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MCAS EL TORO
SSIC NO. 5090.3

INFORMATION PACKAGE

REMOVAL AND DISPOSAL OF RESIDUAL LIQUIDS FROM AST 386A AND AST 386B, SUMP PURGING AND RINSING AT BUILDING 386 MARINE CORPS AIR STATION (MCAS) EL TORO, CALIFORNIA

Contract No. N68711-02-F-8210

Prepared for:

Department of the Navy,
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, California 92132

Prepared by:

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GEOFON Reference No. 04-4432.10

January 27, 2003

SOUTHWESTNAVFACENGCOM
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File: etswtr31Jan2003toDTSCAST386AB.doc

TRANSMITTAL

Date: 31 January 2003

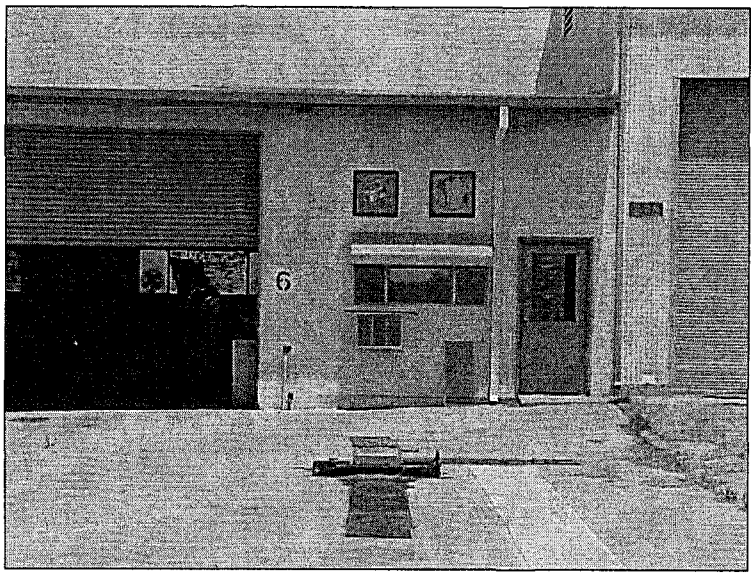
From: Lynn Marie Hornecker LMH

To: Triss Chesney
State of California Environmental Protection Agency
Department of Toxic Substances Control (DTSC), Region 4
Site Mitigation Branch, Base Closure Unit
5796 Corporate Avenue
Cypress, CA 90630

Subj: Above-Ground Storage Tank (AST) 386A and AST 386B
Sump at Building 386
Former Marine Corps Air Station, El Toro

Transmitted is information pertaining to the removal of residual liquids from AST 386A, AST 386B, and the sump at Building 386 at the former public works compound at the former Marine Corps Air Station, El Toro. AST 386A, AST 386B, and the sump were associated with former hydraulic lift systems at Building 386. Building 386 was a former heavy equipment maintenance facility that was constructed in 1955. The facility was in use for heavy vehicle maintenance activities from 1955 until 2 July 1999. Building 386 is located within the investigation boundary of Installation Restoration Program (IRP) Site 24 - the Volatile Organic Compound (VOC) Source Area - and adjacent to Unit 4 of IRP Site 10. Building 386 will be further evaluated as part of the Environmental Baseline Survey (EBS) update process.

Photograph of Building 386 with Sump in the Foreground and Former Heavy Equipment Service Bay in the Background.



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Building 386 is located within a parcel that has been designated for future use as an open space/exposition center according to the Great Park Land Use Plan (City of Irvine June 2002) as shown on Attachment 1.

The Navy conducted a visual inspection of Building 386 on 31 May 2002. AST 386A and AST 386B are located inside of heavy equipment service bays that have concrete floors. AST 386A is located immediately adjacent to the overhead door for former service bay number 6. AST 386A is rectangular in shape and the tank is approximately 3 feet by 3 feet by 4 feet. AST 386B is located at the northeastern corner of Building 386, and the tank is approximately 5 feet high and 3 feet in diameter. No evidence of releases from AST 386A or AST 386B was observed. No significant stains were observed on the concrete floors near the tanks. Samples were collected of the residual liquids in the tanks and sump at Building 386 during July 2002. Samples were analyzed for petroleum hydrocarbons, volatile organic compounds, semi-volatile organic compounds, metals, pesticides, and PCBs. The samples were collected in accordance with Resource Conservation and Recovery Act Facility Assessment (RFA) Program procedures.

Residual liquids were removed from AST 386A, AST 386B, and the sump during November 2002. Residual liquids and liquid wastes generated during the cleaning of the sump and tanks were disposed of at an off-site disposal facility in December 2002. The field activities and laboratory test results are described in Attachment 2. Waste management documentation is also presented in Attachment 2.

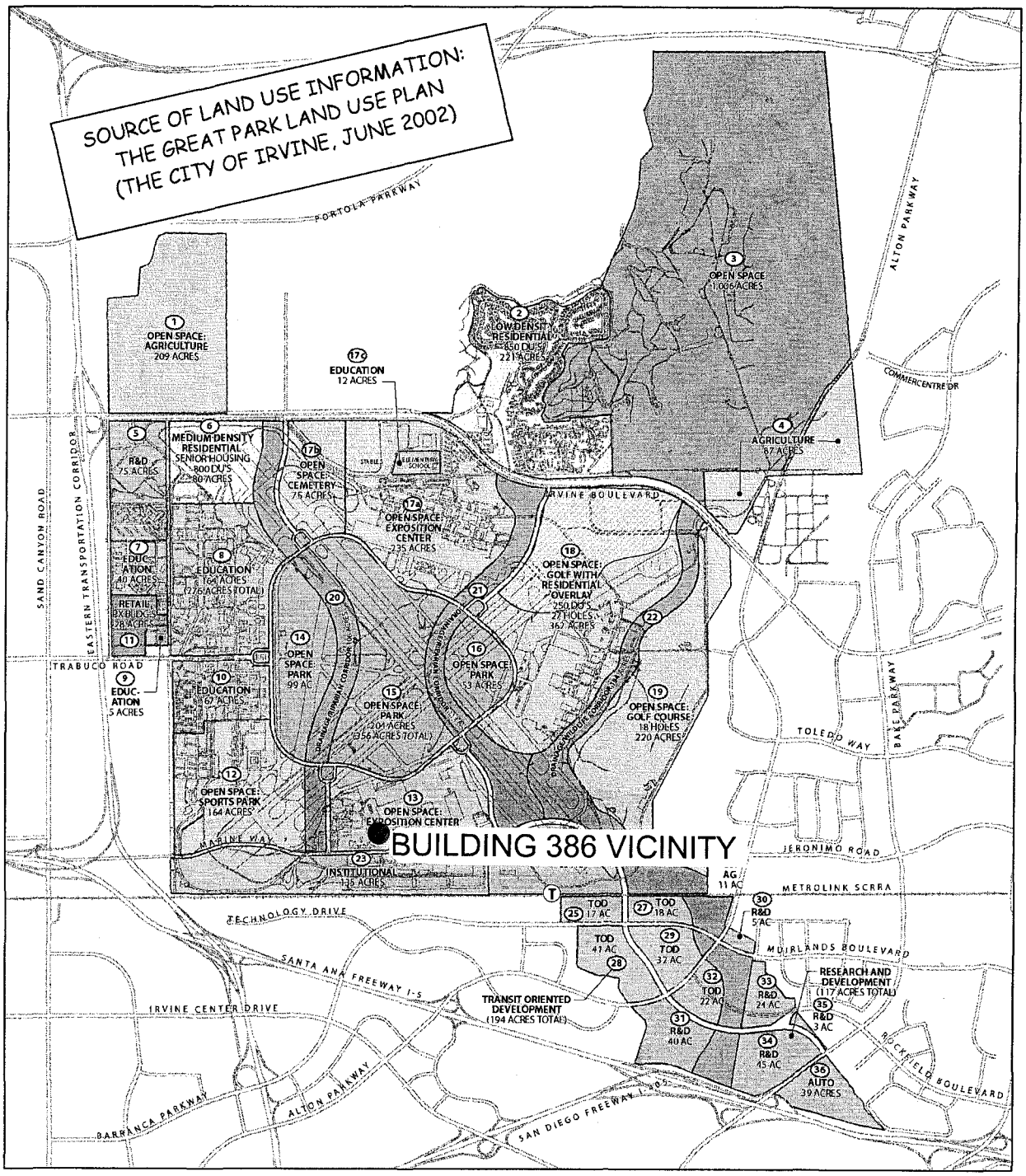
Based upon the observations from our visual inspections and the removal of the residual liquids from AST 386A and AST 386B, we are recommending that no further action status and Environmental Condition of Property (ECP) category 1 be designated for these tank sites in the next BRAC Business Plan update. The sump and hydraulic lifts at Building 386 will be further evaluated during the EBS update process.

Please review the attached information and provide comments within 60 days of receipt, if possible. If we do not receive comments from your office by 7 April 2003, we will assume that you concur with our recommendation to designate no further action status for AST 386A and AST 386B. A formal transmittal letter may follow.

Please do not hesitate to contact me at (619) 532-0783 if you have questions pertaining to this transmittal.

Attachments:
1) Building 386 Vicinity Map
2) Information Package (Geofon January 2003)

CF:
Andy Piszkin w/o atch
MCAS El Toro Project File w/atch
CSO/El Toro w/atch



GREAT PARK LAND USE PLAN

The Orange County Great Park

Prepared for the City of Irvine by ROMA Design Group and Associated Consultants

JUNE 12, 2002

ATTACHMENT 1.

BUILDING 386 VICINITY MAP

FORMER MARINE CORPS AIR STATION, EL TORO

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Attachment 1: Historical Information

Attachment 2: Photographs of Field Activities

Attachment 3: Field Notes

Attachment 4: Laboratory Analytical Data

Attachment 5: Non-Hazardous Liquid Waste Manifest

1.0 INTRODUCTION

GEOFON, Inc. (GEOFON) has prepared this Information Package for purging and triple-rinsing two Aboveground Storage Tanks (ASTs) and a hydraulic sump at the Building 386 site at the Marine Corps Air Station (MCAS), El Toro, California (Figure 1). The work was provided for the Department of the Navy, Southwest Division (SWDIV) under United States Navy Contract No. N68711-02-F-8210, and was completed in accordance with the Statement of Work (SOW) dated 27 March 2002, and all federal, state and local regulations.

2.0 BACKGROUND INFORMATION

Building 386 is located in the south-central portion of the MCAS, El Toro as shown in Figure 2. Building 386 was constructed in 1955 as a heavy equipment shop. Building 386 includes several vehicle service bays and one abandoned hydraulic lift located just southwest of the building.

An inspection performed in August 2002 identified that AST 386A, located inside Building 386 in the southeast corner of service bay 6, was approximately one-half full of hydraulic fluid. The dimensions of steel AST 386A were approximately 3 feet long by 3 feet wide by 4 feet high. AST 386B, located in the northeast corner of Building 386 was approximately one-third full with a water/hydraulic fluid mixture. The dimensions of AST 386B were approximately 1.5 feet in diameter and 5 feet high. The Building 386 sump is located southwest of the building in a paved lot. Based upon the recent inspection, it appears that approximately one foot of liquid, estimated to be approximately 200 gallons, remained in the sump. The dimensions of the Building 386 sump are approximately 24 feet long by 1.5 feet wide by 7 feet deep. Historical information pertaining to Building 386 is presented as Attachment 1.

3.0 FIELD ACTIVITIES

3.1 AST 386A

Field activities included purging the initial contents and triple-rinsing AST 386A. On November 6, 2002, AST 386A was triple-rinsed with a pressure washer and approximately 80 gallons of content and rinsate liquids were removed and containerized into two (2) 55-gallon steel drums. AST 386A was left in place after purging/rinsing activities were completed. The drums of purge/rinse liquid were labeled, sealed and temporarily stored next to AST 386A until receipt of analytical data and subsequent disposal.

