



September 6, 2000

Ms. Bozier H. Demaree, Code 02R.BD
Contracting Officer
Naval Facilities Engineering Command, Southwest Division
1220 Pacific Highway
San Diego, California 92132-5187

Attn: Ms. Lynn Marie Hornecker

**Re: Tank Closure Letter Report
Underground Storage Tank (UST) 324 G at
Marine Corps Air Station, El Toro, California
SWDIV Contract Number: N68711-93-D-1459
DCN SW 8799, Delivery Order Number: 0070**

This Tank Removal and Site Closure Report summarizes the field activities conducted and associated with the removal of an underground storage tank (UST) at Building 324. OHM Remediation Services Corp. (OHM) removed one UST and associated piping designated as UST 324G from the Building 324 (the Site) at Marine Corps Air Station, El Toro, California (hereinafter referred to as "the Station"). The location of the Site and Station is shown on Figure 1-1, Facility Location Map.

Building 324 is located in the southwest quadrant of the Station, south of Bee Canyon Wash and north of Agua Chinon Wash, near the cross section of South Marine Way and "R" street. UST 324G was located approximately 9-feet south of Building 324, former storage warehouse in an unpaved area. Building 324 and UST 324G locations are shown on Figure 1-2, Location Map.

Summary of Field Activities

Field activities were conducted in accordance with the approved *Draft Work Plan, Remediation of Various Underground Tanks at the Marine Corps Air Station, El Toro, California, OHM 1995*. Details of the UST 324G field activities are described below

Review of Station Maps

OHM consulted with Station's Caretaker Site Officer (CSO) to review Building 324G-construction maps. Station CSO provided following maps for Building 324G:

- Groundfloor, Testcells, Building 324, January 27, 1944. Drawing Number: 313593

OHM Remediation Services Corp.

3347 Michelson Drive, Suite 200
Irvine, CA 92612-1692
Tel. 949.261.6441
Fax. 949.474.8309

A Member of The IT Group

M60050.002526
MCAS EL TORO
SSIC #5090.3

- Plot Plan and Gasoline System. Drawing Number: 313580

OHM reviewed these drawings and confirmed that UST 324G was a 1500-gallon, concrete UST/sump used for the storage of waste oil. OHM used these drawing to further investigate location of UST 324G, associated piping, and underground utilities. Copies of these drawings are included in Appendix A, Station Drawings.

Site Inspection

OHM visually inspected UST 324G area and vicinity on May 12, 2000. UST 324G was located south of Building 324. No evidence of surface staining, waste material discharge or storage, stressed vegetation, or evidence of disturbance to gravel's or roads, was observed at the time of the visual inspections. A copy of the Site Inspection Log is included in Appendix B, Site Inspection Log.

Permitting and Utility Investigation

Prior to initiating field activities, OHM completed an Orange County Health Care Agency (OCHCA) Facility Modification Application and received approval (Plan Check Number: 00-PM-34 on 6/12/2000) for the removal of UST 324G. The OCHCA Facility Modification Application and approval form is provided as Appendix C.

UST Gauging and Removal

Per Station drawings, UST 324G was located and identified as a 1,500-gallon concrete UST used for the storage of waste oil. Additionally, a three (3) inch diameter steel pipe was identified adjacent to, and running northwest from the tank hold.

On June 11, 2000, OHM mobilized to the site. OHM exposed the top of UST 324G and associated pipe trench. The UST 324G was then gauged and approximately 220 gallons of water with floating fire retardant powder on top was discovered inside the UST. OHM pumped water into four (4) 55-gallon DOT approved steel drums, and the fire retardant powder was stored in one (1) separate drum.

On June 13, 2000, UST 324G was demolished in place and pieces of concrete with re-bar were excavated, removed and stockpiled pending offsite disposal. The bottom of the excavation was at a depth of approximately six (6) feet below ground surface (bgs). Approximately eighteen (18) cubic yards (yd³) of soil was excavated from the cavity around and immediately below UST 324G. Also, approximately 25 feet of 3" piping was removed from the pipe trench. No visual stains, spills, fuel odor, or discoloration was observed at the bottom, sidewalls, or stockpiled soil associated with the removal of UST 324G.

Based on visual evidence and field screening with a photo-ionization detector (PID), the OCHCA field inspector instructed OHM personnel to collect one confirmation soil sample from the bottom of the excavation, and two samples where the pipe had elbows, and joints.

Based on the visual field inspection of the excavated areas after the removal of the UST and associated piping, and the observed non-impacted excavated soil condition, no further excavation was conducted or required. OHM field personal collected photographic documentation of the field activities. Details on the management of the UST, piping, and excavated soil are described in the Waste Management section. Photographs of the field activities are included in Appendix D, Site Photographs.

Sampling, Analysis, and Results

Following the removal of UST 324G and associated piping, a total of four (4) soil samples were collected on June 13, 1999, one (1) confirmation soil sample from the bottom of the excavation, two (2) confirmation soil samples from the bottom of the pipe trench, and one (1) from the stockpiled soils. All sampling activities were conducted in the presence of an OCHCA field inspector. The confirmation soil sample locations are shown in Figure 1-3, Site Plan.

The confirmation soil samples were analyzed for following as approved by OCHCA field inspector:

- Total petroleum hydrocarbons purgable and extractable (TPH) by CA LUFT Method 8015 modified.
- Semi-volatile compounds including Benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE) were analyzed by EPA method 8260.
- Total recoverable petroleum hydrocarbons (TRPH) by EPA Method 418.1.

The analytical results of the confirmation soil samples are presented in Table 1-1, Confirmation Soil Sample Analytical Results – UST 324G. TPH-G, TPH-D, and BTEX compounds (including MTBE) were not detected above the laboratory reporting limits from excavation bottom and pipe trench samples. TRPH was detected at concentrations of 490 mg/kg in sample 18609-3093, 19 mg/kg in sample 18609-3095, and 37 mg/kg in sample 18609-3096. Laboratory analytical reports are provided in Appendix E.

Land Surveying

After completing the confirmation soil sampling, the limits of excavation and soil sample locations were surveyed 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 the UST 324G are presented as Appendix F.

Waste Management

Excavated soil (approximately 18 yd³) were removed and stockpiled on-site. Review of the confirmation soil sample analytical result and visual inspection confirmed that excavated soil was classified as Non-Hazardous.

All 4 drums of water and 1 drum of fire retardant powder were sent off-site to Crosby and Overton facility in Long Beach, California. Copies of the waste manifest are included in Appendix G.

The UST remains, pieces of concrete and rebar were disposed off-site on July 12 and 13, 2000 for recycling. A copy of the Waste Management of Orange County Service Order Invoice for disposal of the concrete is included in Appendix G. Piping associated with UST 324G was sent off-site as scrap metal recyclable with other steel tanks and piping.

Site Restoration

The UST 324G excavation and piping trench was backfilled on June 20, 2000 using the Non-Hazardous excavated soil and clean stockpiled soil located near former Tank Farm 5 area. The site was restored to original grade. Compaction was accomplished using a compaction wheel and backhoe.

Conclusions and Recommendations

Based on the information presented in this report and a review of the analytical results, the following conclusions have been reached:

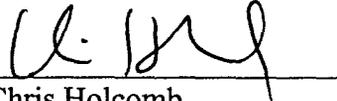
- UST 324G and associated piping was removed in the presence of an OCHCA field inspector and recycled off-site.
- There was no evidence of spillage, fuel odor or areas of heavy stains observed during the excavation and removal of UST 324G.
- There was no groundwater encountered in the excavation. The depth to the groundwater varies in the vicinity of UST 324G is estimated to be approximately 100 feet bgs based on the recent data obtained from the nearby groundwater monitoring well 07_DBMW100.
- The analytical results of the one confirmation soil sample collected from the bottom of the excavation and two piping trench samples did not detect concentrations above the laboratory reporting limits for BTEX, MTBE, and TPH compounds. TRPH was detected at 490 mg/kg in excavation bottom sample and 19 mg/kg in pipe trench sample.

Based on the information provided in this report, OHM, on behalf of the Station, recommends that a closure of UST 324G (Plan Check No. 00-PM-034) be granted by OCHCA.

Should you have any questions or comments, please feel free to contact either of the undersigned at (949) 261-6441.

Sincerely,

OHM Remediation Services Corporation



Chris Holcomb
Geologist



Dhananjay Rawal
Project Manager

Attachments:

Table 1-1	Summary of Analytical Results – UST 324G
Figure 1-1	Facility Location Map
Figure 1-2	Location Map
Figure 1-3	Site Plan
Appendix A	Station Drawings
Appendix B	Site Inspection Log
Appendix C	OCHCA Facility Modification Application
Appendix D	Photographic Documentation
Appendix E	Laboratory Analytical Results
Appendix F	Land Survey Data
Appendix G	Waste Manifest

Tables

Table 1-1
Summary of Analytical Results — UST 324G

Sample Identification		18609-3093	18609-3094	18609-3095	18609-3096
Location Code		Tank-324G-EX-1	Tank-324G-Pipe 1	Tank-324G-Pipe 1	Tank-324G-Stockpile
Date Sampled		06/13/00	06/13/00	06/13/00	06/13/00
Depth (feet below ground surface)		10.0	4.0	4.0	Surface
	Unit				
<i>CA LUFT 8015M</i>					
TPH as Diesel	mg/kg	12 U	11.6 U	11.7 U	11.3 U
TPH as Gasoline	mg/kg	1.16 U	1.16 U	1.17 U	1.13 U
<i>EPA 418.1</i>					
Total Recoverable Petroleum Hydrocarbon	mg/kg	490	11.6 U	19	37
<i>EPA 8260A</i>					
1,1,1-Trichloroethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
1,1,2,2-Tetrachloroethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
1,1,2-Trichloroethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
1,1-Dichloroethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
1,1-Dichloroethene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
1,2-Dichloroethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
1,2-Dichloropropane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
2-Butanone (MEK)	µg/kg	58 U	58 U	58 U	56 U
2-Chloroethyl vinyl ether	µg/kg	58 U	58 U	58 U	56 U
2-Hexanone	µg/kg	58 U	58 U	58 U	56 U
4-Methyl-2-pentanone (MIBK)	µg/kg	58 U	58 U	58 U	56 U
Acetone	µg/kg	33 J	58 U	58 U	83
Benzene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Bromodichloromethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Bromoform	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Bromomethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Carbon disulfide	µg/kg	12 U	12 U	12 U	11 U
Carbon tetrachloride	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Chlorobenzene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Chloroethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Chloroform	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Chloromethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
cis-1,2-Dichloroethene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
cis-1,3-Dichloropropene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Dibromochloromethane	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Ethylbenzene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U

Table 1-1
Summary of Analytical Results — UST 324G

Sample Identification		18609-3093	18609-3094	18609-3095	18609-3096
Location Code		Tank-324G-EX-1	Tank-324G-Pipe 1	Tank-324G-Pipe 1	Tank-324G-Stockpile
Date Sampled		06/13/00	06/13/00	06/13/00	06/13/00
Depth (feet below ground surface)		10.0	4.0	4.0	Surface
	Unit				
Methyl tert-butyl ether (MTBE)	µg/kg	12 U	12 U	12 U	11 U
Methylene chloride	µg/kg	12 U	12 U	12 U	11 U
Styrene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Tetrachloroethene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Toluene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
trans-1,2-Dichloroethene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
trans-1,3-Dichloropropene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Trichloroethene	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Vinyl acetate	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Vinyl chloride	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U
Xylenes (total)	µg/kg	5.8 U	5.8 U	5.8 U	5.6 U

OHM Remediation Services Corp.

Table 1-1
Summary of Analytical Results — UST 324G

Explanation:

CA LUFT - California Leaking Underground Fuel Tank

DCN - document control number

EPA - United States Environmental Protection Agency

HA - hand auger

J - estimated value

M - Modified

MDL - method detection limit

mg/kg - milligrams per kilogram

NA - not analyzed

OHM - OHM Remediation Services Corp.

PRG - Preliminary Remediation Goal, EPA Region IX, October 1999

R - data is not usable

RL - reporting limit

TPH - total petroleum hydrocarbons

U - not detected above or equal to the stated reporting limit

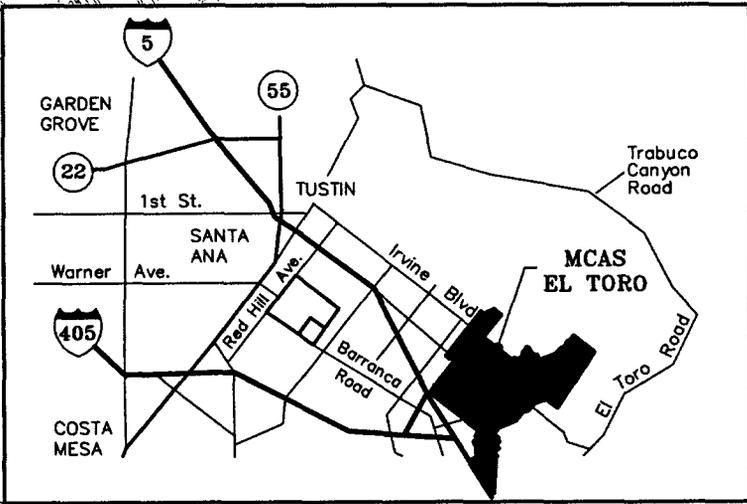
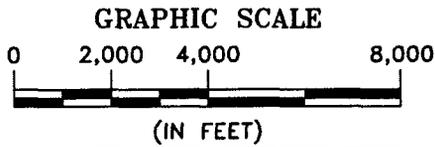
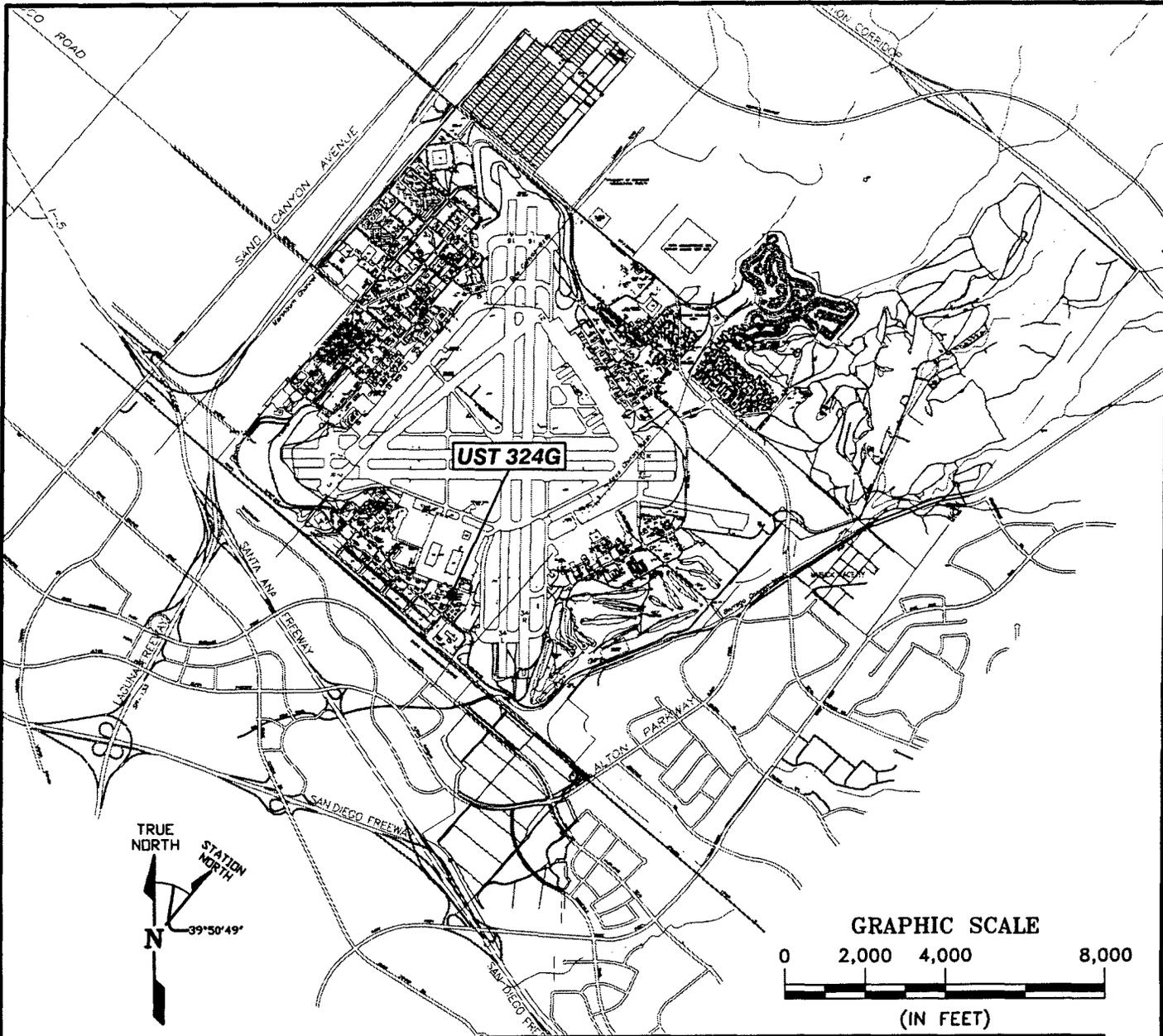
UJ - the sample detection limit is an estimated value

