

# Summary Report

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*Former Temporary Accumulation Area (TAA) Number 626*  
Marine Corps Air Station, El Toro, California

15 August 2001

*Prepared by:*  
Southwest Division, Naval Facilities Engineering Command  
BRAC Programs Office  
San Diego, CA 92101-2404

## TRANSMITTAL

Date: 15 August 2001

From: Lynn Marie Hornecker *AMH*  
MCAS El Toro

To: Diane Silva  
Code 01LS.DS

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

**Installation:** Marine Corps Air Station, El Toro

**UIC Number:** M60050

**Document Title (or subject):** Summary Report, Former TAA Number 626

**Author:** Lynn Hornecker, SWDIV

**Recipient:** TRISS Chesney, DTSC

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**Approximate Number of Pages:** 75

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**Sites:** TAA 626, SWMU 158, IRP Site 20

**Key Words:** RFA

**Contract:** N/A

**CTO Number:** N/A

Unbound copy is attached. TAA 626 is located within IRP Site 20 and consequently I recommend inclusion with the CERCLA Admin Record.

## TRANSMITTAL

Date: 15 August 2001

From: Lynn Marie Hornecker 

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

Subj: Summary Report  
Former Temporary Accumulation Area (TAA) 626  
Also known as Solid Waste Management Unit (SWMU) 158  
Marine Corps Air Station, El Toro

Transmitted are three copies of the subject Summary Report for Former TAA Site 626, located near Building 626 in the northwestern section of the Marine Corps Air Station, El Toro. TAA 626 is located within the investigation boundary of Installation Restoration Program (IRP) Site 20 (the Hobby Shop), Unit 4 (Courtyard and Front Slope).

We believe that the remedial investigation at IRP Site 20, Unit 4 and the field sampling activities associated with nearby environmental locations of concern demonstrate that no significant releases have occurred at the courtyard of the hobby shop facility. Based upon historical information, our visual inspections, and the risk assessment for IRP Site 20, we believe that no further actions are required at former TAA Site 626 and we propose to document *no further action* status in the next Base Realignment and Closure Business Plan update.

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

### Attachment

- Summary Report, Former TAA Site 626 (SWDIV, August 2001)

CF: w/o attachment  
Dean Gould (MCAS El Toro)  
Project File (MCAS El Toro)

# Summary Report

*Former Temporary Accumulation Area (TAA) Number 626*  
Marine Corps Air Station, El Toro, California

15 August 2001

*Prepared by:*

Lynn Marie Hornecker

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## Section 1

### ***Introduction***

The purpose of this Summary Report is to present information pertaining to Former Temporary Accumulation Area (TAA) Number 626 (TAA 626), also known as Solid Waste Management Unit (SWMU) Number 158 at the former Hobby Shop at Building 626 in the northwestern section of the Marine Corps Air Station (MCAS), El Toro. The Hobby Shop was investigated during the Remedial Investigation (RI) of Installation Restoration Program (IRP) Site 20 (the Hobby Shop), during the Resource Conservation and Recovery Act Facility Assessment (RFA), and during the closure of five oil/water separator sites (OWSs 626-1, 626-2, 626-3, 626-4, and 626-5), one underground storage tank site (UST 625), and a former wash rack (SWMU 157). Former TAA Site 626 is located within the investigation boundary of Unit 4 (Courtyard and Front Slope) of IRP Site 20.

The hobby shop was used by military personnel to service and repair their privately-owned vehicles during the period from approximately 1967 through early 1999. Prior to 1986, kerosene was reportedly used to wash down the paved courtyard area which encompasses Former TAA Site 626.

The results of the RI and the RFA are published in the *Draft Final Phase II Remedial Investigation Report, Attachment L, OU-3A, Site 20, Hobby Shop, Marine Corps Air Station, El Toro, California* (Bechtel National, Inc., 1997) and the *Installation Restoration Program, Final Resource Conservation and Recovery Act Facility Assessment Report for Marine Corps Air Station, El Toro, California* (Jacobs Engineering Group (JEG), 1993). During the Remedial Investigation (RI), chemicals of potential concern were identified for the hobby shop facility and appropriate sampling strategies were implemented. Chemicals of potential concern that were identified during the RI included volatile organic compounds, semi-volatile organic compounds, pesticides, polychlorinated biphenyls, and metals. Petroleum hydrocarbons were also identified.

Site Assessment Reports, a Closure Report, and a Summary Report have been submitted to the Regional Water Quality Control Board, Santa Ana Region for the tank sites and wash rack site that were managed under the petroleum corrective action program. Extracts from pertinent reports are included in the Appendix to this report.

