	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.0	<6.0	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	6.0	<6.0	U
23	ETHYLBENZENE	100-41-4	µg/kg	6.0	<6.0	U
24	2-HEXANONE	591-78-6	µg/kg	60	<60	U
25	METHYLENE CHLORIDE	75-09-2	µg/kg	6.0	<6.0	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	60	<60	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/kg	12	<12	U
28	STYRENE	100-42-5	µg/kg	6.0	<6.0	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.0	<6.0	U
30	TETRACHLOROETHENE	127-18-4	µg/kg	6.0	<6.0	U
31	TOLUENE	108-88-3	µg/kg	6.0	<6.0	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.0	<6.0	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.0	<6.0	U
34	TRICHLOROETHENE	79-01-6	µg/kg	6.0	<6.0	U
35	VINYL ACETATE	108-05-4	µg/kg	60	<60	U
36	VINYL CHLORIDE	75-01-4	µg/kg	6.0	<6.0	U
37	XYLENES (TOTAL)	1330-20-7	µg/kg	18	<18	U

Surrogates	Control Limit, %	Surro. Rec.%

115756

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	65-135	89
2	DIBROMOFLUOROMETHANE	1868-53-7	65-135	89
3	1,2-DICHLOROETHANE-D4	17060-07-0	52-149	117
4	TOLUENE-D8	2037-26-5	65-135	106
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	75
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	64
3	FLUOROBENZENE	462-06-6	50-200	79
# of out-of-control				0

Not Detected 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

115757

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Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-21	Received Date:	06/16/1999
Sample ID:	**20242-945**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3167	Prep. No:	–	Anal. Time:	00:55
Data File Name:	4234-21	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	ACETONE	67-64-1	µg/kg	59	<59	U
2	BENZENE	71-43-2	µg/kg	5.9	<5.9	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.9	<5.9	U
4	BROMOFORM	75-25-2	µg/kg	5.9	<5.9	U
5	BROMOMETHANE	74-83-9	µg/kg	5.9	<5.9	U
6	2-BUTANONE (MEK)	78-93-3	µg/kg	59	<59	U
7	CARBON DISULFIDE	75-15-0	µg/kg	5.9	<5.9	U
8	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.9	<5.9	U
9	CHLOROBENZENE	108-90-7	µg/kg	5.9	<5.9	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.9	<5.9	U
11	CHLOROETHANE	75-00-3	µg/kg	5.9	<5.9	U
12	CHLOROFORM	67-66-3	µg/kg	5.9	<5.9	U
13	CHLOROMETHANE	74-87-3	µg/kg	5.9	<5.9	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	59	<59	U
15	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.9	<5.9	U
16	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.9	<5.9	U
17	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.9	<5.9	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.9	<5.9	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.9	<5.9	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.9	<5.9	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.9	<5.9	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5.9	<5.9	U
23	ETHYLBENZENE	100-41-4	µg/kg	5.9	<5.9	U
24	2-HEXANONE	591-78-6	µg/kg	59	<59	U
25	METHYLENE CHLORIDE	75-09-2	µg/kg	5.9	<5.9	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	59	<59	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/kg	12	<12	U
28	STYRENE	100-42-5	µg/kg	5.9	<5.9	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.9	<5.9	U
30	TETRACHLOROETHENE	127-18-4	µg/kg	5.9	<5.9	U
31	TOLUENE	108-88-3	µg/kg	5.9	<5.9	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.9	<5.9	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.9	<5.9	U
34	TRICHLOROETHENE	79-01-6	µg/kg	5.9	<5.9	U
35	VINYL ACETATE	108-05-4	µg/kg	59	<59	U
36	VINYL CHLORIDE	75-01-4	µg/kg	5.9	<5.9	U
37	XYLENES (TOTAL)	1330-20-7	µg/kg	18	<18	U

Surrogates	Control Limit, %	Surro. Rec.%

115758

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	65-135	91
2	DIBROMOFLUOROMETHANE	1868-53-7	65-135	91
3	1,2-DICHLOROETHANE-D4	17060-07-0	52-149	118
4	TOLUENE-D8	2037-26-5	65-135	105
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	63
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	52
3	FLUOROBENZENE	462-06-6	50-200	68
# of out-of-control				0

Not Detected 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

115759

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-15	Received Date:	06/16/1999
Sample ID:	**20242-939**	Sample Matrix	Soil	Moisture %:	3.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3193	Prep. No:	–	Anal. Time:	17:10
Data File Name:	4234.015	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	64-148	82
# of out-of-control			0

Not Detected 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

115863

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-16	Received Date:	06/16/1999
Sample ID:	**20242-940**	Sample Matrix	Soil	Moisture %:	11.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3193	Prep. No:	–	Anal. Time:	17:32
Data File Name:	4234.016	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	64-148	94
# of out-of-control			0

Not Detected 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

115869

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-17	Received Date:	06/16/1999
Sample ID:	**20242-941**	Sample Matrix	Soil	Moisture %:	13.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3193	Prep. No:	–	Anal. Time:	18:06
Data File Name:	4234.017	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	64-148	92
# of out-of-control			0

Not Detected 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

115870

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-18	Received Date:	06/16/1999
Sample ID:	**20242-942**	Sample Matrix	Soil	Moisture %:	10.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3193	Prep. No:	–	Anal. Time:	18:29
Data File Name:	4234.018	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	64-148	94
# of out-of-control			0

Not Detected 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

115870

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-19	Received Date:	06/16/1999
Sample ID:	**20242-943**	Sample Matrix	Soil	Moisture %:	9.3
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3193	Prep. No:	–	Anal. Time:	18:51
Data File Name:	4234.019	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	64-148	81
# of out-of-control			0

Not Detected 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

115871

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-20	Received Date:	06/16/1999
Sample ID:	**20242-944**	Sample Matrix	Soil	Moisture %:	17.1
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3193	Prep. No:	–	Anal. Time:	19:13
Data File Name:	4234.020	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	64-148	84
# of out-of-control			0

Not Detected 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

115873

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-21	Received Date:	06/16/1999
Sample ID:	**20242-945**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3193	Prep. No:	-	Anal. Time:	19:35
Data File Name:	4234.021	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	64-148	88
# of out-of-control			0

Not Detected 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

115874

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-15	Received Date:	06/16/1999
Sample ID:	**20242-939**	Sample Matrix	Soil	Moisture %:	3.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	06/18/99	Anal. Date:	06/20/99
Batch No:	99G3128	Prep. No:	1 of 1	Anal. Time:	09:44
Data File Name:	4234.015	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	10	< 10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	< 10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	OCTACOSANE, C_{28}	630-02-4	25-162	64
# of out-of-control				0

Not Detected 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

115949

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-16	Received Date:	06/16/1999
Sample ID:	**20242-940**	Sample Matrix	Soil	Moisture %:	11.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	06/18/99	Anal. Date:	06/20/99
Batch No:	99G3128	Prep. No:	1 of 1	Anal. Time:	10:09
Data File Name:	4234.016	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	OCTACOSANE, C_{28}	630-02-4	25-162	63
# of out-of-control				0

Not Detected 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

115950

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-17	Received Date:	06/16/1999
Sample ID:	**20242-941**	Sample Matrix	Soil	Moisture %:	13.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	06/18/99	Anal. Date:	06/20/99
Batch No:	99G3128	Prep. No:	1 of 1	Anal. Time:	10:34
Data File Name:	4234.017	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	OCTACOSANE, C_{28}	630-02-4	25-162	47
# of out-of-control				0

Not Detected 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

115951

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-18	Received Date:	06/16/1999
Sample ID:	**20242-942**	Sample Matrix	Soil	Moisture %:	10.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	06/18/99	Anal. Date:	06/20/99
Batch No:	99G3128	Prep. No:	1 of 1	Anal. Time:	10:59
Data File Name:	4234.018	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	OCTACOSANE, C_{28}	630-02-4	25-162	59
# of out-of-control				0

Not Detected 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

115952

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-19	Received Date:	06/16/1999
Sample ID:	**20242-943**	Sample Matrix	Soil	Moisture %:	9.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	06/18/99	Anal. Date:	06/20/99
Batch No:	99G3128	Prep. No:	1 of 1	Anal. Time:	11:24
Data File Name:	4234.019	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	OCTACOSANE, C_{28}	630-02-4	25-162	69
# of out-of-control				0

Not Detected 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

115953

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-20	Received Date:	06/16/1999
Sample ID:	**20242-944**	Sample Matrix	Soil	Moisture %:	17.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	06/18/99	Anal. Date:	06/20/99
Batch No:	99G3128	Prep. No:	1 of 1	Anal. Time:	11:49
Data File Name:	4234.020	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	OCTACOSANE, C_{28}	630-02-4	25-162	55
# of out-of-control				0

Not Detected 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

115955

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/16/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	C.Parrish
		Lab Sample ID:	99-4234-21	Received Date:	06/16/1999
Sample ID:	**20242-945**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	06/18/99	Anal. Date:	06/20/99
Batch No:	99G3128	Prep. No:	1 of 1	Anal. Time:	12:15
Data File Name:	4234.021	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	OCTACOSANE, C_{28}	630-02-4	25-162	60
# of out-of-control				0

Not Detected 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

115956

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8081

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/08/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3438-MB-01	Received Date:	07/08/1999
Sample ID:	**99G3438-MB-01**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: R
Anal. Method:	SW8081	Prep. Date:	07/08/99	Anal. Date:	07/09/99
Batch No:	99G3438	Prep. No:	1 of 1	Anal. Time:	12:31
Data File Name:	3438G.K01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/L	0.05	<0.05	U
2	BETA-BHC	319-85-7	µg/L	0.05	<0.05	U
3	ALPHA-BHC	319-84-6	µg/L	0.05	<0.05	U
4	DELTA-BHC	319-86-8	µg/L	0.05	<0.05	U
5	GAMMA-BHC	58-89-9	µg/L	0.05	<0.05	U
6	CHLORDANE	57-74-9	µg/L	2	<2	U
7	4,4'-DDD	72-54-8	µg/L	0.1	<0.1	U
8	4,4'-DDE	72-55-9	µg/L	0.1	<0.1	U
9	4,4'-DDT	50-29-3	µg/L	0.1	<0.1	U
10	DIELDRIN	60-57-1	µg/L	0.1	<0.1	U
11	ENDOSULFAN I	959-98-8	µg/L	0.05	<0.05	U
12	ENDOSULFAN II	33213-65-9	µg/L	0.1	<0.1	U
13	ENDOSULFAN SULFATE	1031-07-8	µg/L	0.5	<0.5	U
14	ENDRIN	72-20-8	µg/L	0.1	<0.1	U
15	ENDRIN ALDEHYDE	7421-93-4	µg/L	0.1	<0.1	U
16	ENDRIN KETONE	53494-70-5	µg/L	0.1	<0.1	U
17	HEPTACHLOR	76-44-8	µg/L	0.05	<0.05	U
18	HEPTACHLOR EPOXIDE	1024-57-3	µg/L	0.05	<0.05	U
19	METHOXYCHLOR	72-43-5	µg/L	2	<2	U
20	TOXAPHENE	8001-35-2	µg/L	5	<5	U
21	AROCLOR-1016	12674-11-2	µg/L	1	<1	U
22	AROCLOR-1221	11104-28-2	µg/L	1	<1	U
23	AROCLOR-1232	11141-16-5	µg/L	1	<1	U
24	AROCLOR-1242	53469-21-9	µg/L	1	<1	U
25	AROCLOR-1248	12672-29-6	µg/L	1	<1	U
26	AROCLOR-1254	11097-69-1	µg/L	1	<1	U
27	AROCLOR-1260	11096-82-5	µg/L	1	<1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	2051-24-3	31-147	85
2	2,4,5,6-TETRACHLORO-M-XYLENE	877-09-8	33-146	84
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE (DBC)	1770-80-5	50-200	97
# of out-of-control				0