µg/kg - micrograms per kilogram

UST - underground storage tanks

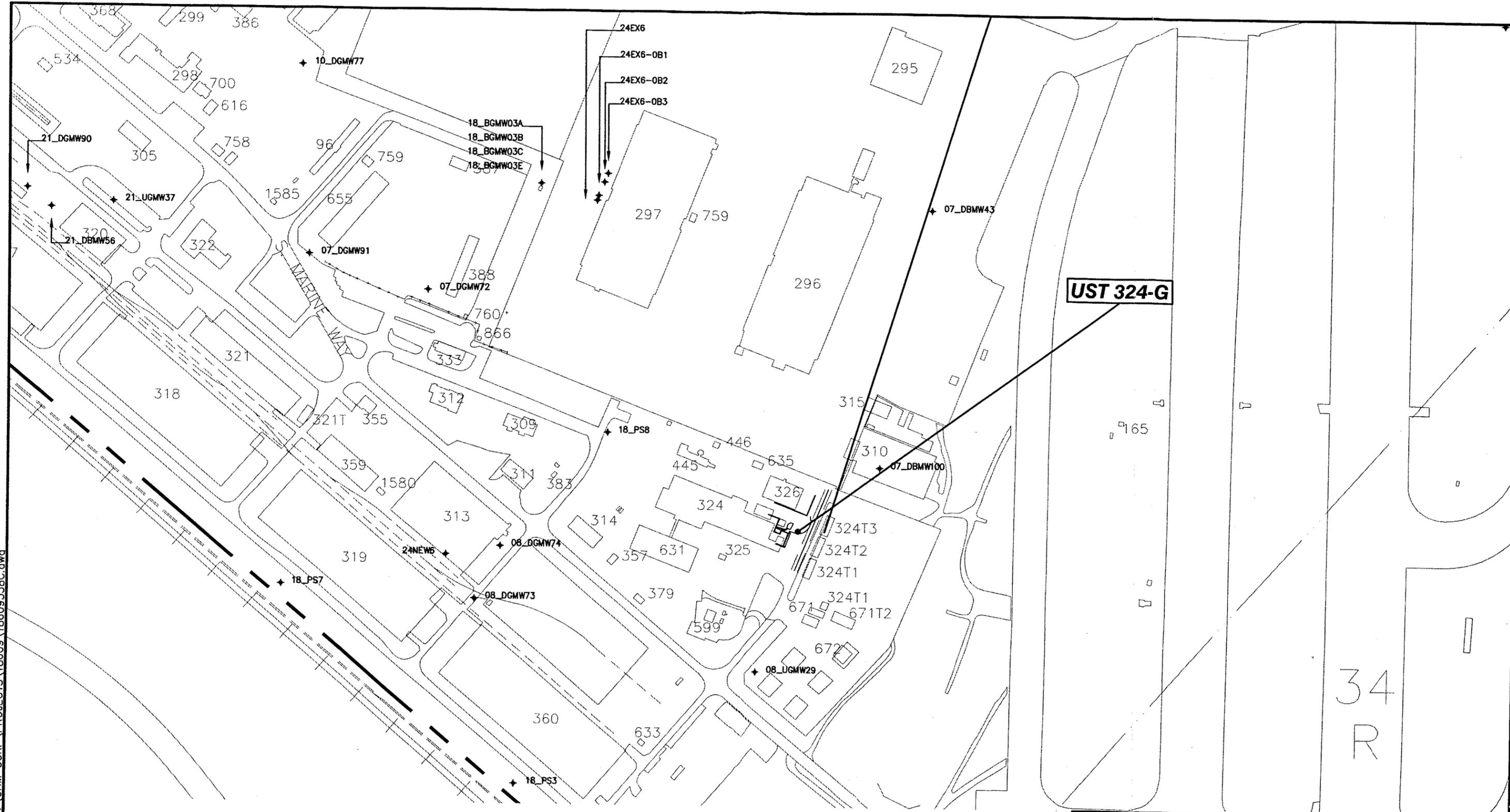
Figures

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OHM Remediation Services Corp. A Subsidiary of OHM Corporation SAN DIEGO, CA			DRAWN BY R. PIRMORADIAN	DATE 8/21/00	FACILITY LOCATION MAP UST 324-G		
CONTRACT NAME SWDIV			CHECKED BY <i>[Signature]</i>	DATE 9-6-00			
AUTOCAD FILE No. 18609338A.DWG			APPROVED BY [Signature]	DATE 9/5/00	OHM PROJECT No. 18609	FIGURE No. FIG 1-1	REVISION 0
PLOT SCALE 1=1	SHEET 1	OF 1	SCALE 1"=4,000'	DOCUMENT CONTROL No. SW8799			

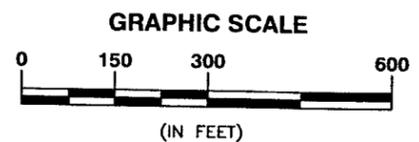
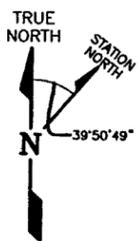
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UST 324-G

34
R

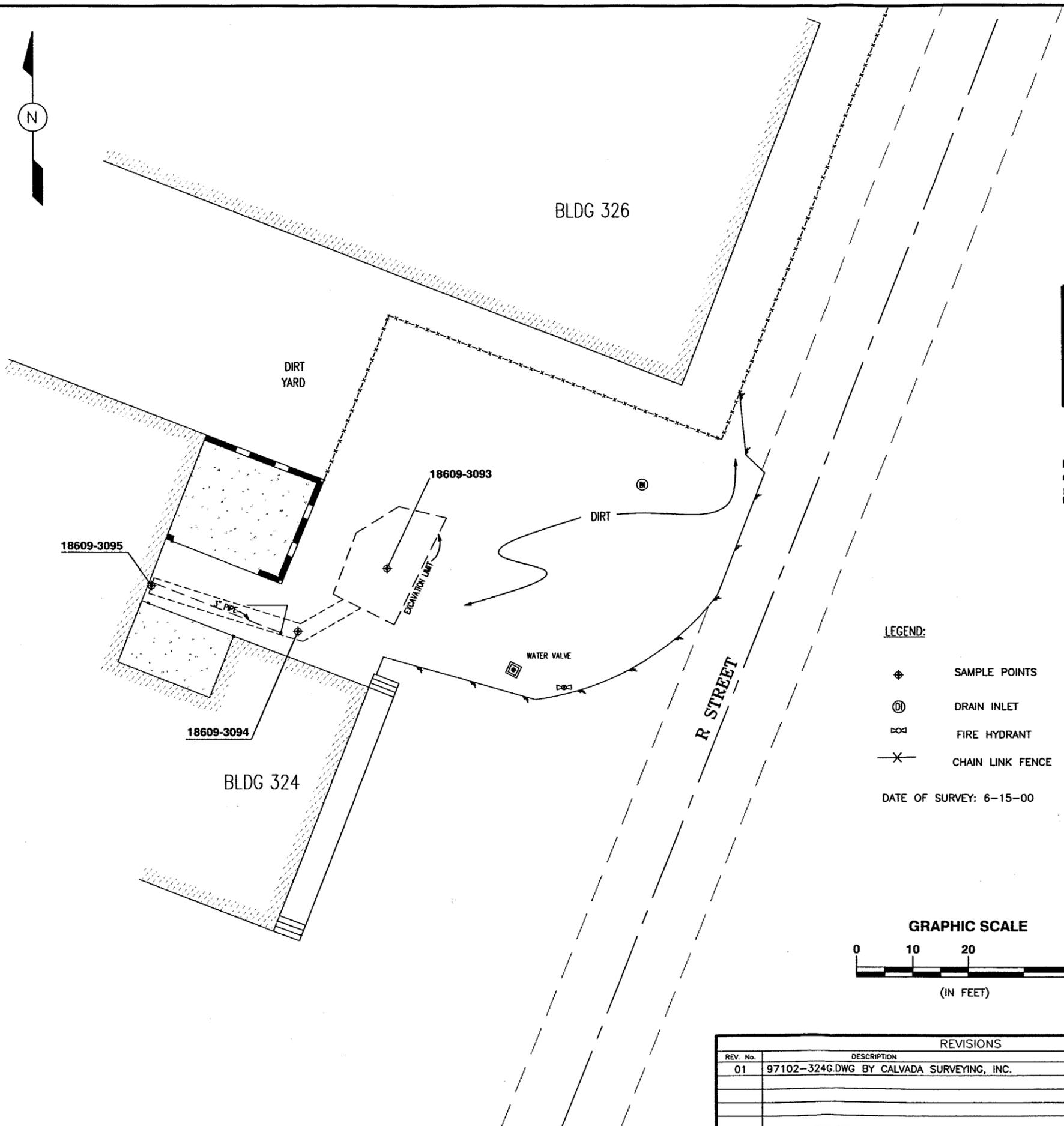
EXPLANATION:
 + GROUNDWATER MONITORING WELL



REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED

CONTRACT NAME SWDIV		OHM Remediation Services Corp. A Subsidiary of OHM Corporation IRVINE, CA	
DRAWN BY R. PIRMORADIAN	DATE 9/5/00	LOCATION MAP UST 324-G MARINE CORPS AIR STATION EL TORO, CALIFORNIA	
CHECKED BY <i>CA</i>	DATE 9-6-00		
APPROVED BY	DATE		
PROJECT MANAGER <i>DR</i>		DATE 9/5/00	OHM PROJECT No. 18609
AUTOCAD FILE No. 18609338C.DWG		SCALE 1"=300'	
			DRAWING No. FIG 1-2

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SAMPE COORDINATE LISTING

NORTHING	EASTING	FS	DESCRIPTION
2187761.95	6110225.03	282.26	18609-3093
2187750.41	6110208.98	282.31	18609-3094
2187758.82	6110182.55	282.26	18609-3095

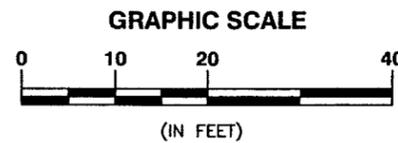
SAMPLE IDENTIFICATION	DATE:	TPH-G (mg/kg)	TPH-D (mg/kg)	TRPH (mg/kg)	MTBE (µg/kg)	B (µg/kg)	T (µg/kg)	E (µg/kg)	X (µg/kg)
CONFIRMATION SAMPLES									
18609-3093	6/13/00	1.16 U	12 U	490	12	5.8 U	5.8 U	5.8 U	5.8 U
18609-3094	6/13/00	1.16 U	11.6 U	11.6 U	12	5.8 U	5.8 U	5.8 U	5.8 U
18609-3095	6/13/00	11.7 U	11.7 U	19	12	5.8 U	5.8 U	5.8 U	5.8 U

NOTES:
 mg/kg= MILLIGRAM PER KILOGRAM
 µg/kg= MICROGRAM PER KILOGRAM
 U= BELOW OR EQUAL TO DETECTION LIMIT

LEGEND:

