

Summary Report Addendum

Aerial Photograph Anomaly APHO 1

Aerial Photograph Anomaly Program
Marine Corps Air Station, El Toro, California

11 April 2000

Prepared by
Southwest Division, Naval Facilities Engineering Command
BRAC Program Office
1230 Columbia Street, Suite 870
San Diego, CA

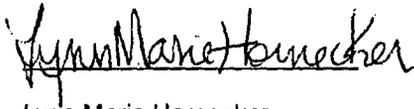
Summary Report Addendum

Aerial Photograph Anomaly APHO 1

Aerial Photograph Anomaly Program
Marine Corps Air Station, El Toro, California

11 April 2000

Prepared by:



Lynn Marie Hornecker
Civil Engineer

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File: aph1ltr2.doc

TRANSMITTAL

Date: 11 April 2000

From: Lynn Marie Hornecker *LMH*

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

Subj: Aerial Photograph Anomaly APHO 1 (SAIC 7)
Aerial Photograph Anomaly Program
Marine Corps Air Station, El Toro

Provided for your review as the attachments are responses to California Department of Toxic Substances Control (DTSC) comments and a Summary Report Addendum for Aerial Photograph Anomaly APHO 1, also known as Science Applications International Corporation (SAIC) 7, at the Marine Corps Air Station (MCAS), El Toro. DTSC provided comments on the APHO 1 Summary Report in a letter dated March 21, 2000. In response to these comments, we provided clarifications and additional information pertaining to the tank removal activities and sampling activities at Tank Farm 3, and we provided information pertaining to Building 99.

If we do not receive comments from you within sixty days of receipt of this document, then we will assume that you concur with our responses to comments and the information presented in the Summary Report Addendum, and we will continue our evaluation of historical aerial photograph anomalies. A formal transmittal letter may follow.

If you have questions, please do not hesitate to contact me at (619) 532-0783. Thank you very much.

Attachments

- Responses to Comments (SWDIV, April 2000)
- Summary Report Addendum, Aerial Photograph Anomaly APHO 1 (SWDIV, April 2000)

CF: w/attachments

Glenn Kistner (USEPA)

Patricia Hannon (RWQCB Santa Ana Region)

Dean Gould (MCAS El Toro)

Project File (MCAS El Toro)

RESPONSES TO COMMENTS FROM THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL DATED
 21 MARCH 2000

Subject: Summary Report, Aerial Photograph Anomaly APHO 1, MCAS El Toro of December 1999

Comment	Response
<p>Comments prepared by Ms. Triss Chesney, California Department of Toxic Substances Control dated 21 March 2000.</p> <p>Addressee: Mr. Dean Gould, BRAC Environmental Coordinator, Marine Corps Air Station, El Toro</p> <p>Subject: Summary Report for Aerial Photograph Anomaly APHO 1, Marine Corps Air Station (MCAS) El Toro</p>	
<p>General Comment</p> <p>The Department of Toxic Substances Control (DTSC) reviewed the above report dated January 27, 2000 and received by this office on January 27, 2000. The report presents the results of the record search activities and visual inspection of APHO 1 (also referenced as Science Applications International Corporation (SAIC) 7). APHO was identified on an aerial photograph dated December 29, 1946 and was described as stains adjacent to the aircraft parking apron at North 6th Place and K Street, and at North 4th Place and K Street.</p> <p>After review of the document, DTSC has the following comments:</p>	<p>Response:</p> <p>Thank you for reviewing the Summary Report and for providing review comments. The responses contained herein provide clarification and additional information.</p> <p>Additionally, an Addendum to the Summary Report has been prepared to provide additional information.</p>
<p>Specific Comments</p> <p>Comment 1.</p> <p>Page 1, Section 1 – Introduction, Paragraph 4: The third sentence states, “Consequently, the APHO 1 area was excavated during the removal of the inactive underground storage tanks from former Tank Farm 3.”</p>	<p>Response:</p> <p>Comment acknowledged. An Addendum to the Summary Report has been prepared, and the Addendum includes two sketches that show the approximate locations of the APHO 1 stains</p>

RESPONSES TO COMMENTS FROM THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL DATED
21 MARCH 2000

Subject: Summary Report, Aerial Photograph Anomaly APHO 1, MCAS El Toro of December 1999

Comment	Response
<p>Based on the information provided on Exhibit 4 in the Appendix, it appears that only a portion of the APHO 1 area was excavated, rather than the entire area. Please clarify this in the text.</p>	<p>relative to the former tank locations, former piping locations, and former stockpile locations associated with the former Tank Farm 3 (also known as Fuel Farm 3). The Addendum also includes the entire Closure Report (American Processing, 1996) for Tank Farm 3 which includes the map from which Exhibit 4 of the Summary Report was extracted.</p> <p>The sketches in the Addendum show that much of the APHO 1 area was excavated during tank and piping removal activities or was temporarily covered with stockpiled material from the excavations. The stockpiled material was used as fill material in the excavated areas and the site was graded following backfilling operations. The site was hydroseeded following the grading activities, and a sprinkler system was installed. Based on the activities conducted during excavation, backfilling, and site restoration, it was concluded that much of the stained area identified as APHO 1 was removed or significantly disturbed.</p>
<p>Comment 2. Figure 1, APHO Vicinity Map: Although the APHO 1 study area coincides with the general limits of the Southeastern Section of Former Tank Farm 3, it is unclear whether the excavations and associated confirmation samples conducted for Tank Farm 3 coincide with the stains identified as APHO 1.</p> <p>Please show the locations of excavations and associated confirmation samples for Tank farm 3 relative to the stains identified as APHO 1.</p>	<p>Response:</p> <p>Comment acknowledged. The sample locations for samples collected during the removal of the inactive tanks from Tank Farm 3 are shown on Exhibit 4 of the Summary Report. Exhibit 4 does not include the estimated locations of the stains described as APHO 1 (SAIC 7). An Addendum to the Summary Report has been prepared, and the Addendum includes two sketches showing the approximate locations of the APHO 1 stains with the approximate locations of confirmation samples from the tank and piping excavations and with the approximate locations of samples collected from the stockpiled material.</p>

RESPONSES TO COMMENTS FROM THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL DATED
21 MARCH 2000

Subject: Summary Report, Aerial Photograph Anomaly APHO 1, MCAS EI Toro of December 1999

Comment	Response
<p>Comment 3. Appendix, Exhibit 4, Southeastern Section of the Former Tank Farm 3 with Confirmation Sample Locations: Confirmation sample locations are shown, however, the distinction between stockpile samples and excavation confirmation sample is not clear.</p> <p>Please include a legend or similar information so that stockpile and excavation confirmation samples are clearly identified.</p>	<p>Response:</p> <p>Comment acknowledged. An Addendum to the Summary Report has been prepared. The Addendum includes sketches showing the approximate locations of the Tank Farm 3 samples and Tank Farm 3 stockpiles relative to the approximate locations of the APHO 1 stains. Additionally, the Addendum includes a summary of laboratory test results and a copy of the entire Closure Report for Tank Farm 3 which includes test results and descriptions of sample locations.</p>
<p>Comment 4. Appendix, Extracts from Storm Water Pollution Prevention Plan (SWPPP): The figure in the extracts shows a feature in the south corner of the APHO 1 area that is designated 99 and noted with "HMS" and "PPCA". This is not referenced in the text on page 4, Storm Water Pollution Prevention plan.</p> <p>Please clarify the notation and include a discussion in the text.</p>	<p>Response:</p> <p>Comment acknowledged. An Addendum to the Summary Report has been prepared, and information pertaining to Building 99 vicinity is presented in the Addendum.</p> <p>The maps in the Storm Water Pollution Prevention Plan (SWPPP) identified the Building 99 vicinity as a hazardous materials storage (HMS) area and as a potential pollutant contact area (PPCA). The narrative of the SWPPP identified storage of lubricating oils and solvents at hazardous/flammable materials storage lockers located near Building 99. Extracts from the SWPPP are included in the Addendum.</p> <p>Additionally, the Anomaly Area 2 Summary Report (Southwest Division, Naval Facilities Engineering Command, March 2000) includes maps showing Building 99 and nearby anomaly sites. Extracts from the Anomaly Area 2 Summary Report are included in the Addendum.</p>

M60050.002915
MCAS EL TORO
SSIC # 5090.3

SUMMARY REPORT
AERIAL PHOTOGRAPH ANOMALY APHO 1

DATED 27 JANUARY 2000

IS ENTERED IN THE DATABASE AND FILED AT
ADMINISTRATIVE RECORD NO. **M60050.002913**

Section 1

Introduction

The purpose of this Summary Report Addendum is to provide additional information for the Aerial Photograph Anomaly APHO 1 vicinity at the Marine Corps Air Station, El Toro. APHO 1 was identified by Science Applications International Corporation (SAIC) as SAIC 7 during a review of historical aerial photographs, and the anomaly is described as stains on the area adjacent to the aircraft parking apron. APHO 1 (SAIC 7) was identified on an aerial photograph dated 29 December 1946.

The Summary Report, Aerial Photograph Anomaly APHO 1 was issued in January 2000. The California Department of Toxic Substances Control (DTSC) provided comments on the Summary Report in a letter dated 21 March 2000. A copy of the DTSC letter dated 21 March 2000 is presented in the Appendix.

This Addendum includes information pertaining to the locations of confirmation and stockpile samples and stockpile areas from the tank removals at the former Tank Farm 3 (also known as Fuel Farm 3), information pertaining to the restoration of the former Tank Farm 3 site, and information pertaining to the Building 99 vicinity.

Section 2

Historical Records

Tank Farm 3 Closure Documentation

Inactive underground storage tanks were removed from the former Tank Farm 3 by American Processing Company in 1996, and confirmation sampling activities were conducted with oversight by the Orange County Health Care Agency.

Exhibits 1, 2, and 3 in the Appendix provide information pertaining to the approximate locations of confirmation samples, approximate stockpile locations and stockpile sample locations, and test results from the field sampling activities. Exhibits 1 and 2 also show the approximate locations of the stains identified as APHO 1.

The majority of the surface area of the stains identified as APHO 1 appear to coincide with areas that were excavated during the removal of the inactive tanks or associated piping or with areas that were used for temporary staging of excavated materials (stockpiles). The material in the stockpiles was used to fill the excavations following the completion of the confirmation sampling activities. After backfilling operations were completed, the site was graded and a sprinkler system was installed. During the tank removal and site restoration activities, the entire area within the Tank Farm 3 facility was either excavated or graded.

A copy of the American Processing Company's Closure Report is also included in the Appendix.

Nearby Anomaly Area 2

Anomaly Area 2 (Former Fuel Bladder Revetments) includes APHO 23, APHO 27, and APHO 58 and is located near APHO 1. A Summary Report presenting the results of the record search and field sampling activities was published in March 2000. The Summary Report includes maps showing the anomaly locations, Building 99, and other features located near APHO 1. Visual inspections of the Anomaly Area 2 vicinity, including Building 99, were conducted during the preparation of the Summary Report. Extracts from the Summary Report are presented in the Appendix.

1997 Building Guide

One of the structures located south of the APHO 1 vicinity is Building 99 which is identified as a flight line storage building in the 1997 Building Guide. An extract from the 1997 Building Guide is included in the Appendix.

Storm Water Pollution Prevention Plan (SWPPP)

The storm sewer maps of the SWPPP identify a hazardous materials storage (HMS) area and a potential pollutant contact area (PPCA) near Building 99. Additionally, the narrative of the SWPPP identifies storage of lubricating oils and solvents in hazardous material/flammable storage lockers that are located near Building 99.

Visual Inspections of Building 99 Vicinity

A visual inspection of the Building 99 vicinity was conducted on 29 March 2000 during the evaluation of the comments presented in the DTSC letter of 21 March 2000. Additionally, during the preparation of the Summary Report for Anomaly Area 2, the Building 99 vicinity was inspected and extracts from the Anomaly Area 2 Summary Report, including selected photographs and the check list forms, are included in the Appendix. A photograph taken during the 29 March 2000 inspection is also presented in the Appendix.

A metal storage building identified as a hazardous materials storage unit was observed on the aircraft parking apron southwest of Building 99 during the visual inspections. The parking apron pavement was observed to be in excellent condition and no significant stains or cracks were observed.

Section 3

References and/or Sources of Information

American Processing Company, Inc. 1996. Closure Report, Underground Storage Tank Removals at Fuel Farm #3, United States Marine Corps Air Station, El Toro, California. [Navy Contract N68711-94-C-0697]

California Department of Toxic Substances Control. 2000. Subject: Summary Report, Aerial Photograph Anomaly APHO 1, Marine Corps Air Station, El Toro. 21 March.

Integrated Environmental Management (IEM). 1997. Storm Water Pollution Prevention Plan (SWPPP) for Marine Corps Air Station, El Toro, El Toro, California. July. [Contract No. N68711-96-D-2059, Delivery Order Number 0002] *{Annotation: The IEM planning document included the acquisition and review of historical and current plans of facilities and utilities. Extracts from the IEM report are presented in the Appendix.}*

Science Applications International Corporation (SAIC). 1993. Final Report, Aerial Photograph Assessment, MCAS El Toro, Contract N68711-91-D-4658, Delivery Order 0002, SAIC Project No. 01-0892-0817.

Science Applications International Corporation (SAIC). 1994. Final, Marine Corps Air Station, El Toro, Hazardous Material/Hazardous Waste Management Plan {with Appendices C and I, Hazardous Waste Accumulation Areas and Photographs of Accumulation Points and Hazardous Material Storage Areas}. August. [Contract N68711-92-D-4658, Delivery Order Number 4.]

Southwest Division, Naval Facilities Engineering Command. 1999. Technical Memorandum, Aerial Photograph Anomalies, Marine Corps Air Station, El Toro, California. April.

Southwest Division, Naval Facilities Engineering Command. 2000. Summary Report, Aerial Photograph Anomaly APHO 1, Marine Corps Air Station, El Toro, California. January.

Southwest Division, Naval Facilities Engineering Command. 2000. Summary Report, Aerial Photograph Anomaly Area 2, Former Fuel Bladder Revetments, Marine Corps Air Station, El Toro, California. March.

United States Marine Corps Air Station, El Toro. 1997. Building Guide.

United States Marine Corps Air Station, El Toro. Circa 1946-1999. Station Property Records.

Appendix

- DTSC letter dated 21 March 2000
- Exhibit 1. APHO 1 Vicinity with Former Tank Farm 3 Confirmation Sample Locations
- Exhibit 2. APHO 1 Vicinity with Former Tank Farm 3 Stockpile Sample Locations
- Exhibit 3. Former Tank Farm 3 Confirmation Sample Test Results
- Extracts from Anomaly Area 2 Summary Report of March 2000 (Selected information pertaining to Building 99, Figures 1, 2, and 3, Photographs, Visual Inspection Check List Forms)
- Photograph 1. Building 99
- Closure Report (American Processing, 1996)
- Extract from 1997 Building Guide
- Extracts from Storm Water Pollution Prevention Plan (SWPPP)



Department of Toxic Substances Control



Edwin F. Lowry, Director
5796 Corporate Avenue
Cypress, California 90630

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

March 21, 2000

Mr. Dean Gould
BRAC Environmental Coordinator
Marine Corps Air Station El Toro
Base Realignment and Closure
P.O. Box 51718
Irvine, California 92619-1718

SUMMARY REPORT FOR AERIAL PHOTOGRAPH ANOMALY APHO 1, MARINE CORPS AIR STATION (MCAS) EL TORO

Dear Mr. Gould:

The Department of Toxic Substances Control (DTSC) reviewed the above report dated January 27, 2000 and received by this office on January 27, 2000. The report presents the results of the record search activities and visual inspection of APHO 1 (also referenced as Science Applications International Corporation (SAIC) 7). APHO was identified on an aerial photograph dated December 29, 1946 and was described as stains adjacent to the aircraft parking apron at North 6th Place and K Street, and at North 4th Place and K Street.