Not Detected 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

135155

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8081

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/07/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3401-MB-01	Received Date:	07/07/1999
Sample ID:	**99G3401-MB-01**	Sample Matrix	Soil	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: R
Anal. Method:	SW8081	Prep. Date:	07/07/99	Anal. Date:	07/09/99
Batch No:	99G3401	Prep. No:	1 of 1	Anal. Time:	17:40
Data File Name:	3401G.K01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ALDRIN	309-00-2	µg/kg	1	< 1	U
2	BETA-BHC	319-85-7	µg/kg	1	< 1	U
3	ALPHA-BHC	319-84-6	µg/kg	1	< 1	U
4	DELTA-BHC	319-86-8	µg/kg	1	< 1	U
5	GAMMA-BHC	58-89-9	µg/kg	1	< 1	U
6	CHLORDANE	57-74-9	µg/kg	50	< 50	U
7	4,4'-DDD	72-54-8	µg/kg	2	< 2	U
8	4,4'-DDE	72-55-9	µg/kg	2	< 2	U
9	4,4'-DDT	50-29-3	µg/kg	2	< 2	U
10	DIELDRIN	60-57-1	µg/kg	2	< 2	U
11	ENDOSULFAN I	959-98-8	µg/kg	1	< 1	U
12	ENDOSULFAN II	33213-65-9	µg/kg	2	< 2	U
13	ENDOSULFAN SULFATE	1031-07-8	µg/kg	5	< 5	U
14	ENDRIN	72-20-8	µg/kg	2	< 2	U
15	ENDRIN ALDEHYDE	7421-93-4	µg/kg	2	< 2	U
16	ENDRIN KETONE	53494-70-5	µg/kg	2	< 2	U
17	HEPTACHLOR	76-44-8	µg/kg	1	< 1	U
18	HEPTACHLOR EPOXIDE	1024-57-3	µg/kg	1	< 1	U
19	METHOXYCHLOR	72-43-5	µg/kg	10	< 10	U
20	TOXAPHENE	8001-35-2	µg/kg	100	< 100	U
21	AROCLOR-1016	12674-11-2	µg/kg	50	< 50	U
22	AROCLOR-1221	11104-28-2	µg/kg	50	< 50	U
23	AROCLOR-1232	11141-16-5	µg/kg	50	< 50	U
24	AROCLOR-1242	53469-21-9	µg/kg	25	< 25	U
25	AROCLOR-1248	12672-29-6	µg/kg	25	< 25	U
26	AROCLOR-1254	11097-69-1	µg/kg	25	< 25	U
27	AROCLOR-1260	11096-82-5	µg/kg	25	< 25	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	2051-24-3	30-149	85
2	2,4,5,6-TETRACHLORO-M-XYLENE	877-09-8	30-149	87
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	DIBUTYLCHLORENDATE (DBC)	1770-80-5	50-200	96
# of out-of-control				0

Not Detected 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

135156

FORM-3D

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method SW8081

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3401		
LCS Filename:	3401G.L01	Date Analyzed:	070999	Time Analyzed:	18:05
LCSD Filename:	3401G.J01	Date Analyzed:	070999	Time Analyzed:	18:30

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
ALDRIN	µg/kg	16.7	0	13.2	79	58-125
GAMMA-BHC	µg/kg	16.7	0	13.6	81	58-125
4,4'-DDT	µg/kg	16.7	0	11.8	71	50-150
DIELDRIN	µg/kg	16.7	0	13.7	82	59-121
ENDRIN	µg/kg	16.7	0	13.6	81	56-122
HEPTACHLOR	µg/kg	16.7	0	12.6	75	57-117
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ALDRIN	µg/kg	16.7	13.1	78	1	34	58-125
GAMMA-BHC	µg/kg	16.7	13.6	81	0	34	58-125
4,4'-DDT	µg/kg	16.7	11.8	71	0	30	50-150
DIELDRIN	µg/kg	16.7	13.5	81	1	31	59-121
ENDRIN	µg/kg	16.7	13.5	81	0	33	56-122
HEPTACHLOR	µg/kg	16.7	12.7	76	1	30	57-117
# 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: _____

135163

FORM-3D

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method SW8081

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3401		
MS Filename:	3401G.M01	Date Analyzed:	070999	Time Analyzed:	18:55
MSD Filename:	3401G.N01	Date Analyzed:	070999	Time Analyzed:	19:23
MS Sample No:	**CS0027-SO-061-NS**	Sample Lab ID:	99-4555-16	Moisture, %	11.8

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
ALDRIN	µg/kg	18.9	2	14.6	67	35-134
GAMMA-BHC	µg/kg	18.9	0	11.0	58	35-133
4,4'-DDT	µg/kg	18.9	281	215	-348 *	50-150
DIELDRIN	µg/kg	18.9	29.3	69.5	213 *	35-134
ENDRIN	µg/kg	18.9	21.4	40.7	102	39-134
HEPTACHLOR	µg/kg	18.9	0	10.8	65	35-134
# of Out-of-control					3	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ALDRIN	µg/kg	18.9	15.0	69	3	50	35-134
GAMMA-BHC	µg/kg	18.9	12.1	64	10	49	35-133
4,4'-DDT	µg/kg	18.9	198	-438 *	-22	50	50-150
DIELDRIN	µg/kg	18.9	76.0	247 *	15	50	35-134
ENDRIN	µg/kg	18.9	41.6	107 *	5	48	39-134
HEPTACHLOR	µg/kg	18.9	9.88	59	10	50	35-134
# of Out-of-control				3	0		

Column to be used to flag recovery and RPD values:

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

Comments: _____

135164

FORM-3C

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method SW8081

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3438		
LCS Filename:	3438G.L01	Date Analyzed:	070999	Time Analyzed:	12:56
LCSD Filename:	3438G.J01	Date Analyzed:	070999	Time Analyzed:	13:21

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
ALDRIN	µg/L	0.50	0	0.387	77	37-131
GAMMA-BHC	µg/L	0.50	0	0.392	78	38-134
4,4'-DDT	µg/L	0.50	0	0.321	64	35-134
DIELDRIN	µg/L	0.50	0	0.405	81	40-130
ENDRIN	µg/L	0.50	0	0.406	81	36-133
HEPTACHLOR	µg/L	0.50	0	0.384	77	36-129
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ALDRIN	µg/L	0.50	0.386	77	0	32	37-131
GAMMA-BHC	µg/L	0.50	0.388	78	0	48	38-134
4,4'-DDT	µg/L	0.50	0.319	64	0	31	35-134
DIELDRIN	µg/L	0.50	0.399	80	1	44	40-130
ENDRIN	µg/L	0.50	0.402	80	1	46	36-133
HEPTACHLOR	µg/L	0.50	0.382	76	1	49	36-129
# 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: _____

135165

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/07/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3410-MB-01	Received Date:	07/07/1999
Sample ID:	**99G3410-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	07/07/99	Anal. Date:	07/07/99
Batch No:	99G3410	Prep. No:	–	Anal. Time:	15:29
Data File Name:	3410G.K01	Sample Amount:	5.0 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	0.1	<0.1	U

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	74-138	94
# of out-of-control			0

Not Detected 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

135285

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/08/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3413-MB-01	Received Date:	07/08/1999
Sample ID:	**99G3413-MB-01**	Sample Matrix	Soil	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	07/08/99	Anal. Date:	07/08/99
Batch No:	99G3413	Prep. No:	–	Anal. Time:	04:01
Data File Name:	3413G.K01	Sample Amount:	5.0 g	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	μg/kg	0.5	<0.5	U

Surrogates		Control Limit, %	Surro. Rec.%
1 4-BROMO-FLUOROBENZENE (FID)	460-00-4	52-149	92
# of out-of-control			0

Not Detected 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

135286

FORM-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:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3413		
LCS Filename:	3413G.L01	Date Analyzed:	070899	Time Analyzed:	04:26
LCSD Filename:	3413G.J01	Date Analyzed:	070899	Time Analyzed:	04:51

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	100	0	100	100	72-124
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	100	101	101	1	28	72-124
# 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: _____

FORM-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:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Oil
		Batch No:	99G3413		
MS Filename:	3413G.M01	Date Analyzed:	070899	Time Analyzed:	12:49
MSD Filename:	3413G.N01	Date Analyzed:	070899	Time Analyzed:	13:41
MS Sample No:	**20242-968**	Sample Lab ID:	99-4621-2	Moisture, %	–

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	50000	99800	139000	78	71-127
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	50000	146000	92	16	28	71-127
# 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: _____

135297

FORM-3A

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:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3410		
LCS Filename:	3410GL01	Date Analyzed:	070799	Time Analyzed:	22:59
LCSD Filename:	3410GL01	Date Analyzed:	070799	Time Analyzed:	23:25

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	1.01	101	67-136
# 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	1.13	113	11	30	67-136
# 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: _____

135298

FORM-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:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3410		
MS Filename:	3410G.M01	Date Analyzed:	070799	Time Analyzed:	17:51
MSD Filename:	3410G.N01	Date Analyzed:	070799	Time Analyzed:	19:36
MS Sample No:	**20242-970**	Sample Lab ID:	99-4621-4		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	0.978	98	67-136
# 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	0.865	87	12	30	67-136
# 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

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/07/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3402-MB-01	Received Date:	07/07/1999
Sample ID:	**99G3402-MB-01**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	07/07/99	Anal. Date:	07/09/99
Batch No:	99G3402	Prep. No:	1 of 1	Anal. Time:	16:41
Data File Name:	3402G.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	0.1	<0.1	U
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	OCTACOSANE, C28	630-02-4	26-152	84
# of out-of-control				0

Not Detected 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

135313

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/06/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3388-MB-01	Received Date:	07/06/1999
Sample ID:	**99G3388-MB-01**	Sample Matrix	soil	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	07/06/99	Anal. Date:	07/09/99
Batch No:	99G3388	Prep. No:	1 of 1	Anal. Time:	19:40
Data File Name:	3388G.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	OCTACOSANE, C_{28}	630-02-4	50-149	112
# of out-of-control				0

Not Detected 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

135314

FORM-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:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3388		
LCS Filename:	3388G.L01	Date Analyzed:	070999	Time Analyzed:	20:06
LCSD Filename:	3388G.J01	Date Analyzed:	070999	Time Analyzed:	20:31

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50.0	0	52.0	104	51-134
# 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	50.0	48.1	96	8	50	51-134
# 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: _____

135325

FORM-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:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3388		
MS Filename:	3388G.M01	Date Analyzed:	070999	Time Analyzed:	20:56
MSD Filename:	3388G.N01	Date Analyzed:	070999	Time Analyzed:	21:22
MS Sample No:	**777806-140**	Sample Lab ID:	99-4546-23	Moisture, %	7.6

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50.0	0	56.7	113	50-149
# 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	50.0	52.0	104	8	50	50-149
# 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: _____

135326

FORM-3C

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:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3402		
LCS Filename:	3402GL01	Date Analyzed:	070999	Time Analyzed:	17:08
LCSD Filename:	3402GL01	Date Analyzed:	070999	Time Analyzed:	17:35

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/L	1	0	1.03	103	61-143
# 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	0.988	99	4	30	61-143
# 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: _____