3.2 AST 386B

Field activities included purging the initial contents and triple-rinsing AST 386B. On November 6, 2002, AST 386B was triple-rinsed with a pressure washer and approximately 100 gallons of content and rinsate liquids were removed and containerized into two (2) 55-gallon steel drums. AST 386B was left in place after purging/rinsing activities were completed. The drums of purge/rinse liquid were labeled, sealed and temporarily stored next to AST 386B until receipt of analytical data and subsequent disposal.

3.3 Building 386 Sump

Approximately 50 gallons of residual liquid was removed from the sump during purging activities. On November 7, 2002, the sump was pressure-washed and approximately 150 gallons of content and rinsate liquids were pumped into three (3) 55-gallon steel drums. The drums generated during sump purging/rinsing activities were labeled, sealed and temporarily stored next to the building until receipt of analytical data and subsequent disposal of the waste. After completion of the purging/rinsing process, the sump was visually inspected. The post-cleaning inspection did not reveal any cracks or holes. Photographs of field activities are presented as Attachment 2.

Calvada Surveying, Inc. performed a site survey on November 15, 2002. The site survey map is presented as Figure 3 and the associated survey locations are presented in Table 1. Field notes/sketches of the site are included as Attachment 3.

4.0 LABORATORY ANALYSIS

During an earlier investigation performed by others, one (1) composite aqueous sample of the sump liquid, one (1) aqueous sample of the contents of AST 386A and one (1) aqueous sample of the contents of AST 386B were collected and analyzed. Table 2 presents a summary of the analytical results from AST 386A and AST 386B and Table 3 presents a summary of the analytical results from the sump liquid. A copy of the laboratory analytical data is presented as Attachment 4.

The following EPA Methods were utilized for disposal characterization:

- EPA Method 8260B for VOCs plus Methyl-Tertiary Butyl Ether (MTBE)
- EPA Method 8015-Modified for Total Petroleum Hydrocarbons (Full Screen)
- EPA Method 6010C for Metals
- EPA Method 8270 for SVOCs

- EPA Method 8081 for Pesticides
- EPA Method 8082 for PCBs

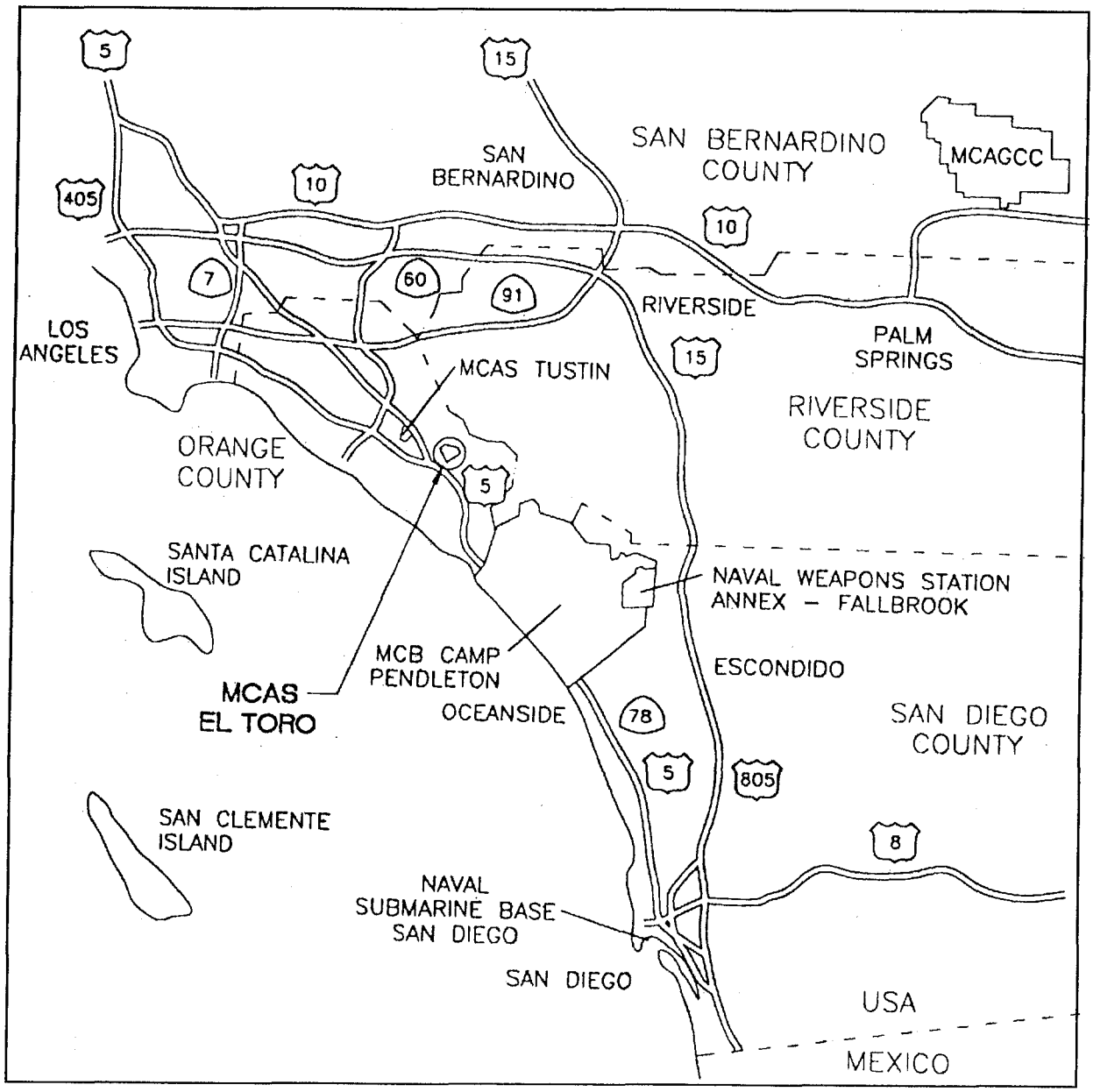
On October 23, 2002, an additional sample was collected and analyzed by EPA Method 1010 (flashpoint) to complete the waste characterization. One flashpoint sample was collected from the sump, AST 386A and AST 386B.

5.0 WASTE MANAGEMENT

Based on the waste profiles generated from the results of the laboratory analytical data, the contents of the drums from AST 386A, AST 386B and the Building 386 sump were classified as Non-Hazardous Liquid Wastes. Two drums were generated from AST 386A, two from AST 386B and three from the sump.

On December 5, 2002, Belshire Environmental, a California-certified waste hauler, manifested and transported seven (7) drums from the Building 386 site for disposal. A copy of the non-hazardous liquid waste manifest is presented as Attachment 5. The drums were taken to DeMenno-Kerdoon, a California-licensed disposal facility located in Carson, California.