- ◆ SAMPLE POINTS
- ⊙ DRAIN INLET
- ⊠ FIRE HYDRANT
- ✕ CHAIN LINK FENCE

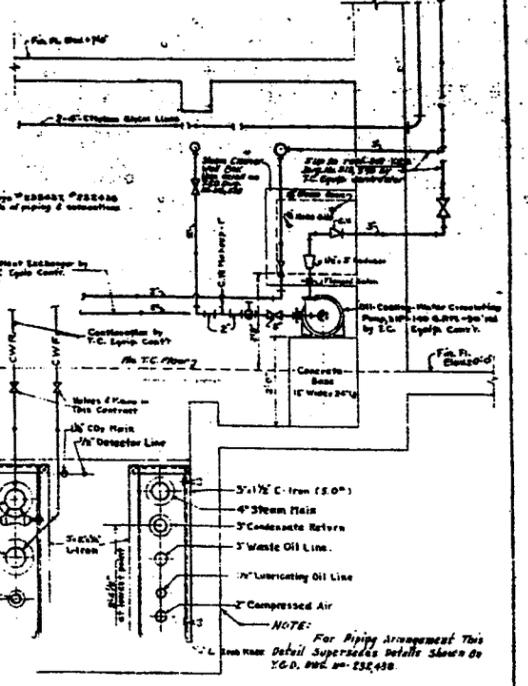
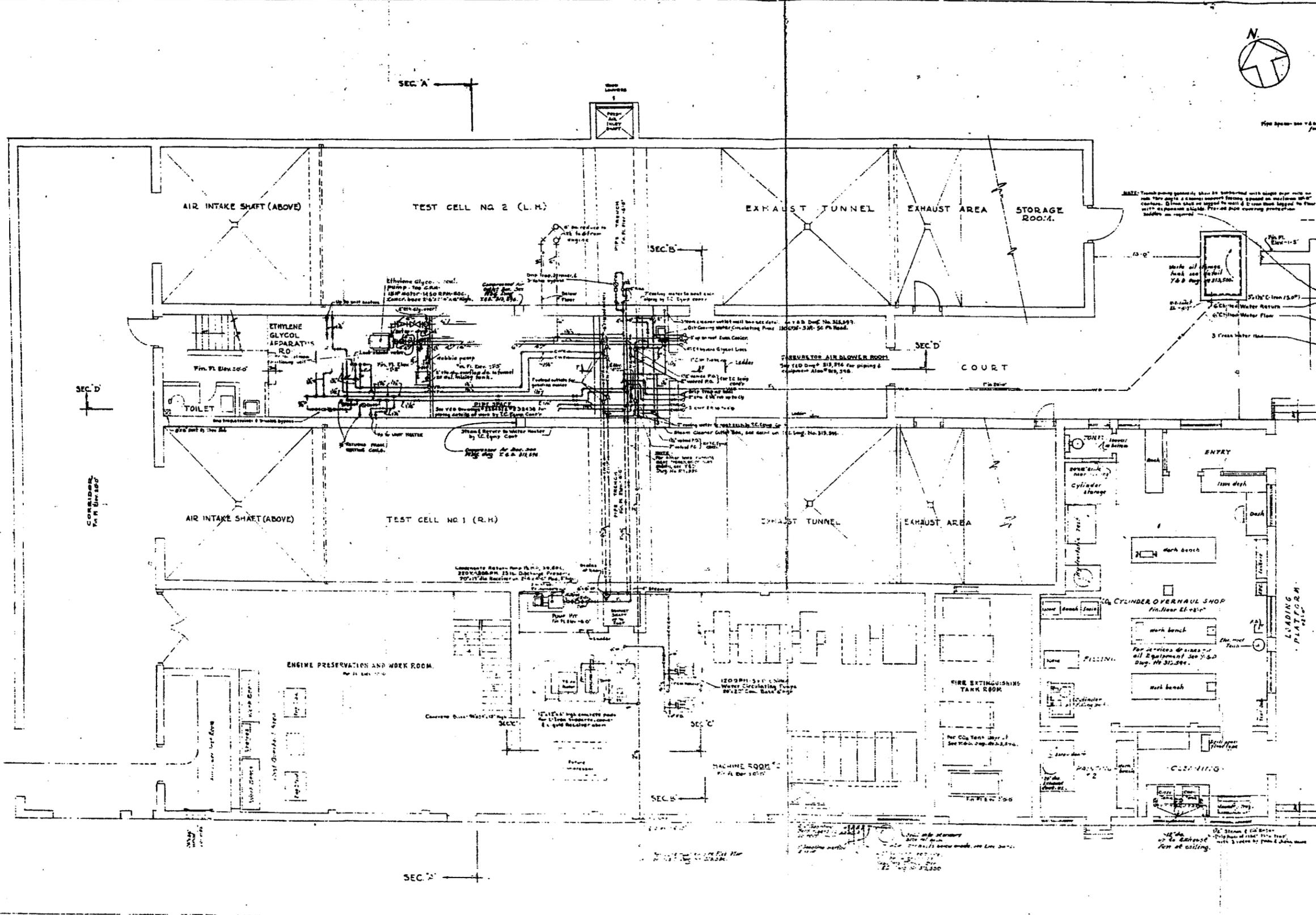
DATE OF SURVEY: 6-15-00



REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED
01	97102-324G.DWG BY CALVADA SURVEYING, INC.	6/15/00	

CONTRACT NAME SWDIV		 OHM Remediation Services Corp. <small>A Subsidiary of OHM Corporation</small> <small>IRVINE, CA</small>
DRAWN BY R. PIRMORADIAN		
DATE 9/5/00		SITE PLAN UST 324-G MARINE CORPS AIR STATION CALIFORNIA, CALIFORNIA
CHECKED BY <i>[Signature]</i>		
DATE 9-6-00		
APPROVED BY <i>[Signature]</i>		MARINE CORPS AIR STATION CALIFORNIA, CALIFORNIA
DATE 9/5/00		
PROJECT MANAGER <i>[Signature]</i>		18609
DATE 9/5/00		
AUTOCAD FILE No. 18609338B.DWG		FIG 1-3
SCALE 1"=20'		
SHEET 1	OF 1	DOCUMENT CONTROL No. SW8799
OHM PROJECT No. 18609		DRAWING No. FIG 1-3

Appendix A
Station Drawings

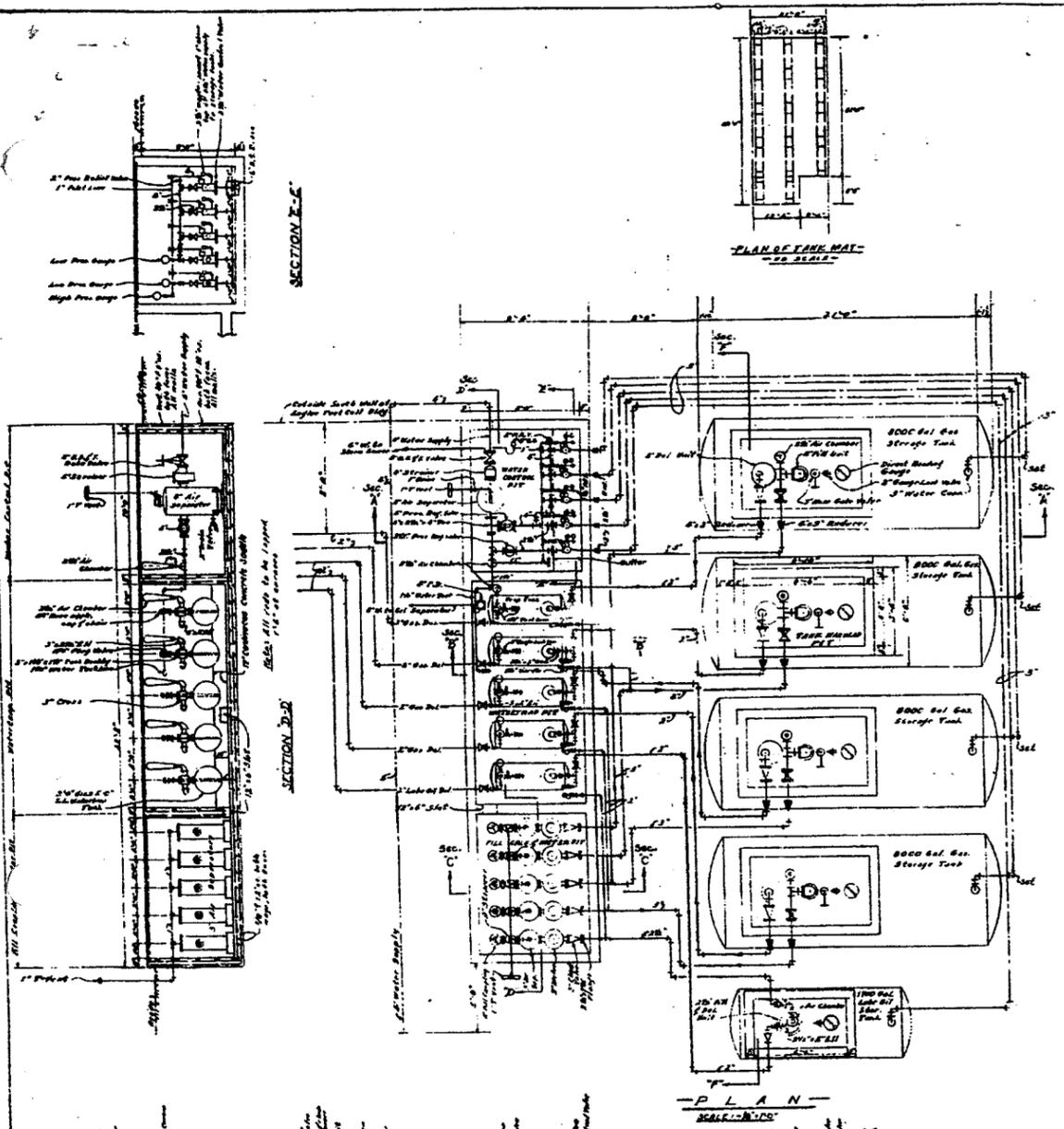


KEY TO SYMBOLS

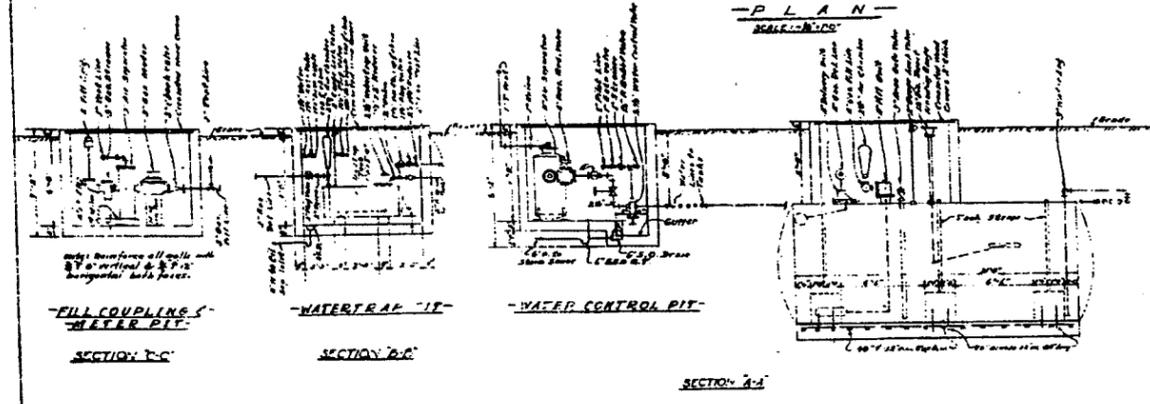
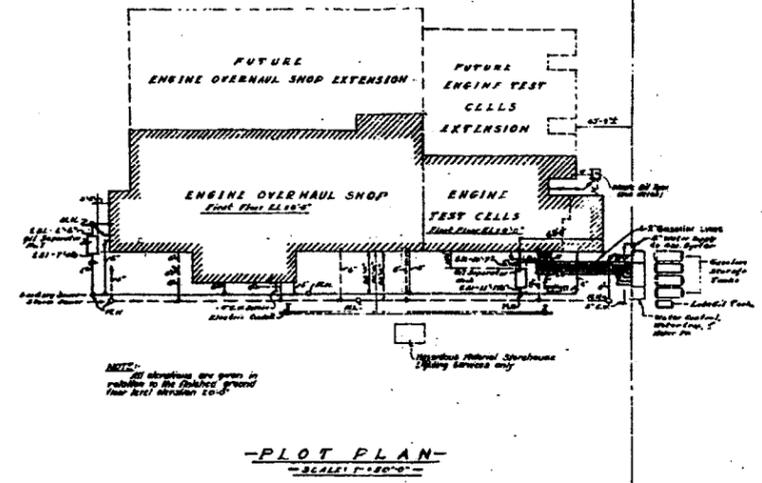
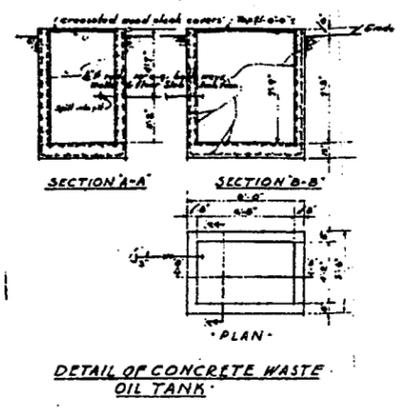
—	High Pressure Steam
—	High Pressure Return
—	Chilled Water Flow
—	Chilled Water Return
—	Circulating Cooling Water
—	Lubricating Oil
—	Waste Oil
—	Compressor Pump Discharge
—	Gasoline Lines
—	Hand Valves
—	Thermostatic Control Valves
—	Check Valves
—	Lock Blind Valve
—	3" Valve
—	Return or Dip Trap
—	Strainer (Strainer)
—	Reference Lines
—	Valve Lines
—	Reference Line Designator
—	Pumped Outlets
—	Outlets Air

APPROVED BY: [Signature] CONTRACT NO. 313.593	J.A.C. BAIRD & ROLLS ENGINEERS - NEW YORK, N.Y. CONTRACT NO. 313.593	W. E. HARRISON & J. A. FOURPOUR ARCHITECTS
NAVY DEPARTMENT BUREAU OF YARDS AND DOCKS		
U.S. MARINE CORPS AIR STATION - EL YARD, CALIFORNIA ENGINE OVERHAUL BUILDING AND TEST CELLS		
GROUND FLOOR TEST CELLS		
SCALE: 1/4" = 1'-0" (NOTED)		MECHANICAL
APPROVED BY: [Signature] Y.D. DRAWING NO. 313.593		Y.D. DRAWING NO. 313.593

J.B. & DWG. NO. T-1-115
 B109 324-1, EL 700



GASOLINE & LUBE OIL STORAGE SYSTEM
SCALE: 1/8"=1'-0"



JAMES BALM & BOLLES ENGINEERS - NEW YORK, N. Y. CONTRACT NO. 8-4-47		W. K. HARRISON & J. J. FOULMOUR ASSOCIATE ARCHITECTS	
NAVY DEPARTMENT BUREAU OF YARDS AND DOCKS			
U.S. NAVALY CORPS AIR STATION - EL TORO, CALIFORNIA			
ENGINE OVERHAUL BUILDING AND TEST CELLS			
PLOT PLAN & GASOLINE SYSTEM			
APPROVED BY OFFICER IN CHARGE, CONTRACT NO. 8-4-47		APPROVED BY CHIEF OF BUREAU	
DATE: APRIL 22 1947		DRAWING NO. 313,580	

Appendix B
Site Inspection Log

SITE ASSESSMENT LOG
MCAS El Toro
REMEDIATION OF VARIOUS UST SITES
20242, D.O. H2-70

UST SITE: 324G

Field Observations by: D. Rawal

Date: 5/12/2000

~~Former~~ UST area: Paved or Unpaved UST 324G is located at Appx. 10 feet South of Building 324. ~~to~~ former warehouse building.

Paved: Concrete or Asphalt N/A

Unpaved: Open dirt area Yes.