135327

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/07/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99M2119-MB-01	Received Date:	07/07/1999
Sample ID:	**99M2119-MB-01**	Sample Matrix	Soil	Moisture %:	-
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	5	<0.11	U	P		99M2119L	07/07/99	07/07/99	1	6010
ARSENIC	7440-38-2	mg/kg	0.3	<0.080	U	P		99M2119L	07/07/99	07/07/99	1	6010
BARIUM	7440-39-3	mg/kg	1	<0.023	U	P		99M2119L	07/07/99	07/07/99	1	6010
BERYLLIUM	7440-41-7	mg/kg	0.2	0.0045	B	P		99M2119L	07/07/99	07/07/99	1	6010
CADMIUM	7440-43-9	mg/kg	0.2	<0.011	U	P		99M2119L	07/07/99	07/07/99	1	6010
CHROMIUM	7440-47-3	mg/kg	0.5	<0.022	U	P		99M2119L	07/07/99	07/07/99	1	6010
COBALT	7440-48-4	mg/kg	0.5	<0.017	U	P		99M2119L	07/07/99	07/07/99	1	6010
COPPER	7440-50-8	mg/kg	0.5	<0.049	U	P		99M2119L	07/07/99	07/07/99	1	6010
LEAD	7439-92-1	mg/kg	0.3	<0.065	U	P		99M2119L	07/07/99	07/07/99	1	6010
MERCURY	7439-97-6	mg/kg	0.2	<0.070	U	CV		99M2126N	07/07/99	07/07/99	1	7470
MOLYBDENUM	7439-98-7	mg/kg	0.2	<0.040	U	P		99M2119L	07/07/99	07/07/99	1	6010
NICKEL	7440-02-0	mg/kg	0.3	<0.024	U	P		99M2119L	07/07/99	07/07/99	1	6010
SELENIUM	7782-49-2	mg/kg	0.5	<0.17	U	P		99M2119L	07/07/99	07/07/99	1	6010
SILVER	7440-22-4	mg/kg	0.5	<0.047	U	P		99M2119L	07/07/99	07/07/99	1	6010
THALLIUM	7440-28-0	mg/kg	5	<0.10	U	P		99M2119L	07/07/99	07/07/99	1	6010
VANADIUM	7440-62-2	mg/kg	0.5	<0.033	U	P		99M2119L	07/07/99	07/07/99	1	6010
ZINC	7440-66-6	mg/kg	0.5	<0.019	U	P		99M2119L	07/07/99	07/07/99	1	6010

Not Detected is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

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

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 7470

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99M2123N		
MS Filename:	-	Date Analyzed:	070799	Time Analyzed:	12:07
MSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	12:13
MS Sample No:	**SW-26**	Sample Lab ID:	99-4574-1		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
MERCURY	μg/L	5.0	0	5.22	104	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
MERCURY	μg/L	5.0	5.26	105	1	20	75-125
# 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: _____

135387

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 7470

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Oil
		Batch No:	99M2126N		
MS Filename:	-	Date Analyzed:	070799	Time Analyzed:	13:49
MSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	13:51
MS Sample No:	**20242-968**	Sample Lab ID:	99-4621-2	Moisture, %	-

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
MERCURY	mg/kg	0.833	0	0.880	106	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
MERCURY	mg/kg	0.833	0.885	106	0	20	75-125
# 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: _____

135388

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99M2119L		
MS Filename:	-	Date Analyzed:	070799	Time Analyzed:	15:23
MSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	15:25
MS Sample No:	**WP26SBL6(208.0-208.5**	Sample Lab ID:	99-4610-4	Moisture, %	24.3

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
ANTIMONY	mg/kg	25	0	11.6	98	75-125
ARSENIC	mg/kg	25	5.3	29.5	97	75-125
BARIUM	mg/kg	200	156	347	96	75-125
BERYLLIUM	mg/kg	10	1.3	11.1	98	75-125
CADMIUM	mg/kg	12.5	0	12.3	98	75-125
CHROMIUM	mg/kg	150	18.9	168	99	75-120
COBALT	mg/kg	50	8.3	52.4	88	75-125
COPPER	mg/kg	50	16.7	67.4	101	75-125
LEAD	mg/kg	150	13.4	152	92	75-125
MOLYBDENUM	mg/kg	100	0	85.7	86	75-125
NICKEL	mg/kg	50	17.6	63.1	91	75-125
SELENIUM	mg/kg	25	0	23.4	94	75-125
SILVER	mg/kg	50	0	49.4	99	75-125
THALLIUM	mg/kg	200	0.75	178	89	75-125
VANADIUM	mg/kg	100	33.8	135	101	75-125
ZINC	mg/kg	25	62.2	88.6	106	75-125
# of Out-of-control					1	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ANTIMONY	mg/kg	25	12.3	98	6	20	75-125
ARSENIC	mg/kg	25	30.1	99	2	20	75-125
BARIUM	mg/kg	200	345	95	1	20	75-125
BERYLLIUM	mg/kg	10	11.0	97	1	20	75-125
CADMIUM	mg/kg	12.5	12.4	99	1	20	75-125
CHROMIUM	mg/kg	150	173	103	4	20	75-120
COBALT	mg/kg	50	53.2	90	2	20	75-125
COPPER	mg/kg	50	66.9	100	1	20	75-125
LEAD	mg/kg	150	154	94	2	20	75-125
MOLYBDENUM	mg/kg	100	86.6	87	1	20	75-125
NICKEL	mg/kg	50	64.1	93	2	20	75-125
SELENIUM	mg/kg	25	23.3	93	1	20	75-125
SILVER	mg/kg	50	49.9	100	1	20	75-125
THALLIUM	mg/kg	200	187	93	4	20	75-125

135389

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99M2119L		
MS Filename:	-	Date Analyzed:	070799	Time Analyzed:	15:23
MSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	15:25
MS Sample No:	**WP26SBL6(208.0-208.5**	Sample Lab ID:	99-4610-4	Moisture, %	24.3

Continued *Batch No.: 99M2119L* *Method: 6010* *Page: 2*

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
VANADIUM	mg/kg	100	134	100	1	20	75-125
ZINC	mg/kg	25	90.8	114	7	20	75-125
# 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: _____

135390

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99M2118L		
MS Filename:	-	Date Analyzed:	070799	Time Analyzed:	11:13
MSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	11:16
MS Sample No:	**B-1**	Sample Lab ID:	99-4613-2		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
ANTIMONY	μg/L	500	0	464	93	75-125
ARSENIC	μg/L	500	0	464	93	75-125
BARIUM	μg/L	4000	20.5	4010	100	75-125
BERYLLIUM	μg/L	200	0	205	103	75-125
CADMIUM	μg/L	250	0	259	104	75-125
CHROMIUM	μg/L	3000	0	2970	99	75-125
COBALT	μg/L	1000	0	944	94	75-125
COPPER	μg/L	1000	11.7	1050	104	75-125
LEAD	μg/L	3000	0	2850	95	75-125
MOLYBDENUM	μg/L	2000	8.5	1910	95	75-125
NICKEL	μg/L	1000	10.6	975	96	75-125
SELENIUM	μg/L	500	76.8	582	101	75-125
SILVER	μg/L	1000	0	1010	101	75-125
THALLIUM	μg/L	4000	0	3830	96	75-125
VANADIUM	μg/L	2000	0	1980	99	75-125
ZINC	μg/L	500	0	502	100	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ANTIMONY	μg/L	500	461	92	1	20	75-125
ARSENIC	μg/L	500	462	92	1	20	75-125
BARIUM	μg/L	4000	3930	98	2	20	75-125
BERYLLIUM	μg/L	200	201	101	2	20	75-125
CADMIUM	μg/L	250	260	104	0	20	75-125
CHROMIUM	μg/L	3000	2960	99	0	20	75-125
COBALT	μg/L	1000	944	94	0	20	75-125
COPPER	μg/L	1000	1030	102	2	20	75-125
LEAD	μg/L	3000	2860	95	0	20	75-125
MOLYBDENUM	μg/L	2000	1900	95	0	20	75-125
NICKEL	μg/L	1000	973	96	0	20	75-125
SELENIUM	μg/L	500	576	100	1	20	75-125
SILVER	μg/L	1000	994	99	2	20	75-125
THALLIUM	μg/L	4000	3660	92	4	20	75-125

135392

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 6010

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99M2118L		
MS Filename:	-	Date Analyzed:	070799	Time Analyzed:	11:13
MSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	11:16
MS Sample No:	**B-1**	Sample Lab ID:	99-4613-2		

Continued *Batch No.: 99M2118L Method: 6010 Page: 2*

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
VANADIUM	$\mu g/L$	2000	1950	98	1	20	75-125
ZINC	$\mu g/L$	500	501	100	0	20	75-125
# 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: _____

135393

FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 6010

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Oil
		Batch No:	99M2119L		
LCS Filename:	-	Date Analyzed:	070799	Time Analyzed:	15:09
LCSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	15:12

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
ANTIMONY	mg/kg	25	0	24.8	99	80-120
ARSENIC	mg/kg	25	0	25.9	104	80-120
BARIUM	mg/kg	200	0	204	102	80-120
BERYLLIUM	mg/kg	10	0	10.0	100	80-120
CADMIUM	mg/kg	12.5	0	12.7	102	80-120
CHROMIUM	mg/kg	150	0	150	100	80-120
COBALT	mg/kg	50	0	50.5	101	80-120
COPPER	mg/kg	50	0	49.1	98	80-120
LEAD	mg/kg	150	0	154	103	80-120
MOLYBDENUM	mg/kg	100	0	101	101	80-120
NICKEL	mg/kg	50	0	50.3	101	80-120
SELENIUM	mg/kg	25	0	25.4	102	80-120
SILVER	mg/kg	50	0	48.0	96	80-120
THALLIUM	mg/kg	200	0	203	102	80-120
VANADIUM	mg/kg	100	0	99.4	99	80-120
ZINC	mg/kg	25	0	25.1	100	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ANTIMONY	mg/kg	25	24.7	99	0	20	80-120
ARSENIC	mg/kg	25	26.0	104	0	20	80-120
BARIUM	mg/kg	200	205	103	1	20	80-120
BERYLLIUM	mg/kg	10	10.1	101	1	20	80-120
CADMIUM	mg/kg	12.5	12.7	102	0	20	80-120
CHROMIUM	mg/kg	150	152	101	1	20	80-120
COBALT	mg/kg	50	51.2	102	1	20	80-120
COPPER	mg/kg	50	49.7	99	1	20	80-120
LEAD	mg/kg	150	156	104	1	20	80-120
MOLYBDENUM	mg/kg	100	102	102	1	20	80-120
NICKEL	mg/kg	50	50.9	102	1	20	80-120
SELENIUM	mg/kg	25	25.5	102	0	20	80-120
SILVER	mg/kg	50	48.9	98	2	20	80-120
THALLIUM	mg/kg	200	202	101	1	20	80-120

135399

FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 6010

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Oil
		Batch No:	99M2119L		
LCS Filename:	-	Date Analyzed:	070799	Time Analyzed:	15:09
LCSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	15:12

Continued *Batch No.: 99M2119L Method: 6010 Page: 2*

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
VANADIUM	mg/kg	100	101	101	2	20	80-120
ZINC	mg/kg	25	25.5	102	2	20	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: _____

135400

FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 7470

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Oil
		Batch No:	99M2126N		
LCS Filename:	-	Date Analyzed:	070799	Time Analyzed:	13:39
LCSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	13:41

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
MERCURY	mg/kg	0.83	0	0.88	107	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
MERCURY	mg/kg	0.83	0.9	108	1	20	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: _____

135401

FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 6010

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99M2118L		
LCS Filename:	-	Date Analyzed:	070799	Time Analyzed:	10:55
LCSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	10:59

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
ANTIMONY	µg/L	500	0	483	97	80-120
ARSENIC	µg/L	500	0	464	93	80-120
BARIUM	µg/L	4000	0	4190	105	80-120
BERYLLIUM	µg/L	200	0	206	103	80-120
CADMIUM	µg/L	250	0	262	105	80-120
CHROMIUM	µg/L	3000	0	3090	103	80-120
COBALT	µg/L	1000	0	1040	104	80-120
COPPER	µg/L	1000	0	1000	100	80-120
LEAD	µg/L	3000	0	3050	102	80-120
MOLYBDENUM	µg/L	2000	0	2010	101	80-120
NICKEL	µg/L	1000	0	1030	103	80-120
SELENIUM	µg/L	500	0	508	102	80-120
SILVER	µg/L	1000	0	979	98	80-120
THALLIUM	µg/L	4000	0	3950	99	80-120
VANADIUM	µg/L	2000	0	2040	102	80-120
ZINC	µg/L	500	0	519	104	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ANTIMONY	µg/L	500	483	97	0	20	80-120
ARSENIC	µg/L	500	462	92	1	20	80-120
BARIUM	µg/L	4000	4170	104	1	20	80-120
BERYLLIUM	µg/L	200	204	102	1	20	80-120
CADMIUM	µg/L	250	261	104	1	20	80-120
CHROMIUM	µg/L	3000	3040	101	2	20	80-120
COBALT	µg/L	1000	1030	103	1	20	80-120
COPPER	µg/L	1000	991	99	1	20	80-120
LEAD	µg/L	3000	3020	101	1	20	80-120
MOLYBDENUM	µg/L	2000	2000	100	1	20	80-120
NICKEL	µg/L	1000	1020	102	1	20	80-120
SELENIUM	µg/L	500	506	101	1	20	80-120
SILVER	µg/L	1000	966	97	1	20	80-120
THALLIUM	µg/L	4000	3940	99	0	20	80-120