FIGURES



Scale in Miles

0 20 40

Reference: Map Prepared by Klienfelder

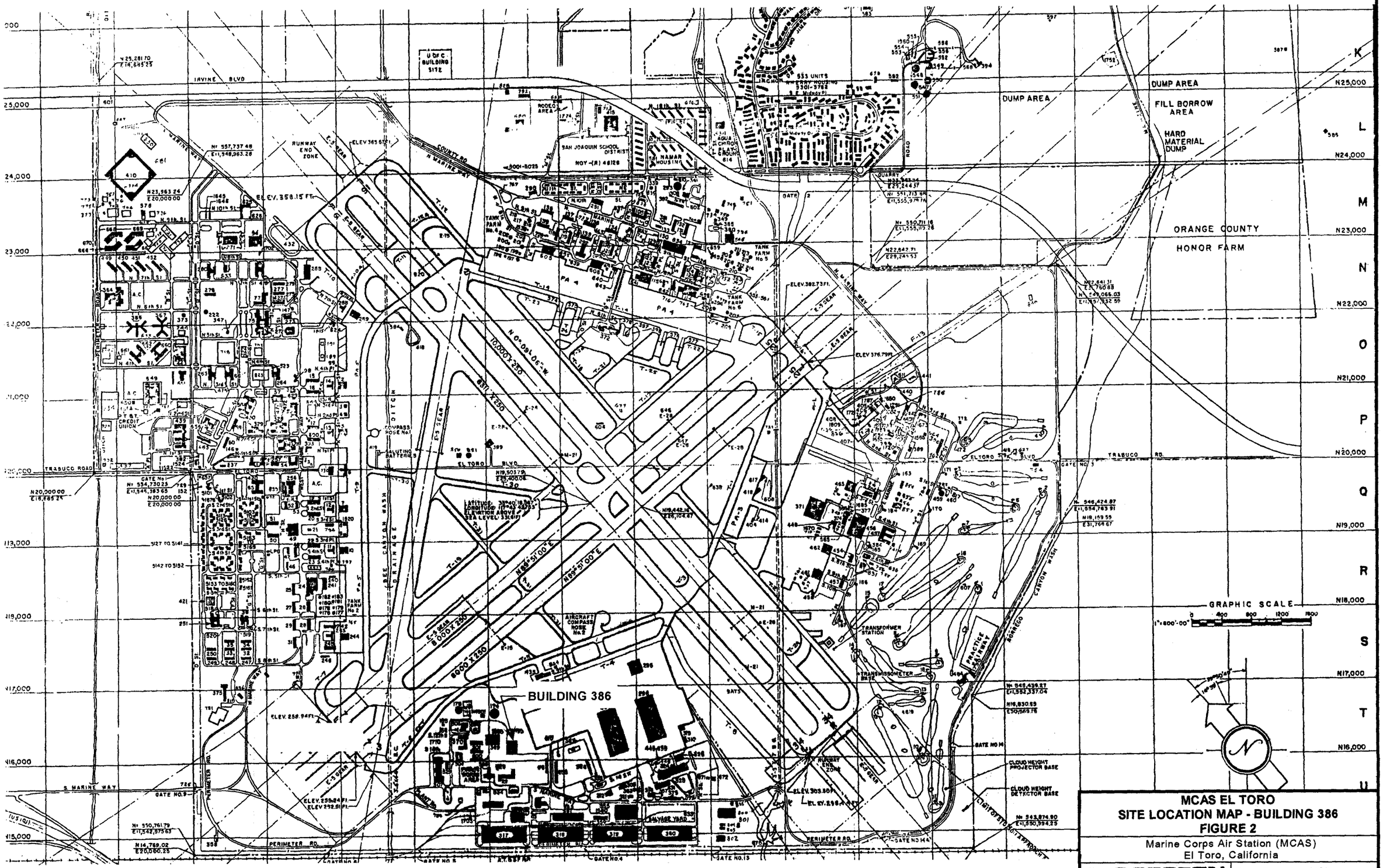
N

PROJECT VICINITY MAP
FIGURE 1

Marine Corps Air Station (MCAS)
El Toro, California

GEOFON INCORPORATED

Date: December, 2002
Contract No.: N68711-02-F-8210



MCAS EL TORO
SITE LOCATION MAP - BUILDING 386
FIGURE 2

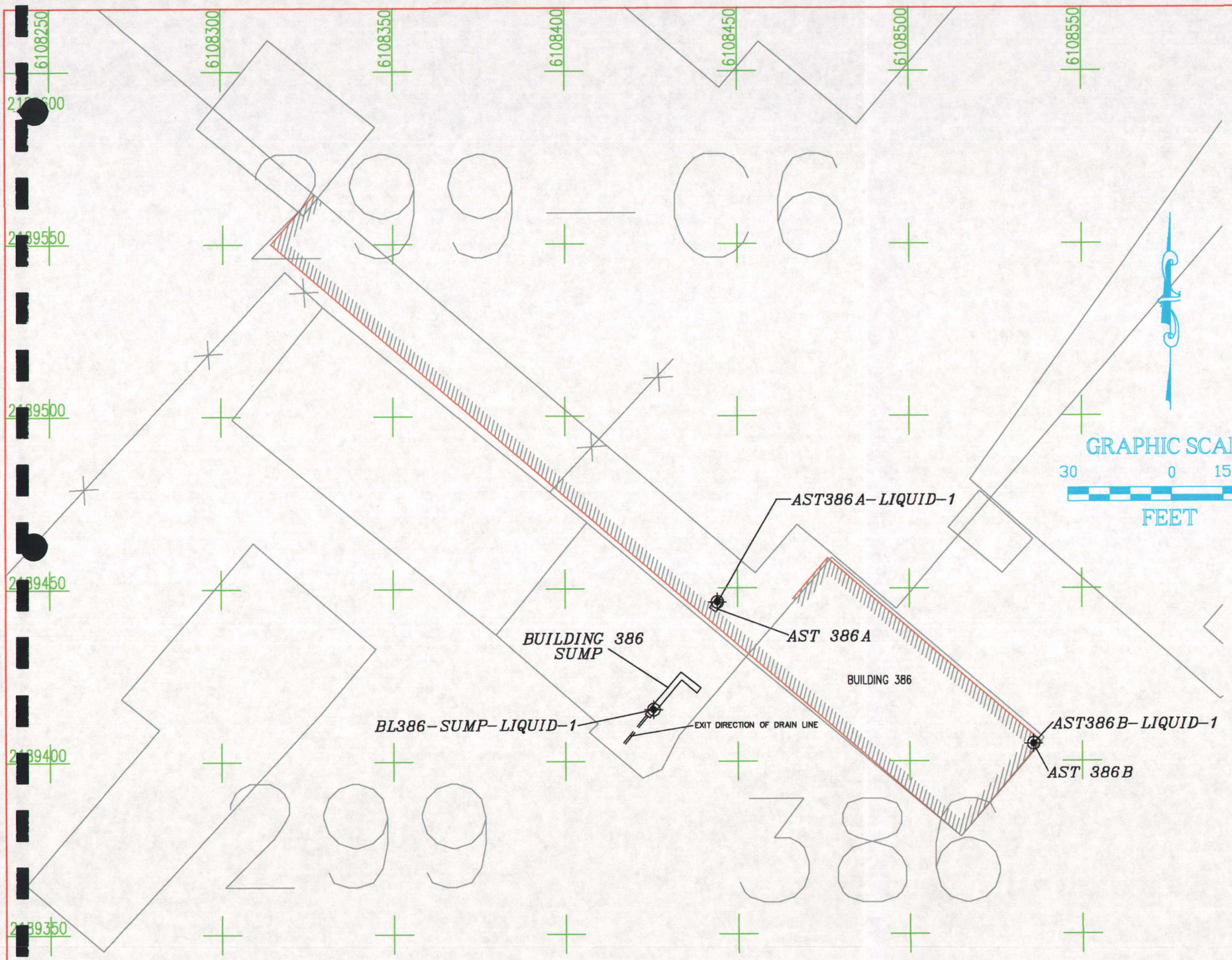
Marine Corps Air Station (MCAS)
El Toro, California

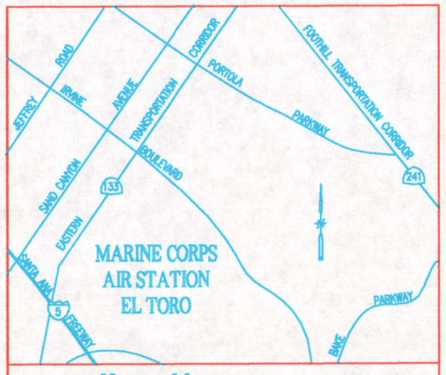
GEOFON INCORPORATED

Date: December, 2002
Contract No.: N68711-02-F-8210

SITE PLAN

PROJECT: EL TORO MARINE BASE
EL TORO, CA
BUILDING 386





Vicinity Map - N.T.S.

Legend

AC	ASPHALT PAVING		VAPOR EXTRACTION WELLS
BH	BORE HOLE		VAPOR EXTRACTION VALVES
CLF	CHAIN LINK FENCE		BORE HOLE
EB	ELECTRIC BOX	TOR	TOP OF RIM
EMB	ELECTRIC MAN HOLE	TOC	TOP OF CASING
EV	ELECTRIC VAULT	TOP	TOP OF CONCRETE
FS	FINISH SURFACE	BTM	BOTTOM OF CONCRETE
FR	FIRE RISER	TT	TOP OF TANK
GM	GAS METER	TP	TOP OF PIPE
GV	GAS VAULT	TC	TOP OF CURB
PHV	PHONE VAULT	FL	FLOW LINE
SCO	SEWER CLEAN OUT		RAILROAD TRACKS
SD	STORM DRAIN		PARKING LOT LIGHT
TV	TELEPHONE VAULT		WOOD FENCE
TMH	TELEPHONE MAN HOLE		CHAIN LINK FENCE
TOW	TOP OF WALL		CATCH BASIN
UB	UTILITY BOX		LANDSCAPE TREE
VLT	VAULT		CENTER LINE
WB	WATER BOX		PROPERTY LINE
WM	WATER METER	DD	DEGREES
WVS	WATER VALVES		LIGHT
	MONITORING WELL		
	SPARGE POINT		

DATE OF SURVEY
NOVEMBER 15, 2002

BENCH MARK
THE ELEVATIONS SHOWN HEREON ARE BASED UPON ORANGE COUNTY SURVEYORS MONUMENT NO.: 3E-113-90 ELEVATION = 410.860 FEET (NGVD 29)

COORDINATES
THE COORDINATES SHOWN HEREON ARE BASED UPON THE STATE PLANE COORDINATE SYSTEM (NAD83), CALIFORNIA ZONE VI.

PREPARED FOR
GEOFON
22632 GOLDEN SPRINGS DR.
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DIAMOND BAR, CA 91765
PHONE: (909) 396-7662
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NO.	DATE	REVISIONS	BY
0	11-21-02	SUBMITTAL	HP

CALVADA SURVEYING, INC.
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108 Business Center Drive Phone: (909) 280-9960
Corona, CA 92880-1782 Fax: (909) 280-9746
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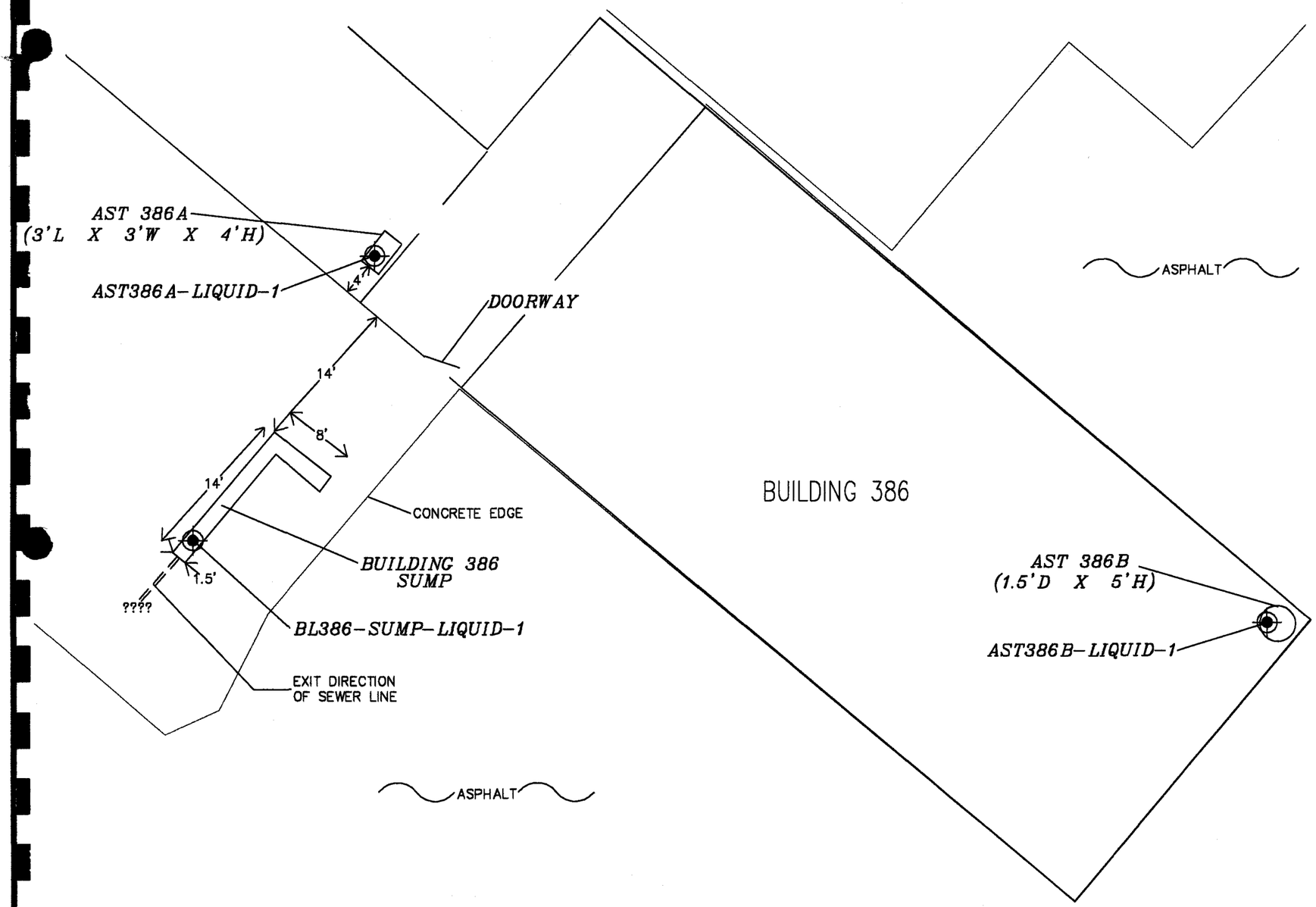
FIGURE 3

SITE PLAN

PROJECT: EL TORO MARINE BASE
EL TORO, CA
BUILDING 386



GRAPHIC SCALE

12 0 6 12

FEET

Legend

AC	ASPHALT PAVING		VAPOR EXTRACTION WELLS
BH	BORE HOLE		VAPOR EXTRACTION VALVES
CLF	CHAIN LINK FENCE		BORE HOLE
EB	ELECTRIC BOX	TOR	TOP OF RIM
EMH	ELECTRIC MAN HOLE	TOC	TOP OF CASING
EV	ELECTRIC VAULT	TOP	TOP OF CONCRETE
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WM	WATER METER		CENTER LINE
WVS	WATER VALVES		PROPERTY LINE
	MONITORING WELL	DD	DEGREES
	SPARGE POINT		LIGHT

DATE OF SURVEY

NOVEMBER 15, 2002

BENCH MARK

THE ELEVATIONS SHOWN HEREON ARE BASED UPON ORANGE COUNTY SURVEYORS MONUMENT NO.: 3E-113-90 ELEVATION = 410.850 FEET (NGVD 29)

COORDINATES

THE COORDINATES SHOWN HEREON ARE BASED UPON THE STATE PLANE COORDINATE SYSTEM (NAD83), CALIFORNIA ZONE VI.