After review of the report, DTSC has the following comments:

1. Page 1, Section 1 - Introduction, Paragraph 4: The third sentence states, "Consequently, the APHO 1 area was excavated during the removal of the inactive underground storage tanks from former Tank Farm 3."

Based on the information provided on Exhibit 4 in the Appendix, it appears that only a portion of the APHO 1 area was excavated, rather than the entire area. Please clarify this in the text.

2. Figure 1, APHO Vicinity Map: Although the APHO 1 study area coincides with the general limits of the Southeastern Section of Former Tank Farm 3, it is unclear whether the excavations and associated confirmation samples conducted for Tank Farm 3 coincide with the stains identified as APHO 1.

Mr. Dean Gould
March 21, 2000
Page 2

Please show the locations of excavations and associated confirmation samples for Tank Farm 3 relative to the stains identified as APHO 1.

3. Appendix, Exhibit 4, Southeastern Section of the Former Tank Farm 3 with Confirmation Sample Locations: Confirmation sample locations are shown; however, the distinction between stockpile samples and excavation confirmation samples is not clear.

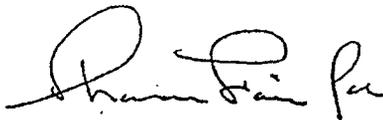
Please include a legend or similar information so that stockpile and excavation confirmation samples are clearly identified.

4. Appendix, Extracts from Storm Water Pollution Prevention Plan (SWPPP): The figure in the extracts from the SWPPP shows a feature in the south corner of the APHO 1 area that is designated 99 and noted with "HMS" and "PPCA." This is not referenced in the text on page 4, Storm Water Pollution Prevention Plan.

Please clarify the notations and include a discussion in the text.

Please provide the revisions or clarifications for the APHO 1 Summary Report. If you have any questions, please contact me at (714) 484-5395.

Sincerely,



Triss M. Chesney, P.E.
Remedial Project Manager
Southern California Branch
Office of Military Facilities

cc: Mr. Glenn Kistner
Remedial Project Manager
U. S. Environmental Protection Agency Region IX
Superfund Division (SFD-8-2)
75 Hawthorne Street
San Francisco, California 94105-3901

Mr. Dean Gould
March 21, 2000
Page 3

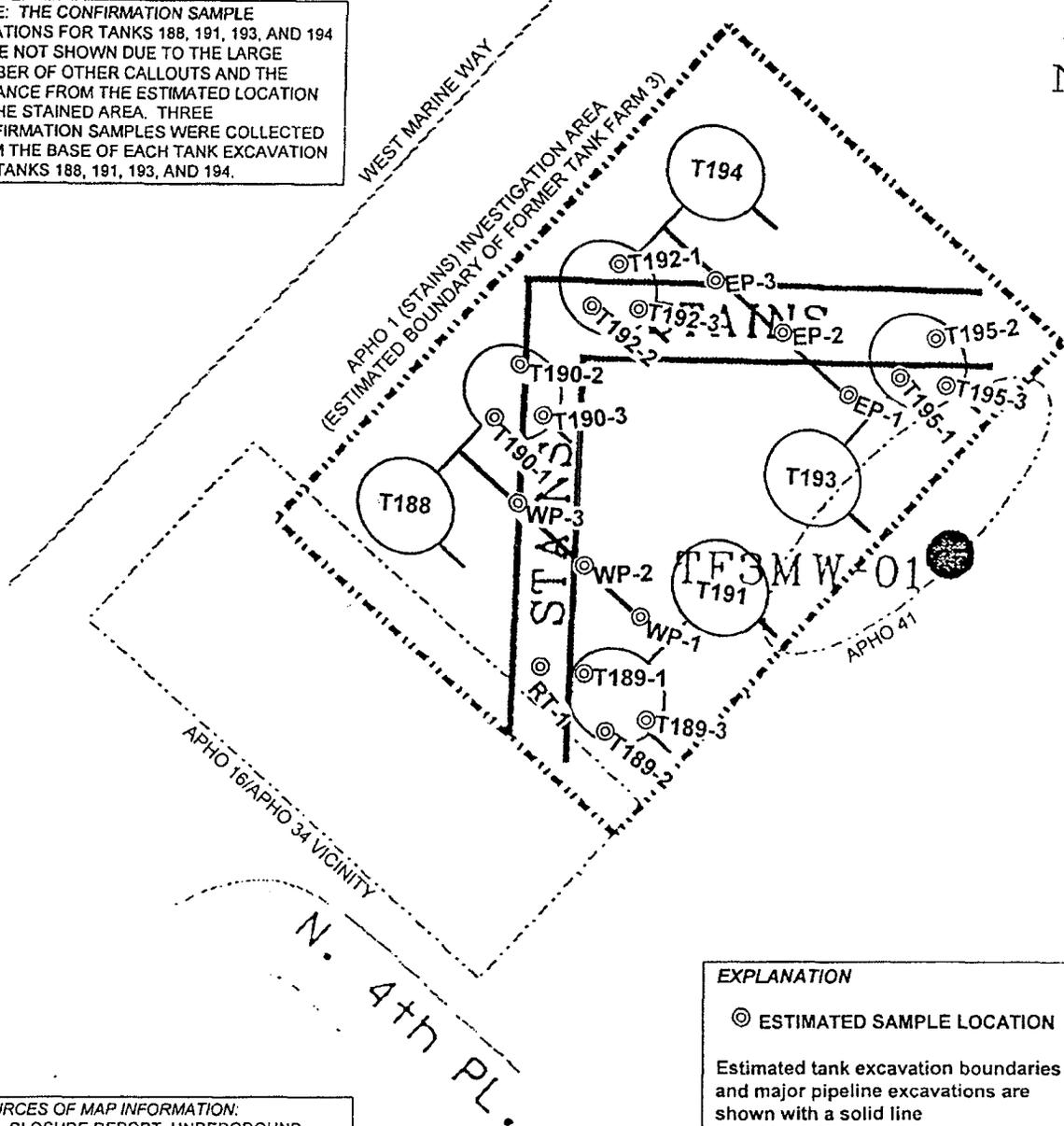
cc: Ms. Patricia Hannon
Remedial Project Manager
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3339

Mr. Gregory F. Hurley
Restoration Advisory Board Co-chair
620 Newport Center Drive, Suite 450
Newport Beach, California 92660-8019

Ms. Polin Modanlou
MCAS El Toro Local Redevelopment Authority
10 Civic Center Plaza, 2nd Floor
Santa Ana, California 92703

Ms. Lynn Homecker
Remedial Project Manager
Naval Facilities Engineering Command
Southwest Division - Code 5BME.LH
1220 Pacific Highway
San Diego, California 92132-5187

NOTE: THE CONFIRMATION SAMPLE LOCATIONS FOR TANKS 188, 191, 193, AND 194 WERE NOT SHOWN DUE TO THE LARGE NUMBER OF OTHER CALLOUTS AND THE DISTANCE FROM THE ESTIMATED LOCATION OF THE STAINED AREA. THREE CONFIRMATION SAMPLES WERE COLLECTED FROM THE BASE OF EACH TANK EXCAVATION FOR TANKS 188, 191, 193, AND 194.



SOURCES OF MAP INFORMATION:
 (1) CLOSURE REPORT, UNDERGROUND STORAGE TANK REMOVALS AT FUEL FARM #3, USMCAS EL TORO (AMERICAN PROCESSING, 1996)
 (2) SUMMARY REPORT, APHO 1 (SOUTHWEST DIVISION, JANUARY 2000)

EXPLANATION

⊙ ESTIMATED SAMPLE LOCATION

Estimated tank excavation boundaries and major pipeline excavations are shown with a solid line

Estimated stockpile boundaries are shown with a dashed line

Approximate Scale: 1 Inch = 100 Feet

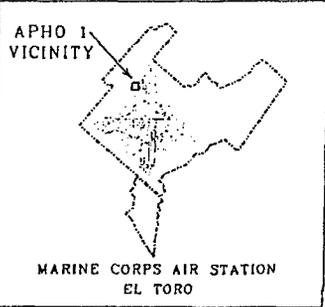
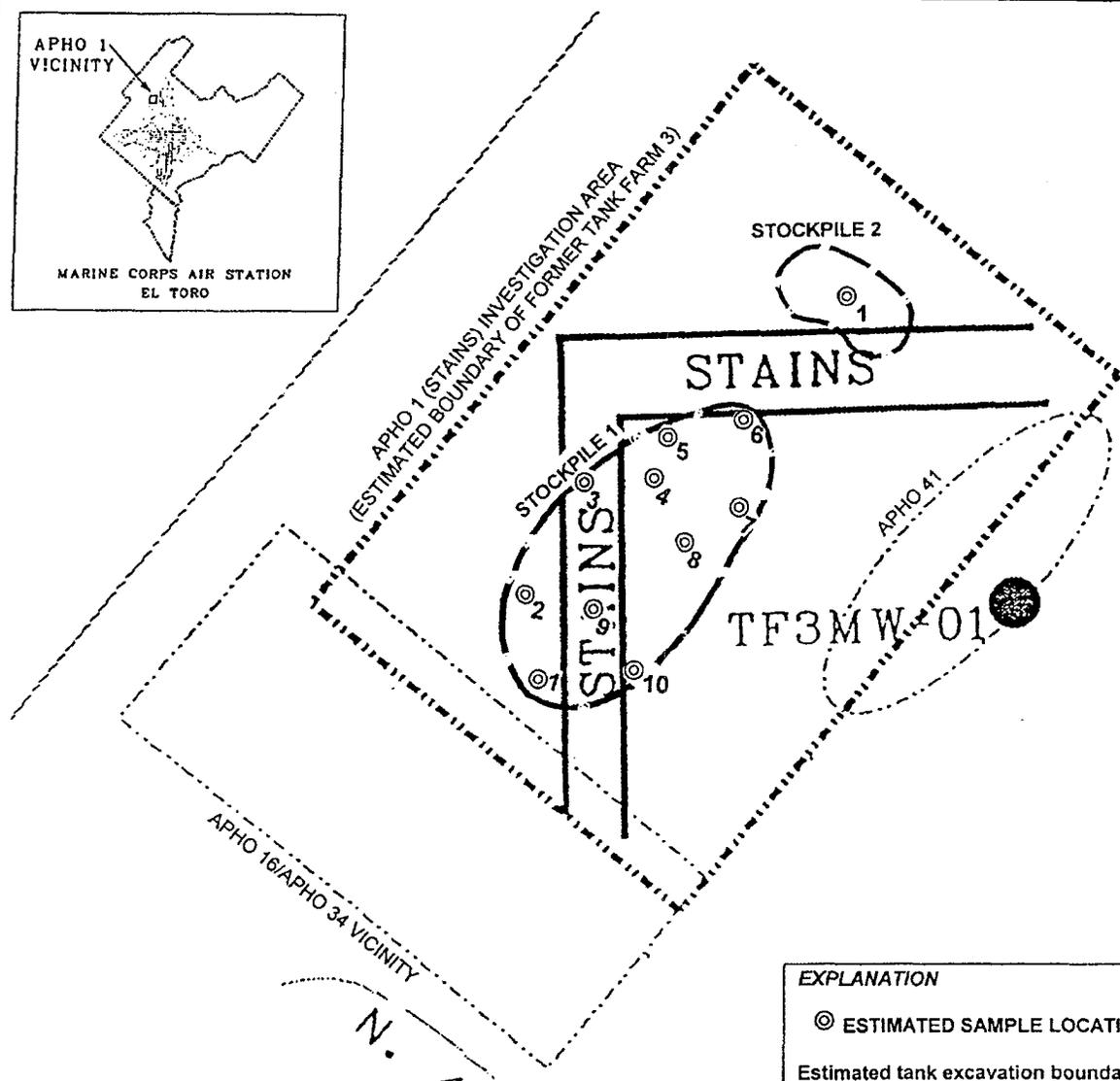
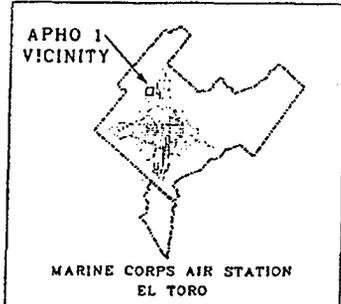


Exhibit 1.
 AERIAL PHOTOGRAPH ANOMALY PROGRAM
 APHO 1 VICINITY MAP WITH FORMER
 TANK FARM 3 CONFIRMATION
 SAMPLE LOCATIONS
 MARINE CORPS AIR STATION, EL TORO



SOURCES OF MAP INFORMATION:

(1) CLOSURE REPORT, UNDERGROUND STORAGE TANK REMOVALS AT FUEL FARM #3. USMCAS EL TORO (AMERICAN PROCESSING, 1996)

(2) SUMMARY REPORT, APHO 1 (SOUTHWEST DIVISION, JANUARY 2000)

EXPLANATION

⊙ ESTIMATED SAMPLE LOCATION

Estimated tank excavation boundaries and major pipeline excavations are shown with a solid line

Estimated stockpile boundaries are shown with a dashed line

Approximate Scale: 1 Inch = 100 Feet

SOIL SAMPLE RESULTS - STOCKPILES # 1, # 2, #3, #4

SEPTEMBER 13, 1996

Sample ID #	8015	418.1	8020	8020	8020	8020
	Diesel	Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene
SP1-1	ND	12	ND	ND	ND	ND
SP1-2	ND	25	ND	ND	ND	ND
SP1-3	ND	20	ND	ND	ND	ND
SP1-4	ND	16	ND	ND	ND	ND
SP1-5	ND	ND	ND	ND	ND	ND
SP1-6	ND	28	ND	ND	ND	ND
SP1-7	ND	ND	ND	ND	ND	ND
SP1-8	ND	21	ND	ND	ND	ND
SP1-9	ND	12	ND	ND	ND	ND
SP1-10	ND	30	ND	ND	ND	ND
SP2-1	ND	13	ND	ND	ND	ND

Exhibit 2.

AERIAL PHOTOGRAPH ANOMALY PROGRAM

APHO 1 VICINITY MAP WITH FORMER TANK FARM 3 STOCKPILE SAMPLE LOCATIONS

MARINE CORPS AIR STATION, EL TORO

SOIL SAMPLE RESULTS -- BENEATH TANKS

SEPTEMBER 13, 1996

Sample ID #	8015	418.1	8020	8020	8020	8020
	Diesel	Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene
T189-1	ND	13	ND	ND	ND	ND
T189-2	ND	ND	ND	ND	ND	ND
T189-3	ND	ND	ND	ND	ND	ND
RT-1	ND	ND	ND	ND	ND	ND
T191-1	ND	7100	ND	ND	ND	ND
T191-2	ND	ND	ND	ND	ND	ND
T191-3	ND	13	ND	ND	ND	ND
T193-1	ND	ND	ND	ND	ND	ND
T193-2	ND	ND	ND	ND	ND	ND
T193-3	ND	11	ND	ND	ND	ND
T195-1	ND	ND	ND	ND	ND	ND
T195-2	ND	ND	ND	ND	ND	ND
T195-3	710	950	ND	0.04	1.3	3.5
T194-1	ND	ND	ND	ND	ND	ND
T194-2	ND	ND	ND	ND	ND	ND
T194-3	ND	ND	ND	ND	ND	ND
T192-1	ND	ND	ND	ND	ND	ND
T192-2	ND	ND	ND	ND	ND	ND
T192-3	ND	ND	ND	ND	ND	ND
T190-1	ND	ND	ND	ND	ND	ND
T190-2	ND	ND	ND	ND	ND	ND
T190-3	ND	ND	ND	ND	ND	ND
T188-1	ND	ND	ND	ND	ND	ND
T188-2	ND	ND	ND	ND	ND	ND
T188-3	ND	ND	ND	ND	ND	ND
T221-1	ND	ND	ND	ND	ND	ND
T221-2	ND	ND	ND	ND	ND	ND
T221-3	ND	ND	ND	ND	ND	ND
T220-1	ND	ND	ND	ND	ND	ND
T220-2	ND	ND	ND	ND	ND	ND
T220-3	ND	ND	ND	ND	ND	ND
T219-1	ND	ND	ND	ND	ND	ND
T219-2	ND	ND	ND	ND	ND	ND
T219-3	ND	ND	ND	ND	ND	ND

SOURCE OF INFORMATION:
 CLOSURE REPORT, UNDERGROUND
 STORAGE TANK REMOVALS AT FUEL FARM
 #3, USMCAS EL TORO (AMERICAN
 PROCESSING, 1996)

SOIL SAMPLE RESULTS -- PIPING FUEL FARM #3

OCTOBER 9, 1996

Sample ID #	8015	418.1	8020	8020	8020	8020
	Diesel	Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene
WP-1	ND	ND	ND	ND	ND	ND
WP-2	ND	ND	ND	ND	ND	ND
WP-3	ND	ND	ND	ND	ND	ND
WP-4	ND	ND	ND	ND	ND	ND
EP-1	ND	ND	ND	ND	ND	ND
EP-2	ND	ND	ND	ND	ND	ND
EP-3	ND	ND	ND	ND	ND	ND
EP-4	ND	ND	ND	ND	ND	ND
5-SP	100	350	ND	ND	ND	ND

Exhibit 3.