135402

FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 6010

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99M2118L		
LCS Filename:	-	Date Analyzed:	070799	Time Analyzed:	10:55
LCSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	10:59

Continued *Batch No.: 99M2118L* *Method: 6010* *Page: 2*

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
VANADIUM	μg/L	2000	2020	101	1	20	80-120
ZINC	μg/L	500	513	103	1	20	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: _____

135403

FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 7470

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99M2123N		
LCS Filename:	-	Date Analyzed:	070799	Time Analyzed:	11:57
LCSD Filename:	-	Date Analyzed:	070799	Time Analyzed:	11:59

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
MERCURY	μg/L	5.0	0	4.91	98	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
MERCURY	μg/L	5.0	4.95	99	1	20	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: _____

135404

FORM-3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method SW8260A

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3470		
MS Filename:	G3470M01	Date Analyzed:	071299	Time Analyzed:	16:33
MSD Filename:	G3470N01	Date Analyzed:	071299	Time Analyzed:	17:00
MS Sample No:	**GF-008**	Sample Lab ID:	99-4562-1		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec%	#	QC Limit, % REC
BENZENE	μg/L	5000	2400	5170	55	*	72-126
CHLOROBENZENE	μg/L	5000	0	5010	100		69-131
1,1-DICHLOROETHENE	μg/L	5000	0	4690	94		66-133
TOLUENE	μg/L	5000	18100	24000	118		70-129
TRICHLOROETHENE	μg/L	5000	0	4810	96		65-133
# of Out-of-control					1		

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec%	#	RPD%	#	QC Limit, % RPD	QC Limit, % REC
BENZENE	μg/L	5000	6820	88		46	*	27	72-126
CHLOROBENZENE	μg/L	5000	4970	99		1		31	69-131
1,1-DICHLOROETHENE	μg/L	5000	4570	91		3		34	66-133
TOLUENE	μg/L	5000	36500	368	*	103	*	30	70-129
TRICHLOROETHENE	μg/L	5000	4850	97		1		35	65-133
# of Out-of-control				1		2			

Column to be used to flag recovery and RPD values:

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

Comments: _____

FORM-3A

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method SW8260A

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3508		
LCS Filename:	G3508L01	Date Analyzed:	071499	Time Analyzed:	11:18
LCSD Filename:	-	Date Analyzed:	-	Time Analyzed:	-

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/L	50	0	53.6	107	75-125
CHLOROBENZENE	µg/L	50	0	44.9	90	75-125
1,1-DICHLOROETHENE	µg/L	50	0	51.5	103	75-125
TOLUENE	µg/L	50	0	50.0	100	74-125
TRICHLOROETHENE	µg/L	50	0	41.8	84	71-125
# of Out-of-control					0	

Column to be used to flag recovery and RPD values:

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

Comments: _____

135028

FORM-3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method SW8260A

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3508		
MS Filename:	G3508M01	Date Analyzed:	071499	Time Analyzed:	11:45
MSD Filename:	G3508N01	Date Analyzed:	071499	Time Analyzed:	12:12
MS Sample No:	**0007-025**	Sample Lab ID:	99-4635-8		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	μg/L	50	0	55.5	111	75-125
CHLOROBENZENE	μg/L	50	0	46.8	94	75-125
1,1-DICHLOROETHENE	μg/L	50	0	55.6	111	75-125
TOLUENE	μg/L	50	0	53.7	107	74-125
TRICHLOROETHENE	μg/L	50	0	43.8	88	71-125
# 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	54.5	109	2	20	75-125
CHLOROBENZENE	μg/L	50	46.3	93	1	20	75-125
1,1-DICHLOROETHENE	μg/L	50	56.1	112	1	20	75-125
TOLUENE	μg/L	50	53.0	106	1	20	74-125
TRICHLOROETHENE	μg/L	50	44.6	89	1	20	71-125
# 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: _____

135029

FORM-3A

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method SW8260A

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3485		
LCS Filename:	G3485L01	Date Analyzed:	071399	Time Analyzed:	10:43
LCSD Filename:	-	Date Analyzed:	-	Time Analyzed:	-

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	μg/L	50	0	51.8	104	75-125
CHLOROBENZENE	μg/L	50	0	48.5	97	75-125
1,1-DICHLOROETHENE	μg/L	50	0	48.6	97	75-125
TOLUENE	μg/L	50	0	52.5	105	74-125
TRICHLOROETHENE	μg/L	50	0	47.0	94	71-125
# of Out-of-control					0	

Column to be used to flag recovery and RPD values:

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

Comments: _____

135030

FORM-3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method SW8260A

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3485		
MS Filename:	G3485M01	Date Analyzed:	071399	Time Analyzed:	11:23
MSD Filename:	G3485N01	Date Analyzed:	071399	Time Analyzed:	11:50
MS Sample No:	**20242-970**	Sample Lab ID:	99-4621-4		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	μg/L	5000	0	4700	94	75-125
CHLOROBENZENE	μg/L	5000	0	4850	97	75-125
1,1-DICHLOROETHENE	μg/L	5000	0	4950	99	75-125
TOLUENE	μg/L	5000	0	5000	100	74-125
TRICHLOROETHENE	μg/L	5000	0	4800	96	71-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	μg/L	5000	4750	95	1	20	75-125
CHLOROBENZENE	μg/L	5000	4850	97	0	20	75-125
1,1-DICHLOROETHENE	μg/L	5000	5000	100	1	20	75-125
TOLUENE	μg/L	5000	5000	100	0	20	74-125
TRICHLOROETHENE	μg/L	5000	4650	93	3	20	71-125
# 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: _____

135031

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8260A

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/13/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3485-MB-01	Received Date:	07/13/1999
Sample ID:	**99G3485-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	SW8260A	Prep. Date:	07/13/99	Anal. Date:	07/13/99
Batch No:	99G3485	Prep. No:	–	Anal. Time:	12:43
Data File Name:	G3485K01	Sample Amount:	5 mL	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	ACETONE	67-64-1	µg/L	50	<50	U
2	BENZENE	71-43-2	µg/L	5	<5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/L	5	<5	U
4	BROMOFORM	75-25-2	µg/L	5	<5	U
5	BROMOMETHANE	74-83-9	µg/L	5	<5	U
6	2-BUTANONE (MEK)	78-93-3	µg/L	50	<50	U
7	CARBON DISULFIDE	75-15-0	µg/L	5	<5	U
8	CARBON TETRACHLORIDE	56-23-5	µg/L	5	<5	U
9	CHLOROBENZENE	108-90-7	µg/L	5	<5	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	<5	U
11	CHLOROETHANE	75-00-3	µg/L	5	<5	U
12	2-CHLOROETHYLVINYLEHTER	110-75-8	µg/L	50	<50	U
13	CHLOROFORM	67-66-3	µg/L	5	<5	U
14	CHLOROMETHANE	74-87-3	µg/L	5	<5	U
15	1,1-DICHLOROETHANE	75-34-3	µg/L	5	<5	U
16	1,2-DICHLOROETHANE	107-06-2	µg/L	5	<5	U
17	1,1-DICHLOROETHENE	75-35-4	µg/L	5	<5	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	<5	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	<5	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	<5	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	<5	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	5	<5	U
23	ETHYLBENZENE	100-41-4	µg/L	5	<5	U
24	2-HEXANONE	591-78-6	µg/L	50	<50	U
25	METHYLENE CHLORIDE	75-09-2	µg/L	5	<5	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	50	<50	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/L	10	<10	U
28	STYRENE	100-42-5	µg/L	5	<5	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
30	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
31	TOLUENE	108-88-3	µg/L	5	<5	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
34	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
35	VINYL ACETATE	108-05-4	µg/L	50	<50	U
36	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
37	XYLENES (TOTAL)	1330-20-7	µg/L	15	<15	U

Surrogates	Control Limit, %	Surro. Rec.%

135007

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	75-125	107
2	DIBROMOFLUOROMETHANE	1868-53-7	75-125	95
3	1,2-DICHLOROETHANE-D4	17060-07-0	62-139	109
4	TOLUENE-D8	2037-26-5	75-125	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	91
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	78
3	FLUOROBENZENE	462-06-6	50-200	89
# of out-of-control				0

Not Detected 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

135008

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8260A

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/14/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3508-MB-01	Received Date:	07/14/1999
Sample ID:	**99G3508-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	SW8260A	Prep. Date:	07/14/99	Anal. Date:	07/14/99
Batch No:	99G3508	Prep. No:	–	Anal. Time:	13:05
Data File Name:	G3508K01	Sample Amount:	5 mL	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	ACETONE	67-64-1	µg/L	50	<50	U
2	BENZENE	71-43-2	µg/L	5	<5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/L	5	<5	U
4	BROMOFORM	75-25-2	µg/L	5	<5	U
5	BROMOMETHANE	74-83-9	µg/L	5	<5	U
6	2-BUTANONE (MEK)	78-93-3	µg/L	50	<50	U
7	CARBON DISULFIDE	75-15-0	µg/L	5	<5	U
8	CARBON TETRACHLORIDE	56-23-5	µg/L	5	<5	U
9	CHLOROBENZENE	108-90-7	µg/L	5	<5	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	<5	U
11	CHLOROETHANE	75-00-3	µg/L	5	<5	U
12	2-CHLOROETHYLVINYLEHTER	110-75-8	µg/L	50	<50	U
13	CHLOROFORM	67-66-3	µg/L	5	<5	U
14	CHLOROMETHANE	74-87-3	µg/L	5	<5	U
15	1,1-DICHLOROETHANE	75-34-3	µg/L	5	<5	U
16	1,2-DICHLOROETHANE	107-06-2	µg/L	5	<5	U
17	1,1-DICHLOROETHENE	75-35-4	µg/L	5	<5	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	<5	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	<5	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	<5	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	<5	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	5	<5	U
23	ETHYLBENZENE	100-41-4	µg/L	5	<5	U
24	2-HEXANONE	591-78-6	µg/L	50	<50	U
25	METHYLENE CHLORIDE	75-09-2	µg/L	5	<5	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	50	<50	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/L	10	<10	U
28	STYRENE	100-42-5	µg/L	5	<5	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
30	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
31	TOLUENE	108-88-3	µg/L	5	<5	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
34	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
35	VINYL ACETATE	108-05-4	µg/L	50	<50	U
36	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
37	XYLENES (TOTAL)	1330-20-7	µg/L	15	<15	U

Surrogates	Control Limit, %	Surro. Rec.%

135009

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	75-125	125
2	DIBROMOFLUOROMETHANE	1868-53-7	75-125	102
3	1,2-DICHLOROETHANE-D4	17060-07-0	62-139	133
4	TOLUENE-D8	2037-26-5	75-125	99
# 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	81
3	FLUOROBENZENE	462-06-6	50-200	101
# of out-of-control				0