PREPARED FOR

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FIGURE 4

TABLES

TABLE 1
Surveyed Points - Building 386 Site

DESCRIPTION	NORTH	EAST	LATITUDE (DD)	LONGITUDE (DD)	ELEVATION
BUILDING-COR	2189405.41	6108538.30	33.6665742	-117.7392850	270.25
BUILDING-COR	2189458.86	6108476.18	33.6667186	-117.7394917	269.50
BUILDING-COR	2189378.16	6108514.83	33.6664984	-117.7393609	270.28
BUILDING-COR	2189549.95	6108314.59	33.6669626	-117.7400270	266.33
AST-386A	2189405.00	6108535.88	33.6665730	-117.7392930	270.13
AST-386B	2189446.07	6108444.11	33.6666822	-117.7395965	269.24
Bldg386-Sump	2189415.07	6108425.49	33.6665963	-117.7396562	260.99
SUMP-COR	2189443.42	6108443.80	33.6666749	-117.7395974	269.26
SUMP-COR	2189444.47	6108441.83	33.6666778	-117.7396039	269.25
SUMP-COR	2189447.61	6108444.04	33.6666865	-117.7395968	269.24

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL DATA
BUILDING 386 - CONTENTS OF AST 386A & AST 386B
AQUEOUS MATRIX

Chemical Analyte	EPA Method	PQL	Sample ID AST-386A	Sample ID AST-386B
Total Petroleum Hydrocarbons				
TPH-G (C_4 - C_9)	8015-Mod	0.1 mg/L	170 J	120 J
TPH-D (C_9 - C_{23})	8015-Mod	0.1 mg/L	190,000 J	190,000 J
TPH -HC (C_{23+})	8015-Mod	0.5 mg/L	1,100,000	1,100,000
Metals				
Antimony	6010B	5.0 µg/L	< 5.0	0.31 J
Arsenic	6010B	5.0 µg/L	0.16 J	0.14 J
Barium	6010B	10.0 µg/L	0.27 J	0.52 J
Beryllium	6010B	2.5 µg/L	< 2.5	< 2.5
Cadmium	6010B	2.0 µg/L	0.084 J	0.35
Chromium	6010B	5.0 µg/L	0.15 J	0.39 J
Cobalt	6010B	5.0 µg/L	< 0.5	< 0.5
Copper	6010B	10.0 µg/L	0.94	66.8
Lead	6010B	5.0 µg/L	1.2	5.3
Mercury	7470A	0.5 µg/L	0.0087 J	0.012 J
Molybdenum	6010B	5.0 µg/L	< 0.2	< 0.2
Nickel	6010B	5.0 µg/L	0.41	0.42
Selenium	6010B	10.0 µg/L	< 10.0	< 10.0
Silver	6010B	0.5 µg/L	< 0.5	0.055 J
Thallium	6010B	0.5 µg/L	0.098 J	0.14 J
Vanadium	6010B	10.0 µg/L	< 10.0	< 0.5
Zinc	6010B	10.0 µg/L	77.0	45.2
Volatile Organic Compounds				
Acetone	8260B	50.0 µg/L	20 J	2,200 J
Ethylbenzene	8260B	5.0 µg/L	< 5.0	77 J
Methylene Chloride	8260B	5.0 µg/L	3 J	500.0
Xylenes (Total)	8260B	15.0 µg/L	0.7 J	400 J
All Other VOCs	8260B	Varies	ND	ND
Semi-Volatile Organic Compounds				
Bis(2-Ethylhexyl) Phthalate	8270B	10.0 µg/L	28 J	150,000 J
All Other SVOCs	8270B	Varies	ND	ND
Pesticides				
Pesticides	8081	Varies	ND	NS
Polychlorinated Biphenyls				
Aroclor-1260	8082	1.0 µg/L	0.4 J	< 3,300
All Other PCBs	8082	1.0 µg/L	ND	ND
Flammability				
Flashpoint	1010	1^0 F	> 140^0 F	> 140^0 F

Definitions:

All analyte concentrations are in the same units as the PQL
TPH-G: Total Petroleum Hydrocarbons as Gasoline
TPH-D: Total Petroleum Hydrocarbons as Diesel
TRPH: Total Recoverable Petroleum Hydrocarbons
J: Estimated value.
NS: Not Sampled by this EPA Method
PCBs: Polychlorinated Biphenyls
PQL: Practical Quantitation Limit
mg/L: Milligrams per Liter
µg/L: Micrograms per Liter

TABLE 3
SUMMARY OF LABORATORY ANALYTICAL DATA
BUILDING 386 - SUMP CONTENTS
AQUEOUS MATRIX

Chemical Analyte	EPA Method	PQL	Sample ID Bldg386-Sump (Water)	Sample ID Bldg386-Sump (Product)
Total Petroleum Hydrocarbons				
TPH-G (C_4 - C_9)	8015	0.1 mg/L	0.1	6 J
TPH-D (C_9 - C_{23})	8015	0.1 mg/L	96.0	170,000 J
TPH -HC (C_{23+})	8015	0.5 mg/L	390.0	760,000
Metals				
Antimony	6010B	10.0 µg/L	4.9 J	N/A
Arsenic	6010B	5.0 µg/L	3.7 J	N/A
Barium	6010B	10.0 µg/L	50.1	N/A
Beryllium	6010B	2.5 µg/L	< 2.5	N/A
Cadmium	6010B	2.0 µg/L	2.0	N/A
Chromium	6010B	5.0 µg/L	5.4	N/A
Cobalt	6010B	5.0 µg/L	0.96 J	N/A
Copper	6010B	10.0 µg/L	65.6	N/A
Lead	6010B	5.0 µg/L	17.2	N/A
Mercury	7470A	0.5 µg/L	0.13 J	N/A
Molybdenum	6010B	5.0 µg/L	11.1	N/A
Nickel	6010B	5.0 µg/L	5.1	N/A
Selenium	6010B	10.0 µg/L	< 10.0	N/A
Silver	6010B	0.5 µg/L	< 0.5	N/A
Thallium	6010B	0.5 µg/L	< 0.5	N/A
Vanadium	6010B	10.0 µg/L	6.8 J	N/A
Zinc	6010B	10.0 µg/L	1,650.0	N/A
Volatile Organic Compounds				
Benzene	8260B	1.0 µg/L	< 1.0	N/A
2-Butanone	8260B	50.0 µg/L	140.0	N/A
2-Hexanone	8260B	50.0 µg/L	12 J	N/A
Ethylbenzene	8260B	5.0 µg/L	< 5.0	N/A
Methylene Chloride	8260B	5.0 µg/L	1 J	N/A
4-Methyl 2-Pentanone	8260B	50.0 µg/L	2 J	N/A
Toluene	8260B	5.0 µg/L	< 5.0	N/A
Xylenes (Total)	8260B	15.0 µg/L	0.7 J	N/A
Semi-Volatile Organic Compounds				
SVOCs	8270B	Varies	ND	N/A
Pesticides				
Pesticides	8081	Varies	ND	N/A
Polychlorinated Biphenyls				
PCBs	8082	1.0 µg/L	ND	N/A
Flammability				
Flashpoint	1010	1^0 F	> 140^0 F	N/A

Definitions:

All analyte concentrations are in the same units as the PQL
TPH-G: Total Petroleum Hydrocarbons as Gasoline
TPH-D: Total Petroleum Hydrocarbons as Diesel
TRPH: Total Recoverable Petroleum Hydrocarbons
J: Estimated value.
PCBs: Polychlorinated Biphenyls
PQL: Practical Quantitation Limit
mg/L: Milligrams per Liter
µg/L: Micrograms per Liter
N/A: Not Available

ATTACHMENT 1

HISTORICAL INFORMATION

El Toro Building Guide

BLDG	GRI	DESCRIPTION	TENANT	CATCO	CAC	SIZE
375	S3	Bachelor Officers Quarters	Sta/G-4	72412	EBKO	24 PN
376	04	Fire Station Dispatch	Sta/G-1	73110	EBLO	1649 SF
377	Q11	Water Storage Tank	Installation	84330	EAUO	316000G
379	U9	Truck Weighing Facility	Supply	89056	EAPO	1 EA
380	M10	Standby Generator Bldg	Installation	81159	EAAO	1050 SF
382	P3	Electrical Distr Subs #1	Installation	81209	EABO	207 SF
383	U8	Electrical Distr Subs #2	Installation	81209	EHAO	160 SF
384	R12	Electrical Distr Subs #3	Installation	81209	EHAO	160 SF
385	M10	Electrical Distr Subs #4	Installation	81209	EHAO	160 SF
386	T7	Construction Equip Shop	Sta/G-4	21420	EBBO	7136 SF
387	T8	Loading/Unloading Ramp	CSSD-14	85115	EDAO	159 SF
388	U8	Field Maint Shop	CSSD-14	21453	EBBO	7040 SF
389	P12	Loading/Unloading Ramp	Station	85115	EDAO	159 SF
390	P13	Golf Cart Shop	MWR/Rec	74080	EBLO	6400 SF
391	M9	Loading/Unloading Ramp	MAG-11	85115	EDAO	159 SF
392	M9	ACFT Ground Supt Equip	MALS-11	21860	EBBO	6400 SF
394	K13	Transmitter(UHF/VHF	Sta/G-6	13150	EBMO	1596 SF
396	N10	Aircraft Truck Fueling	Supply	12120	ECWO	1 EA
399	P7	Vortac Facility	Sta/G-6	13325	EBUO	425 SF
402	K8	Stables Toilet	MWR/Rec	73075	EBLO	75 SF
404	Q10	Receiver Bldg	Sta/G-6	13150	EBMO	909 SF
405	P12	Applied Instruction Bldg	MALS-16	17120	EBAO	3208 SF
406	P12	Applied Instruction Bldg	MALS-16	17120	EBAO	2285 SF
407	P12	(Squadron Headquarters)	Vacant	61072	EBFO	400 SF
408	P12	(Guard Tower)	Vacant	87220	ECSO	64 SF
409	P12	(Guard Tower)	Vacant	87220	ECSO	64 SF
410	L2	Playing Fields, Softball	MWR/Rec	75020	ESCO	4 EA
414	Q10	Standby Generator Bldg	Sta/G-3	81159	EAAO	384 SF
415	L8	Storage out of Stores	MAG-11	44112	EBDO	40313 SF
416	P14	Storage Bldg	FAA	44110	EBDO	480 SF
419	P5	Saluting Battery	Supply	69015	ECLO	1 EA
420	Q3	Station Flagpole	Adjutant	69010	ECLO	1 EA
421	R3	Playing Courts, Tennis	MWR/Rec	75010	ECNO	2 EA
422	O3	Playing Courts, Tennis	MWR/Rec	75010	ECNO	1 EA
427	N4	Playing Courts, Hndbl/Bsktbl	MWR/Rec	75010	ECNO	1 EA
430	P3	Playing Court, Tennis	MWR/Rec	75010	ECNO	1 EA
432	M4	Foot/Soccer/Baseball Field	MWR/Rec	75020	ECNO	4 EA
435	S7	Acft Fire & Rescue Station	SOMS	14120	EBNO	11440 SF
439	P2	Branch Dental Clinic	13th Dental	54010	EBEO	10680 SF
439	P2	Branch Medical Clinic	Nav Hosp	55010	EBEO	59487 SF
440	O12	Missile Magazine	Station	42172	EBQO	930 SF
441	O12	Aviation Armament/Sta	Station/G-4	21154	EBVO	1500 SF
442	P12	Aviation Armament/Sta	MALS-11	21154	EBVO	6220 SF
443	02	Photographic Laboratory	Training	14160	EBNO	3288 SF
443	O2	Academic Instruction Bldg	Training	17110	EBAO	4592 SF
443	O2	Academic Instruction Bldg	Training	17120	EBAO	22086 SF