Any Visible Sprinkler System: Yes/No

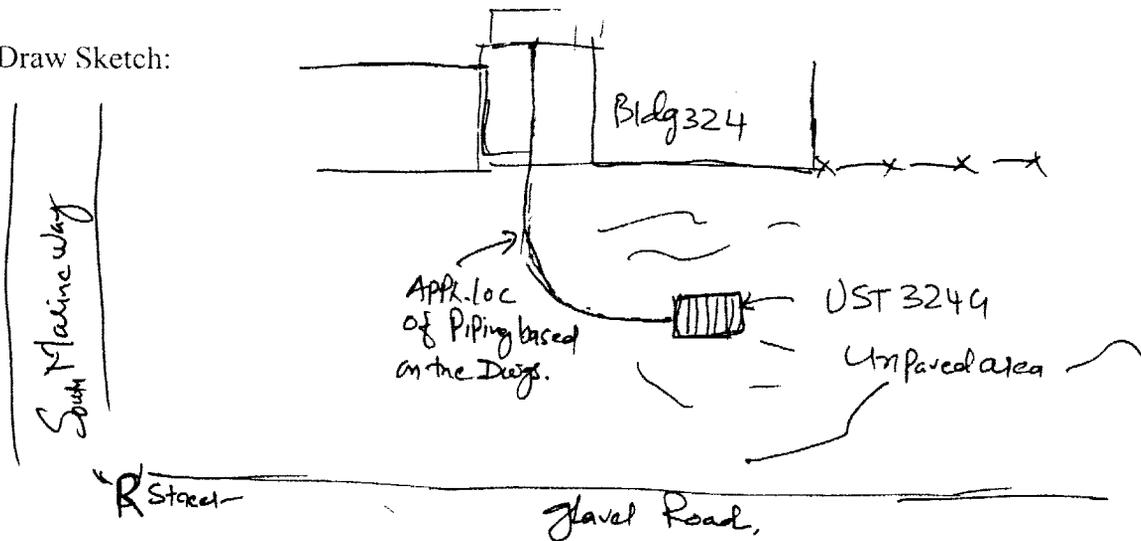
-Nearest Building or Structure Distance: Building 324, Appx 10 feet-

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

-Overhead Utility Lines/Poles: None

-Site Setup Constrains: None

Draw Sketch:

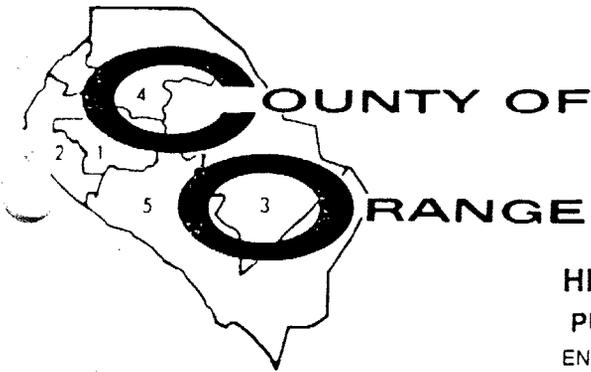


Additional Field Notes:

UST 324G is a concrete sump type UST/tank. The top of the UST is covered with wood beams. Some liquid/water is present inside the UST with floating powder. Per Station map, there is a fuel line associated with UST which will be ~~sub~~ traced by geophysical survey.

Appendix C

OCHCA Facility Modification Application



TOM URAM
DIRECTOR

HUGH F. STALLWORTH, M.D.
HEALTH OFFICER

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

**HEALTH CARE AGENCY
PUBLIC HEALTH SERVICES**

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

DATE: 6/6/00

**FACILITY MODIFICATION
APPLICATION**
(INSTALLATION/REMOVAL/REPAIR)
(COMPLETE PAGES 1 & 2)

FACILITY INFORMATION

NAME: Maxine Corps Air Station ELTORO

STREET ADDRESS: UST 324A Building 324

CITY: IRVINE CA

TOTAL NUMBER OF TANKS (AFTER INSTALLATION/REMOVAL)
AT THIS LOCATION: 0

TYPE OF BUSINESS:

- GASOLINE STATION
- GOVERNMENT
- FARM
- OTHER

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

MCAS ELTORO / CSO

STREET ADDRESS: P O Box 444

CITY: EAST IRVINE

STATE: CA ZIP 92650

TELEPHONE NO: 949-726-2506

BILLING ADDRESS INFORMATION

BILL TO NAME: IT CORPORATION

BILL TO ADDRESS: 3347 MICHELSON DRIVE

CITY: IRVINE

STATE: CA ZIP 92612

TELEPHONE NO.: 949-261-6441

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

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

TYPE OF CONSTRUCTION

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

- INSTALLATION(S)
- REPAIR(S)/RELINING(S) TO USTs
- CLOSURE(S)/REMOVAL(S)
- SYSTEM MODIFICATION (E.G. REPIPE, REPAIR TO PIPING)
- OTHER (SPECIFY) _____

24 HOUR EMERGENCY CONTACT PERSON

DAYS: SCOTT KEHE ^{OFF - 949-726-2506}
NAME: SCOTT KEHE TELEPHONE: CELL - 619-572-1400

NIGHTS: IT/CHM ^{24 hr emergency}
NAME: IT/CHM TELEPHONE: 800-537-9540

APPLICANT

NAME: Dhananjay Rawal
PLEASE PRINT

SIGNATURE: [Signature]

COMPANY NAME: IT CORPORATION

TELEPHONE NO: 949-660-7576

FACILITY OPERATOR (CONTACT PERSON)

NAME: SCOTT KEHE CSO

BUSINESS TELEPHONE NO.: 949-726-2506

OFFICE USE ONLY

PLAN CHECK NO.: 00PM 34

FEES PAID: _____

RCVD. BY: _____

PLAN APPROVAL DATE: 6-12-00

BY: [Signature]

NUMBER OF TANKS TO RECEIVE A SURCHARGE BILL: _____

NUMBER OF TANKS TO BE ADDED TO BILLING: _____

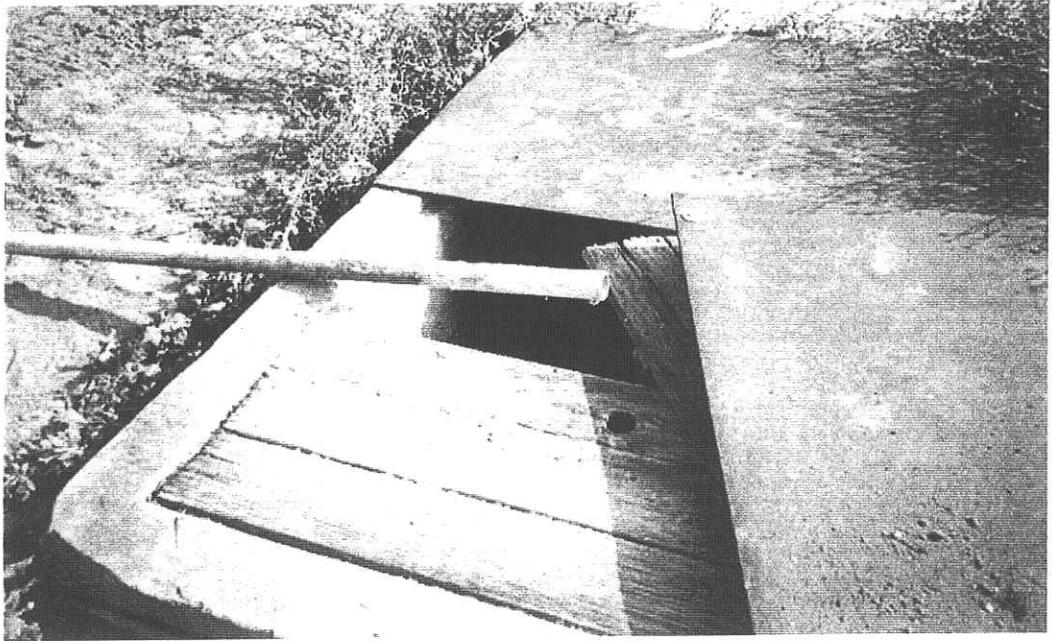
TANK INFORMATION

PROVIDE THE INFORMATION BELOW FOR ALL TANKS AND PIPING SYSTEMS TO BE INSTALLED, REMOVED OR REPAIRED. ALSO INDICATE THE UPGRADE/CHANGES TO BE MADE TO EACH TANK SYSTEM.

UST 3249

TANK I.D.			#1	#2	#3	#4	
MATERIAL STORED	MATERIAL OR WASTE STORED	CURRENTLY	Water				
		PROPOSED	None				
		PREVIOUSLY	Wasteoil				
FUEL TYPE, I.E., UNLEADED			Unleaded				
C O N T A I N E R	TYPE (TANK, SUMP, OTHERS)		Sump Tank				
	DOUBLE WALL/SINGLE WALL		Single				
	UL NUMBER		N/A				
	YEAR INSTALLED						
	VAULTED/NOT VAULTED		Concrete Vault				
	PRIMARY	MANUFACTURER		Unknown	APPROVED ORANGE COUNTY HEALTH CARE AGENCY ENVIRONMENT HEALTH DIVISION HAZARDOUS MATERIALS MANAGEMENT SECTION THIS APPROVAL IS VALID FOR 12 MONTHS FROM THE APPROVAL DATE		
		CAPACITY (GALLONS)		Appx. 1500 gallon			
		CONSTRUCTION MATERIAL		Concrete			
		THICKNESS (UNITS)		Unknown			
		INTERIOR LINING		Unknown			
	SECONDARY	MANUFACTURER			AP	6/12/00	00PM 34
		CAPACITY (GALLONS)			Plan Reviewed By	Date	Plan #
CONSTRUCTION MATERIAL		N/A	This approval shall not be construed to permit the violation of any law, nor does it prevent further corrections of errors found on the plans. Plans must be resubmitted for approval if any additional changes are made by the applicant.				
THICKNESS (UNITS)			In addition to this approval, all applicable permits required by the local fire department, building department, and the Air Quality Management District must be obtained.				
CORROSION PROTECTION							
TYPE OF LEAK DETECTION FOR USTs (LIQUID, PROBE, ETC.)							
MANUFACTURER OF LEAK DETECTOR							
P I P I N G	LOCATION (UNDER/ABOVE GROUND)		Underground	Underground tank installation, removal, and repair inspections are required and must be scheduled 48 hours in advance. Contact (714) 667-3800 for an appointment.			
	SUCTION/PRESSURE GRAVITY/UNKNOWN		Gravity	A copy of these approved plans must be available at the site at all times.			
	PRIMARY	CONSTRUCTION MATERIAL	Steel				
		MANUFACTURER	N/A				
	SECONDARY	CONSTRUCTION MATERIAL	N/A				
		MANUFACTURER					
	TYPE OF LEAK DETECTION FOR PIPING (PRESSURE LOSS DEVICE, ETC.)		None				
MANUFACTURER OF LEAK DETECTOR		None					
OVERFILL PROTECTION (TYPE)		N/A	All piping associated with underground storage tanks shall be removed and properly disposed				
L CONTAINMENT (TYPE)		N/A					

Appendix D
Photographic Documentation



Comments: gauging the tank prior to excavation



Comments: piping trench at 324G.



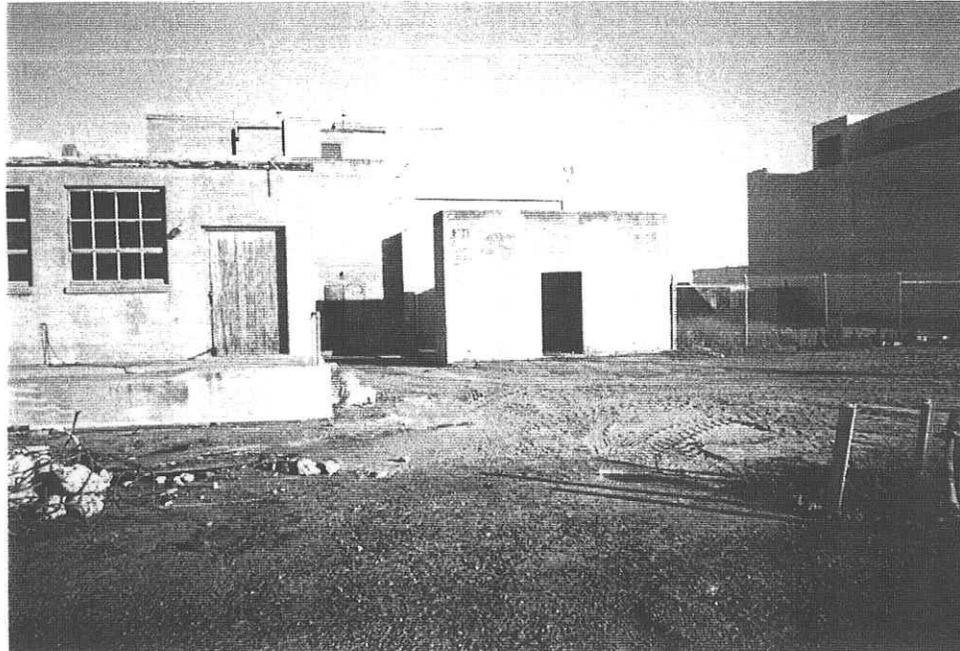
Comments: UST 324G piping trench



Comments: UST 324G excavation.



Comments: Removal of UST 324G



Comments: Site restoration

Appendix E
Laboratory Analytical Results

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

- ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.
- PLEASE WRITE LEGIBLY.
- ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.

4. TO BE COMPLETED BY LABORATORY ANALYST

LAB NO.: _____

DATE RECEIVED: _____

SAMPLE(S) CONDITION (PLEASE CHECK):

CHILLED: _____ COUNTY SEAL(S) INTACT: _____

CONTAINER IN GOOD CONDITION: _____

DATE ANALYSIS COMPLETED: _____

ANALYST: _____

5. TO BE COMPLETED BY SAMPLE COLLECTOR

SITE NAME/ADDRESS: MCAS El Toro
Bldg. 324, Tank #324G, S.A.

DATE OF COLLECTION: 6-13-00

SAMPLE COLLECTOR/COMPANY: W. Jefferson
IT Corporation

TELEPHONE NO.: _____

HCA REPRESENTATIVE: A. Pashidi-Sard
(714) 667-3713

6.

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
18609-3093-324G	TRPH (418.1)	BTEX, NITR + chlorinated solvents (8260)	
18609-3094-324G	↓	↓	
18609-3095-324G	↓	↓	
18609-3096-324G	↓	↓	

7.

CHAIN OF CUSTODY		
1.	<u>Aghavan Pashidi-Sard</u> SIGNATURE	<u>Herz Waste</u> COMPANY/AGENCY
		<u>6-13-00 - 9:00 am</u> INCLUSIVE DATE
2.	<u>Lynn Jefferson</u> SIGNATURE	<u>IT Corp</u> COMPANY/AGENCY
		<u>6-13-00 -</u> INCLUSIVE DATE
3.	_____ SIGNATURE	_____ COMPANY/AGENCY
		_____ INCLUSIVE DATES/TIMES
4.	_____ SIGNATURE	_____ COMPANY/AGENCY
		_____ INCLUSIVE DATES/TIMES
5.	_____ SIGNATURE	_____ COMPANY/AGENCY
		_____ INCLUSIVE DATES/TIMES
6.	_____ SIGNATURE	_____ COMPANY/AGENCY
		_____ INCLUSIVE DATES/TIMES

EMAX

LABORATORIES, INC.