Not Detected 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

135010

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8260A

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/12/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3470-MB-01	Received Date:	07/12/1999
Sample ID:	**99G3470-MB-01**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	SW8260A	Prep. Date:	07/12/99	Anal. Date:	07/12/99
Batch No:	99G3470	Prep. No:	-	Anal. Time:	17:54
Data File Name:	G3470K01	Sample Amount:	5 mL	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	ACETONE	67-64-1	µg/L	50	<50	U
2	BENZENE	71-43-2	µg/L	5	<5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/L	5	<5	U
4	BROMOFORM	75-25-2	µg/L	5	<5	U
5	BROMOMETHANE	74-83-9	µg/L	5	<5	U
6	2-BUTANONE (MEK)	78-93-3	µg/L	50	<50	U
7	CARBON DISULFIDE	75-15-0	µg/L	5	<5	U
8	CARBON TETRACHLORIDE	56-23-5	µg/L	5	<5	U
9	CHLOROBENZENE	108-90-7	µg/L	5	<5	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	<5	U
11	CHLOROETHANE	75-00-3	µg/L	5	<5	U
12	2-CHLOROETHYLVINYLEHTER	110-75-8	µg/L	50	<50	U
13	CHLOROFORM	67-66-3	µg/L	5	<5	U
14	CHLOROMETHANE	74-87-3	µg/L	5	<5	U
15	1,1-DICHLOROETHANE	75-34-3	µg/L	5	<5	U
16	1,2-DICHLOROETHANE	107-06-2	µg/L	5	<5	U
17	1,1-DICHLOROETHENE	75-35-4	µg/L	5	<5	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	<5	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	<5	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	<5	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	<5	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	5	<5	U
23	ETHYLBENZENE	100-41-4	µg/L	5	<5	U
24	2-HEXANONE	591-78-6	µg/L	50	<50	U
25	METHYLENE CHLORIDE	75-09-2	µg/L	5	<5	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	50	<50	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/L	10	<10	U
28	STYRENE	100-42-5	µg/L	5	<5	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
30	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
31	TOLUENE	108-88-3	µg/L	5	<5	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
34	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
35	VINYL ACETATE	108-05-4	µg/L	50	<50	U
36	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
37	XYLENES (TOTAL)	1330-20-7	µg/L	15	<15	U

Surrogates	Control Limit, %	Surro. Rec.%

135011

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	75-125	104
2	DIBROMOFLUOROMETHANE	1868-53-7	75-125	95
3	1,2-DICHLOROETHANE-D4	17060-07-0	62-139	103
4	TOLUENE-D8	2037-26-5	75-125	103
# 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	88
3	FLUOROBENZENE	462-06-6	50-200	97
# of out-of-control				0

Not Detected 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

135012

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8270B

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/07/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3412-MB-01	Received Date:	07/07/1999
Sample ID:	**99G3412-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC/MS: D
Anal. Method:	SW8270B	Prep. Date:	07/07/99	Anal. Date:	07/10/99
Batch No:	99G3412	Prep. No:	1 of 1	Anal. Time:	13:08
Data File Name:	G3412K01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/L	10	<10	U
2	ACENAPHTHYLENE	208-96-8	µg/L	10	<10	U
3	ANTHRACENE	120-12-7	µg/L	10	<10	U
4	BENZO[A]ANTHRACENE	56-55-3	µg/L	10	<10	U
5	BENZO[A]PYRENE	50-32-8	µg/L	10	<10	U
6	BENZO[B]FLUORANTHENE	205-99-2	µg/L	10	<10	U
7	BENZO[G,H,I]PERYLENE	191-24-2	µg/L	10	<10	U
8	BENZO[K]FLUORANTHENE	207-08-9	µg/L	10	<10	U
9	BIS(2-CHLOROETHOXY)METHANE	111-91-1	µg/L	10	<10	U
10	BIS(2-CHLOROETHYL)ETHER	111-44-4	µg/L	10	<10	U
11	BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	µg/L	10	<10	U
12	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	µg/L	10	<10	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/L	10	<10	U
14	BUTYL BENZYL PHTHALATE	85-68-7	µg/L	10	<10	U
15	3-METHYL-4-CHLOROPHENOL	59-50-7	µg/L	10	<10	U
16	4-CHLOROANILINE	106-47-8	µg/L	10	<10	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/L	10	<10	U
18	2-CHLOROPHENOL	95-57-8	µg/L	10	<10	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/L	10	<10	U
20	CHRYSENE	218-01-9	µg/L	10	<10	U
21	DI-N-BUTYLPHTHALATE	84-74-2	µg/L	10	<10	U
22	DI-N-OCTYLPHTHALATE	117-84-0	µg/L	10	<10	U
23	DIBENZ[A,H]ANTHRACENE	53-70-3	µg/L	10	<10	U
24	DIBENZOFURAN	132-64-9	µg/L	10	<10	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/L	10	<10	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/L	10	<10	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/L	10	<10	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/L	10	<10	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/L	10	<10	U
30	DIETHYL PHTHALATE	84-66-2	µg/L	10	<10	U
31	DIMETHYL PHTHALATE	131-11-3	µg/L	10	<10	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/L	10	<10	U
33	2-METHYL-4,6-DINITROPHENOL	534-52-1	µg/L	25	<25	U
34	2,4-DINITROPHENOL	51-28-5	µg/L	25	<25	U
35	2,4-DINITROTOLUENE	121-14-2	µg/L	10	<10	U
36	2,6-DINITROTOLUENE	606-20-2	µg/L	10	<10	U
37	FLUORANTHENE	206-44-0	µg/L	10	<10	U
38	FLUORENE	86-73-7	µg/L	10	<10	U
39	HEXACHLOROBENZENE	118-74-1	µg/L	10	<10	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/L	10	<10	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/L	10	< 10	U
42	HEXACHLOROETHANE	67-72-1	µg/L	10	< 10	U
43	INDENO[1,2,3-CD]PYRENE	193-39-5	µg/L	10	< 10	U
44	2-METHYLNAPHTHALENE	91-57-6	µg/L	10	< 10	U
45	4-METHYLPHENOL	106-44-5	µg/L	10	< 10	U
46	2-METHYLPHENOL	95-48-7	µg/L	10	< 10	U
47	NAPHTHALENE	91-20-3	µg/L	10	< 10	U
48	2 NITROANILINE	88-74-4	µg/L	25	< 25	U
49	3-NITROANILINE	99-09-2	µg/L	25	< 25	U
50	4-NITROANILINE	100-01-6	µg/L	25	< 25	U
51	NITROBENZENE	98-95-3	µg/L	10	< 10	U
52	2-NITROPHENOL	88-75-5	µg/L	10	< 10	U
53	4-NITROPHENOL	100-02-7	µg/L	25	< 25	U
54	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/L	10	< 10	U
55	N-NITROSODIPHENYLAMINE	86-30-6	µg/L	10	< 10	U
56	PENTACHLOROPHENOL	87-86-5	µg/L	11	< 11	U
57	PHENANTHRENE	85-01-8	µg/L	10	< 10	U
58	PHENOL	108-95-2	µg/L	10	< 10	U
59	PYRENE	129-00-0	µg/L	10	< 10	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	10	< 10	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/L	25	< 25	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/L	10	< 10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	43-125	89
2	2-FLUOROPHENOL	367-12-4	25-125	96
3	NITROBENZENE-D5	4165-60-0	32-125	96
4	PHENOL-D5	4165-62-2	25-125	93
5	TERPHENYL-D14	1718-51-0	42-126	71
6	2,4,6-TRIBROMOPHENOL	118-79-6	25-134	74
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	81
2	CHRYSENE-D12	1719-03-5	50-200	113
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	93
4	NAPHTHALENE-D8	1146-65-2	50-200	95
5	PERYLENE-D12	1520-96-3	50-200	78
6	PHENANTHRENE-D10	1517-22-2	50-200	79
# of out-of-control				0

Not Detected 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

135077

Applied P & Ch Laboratory

Organic Analysis Results for Method SW8270B

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	07/08/1999
Project ID:	El Toro	Service ID:	994621	Collected by:	
		Lab Sample ID:	99G3422-MB-01	Received Date:	07/08/1999
Sample ID:	**99G3422-MB-01**	Sample Matrix	Soil	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC/MS: Y
Anal. Method:	SW8270B	Prep. Date:	07/08/99	Anal. Date:	07/13/99
Batch No:	99G3422	Prep. No:	1 of 1	Anal. Time:	21:39
Data File Name:	G3422K02	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACENAPHTHENE	83-32-9	µg/kg	500	<500	U
2	ACENAPHTHYLENE	208-96-8	µg/kg	500	<500	U
3	ANTHRACENE	120-12-7	µg/kg	500	<500	U
4	BENZO[A]ANTHRACENE	56-55-3	µg/kg	500	<500	U
5	BENZO[A]PYRENE	50-32-8	µg/kg	500	<500	U
6	BENZO[B]FLUORANTHENE	205-99-2	µg/kg	500	<500	U
7	BENZO[G,H,I]PERYLENE	191-24-2	µg/kg	500	<500	U
8	BENZO[K]FLUORANTHENE	207-08-9	µg/kg	500	<500	U
9	BIS(2-CHLOROETHOXY)METHANE	111-91-1	µg/kg	500	<500	U
10	BIS(2-CHLOROETHYL)ETHER	111-44-4	µg/kg	500	<500	U
11	BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	µg/kg	500	<500	U
12	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	µg/kg	500	<500	U
13	4-BROMOPHENYL PHENYL ETHER	101-55-3	µg/kg	500	<500	U
14	BUTYL BENZYL PHTHALATE	85-68-7	µg/kg	500	<500	U
15	3-METHYL-4-CHLOROPHENOL	59-50-7	µg/kg	1000	<1000	U
16	4-CHLOROANILINE	106-47-8	µg/kg	1000	<100	U
17	2-CHLORONAPHTHALENE	91-58-7	µg/kg	500	<500	U
18	2-CHLOROPHENOL	95-57-8	µg/kg	500	<500	U
19	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	µg/kg	500	<500	U
20	CHRYSENE	218-01-9	µg/kg	500	<500	U
21	DI-N-BUTYLPHTHALATE	84-74-2	µg/kg	500	<500	U
22	DI-N-OCTYLPHTHALATE	117-84-0	µg/kg	500	<500	U
23	DIBENZ[A,H]ANTHRACENE	53-70-3	µg/kg	500	<500	U
24	DIBENZOFURAN	132-64-9	µg/kg	500	<500	U
25	1,2-DICHLOROBENZENE	95-50-1	µg/kg	500	<500	U
26	1,3-DICHLOROBENZENE	541-73-1	µg/kg	500	<500	U
27	1,4-DICHLOROBENZENE	106-46-7	µg/kg	500	<500	U
28	3,3'-DICHLOROBENZIDINE	91-94-1	µg/kg	1000	<1000	U
29	2,4-DICHLOROPHENOL	120-83-2	µg/kg	500	<500	U
30	DIETHYL PHTHALATE	84-66-2	µg/kg	500	<500	U
31	DIMETHYL PHTHALATE	131-11-3	µg/kg	500	<500	U
32	2,4-DIMETHYLPHENOL	105-67-9	µg/kg	500	<500	U
33	2-METHYL-4,6-DINITROPHENOL	534-52-1	µg/kg	2500	<2500	U
34	2,4-DINITROPHENOL	51-28-5	µg/kg	2500	<2500	U
35	2,4-DINITROTOLUENE	121-14-2	µg/kg	500	<500	U
36	2,6-DINITROTOLUENE	606-20-2	µg/kg	500	<500	U
37	FLUORANTHENE	206-44-0	µg/kg	500	<500	U
38	FLUORENE	86-73-7	µg/kg	500	<500	U
39	HEXACHLOROBENZENE	118-74-1	µg/kg	500	<500	U
40	HEXACHLOROBUTADIENE	87-68-3	µg/kg	500	<500	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
41	HEXACHLOROCYCLOPENTADIENE	77-47-4	µg/kg	500	< 500	U
42	HEXACHLOROETHANE	67-72-1	µg/kg	500	< 500	U
43	INDENO[1,2,3-CD]PYRENE	193-39-5	µg/kg	500	< 500	U
44	2-METHYLNAPHTHALENE	91-57-6	µg/kg	500	< 500	U
45	4-METHYLPHENOL	106-44-5	µg/kg	500	< 500	U
46	2-METHYLPHENOL	95-48-7	µg/kg	500	< 500	U
47	NAPHTHALENE	91-20-3	µg/kg	500	< 500	U
48	2-NITROANILINE	88-74-4	µg/kg	2500	< 2500	U
49	3-NITROANILINE	99-09-2	µg/kg	2500	< 2500	U
50	4-NITROANILINE	100-01-6	µg/kg	2500	< 7500	U
51	NITROBENZENE	98-95-3	µg/kg	500	< 500	U
52	2-NITROPHENOL	88-75-5	µg/kg	500	< 500	U
53	4-NITROPHENOL	100-02-7	µg/kg	7500	< 750 0	U
54	N-NITROSODI-N-PROPYLAMINE	621-64-7	µg/kg	500	< 500	U
55	N-NITROSODIPHENYLAMINE	86-30-6	µg/kg	500	< 500	U
56	PENTACHLOROPHENOL	87-86-5	µg/kg	2500	< 2500	U
57	PHENANTHRENE	85-01-8	µg/kg	500	< 500	U
58	PHENOL	108-95-2	µg/kg	500	< 500	U
59	PYRENE	129-00-0	µg/kg	500	< 500	U
60	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	500	< 500	U
61	2,4,5-TRICHLOROPHENOL	95-95-4	µg/kg	500	< 500	U
62	2,4,6-TRICHLOROPHENOL	88-06-2	µg/kg	500	< 500	U
63	ISOPHORONE	78-59-1	µg/kg	500	< 500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	2-FLUOROBIPHENYL	321-60-8	30-114	68
2	2-FLUOROPHENOL	367-12-4	25-103	55
3	NITROBENZENE-D5	4165-60-0	23-119	62
4	PHENOL-D5	4165-62-2	24-112	57
5	TERPHENYL-D14	1718-51-0	18-136	82
6	2,4,6-TRIBROMOPHENOL	118-79-6	20-119	57
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	ACENAPHTHENE-D10	15067-26-2	50-200	98
2	CHRYSENE-D12	1719-03-5	50-200	72
3	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	100
4	NAPHTHALENE-D8	1146-65-2	50-200	96
5	PERYLENE-D12	1520-96-3	50-200	82
6	PHENANTHRENE-D10	1517-22-2	50-200	98
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
I - 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