368	61010	INSTALLATIONS DEPT BLDG	NOY71129	19540201	SF	19,950	160	131	24	$404,548	$1,757,769	1954	1990
369	44172	SERVMART	NOY71129	19540101	SF	29,568	200	140	24	$306,771	$1,855,425	1954	1990
370	21910	PW PAINT/CARP/METAL TRADES	NOY71129	19540301	SF	15,280	184	140	26	$230,321	$1,336,068	1954	1990
371	21105	IMA HANGAR	NOY72539	19540901	SF	86,652	272	261	59	$11,812,615	$24,409,098	1954	1990
372	14140	AIRFIELD OPERATIONS/TOWER	NOY74043	19540601	SF	27,275	317	89	57	$994,785	$5,136,487	1954	1989
374	82109	UTILITY BLDG	NOY72539	19540501	SF	5,586	113	49	18	$523,670	$1,472,637	1954	1987
377	84330	WATER STORAGE TANK	NOY72539	19540115	SY	0	59	0	17	$40,000	$253,080	1954	
FT553	12450	UNLEADED MOGAS STOR	NOY74102	19560601	SY	0	27	8	0	$6,100	$35,600	1956	
FT554	82160	MOGAS STOR TANK	NOY74102	19560601	SY	0	27	8	0	$6,100	$35,600	1956	
555	14375	POL SAMPLING BLDG	NOY89098	19550401	SF	800	40	20	8	$21,147	$90,449	1955	1989
556	12520	MANIFOLD STATION	NOY74102	19550115	SF	543	35	15	8	$17,800	$109,951	1955	
FT558	12120	TANK TRUCK LOADING STAND	NOY26892	19520601	SY	0	20	8	12	$23,724	$161,299	1952	
FT559	12120	TANK TRUCK LOADING STAND	NOY26892	19520601	SY	0	20	8	12	$23,724	$161,299	1952	
FT560	12120	TANK TRUCK LOADING STAND	NOY26892	19520601	SY	0	20	8	12	$23,724	$161,299	1952	
FT561	12120	TANK TRUCK LOADING STAND	NOY74102	19550801	SY	0	20	8	12	$50,099	$306,005	1955	
376	61010	FIRE ALARM HEADQUARTERS	NOY72540	19540601	SF	1,649	21	38	20	$41,176	$246,763	1954	1990
380	81159	STAND-BY GEN BLDG	NOY72540	19540201	SF	1,050	50	21	19	$40,146	$224,352	1954	1983
347	74085	EXCHANGE INSTALL WAREHOUSE	NOY14649	19481001	SF	9,306	177	96	13	$31,370	$227,275	1948	1984
383	81209	SUBSTATION	NOY72540	19540101	SF	160	16	10	9	$1,120	$7,086	1954	
384	81209	SUBSTATION	NOY72540	19540101	SF	160	16	10	9	$1,120	$7,086	1954	
385	81209	SUBSTATION	NOY72540	19540101	SF	160	16	10	9	$1,120	$7,086	1954	
	85235	MISC PAVEMENTS/BITUMINOUS/		19430101	SY	235,032	0	0	0	$855,690	$10,213,841	1943	1990
1791	21154	ORDNANCE BLDG		19460301	SF	1,680	84	20	8	$11,436	$115,629	1946	
1703	44130	HAZARDOUS/FLAMMABL SHED		19520601	SF	480	30	16	14	$1,000	$6,698	1952	
1710	21925	PW MAINT		19460115	SF	560	28	20	8	$3,077	$31,112	1946	
1702	74032	AUTO WASH RACK		19550115	SF	1,980	55	36	20	$1,931	$11,928	1955	
1719	44112	NBC SCHOOL/GRP	NOY11100	19460601	SF	960	48	20	8	$6,178	$62,466	1946	1977
1720	61072	NBC SCHOOL ADMIN BLDG		19460601	SF	960	48	20	8	$9,166	$92,677	1946	1977
1721	72111	GUARD QUARTERS	NOY11100	19460601	SF	960	48	20	8	$5,076	$51,323	1946	1977
	12510	POL DISTRI PIPE LINE UNDERGR	NOY80722	19520301	SY	0	0	0	0	$2,643,361	$4,222,850	1952	1990
408	87220	GUARD TOWERS /SW/	NOY90791	19560201	SF	64	8	8	20	$3,617	$21,210	1956	1977
409	87220	GUARD TOWER	NOY90791	19560201	SF	64	8	8	20	$1,741	$10,209	1956	
405	17120	INSTRUCTION BUILDING/MAWTU	NOY90791	19560201	SF	3,208	61	57	13	$74,984	$103,641	1983	1984
406	17120	AIR CREW WPNS/TACTICS TRNG	NOY90791	19560201	SF	2,285	58	35	12	$45,989	$268,392	1956	1977
407	61072	ADMINISTRATION /SW/	NOY90791	19560201	SF	400	20	20	10	$7,425	$43,332	1956	1977
386	21420	HVY EQ MAINT	NOY85150	19551001	SF	7,136	213	36	21	$144,288	$414,058	1955	1988
387	85115	LOADING/UNLOADING RAMP	NOY85150	19550101	SY	159	50	29	3	$2,081	$12,711	1955	
388	21453	FIELD MAINTENANCE SHOP	NOY85150	19550401	SF	7,040	220	32	17	$107,081	$564,128	1955	1990
389	85115	LOADING/UNLOADING RAMP	NOY85150	19550401	SY	159	50	29	3	$2,081	$12,711	1955	
390	74080	GOLF CART HOUSE	NOY85150	19550401	SF	6,400	200	32	18	$97,310	$566,031	1955	1983
391	85115	LOADING UNLOADING RAMP	NOY85150	19550115	SY	159	50	29	3	$2,081	$12,711	1955	
392	21860	GSE SHOP	NOY85150	19550901	SF	6,400	200	32	17	$284,105	$795,242	1955	1986
416	44110	AIR SURVEILLANCE RADAR BLDG	NOY86782	19570601	SF	480	24	20	11	$42,112	$237,133	1957	
579	44135	STORAGE BUILDING	NOY86782	19570101	SF	176	16	11	9	$14,239	$80,180	1957	
404	13150	TRANSMITTER BUILDING	NOY90826	19570115	SF	909	50	18	11	$54,824	$308,714	1957	
414	81159	STAND-BY GEN. BLDG.	NOY90826	19570115	SF	384	24	16	13	$19,913	$112,130	1957	
394	13135	RADIO RECEIVER BUILDING	NOY86704	19560115	SF	1,596	42	38	11	$84,980	$495,943	1956	
568	81159	STAND-BY GEN BLDG	NOY86704	19560115	SF	176	16	11	9	$18,428	$107,546	1956	
573	13210	RECEIVING ANTENNA-LF	NOY86704	19560115	SY	0	0	0	50	$7,465	$43,775	1956	
FT396	12120	A/C TRUCK FUEL FACILITY	NOY86722	19560601	SY	0	6	6	16	$13,127	$76,609	1956	
421	75010	TENNIS COURT	NOY9453	19450601	SY	0	130	120	0	$11,591	$133,860	1945	1983
422	75010	TENNIS COURT	NOY9453	19460115	SY	0	120	60	0	$5,472	$56,668	1946	
399	13325	VOR FACILITIES	NOY89088	19560601	SF	425	25	17	12	$92,531	$194,826	1956	1981

prevent pollutants entering the storm water system.

Building 370 - Public Works Paint/Carpentry/Metal Trades - Installation

Industrial activity at this facility includes light painting, carpentry, and metal work and storage. Two oil drums are located on racks without secondary containment in the west side of the building near the garage door. Two drums containing oil and TCP are also located in an outside storage yard without secondary containment or cover. An air compressor is located on a bermed concrete pad on the east side of the building in a covered, fenced enclosure. Severe oil staining was noted around the air compressor installation.

Recommended BMPs include moving the stored drums to a covered area with secondary containment. A spill kit and SPCCP should be provided and personnel trained in spill response techniques. The air compressor should be routinely inspected and leaking oil should be abated.

Building 386 - Construction Equipment Shop - Installation

Industrial activity at this facility includes work on heavy equipment hydraulic systems as well as vehicle washing and general maintenance. Potential pollutants included hydraulic oil, gear oil, additives, diesel, solvents, waste oils and vehicle wash waste. A wash rack equipped with an oil/water separator (#386) was present, but it has not been used according to site personnel. Diversion valves should be checked to insure they are operable to prevent potential discharge to the storm drain system. The separator should be inspected quarterly for possible mechanical failure and should be serviced according to the manufacturer's specifications. There was a covered hazardous waste storage area with secondary containment and a fence. Drums stored outside Building 386 containing rags stained with oil, lube oil, fuel conditioner, and antifreeze. Secondary containment is needed if these drums are to remain. Uncovered tires were stored near the hazardous waste storage area. Batteries stored inside Building 386 require proper containment. a SPCCP and spill kit were present and personnel had received spill response training.

BMP recommendations are to routinely inspect and maintain the oil/water separator, provide secondary containment for the fifty-five gallon drums, eliminate surplus materials, wastes and equipment or store under cover.

ATTACHMENT 2

PHOTOGRAPHS OF FIELD ACTIVITIES

GEOFON INCORPORATED

Hydraulic Sump and Lift Located Southwest of Building 386 Prior to Field Activities - View Northwest

Removal of Residual Liquids From the Sump at Building 386 - View North

GEOFON INCORPORATED

Removal of Residual Liquids From AST 386A Located in the Central Portion of Building 386 - View Southeast

Removal of Residual Liquids From AST 386B Located in the Northeastern Corner of Building 386 - View East

ATTACHMENT 3

FIELD NOTES

ATTACHMENT 3 – FIELD NOTES

INFORMATION PACKAGE – REMOVAL AND DISPOSAL OF RESIDUAL LIQUIDS FROM AST 386A AND AST 386B, SUMP PURGING AND RINSING AT BUILDING 386

THE ABOVE IDENTIFIED ATTACHMENT IS NOT AVAILABLE.

EXTENSIVE RESEARCH WAS PERFORMED BY SOUTHWEST DIVISION TO LOCATE THIS ATTACHMENT. THIS PAGE HAS BEEN INSERTED AS A PLACEHOLDER AND WILL BE REPLACED SHOULD THE MISSING ITEM BE LOCATED.

QUESTIONS MAY BE DIRECTED TO:

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 532-3676

ATTACHMENT 4

LABORATORY ANALYTICAL DATA

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

Geofon, Inc.
22632 Golden Springs Drive Suite 270
Diamond Bar, CA 91765-

Number of Pages 2
Date Received 10/23/2002
Date Reported 11/04/2002

Telephone: (909)396-7662
Attention: Leo W. Williamson

Job Number	Order Date	Client
23331	10/23/2002	GEOFON

Project ID: 04-4432.10
Project Name: MCAS- El Toro
Site: Bldg 386- AST 386A
El Toro, CA

Enclosed please find results of analyses of 1 water sample which was analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: _____

Cyrus Razmara, Ph.D.
Laboratory Director

GEOFON INCORPORATED

22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

JOB # 23331 AST 386A

GEOFON's LAB COORDINATOR: Leo W. Williamson	LAB COORDINATOR'S PHONE: (909) 396-7662	LAB COORDINATOR'S FAX: (909) 396-1455	LABORATORY SERVICE ID	LABORATORY CONTACT: Jim Lin	MAIL REPORT (COMPANY NAME): GEOFON, Inc.
PROJECT NAME: MCAS-El Toro	PROJECT LOCATION: BLDG 386 - AST 386A	PROJECT NUMBER: 04-4432.10	LABORATORY PHONE: (818) 845-8200	LABORATORY FAX: (818) 845-8840	RECIPIENT NAME: Leo W. Williamson
PROJECT CONTACT: Leo W. Williamson	PROJECT PHONE NUMBER: (909) 396-7662	PROJECT FAX: (909) 396-1455	LABORATORY ADDRESS: 2834 N. Naomi St.		ADDRESS: 22632 Golden Springs Dr. #270
PROJECT ADDRESS: MCAS El Toro	CITY, STATE AND ZIPCODE: El Toro, CA.	CLIENT: US NAVY, SWDIV	CITY, STATE AND ZIPCODE: Burbank, CA. 91504		CITY, STATE AND ZIPCODE: Diamond Bar, CA. 91765
PROJECT MANAGER: Asrar Faheem	PROJECT MANAGER'S PHONE: (909) 396-7662	PROJECT MANAGER'S FAX: (909) 396-1455			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: 1010 (Flashpoint)								Comments
1	AST 386A-LIQUID-1	H_2O	10/23/02	1330	NONE	1	III	NORMAL	X								23331-01
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

SAMPLES COLLECTED BY: Leo W. Williamson

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Leo W. Williamson	[signature]	10/23/02	1900	
[signature]	[signature]	10/24/02	0740	

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

American Environmental Testing Laboratory Inc.
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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

ANALYTICAL RESULTS

Ordered By

Geofon, Inc.
22632 Golden Springs Drive
Suite 270
Diamond Bar, CA 91765-

Telephone: (909)396-7662
Attn: Leo W. Williamson

Site

Bldg 386- AST 386A
El Toro, CA

Page: 2
Project ID: 04-4432.10
Project Name: MCAS- El Toro

AETL Job Number	Submitted	Client
23331	10/23/2002	GEOFON

Method: 1010, Pensky-Martens Closed-Cup Method for Ignitability

QC Batch No: 10242002 QC Prepared: 10/24/2002 QC Analyzed: 10/24/2002

Our Lab I.D.				23331.01			
Client Sample I.D.			Method Blank	AST 386A-Liquid-1			
Date Sampled			10/23/2002	10/23/2002			
Date Prepared			10/24/2002	10/24/2002			
Preparation Method			1010	1010			
Date Analyzed			10/24/2002	10/24/2002			
Matrix			Aqueous	Aqueous			
Units			Deg F	Deg F			
Dilution Factor			1	1			
Analytes	MDL	PQL	Results	Results			
Flashpoint	70	70	ND	>140			

QUALITY CONTROL REPORT

QC Batch No: 10242002 QC Prepared: 10/24/2002 QC Analyzed: 10/24/2002

Analytes	SM Result	SM DUP Result	RPD %	SM RPD % Limit	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit		
Flashpoint	>140	>140	<1	<20	77.00	77.00	100	80-120		

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Data Qualifiers and Descriptors

Data Qualifier:

B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.
MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

American Environmental Testing Laboratory Inc.