The Marine Corps Air Station, El Toro, also known as the Station, comprises approximately 4,700 acres and is located in eastern Orange County approximately 45 miles southeast of Los Angeles, California. Former TAA Site 626 is located in the northwestern section of the Station, at the intersection of North 9<sup>th</sup> Street and G Street, as shown on Figure 1.

The Station closed on 2 July 1999 in accordance with the Base Realignment and Closure Act of 1993 (BRAC III). Former TAA Site 626 is located within a parcel designated for future use as the airfield according to *The Preferred Land Use Plan, Concept B* (County of Orange, August 1999) as shown on Figure 2.

This Summary Report includes a description of information collected during previous environmental restoration program projects, extracts from pertinent documents, and an evaluation of the historical information. The former TAA 626 was a portable steel structure that could have been operated at various locations within the hobby shop courtyard area. The TAA did not have a sump or secondary containment structure, however, drums were stored on portable secondary containment units within the TAA, and a photograph of the operational TAA 626 is included in the Appendix with the extracts from the Hazardous Materials/Hazardous Waste Management Plan extracts.

It is recommended that *no further action (NFA) status* be designated for Former TAA Site 626 in the next Base Realignment and Closure Business Plan Update because the remedial investigation of IRP Site 20 and the investigations of other environmental locations of concern associated with the Hobby Shop addressed potential releases from the site identified as Former TAA Site 626.

## **Section 2**

### ***Field Inspections and Historical Records***

#### **2.1 Field Inspections**

The former TAA Site 626 was visually inspected by Navy representatives during 1998 and 1999 when investigations for nearby environmental locations of concern were in progress. No stains were observed on the portland cement concrete foundation or near the temporary accumulation area during those inspections. The hobby shop closed in early 1999 and the facility has been vacant since early 1999. The site was also inspected during July and August 2001, and no stains were observed on the courtyard pavement at or near the TAA.

TAA 626 included a portable metal structure, open on all sides with a roof, that was located near the central section of the hobby shop courtyard area. The courtyard area is paved with portland cement concrete, and the paved surface was in excellent condition. Vegetation was observed to be growing through joints in the concrete pavement during the inspections in July and August 2001.

Surface runoff from the hobby shop facility discharges to drainage ditches on the south and east sides of the buildings, and these ditches discharge to Bee Canyon Wash. Surface water quality was monitored under the Station's National Pollutant Discharge Elimination System (NPDES) Permit for storm water while the Station was operational. Additionally, the surface drainage channels were investigated as IRP Site 25 –the Major

Drainages – during the remedial investigation, and a Record of Decision for No Action was signed for IRP Site 25 in September 1997.

## 2.2 Historical Property Records and Environmental Program Management Plan Records

Property records and information from previously published environmental restoration program projects were acquired and reviewed, and information pertaining to the hobby shop facility is summarized in Table 1.

**Table 1. MCAS EI Toro Property Records for the Hobby Shop Facility.**

Building Identification Number	Year of acquisition or construction	Type of Use	Comments
<i>Hobby Shop</i>			
Building 625	1967	Morale, Recreation, and Welfare (MWR) Vehicle Maintenance Hobby Shop	Approximate building size: 10,582 square feet. Improvements made in approximately 1990.
Building 626	1967	Morale, Recreation, and Welfare (MWR) Vehicle Maintenance Hobby Shop Office	Approximate building size: 488 square feet. Improvements made in approximately 1990.

## 2.3 Previously Completed Investigations in the Vicinity of Former TAA Site 626

The Station's environmental compliance program management plans were acquired and reviewed in order to identify any locations at or near Former TAA Site 626 that were addressed during previous investigations and field sampling activities. No Further Action decision documents for nearby environmental locations of concern are presented in the Appendix. Additionally, Exhibit 1 in the Appendix shows the approximate locations of nearby locations of concern.

Both the RFA Report (JEG 1993) and the Final Environmental Baseline Survey Report (JEG, 1995) identified management of TAA 626 (SWMU 158) under the Installation Restoration Program for Site 20. Extracts from both reports are presented in the Appendix. The BRAC Cleanup Plan (BCP) updates of 1997, 1998, and 1999 identify management of TAA 626 under the compliance program. The BCP of 1996 identifies management of TAA 626 under the Installation Restoration Program for Site 20.

Table 2 includes an overview of the types of data that have been collected within or near Former TAA Site 626.