AERIAL PHOTOGRAPH ANOMALY PROGRAM

FORMER TANK FARM 3
 CONFIRMATION SAMPLE RESULTS

MARINE CORPS AIR STATION, EL TORO

EXTRACTS

Summary Report

Aerial Photograph Anomaly Area 2
VICINITY OF FORMER FUEL BLADDER REVETMENTS
APHO 23, APHO 27, and APHO 58

Aerial Photograph Anomaly Program
Marine Corps Air Station, El Toro, California

7 March 2000

Prepared by
Southwest Division, Naval Facilities Engineering Command
BRAC Program Office
1230 Columbia Street, Suite 870
San Diego, CA

Hazardous Materials and Hazardous Waste Management Plan

The Hazardous Material and Hazardous Waste Management Plan was reviewed, and the nearest hazardous waste temporary accumulation area to Anomaly Area 2 is TAA 2.

2.3 Historical Property Records and Station Maps

Property records including the Station's plant account data base and historical maps were acquired and reviewed, and information pertaining to structures located at or near Anomaly Area 2 is summarized in Table 2.

Table 2. MCAS El Toro Property Records.
Anomaly Area 2

Building Identification Number	Approximate year of acquisition or construction	Type of Use	Comments
<i>Anomaly Area 2 Vicinity</i>			
2	1943	Aircraft Hangar	Building was vacant during inspections.
14	1943	Squadron Headquarters	Building was vacant during inspections.
99	1943	Flight Line Storage	Building was vacant during inspections. Building dimensions are approximately 10 feet by 8 feet. Building was improved in approximately 1981 according to property records.

2.4 Site Verification Activities of 1999

A sampling strategy to characterize shallow soils at Anomaly Area 2 was developed by Southwest Division, Naval Facilities Engineering Command during 1999, and a copy of the sampling strategy is included in the Appendix. OHM Remediation Services Corporation conducted the sampling activities under Navy Contract N68711-93-D-1459, Delivery Order 70 during June and December 1999 in accordance with the sampling strategy. Sample locations are shown on Figure 2.

Sixteen (16) shallow soil samples were collected from five (5) locations estimated to be at the location of the former fuel bladder revetments, and seventeen (17) samples were collected from eight (8) borings in the nearby vicinity as identified in Table 3. Samples were analyzed by EPA Methods 8015 modified (petroleum hydrocarbons) and 8260A (volatile organic compounds including Methyl tert-butyl ether (MTBE)).

Subsurface soils consisted primarily of silty sands and sandy silts. Field borings are included in the Appendix.

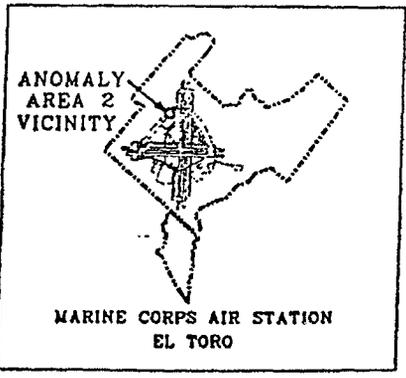
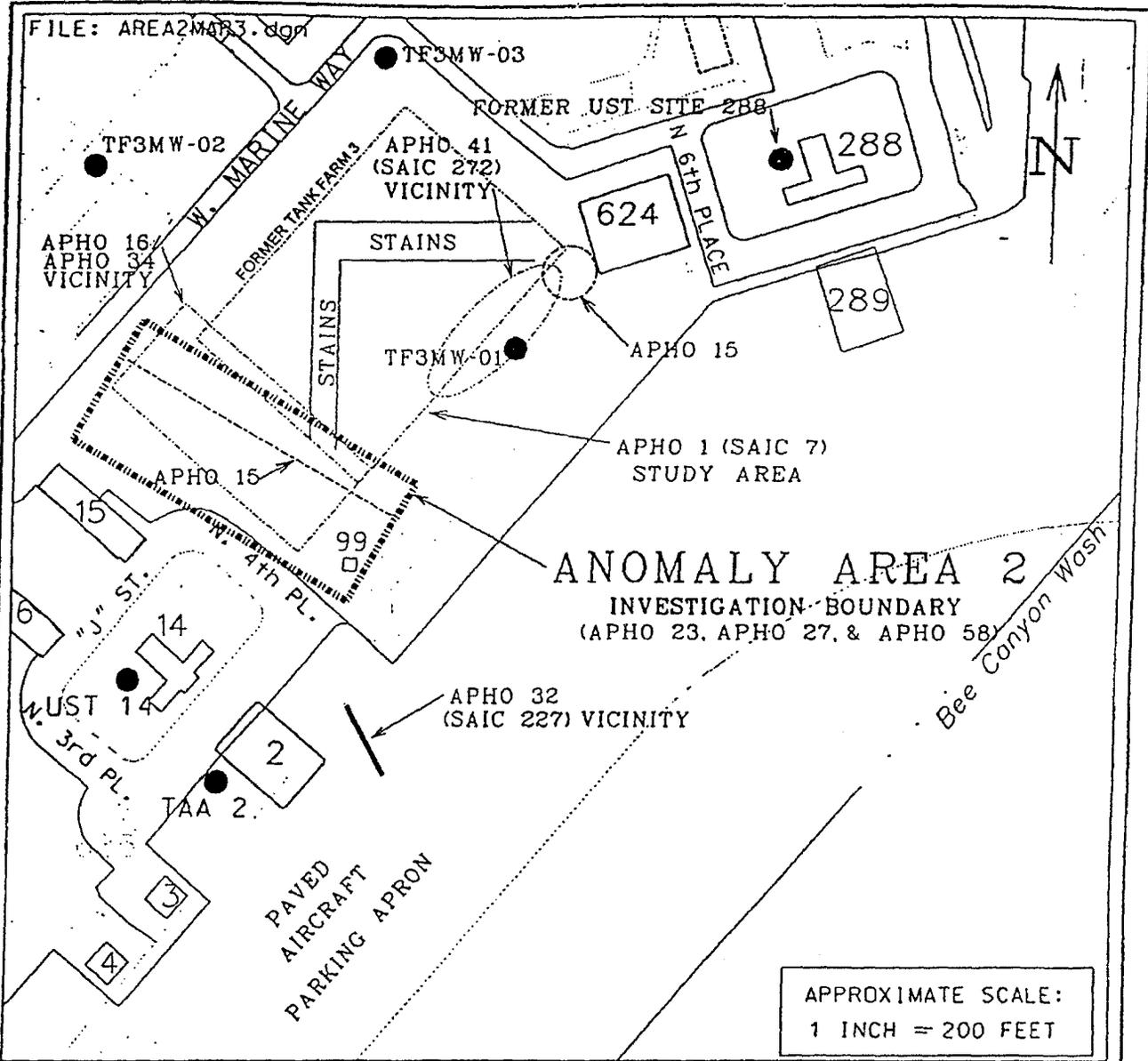


Figure 1.

AERIAL PHOTOGRAPH ANOMALY PROGRAM

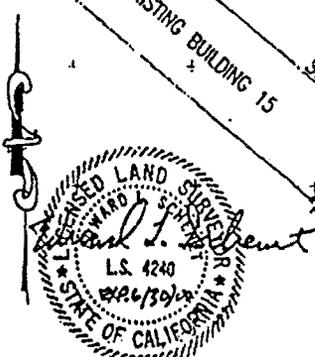
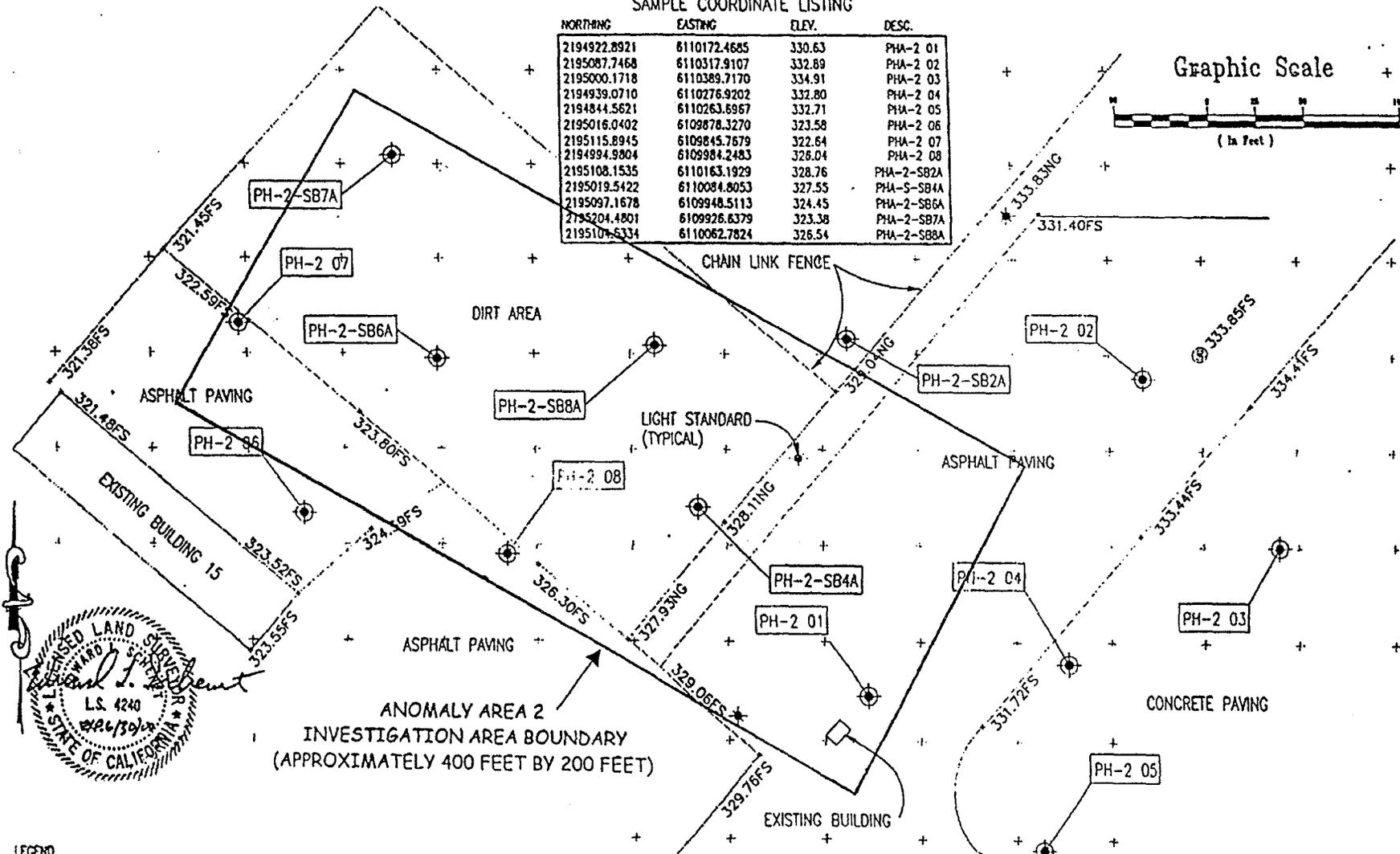
ANOMALY AREA 2 VICINITY

MARINE CORPS AIR STATION, EL TORO

SAMPLE COORDINATE LISTING

NORTHING	EASTING	ELEV.	DESC.
2194922.8921	6110172.4685	330.63	PHA-2 01
2195087.7468	6110317.9107	332.89	PHA-2 02
2195000.1718	6110389.7170	334.91	PHA-2 03
2194939.0710	6110276.9202	332.80	PHA-2 04
2194844.5621	6110263.8967	332.71	PHA-2 05
2195016.0402	6109878.3270	323.58	PHA-2 06
2195115.8945	6109845.7679	322.64	PHA-2 07
2194994.9804	6109984.2483	328.04	PHA-2 08
2195108.1535	6110163.1929	328.76	PHA-2-SB2A
2195019.5422	6110084.8053	327.55	PHA-S-SB4A
2195097.1678	6109948.5113	324.45	PHA-2-SB6A
2195204.4801	6109926.6379	323.38	PHA-2-SB7A
2195104.6334	6110062.7824	326.54	PHA-2-SB8A

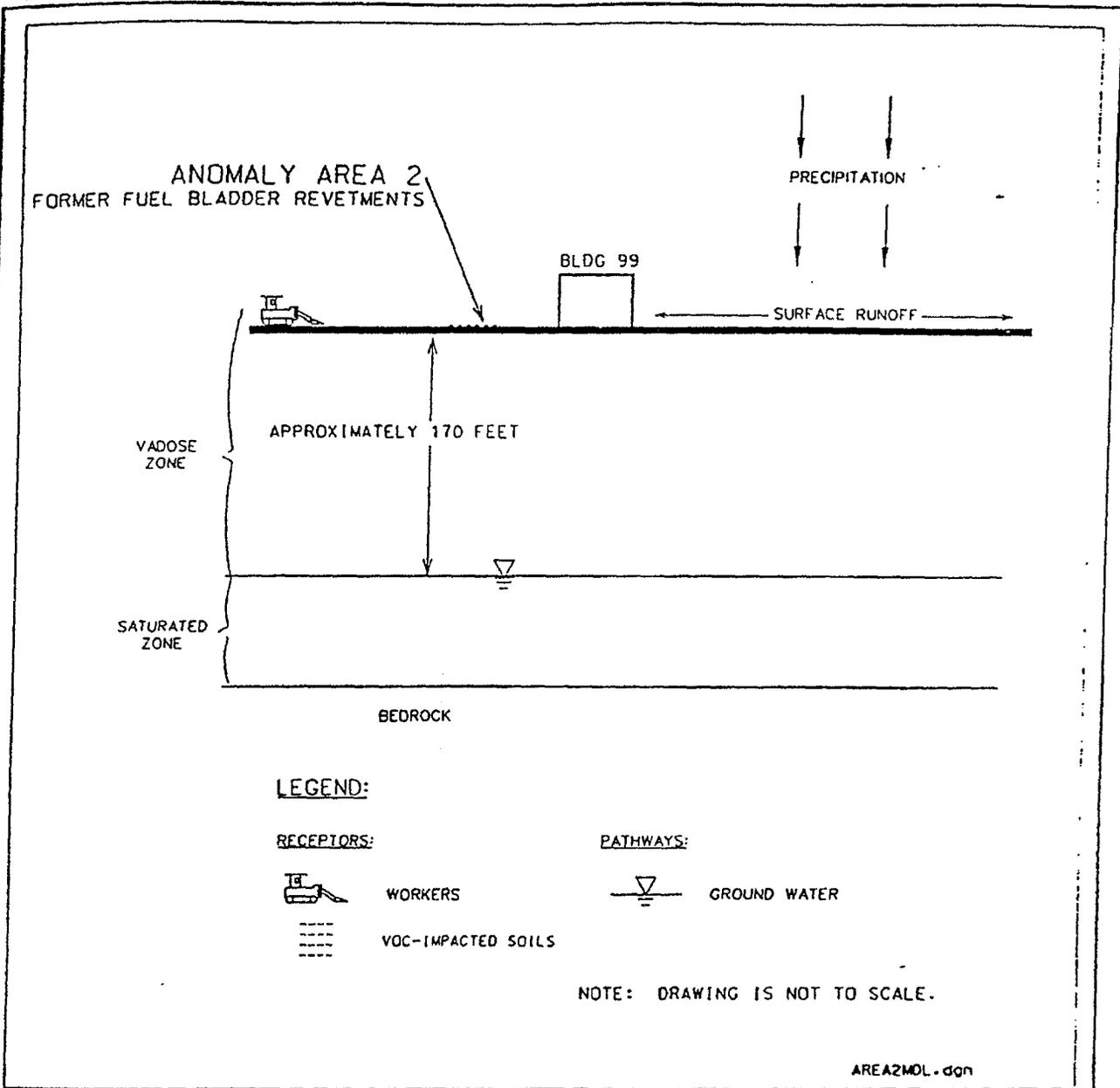
Graphic Scale



- LEGEND
- SAMPLE POINTS
 - NATURAL GROUND
 - FINISH SURFACE
 - SEWER MANHOLE
 - DATE OF SURVEY: 8-28-99
 - DATE OF SURVEY: 12-14-99