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Ordered By

Geofon, Inc.
22632 Golden Springs Drive Suite 270
Diamond Bar, CA 91765-

Number of Pages 2
Date Received 10/23/2002
Date Reported 11/04/2002

Telephone: (909)396-7662
Attention: Leo W. Williamson

Job Number	Order Date	Client
23330	10/23/2002	GEOFON

Project ID: 04-4432.10
Project Name: MCAS- El Toro
Site: BLDG 386- AST 386B
El Toro, CA

Enclosed please find results of analyses of 1 water sample which was analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: G. Moeller

Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

GEOFON INCORPORATED

22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

AST 386 B

JOB# 23330

GEOFON's LAB COORDINATOR	LAB COORDINATOR'S PHONE	LAB COORDINATOR'S FAX	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
Leo W. Williamson	(909) 396-7662	(909) 396-1455		Jim Lin	GEOFON, INC.

PROJECT NAME	PROJECT LOCATION	PROJECT NUMBER	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
MCAS-El Toro	BLDG 386 - AST 386B	044432.10	(818) 845-8200	(818) 845-8840	Leo W. Williamson

PROJECT CONTACT	PROJECT PHONE NUMBER	PROJECT FAX	LABORATORY ADDRESS	ADDRESS
Leo W. Williamson	(909) 396-7662	(909) 396-1455	2834 N. Naomi St.	22632 Golden Springs Dr. #270

PROJECT ADDRESS	CITY, STATE AND ZIPCODE	CLIENT	CITY, STATE AND ZIPCODE	CITY, STATE AND ZIPCODE
MCAS- El Toro	El Toro, CA.	US NAVY, SWDIV	Burbank, CA. 91504	Diamond Bar, CA. 91765

PROJECT MANAGER	PROJECT MANAGER'S PHONE	PROJECT MANAGER'S FAX
Asiar Faheem	(909) 396-7662	(909) 396-1455

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont	QC Level	T.A.T	Analyses: 1010 (Flashpoint)								Comments
1	AST 386B-LIQUID-1	H_2O	10/23/02	1315	NONE	1	III	NORMAL	X								23330-01
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

SAMPLES COLLECTED BY: Leo W. Williamson

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Leo W. Williamson	[signature]	10/23/02	1900	
[signature]	[signature]	10/24/02	0740	

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

American Environmental Testing Laboratory Inc.

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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

ANALYTICAL RESULTS

Ordered By

Geofon, Inc.
22632 Golden Springs Drive
Suite 270
Diamond Bar, CA 91765-

Telephone: (909)396-7662
Attn: Leo W. Williamson

Site

BLDG 386- AST 386B
El Toro, CA

Page: 2
Project ID: 04-4432.10
Project Name: MCAS- El Toro

AETL Job Number	Submitted	Client
23330	10/23/2002	GEOFON

Method: 1010, Pensky-Martens Closed-Cup Method for Ignitability

QC Batch No: 10242002 QC Prepared: 10/24/2002 QC Analyzed: 10/24/2002

Our Lab I.D.				23330.01			
Client Sample I.D.			Method Blank	AST 386B-Liquid-1			
Date Sampled			10/23/2002	10/23/2002			
Date Prepared			10/24/2002	10/24/2002			
Preparation Method			1010	1010			
Date Analyzed			10/24/2002	10/24/2002			
Matrix			Aqueous	Aqueous			
Units			Deg F	Deg F			
Dilution Factor			1	1			
Analytes	MDL	PQL	Results	Results			
Flashpoint	70	70	ND	>140			

QUALITY CONTROL REPORT

QC Batch No: 10242002 QC Prepared: 10/24/2002 QC Analyzed: 10/24/2002

Analytes	SM Result	SM DUP Result	RPD %	SM RPD % Limit	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit		
Flashpoint	>140	>140	<1	<20	77.00	77.00	100	80-120		

American Environmental Testing Laboratory Inc.

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Data Qualifiers and Descriptors

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Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
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MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.
MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

American Environmental Testing Laboratory Inc.

2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
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Ordered By

Geofon, Inc.
22632 Golden Springs Drive Suite 270
Diamond Bar, CA 91765-

Number of Pages 2
Date Received 10/23/2002
Date Reported 11/04/2002

Telephone: (909)396-7662
Attention: Leo W. Williamson

Job Number	Order Date	Client
23332	10/23/2002	GEOFON

Project ID: 04-4432.10
Project Name: MCAS- El Toro
Site: Bldg 386- Sump
El Toro, CA

Enclosed please find results of analyses of 1 water sample which was analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: G. Moeli

Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

GEOFON INCORPORATED

22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

BL 386 Sump

JOB # 23332

GEOFON's LAB COORDINATOR	LAB COORDINATOR'S PHONE	LAB COORDINATOR'S FAX	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
Leo W. Williamson	(909) 396-7662	(909) 396-1455		Jim Lin	GEOFON, Inc.

PROJECT NAME:	PROJECT LOCATION	PROJECT NUMBER	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
MCAS - El Toro	Bldg 386 - Sump	04-443210	(818) 845-8200	(818) 845-8840	Leo W. Williamson

PROJECT CONTACT	PROJECT PHONE NUMBER	PROJECT FAX	LABORATORY ADDRESS	ADDRESS
Leo W. Williamson	(909) 396-7662	(909) 396-1455	2834 N. Naomi St.	22632 Golden Springs Dr. #270

PROJECT ADDRESS	CITY, STATE AND ZIPCODE	CLIENT	CITY, STATE AND ZIPCODE	CITY, STATE AND ZIPCODE
MCAS- El Toro	El Toro, CA	US NAVY, SWDIV	Burbank, CA 91504	Diamond Bar, CA. 91765

PROJECT MANAGER	PROJECT MANAGER'S PHONE	PROJECT MANAGER'S FAX
Asiar Faheem	(909) 396-7662	(909) 396-1455

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: 1010 (Flammability)								Comments
1	BL386-SUMP-LIQUID-1	H_2O	10/23/02	1340	NONE	1	III	NORMAL	X								23332-01
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

SAMPLES COLLECTED BY: Leo W. Williamson

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Leo W. Williamson	[signature]	10/23/02	1900	
[signature]	[signature]	10/24/02	0740	

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

American Environmental Testing Laboratory Inc.

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ANALYTICAL RESULTS

Ordered By

Geofon, Inc.
22632 Golden Springs Drive
Suite 270
Diamond Bar, CA 91765-

Telephone: (909)396-7662
Attn: Leo W. Williamson

Site

Bldg 386- Sump
El Toro, CA

Page: 2
Project ID: 04-4432.10
Project Name: MCAS- El Toro

AETL Job Number	Submitted	Client
23332	10/23/2002	GEOFON

Method: 1010, Pensky-Martens Closed-Cup Method for Ignitability

QC Batch No: 10242002 QC Prepared: 10/24/2002 QC Analyzed: 10/24/2002

Our Lab I.D.				23332.01			
Client Sample I.D.			Method Blank	BL386-Sump-Liquid1			
Date Sampled			10/23/2002	10/23/2002			
Date Prepared			10/24/2002	10/24/2002			
Preparation Method			1010	1010			
Date Analyzed			10/24/2002	10/24/2002			
Matrix			Aqueous	Aqueous			
Units			Deg F	Deg F			
Dilution Factor			1	1			
Analytes	MDL	PQL	Results	Results			
Flashpoint	70	70	ND	>140			

QUALITY CONTROL REPORT

QC Batch No: 10242002 QC Prepared: 10/24/2002 QC Analyzed: 10/24/2002

Analytes	SM Result	SM DUP Result	RPD %	SM RPD % Limit	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit		
Flashpoint	>140	>140	<1	<20	77.00	77.00	100	80-120		

American Environmental Testing Laboratory Inc.

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Data Qualifiers and Descriptors

Data Qualifier:

B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.
MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

Applied P & Ch Laboratory
18760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1496

APCL Analytical Report

Submitted to:
The IT Group
Attention: Dwayne Ishida
3347 Michelson Dr. Ste 200
Irvine CA 92612-1692
Tel: (949)261-6441 Fax: (949)476-5433

Service ID #: 801-023911
Collected by: WJ
Collected on: 07/18-22/02

Received: 07/18-22/02
Extracted: 07/19-24/02
Tested: 07/19-26/02
Reported: 07/26/02

Sample Description: Water and Oil from Bldg 47 & 386
Project Description: 818655 MCAS El Toro

Analysis of Water and Oil Samples

I. Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Bldg. 386-Sump (water) 818655-B3085 02-03911-1	Bldg. 47-Sump (water) 818655-B3080 02-03911-5
METALS					
Dilution Factor				1	1
ANTIMONY	6010B	µg/L	10	4.9J	5.9J
ARSENIC	6010B	µg/L	5	3.7J	<5
BARIUM	6010B	µg/L	10	50.1	166
BERYLLIUM	6010B	µg/L	2	<2	<2
CADMIUM	6010B	µg/L	2	2.0	2.3
CHROMIUM	6010B	µg/L	5	5.4	7.6
COBALT	6010B	µg/L	5	0.96J	3.0J
COPPER	6010B	µg/L	10	65.6	8.8J
LEAD	6010B	µg/L	5	17.2	55.4
MERCURY	7470A	µg/L	0.5	0.13J	0.14J
MOLYBDENUM	6010B	µg/L	5	11.1	5.6
NICKEL	6010B	µg/L	5	5.1	4.6J
SELENIUM	6010B	µg/L	10	<10	<10
SILVER	6010B	µg/L	10	<10	<10
THALLIUM	6010B	µg/L	10	<10	<10
VANADIUM	6010B	µg/L	10	6.8J	<10
ZINC	6010B	µg/L	10	1,650	77.0
Dilution Factor				1	1
GASOLINE	M8015V	mg/L	0.1	0.1	0.05J
Dilution Factor				250	49
DIESEL	M8015E	mg/L	0.1	96	3J
Dilution Factor				250	49
MOTOR OIL	M8015E	mg/L	0.5	390	50