135079

FORM-3D

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method SW8270B

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3422		
LCS Filename:	G3422L01	Date Analyzed:	071399	Time Analyzed:	22:20
LCSD Filename:	G3422J01	Date Analyzed:	071399	Time Analyzed:	23:03

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
PENTACHLOROPHENOL	µg/kg	3330	0	1250	38	30-140
ACENAPHTHENE	µg/kg	1670	0	819	49	41-118
3-METHYL-4-CHLOROPHENOL	µg/kg	3330	0	1630	49	37-113
2-CHLOROPHENOL	µg/kg	3330	0	1830	55	35-113
1,4-DICHLOROBENZENE	µg/kg	1670	0	837	50	38-116
2,4-DINITROTOLUENE	µg/kg	1670	0	845	51	38-118
4-NITROPHENOL	µg/kg	3330	0	978	29	15-128
N-NITROSODI-N-PROPYLAMINE	µg/kg	1670	0	918	55	32-122
PHENOL	µg/kg	3330	0	1460	44	30-111
PYRENE	µg/kg	1670	0	1160	69	38-130
1,2,4-TRICHLOROBENZENE	µg/kg	1670	0	817	49	40-116
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PENTACHLOROPHENOL	µg/kg	3330	1250	38	0	40	30-140
ACENAPHTHENE	µg/kg	1670	817	49	0	59	41-118
3-METHYL-4-CHLOROPHENOL	µg/kg	3330	1640	49	0	58	37-113
2-CHLOROPHENOL	µg/kg	3330	180	54	2	54	35-113
1,4-DICHLOROBENZENE	µg/kg	1670	805	48	4	57	38-116
2,4-DINITROTOLUENE	µg/kg	1670	724	43	17	61	38-118
4-NITROPHENOL	µg/kg	3330	1050	32	10	60	15-128
N-NITROSODI-N-PROPYLAMINE	µg/kg	1670	763	46	18	62	32-122
PHENOL	µg/kg	3330	1280	38	15	53	30-111
PYRENE	µg/kg	1670	1090	65	6	56	38-130
1,2,4-TRICHLOROBENZENE	µg/kg	1670	8040	48	2	61	40-116
# 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: _____

135090

FORM-3D

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method SW8270B

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3422		
MS Filename:	G3422M01	Date Analyzed:	071399	Time Analyzed:	23:45
MSD Filename:	G3422N01	Date Analyzed:	071499	Time Analyzed:	00:26
MS Sample No:	**DP0044-SO-012-NS**	Sample Lab ID:	99-4463-4	Moisture, %	17.0

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
PENTACHLOROPHENOL	µg/kg	3330	0	1100	33	30-140
ACENAPHTHENE	µg/kg	1670	0	963	58	16-134
3-METHYL-4-CHLOROPHENOL	µg/kg	3330	0	1590	48	10-126
2-CHLOROPHENOL	µg/kg	3330	0	2170	65	12-120
1,4-DICHLOROBENZENE	µg/kg	1670	0	986	59	15-128
2,4-DINITROTOLUENE	µg/kg	1670	0	1040	62	12-134
4-NITROPHENOL	µg/kg	3330	0	1510	45	12-132
N-NITROSODI-N-PROPYLAMINE	µg/kg	1670	0	810	49	10-134
PHENOL	µg/kg	3330	0	1380	41	10-116
PYRENE	µg/kg	1670	0	1190	71	22-134
1,2,4-TRICHLOROBENZENE	µg/kg	1670	0	1010	60	10-132
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PENTACHLOROPHENOL	µg/kg	3330	1200	36	9	40	30-140
ACENAPHTHENE	µg/kg	1670	1010	60	3	59	16-134
3-METHYL-4-CHLOROPHENOL	µg/kg	3330	1880	56	15	58	10-126
2-CHLOROPHENOL	µg/kg	3330	2380	71	9	54	12-120
1,4-DICHLOROBENZENE	µg/kg	1670	1060	63	7	57	15-128
2,4-DINITROTOLUENE	µg/kg	1670	998	60	3	61	12-134
4-NITROPHENOL	µg/kg	3330	1340	40	12	60	12-132
N-NITROSODI-N-PROPYLAMINE	µg/kg	1670	925	55	12	62	10-134
PHENOL	µg/kg	3330	1560	47	14	53	10-116
PYRENE	µg/kg	1670	1410	84	17	56	22-134
1,2,4-TRICHLOROBENZENE	µg/kg	1670	1060	63	5	61	10-132
# 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:

135091

FORM-3C

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method SW8270B

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	994621
Project ID:	El Toro	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3412		
LCS Filename:	G3412L01	Date Analyzed:	071099	Time Analyzed:	13:47
LCSD Filename:	G3412J01	Date Analyzed:	071099	Time Analyzed:	14:26

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
PENTACHLOROPHENOL	µg/L	100	0	83.3	83	28-136
ACENAPHTHENE	µg/L	50	0	32.1	64	49-125
3-METHYL-4-CHLOROPHENOL	µg/L	100	0	75.4	75	44-125
2-CHLOROPHENOL	µg/L	100	0	66.5	67	41-125
1,4-DICHLOROBENZENE	µg/L	50	0	34.6	69	30-125
2,4-DINITROTOLUENE	µg/L	50	0	40.7	81	39-139
4-NITROPHENOL	µg/L	100	0	72.9	73	25-131
N-NITROSODI-N-PROPYLAMINE	µg/L	50	0	38.2	76	37-125
PHENOL	µg/L	100	0	78.2	78	25-125
PYRENE	µg/L	50	0	36.4	73	47-136
1,2,4-TRICHLOROBENZENE	µg/L	50	0	34.3	69	44-142
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PENTACHLOROPHENOL	µg/L	100	85.7	86	4	20	28-136
ACENAPHTHENE	µg/L	50	31.6	63	2	20	49-125
3-METHYL-4-CHLOROPHENOL	µg/L	100	80.6	81	8	20	44-125
2-CHLOROPHENOL	µg/L	100	67.4	67	0	20	41-125
1,4-DICHLOROBENZENE	µg/L	50	34.6	69	0	20	30-125
2,4-DINITROTOLUENE	µg/L	50	41.8	84	4	20	39-139
4-NITROPHENOL	µg/L	100	72.9	73	0	20	25-131
N-NITROSODI-N-PROPYLAMINE	µg/L	50	44.2	88	15	20	37-125
PHENOL	µg/L	100	78.4	78	0	20	25-125
PYRENE	µg/L	50	36.4	73	0	20	47-136
1,2,4-TRICHLOROBENZENE	µg/L	50	33.9	68	1	20	44-142
# 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: _____

135092

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/24/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	
		Lab Sample ID:	99G3216-MB-01	Received Date:	06/24/1999
Sample ID:	**99G3216-MB-01**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	06/24/99	Anal. Date:	06/24/99
Batch No:	99G3216	Prep. No:	-	Anal. Time:	12:08
Data File Name:	G3216K01	Sample Amount:	5 mL	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	ACETONE	67-64-1	µg/L	50	<50	U
2	BENZENE	71-43-2	µg/L	5	<5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/L	5	<5	U
4	BROMOFORM	75-25-2	µg/L	5	<5	U
5	BROMOMETHANE	74-83-9	µg/L	5	<5	U
6	2-BUTANONE (MEK)	78-93-3	µg/L	50	<50	U
7	CARBON DISULFIDE	75-15-0	µg/L	5	<5	U
8	CARBON TETRACHLORIDE	56-23-5	µg/L	5	<5	U
9	CHLOROBENZENE	108-90-7	µg/L	5	<5	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	<5	U
11	CHLOROETHANE	75-00-3	µg/L	5	<5	U
12	CHLOROFORM	67-66-3	µg/L	5	<5	U
13	CHLOROMETHANE	74-87-3	µg/L	5	<5	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/L	50	<50	U
15	1,1-DICHLOROETHANE	75-34-3	µg/L	5	<5	U
16	1,2-DICHLOROETHANE	107-06-2	µg/L	5	<5	U
17	1,1-DICHLOROETHENE	75-35-4	µg/L	5	<5	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	<5	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	<5	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	<5	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	<5	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	5	<5	U
23	ETHYLBENZENE	100-41-4	µg/L	5	<5	U
24	2-HEXANONE	591-78-6	µg/L	50	<50	U
25	METHYLENE CHLORIDE	75-09-2	µg/L	5	<5	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/L	50	<50	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/L	10	<10	U
28	STYRENE	100-42-5	µg/L	5	<5	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
30	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
31	TOLUENE	108-88-3	µg/L	5	<5	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
34	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
35	VINYL ACETATE	108-05-4	µg/L	50	<50	U
36	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
37	XYLENES (TOTAL)	1330-20-7	µg/L	15	<15	U

Surrogates	Control Limit, %	Surro. Rec.%

115768

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	75-125	95
2	DIBROMOFLUOROMETHANE	1868-53-7	75-125	90
3	1,2-DICHLOROETHANE-D4	17060-07-0	62-139	90
4	TOLUENE-D8	2037-26-5	75-125	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	87
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	80
3	FLUOROBENZENE	462-06-6	50-200	83
# of out-of-control				0