630 Maple Ave.
Torrance, CA 90503

Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 06-22-2000
EMAX Batch No.: 00F058

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

Enclosed is the Laboratory report for samples received on
06/13/00. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18609-3091	F058-01	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS
18609-3092	F058-02	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS
18609-3093	F058-03	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3094	F058-04	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3095	F058-05	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3096	F058-06	06/13/00	SOIL	TPH Diesel

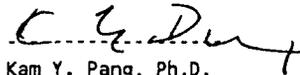
Sample ID	Control #	Col Date	Matrix	Analysis
18609-3097	F058-07	06/13/00	SOIL	TPH Gasoline Volatile Organics by GC/MS TPH Recoverable TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3098	F058-08	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3099	F058-09	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3100	F058-10	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3101	F058-11	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3102	F058-12	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3103	F058-13	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3104	F058-14	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3105	F058-15	06/13/00	SOIL	TPH Diesel TPH Gasoline Volatile Organics by GC/MS TPH Recoverable
18609-3106	F058-16	06/13/00	SOIL	TPH Diesel TPH Gasoline

Sample ID	Control #	Col Date	Matrix	Analysis
18609-3107	F058-17	06/13/00	SOIL	Volatile Organics by GC/MS TPH Recoverable TPH Diesel TPH Gasoline
18609-3108	F058-18	06/13/00	SOIL	Volatile Organics by GC/MS TPH Recoverable TPH Diesel TPH Gasoline
18609-3109	F058-19	06/13/00	SOIL	Volatile Organics by GC/MS TPH Recoverable TPH Diesel TPH Gasoline
18609-3110	F058-20	06/13/00	SOIL	Volatile Organics by GC/MS TPH Recoverable TPH Diesel TPH Gasoline
18609-3111	F058-21	06/13/00	SOIL	Volatile Organics by GC/MS TPH Recoverable TPH Diesel TPH Gasoline

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,



Kam Y. Pang, Ph.D.
Laboratory Director

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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=====
Client      : IT CORPORATION           Date Collected: 06/13/00
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 06/13/00
Batch No.   : 00F058                 Date Extracted: 06/14/00 18:28
Sample ID   : 18609-3093             Date Analyzed: 06/14/00 18:28
Lab Samp ID: F058-03                 Dilution Factor: 1
Lab File ID: RFV340                  Matrix          : SOIL
Ext Btch ID: VOF3101                 % Moisture      : 13.6
Calib. Ref.: RFV333                  Instrument ID   : T-001
=====

```

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.8	.39
1,1,2,2-TETRACHLOROETHANE	ND	5.8	.85
1,1,2-TRICHLOROETHANE	ND	5.8	.76
1,1-DICHLOROETHANE	ND	5.8	.61
1,1-DICHLOROETHENE	ND	5.8	.56
1,2-DICHLOROETHANE	ND	5.8	1.1
1,2-DICHLOROPROPANE	ND	5.8	.63
2-BUTANONE	ND	58	1.8
2-CHLOROETHYLVINYLETHER	ND	58	.86
2-HEXANONE	ND	58	1.7
4-METHYL-2-PENTANONE	ND	58	3.3
ACETONE	33J	58	3.3
BENZENE	ND	5.8	.61
BROMODICHLOROMETHANE	ND	5.8	.49
BROMOFORM	ND	5.8	.69
BROMOMETHANE	ND	5.8	4.2
CARBON DISULFIDE	ND	12	.39
CARBON TETRACHLORIDE	ND	5.8	.62
CHLOROBENZENE	ND	5.8	.54
CHLOROETHANE	ND	5.8	1.1
CHLOROFORM	ND	5.8	.61
CHLOROMETHANE	ND	5.8	.61
CIS-1,2-DICHLOROETHENE	ND	5.8	.53
CIS-1,3-DICHLOROPROPENE	ND	5.8	.47
DIBROMOCHLOROMETHANE	ND	5.8	.42
ETHYLBENZENE	ND	5.8	.53
MTBE	ND	12	.88
METHYLENE CHLORIDE	ND	12	3.5
STYRENE	ND	5.8	.39
TETRACHLOROETHENE	ND	5.8	.39
TOLUENE	ND	5.8	.67
TRANS-1,2-DICHLOROETHENE	ND	5.8	.55
TRANS-1,3-DICHLOROPROPENE	ND	5.8	.52
TRICHLOROETHENE	ND	5.8	.71
VINYL ACETATE	ND	58	.96
VINYL CHLORIDE	ND	5.8	.68
XYLENES	ND	5.8	1.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	130	52-149
BROMOFLUOROBENZENE	85	65-135
TOLUENE-DB	97	65-135

PRL: Proj
* : Out s
J : An e
E : Val
B : For
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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=====
Client       : IT CORPORATION           Date Collected: 06/13/00
Project      : MCAS EL TORO/18609/D.O. 70 Date Received: 06/13/00
Batch No.    : 00F058                 Date Extracted: 06/14/00 19:02
Sample ID    : 18609-3094             Date Analyzed: 06/14/00 19:02
Lab Samp ID  : F058-04                Dilution Factor: 1
Lab File ID  : RFV341                 Matrix          : SOIL
Ext Btch ID  : VOF3101                % Moisture      : 13.9
Calib. Ref.  : RFV333                 Instrument ID   : T-001
=====

```

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.8	.39
1,1,2,2-TETRACHLOROETHANE	ND	5.8	.86
1,1,2-TRICHLOROETHANE	ND	5.8	.76
1,1-DICHLOROETHANE	ND	5.8	.61
1,1-DICHLOROETHENE	ND	5.8	.56
1,2-DICHLOROETHANE	ND	5.8	1.1
1,2-DICHLOROPROPANE	ND	5.8	.64
2-BUTANONE	ND	58	1.8
2-CHLOROETHYLVINYLETHER	ND	58	.86
2-HEXANONE	ND	58	1.7
4-METHYL-2-PENTANONE	ND	58	3.3
ACETONE	ND	58	3.3
BENZENE	ND	5.8	.61
BROMODICHLOROMETHANE	ND	5.8	.49
BROMOFORM	ND	5.8	.69
BROMOMETHANE	ND	5.8	4.2
CARBON DISULFIDE	ND	12	.39
CARBON TETRACHLORIDE	ND	5.8	.62
CHLOROBENZENE	ND	5.8	.54
CHLOROETHANE	ND	5.8	1.1
CHLOROFORM	ND	5.8	.61
CHLOROMETHANE	ND	5.8	.61
CIS-1,2-DICHLOROETHENE	ND	5.8	.53
CIS-1,3-DICHLOROPROPENE	ND	5.8	.47
DIBROMOCHLOROMETHANE	ND	5.8	.43
ETHYLBENZENE	ND	5.8	.53
MTBE	ND	12	.88
METHYLENE CHLORIDE	ND	12	3.5
STYRENE	ND	5.8	.4
TETRACHLOROETHENE	ND	5.8	.39
TOLUENE	ND	5.8	.67
TRANS-1,2-DICHLOROETHENE	ND	5.8	.55
TRANS-1,3-DICHLOROPROPENE	ND	5.8	.52
TRICHLOROETHENE	ND	5.8	.71
VINYL ACETATE	ND	58	.96
VINYL CHLORIDE	ND	5.8	.68
XYLENES	ND	5.8	1.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	128	52-149
BROMOFLUOROBENZENE	84	65-135
TOLUENE-D8	96	65-135

PRL: Project Reporting Limit

* : Out side of QC Limit

J : An estimated value between PRL and MDL

E : Value exceed the upper level of the initial calibrati

B : Found in the associated blank

D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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=====
Client      : IT CORPORATION           Date Collected: 06/13/00
Project    : MCAS EL TORO/18609/D.O. 70 Date Received: 06/13/00
Batch No.  : 00F058                   Date Extracted: 06/14/00 19:27
Sample ID  : 18609-3095                Date Analyzed: 06/14/00 19:27
Lab Samp ID: F058-05                   Dilution Factor: 1
Lab File ID: RFV342                     Matrix      : SOIL
Ext Btch ID: VOF3101                    % Moisture  : 14.2
Calib. Ref.: RFV333                      Instrument ID : T-001
=====

```

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.8	.4
1,1,2,2-TETRACHLOROETHANE	ND	5.8	.86
1,1,2-TRICHLOROETHANE	ND	5.8	.76
1,1-DICHLOROETHANE	ND	5.8	.61
1,1-DICHLOROETHENE	ND	5.8	.56
1,2-DICHLOROETHANE	ND	5.8	1.1
1,2-DICHLOROPROPANE	ND	5.8	.64
2-BUTANONE	ND	58	1.8
2-CHLOROETHYLVINYLEETHER	ND	58	.86
2-HEXANONE	ND	58	1.7
4-METHYL-2-PENTANONE	ND	58	3.3
ACETONE	ND	58	3.4
BENZENE	ND	5.8	.61
BROMODICHLOROMETHANE	ND	5.8	.49
BROMOFORM	ND	5.8	.69
BROMOMETHANE	ND	5.8	4.2
CARBON DISULFIDE	ND	12	.39
CARBON TETRACHLORIDE	ND	5.8	.63
CHLOROBENZENE	ND	5.8	.54
CHLOROETHANE	ND	5.8	1.1
CHLOROFORM	ND	5.8	.61
CHLOROMETHANE	ND	5.8	.61
CIS-1,2-DICHLOROETHENE	ND	5.8	.53
CIS-1,3-DICHLOROPROPENE	ND	5.8	.47
DIBROMOCHLOROMETHANE	ND	5.8	.43
ETHYLBENZENE	ND	5.8	.53
MTBE	ND	12	.88
METHYLENE CHLORIDE	ND	12	3.5
STYRENE	ND	5.8	.4
TETRACHLOROETHENE	ND	5.8	.39
TOLUENE	ND	5.8	.67
TRANS-1,2-DICHLOROETHENE	ND	5.8	.55
TRANS-1,3-DICHLOROPROPENE	ND	5.8	.52
TRICHLOROETHENE	ND	5.8	.71
VINYL ACETATE	ND	58	.97
VINYL CHLORIDE	ND	5.8	.68
XYLENES	ND	5.8	1.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	125	52-149
BROMOFLUOROBENZENE	90	65-135
TOLUENE-D8	99	65-135

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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=====
Client      : IT CORPORATION           Date Collected: 06/13/00
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 06/13/00
Batch No.   : 00F058                 Date Extracted: 06/14/00 20:01
Sample ID   : 18609-3096             Date Analyzed: 06/14/00 20:01
Lab Samp ID: F058-06                 Dilution Factor: 1
Lab File ID: RFV343                 Matrix          : SOIL
Ext Btch ID: VOF3101                % Moisture     : 11.2
Calib. Ref.: RFV333                 Instrument ID   : T-001
=====

```

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.6	.38
1,1,2,2-TETRACHLOROETHANE	ND	5.6	.83
1,1,2-TRICHLOROETHANE	ND	5.6	.74
1,1-DICHLOROETHANE	ND	5.6	.59
1,1-DICHLOROETHENE	ND	5.6	.54
1,2-DICHLOROETHANE	ND	5.6	1.1
1,2-DICHLOROPROPANE	ND	5.6	.62
2-BUTANONE	ND	56	1.7
2-CHLOROETHYL VINYLETHER	ND	56	.83
2-HEXANONE	ND	56	1.7
4-METHYL-2-PENTANONE	ND	56	3.2
ACETONE	83	56	3.2
BENZENE	ND	5.6	.59
BROMODICHLOROMETHANE	ND	5.6	.48
BROMOFORM	ND	5.6	.67
BROMOMETHANE	ND	5.6	4
CARBON DISULFIDE	ND	11	.38
CARBON TETRACHLORIDE	ND	5.6	.6
CHLOROBENZENE	ND	5.6	.52
CHLOROETHANE	ND	5.6	1
CHLOROFORM	ND	5.6	.59
CHLOROMETHANE	ND	5.6	.59
CIS-1,2-DICHLOROETHENE	ND	5.6	.52
CIS-1,3-DICHLOROPROPENE	ND	5.6	.45
DIBROMOCHLOROMETHANE	ND	5.6	.41
ETHYLBENZENE	ND	5.6	.52
MTBE	ND	11	.85
METHYLENE CHLORIDE	ND	11	3.4
STYRENE	ND	5.6	.38
TETRACHLOROETHENE	ND	5.6	.38
TOLUENE	ND	5.6	.65
TRANS-1,2-DICHLOROETHENE	ND	5.6	.53
TRANS-1,3-DICHLOROPROPENE	ND	5.6	.51
TRICHLOROETHENE	ND	5.6	.69
VINYL ACETATE	ND	56	.93
VINYL CHLORIDE	ND	5.6	.66
XYLENES	ND	5.6	1.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	126	52-149
BROMOFLUOROBENZENE	86	65-135
TOLUENE-D8	99	65-135

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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=====
Client      : IT CORPORATION           Date Collected: NA
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 06/14/00
Batch No.   : 00F058                   Date Extracted: 06/14/00 16:11
Sample ID   : MBLK1S                   Date Analyzed: 06/14/00 16:11
Lab Samp ID: VOF3101B                  Dilution Factor: 1
Lab File ID: RFV336                     Matrix      : SOIL
Ext Btch ID: VOF3101                    % Moisture  : NA
Calib. Ref.: RFV333                     Instrument ID: T-001
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PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	.34
1,1,2,2-TETRACHLOROETHANE	ND	5	.74
1,1,2-TRICHLOROETHANE	ND	5	.66
1,1-DICHLOROETHANE	ND	5	.52
1,1-DICHLOROETHENE	ND	5	.48
1,2-DICHLOROETHANE	ND	5	.99
1,2-DICHLOROPROPANE	ND	5	.55
2-BUTANONE	ND	50	1.5
2-CHLOROETHYLVINYLETHER	ND	50	.74
2-HEXANONE	ND	50	1.5
4-METHYL-2-PENTANONE	ND	50	2.8
ACETONE	ND	50	2.9
BENZENE	ND	5	.53
BROMODICHLOROMETHANE	ND	5	.42
BROMOFORM	ND	5	.59
BROMOMETHANE	ND	5	3.6
CARBON DISULFIDE	ND	10	.33
CARBON TETRACHLORIDE	ND	5	.54
CHLOROBENZENE	ND	5	.46
CHLOROETHANE	ND	5	.92
CHLOROFORM	ND	5	.52
CHLOROMETHANE	ND	5	.53
CIS-1,2-DICHLOROETHENE	ND	5	.46
CIS-1,3-DICHLOROPROPENE	ND	5	.4
DIBROMOCHLOROMETHANE	ND	5	.37
ETHYLBENZENE	ND	5	.46
MTBE	ND	10	.76
METHYLENE CHLORIDE	ND	10	3
STYRENE	ND	5	.34
TETRACHLOROETHENE	ND	5	.34
TOLUENE	ND	5	.58
TRANS-1,2-DICHLOROETHENE	ND	5	.47
TRANS-1,3-DICHLOROPROPENE	ND	5	.45
TRICHLOROETHENE	ND	5	.61
VINYL ACETATE	ND	50	.83
VINYL CHLORIDE	ND	5	.58
XYLENES	ND	5	1.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	122	52-149
BROMOFLUOROBENZENE	86	65-135
TOLUENE-D8	98	65-135