Component Analyzed	Method	Unit	PQL	Bldg. 386-Sump (water) S18655-B3085 02-039111-1	Bldg. 47-Sump (water) S18655-B3089 02-039111-5
VOLATILE ORGANICS					
Dilution Factor				1	1
ACETONE	SW8260B	µg/L	50	140	20J
BENZENE	SW8260B	µg/L	1	<1	<1
BROMODICHLOROMETHANE	SW8260B	µg/L	5	<5	<5
BROMOFORM	SW8260B	µg/L	5	<5	<5
BROMOMETHANE	SW8260B	µg/L	5	<5	<5
2-BUTANONE (MEK)	SW8260B	µg/L	50	140	<50
CARBON DISULFIDE	SW8260B	µg/L	5	<5	<5
CARBON TETRACHLORIDE	SW8260B	µg/L	0.5	<0.5	<0.5
CHLOROBENZENE	SW8260B	µg/L	5	<5	<5
DIBROMOCHLOROMETHANE	SW8260B	µg/L	5	<5	<5
CHLOROETHANE	SW8260B	µg/L	5	<5	<5
2-CHLOROETHYL VINYL ETHER	SW8260B	µg/L	50	<50	<50
CHLOROFORM	SW8260B	µg/L	5	<5	<5
CHLOROMETHANE	SW8260B	µg/L	5	<5	<5
1,1 DICHLOROETHANE	SW8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROETHANE	SW8260B	µg/L	5	<5	<5
1,1 DICHLOROETHENE	SW8260B	µg/L	5	<5	<5
CIS-1,2-DICHLOROETHENE	SW8260B	µg/L	5	<5	<5
TRANS-1,2-DICHLOROETHENE	SW8260B	µg/L	5	<5	<5
1,2 DICHLOROPROPANE	SW8260B	µg/L	5	<5	<5
CIS-1,3-DICHLOROPROPENE	SW8260B	µg/L	5	<5	<5
TRANS-1,3-DICHLOROPROPENE	SW8260B	µg/L	5	<5	<5
ETHYLBENZENE	SW8260B	µg/L	5	<5	<5
2-HEXANONE	SW8260B	µg/L	50	12J	<50
METHYLENE CHLORIDE	SW8260B	µg/L	5	1J	3J
4-METHYL-2 PENTANONE (MIBK)	SW8260B	µg/L	50	2J	<50
METHYL TERT-BUTYL ETHER	SW8260B	µg/L	5	<5	<5
STYRENE	SW8260B	µg/L	5	<5	<5
1,1,2,2-TETRACHLOROETHANE	SW8260B	µg/L	5	<5	<5
TETRACHLOROETHENE	SW8260B	µg/L	5	<5	<5
TOLUENE	SW8260B	µg/L	5	<5	<5
1,1,1-TRICHLOROETHANE	SW8260B	µg/L	5	<5	<5
1,1,2 TRICHLOROETHANE	SW8260B	µg/L	5	<5	<5
TRICHLOROETHENE	SW8260B	µg/L	5	<5	<5
VINYL ACETATE	SW8260B	µg/L	50	<50	<50
VINYL CHLORIDE	SW8260B	µg/L	5	<5	<5
XYLENES (TOTAL)	SW8260B	µg/L	15	0.7J	0.7J
TERT BUTYL ALCOHOL (TBA)	SW8260B	µg/L	20	<20	<20
DIISOPROPYL ETHER (DIPE)	SW8260B	µg/L	5	<5	<5
ETHYL TERT BUTYL ETHER (ETBE)	SW8260B	µg/L	5	<5	<5
TERT AMYL METHYL ETHER (TAME)	SW8260B	µg/L	5	<5	<5

Component Analyzed	Method	Unit	PQL	Bldg. 386-Sump (water) 818655-B3088 02-03911-1	Bldg. 47-Sump (water) 818655-B3089 02-03911-5
SEMI-VOC. 64 COMPOUNDS					
Dilution Factor				8	4
ACENAPHTHENE	SW8270B	µg/L	10	<80	<40
ACENAPHTHYLENE	SW8270B	µg/L	10	<80	<40
ANTHRACENE	SW8270B	µg/L	10	<80	<40
BENZO[A]ANTHRACENE	SW8270B	µg/L	10	<80	<40
BENZO[A]PYRENE	SW8270B	µg/L	10	<80	<40
BENZO[B]FLUORANTHENE	SW8270B	µg/L	10	<80	<40
BENZO[G,H,I]PERYLENE	SW8270B	µg/L	10	<80	<40
BENZO[K]FLUORANTHENE	SW8270B	µg/L	10	<80	<40
BIS(2-CHLOROETHOXY)METHANE	SW8270B	µg/L	10	<80	<40
BIS(2-CHLOROETHYL)ETHER	SW8270B	µg/L	10	<80	<40
BIS(2-CHLOROISOPROPYL)ETHER	SW8270B	µg/L	10	<80	<40
BIS(2-ETHYLHEXYL)PHTHALATE	SW8270B	µg/L	10	<80	28J
4-BROMOPHENYL PHENYL ETHER	SW8270B	µg/L	10	<80	<40
BUTYL BENZYL PHTHALATE	SW8270B	µg/L	10	<80	<40
3-METHYL-4-CHLOROPHENOL	SW8270B	µg/L	10	<80	<40
4-CHLOROANILINE	SW8270B	µg/L	10	<80	<40
2-CHLORONAPHTHALENE	SW8270B	µg/L	10	<80	<40
2-CHLOROPHENOL	SW8270B	µg/L	10	<80	<40
4-CHLOROPHENYL PHENYL ETHER	SW8270B	µg/L	10	<80	<40
CHRYSENE	SW8270B	µg/L	10	<80	<40
DI-N-BUTYLPHTHALATE	SW8270B	µg/L	10	<80	<40
DI-N-OCTYLPHTHALATE	SW8270B	µg/L	10	<80	<40
DIBENZ[A,H]ANTHRACENE	SW8270B	µg/L	10	<80	<40
DIBENZOFURAN	SW8270B	µg/L	10	<80	<40
1,2-DICHLOROBENZENE	SW8270B	µg/L	10	<80	<40
1,3 DICHLOROBENZENE	SW8270B	µg/L	10	<80	<40
1,4-DICHLOROBENZENE	SW8270B	µg/L	10	<80	<40
3,3'-DICHLOROBENZIDINE	SW8270B	µg/L	13 [a]	<100	<52
2,4-DICHLOROPHENOL	SW8270B	µg/L	10	<80	<40
DIETHYL PHTHALATE	SW8270B	µg/L	10	<80	<40
DIMETHYL PHTHALATE	SW8270B	µg/L	10	<80	<40
2,4-DIMETHYLPHENOL	SW8270B	µg/L	10	<80	<40
2-METHYL 4,6-DINITROPHENOL	SW8270B	µg/L	25	<200	<100
2,4 DINITROPHENOL	SW8270B	µg/L	50 [a]	<400	<200
2,4-DINITROTOLUENE	SW8270B	µg/L	10	<80	<40
2,6-DINITROTOLUENE	SW8270B	µg/L	10	<80	<40
FLUORANTHENE	SW8270B	µg/L	10	<80	<40
FLUORENE	SW8270B	µg/L	10	<80	<40
HEXACHLOROBENZENE	SW8270B	µg/L	10	<80	<40
HEXACHLOROBUTADIENE	SW8270B	µg/L	10	<80	<40
HEXACHLOROCYCLOPENTADIENE	SW8270B	µg/L	10	<80	<40

Component Analyzed	Method	Unit	PQL	Bldg. 386-Sump (water) 818655-B3085 02-03911-1	Bldg. 47-Sump (water) 818655-B3089 02-03911-5
HEXACHLOROETHANE	SW8270B	µg/L	10	<80	<40
INDENO[1,2,3-CD]PYRENE	SW8270B	µg/L	10	<80	<40
2-METHYLNAPHTHALENE	SW8270B	µg/L	10	<80	<40
4-METHYLPHENOL	SW8270B	µg/L	10	<80	<40
2-METHYLPHENOL	SW8270B	µg/L	10	<80	<40
NAPHTHALENE	SW8270B	µg/L	10	<80	<40
2-NITROANILINE	SW8270B	µg/L	25	<200	<100
3-NITROANILINE	SW8270B	µg/L	25	<200	<100
4-NITROANILINE	SW8270B	µg/L	25	<200	<100
NITROBENZENE	SW8270B	µg/L	10	<80	<40
2-NITROPHENOL	SW8270B	µg/L	10	<80	<40
4-NITROPHENOL	SW8270B	µg/L	25	<200	<100
N-NITROSODI-N-PROPYLAMINE	SW8270B	µg/L	10	<80	<40
N-NITROSODIPHENYLAMINE	SW8270B	µg/L	10	<80	<40
PENTACHLOROPHENOL	SW8270B	µg/L	10	<80	<40
PHENANTHRENE	SW8270B	µg/L	10	<80	<40
PHENOL	SW8270B	µg/L	10	<80	<40
PYRENE	SW8270B	µg/L	10	<80	<40
1,2,4-TRICHLOROBENZENE	SW8270B	µg/L	10	<80	<40
2,4,5-TRICHLOROPHENOL	SW8270B	µg/L	25	<200	<100
2,4,6-TRICHLOROPHENOL	SW8270B	µg/L	10	<80	<40
ORGANOCHLORINE PESTICIDES					
Dilution Factor				1	1
ALDRIN	8081A	µg/L	0.05	<0.05	<0.05
BETA BHC	8081A	µg/L	0.05	<0.05	<0.05
ALPHA BHC	8081A	µg/L	0.05	<0.05	<0.05
DELTA BHC	8081A	µg/L	0.05	<0.05	<0.05
GAMMA BHC (LINDANE)	8081A	µg/L	0.05	<0.05	<0.05
ALPHA-CHLORDANE	8081A	µg/L	0.05	<0.05	<0.05
GAMMA-CHLORDANE	8081A	µg/L	0.05	<0.05	<0.05
P,P'-DDD	8081A	µg/L	0.1	<0.1	<0.1
P,P'-DDE	8081A	µg/L	0.1	<0.1	<0.1
P,P'-DDT	8081A	µg/L	0.1	<0.1	<0.1
DIELDRIN	8081A	µg/L	0.1	<0.1	<0.1
ALPHA ENDOSULFAN	8081A	µg/L	0.05	<0.05	<0.05
BETA ENDOSULFAN	8081A	µg/L	0.1	<0.1	<0.1
ENDOSULFAN SULFATE	8081A	µg/L	0.5	<0.5	<0.5
ENDRIN	8081A	µg/L	0.1	<0.1	<0.1
ENDRIN ALDEHYDE	8081A	µg/L	0.1	<0.1	<0.1
ENDRIN KETONE	8081A	µg/L	0.1	<0.1	<0.1
HEPTACHLOR	8081A	µg/L	0.05	<0.05	<0.05
HEPTACHLOR EPOXIDE	8081A	µg/L	0.05	<0.05	<0.05
METHOXYCHLOR	8081A	µg/L	2	<2	<2
TOXAPHENE	8081A	µg/L	5	<5	<5

Component Analyzed	Method	Unit	PQL	Bldg. 386-Sump (water) 818855-B3085 02-03911-1	Bldg. 47-Sump (water) 818855-B3089 02-03911-5
PCBS					
Dilution Factor				1.33	1
AROCLOR-1016	SW8082	µg/L	1	< 1.3	< 1
AROCLOR-1221	SW8082	µg/L	1	< 1.3	< 1
AROCLOR-1232	SW8082	µg/L	1	< 1.3	< 1
AROCLOR-1242	SW8082	µg/L	1	< 1.3	< 1
AROCLOR 1248	SW8082	µg/L	1	< 1.3	< 1
AROCLOR-1254	SW8082	µg/L	1	< 1.3	< 1
AROCLOR-1260	SW8082	µg/L	1	< 1.3	0.4J

II. Analysis of Oil Samples

Component Analyzed	Method	Unit	PQL	AST-386A	AST-386B	Bldg. 47-Sump (product)	Bldg. 386-Sump (product)
				818655-B3086 02-03911-2	818655-B3087 02-03911-3	818655-B3088 02-03911-4	818655-B3089P 02-03911-6
METALS							
Dilution Factor				1	1	1	1
ANTIMONY	6010B	mg/kg	5	<5	0.81J	<5	-
ARSENIC	6010B	mg/kg	0.3	0.16J	0.14J	<0.3	-
BARIUM	6010B	mg/kg	1	0.27J	0.52J	2.3	-
BERYLLIUM	6010B	mg/kg	0.2	<0.2	<0.2	<0.2	-
CADMIUM	6010B	mg/kg	0.2	0.084J	0.35	0.20J	-
CHROMIUM	6010B	mg/kg	0.5	0.15J	0.39J	5.2	-
COBALT	6010B	mg/kg	0.5	<0.5	<0.5	0.086J	-
COPPER	6010B	mg/kg	0.5	0.94	66.8	2.1	-
LEAD	6010B	mg/kg	0.3	1.2	5.3	24.0	-
MERCURY	7471A	mg/kg	0.2	0.0087J	0.012J	0.016J	-
MOLYBDENUM	6010B	mg/kg	0.2	<0.2	<0.2	<0.2	-
NICKEL	6010B	mg/kg	0.3	0.41	0.42	0.68	-
SELENIUM	6010B	mg/kg	0.5	<0.5	<0.5	<0.5	
SILVER	6010B	mg/kg	0.5	<0.5	0.055J	<0.5	-
THALLIUM	6010B	mg/kg	0.5	0.098J	0.14J	<0.5	-
VANADIUM	6010B	mg/kg	0.5	<0.5	0.081J	<0.5	-
ZINC	6010B	mg/kg	0.5	335	568	45.2	-
Dilution Factor				500	500	500	250
GASOLINE	M8015V	mg/kg	10	170J	120J	19J	6J
Dilution Factor				20000	20000	10000	20000
DIESEL	M8015E	mg/kg	10	190,000J	190,000J	<100000	170,000J
Dilution Factor		-	-	20000	20000	10000	20000
MOTOR OIL	M8015E	mg/kg	10	1,100,000	1,000,000	590,000	760,000