Not Detected 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

115709

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/22/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	
		Lab Sample ID:	99G3167-MB-01	Received Date:	06/22/1999
Sample ID:	**99G3167-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	06/22/99	Anal. Date:	06/22/99
Batch No:	99G3167	Prep. No:	-	Anal. Time:	10:55
Data File Name:	G3167K01	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	ACETONE	67-64-1	µg/kg	50	<50	U
2	BENZENE	71-43-2	µg/kg	5	<5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	<5	U
4	BROMOFORM	75-25-2	µg/kg	5	<5	U
5	BROMOMETHANE	74-83-9	µg/kg	5	<5	U
6	2-BUTANONE (MEK)	78-93-3	µg/kg	50	<50	U
7	CARBON DISULFIDE	75-15-0	µg/kg	5	<5	U
8	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	<5	U
9	CHLOROBENZENE	108-90-7	µg/kg	5	<5	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	<5	U
11	CHLOROETHANE	75-00-3	µg/kg	5	<5	U
12	CHLOROFORM	67-66-3	µg/kg	5	<5	U
13	CHLOROMETHANE	74-87-3	µg/kg	5	<5	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	50	<50	U
15	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	<5	U
16	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	<5	U
17	1,1-DICHLOROETHENE	75-35-4	µg/kg	5	<5	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	<5	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	<5	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	<5	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	<5	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5	<5	U
23	ETHYLBENZENE	100-41-4	µg/kg	5	<5	U
24	2-HEXANONE	591-78-6	µg/kg	50	<50	U
25	METHYLENE CHLORIDE	75-09-2	µg/kg	5	<5	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	50	<50	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/kg	10	<10	U
28	STYRENE	100-42-5	µg/kg	5	<5	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	<5	U
30	TETRACHLOROETHENE	127-18-4	µg/kg	5	<5	U
31	TOLUENE	108-88-3	µg/kg	5	<5	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	<5	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	<5	U
34	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
35	VINYL ACETATE	108-05-4	µg/kg	50	<50	U
36	VINYL CHLORIDE	75-01-4	µg/kg	5	<5	U
37	XYLENES (TOTAL)	1330-20-7	µg/kg	15	<15	U

Surrogates	Control Limit, %	Surro. Rec.%

115710

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	65-135	93
2	DIBROMOFLUOROMETHANE	1868-53-7	65-135	94
3	1,2-DICHLOROETHANE-D4	17060-07-0	52-149	103
4	TOLUENE-D8	2037-26-5	65-135	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	134
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	121
3	FLUOROBENZENE	462-06-6	50-200	152
# of out-of-control				0

Not Detected 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

115711

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/22/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	
		Lab Sample ID:	99G3167-MB-02	Received Date:	06/22/1999
Sample ID:	**99G3167-MB-02**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: X
Anal. Method:	8260	Prep. Date:	06/22/99	Anal. Date:	06/22/99
Batch No:	99G3167	Prep. No:	-	Anal. Time:	19:16
Data File Name:	G3167K02	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	ACETONE	67-64-1	µg/kg	50	<50	U
2	BENZENE	71-43-2	µg/kg	5	<5	U
3	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	<5	U
4	BROMOFORM	75-25-2	µg/kg	5	<5	U
5	BROMOMETHANE	74-83-9	µg/kg	5	<5	U
6	2-BUTANONE (MEK)	78-93-3	µg/kg	50	<50	U
7	CARBON DISULFIDE	75-15-0	µg/kg	5	<5	U
8	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	<5	U
9	CHLOROBENZENE	108-90-7	µg/kg	5	<5	U
10	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	<5	U
11	CHLOROETHANE	75-00-3	µg/kg	5	<5	U
12	CHLOROFORM	67-66-3	µg/kg	5	<5	U
13	CHLOROMETHANE	74-87-3	µg/kg	5	<5	U
14	2-CHLOROETHYL VINYL ETHER	110-75-8	µg/kg	50	<50	U
15	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	<5	U
16	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	<5	U
17	1,1-DICHLOROETHENE	75-35-4	µg/kg	5	<5	U
18	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	<5	U
19	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	<5	U
20	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	<5	U
21	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	<5	U
22	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/kg	5	<5	U
23	ETHYLBENZENE	100-41-4	µg/kg	5	<5	U
24	2-HEXANONE	591-78-6	µg/kg	50	<50	U
25	METHYLENE CHLORIDE	75-09-2	µg/kg	5	<5	U
26	4-METHYL-2-PENTANONE (MIBK)	108-10-1	µg/kg	50	<50	U
27	METHYL TERT-BUTYL ETHER	1634-04-4	µg/kg	10	<10	U
28	STYRENE	100-42-5	µg/kg	5	<5	U
29	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	<5	U
30	TETRACHLOROETHENE	127-18-4	µg/kg	5	<5	U
31	TOLUENE	108-88-3	µg/kg	5	<5	U
32	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	<5	U
33	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	<5	U
34	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
35	VINYL ACETATE	108-05-4	µg/kg	50	<50	U
36	VINYL CHLORIDE	75-01-4	µg/kg	5	<5	U
37	XYLENES (TOTAL)	1330-20-7	µg/kg	15	<15	U

Surrogates	Control Limit, %	Surro. Rec.%

115714

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO FLUOROBENZENE (BFB)	460-00-4	65-135	93
2	DIBROMOFLUOROMETHANE	1868-53-7	65-135	87
3	1,2-DICHLOROETHANE-D4	17060-07-0	52-149	101
4	TOLUENE-D8	2037-26-5	65-135	109
# 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	83
3	FLUOROBENZENE	462-06-6	50-200	112
# of out-of-control				0

Not Detected 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

115715

FORM-3B

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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3167		
LCS Filename:	G3167L01	Date Analyzed:	062299	Time Analyzed:	11:26
LCSD Filename:	G3167J01	Date Analyzed:	062299	Time Analyzed:	19:47

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/kg	50	0	52.2	104	65-135
CHLOROBENZENE	µg/kg	50	0	52.9	106	65-135
1,1-DICHLOROETHENE	µg/kg	50	0	49.1	98	65-135
TOLUENE	µg/kg	50	0	50.5	101	64-135
TRICHLOROETHENE	µg/kg	50	0	43.3	87	61-135
# 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	49.7	99	5	30	65-135
CHLOROBENZENE	µg/kg	50	49.2	98	8	30	65-135
1,1-DICHLOROETHENE	µg/kg	50	46.8	94	4	30	65-135
TOLUENE	µg/kg	50	45.0	90	12	30	64-135
TRICHLOROETHENE	µg/kg	50	37.8	76	13	30	61-135
# 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:

115770

FORM-3B

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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3167		
MS Filename:	G3167M01	Date Analyzed:	062299	Time Analyzed:	11:57
MSD Filename:	G3167N01	Date Analyzed:	062299	Time Analyzed:	12:29
MS Sample No:	**20242-930**	Sample Lab ID:	99-4234-6	Moisture, %	14.3

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/kg	58.3	0	57.7	99	65-135
CHLOROBENZENE	µg/kg	58.3	0	58.8	101	65-135
1,1-DICHLOROETHENE	µg/kg	58.3	0	58.6	101	65-135
TOLUENE	µg/kg	58.3	0	61.6	106	64-135
TRICHLOROETHENE	µg/kg	58.3	0	52.2	90	61-135
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/kg	58.3	58.0	99	0	30	65-135
CHLOROBENZENE	µg/kg	58.3	58.1	100	1	30	65-135
1,1-DICHLOROETHENE	µg/kg	58.3	58.2	100	1	30	65-135
TOLUENE	µg/kg	58.3	59.5	102	4	30	64-135
TRICHLOROETHENE	µg/kg	58.3	53.3	91	1	30	61-135
# 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: _____

FORM-3A

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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3216		
LCS Filename:	G3216L01	Date Analyzed:	062499	Time Analyzed:	12:40
LCSD Filename:		Date Analyzed:		Time Analyzed:	

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	μg/L	50	0	47.2	94	75-125
CHLOROBENZENE	μg/L	50	0	56.9	114	75-125
1,1-DICHLOROETHENE	μg/L	50	0	52.0	104	75-125
TOLUENE	μg/L	50	0	50.7	101	74-125
TRICHLOROETHENE	μg/L	50	0	47.9	96	71-125
# of Out-of-control					0	

Column to be used to flag recovery and RPD values:

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

Comments: _____

115792

FORM-3A

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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3216		
MS Filename:	G3216M01	Date Analyzed:	062499	Time Analyzed:	13:47
MSD Filename:	G3216N01	Date Analyzed:	062499	Time Analyzed:	14:20
MS Sample No:	**U4-308**	Sample Lab ID:	99-4270-4		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/L	50	0	48.1	96	75-125
CHLOROBENZENE	µg/L	50	0	57.3	115	75-125
1,1-DICHLOROETHENE	µg/L	50	0	51.9	104	75-125
TOLUENE	µg/L	50	0	52.6	105	74-125
TRICHLOROETHENE	µg/L	50	12	58.9	94	71-125
# 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	49.0	98	2	20	75-125
CHLOROBENZENE	µg/L	50	57.3	115	0	20	75-125
1,1-DICHLOROETHENE	µg/L	50	54.9	110	6	20	75-125
TOLUENE	µg/L	50	52.6	105	0	20	74-125
TRICHLOROETHENE	µg/L	50	58.5	93	1	20	71-125
# 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: _____

115793

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/21/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	
		Lab Sample ID:	99G3151-MB-01	Received Date:	06/21/1999
Sample ID:	**99G3151-MB-01**	Sample Matrix	Water	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	06/21/99	Anal. Date:	06/21/99
Batch No:	99G3151	Prep. No:	–	Anal. Time:	11:06
Data File Name:	3151G.K01	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1	1-BROMO-FLUOROBENZENE (FID) 460-00-4	74-138	95
# of out-of-control			0

Not Detected 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

115852

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/18/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	
		Lab Sample ID:	99G3136-MB-01	Received Date:	06/18/1999
Sample ID:	**99G3136-MB-01**	Sample Matrix	Water	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	06/18/99	Anal. Date:	06/18/99
Batch No:	99G3136	Prep. No:		Anal. Time:	18:24
Data File Name:	3136G.K01	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID) 460-00-4	74-138	93
# of out-of-control			0

Not Detected 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

115853

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/23/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	
		Lab Sample ID:	99G3193-MB-01	Received Date:	06/23/1999
Sample ID:	**99G3193-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	06/23/99	Anal. Date:	06/23/99
Batch No:	99G3193	Prep. No:	–	Anal. Time:	10:32
Data File Name:	3193G.K01	Sample Amount:	5.0 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

Surrogates		Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID) 460-00-4	64-148	81
# of out-of-control			0

Not Detected 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

115354

FORM-3A

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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3151		
LCS Filename:	3151GJ01	Date Analyzed:	062199	Time Analyzed:	11:31
LCSD Filename:	3151GJ01	Date Analyzed:	062199	Time Analyzed:	11:56

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	1.04	104	67-136
# 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	1.04	104	0	30	67-136
# 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: _____

115882

FORM-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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3151		
MS Filename:	3151G.M02	Date Analyzed:	062199	Time Analyzed:	13:13
MSD Filename:	3151G.N02	Date Analyzed:	062199	Time Analyzed:	13:38
MS Sample No:	**777806-064**	Sample Lab ID:	99-4283-1		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	0.993	99	67-136
# 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	1.04	104	5	30	67-136
# 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: _____

115883

FORM-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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3193		
LCS Filename:	3193GL01	Date Analyzed:	062399	Time Analyzed:	10:57
LCSD Filename:	3193GL01	Date Analyzed:	062399	Time Analyzed:	11:19

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	1	0	0.972	97	57-146
# 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	0.941	94	3	50	57-146
# 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: _____

115584

FORM-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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3193		
MS Filename:	3193G.M01	Date Analyzed:	062399	Time Analyzed:	14:20
MSD Filename:	3193G.N01	Date Analyzed:	062399	Time Analyzed:	14:44
MS Sample No:	**20242-930**	Sample Lab ID:	99-4234-6	Moisture, %	14.3

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	1.17	0	0.977	84	57-146
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	1.17	1.00	85	1	50	57-146
# 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: _____

FORM-3A

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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3136		
LCS Filename:	3136GLJ01	Date Analyzed:	061899	Time Analyzed:	18:48
LCSD Filename:	3136GLJ01	Date Analyzed:	061899	Time Analyzed:	19:14

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	0.999	100	67-136
# 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	0.976	98	2	30	67-136
# 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: _____

115890

FORM-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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3136		
MS Filename:	3136G.M01	Date Analyzed:	061899	Time Analyzed:	19:38
MSD Filename:	3136G.N01	Date Analyzed:	061899	Time Analyzed:	20:03
MS Sample No:	**20242-912**	Sample Lab ID:	99-4234-2		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	0.939	94	67-136
# 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	0.997	100	6	30	67-136
# 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: _____