PRL: Project Reporting Limit

* : Out side of QC Limit

J : An estimated value between PRL and MDL

E : Value exceed the upper level of the initial calibration

B : Found in the associated blank

D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD 5030A/8260A

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: VOF31018 VOF3101L VOF3101C
LAB FILE ID: RFV336 RFV334 RFV335
DATE EXTRACTED: 06/14/0016:11 06/14/0015:02 06/14/0015:37 DATE COLLECTED: NA
DATE ANALYZED: 06/14/0016:11 06/14/0015:02 06/14/0015:37 DATE RECEIVED: 06/14/00
PREP. BATCH: VOF3101 VOF3101 VOF3101
CALIB. REF: RFV333 RFV333 RFV333

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	20.9	104	20	22.3	112	7	65-135	30
Benzene	ND	20	19	95	20	18.7	93	2	65-135	30
Chlorobenzene	ND	20	20.5	102	20	20.4	102	0	65-135	30
Toluene	ND	20	19.6	98	20	19.6	98	0	64-135	30
Trichloroethene	ND	20	20.4	102	20	20.5	103	1	61-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	47.8	96	50	60.7	121	52-149
Bromofluorobenzene	50	44.2	88	50	42.1	84	65-135
Toluene-d8	50	48.4	97	50	48.4	97	65-135

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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Client       : IT CORPORATION           Date Collected: NA
Project      : MCAS EL TORO/18609/D.O. 70 Date Received: 06/15/00
Batch No.    : 00F058                   Date Extracted: 06/15/00 05:02
Sample ID    : MBLK2S                   Date Analyzed: 06/15/00 05:02
Lab Samp ID  : VOF3301B                 Dilution Factor: 1
Lab File ID  : RFV359                    Matrix          : SOIL
Ext Btch ID  : VOF3301                  % Moisture      : NA
Calib. Ref.  : RFV356                    Instrument ID   : T-001
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PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	.34
1,1,2,2-TETRACHLOROETHANE	ND	5	.74
1,1,2-TRICHLOROETHANE	ND	5	.66
1,1-DICHLOROETHANE	ND	5	.52
1,1-DICHLOROETHENE	ND	5	.48
1,2-DICHLOROETHANE	ND	5	.99
1,2-DICHLOROPROPANE	ND	5	.55
2-BUTANONE	ND	50	1.5
2-CHLOROETHYLVINYLETHER	ND	50	.74
2-HEXANONE	ND	50	1.5
4-METHYL-2-PENTANONE	ND	50	2.8
ACETONE	ND	50	2.9
BENZENE	ND	5	.53
BROMODICHLOROMETHANE	ND	5	.42
BROMOFORM	ND	5	.59
BROMOMETHANE	ND	5	3.6
CARBON DISULFIDE	ND	10	.33
CARBON TETRACHLORIDE	ND	5	.54
CHLOROBENZENE	ND	5	.46
CHLOROETHANE	ND	5	.92
CHLOROFORM	ND	5	.52
CHLOROMETHANE	ND	5	.53
CIS-1,2-DICHLOROETHENE	ND	5	.46
CIS-1,3-DICHLOROPROPENE	ND	5	.4
DIBROMOCHLOROMETHANE	ND	5	.37
ETHYLBENZENE	ND	5	.46
MTBE	ND	10	.76
METHYLENE CHLORIDE	ND	10	3
STYRENE	ND	5	.34
TETRACHLOROETHENE	ND	5	.34
TOLUENE	ND	5	.58
TRANS-1,2-DICHLOROETHENE	ND	5	.47
TRANS-1,3-DICHLOROPROPENE	ND	5	.45
TRICHLOROETHENE	ND	5	.61
VINYL ACETATE	ND	50	.83
VINYL CHLORIDE	ND	5	.58
XYLENES	ND	5	1.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	123	52-149
BROMOFLUOROBENZENE	83	65-135
TOLUENE-DB	97	65-135

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD 5030A/B260A

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK2S
LAB SAMP ID: VOF3301B VOF3301L VOF3301C
LAB FILE ID: RFV359 RFV357 RFV358
DATE EXTRACTED: 06/15/0005:02 06/15/0003:54 06/15/0004:28 DATE COLLECTED: NA
DATE ANALYZED: 06/15/0005:02 06/15/0003:54 06/15/0004:28 DATE RECEIVED: 06/15/00
PREP. BATCH: VOF3301 VOF3301 VOF3301
CALIB. REF: RFV356 RFV356 RFV356

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	21.7	109	20	21	105	3	65-135	30
Benzene	ND	20	18.6	93	20	18.4	92	1	65-135	30
Chlorobenzene	ND	20	20	100	20	19.8	99	1	65-135	30
Toluene	ND	20	19.2	96	20	19.2	96	0	64-135	30
Trichloroethene	ND	20	20.4	102	20	20.2	101	1	61-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	60.3	121	50	59.6	119	52-149
Bromofluorobenzene	50	43	86	50	43.4	87	65-135
Toluene-d8	50	48.1	96	50	48.7	97	65-135

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD 5030A/B260A

MATRIX: SOIL % MOISTURE: 13.6
DILUTION FACTOR: 1 1 1
SAMPLE ID: 18609-3093
LAB SAMP ID: F058-03 F058-03M F058-03S
LAB FILE ID: RFV340 RFV351 RFV352
DATE EXTRACTED: 06/14/0018:28 06/15/0000:31 06/15/0001:05 DATE COLLECTED: 06/13/00
DATE ANALYZED: 06/14/0018:28 06/15/0000:31 06/15/0001:05 DATE RECEIVED: 06/13/00
PREP. BATCH: VOF3101 VOF3101 VOF3101
CALIB. REF: RFV333 RFV333 RFV333

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	57.9	50.5	87	57.9	52.8	91	5	65-135	30
Benzene	ND	57.9	42	73	57.9	46.2	80	9	65-135	30
Chlorobenzene	ND	57.9	45.6	79	57.9	49.4	85	8	65-135	30
Toluene	ND	57.9	44.3	77	57.9	48.3	83	8	64-135	30
Trichloroethene	ND	57.9	60.2	104	57.9	66.7	115	10	61-135	30

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	57.9	75.3	130	57.9	69.6	120	52-149
Bromofluorobenzene	57.9	49.6	86	57.9	50.7	88	65-135
Toluene-d8	57.9	56	97	57.9	56.2	97	65-135

* : Out side of QC Limit

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00F058

Matrix : SOIL
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	PRL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VAF2639B	ND	89	1	NA	1	.02	06/14/0019:21	06/14/0019:21	EF09016A	EF09015A	VAF2639	NA	06/14/00
LCS1S	VAF2639L	2.71	113	1	NA	1	.02	06/14/0019:56	06/14/0019:56	EF09017A	EF09015A	VAF2639	NA	06/14/00
CD1S	VAF2639C	2.43	116	1	NA	1	.02	06/14/0020:32	06/14/0020:32	EF09018A	EF09015A	VAF2639	NA	06/14/00
MBLK2S	VMF2739B	ND	88	10	NA	10	.2	06/15/0011:05	06/15/0011:05	EF09042A	EF09039A	VMF2739	NA	06/15/00
LCS2S	VMF2739L	28.9	110	10	NA	10	.2	06/15/0011:40	06/15/0011:40	EF09043A	EF09039A	VMF2739	NA	06/15/00
LCD2S	VMF2739C	28	109	10	NA	10	.2	06/15/0012:15	06/15/0012:15	EF09044A	EF09039A	VMF2739	NA	06/15/00
MBLK3S	VAF2839B	ND	89	1	NA	1	.02	06/15/0020:12	06/15/0020:12	EF09056A	EF09048A	VAF2839	NA	06/15/00
LCS3S	VAF2839L	2.41	102	1	NA	1	.02	06/15/0019:01	06/15/0019:01	EF09054A	EF09048A	VAF2839	NA	06/15/00
LCD3S	VAF2839C	2.57	109	1	NA	1	.02	06/15/0019:36	06/15/0019:36	EF09055A	EF09048A	VAF2839	NA	06/15/00
18609-3091	F058-01*	2800	82	1000	6.2	1070	21.3	06/15/0017:50	06/15/0017:50	EF09052A	EF09048A	VMF2739	06/13/00	06/13/00
18609-3092	F058-02	ND	71	1	9.2	1.1	.022	06/15/0003:32	06/15/0003:32	EF09030A	EF09027A	VAF2639	06/13/00	06/13/00
18609-3093	F058-03	ND	102	1	13.6	1.16	.0231	06/15/0004:07	06/15/0004:07	EF09031A	EF09027A	VAF2639	06/13/00	06/13/00
18609-3093MS	F058-03M	2.52	104	1	13.6	1.16	.0231	06/15/0023:41	06/15/0023:41	EF09062A	EF09059A	VAF2839	06/13/00	06/13/00
18609-3093MSD	F058-03S	3.13	114	1	13.6	1.16	.0231	06/16/0000:16	06/16/0000:16	EF09063A	EF09059A	VAF2839	06/13/00	06/13/00
18609-3094	F058-04	ND	92	1	13.9	1.16	.0232	06/15/0004:41	06/15/0004:41	EF09032A	EF09027A	VAF2639	06/13/00	06/13/00
18609-3095	F058-05	ND	88	1	14.2	1.17	.0233	06/15/0005:16	06/15/0005:16	EF09033A	EF09027A	VAF2639	06/13/00	06/13/00
18609-3096	F058-06	ND	85	1	11.2	1.13	.0225	06/15/0005:50	06/15/0005:50	EF09034A	EF09027A	VAF2639	06/13/00	06/13/00
18609-3097	F058-07	ND	84	1	12.8	1.15	.0229	06/15/0006:25	06/15/0006:25	EF09035A	EF09027A	VAF2639	06/13/00	06/13/00
18609-3098	F058-08	ND	105	1	16.6	1.2	.024	06/15/0007:00	06/15/0007:00	EF09036A	EF09027A	VAF2639	06/13/00	06/13/00
18609-3099	F058-09*	300	84	50	15.7	59.3	1.19	06/15/0017:15	06/15/0017:15	EF09051A	EF09048A	VMF2739	06/13/00	06/13/00
18609-3100	F058-10	ND	92	1	14.6	1.17	.0234	06/15/0009:19	06/15/0009:19	EF09040A	EF09039A	VAF2639	06/13/00	06/13/00
18609-3101	F058-11	ND	88	1	8.1	1.09	.0218	06/15/0009:53	06/15/0009:53	EF09041A	EF09039A	VAF2639	06/13/00	06/13/00
18609-3102	F058-12	ND	86	1	12.8	1.15	.0229	06/16/0003:43	06/16/0003:43	EF09069A	EF09059A	VAF2839	06/13/00	06/13/00
18609-3103	F058-13	ND	88	1	11.7	1.13	.0227	06/15/0020:47	06/15/0020:47	EF09057A	EF09048A	VAF2839	06/13/00	06/13/00
18609-3104	F058-14	ND	84	1	12.4	1.14	.0228	06/15/0021:22	06/15/0021:22	EF09058A	EF09048A	VAF2839	06/13/00	06/13/00
18609-3105	F058-15	ND	84	1	13.5	1.16	.0231	06/15/0022:32	06/15/0022:32	EF09060A	EF09059A	VAF2839	06/13/00	06/13/00
18609-3106	F058-16	ND	92	1	12.2	1.14	.0228	06/15/0023:06	06/15/0023:06	EF09061A	EF09059A	VAF2839	06/13/00	06/13/00
18609-3107	F058-17	ND	83	1	11.1	1.12	.0225	06/16/0000:50	06/16/0000:50	EF09064A	EF09059A	VAF2839	06/13/00	06/13/00
18609-3108	F058-18	ND	79	1	9.5	1.1	.0221	06/16/0001:25	06/16/0001:25	EF09065A	EF09059A	VAF2839	06/13/00	06/13/00
18609-3109	F058-19	ND	80	1	4.6	1.05	.021	06/16/0002:00	06/16/0002:00	EF09066A	EF09059A	VAF2839	06/13/00	06/13/00
18609-3110	F058-20	ND	79	1	7.0	1.08	.0215	06/16/0002:34	06/16/0002:34	EF09067A	EF09059A	VAF2839	06/13/00	06/13/00
18609-3111	F058-2	ND	82	1	7.3	1.08	.0216	06/16/0003:09	06/16/0003:09	EF09068A	EF09059A	VAF2839	06/13/00	06/13/00

SURR : Bromofluorobenzene 0.35 (S)60-140
PRL : Reporting Limit
E : Value exceed the upper limit of the initial calibration
D : Value from dilution
* : Presence of hydrocarbon heavier than Gasoline.

4004

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: VAF2639B VAF2639L VAF2639C
LAB FILE ID: EF09016A EF09017A EF09018A
DATE EXTRACTED: 06/14/0019:21 06/14/0019:56 06/14/0020:32 DATE COLLECTED: NA
DATE ANALYZED: 06/14/0019:21 06/14/0019:56 06/14/0020:32 DATE RECEIVED: 06/14/00
PREP. BATCH: VAF2639 VAF2639 VAF2639
CALIB. REF: EF09015A EF09015A EF09015A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	2.75	2.71	98	2.75	2.43	88	11	57-146	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.1	.113	113	.1	.116	116	60-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD 5030B/M5015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 10 10 10
SAMPLE ID: MBLK2S
LAB SAMP ID: VMF2739B VMF2739L VMF2739C
LAB FILE ID: EF09042A EF09043A EF09044A
DATE EXTRACTED: 06/15/0011:05 06/15/0011:40 06/15/0012:15 DATE COLLECTED: NA
DATE ANALYZED: 06/15/0011:05 06/15/0011:40 06/15/0012:15 DATE RECEIVED: 06/15/00
PREP. BATCH: VMF2739 VMF2739 VMF2739
CALIB. REF: EF09039A EF09039A EF09039A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	27.5	28.9	105	27.5	28	102	3	57-146	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	1	1.1	110	1	1.09	109	60-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK3S
LAB SAMP ID: VAF2839B VAF2839L VAF2839C
LAB FILE ID: EF09056A EF09054A EF09055A
DATE EXTRACTED: 06/15/0020:12 06/15/0019:01 06/15/0019:36 DATE COLLECTED: NA
DATE ANALYZED: 06/15/0020:12 06/15/0019:01 06/15/0019:36 DATE RECEIVED: 06/15/00
PREP. BATCH: VAF2839 VAF2839 VAF2839
CALIB. REF: EF09048A EF09048A EF09048A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	2.75	2.41	88	2.75	2.57	93	6	57-146	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.1	.102	102	.1	.109	109	60-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD 50308/M8015

MATRIX: SOIL % MOISTURE: 13.6
DILUTION FACTOR: 1 1 1
SAMPLE ID: 18609-3093
LAB SAMP ID: F058-03 F058-03M F058-03S
LAB FILE ID: EF09031A EF09062A EF09063A
DATE EXTRACTED: 06/15/0004:07 06/15/0023:41 06/16/0000:16 DATE COLLECTED: 06/13/00
DATE ANALYZED: 06/15/0004:07 06/15/0023:41 06/16/0000:16 DATE RECEIVED: 06/13/00
PREP. BATCH: VAF2639 VAF2839 VAF2839
CALIB. REF: EF09027A EF09059A EF09059A