Component Analyzed	Method	Unit	PQL	AST-386A 818655-B3086 02 03911-2	AST-386B 818655-B3087 02-03911-3	Bldg. 47-Sump (product) 818655-B3088 02 03911-4	818655-B30851 02-03911-6
VOLATILE ORGANICS							
Dilution Factor				500	500	100	1
ACETONE	SW8260B	µg/kg	50	10,000J	8,500J	2,200J	-
BENZENE	SW8260B	µg/kg	5	<2500	720J	<500	-
BROMODICHLOROMETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
BROMOFORM	SW8260B	µg/kg	5	<2500	<2500	<500	-
BROMOMETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
2-BUTANONE (MEK)	SW8260B	µg/kg	50	<25000	<25000	<5000	-
CARBON DISULFIDE	SW8260B	µg/kg	5	<2500	<2500	<500	-
CARBON TETRACHLORIDE	SW8260B	µg/kg	5	<2500	<2500	<500	-
CHLOROBENZENE	SW8260B	µg/kg	5	<2500	<2500	<500	-
DIBROMOCHLOROMETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
CHLOROETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
2-CHLOROETHYL VINYL ETHER	SW8260B	µg/kg	50	<25000	<25000	<5000	-
CHLOROFORM	SW8260B	µg/kg	5	<2500	<2500	<500	-
CHLOROMETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
1,1-DICHLOROETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
1,2-DICHLOROETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
1,1 DICHLOROETHENE	SW8260B	µg/kg	5	<2500	<2500	<500	-
CIS-1,2-DICHLOROETHENE	SW8260B	µg/kg	5	<2500	<2500	<500	
TRANS-1,2-DICHLOROETHENE	SW8260B	µg/kg	5	<2500	<2500	<500	-
1,2-DICHLOROPROPANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
CIS-1,3 DICHLOROPROPENE	SW8260B	µg/kg	5	<2500	<2500	<500	-
TRANS-1,3-DICHLOROPROPENE	SW8260B	µg/kg	5	<2500	<2500	<500	
ETHYLBENZENE	SW8260B	µg/kg	5	4,000	880J	77J	-
2-HEXANONE	SW8260B	µg/kg	50	<25000	<25000	<5000	-
METHYLENE CHLORIDE	SW8260B	µg/kg	5	4,000	4,000	500	-
4-METHYL-2-PENTANONE (MIBK)	SW8260B	µg/kg	50	<25000	<25000	<5000	-
METHYL TERT-BUTYL ETHER	SW8260B	µg/kg	5	<2500	<2500	<500	-
STYRENE	SW8260B	µg/kg	5	<2500	<2500	<500	-
1,1,2,2-TETRACHLOROETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	
TETRACHLOROETHENE	SW8260B	µg/kg	5	<2500	<2500	<500	-
TOLUENE	SW8260B	µg/kg	5	49,000	4,000	<500	-
1,1,1-TRICHLOROETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
1,1,2-TRICHLOROETHANE	SW8260B	µg/kg	5	<2500	<2500	<500	-
TRICHLOROETHENE	SW8260B	µg/kg	5	<2500	<2500	<500	-
VINYL ACETATE	SW8260B	µg/kg	50	<25000	<25000	<5000	
VINYL CHLORIDE	SW8260B	µg/kg	5	<2500	<2500	<500	-
XYLENES (TOTAL)	SW8260B	µg/kg	15	21,000	5,100J	400J	-
TERT BUTYL ALCOHOL (TBA)	SW8260B	µg/kg	20	<10000	<10000	<2000	-
DIISOPROPYL ETHER (DIPE)	SW8260B	µg/kg	5	<2500	<2500	<500	-
ETHYL TERT BUTYL ETHER (ETBE)	SW8260B	µg/kg	5	<2500	<2500	<500	-
TERT AMYL METHYL ETHER (TAME)	SW8260B	µg/kg	5	<2500	<2500	<500	-

Component Analyzed	Method	Unit	PQL	AST-386A	AST-386B	Bldg. 47-Sump (product)	Bldg. 386-Sump (product)
				#18655-B3086	#18656-B3087	#18657-B3088	#18658-B3089
				02-03911-2	02-03911-3	02-03911-4	02-03911-6
SEMI-VOC. #4 COMPOUNDS							
Dilution Factor				3000	3000	3000	1
ACENAPHTHENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
ACENAPHTHYLENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
ANTHRACENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
BENZO[A]ANTHRACENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
BENZO[A]PYRENE	SW8270B	µg/kg	250	<750000	<750000	<750000	-
BENZO[B]FLUORANTHENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
BENZO[G,H,I]PERYLENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
BENZO[K]FLUORANTHENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
BIS(2-CHLOROETHOXY)METHANE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
BIS(2-CHLOROETHYL)ETHER	SW8270B	µg/kg	50	<150000	<150000	<150000	-
BIS(2-CHLOROISOPROPYL)ETHER	SW8270B	µg/kg	330	<990000	<990000	<990000	-
BIS(2-ETHYLHEXYL)PHTHALATE	SW8270B	µg/kg	330	<990000	<990000	150,000J	-
4-BROMOPHENYL PHENYL ETHER	SW8270B	µg/kg	330	<990000	<990000	<990000	
BUTYL BENZYL PHTHALATE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
3-METHYL-4-CHLOROPHENOL	SW8270B	µg/kg	330	<990000	<990000	<990000	-
4-CHLOROANILINE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
2-CHLORONAPHTHALENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
2-CHLOROPHENOL	SW8270B	µg/kg	330	<990000	<990000	<990000	-
4-CHLOROPHENYL PHENYL ETHER	SW8270B	µg/kg	330	<990000	<990000	<990000	-
CHRYSENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
DI-N-BUTYLPHTHALATE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
DI-N-OCTYLPHTHALATE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
DIBENZ[A,H]ANTHRACENE	SW8270B	µg/kg	250	<750000	<750000	<750000	-
DIBENZOFURAN	SW8270B	µg/kg	330	<990000	<990000	<990000	-
1,2-DICHLOROBENZENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
1,3-DICHLOROBENZENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
1,4-DICHLOROBENZENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
3,3'-DICHLOROBENZIDINE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
2,4-DICHLOROPHENOL	SW8270B	µg/kg	330	<990000	<990000	<990000	-
DIETHYL PHTHALATE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
DIMETHYL PHTHALATE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
2,4 DIMETHYLPHENOL	SW8270B	µg/kg	330	<990000	<990000	<990000	-
2-METHYL-4,6-DINITROPHENOL	SW8270B	µg/kg	830	<2500000	<2500000	<2500000	-
2,4-DINITROPHENOL	SW8270B	µg/kg	2500 [a]	<7500000	<7500000	<7500000	-
2,4-DINITROTOLUENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
2,6-DINITROTOLUENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
FLUORANTHENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
FLUORENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
HEXACHLOROBENZENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
HEXACHLOROBUTADIENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-
HEXACHLOROCYCLOPENTADIENE	SW8270B	µg/kg	330	<990000	<990000	<990000	-

Component Analyzed	Method	Unit	PQL	AST-386A	AST-386B	Bldg. 47-Sump (product)	Bldg. 386-Sump (product)
				818655-B3086	818655-B3087	818655-B3088	818655-B3089[a]
				02-03911-2	02-03911-3	02-03911-4	02-03911-6
PCBS							
Dilution Factor				1	1	1	1
AROCLOR-1016	SW8082	µg/kg	3300	< 3300	< 3300	< 3300	-
AROCLOR-1221	SW8082	µg/kg	6600	< 6600	< 6600	< 6600	-
AROCLOR-1232	SW8082	µg/kg	3300	< 3300	< 3300	< 3300	-
AROCLOR-1242	SW8082	µg/kg	3300	< 3300	< 3300	< 3300	-
AROCLOR-1248	SW8082	µg/kg	3300	< 3300	< 3300	< 3300	-
AROCLOR-1254	SW8082	µg/kg	3300	< 3300	< 3300	< 3300	-
AROCLOR-1260	SW8082	µg/kg	3300	< 3300	< 3300	< 3300	-

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] MDL reported.

ATTACHMENT 5

NON-HAZARDOUS LIQUID WASTE MANIFEST

NO. 633961

NON-HAZARDOUS WASTE DATA FORM

SITE:

NAME: MARINE CORPS AIR STATION, EL TORO — M.C.A.S. EL TORO — EPA I.D. NO. [redacted]

ADDRESS: P.O. BOX 444 — TRABUCO RD. @ SAND CANYON — PROFILE [redacted]

CITY, STATE, ZIP: IRVINE, CA 92650 — IRVINE, CA 715 — PHONE NO. ( )

CONTAINERS: No. 13 — VOLUME ~~[illegible]~~ gallons — WEIGHT

TYPE: [X] TANK TRUCK [ ] DUMP TRUCK [ ] [illegible] [ ] CARTONS [ ] OTHER

WASTE DESCRIPTION: NON-HAZARDOUS WATER — GENERATING PROCESS: RINSATE WATER

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. WATER		99-100%	5.		
2. TPH		< 10.0%	6.		
3. VOC's		< 0.1%	7. BESI# 57523.02		
4.			8.		

PROPERTIES: pH 7-10 [ ] SOLID [X] LIQUID [ ] SLUDGE [ ] SLURRY [ ] OTHER

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Larry Nietozsche (BESI on behalf of Generator) 12/05/02

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

NAME: B.E.S.I. — EPA I.D. NO. [redacted]

ADDRESS: 25422 TRABUCO ROAD #105-269 — 281 Bray Canyon Rd 714-990-6855 — SERVICE ORDER NO.

CITY, STATE, ZIP: LAKE FOREST, CA 92630 — Lake Ch. 92821 — PICK UP DATE 12-11-02

PHONE NO. 949-450-1010 — Rob Hunt

TRUCK, UNIT, I.D. NO. 507390/707310 — Tracy V. Parker — 12/05/02

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

NAME: DeMENNO KERDOON — EPA I.D. NO. [redacted]

ADDRESS: 2000 N. ALAMEDA STREET — DISPOSAL METHOD: [ ] LANDFILL [X] OTHER Recycler

CITY, STATE, ZIP: COMPTON, CA 90222

PHONE NO. 310-537-7100

SOPHI P. SOW — 12-11-02

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
C/Q		RT/CD		HWDF NONE

AST 386A - 2 Drums
AST 386B - 2 Drums
BL 386 Sump - 3 Drums

DISCREPANCY

SOUTHWESTNAVFACENGCOM
Code 06CC.LMH
1220 Pacific Highway
San Diego, CA 92132
Telephone: (619) 532-0783/Fax: (619) 532-0780

File: eltoroar.doc

TRANSMITTAL

Date: 31 Jan 2003

From: Lynn Marie Hornecker
MCAS El Toro

To: Diane Silva
Code 05G.DS

Subj: CERCLA Administrative Record Materials
Marine Corps Air Station, El Toro

Installation: Marine Corps Air Station, El Toro

UIC Number: M60050

Document Title (or subject):

Author:

Recipient:

Record Date:

Approximate Number of Pages:

EPA Category: 01.1

Sites: ~~AST 386~~ ASTs 386A + 386B

Key Words: AST

Contract: N/A

CTO Number: N/A

ASTs 386A+B are located with IRP Site 24.