SOURCE OF MAP INFORMATION:
OHM TECHNICAL INFORMATION
PACKAGE FOR ANOMALY AREA 2
(FEBRUARY 2000)

Figure 2.
AERIAL PHOTOGRAPH ANOMALY PROGRAM
SAMPLE LOCATIONS
MARINE CORPS AIR STATION, EL TORO



Selected Water Level Measurements
at Nearby Well TF3MW-02

WELL ID	DATE OF MEASUREMENT	DEPTH TO WATER (FEET)
TF3MW-02	13 August 1996	165.95
TF3MW-02	13 December 1996	166.02
TF3MW-02	15 January 1997	165.70
TF3MW-02	28 March 1997	164.77
TF3MW-02	20 May 1997	164.94

Figure 3.

AERIAL PHOTOGRAPH ANOMALY PROGRAM

ANOMALY AREA 2

CONCEPTUAL SITE MODEL

MARINE CORPS AIR STATION, EL TORO

Appendix

Site Photographs, Laboratory and Field Data, and Other Documentation

Site Photographs

Check List Forms

Exhibits and No Further Action Decision Documents for Selected Nearby Environmental Locations of Concern

Extracts from BRAC Business Plan

Extracts from SAIC and USEPA Reports

Extracts from SWPPP

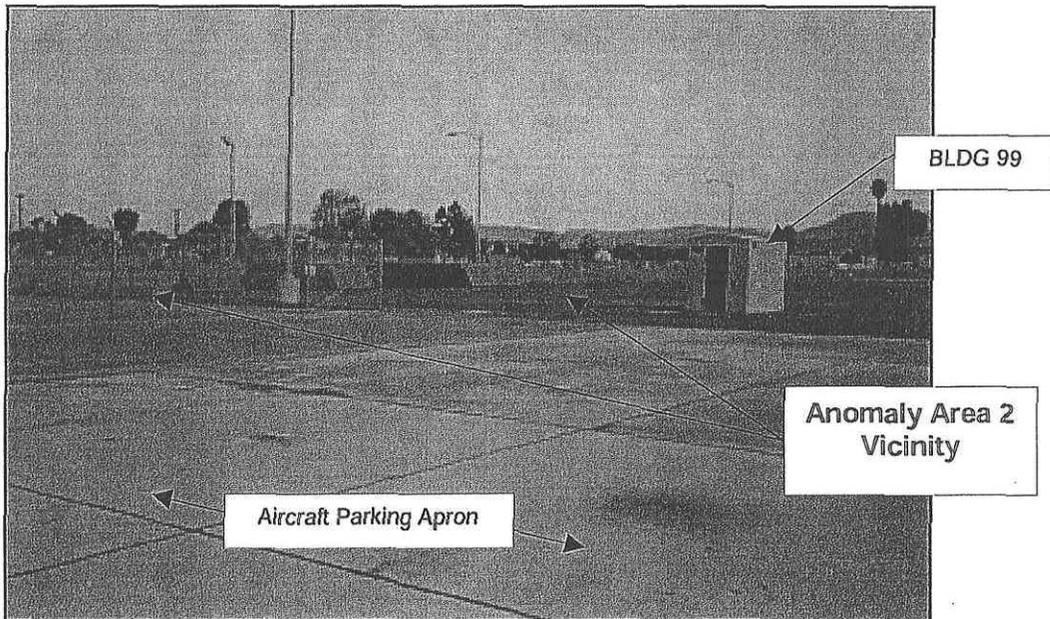
Extracts from Groundwater Monitoring Reports

Sampling Strategy and Regulatory Correspondence-
(SWDIV and DTSC, 1999)

Laboratory and Field Data (Technical Information Package (OHM))

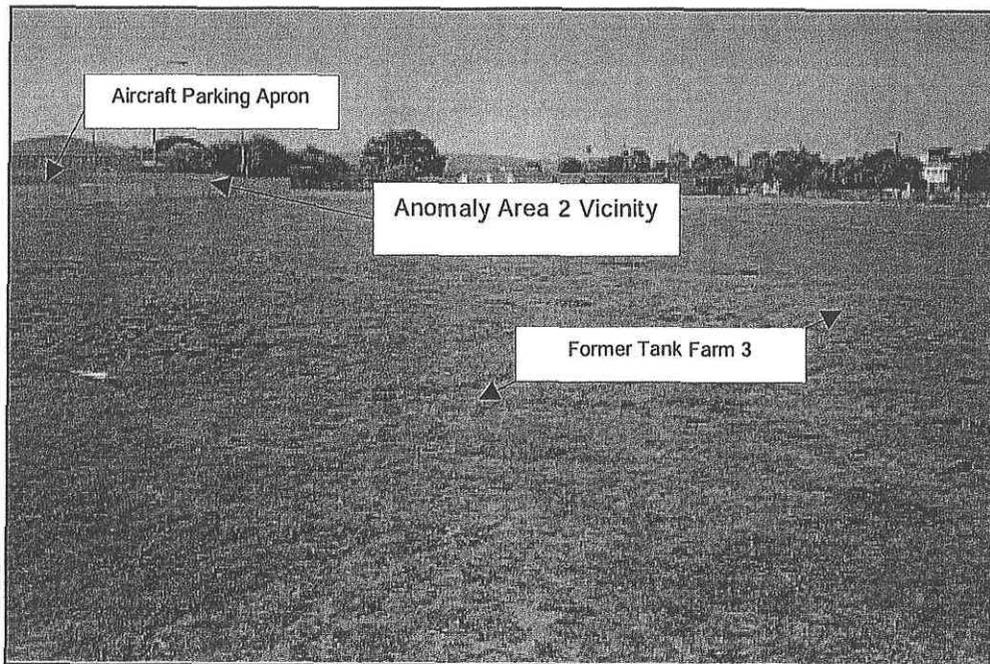
Photograph 1. Anomaly Area 2 Vicinity
Former Fuel Bladder Revetment Area
Aerial Photograph Anomaly Program
Marine Corps Air Station, El Toro

Date of Photograph: 24 February 2000



Photograph 2. Anomaly Area 2 Vicinity
Former Fuel Bladder Revetment Area
Aerial Photograph Anomaly Program
Marine Corps Air Station, El Toro

Date of Photograph: 19 December 1999



CHECK LIST

Aerial Photograph Anomaly Program, Marine Corps Air Station, El Toro.

Anomaly Identification Information:

Date of Photograph: 27 June 1967

APHO (from the BRAC Cleanup Plan)	SAIC	EPA
23	173	

Recommendation: *No Further Action Status*

Anomaly Description (from source document(s) *Site Analysis, El Toro MCAS (EPA, 1991) or Final Report, Aerial Photograph Assessment (SAIC, 1993)*):

SAIC 173: *There are probable fuel bladder revetments (FBR) and possible stains (ST) in an excavated area about 150 feet and 300 feet northeast of Building 14, at West Marine and N 4th Place. Additional investigation is recommended.*

Visual Inspection Date (s): **24 September** (with APHO 16/APHO 34) and **19 December 1999** (with APHO 1), and **24 February 2000** (with APHO 32)

Participant(s) (with affiliation(s)) in inspection(s): *Lynn Marie Homecker (US Navy)*

Current Site Conditions: *The vicinity of the former fuel bladder revetments includes the paved edge of the aircraft parking apron north of Building 2 near the southwest end of the former Tank Farm 3 and the unpaved areas immediately adjacent to the apron edge. The paved areas of the parking apron appeared to be in good condition during the visual inspections. No significant cracks or deteriorated pavement was observed, and no stains (aside from rust stains from steel structures located on the apron) were observed. The area is relatively level. The nearby Buildings 2, 14, and 99 were vacant during the inspections and no hazardous substances were observed to be in storage at the Anomaly Area 2 vicinity during the inspections.*

Is there visual evidence of the anomaly identified in the photograph present at the site? *No.*

Is there evidence of past releases? *No.*

Are there indications of potential or current releases? *No.*

Description of photograph(s): *Photographs show the Anomaly Area 2 vicinity.*

Date of preparation of check list: *3 March 2000*

CHECK LIST

Aerial Photograph Anomaly Program, Marine Corps Air Station, El Toro

Anomaly Identification Information:

Date of Photograph: 28 August 1968

APHO (from the BRAC Cleanup Plan)	SAIC	EPA
27	190	

Recommendation: No Further Action Status

Anomaly Description (from source document(s) *Site Analysis, El Toro MCAS* (EPA, 1991) or *Final Report, Aerial Photograph Assessment* (SAIC, 1993)):

SAIC 190: *There are probable stains (ST) or wet soil (WS) northeast of Building 14, at the south end of the fuel bladder revetment, adjacent to the aircraft parking apron. Additional investigation is recommended due to the possibility of fuel leakage or spill.*

Visual Inspection Date (s): 24 September (with APHO 16/APHO 34) and 19 December 1999 (with APHO 1), and 24 February 2000 (with APHO 32)

Participant(s) (with affiliation(s)) in inspection(s): *Lynn Marie Homecker (US Navy)*

Current Site Conditions: *The vicinity of the former fuel bladder revetments includes the paved edge of the aircraft parking apron north of Building 2 near the southwest end of the former Tank Farm 3 and the unpaved areas immediately adjacent to the apron edge. The paved areas of the parking apron appeared to be in good condition during the visual inspections. No significant cracks or deteriorated pavement was observed, and no stains (aside from rust stains from steel structures located on the apron) were observed. The area is relatively level. The nearby Buildings 2, 14, and 99 were vacant during the inspections and no hazardous substances were observed to be in storage at the Anomaly Area 2 vicinity during the inspections.*

Is there visual evidence of the anomaly identified in the photograph present at the site?
No.

Is there evidence of past releases? *No.*

Are there indications of potential or current releases? *No.*

Description of photograph(s): *Photographs show the Anomaly Area 2 vicinity.*

Date of preparation of check list: *3 March 2000*

CHECK LIST

Aerial Photograph Anomaly Program, Marine Corps Air Station, El Toro

Anomaly Identification Information:

Date of Photograph: 28 June 1970

APHO (from the BRAC Cleanup Plan)	SAIC	EPA
58		21

Recommendation: *No Further Action Status*

Anomaly Description (from source document(s) *Site Analysis, El Toro MCAS* (EPA, 1991) or *Final Report, Aerial Photograph Assessment* (SAIC, 1993)):

EPA 21: *Fuel bladder revetments.*

Visual Inspection Date (s): 24 September (with APHO 16/APHO 34) and 19 December 1999 (with APHO 1), and 24 February 2000 (with APHO 32)

Participant(s) (with affiliation(s)) in inspection(s): *Lynn Marie Homecker (US Navy)*

Current Site Conditions: *The vicinity of the former fuel bladder revetments includes the paved edge of the aircraft parking apron north of Building 2 near the southwest end of the former Tank Farm 3 and the unpaved areas immediately adjacent to the apron edge. The paved areas of the parking apron appeared to be in good condition during the visual inspections. No significant cracks or deteriorated pavement was observed, and no stains (aside from rust stains from steel structures located on the apron) were observed. The area is relatively level. The nearby Buildings 2, 14, and 99 were vacant during the inspections and no hazardous substances were observed to be in storage at the Anomaly Area 2 vicinity during the inspections.*

Is there visual evidence of the anomaly identified in the photograph present at the site?
No.

Is there evidence of past releases? *No.*

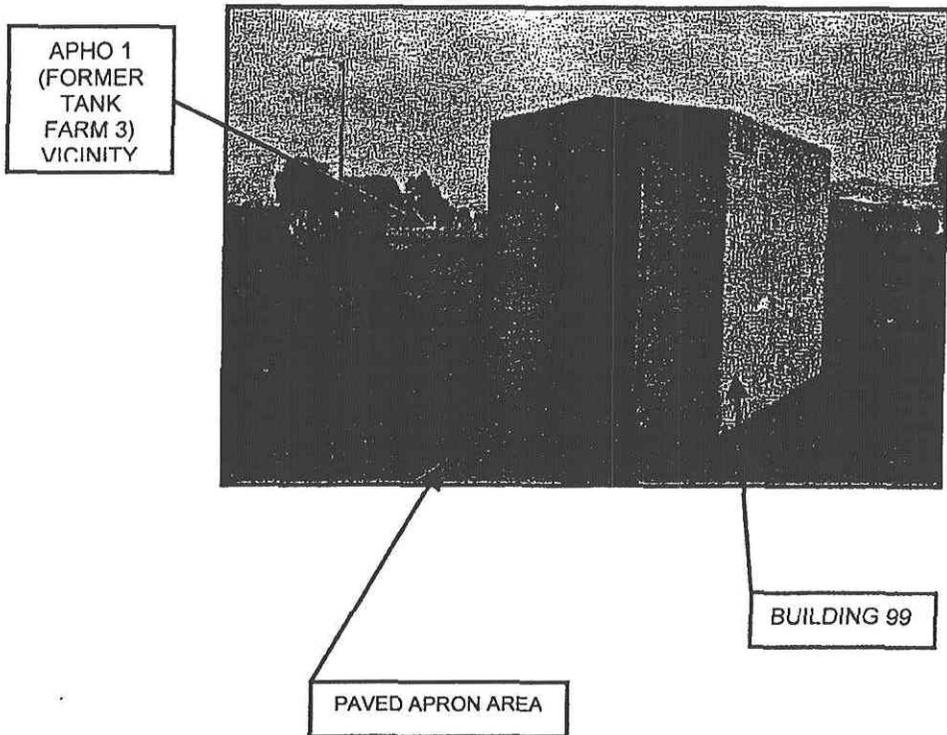
Are there indications of potential or current releases? *No.*

Description of photograph(s): *Photographs show the Anomaly Area 2 vicinity.*

Date of preparation of check list: *3 March 2000*

Photograph 1. Building 99
Located South of APHO 1 (SAIC 7) Vicinity
Aerial Photograph Anomaly Program
Marine Corps Air Station, El Toro

Date of Photograph: 29 March 2000





COPY

American Processing Co., Inc.