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	3.18	2.52	79	3.18	3.13	98	22	57-146	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT (%)
Bromofluorobenzene	.116	.12	104	.116	.132	114	60-140

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : IT CORPORATION
Project : MCAS EL TORO/18.0
Batch No. : 00F058

Matrix : SOIL
Instrument ID : GCT050

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
1BLK1S	DSF020SB	ND	79	87	1	NA	10	3.47	06/16/0021:31	06/14/0012:00	TF05043A	TF05035A	DSF020S	NA	06/14/00
CS1S	DSF020SL	636	86	94	1	NA	10	3.47	06/16/0022:21	06/14/0012:00	TF05044A	TF05035A	DSF020S	NA	06/14/00
CD1S	DSF020SC	620	86	94	1	NA	10	3.47	06/16/0023:11	06/14/0012:00	TF05045A	TF05035A	DSF020S	NA	06/14/00
1BLK2S	DSF021SB	ND	81	86	1	NA	10	3.47	06/17/0001:40	06/14/0015:45	TF05048A	TF05046A	DSF021S	NA	06/14/00
CS2S	DSF021SL	585	89	98	1	NA	10	3.47	06/17/0002:29	06/14/0015:45	TF05049A	TF05046A	DSF021S	NA	06/14/00
1BLK3S	DSF024SB	ND	74	86	1	NA	10	3.47	06/16/0015:55	06/16/0014:40	TF05037A	TF05035A	DSF024S	NA	06/16/00
CS3S	DSF024SL	666	89	100	1	NA	10	3.47	06/16/0019:52	06/16/0014:40	TF05041A	TF05035A	DSF024S	NA	06/16/00
CD3S	DSF024SC	650	89	99	1	NA	10	3.47	06/16/0020:42	06/16/0014:40	TF05042A	TF05035A	DSF024S	NA	06/16/00
18609-3091	F058-01	5800	00	00	10	6.2	107	37	06/16/0012:35	06/14/0015:45	TF05033A	TF05024A	DSF021S	06/13/00	06/13/00
18609-3092	F058-02R **	59	89	99	1	9.2	11	3.82	06/17/0006:37	06/16/0014:40	TF05054A	TF05046A	DSF024S	06/13/00	06/13/00
18609-3093	F058-03R	ND	91	106	1	13.6	11.6	4.02	06/17/0007:27	06/16/0014:40	TF05055A	TF05046A	DSF024S	06/13/00	06/13/00
18609-3094	F058-04	ND	82	97	1	13.9	11.6	4.03	06/16/0013:25	06/14/0015:45	TF05034A	TF05024A	DSF021S	06/13/00	06/13/00
18609-3095	F058-05	ND	86	88	1	14.2	11.7	4.04	06/15/0020:53	06/14/0015:45	TF05014A	TF05013A	DSF021S	06/13/00	06/13/00
18609-3096	F058-06	ND	87	98	1	11.2	11.3	3.91	06/15/0021:43	06/14/0015:45	TF05015A	TF05013A	DSF021S	06/13/00	06/13/00
18609-3109	F058-19	ND	99	124	1	4.6	10.5	3.64	06/16/0011:45	06/14/0015:45	TF05032A	TF05024A	DSF021S	06/13/00	06/13/00
18609-3110	F058-20R	ND	88	104	1	7.0	10.8	3.73	06/17/0008:16	06/16/0014:40	TF05056A	TF05046A	DSF024S	06/13/00	06/13/00
18609-3110MS	F058-20U	631	94	110	1	7.0	10.8	3.73	06/17/0009:06	06/16/0014:40	TF05057A	TF05046A	DSF024S	06/13/00	06/13/00
18609-3110MSD	F058-20V	610	92	113	1	7.0	10.8	3.73	06/17/0011:34	06/16/0014:40	TF05060A	TF05058A	DSF024S	06/13/00	06/13/00
18609-3111	F058-21	ND	90	104	1	7.3	10.8	3.74	06/16/0015:05	06/14/0012:00	TF05036A	TF05035A	DSF020S	06/13/00	06/13/00

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145

SURR1 : Bromobenzene

SURR2 : Hexacosane

RL : Reporting Limit

** : Chromatogram shows a non-typical fuel pattern, calculated and reported as Diesel.

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: DSF020SB DSF020SL DSF020SC
LAB FILE ID: TF05043A TF05044A TF05045A
DATE EXTRACTED: 06/14/0012:00 06/14/0012:00 06/14/0012:00 DATE COLLECTED: NA
DATE ANALYZED: 06/16/0021:31 06/16/0022:21 06/16/0023:11 DATE RECEIVED: 06/14/00
PREP. BATCH: DSF020S DSF020S DSF020S
CALIB. REF: TF05035A TF05035A TF05035A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	636	127	500	620	124	3	51-153	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	85.8	86	100	85.6	86	60-140
Hexacosane	25	23.5	94	25	23.4	94	55-150

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD M8015

=====

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK2S
LAB SAMP ID: DSF021S8 DSF021SL
LAB FILE ID: TF05048A TF05049A
DATE EXTRACTED: 06/14/0015:45 06/14/0015:45 DATE COLLECTED: NA
DATE ANALYZED: 06/17/0001:40 06/17/0002:29 DATE RECEIVED: 06/14/00
PREP. BATCH: DSF021S DSF021S
CALIB. REF: TF05046A TF05046A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Diesel	ND	500	585	117	51-153

=====

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Bromobenzene	100	89.1	89	60-140
Hexacosane	25	24.5	98	55-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK3S
LAB SAMP ID: DSF024SB DSF024SL DSF024SC
LAB FILE ID: TF05037A TF05041A TF05042A
DATE EXTRACTED: 06/16/0014:40 06/16/0014:40 06/16/0014:40 DATE COLLECTED: NA
DATE ANALYZED: 06/16/0015:55 06/16/0019:52 06/16/0020:42 DATE RECEIVED: 06/16/00
PREP. BATCH: DSF024S DSF024S DSF024S
CALIB. REF: TF05035A TF05035A TF05035A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	666	133	500	650	130	2	51-153	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	88.7	89	100	89.4	89	60-140
Hexacosane	25	25	100	25	24.8	99	55-150

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00F058
METHOD: METHOD M8015

MATRIX: SOIL % MOISTURE: 7.0
DILUTION FACTOR: 1 1 1
SAMPLE ID: 18609-3110
LAB SAMP ID: F058-20R F058-20U F058-20V
LAB FILE ID: TF05056A TF05057A TF05060A
DATE EXTRACTED: 06/16/0014:40 06/16/0014:40 06/16/0014:40 DATE COLLECTED: 06/13/00
DATE ANALYZED: 06/17/0008:16 06/17/0009:06 06/17/0011:34 DATE RECEIVED: 06/13/00
PREP. BATCH: DSF024S DSF024S DSF024S
CALIB. REF: TF05046A TF05046A TF05058A

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	537	631	118	537	610	114	3	51-153	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT (%)
Bromobenzene	107	101	94	107	98.7	92	60-140
Hexacosane	26.8	29.4	110	26.8	30.3	113	55-150

METHOD 418.1
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00F058

Matrix : SOIL
Instrument ID : T018

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF		MOIST		RL	MDL	Analysis	Extraction	LFID	CAL REF	PREP BATCH	Collection	Received
					(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	DATE/TIME	DATE/TIME				DATE/TIME	DATE/TIME
18609-3093	F058-03	490	10	13.6	11.6	4.82	06/15/0014:35	06/14/0017:30	TRF006S-8	TRF009C	TRF006S	06/13/00	06/13/00		
18609-3094	F058-04	ND	1	13.9	11.6	4.84	06/15/0014:40	06/14/0017:30	TRF006S-9	TRF009C	TRF006S	06/13/00	06/13/00		
18609-3095	F058-05	19	1	14.2	11.7	4.67	06/15/0014:45	06/14/0017:30	TRF006S-10	TRF009C	TRF006S	06/13/00	06/13/00		
18609-3096	F058-06	37	1	11.2	11.3	4.76	06/15/0014:50	06/14/0017:30	TRF006S-11	TRF009C	TRF006S	06/13/00	06/13/00		
18609-3097	F058-07	ND	1	12.8	11.5	4.98	06/15/0014:55	06/14/0017:30	TRF006S-12	TRF009C	TRF006S	06/13/00	06/13/00		
18609-3098	F058-08	ND	1	16.6	12	4.92	06/15/0015:10	06/14/0017:30	TRF006S-15	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3099	F058-09	190	1	15.7	11.9	4.86	06/15/0015:15	06/14/0017:30	TRF006S-16	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3100	F058-10	ND	1	14.6	11.7	4.52	06/15/0015:20	06/14/0017:30	TRF006S-17	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3101	F058-11	ND	1	8.1	10.9	4.76	06/15/0015:25	06/14/0017:30	TRF006S-18	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3102	F058-12	ND	1	12.8	11.5	4.7	06/15/0015:30	06/14/0017:30	TRF006S-19	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3103	F058-13	ND	1	11.7	11.3	4.74	06/15/0015:35	06/14/0017:30	TRF006S-20	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3104	F058-14	46	1	12.4	11.4	4.8	06/15/0015:40	06/14/0017:30	TRF006S-21	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3105	F058-15	ND	1	13.5	11.6	4.73	06/15/0015:45	06/14/0017:30	TRF006S-22	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3106	F058-16	130	1	12.2	11.4	4.67	06/15/0015:50	06/14/0017:30	TRF006S-23	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3107	F058-17	ND	1	11.1	11.2	4.59	06/15/0015:55	06/14/0017:30	TRF006S-24	TRF010C	TRF006S	06/13/00	06/13/00		
18609-3108	F058-18	45	1	9.5	11	4.35	06/15/0016:10	06/14/0017:30	TRF006S-27	TRF011C	TRF006S	06/13/00	06/13/00		
18609-3109	F058-19	ND	1	4.6	10.5	4.46	06/15/0016:15	06/14/0017:30	TRF006S-28	TRF011C	TRF006S	06/13/00	06/13/00		
18609-3110	F058-20	ND	1	7.0	10.8	4.46	06/15/0016:20	06/14/0017:30	TRF006S-29	TRF011C	TRF006S	06/13/00	06/13/00		
18609-3110MS	F058-20M	155	1	7.0	10.8	4.15	06/15/0016:25	06/14/0017:30	TRF006S-30	TRF011C	TRF006S	06/13/00	06/13/00		
18609-3110MSD	F058-20S	166	1	7.0	10.8	4.15	06/15/0016:30	06/14/0017:30	TRF006S-31	TRF011C	TRF006S	06/13/00	06/13/00		
MBLK1S	TRF006SI	ND	1	NA	10	4.15	06/15/0014:10	06/14/0017:30	TRF006S-3	TRF009C	TRF006S	NA	06/15/00		
LCS1S	TRF006SL	149	1	NA	10	4.15	06/15/0014:15	06/14/0017:30	TRF006S-4	TRF009C	TRF006S	NA	06/15/00		
18609-3111	F058-21	17	1	7.3	10.8	4.48	06/15/0016:50	06/14/0018:00	TRF007S-35	TRF011S	TRF007S	06/13/00	06/13/00		
MBLK2S	TRF007SB	ND	1	NA	10	4.15	06/15/0016:35	06/14/0018:00	TRF007S-32	TRF011S	TRF007S	NA	06/15/00		
LCS2S	TRF007SL	149	1	NA	10	4.15	06/15/0016:40	06/14/0018:00	TRF007S-33	TRF011S	TRF007S	NA	06/15/00		
LCD2S	TRF007SC	150	1	NA	10	4.15	06/15/0016:45	06/14/0018:00	TRF007S-34	TRF011S	TRF007S	NA	06/15/00		

RL: Reporting Limit

5041

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

NT: IT CORPORATION
 ECT: MCAS EL TORO/18609/D.O. 70
 OD: METHOD 418.1
 IX: SOIL
 ISTORE: 7.0

CH NO.: 00F058
 PLE ID: 18609-3110MS/MSD
 ROL NO.: F058-20M/S

DATE RECEIVED: 06/13/00
 DATE EXTRACTED: 06/14/00 17:30
 DATE ANALYZED: 06/15/00 16:25/16:30

SSION:

METER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
	ND	161	155	96	161	166	103	7	65-135	30

5042

EMA QUALITY CONTROL DATA
ANALYSIS

NT: IT CORPORATIO
ECT: MCAS EL TORO/ . 70
OD: METHOD 418.1
IX: SOIL
ISTURE: NA

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H NO.: 00F058 DATE RECEIVED: 06/15/00
LE ID: LCS1S DATE EXTRACTED: 06/14/00 17:30
ROL NO.: TRF006SL DATE ANALYZED: 06/15/00 14:15

SSION:

METER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	LCS RSLT (mg/kg)	LCS % REC	QC LIMIT (%)
-----	ND	150	149	99	75-125

2000

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
 PROJECT: MCAS EL TORO/18609/D.O. 70
 METHOD: METHOD 418.1
 MATRIX: SOIL
 DISTURBANCE: NA

LABORATORY NO.: 00F058
 SAMPLE ID: LCS2S/LCD2S
 CONTROL NO.: TRF007SL/C

DATE RECEIVED: 06/13/00
 DATE EXTRACTED: 06/14/00 18:00
 DATE ANALYZED: 06/15/00 16:40/16:45

SESSION:

INSTRUMENT	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
1	ND	150	149	99	150	150	100	1	75-125	30

5044

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: MCAS El Toro
Collection Date: June 13, 2000
LDC Report Date: July 21, 2000
Matrix: Soil
Parameters: Total Petroleum Hydrocarbons as Gasoline
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00F058

Sample Identification

18609-3091	18609-3111
18609-3092	18609-3093MS
18609-3093	18609-3093MSD
18609-3094	
18609-3095	
18609-3096	
18609-3097	
18609-3098	
18609-3099	
18609-3100	
18609-3101	
18609-3102	
18609-3103	
18609-3104	
18609-3105	
18609-3106	
18609-3107	
18609-3108	
18609-3109	
18609-3110	

Introduction

This data review covers 23 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

**MCAS EI Toro
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG
00F058**

No Sample Data Qualified in this SDG

**MCAS EI Toro
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification
Summary - SDG 00F058**

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS El Toro
Collection Date: June 13, 2000
LDC Report Date: July 24, 2000
Matrix: Soil
Parameters: Total Petroleum Hydrocarbons as Extractables
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00F058

Sample Identification

18609-3091	18609-3111
18609-3092	18609-3110MS
18609-3093	18609-3110MSD
18609-3094	
18609-3095	
18609-3096	
18609-3097	
18609-3098	
18609-3099	
18609-3100	
18609-3101	
18609-3102	
18609-3103	
18609-3104	
18609-3105	
18609-3106	
18609-3107	
18609-3108	
18609-3109	
18609-3110	

Introduction

This data review covers 23 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

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The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for sample 18609-3091. Since the sample was diluted out, no data were qualified.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG
00F058**

No Sample Data Qualified in this SDG

**MCAS El Toro
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification
Summary - SDG 00F058**

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS El Toro
Collection Date: June 13, 2000
LDC Report Date: July 25, 2000
Matrix: Soil
Parameters: Volatiles
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00F058

Sample Identification

18609-3091	18609-3111
18609-3092	18609-3093MS
18609-3093	18609-3093MSD
18609-3094	
18609-3095	
18609-3096	
18609-3097	
18609-3098	
18609-3099	
18609-3100	
18609-3101	
18609-3102	
18609-3103	
18609-3104	
18609-3105	
18609-3106	
18609-3107	
18609-3108	
18609-3109	
18609-3110	

Introduction

This data review covers 23 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro
Volatiles - Data Qualification Summary - SDG 00F058**

No Sample Data Qualified in this SDG

**MCAS El Toro
Volatiles - Laboratory Blank Data Qualification Summary - SDG 00F058**

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS El Toro
Collection Date: June 13, 2000
LDC Report Date: July 17, 2000
Matrix: Soil
Parameters: Total Recoverable Petroleum Hydrocarbons
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00F058

Sample Identification

18609-3093	18609-3110MSD
18609-3094	
18609-3095	
18609-3096	
18609-3097	
18609-3098	
18609-3099	
18609-3100	
18609-3101	
18609-3102	
18609-3103	
18609-3104	
18609-3105	
18609-3106	
18609-3107	
18609-3108	
18609-3109	
18609-3110	
18609-3111	
18609-3110MS	

Introduction

This data review covers 21 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 418.1 for Total Recoverable Petroleum Hydrocarbons (TRPH).