115891

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/18/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	
		Lab Sample ID:	99G3129-MB-01	Received Date:	06/18/1999
Sample ID:	**99G3129-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/18/99	Anal. Date:	06/18/99
Batch No:	99G3129	Prep. No:	1 of 1	Anal. Time:	21:17
Data File Name:	3129GLK01	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	OCTACOSANE, C28	630-02-4	25-162	87
# of out-of-control				0

Not Detected 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

115932

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/21/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	
		Lab Sample ID:	99G3162-MB-01	Received Date:	06/21/1999
Sample ID:	**99G3162-MB-01**	Sample Matrix	Water	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	06/21/99	Anal. Date:	06/21/99
Batch No:	99G3162	Prep. No:	1 of 1	Anal. Time:	18:06
Data File Name:	3162G.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	OCTACOSANE, C28	630-02-4	26-152	92
# of out-of-control				0

Not Detected 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

115933

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	20242	Collection Date:	06/18/1999
Project ID:	El Toro MCAS	Service ID:	994234	Collected by:	
		Lab Sample ID:	99G3128-MB-01	Received Date:	06/18/1999
Sample ID:	**99G3128-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	06/18/99	Anal. Date:	06/20/99
Batch No:	99G3128	Prep. No:	1 of 1	Anal. Time:	00:55
Data File Name:	3128GK01	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	OCTACOSANE, C28	630-02-4	25-162	99
# of out-of-control				0

Not Detected 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

115934

FORM-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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3129		
LCS Filename:	3129G.L01	Date Analyzed:	061899	Time Analyzed:	21:44
LCSD Filename:	3129G.J01	Date Analyzed:	061899	Time Analyzed:	22:10

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	47.1	94	51-153
# 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	45.5	91	3	50	51-153
# 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: _____

115967

FORM-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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3129		
MS Filename:	3129G.M01	Date Analyzed:	061899	Time Analyzed:	22:37
MSD Filename:	3129G.N01	Date Analyzed:	061899	Time Analyzed:	23:04
MS Sample No:	**20242-947**	Sample Lab ID:	99-4234-23	Moisture, %	3.4

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	51.8	0	52.2	101	51-153
# 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	51.8	46.5	90	12	50	51-153
# 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: _____

115968

FORM-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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3128		
LCS Filename:	3128G.L01	Date Analyzed:	062099	Time Analyzed:	01:20
LCSD Filename:	3128G.J01	Date Analyzed:	062099	Time Analyzed:	01:46

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	53.6	107	51-153
# 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	44.0	88	19	50	51-153
# 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: _____

115969

FORM-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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Soil
		Batch No:	99G3128		
MS Filename:	3128GM01	Date Analyzed:	062099	Time Analyzed:	02:11
MSD Filename:	3128GN01	Date Analyzed:	062099	Time Analyzed:	02:36
MS Sample No:	**777806-0063**	Sample Lab ID:	99-4203-37	Moisture, %	6.2

Spiked Components	Unit	Spike Added	Concentration Unspiked	MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	53.3	6	52.7	88	51-153
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	REC
TPH AS DIESEL	mg/kg	53.3	57.8	97	10	50	51-153
# 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: _____

FORM-3C

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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3162		
LCS Filename:	3162GL01	Date Analyzed:	062199	Time Analyzed:	18:34
LCSD Filename:	3162GL01	Date Analyzed:	062199	Time Analyzed:	19:01

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/L	1	0	1.08	108	61-143
# 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	1.09	109	1	30	61-143
# 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: _____

115975

FORM-3C

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:	994234
Project ID:	El Toro MCAS	Project No:	20242	Sample Matrix:	Water
		Batch No:	99G3162		
MS Filename:	3162G.M01	Date Analyzed:	062199	Time Analyzed:	19:28
MSD Filename:	3162G.N01	Date Analyzed:	062199	Time Analyzed:	19:55
MS Sample No:	**20242-915**	Sample Lab ID:	99-4234-5		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/L	1	0	0.976	98	61-143
# 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/L	1	0.968	97	1	30	61-143
# 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

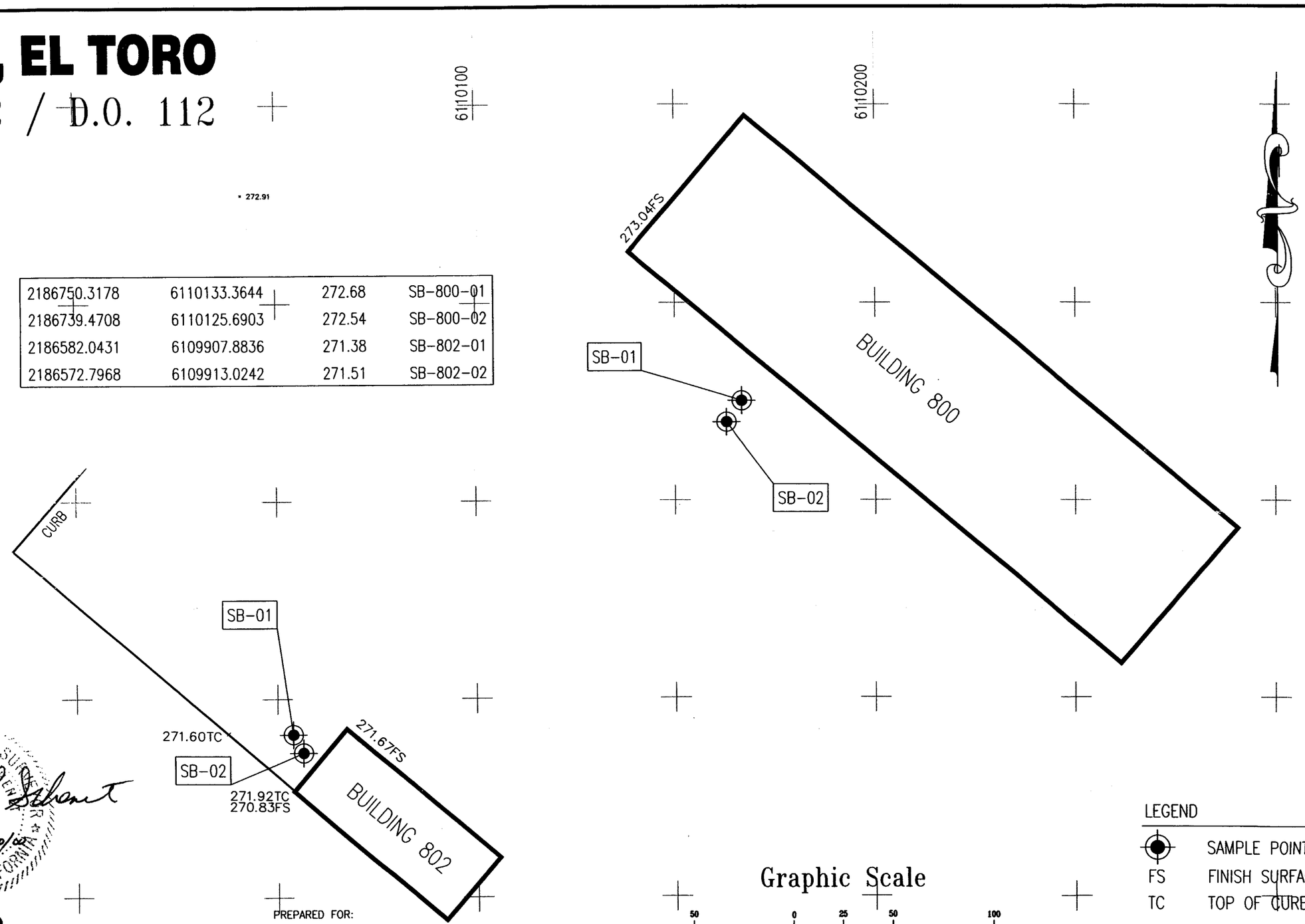
Comments: _____

115976

Appendix K
Land Survey Data

MCAS, EL TORO

800-802 / D.O. 112



2186750.3178	6110133.3644	272.68	SB-800-01
2186739.4708	6110125.6903	272.54	SB-800-02
2186582.0431	6109907.8836	271.38	SB-802-01
2186572.7968	6109913.0242	271.51	SB-802-02

LICENSED LAND SURVEYOR EDWARD L. SOENKSEN L.S. 4240 EXP. 6/30/00 STATE OF CALIFORNIA

Graphic Scale

50 0 25 50 100

(In Feet)

1 inch = 50 ft.

LEGEND

⊕	SAMPLE POINTS
FS	FINISH SURFACE
TC	TOP OF CURB

CAL VADA SURVEYING, INC.
108 Business Center Dr, Corona, Ca 92880-1720
PHONE: (909) 280-9960 FAX: (909) 280-9746

JOB NO. 97102-142

PREPARED FOR:
IT CORPORATION
3347 MICHELSON DR., SUITE 200
IRVINE, CA 92612-1692
(949) 660-7594

DATE OF SURVEY: 6-26-99

Appendix L
Waste Manifests

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA8170023208

Manifest Document No.: 20242-OWS 1

2. Page 1 of 4

3. Generator's Name and Mailing Address
MCAF El Toro
Caretaker Site Office, P.O. Box 444 East Irvine CA 92650

4. Generator's Phone ((619) 572-1403 Attn:

5. Transporter 1 Company Name: Ecology Control Industries, Inc.

6. US EPA ID Number: CAD982030173

7. Transporter 2 Company Name:

8. US EPA ID Number:

9. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 17th St.
Long Beach CA 90813

10. US EPA ID Number: CAD028409019

A. State Transporter's ID: HAHO360391

B. Transporter 1 Phone: (510) 235-1393

C. State Transporter's ID:

D. Transporter 2 Phone:

E. State Facility's ID:

F. Facility's Phone: (310) 432-5845

GENERATOR

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-regulated waste	001	TT	4500	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
11a. Profile# 16746 TPH impacted rinsate from oilwater separators, send copy of TSDF signed manifest and weight ticket to: ATTN: Steve Chandler 3347 Michelson Dr., Suite 200, Irvine, CA 92612
*All Quantities are Estimates
OWS845, 800F, & 802 Liquid Product

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Caution: Wear appropriate protective clothing and respiratory protection when handling.
IN CASE OF EMERGENCY CONTACT: Chem-Tel, Inc. at 1-800-255-3924##
Site pick up address: MCAF El Toro

NON-HAZARDOUS WASTE

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name | Signature | Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name | Signature | Date: Month Day Year

PRINTED ON RECYCLED PAPER USING SOYBEAN INK
PRINTED WITH SOY INK

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA0170023206

Manifest Document No.: 23247-2002

2. Page 1 of 1

3. Generator's Name and Mailing Address
MCAF El Toro
Caretaker Site Office, P.O. Box 444 East Irvine CA 92650

4. Generator's Phone (949) 572-1493 Attn:

5. Transporter 1 Company Name: Environ Control Industries, Inc.

6. US EPA ID Number: CAD982020473

7. Transporter 2 Company Name:

8. US EPA ID Number:

9. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 17th St.
Long Beach, CA 90813

10. US EPA ID Number: CAD028409619

A. State Transporter's ID: HAUG360389 1

B. Transporter 1 Phone: (310) 236-1393

C. State Transporter's ID:

D. Transporter 2 Phone:

E. State Facility's ID:

F. Facility's Phone: (310) 432-5446

GENERATOR

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-regulated waste	001	TT	1800	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

Rinsate With Water

11a. Profile# 19746. TPH impacted rinsate from oil/water separators. Send copy of EPA signed manifest and weight ticket to ATTN: Steve Chandler, 3347 Michelson Dr., Suite 200 Irvine, CA 92612
"All Quantities are Estimates" OWS 1702 OWS 802, OWS 800F OWS 845

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Caution: Wear appropriate protective clothing and respiratory protection when handling.
IN CASE OF EMERGENCY CONTACT: Chem-Tel, Inc. at 1-800-255-3924/88
Site pick up address: MCAF El Toro

NON-HAZARDOUS WASTE

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: | Signature: | Date Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: SANDY DAVIS | Signature: Sandy Davis | Date Month 10 Day 06 Year 99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: | Signature: | Date Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: | Signature: | Date Month Day Year

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