An Environmental Services Company

9747 Olson Drive • San Diego, CA 92121-2802 • 619-622-0045 • FAX 619-626-0550

Closure Report

Underground Storage Tank Removals
at Fuel Farm #3,
United States Marine Corps Air Station
El Toro, California
Contract # N68711-94-C-0697

prepared for

Department of the Navy
Resident Officer in Charge of Construction (ROICC)
Southwest Division, Naval Facilities Engineering Command
USMCAS El Toro, California, Bldg. T2006
Attention: Lt. J G Matt Tucker

submitted to:

Orange County Health Care Agency (OCHCA)
Environmental Health Division
2009 E. Edinger Ave.
Santa Ana, California 92705
Attn: Ms. Arghavan Rashidi-Fard

prepared by:

American Processing Co., Inc.
9747 Olson Drive
San Diego, CA 92121

Table of Contents

Closure Report

1.0 Introduction	1
2.0 Tank Cleaning	1
3.0 Excavation and Tank Removal	2
4.0 Analytical Soil Testing	2
5.0 Remediation Work	3
6.0 Backfill and Compaction	3
7.0 Conclusion	3
8.0 Recommendations	4

Maps

Site Location Maps

Soil Sample Location Maps

Appendix I	Figures and Tables
Appendix II	Permits
Appendix III	Hazardous Waste Manifests
Appendix IV	Lab Analysis and Chain of Custody Documents

Closure Report

Underground Storage Tank Removals at Tank Farm # 3, United States Marine Corps Air Station (USMCAS) El Toro, California

1.0 Introduction

This report details the methods and findings of the underground tank removals conducted by American Processing Co., Inc. at Fuel Farm # 3, USMCAS, El Toro, California. See Site Location Maps. The tank removals were conducted under the direction of the Orange County Health Care Agency. This project involved cleaning, removal and disposal of the following:

Six 25,000 gallon steel-reinforced concrete underground storage tanks

Five 50,000 gallon steel reinforced concrete underground storage tanks

One 2,000 gallon fuel recovery underground storage tanks

Associated fuel piping, pumps, valves, vents, vaults and pits.

2.0 Cleaning

All tanks at Fuel Farm # 3 were opened and cleaned in accordance with the approved Site Safety and Health Plan. Each tank was pumped and the waste water and sludge was transported to Crosby and Overton, as approved by the ROICC. See Appendix III -- Hazardous Waste Manifests.

Upon completion of the cleaning work the tanks were certified safe for demolition by the inspecting Certified Industrial Hygienist. Tank excavation began September 4, 1996.

3.0 Excavation and Fuel Tank Removal

The soil was removed above and around each tank. This soil was stockpiled on site. The top of each tank was broken out, and the concrete was then crushed, from the top, the walls and the floor of the tank. This cement and steel reinforcement was removed from the site. No evacuated soil was removed from this site as per the direction of the ROICC. The estimated volume of the native soil which was excavated and subsequently backfilled was 9,950 cubic yards. See Appendix I -- Figures and Tables for excavation per tank. Upon completion of the removal of all tanks the Orange County Health Care Agency was notified that the site was ready for soil testing.

4.0 Analytical Soil Testing

All soil samples were taken by a qualified representative of AMPROCO. The OCHCA representative, Ms. Arghavan Rashidi-Fard, determined the location of soil samples to be collected as well as the type of tests to run for all samples and approved all chain of custodies. Brass soil sample tubes were properly labeled and sealed by the AMPROCO representative and an additional seal was placed on by Ms. Rashidi-Fard. The samples were stored in a cooler on ice and picked up by Associated Laboratories for analysis. See Appendix IV for all Laboratory reports and chain of custodies.

Beneath Tanks

Three soil samples were collected approximately 2 feet beneath the former location of the floor of each fuel tank. Figure 1 and 2 shows the location of these sampling points. Samples were analyzed by EPA methods 8015m (diesel), 8020 (BTEX) and 418.1 (Petroleum Hydrocarbons). The analytical summary is in Appendix IV.

Stockpiled Soils

Ten samples were removed from Stockpile #1 and One sample was removed from Stockpile #2, Six samples were taken from Stockpile #3 and Three samples were taken from Stockpile #4, each at varying degrees of depth. Stockpile Samples were analyzed for 8015, 8020, and 418.1. See Appendix IV, for results.

Pipelines

Nine samples were taken from the associated pipelines. Samples were analyzed for 8051, 8020, and 418,1. See Appendix IV, for results.

5.0 Remediation Work on Site

Completed analytical indicated that no remediation work was required for this fuel farm.

6.0 Backfill and Compaction

Reported analytical results were below the maximum closure values established for this site, and it was determined by ROICC to backfill and compact this site. During the backfill and compaction process a Soils Engineer ran compaction tests for 90% compaction at 3 to 30-inch lifts. This site was finish graded to conform with existing surrounding grade. A sprinkler system was installed at the sites where the tanks were excavated, the soil was hydroseeded and amended, as per contract instructions, and with the approval of the ROICC officers in charge. This work was completed on October 18, 1996.

7.0 Conclusions

Based on field observations and analytical data, AMPROCO concludes:

- *Eleven fuel tanks, one recovery tank, and associated piping were excavated, demolished and removed from this site.
- *All native and imported soil was backfilled and compacted to 90% density of existing soil conditions.
- *The surface at former Fuel Farm# 3 has been finished graded to match existing grade, and a new landscape irrigation system has been installed to water the hydroseeded lawn.
- *All work at this site has been accepted by ROICC and the OCHCA.

8.0 Recommendations

Based on the findings presented in this report, American Processing Co., Inc. recommends closure of Fuel Farm # 3, USMCAS, El Toro.

MAPS

APPENDIX I

Figures and Tables

Fuel Farm #3

El Toro Marine Corps Air Station

Tank #	Tank Size	SOIL EXCAVATED
188	25,000	720 cubic yards
189	50,000	1200 cubic yards
190	50,000	1200 cubic yards
191	25,000	720 cubic yards
192	25,000	720 cubic yards
193	50,000	1200 cubic yards
194	50,000	1200 cubic yards
195	25,000	720 cubic yards
recovery tank (T-4)	2,000	30 cubic yards
219	50000	1200 cubic yards
220	25000	720 cubic yards
221	25000	720 cubic yards

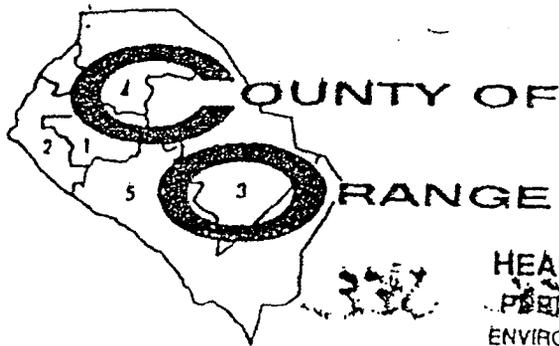
Fuel Farm #3

El Toro Marine Corps Air Station

Tank #	Tank Size	OVA/FID Readings
188	25,000	non-detectable reading
189	50,000	non-detectable reading
190	50,000	non-detectable reading
191	25,000	non-detectable reading
192	25,000	non-detectable reading
193	50,000	non-detectable reading
194	50,000	non-detectable reading
195	25,000	non-detectable reading
recovery tank	2,000	non-detectable reading
219	50000	96 PPM
220	25000	non-detectable reading
221	25000	non-detectable reading

APPENDIX II

Permits



APR 17 1996

TOM URAN
DIRECTOR
L. REX EHLING, M.D.
HEALTH OFFICER
ENVIRONMENTAL HEALTH DIVISION
ROBERT E. MERRYMAN, REHS MPH
DEPUTY DIRECTOR

MAILING ADDRESS: P.O. BOX 355
SANTA ANA, CA 92702

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

HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH

MAR 26 1996

RECEIVED

DATE: 03/25/96

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

FACILITY INFORMATION

NAME: U.S. NAVY

STREET ADDRESS: MCAS EL TORO

CITY: EL TORO CA

TOTAL NUMBER OF TANKS (AFTER INSTALLATION/REMOVAL)
AT THIS LOCATION: 32

TYPE OF BUSINESS:

GASOLINE STATION FARM

GOVERNMENT OTHER

TANK OWNER

NAME (CORP., INDIVIDUAL, PUBLIC AGENCY):

U.S. NAVY OICC

STREET ADDRESS: MCAS EL TORO 0667206

CITY: EL TORO P.O. BOX 94004

STATE: CA ZIP: 92709-4004

TELEPHONE NO.: 714 726-2254

BILLING ADDRESS INFORMATION

BILL TO NAME: AMERICAN PROCESSING CO. INC.

BILL TO ADDRESS: 9747 OLSON DR.

CITY: SAN DIEGO, CA

STATE: CA ZIP: 92121

TELEPHONE NO.: 619 622-0545

TYPE OF CONSTRUCTION

INDICATE NO. OF TANK(S):

INSTALLATION(S) (COMPLETE PAGE 2)

REPAIR(S)/RELIEF(S)

32 CLOSURE(S)/REMOVAL(S)

SYSTEM MODIFICATION (E.G., REPIPE)

OTHER (SPECIFY)

24 HOUR EMERGENCY CONTACT PERSON

NAME: TIM RICHARDSON TELEPHONE: 619 622-0545

NAME: SAME AS ABOVE TELEPHONE:

APPLICANT: TIM RICHARDSON

NAME: AMERICAN PROCESSING CO. INC.
PLEASE PRINT

SIGNATURE: [Signature]

COMPANY NAME: AMERICAN PROCESSING CO. INC.

TELEPHONE NO.: 619 622-0545

FACILITY OPERATOR (CONTACT PERSON)

NAME: FAIS, MATT TRISER

BUSINESS TELEPHONE NO.: 714 726-2254

NOTE: 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.

OFFICE USE ONLY
PAID
BOOK 136414 CK# 5939
3-26-96

FACILITY PERMIT NO.: _____ PLAN APPROVAL DATE: 3/27/96 BY: AE NO.: _____

PLAN CHECK NO.: 96-040 FEES: 3,070- FINAL FIELD INSPECTION DATE: _____

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

ANK INFORMATION

TANK I.D.		#1	#2	#3	#4
MATERIALS	GAS NO. OR WASTE I.D.	CURRENTLY			
		PROPOSED			
	PREVIOUSLY				
FUEL TYPE (IF TRADE SECRET, PLEASE STATE)		PLEASE SEE			
TYPE (TANK, SUMP, OTHERS)		ATTACHED			
DOUBLE WALL/SINGLE WALL					
C	UL NUMBER	INFORMATION			
C	YEAR INSTALLED				
VAULTED/NOT VAULTED					
N T A I	MANUFACTURER	CAPACITY (GALLON)			
		CONSTRUCTION MATERIAL			
		THICKNESS (UNITS)			
		INTERIOR LINING	APPROVED		
N E R	MANUFACTURER	CAPACITY (GALLON)	<p style="text-align: center;">ORANGE COUNTY HEALTH CARE AGENCY ENVIRONMENTAL HEALTH DIVISION MATERIALS MANAGEMENT SECTION THIS APPROVAL IS VALID FOR 12 MONTHS FROM THE APPROVAL DATE</p> <p style="text-align: center;"> <i>NR</i> <i>3/27/96</i> <i>960240</i> When Reviewed By Date Plan # </p>		
		CONSTRUCTION MATERIAL			
		THICKNESS (UNITS)			
		CORROSION PROTECTION			
TYPE OF LEAK DETECTION (LIQUID, VAPOR, ETC.)					
MANUFACTURER OF LEAK DETECTOR		<p>This approval shall not be construed to permit any release of any leak, nor does it prevent the fire departments of areas found on the site from having a responsibility for approval of any additional changes are made by the applicant.</p>			
LOCATION (UNDER/ABOVE GROUND)					
SUCTION/PRESSURE GRAVITY/UNKNOWN					
P I	PRIMARY	CONSTRUCTION MATERIAL	<p>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.</p>		
		MANUFACTURER			
N	SECONDARY	CONSTRUCTION MATERIAL	<p>Additional tank installation, removal, and modifications are required and must be approved in advance. Contact (714) 666-7800 for an appointment.</p>		
		MANUFACTURER			
TYPE OF LEAK DETECTION (LIQUID, VAPOR, ETC.)					
MANUFACTURER OF LEAK DETECTOR		<p>Any of these approved plans must be maintained at the site at all times.</p>			
OVERFILL PROTECTION (TYPE)					
SPILL CONTAINMENT					

ATTACH A DIAGRAM (8 1/2" X 11") INCLUDE THE LOCATIONS OF THE UNDERGROUND STORAGE TANK(S), PIPING, AUXILIARY EQUIPMENT, BUILDINGS AND OTHER LANDMARKS.

OFFICE USE ONLY

APPENDIX III

Hazardous Waste
Manifests

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: CA16117002321080310916
 Manifest Document No: 2 Page 1 of 1
 Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
 MCAS EL TORO
 P.O. Box 95001 SANTA ANA, CA. 92709-5001

A. State Manifest Document Number: 92703036
 B. State Generator's ID: HAWA161-1216191161

4. Generator's Phone (714) 726-2722
 5. Transporter 1 Company Name: ADVANTAGE ENVIRONMENTAL
 6. US EPA ID Number: CA1091824191715162

C. State Transporter's ID: (714) 836-0236

7. Transporter 2 Company Name: _____
 8. US EPA ID Number: _____

D. Transporter's Phone: (714) 836-0236
 E. State Transporter's ID: _____

9. Designated Facility Name and Site Address:
 CROSBY & OVERTON
 1630 W. 17 STREET
 LONG BEACH CA. 90813
 10. US EPA ID Number: CA10102181410910119

F. Transporter's Phone: _____
 G. State Facility's ID: CA10102181410910119

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	1. Waste Number
	No.	Type			
a. OIL & WATER, NON-RCRA, HAZ WASTE LIQUID	01	TIT	20001	GAL	State: 241 EPA/Other: NON-RCRA
b. _____					State: _____ EPA/Other: _____
c. _____					State: _____ EPA/Other: _____
d. _____					State: _____ EPA/Other: _____

13. Additional Descriptions for Materials Listed Above:
 (A) WASTE OIL ≤ 10%
 (B) WASTE WATER ≥ 80%
 (C) BOTTOM SLUDGE ≥ 10%

K. Handling Codes for Wastes Listed Above:
 a. 15
 b. _____
 c. _____
 d. _____

15. Special Handling Instructions and Additional Information:
 GLOVES, PROTECTIVE EYEWEAR & CLOTHING
 PROFILE # 19768, SCHEDULE # 46-03-09-16
 NOTE: FUEL FARM 3, TANK # 190 & 219.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the 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 federal, state and international laws.

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: ESTE DEHAVENTE
 Signature: _____
 Month: 11 Day: 12 Year: 1996

17. Transporter 1 Acknowledgement of Receipt of Materials
 Printed/Typed Name: _____
 Signature: _____
 Month: 11 Day: 12 Year: 1996

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: 11 Day: 12 Year: 1996

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL CHEMICAL EMERGENCY CENTER AT 1-800-424-9303

FROM : TAE LIM INST. & CONT. INC.

PHONE NO. : 714 836 9434

Oct. 23 1996 02:02PM P1

Environmental Protection Agency
EPCRA 112 (40 CFR 261.11) (EPCRA 112 (b)(1))
Form designed for use on other (12) plastic type sheets.

See Instructions on back of page 6.