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks results are summarized in Section III.

Field duplicates are summarized in Section VII.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total recoverable petroleum hydrocarbon contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Matrix Spike/(Matrix Spike) Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

b. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Sample Result Verification

Raw data were not reviewed for this SDG.

VI. Overall Assessment of Data

Data flags have been summarized at the end of this report.

VII. Field Duplicates

No field duplicates were identified in this SDG.

VIII. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro
Total Recoverable Petroleum Hydrocarbons - Data Qualification Summary - SDG
00F058**

No Sample Data Qualified in this SDG

**MCAS El Toro
Total Recoverable Petroleum Hydrocarbons - Laboratory Blank Data Qualification
Summary - SDG 00F058**

No Sample Data Qualified in this SDG

Appendix F
Land Survey Data

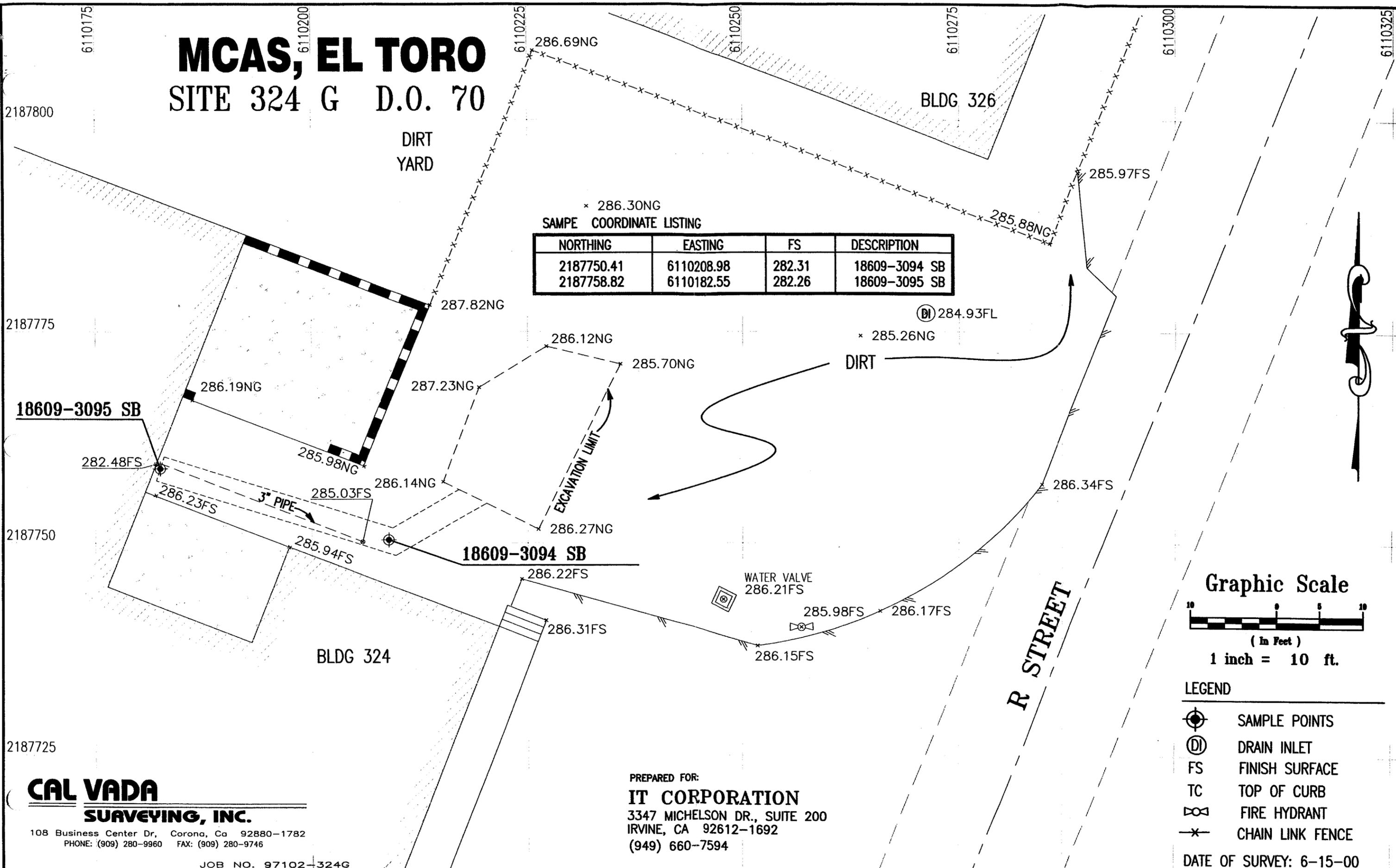
MCAS, EL TORO

SITE 324 G D.O. 70

DIRT
YARD

* 286.30NG
SAMPE COORDINATE LISTING

NORTHING	EASTING	FS	DESCRIPTION
2187750.41	6110208.98	282.31	18609-3094 SB
2187758.82	6110182.55	282.26	18609-3095 SB



Graphic Scale



(In Feet)
1 inch = 10 ft.

LEGEND

- SAMPLE POINTS
- DRAIN INLET
- FINISH SURFACE
- TOP OF CURB
- FIRE HYDRANT
- CHAIN LINK FENCE

DATE OF SURVEY: 6-15-00

CAL VADA
SURVEYING, INC.

108 Business Center Dr, Corona, Ca 92880-1782
PHONE: (909) 280-9960 FAX: (909) 280-9746

JOB NO. 97102-324G

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

Appendix G
Waste Manifests

1141515



WASTE MANAGEMENT OF ORANGE COUNTY
1800 S. GRAND AVE.
SANTA ANA, CA 92705
(714) 558-7761 • (714) 836-0268 FAX

SERVICE TICKET AGREEMENT/NON-HAZARDOUS WASTES

DIVISION NUMBER	ACCOUNT NUMBER	SERVICE TYPE
CUSTOMER	OHM	
ADDRESS	ET. MARINE BASE	
CITY		

ORDER NUMBER	SERVICE DATE	
119879 TIME IN	7-13-2000 TIME OUT	
ROUTE ID	DISPOSAL ID	DISPOSAL TICKET
SIGNATURE	COD AMOUNT	

ACTION	ORD QTY	SERVICE DESCRIPTION	WASTE TYPE	BILL CODE	MEASURE	BILL QUANTITY	AMOUNT
DYR 1	1	10yd UST 324G Concrete.					

COMMENTS

SERVICES ACCEPTED SUBJECT TO THE TERMS AND CONDITIONS ON THE REVERSE SIDE AND PAYMENT AGREED TO BE MADE IN ACCORDANCE WITH THE CONTRACTOR'S CURRENT RATE SCHEDULE.

CUSTOMER SIGNATURE _____ CONTRACTOR SIGNATURE *[Signature]*

CUSTOMER COPY

1141551



WASTE MANAGEMENT OF ORANGE COUNTY
1800 S. GRAND AVE.
SANTA ANA, CA 92705
(714) 558-7761 • (714) 836-0268 FAX

SERVICE TICKET AGREEMENT/NON-HAZARDOUS WASTES

DIVISION NUMBER	ACCOUNT NUMBER	SERVICE TYPE
CUSTOMER	O.H.M Remediation Services	
ADDRESS	Desert Street / Airfield	
CITY	EL TORO MARINE BASE	

ORDER NUMBER	SERVICE DATE	
119675 TIME IN	7-12-00 TIME OUT	
ROUTE ID	DISPOSAL ID	DISPOSAL TICKET
925		
SIGNATURE	COD AMOUNT	

ACTION	ORD QTY	SERVICE DESCRIPTION	WASTE TYPE	BILL CODE	MEASURE	BILL QUANTITY	AMOUNT
E/R	1	DEMO 10 YDS LOWBOY UST 324G Concrete,					

COMMENTS

SERVICES ACCEPTED SUBJECT TO THE TERMS AND CONDITIONS ON THE REVERSE SIDE AND PAYMENT AGREED TO BE MADE IN ACCORDANCE WITH THE CONTRACTOR'S CURRENT RATE SCHEDULE.

CUSTOMER SIGNATURE _____ CONTRACTOR SIGNATURE _____

**NON-HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.
CA 6170023208

Manifest Document No.
800017

2. Page 1
of **1**

Generator's Name and Mailing Address

**MCAS E1 Toro
Caretaker Site Office, PO Box 444, East Irvine, CA 92650**

918609-8017

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

5. Transporter 1 Company Name

6. US EPA ID Number

A. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

**Crosby & Overton
1630 West 17th Street
Long Beach, CA 90813**

10. US EPA ID Number

CA D 0 2 8 0 9 0 0 1 9

C. Facility's Phone

(562) 432-5445

11. Waste Shipping Name and Description

12. Containers

13. Total Quantity

14. Unit Wt/Vol

a. **Non-regulated waste**

0 0 4 D M 0 0 2 2 0 G

b. **Non-regulated waste**

0 0 3 4 D M 0 0 2 2 0 G

15. Additional Descriptions for Materials Listed Above

11a) Profile #24505, water with trace fire retardant 32460
11b) Profile #24528, TPH water with solids 500000 kg
AGT 730 Sol

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

fax TSDF signed manifest to: Steve Chandler, IT Corporation, 3347 Michelson Dr., Suite 200, Irvine, CA 92612, fax #(949) 474-8309

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Signature

Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year

GENERATOR

TRANSPORTER

FACILITY

99387326
 IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550
 GENERATOR
 TRANSPORTER
 FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. CA 617 0 0 2 3 2 0 8 8 7 13 2 1 5		Manifest Document No. of 1		2. Page 1		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address MCAS El Toro Caretaker Site Office, PO Box 444, East Irvine, CA						A. State Manifest Document Number 99387326							
4. Generator's Phone (619) 572-1403 92650						B. State Generator's ID H A H 0 3 6 0 3 0 0 0 6 1							
5. Transporter 1 Company Name Ecology Control S.S.				6. US EPA ID Number K A D 9 8 2 0 1 0 1 1 1 1		C. State Transporter's ID [Reserved]							
7. Transporter 2 Company Name						D. Transporter's Phone (714)							
8. US EPA ID Number						E. State Transporter's ID [Reserved]							
9. Designated Facility Name and Site Address Crosby & Overton 1630 West 17th Street Long Beach, CA 90813						10. US EPA ID Number C A D 0 2 8 0 0 0 0 1 0		G. State Facility's ID					
						H. Facility's Phone (562) 432-5445							
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Waste Number	
						No. Type		Quantity		Wt/Vol		State EPA/Other	
a. Hazardous waste, solid, nos, (barium), 9, NA3077, III						0 0 1 0 M		0 0 0 6 0		P		State 187 EPA/Other D005	
b. Non-RCRA hazardous waste, liquid						0 0 7 0 M		0 0 3 8 5		G		State 221 EPA/Other NR	
c.												State EPA/Other	
d.												State EPA/Other	
17. Additional Descriptions for Materials Listed Above 11a) dried fire retardant, profile #24529 UST 3246 11b) tube oil, profile #24525 A-ST 730, 380, 3741/E *All Quantities are Estimates*						K. Handling Codes for Wastes Listed Above a. b. c. d.							
15. Special Handling Instructions and Additional Information fax TSDf signed manifest to: Steve Chandler (949) 474-8309 wear appropriate protective clothing Emergency number (1-800-255-3924 (Chem-Tel) ERG #171													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name JOHN LEWIS			Signature <i>[Signature]</i>			Month Day Year 1 1 7 1 9 9							
17. Transporter 1 Acknowledgement of Receipt of Materials													
Printed/Typed Name JAMES J. SCHWAB			Signature <i>[Signature]</i>			Month Day Year 1 1 7 1 9 9							
18. Transporter 2 Acknowledgement of Receipt of Materials													
Printed/Typed Name			Signature			Month Day Year							
19. Discrepancy Indication Space													
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.													
Printed/Typed Name			Signature			Month Day Year							

DO NOT WRITE BELOW THIS LINE.



**OHM Remediation
Services Corp.**
A Subsidiary of OHM Corporation

OHM TRANSMITTAL/DELIVERABLE RECEIPT

CONTRACT N68711-93-D-1459

DOCUMENT CONTROL NO: SW8799

TO: Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Bozier H. Demaree, Code 02R1.BD
1220 Pacific Highway
San Diego, California 92132-5190

Date: 07-Sep-00

D.O.: 70

Location: MCAS EL TORO

FROM: _____
Stewart Bornhoft, Program Manager

Edwin G. Bond
Edwin G. Bond, Contracts Manager

DESCRIPTION *Tank Closure Letter Report, Underground Storage Tank (UST) 324 G, dated September 6, 2000*
OF
ENCLOSURE:

TYPE: Contract Deliverable () D. O. Deliverable () Request for Change () Other ()
(\$) (Tech)

VERSION: FINAL

REVISION: 0

ADMIN RECORD: Yes () No () Category () Confidential ()

SCHEDULED DELIVERY DATE: 07-Sep-00 **ACTUAL DELIVERY DATE:** 07-Sep-00

NUMBER OF COPIES SUBMITTED TO THE NAVY: 1/O, 3/C, 2/E

[AS REQUIRED/DIRECTED BY THE (SOW)]

COPIES TO:

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OHM

OTHER

Name, Code

Name, Location

Name, Company, Location

GENERAL FILES, 02R1 (1C/E)

File (1C/1E)

L. Hornecker, 06CC.LH (1C/1E)

Chron (1C)

G. Tinker, 06CC.GT (1C)

D. Rawal, Irv (1C/3E)

Date/Time Received: _____ / _____