**Table 2. Field Activities Conducted at or near Former TAA Site 626.**

Site Identification	Field Activities	Comments and/or Decision Documents
<b>TAA 626</b>	<b>Hazardous Materials/Hazardous Waste Management Plan (HM/HWMP) (SAIC, 1994) inspections.</b> Visual Inspection Only	A photograph of TAA 626 which is included in the HM/HWMP dated 1994 shows drums stored within small, portable containment units. One of the drums appears to be marked "Oil Filters" and one drum appears to be marked "Used Oil". The photograph shows vehicles in the service bays.
<b>TAA 626</b>	<b>Storm Water Pollution Prevention Plan (SWPPP) (IEM 1997) inspections.</b> Visual Inspection Only	The hazardous materials inventory in the SWPPP identifies the following materials at Buildings 625 and/of 626: antifreeze, gasoline, paint, waste oil, cleaning compounds.
<b>Solid Waste Management Unit (SWMU) 158</b>	SWMU 158 (also known as TAA 626) was identified during the Resource Conservation and Recovery Act Facility Assessment (RFA) (JEG, 1993) and a visual inspection was conducted in 1991.	No field samples were collected because the RFA identified management of the site under the IRP for Site 20.
<b>IRP Site 20, Unit 4 Courtyard</b>	<ul style="list-style-type: none"> <li>• Remedial Investigation included soil sampling within courtyard. Two sample locations are within approximately 20 feet of the current location of TAA 626.</li> <li>• One monitoring well was constructed in the front area of the hobby shop, on the driveway/entryway (20_DBMW55).</li> </ul>	TAA 626 is located within Unit 4 of IRP Site 20. CERCLA Record of Decision (ROD) for No Action for Units 1 and 4 of IRP Site 20 was signed in September 1997.  The BRAC Business Plan identifies Environmental Condition of Property (ECP) Category 3.
<b>IRP Site 20, Unit 1 East drainage ditch</b>	Remedial Investigation included soil samples in Unit 1. Runoff from the hobby shop grounds was discharged to the east drainage ditch.	CERCLA ROD For No Action: September 1997.  ECP Category 3.

**Table 2. Field Activities Conducted at or near Former TAA Site 626 (Continued).**

Site Identification	Field Activities	Comments and/or Decision Documents
<p><b>Former IRP Site 20, Unit 2</b>            South Drainage Ditch</p>	<ul style="list-style-type: none"> <li>• Remedial Investigation included 9 soil samples from three locations at Unit 2. The south drainage ditch received runoff from the courtyard (including TAA 626) and front slope.</li> <li>• IRP Site 20, Unit 2 was formally transferred from the IR Program to the petroleum corrective action program in 1997.</li> <li>• Site Verification - 11 samples from four locations in the South Drainage Ditch analyzed by USEPA Methods 8015-modified and 8020.</li> </ul>	<p>TPH-diesel (maximum): 220 milligrams per kilogram (Site Verification of 1997)</p> <p>No Further Action Status established in RWQCB Letter dated 28 October 1997.</p>
<p><b>Former IRP Site 20, Unit 3 (Stained Area -soil above UST Site 625)</b>  <b>And UST Site 625 (800-gallon waste oil tank)</b></p>	<ul style="list-style-type: none"> <li>• UST 625 was evaluated as Solid Waste Management Unit (SWMU) 156 during the RFA. The site is located on the west side of (exterior) of hobby shop facility.</li> <li>• IRP Site 20, Unit 3 (Stained Area) was investigated during the RI and lead-impacted soils were identified.</li> <li>• IRP Site 20, Unit 3 was formally transferred from the IR Program to the petroleum corrective action program in 1997.</li> <li>• UST 625 was removed in February 1996. OCHCA oversight was provided during tank removal and soil sampling activities. 132 tons of fuel and lead-impacted soils were excavated following removal of the tank.</li> </ul>	<p>No Further Action Status for the tank site (UST 625) established in RWQCB letter dated 13 August 1996.</p> <p>No Further Action Status for Former IRP Site 20, Unit 3 established in RWQCB Letter dated 11 September 1997.</p> <p>TRPH(maximum): 31 mg/kg (following excavation of soils)</p>