VIET
Department of Environmental Resources
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA1611700232018030915
Manifest Document No. 01

2. Page 1
Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
MCAS ELTORO
P.O. BOX 95001 SANTA ANA, CA. 92709-5001

A. State Manifest Document Number
92703095

4. Generator's Phone (714) 726-2722
Brett Williams

B. State Generator's ID
N/A

5. Transporter 1 Company Name
ADVANTAGE ENVIRONMENTAL

C. State Transporter's ID
N/A

7. Transporter 2 Company Name
KIAI09181241917151612

D. Transporter's Phone
(714) 836-0356

9. Designated Facility Name and Site Address
CROSSY & OVERTON
1650 W. 17 STREET
LONG BEACH CA. 90813

O. State Facility's ID
CA1021814090191

H. Facility's Phone
(310) 432-5445

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers
13. Total Quantity
14. Unit Wt./Vol.

No.	Type	Quantity	Unit Wt./Vol.	1. Waste Number
01	TT	2000	GAL	241 EPA/Other Non RCRA State EPA/Other State EPA/Other

J. Additional Descriptions for Materials Listed Above
(A) WASTE OIL \leq 10%
(B) WASTE WATER \geq 65%
(C) BOTTOM SLUDGE \geq 85%

K. Handling Codes for Wastes Listed Above
15

15. Special Handling Instructions and Additional Information
GLOVES, PROTECTIVE EYEWEAR & CLOTHING
PROFILE # 19768 SCHEDULE # 96-03-09-16

NOTE: FUEL FURN 3, TANK #5 220, 2314
195

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the containers 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 federal, state and international laws.

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. NOENT FOR DOT

Printed/Typed Name: ERIC YESHIANIN
Signature: [Signature]
Month/Day/Year: 09/04/96

17. Transporter 1 Acknowledgment of Receipt of Material
Printed/Typed Name: Andy Silver
Signature: [Signature]
Month/Day/Year: 09/04/96

18. Transporter 2 Acknowledgment of Receipt of Material
Printed/Typed Name: [Blank]
Signature: [Blank]
Month/Day/Year: [Blank]

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous material covered by this manifest except as noted in item 19
Printed/Typed Name: Benit Villan
Signature: [Signature]
Month/Day/Year: 09/04/96

DO NOT WRITE BELOW THIS LINE.

92703095
IN CASE OF EMERGENCY OR SPILL CALL THE NATIONAL RESPONSE CENTER 1-800-474-8802. WITHIN CALIFORNIA, CALL 1-800-852-7539

Department of Toxic Substances
 Sacramento, California
 Information in the shaded areas
 is not required by Federal law.

**UNIFORM HAZARDOUS
 WASTE MANIFEST**

1 Generator's US EPA ID No. Manifest Document No. 2 Page 1
 0 A 6 1 7 0 0 2 3 2 0 8 0 3 0 0

3 Generator's Name and Mailing Address

MCAS EL TORO (Code 1AU)
 P.O. Box 95001 Santa Ana, CA. 92709-5001
 4 Generator's Phone 714 726-2722 Brett Williams

A. State Manifest Document Number

92703091

5 Transporter 1 Company Name
 6 US EPA ID Number

7 Transporter 2 Company Name
 8 US EPA ID Number

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone 619 622-0545

E. State Transporter's ID

F. Transporter's Phone

9 Designated Facility Name and Site Address
 10 US EPA ID Number

Demenco Kerdoon
 2000 North Alameda St. Compton, CA. 90222
 10 US EPA ID Number 0 1 1 3 3 5 2

G. State Facility's ID

H. Facility's Phone

11 US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)
 No. Type Quantity Volume Weight

No.	Type	Quantity	Volume	Weight	Waste Number
0					State: 221 EPA/Other: SOLID BULK Spec: EPA/Other
b					State: EPA/Other
c					State: EPA/Other
d					State: EPA/Other

12 Additional Descriptions for Materials Listed Above

100% FUEL OIL
 10% WASTE WATER
 10% SOLID BULK

K. Handling Codes for Wastes Listed Above

a. b. c. d.

13 Special Handling Instructions and Additional Information

100% FUEL FROM...

14 GENERATOR'S CERTIFICATION: I hereby declare that the contents of the 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 federal, state and international laws.

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: Brett Williams Signature: [Signature] Month: 10 Day: 11 Year: 1996

17 Transporter 1 Acknowledgement of Receipt of Materials
 Printed/Typed Name: [Name] Signature: [Signature] Month: 08 Day: 21 Year: 1996

18 Transporter 2 Acknowledgement of Receipt of Materials
 Printed/Typed Name: [Name] Signature: [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: JOHN LEYTON Signature: [Signature] Month: 10 Day: 11 Year: 1996

DO NOT WRITE BELOW THIS LINE.

800-833-8882
 CALIFORNIA
 WITHIN
 GENERATOR
 CENTRAL
 REGION
 THE
 FACILITY
 WILL
 CY
 1-800-833-8882
 THE
 FACILITY
 WILL
 CY

APPENDIX IV

Lab Analysis
Chain of Custody

SOIL SAMPLE RESULTS -- BENEATH TANKS

SEPTEMBER 13, 1996

Sample ID #	8015 Diesel	418.1 Hydrocarbons	8020 Benzene	8020 Toluene	8020 Ethylbenzene	8020 Xylene
T189-1	ND	13	ND	ND	ND	ND
T189-2	ND	ND	ND	ND	ND	ND
T189-3	ND	ND	ND	ND	ND	ND
RT-1	ND	ND	ND	ND	ND	ND
T191-1	ND	7100	ND	ND	ND	ND
T191-2	ND	ND	ND	ND	ND	ND
T191-3	ND	13	ND	ND	ND	ND
T193-1	ND	ND	ND	ND	ND	ND
T193-2	ND	ND	ND	ND	ND	ND
T193-3	ND	11	ND	ND	ND	ND
T195-1	ND	ND	ND	ND	ND	ND
T195-2	ND	ND	ND	ND	ND	ND
T195-3	710	950	ND	0.04	1.3	3.5
T194-1	ND	ND	ND	ND	ND	ND
T194-2	ND	ND	ND	ND	ND	ND
T194-3	ND	ND	ND	ND	ND	ND
T192-1	ND	ND	ND	ND	ND	ND
T192-2	ND	ND	ND	ND	ND	ND
T192-3	ND	ND	ND	ND	ND	ND
T190-1	ND	ND	ND	ND	ND	ND
T190-2	ND	ND	ND	ND	ND	ND
T190-3	ND	ND	ND	ND	ND	ND
T188-1	ND	ND	ND	ND	ND	ND
T188-2	ND	ND	ND	ND	ND	ND
T188-3	ND	ND	ND	ND	ND	ND
T221-1	ND	13	ND	ND	ND	ND
T221-2	ND	ND	ND	ND	ND	ND
T221-3	ND	ND	ND	ND	ND	ND
T220-1	ND	ND	ND	ND	ND	ND
T220-2	ND	ND	ND	ND	ND	ND
T220-3	ND	ND	ND	ND	ND	ND
T219-1	ND	ND	ND	ND	ND	ND
T219-2	ND	ND	ND	ND	ND	ND
T219-3	ND	ND	ND	ND	ND	ND

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

1 of 8

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

4. TO BE COMPLETED BY LABORATORY ANALYST

LAB NO.: JW1862

DATE RECEIVED: 9-13

SAMPLE(S) CONDITION (PLEASE CHECK):

CHILLED: COUNTY SEAL(S) INTACT:

CONTAINER IN GOOD CONDITION: Y

DATE ANALYSIS COMPLETED: _____

ANALYST: _____

5. TO BE COMPLETED BY SAMPLE COLLECTOR

SITE NAME/ADDRESS: MCAS El Toro
Aul Lane #3, Santa Ana

DATE OF COLLECTION: 9-13-96

SAMPLE COLLECTOR/COMPANY: B. Davis
Amer. Processing

TELEPHONE NO.: _____

HCA REPRESENTATIVE: A. Pashidi-Gard

6.

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
1 T189-1	TRPH (418-1), 8015	for diesel + 8020 (BTEX)	7:15 am
2 T189-2			7:20
3 T189-3			7:30
4 BT-1			7:36
5 T191-1			7:43
6 T191-2			7:51
7 T191-3			7:56

7.

CHAIN OF CUSTODY

1. <u>Aghavan, Pashidi-Gard</u> SIGNATURE	<u>HAZ Waste</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 pm</u> INCLUSIVE DATES/TIMES
2. <u>Bond Davis</u> SIGNATURE	<u>Amerpro</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 PM</u> INCLUSIVE DATES/TIMES
3. _____ SIGNATURE	<u>ASSOC LABS</u> COMPANY/AGENCY	<u>9/13/96 - 2:27 pm</u> INCLUSIVE DATES/TIMES
4. _____ SIGNATURE	<u>ASSOC LABS</u> COMPANY/AGENCY	<u>9/13/96 - 2:40 pm</u> INCLUSIVE DATES/TIMES
5. _____ SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
6. _____ SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES

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

2 of 8

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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: NCAS El Toro
Jul Lane #3, Santa Ana

DATE OF COLLECTION: 9-13-96

SAMPLE COLLECTOR/COMPANY: B. Davis
Amur. Processing

TELEPHONE NO.: _____

HCA REPRESENTATIVE: A. Pashidi-Sard

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
T193-1	TRPH (418.1)	TPH diesel (8DIS), BTEX (8D20)	8:01am
T193-2			8:05
T193-3			8:14
T195-1			8:17
T195-2			8:20
T195-3			8:25
T194-1			8:35

CHAIN OF CUSTODY

1.	<u>Aghavan Pashidi-Sard</u> SIGNATURE	<u>Herz. Waste</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 pm</u> INCLUSIVE DATES/TIMES
2.	<u>Brent Davis</u> SIGNATURE	<u>Amur. Processing</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 PM</u> INCLUSIVE DATES/TIMES
3.	<u>[Signature]</u> SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:10 pm</u> INCLUSIVE DATES/TIMES
4.	<u>[Signature]</u> SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:40 pm</u> INCLUSIVE DATES/TIMES
5.	_____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES
6.	_____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES

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

3 of 8

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TO BE COMPLETED BY LABORATORY ANALYST

5.

TO BE COMPLETED BY SAMPLE COLLECTOR

LAB NO.: _____

DATE RECEIVED: _____

SAMPLE(S) CONDITION (PLEASE CHECK):

CHILLED: _____ COUNTY SEAL(S) INTACT: _____

CONTAINER IN GOOD CONDITION: _____

DATE ANALYSIS COMPLETED: _____

ANALYST: _____

SITE NAME/ADDRESS: MICAS ELTOD
Steel Lane #3, Santa Ana

DATE OF COLLECTION: 9-13-96

SAMPLE COLLECTOR/COMPANY: B. Davis
Amer. Processing

TELEPHONE NO.: _____

HCA REPRESENTATIVE: A. Pashidi-Fard

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
T194-2	TRPH (418.1), TPH diesel (8015), BTEK (8020)		8:37am
T194-3			8:41
T192-1			8:45
T192-2			8:48
T192-3			8:50
T190-1			9:05
T190-2			9:10

CHAIN OF CUSTODY		
1. <u>Aghavan Pashidi-Fard</u> SIGNATURE	<u>Haz. Waste</u> COMPANY/AGENCY	<u>9-13-96 - 12:05pm</u> INCLUSIVE DATES/TIMES
2. <u>Brent Davis</u> SIGNATURE	<u>Amer. Proc.</u> COMPANY/AGENCY	<u>9-13-96 - 12:05PM</u> INCLUSIVE DATES/TIMES
3. _____ SIGNATURE	<u>ASSA LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:10pm</u> INCLUSIVE DATES/TIMES
4. _____ SIGNATURE	<u>ASSAL LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:40pm</u> INCLUSIVE DATES/TIMES
5. _____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES
E. _____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES

CHAIN OF CUSTODY
 Orange County Health Care Agency
 Environmental Health Division
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 Telephone: (714) 667-3700

4 of 8

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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: OCAS ELToro
Steel Lane #3, Santa Ana

DATE OF COLLECTION: 9-13-96

SAMPLE COLLECTOR/COMPANY: B. Davis
Amer. Processing

TELEPHONE NO.: _____

HCA REPRESENTATIVE: A. Pashidi-Fard

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
T190-3	TRPH (418.1), TPH diesel (8015), BTEX (8020)		9:15 am
T188-1			9:23
T188-2			9:30
T188-3			9:35
SP-1			9:50
SP-2			9:55
SP-3			10:02

CHAIN OF CUSTODY

1.	<u>Aghaem Pashidi-Fard</u> SIGNATURE	<u>Haz. Waste</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 pm</u> INCLUSIVE DATES/TIMES
2.	<u>Brent Davis</u> SIGNATURE	<u>Amer. Proc.</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 PM</u> INCLUSIVE DATES/TIMES
3.	<u>[Signature]</u> SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:10 pm</u> INCLUSIVE DATES/TIMES
4.	<u>[Signature]</u> SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:10 pm</u> INCLUSIVE DATES/TIMES
5.	_____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES
6.	_____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES

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

5 of 8

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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
Quil Linn #3, Santa Ana

DATE OF COLLECTION: 9-13-96

SAMPLE COLLECTOR/COMPANY: B. Davis
Amer. Processing

TELEPHONE NO.: _____

HCA REPRESENTATIVE: A. Pashidi-Sard

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
ISP-4	TRPH (418.1)	TRPH diesel (8015), BTEX (8020)	10:10 am
ISP-5			10:15
ISP-6			10:16
ISP-7			10:20
ISP-8			10:23
ISP-9			10:26
ISP-10			10:28

CHAIN OF CUSTODY

1.	<u>Aghayan Pashidi-Sard</u> SIGNATURE	<u>Haz. Waste</u> COMPANY/AGENCY	<u>9-13-96 - 12:05pm</u> INCLUSIVE DATES/TIMES
2.	<u>Brend G. Davis</u> SIGNATURE	<u>AMPROX</u> COMPANY/AGENCY	<u>9-13-96 - 12:05pm</u> INCLUSIVE DATES/TIMES
3.	<u>[Signature]</u> SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:10pm</u> INCLUSIVE DATES/TIMES
4.	<u>[Signature]</u> SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:40pm</u> INCLUSIVE DATES/TIMES
5.	_____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES
6.	_____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES

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

6 of 8

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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 ELTORO
Auel Lane #3, Santa Ana
 DATE OF COLLECTION: 9-13-96
 SAMPLE COLLECTOR/COMPANY: B. Davis
Amer. Processing
 TELEPHONE NO.: _____
 HCA REPRESENTATIVE: A. Pashidi-Jard

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
36 JSP-1	TRPH (418.1), TPH (8015)	Auel (8015), BTEX (8020)	10:36 am
37 T221-1			10:45
38 T221-2			10:50
T221-3			10:51
40 T220-1			10:55
41 T220-2			10:58
42 T220-3			11:01

CHAIN OF CUSTODY		
1. <u>A. Pashidi-Jard</u> SIGNATURE	<u>Haz. Waste</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 pm</u> INCLUSIVE DATES/TIMES
2. <u>B. Davis</u> SIGNATURE	<u>Amerpro</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 pm</u> INCLUSIVE DATES/TIMES
3. _____ SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:10 pm</u> INCLUSIVE DATES/TIMES
4. _____ SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:40 pm</u> INCLUSIVE DATES/TIMES
5. _____ SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
6. _____ SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES

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

7 of 8

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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
Steel Lane #3, Santa Ana

DATE OF COLLECTION: 9-13-96

SAMPLE COLLECTOR/COMPANY: B. Davis
Amer. Processing

TELEPHONE NO.: _____

HCA REPRESENTATIVE: A. Pashidi-Land

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
T219-1	TRPH(418.1), TPH diesel (8015), BTEX (8020)		11:10 am
T219-2			11:13
T219-3			11:18
3SP-1			11:24
3SP-2			11:27
3SP-3			11:30
3SP-4			11:35

CHAIN OF CUSTODY

1.	<u>Michael Pashidi-Land</u> SIGNATURE	<u>Haz. Waste</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 pm</u> INCLUSIVE DATES/TIMES
2.	<u>Brian Davis</u> SIGNATURE	<u>AMER. PROC.</u> COMPANY/AGENCY	<u>9-13-96 - 12:05 PM</u> INCLUSIVE DATES/TIMES
3.	<u>[Signature]</u> SIGNATURE	<u>Assoc. LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:10 pm</u> INCLUSIVE DATES/TIMES
4.	<u>[Signature]</u> SIGNATURE	<u>Assoc. LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:10 pm</u> INCLUSIVE DATES/TIMES
5.	_____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES
6.	_____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES

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

8 of 8

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TO BE COMPLETED BY LABORATORY ANALYST

5. TO BE COMPLETED BY SAMPLE COLLECTOR

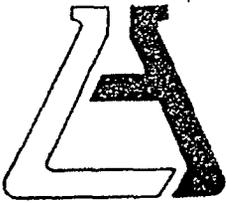
LAB NO.: _____
 DATE RECEIVED: _____
 SAMPLE(S) CONDITION (PLEASE CHECK):
 CHILLED: _____ COUNTY SEAL(S) INTACT: _____
 CONTAINER IN GOOD CONDITION: _____
 DATE ANALYSIS COMPLETED: _____
 ANALYST: _____

SITE NAME/ADDRESS: DICKS EL TORO
Fuel Tank #3, Santa Ana
 DATE OF COLLECTION: 9-13-96
 SAMPLE COLLECTOR/COMPANY: B. Davis
Amer. Processing
 TELEPHONE NO.: _____
 HCA REPRESENTATIVE: A. Pashidi-Lerd

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
3SP-5	TRPH (418.1), (8015)	diesel TPH, BTEX (8020)	11:40 am
3SP-6	↓	↓	11:42
4SP-1	↓	↓	11:50
4SP-2	↓	↓	11:55 ↓
4SP-3	↓	↓	12:00 pm

CHAIN OF CUSTODY

1. <u>Aghawan Pashidi-Lerd</u> SIGNATURE	<u>Haz Waste</u> COMPANY/AGENCY	<u>9-13-96. 12:05 pm</u> INCLUSIVE DATES/TIMES
2. <u>Brian Davis</u> SIGNATURE	<u>Amerpro</u> COMPANY/AGENCY	<u>9-13-96 12:05 pm</u> INCLUSIVE DATES/TIMES
3. _____ SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:10 pm</u> INCLUSIVE DATES/TIMES
4. _____ SIGNATURE	<u>ASSOC LAB</u> COMPANY/AGENCY	<u>9/13/96 - 2:50 pm</u> INCLUSIVE DATES/TIMES
5. _____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES
6. _____ SIGNATURE	_____ COMPANY/AGENCY	_____ INCLUSIVE DATES/TIMES



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

FAX 714/538-1209

CLIENT

American Processing Co.
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9747 Olson Drive
San Diego, CA 92121

(4844)

LAB NO.

JW1862-01

REPORTED

09/19/96

SAMPLE

Soil

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09/13/96

IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

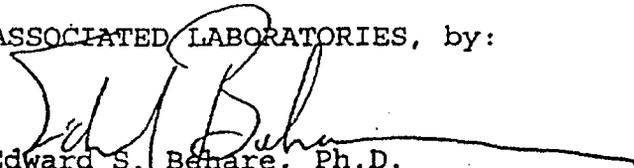
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T189-1</u>	<u>T189-2</u>	<u>T189-3</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	13	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

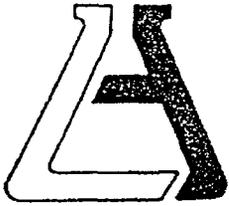
ASSOCIATED LABORATORIES, by:


Edward S. Behare, Ph.D.
Vice President

ESB/ql

cc: O.C. Health Care Dept.

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LAB NO.

JW1862-02

REPORTED

09/19/96

SAMPLE

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

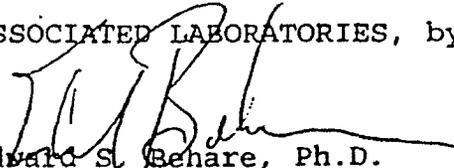
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>RT-1</u>	<u>T191-1</u>	<u>T191-2</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	ND<10	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

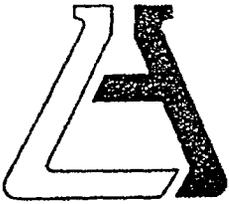
ASSOCIATED LABORATORIES, by:


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Vice President

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LAB NO.

JW1862-03

REPORTED

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SAMPLE

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

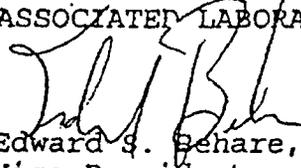
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T191-3</u>	<u>T193-1</u>	<u>T193-2</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	13	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

ASSOCIATED LABORATORIES, by:


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Vice President

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LAB NO.

JW1862-04

REPORTED

09/19/96

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

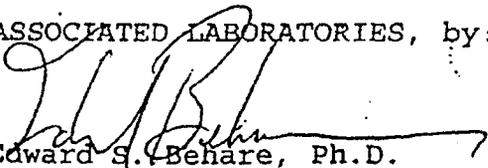
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T193-3</u>	<u>T195-1</u>	<u>T195-2</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	11	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

ASSOCIATED LABORATORIES, by:


Edward S. Behare, Ph.D.
Vice President

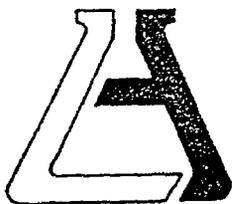
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TESTING & CONSULTING

Chemical
Microbiological
Environmental



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JW1862-05

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MCAS El Toro Fuel Farm #3, Santa Ana

Date Collected 09/13/96

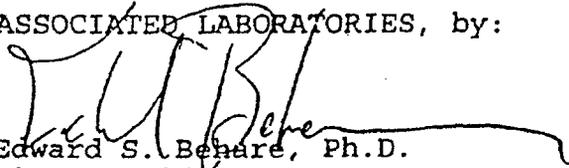
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T195-3</u>	<u>T194-1</u>	<u>T194-2</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	710	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	950	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	0.04	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	1.3	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	3.5	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

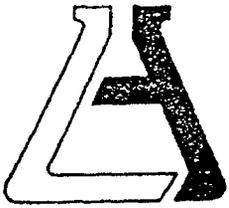
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JW1862-06

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MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T194-3</u>	<u>T192-1</u>	<u>T192-2</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	ND<10	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

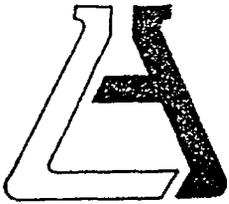
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LAB NO.

JW1862-07

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SAMPLE

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana

Date Collected 09/13/96

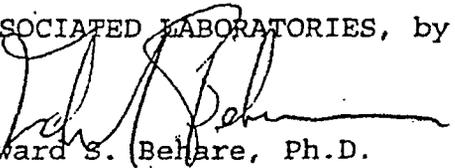
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T193-3</u>	<u>T190-1</u>	<u>T190-2</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	ND<10	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

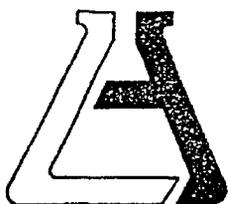
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LAB NO.

JW1862-08

REPORTED

09/19/96

SAMPLE

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

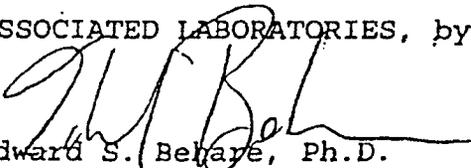
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T190-3</u>	<u>T188-1</u>	<u>T188-2</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	ND<10	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

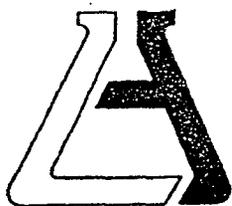
ASSOCIATED LABORATORIES, by:


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Vice President

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LAB NO.

JW1862-09

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09/19/96

SAMPLE

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

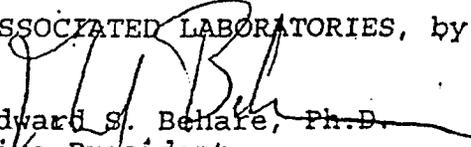
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T188-3</u>	<u>1SP-1</u>	<u>1SP-2</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	ND<10	12	25
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

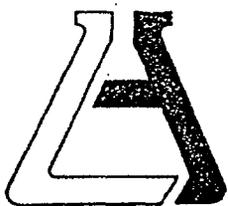
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Vice President

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(4844) LAB NO. JW1862-10
REPORTED 09/19/96

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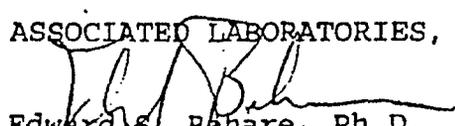
IDENTIFICATION MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

BASED ON SAMPLE As Submitted with County Seals Intact

	<u>1SP-3</u>	<u>1SP-4</u>	<u>1SP-5</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	20	16	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

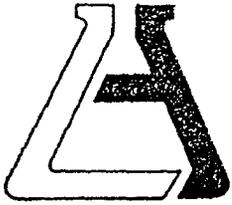
Date Analyzed: 09/17, 18

ASSOCIATED LABORATORIES, by:


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Vice President

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LAB NO.

JW1862-11

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09/19/96

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>ISP-6</u>	<u>ISP-7</u>	<u>ISP-8</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	28	ND<10	21
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

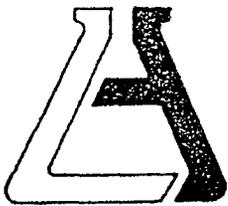
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LAB NO.

JW1862-12

REPORTED

09/19/96

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana

Date Collected 09/13/96

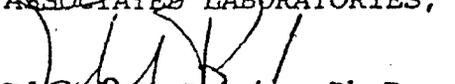
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>1SP-9</u>	<u>1SP-10</u>	<u>2SP-1</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	12	30	13
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

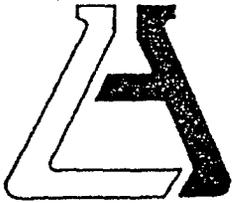
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Vice President

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LAB NO.

JW1862-13

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IDENTIFICATION

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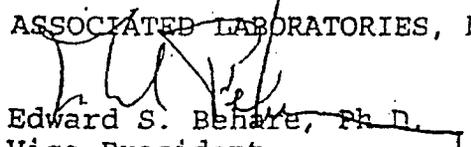
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T221-1</u>	<u>T221-2</u>	<u>T221-3</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	10	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

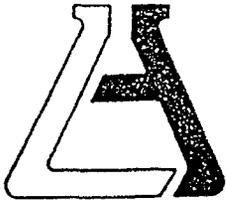
ASSOCIATED LABORATORIES, by:


Edward S. Behare, Ph.D.
Vice President

ESB/ql

cc: O.C. Health Care Dept.

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ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

FAX 714/538-1209

CLIENT

American Processing Co.
Attn: Tim Richardson
9747 Olson Drive
San Diego, CA 92121

(4844)

LAB NO.

JW1862-14

REPORTED

09/19/96

SAMPLE

Soil

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09/13/96

IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

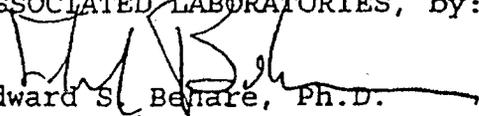
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T220-1</u>	<u>T220-2</u>	<u>T220-3</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	ND<10	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

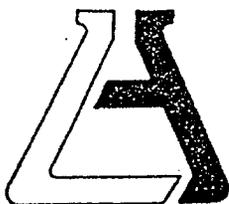
ASSOCIATED LABORATORIES, by:


Edward S. Benare, Ph.D.
Vice President

ESB/ql

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LAB NO.

JW1862-15

REPORTED

09/19/96

SAMPLE

Soil

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09/13/96

IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

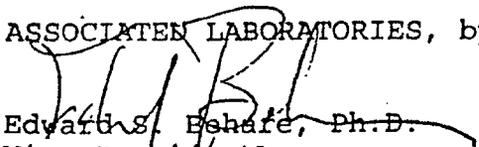
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>T219-1</u>	<u>T219-2</u>	<u>T219-3</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	ND<10	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

ASSOCIATED LABORATORIES, by:


Edward S. Behafe, Ph.D.
Vice President

ESB/ql

cc: O.C. Health Care Dept.

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San Diego, CA 92121

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LAB NO.

JW1862-16

REPORTED

09/19/96

SAMPLE

Soil

RECEIVED

09/13/96

IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana

Date Collected 09/13/96

BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>3SP-1</u>	<u>3SP-2</u>	<u>3SP-3</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	22	ND<10
Hydrocarbons (418.1) (mg/kg)	60	50	14
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

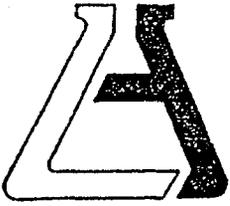
ASSOCIATED LABORATORIES, by:


Edward S. Behare, Ph.D.
Vice President

ESB/ql

cc: O.C. Health Care Dept.

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LAB NO.

JW1862-17

REPORTED

09/19/96

SAMPLE

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

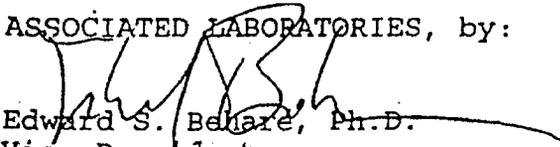
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>3SP-4</u>	<u>3SP-5</u>	<u>3SP-6</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	26	22	32
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

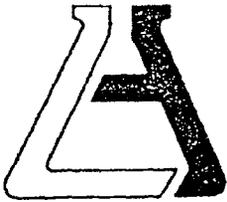
ASSOCIATED LABORATORIES, by:


Edward S. Behare, Ph.D.
Vice President

ESB/ql

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LAB NO.

JW1862-18

REPORTED

09/19/96

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09/13/96

SAMPLE

Soil

IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana
Date Collected 09/13/96

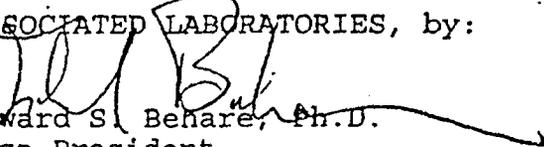
BASED ON SAMPLE

As Submitted with County Seals Intact

	<u>4SP-1</u>	<u>4SP-2</u>	<u>4SP-3</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	27	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	100	20	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 09/17, 18

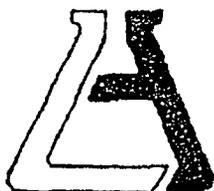
ASSOCIATED LABORATORIES, by:


Edward S. Behare, Ph.D.
Vice President

ESB/ql

cc: O.C. Health Care Dept.

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American Processing Co.
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San Diego, CA 92121

(4844)

LAB NO.

JW2295-01

REPORTED

10/18/96

SAMPLE

Soil

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10/09/96

IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana

BASED ON SAMPLE

Date Collected 10/09/96

As Submitted with County Seals Intact

	WP1	WP2	WP3
Total Hydrocarbons (TPH DHS) (mg/kg)			
-Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	ND<10	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 10/14/96

ASSOCIATED LABORATORIES, by:

Michael Chymera

Edward S. Behare, Ph.D.
Vice President

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TESTING & CONSULTING

Chemical

Microbiological

Environmental



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LAB NO

JW2295-02

REPORTED

10/18/96

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10/09/96

IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana

BASED ON SAMPLE

Date Collected 10/09/96

As Submitted with County Seals Intact

	<u>WP1</u>	<u>EP1</u>	<u>EP2</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	ND<10
Hydrocarbons (418.1) (mg/kg)	ND<10	ND<10	ND<10
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 10/14/96

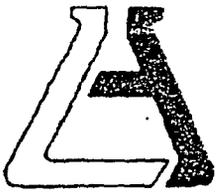
ASSOCIATED LABORATORIES, by:


Edward S. Behar, Ph.D.
Vice President

ESB/ql

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LAB NO

JW2295-03

REPORTED

10/18/96

SAMPLE

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IDENTIFICATION

MCAS El Toro Fuel Farm #3, Santa Ana

BASED ON SAMPLE

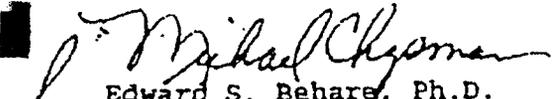
Date Collected 10/09/96

As Submitted with County Seals Intact

	<u>EP3</u>	<u>EP4</u>	<u>59P</u>
Total Hydrocarbons (TPH DHS) (mg/kg) -Diesel	ND<10	ND<10	100
Hydrocarbons (418.1) (mg/kg)	ND<10	ND<10	350
Benzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Toluene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Ethylbenzene (mg/kg)	ND< 0.005	ND< 0.005	ND< 0.005
Total Xylenes (8020) (mg/kg)	ND< 0.015	ND< 0.015	ND< 0.015

Date Analyzed: 10/14/96

ASSOCIATED LABORATORIES, by:


 Edward S. Behare, Ph.D.
 Vice President

ESB/ql

cc: O.C. Health Care Dept.

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TESTING & CONSULTING

Chemical -
Microbiological -
Environmental -

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El Toro Building Guide

BLDG	GRI	DESCRIPTION	TENANT	CATCO	CAC	SIZE
49	Q4	(Storage out of Stores)	Vacant	44112	EBDO	12000 SF
50	Q4	Warehouse	Sta/G-4	17110	EBAO	6240 SF
51	Q4	(Auto Organizational Shop)	Vacant	21451	EBBO	6240 SF
52	Q4	Storage out of Stores	MWHS-3	44112	EBDO	4224 SF
53	Q4	Ground Safety	Env/Gr	61010	EBFO	4036 SF
54	P4	Law Center	SJA	61040	EBFO	11374 SF
56	P4	Ground Safety	Env/Safety	17110	EBAO	1565 SF
56	P4	Squadron Headquarters	MWCS-38	61072	EBFO	6763 SF
56	P4	TAAC Office	MTACS-38	61072	EBFO	3200 SF
57	P4	Bathhouse	Training	74089	EBLO	9310 SF
58	P3	JRC/TMO/SATO/Billeting G-4	Station	61010	EBFO	26473 SF
58	P3	Family Hsg Serv Office	Installation	71000	EBFO	4137 SF
59	P3	Admin Office	JPAO	61010	EBFO	5696 SF
60	P3	Reserve Support Unit	RSU	61010	EBFO	5376 SF
65	Q3	Station Headquarters	Sta/G-4/Com	61010	EBFO	16320 SF
66	O3	Disbursing Office	Compt	61010	EBFO	12418 SF
75	N3	Admin Office	MWR/HQ	74084	EBFO	25361 SF
75	N3	Fire Headquarters	Security	61010	EBFO	3053 SF
75	N3	Indoor Playing Court	MWR/Rec	74084	EBLO	1656 SF
75	N3	Nearly New Shop	Sta/G-1	74034	EBLO	8885 SF
75	N3	(Phone Center)	Vacant	74082	EBLO	1363 SF
75	N3	Ticket Sales Office	MWR/Rec	74009	EBLO	3382 SF
77	N3	Admin (MWR)	MWR/Sup	61010	EBFO	10941 SF
77	N3	Exchange Maint Shop	MWR/Ret	74016	EBLO	3300 SF
77	N3	(Exchange Warehouse)	Vacant	74085	EBLO	4710 SF
83	N3	Red Cross/Navy Relief	Sta/G-1	74012	EBLO	5940 SF
83	N3	Religious Ministry Facilities	Chaplain	73083	EBLO	6240 SF
94	M3	Gymnasium	MWR/Rec	74043	EBLO	23123 SF
96	U7	Transportation Office	Sta/G-4	61010	EBFO	4128 SF
98	O4	Fire Station #1	Sta/G-1	73010	EBLO	6732 SF
→ 99	O4	Flight Line Storage	SOMS	21115	EBVO	79 SF
105	M9	Dental Clinic	13th Dental	54010	EBEO	330 SF
105	M9	Flight Line Aid Station	MAG-16			11528 SF
114	N9	Maint Hangar O1 Space	HMM-163	21106	EBVO	7291 SF
114	N9	Maint Hangar O2 Space	HMM-163	21107	EBVO	12830 SF
114	N9	Maint Hangar OH Space	HMM-163	21105	EBVO	12800 SF
115	N9	Maint Hangar 01 Space	HMM-161	21106	EBVO	5130 SF
115	N9	Maint Hangar 02 Space	HMM-161	21107	EBVO	12830
115	N9	Maint Hangar OH Space	HMM-161	21105	EBVO	5130 SF
118	M7	Maint Hangar O1 Space	HMM-364	21106	EBVO	5100 SF
118	M7	Maint Hangar O2 Space	HMM-364	21107	EBVO	1140 SF
119	M8	Maint Hangar O1 Space	HMM-364	21107	EBVO	980 SF
119	M8	Maint Hangar O2 Space	HMM-364	21106	EBVO	5260 SF
120	M8	Maint Hangar O1 Space	HMM-268	21106	EBVO	5928 SF
120	M8	Maint Hangar O2 Space	HMM-268	21107	EBVO	312 SF
121	N8	Fire Station #3	Sta/G-1	73010	EBLO	4240 SF

EXTRACTS

STORM WATER POLLUTION PREVENTION PLAN
(SWPPP)

FOR

MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA

CONTRACT NO. N68711-96-D-2059
DELIVERY ORDER NO. 0002

VOLUME 1

JULY, 1997

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

Recommended BMPs include prohibiting drum storage except in designated hazardous waste storage areas with secondary containment and cover from rain.

→ **Building 99 - Flight Line Storage - SOMS**

No industrial activities are performed in the area. There are two flammable/ hazardous storage lockers located outside near Building 99. Potential pollutants included lubricating oil and solvent.

Recommended BMPs include either removing the storage lockers or installing a spill kit in the area and developing and implementing a SPCCP.

Building 289 - Maintenance Hangar Space/ACFT Operations (VAL) - SOMS

No industrial activities appear to be performed in the area. There is an oil/water separator (#896) present. The oil/water separator discharges directly to the sanitary sewer. A hazardous waste storage area is located outside near Building 289. This area is covered, has a concrete berm, a canopy, and contains drummed JP-5 fuel sample waste. A spill kit and a SPCCP are present at the storage site.

Recommended BMPs include performing routine inspection and maintenance of the oil/water separator in accordance with the manufacturer's specifications. No additional BMPs are recommended at this time, however, if additional industrial activities resume in this hangar, appropriate BMPs should be developed and implemented.

Building 651 - Exchange Auto Repair Station/Exchange Supplemental Gas Station - MWR-Ret This facility encompasses general personal vehicle maintenance and a gasoline filling station. Potential pollutants included gasoline motor fuel, oil, solvents and flammable liquid. There are 3 floor drains inside the building which drain to an oil/water separator (#651/652) which discharges to the sanitary sewer. Floors are cleaned with soap and water. A covered exterior hazardous waste storage shed is located at the site, however, it does not provide secondary containment. A spill cleanup kit and a SPCCP are present and personnel have been trained in spill cleanup and countermeasure activities.

TABLE 6-1

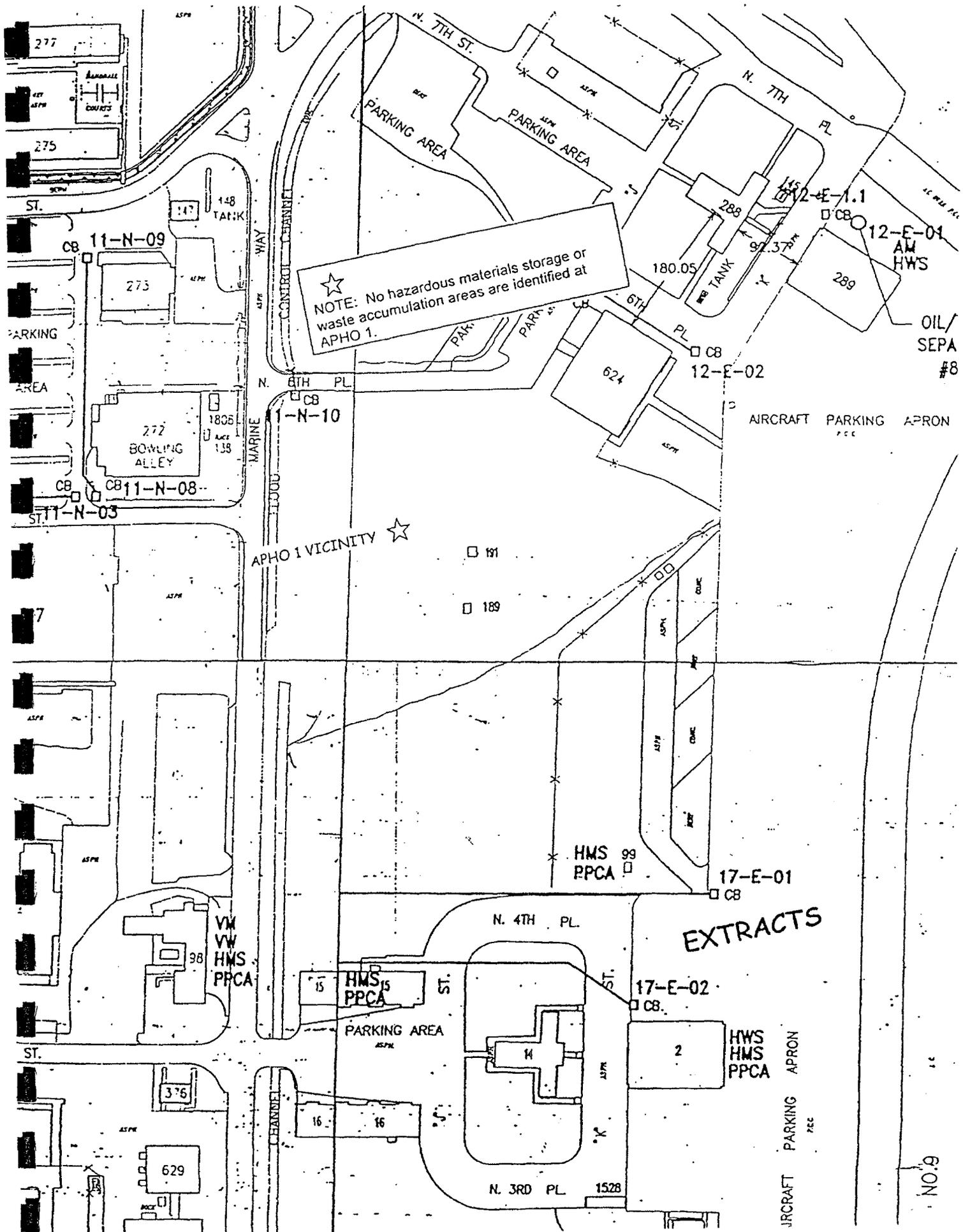
MCAS EL TORO

STATIONWIDE SUMMARY OF BMPs

BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	BMP STATUS	BMP #	BMP Description
77	17	Administration Exchange Maintenance Shop Exchange Warehouse	MWR-Support MWR-Retail Vacant	Previous			No Additional BMPs are Recommended
83	17	Religious Ministry Facilities Red Cross/Navy Relief	Chaplain Station/G-1	Limited			No Additional BMPs are Recommended
94	17	Gymnasium	MWR-Rec	Limited			No Additional BMPs are Recommended
96	01	Transportation Office	Station/G-4	Limited			No Additional BMPs are Recommended
98	17	Fire Station #1	Station	Limited			No Additional BMPs are Recommended
→ 99	17	Flight Line Storage	SOMS	Concern	Rec Rec	112 065	Spill Prevention, Control, Countermeasures Plan Place Spill Kit in Area
105	08	Dental Clinic	13 th Dental	Limited			No Additional BMPs Recommended
114	08	Maint Hngr Space	HMM-166	Concern	Existing Existing Existing Existing	009 112 005 065	Personnel Training Spill Prevention, Control, Countermeasures Plan Provide Regular Sweeping of Floor/Lot Place Spill Kit in Area
115	07	Maint Hngr Space	HMM-161	Concern	Existing	009	Personnel Training

TABLE 7-1
 MCAS EL TORO MATERIALS INVENTORY

BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	TRADE/COMMON NAME	MAX. DAY	AVE. Day	CONT.
31	22	Utilities Shop/TAFDS	MWSS-373	Previous	Antifreeze	55 gal	25 gal	55 gal
31	22	Utilities Shop/TAFDS	MWSS-373	Previous	Citric Acid, Anhydrous	2112 lb	200 lb	50 lb
31	22	Utilities Shop/TAFDS	MWSS-373	Previous	Coagulant, Water Treatment	1265 lb	100 lb	5 lb
31	22	Utilities Shop/TAFDS	MWSS-373	Previous	Diesel Fuel	55 gal	25 gal	55 gal
31	22	Utilities Shop/TAFDS	MWSS-373	Previous	Lubricating Oil, 30W	55 gal	25 gal	55 gal
31	22	Utilities Shop/TAFDS	MWSS-373	Previous	Lubricating Oil, 80/90W	55 gal	25 gal	55 gal
31	22	Utilities Shop/TAFDS	MWSS-373	Previous	Sodium Hexametaphosphate	554 lb	50 lb	100 lb
49	24	Storage out of Stores Squadron Headquarters Academic Instruction	MWSS-373 MWSS-373 MWSS-373	Concern	Diesel Fuel	N/A	N/A	N/A
49	24	Storage out of Stores Squadron Headquarters Academic Instruction	MWSS-373 MWSS-373 MWSS-373	Concern	Waste Oil	N/A	N/A	N/A
57	17	Bathroom	Training	Limited	Sodium Hypochlorite	500 gal	100gal	500 gal
99	17	Flight Line Storage	SOMS	Concern	Lubricating Oil	N/A	N/A	N/A
99	17	Flight Line Storage	SOMS	Concern	Solvent	N/A	N/A	N/A
114	08	Maint Hngr Space	HMM-166	Concern	Diesel Fuel	N/A	N/A	N/A



★
 NOTE: No hazardous materials storage or
 waste accumulation areas are identified at
 APHO 1.

★
 APHO 1 VICINITY

EXTRACTS

NO. 9

REVISIONS

SYMBOL	DESCRIPTION	PREP'D BY	DATE	AI

LEGENDS

- AST - ABOVE GROUND STORAGE TANK
- AM - AIRCRAFT MAINTENANCE
- AW - AIRCRAFT WASHING
- AF - AIRCRAFT FUELING
- AP - AIRCRAFT PAINTING
- CB - CATCH BASIN
- ES - EQUIPMENT STORAGE
- EM - EQUIPMENT MAINTENANCE
- HMS - HAZARDOUS MATERIAL STORAGE
- HWS - HAZARDOUS WASTE STORAGE
- HWTA - HAZARDOUS WASTE TRANSFER AREA
- MH - MANHOLE
- OWS - OIL/WATER SEPARATOR
- PCA - POLLUTANT CONTACT AREA
- PPCA - POTENTIAL POLLUTANT CONTACT AREA
- UGT - UNDERGROUND STORAGE TANK
- VP - VEHICLE PAINTING
- VE - VEHICLE FUELING
- VM - VEHICLE MAINTENANCE
- VW - VEHICLE WASHING
- WR - WASH RACK
- WTA - WASTE TRANSFER AREA