**Table 2. Field Activities Conducted at or near Former TAA Site 626 (Continued).**

Site Identification	Field Activities	Comments and/or Decision Documents
<b>OWS Site 626-1</b> Removed (also known as SWMU 159)	<ul style="list-style-type: none"> <li>• Visual inspection conducted during RFA in 1991.</li> <li>• Two sample points with three soil samples at each during site verification activities in September 1998.</li> <li>• One sample point with four samples during Phase II remedial investigation (Boring 20B403).</li> </ul>	<p>No Further Action status was established in RWQCB letter dated 28 September 2000.</p> <p>TPH-motor oil (maximum): 120 mg/kg</p> <p>Site is located adjacent to entrance and front slope of hobby shop and would have received runoff from the courtyard (including TAA 626) and front slope.</p>
<b>OWS Site 626-2</b> Removed	<p>Two sample points for seven soil samples total during site verification activities in September 1998.</p>	<p>No Further Action status was established in RWQCB letter dated 28 September 2000.</p> <p>Site is located adjacent to entrance and front slope of hobby shop and would have received runoff from the courtyard (including TAA 626) and front slope.</p>
<b>OWS Site 626-3</b> Removed	<ul style="list-style-type: none"> <li>• Two sample points with four soil samples each during site verification activities in September 1998.</li> <li>• One sample point with four samples during Phase I remedial investigation (Boring 20B402).</li> </ul>	<p>No Further Action status was established in RWQCB letter dated 28 September 2000.</p> <p>Site is located within the courtyard area of the hobby shop.</p>
<b>OWS Site 626-4</b> [560-gallon, 2-stage gravity OWS (abandoned in place)]	<p>Four soil samples were collected from two borings in March 1999. Samples were analyzed by USEPA Methods 8015-modified and 8260.</p>	<p>No Further Action status was established in RWQCB letter dated 28 September 2000.</p> <p>TPH-g/TPH-d and VOCs were not detected at or above laboratory reporting limits.</p> <p>The site is located at the southeast corner (exterior) of the hobby shop.</p>

**Table 2. Field Activities Conducted at or near Former TAA Site 626 (Continued).**

Site Identification	Field Activities	Comments and/or Decision Documents
<b>OWS Site 626-5</b> [600-gallon, 3-stage gravity OWS (pre-cast concrete) abandoned in place]	<ul style="list-style-type: none"> <li>• Four soil samples were collected from three borings in March 1999. Samples were analyzed by USEPA Methods 8015-modified and 8260.</li> <li>• OWS 626-5 received runoff from courtyard and discharged to drainage ditch (south drainage ditch).</li> </ul>	<p>No Further Action status was established in RWQCB letter dated 28 September 2000.</p> <p>TPH-diesel (maximum): 51 mg/kg.</p> <p>Site is located adjacent to entrance and front slope of hobby shop and would have received runoff from the courtyard (including TAA 626) and front slope areas.</p>
<b>RFA SWMU 157</b> Washrack drain	<ul style="list-style-type: none"> <li>• Visual inspection conducted during RFA in 1991. Field sampling was not conducted during the RFA because the site was intended for further management under the Installation Restoration Program for Site 20.</li> <li>• Four soil samples were collected from two borings located near the washrack drain in September 1998. Samples were analyzed by USEPA Methods 8015-modified and 8020.</li> </ul>	<p>Washrack was located at a service bay located approximately east of TAA 626 adjacent to courtyard. It is believed that storm water runoff from TAA 626 would have flowed toward the front slope and entrance to the hobby shop rather than toward RFA 157.</p> <p>No Further Action status was established in RWQCB letter dated 31 March 2000.</p> <p>Low levels (less than laboratory reporting limits (less than 1 milligram per kilogram)) of an unknown petroleum hydrocarbon were reported in some samples.</p>
<i>Groundwater Sampling</i>		
IRP Site 20 Monitoring Wells	Routine monitoring of three wells - 20_UGMW36, 20_DBMW55, and 20_DGMW88 - that surround the hobby shop facility during the Remedial Investigation activities.	

***Aerial Photograph Assessment***

Historical aerial photographs were acquired and reviewed during the early 1990's, and results of the evaluation were published in the report entitled, "Final Report, Aerial Photograph Assessment, MCAS El Toro" (SAIC 1993). An extract from the report showing a photograph dated 1960 is presented in the Appendix. The 1960 photograph

shows an open area, without buildings, in the vicinity of the former hobby shop facility.

## **2.4 Remedial Investigation Field Sampling near Former TAA Site 626**

The RI included the identification of chemicals of potential concern for IRP Site 20 - the hobby shop facility, and the RI included sampling for volatile organic compounds, semi-volatile organic compounds, petroleum hydrocarbons, metals, pesticides, and polychlorinated biphenyls.

The Remedial Investigation of IRP Site 20, Unit 4 was intended to address potential releases in the courtyard and front slope area, including potential releases from the former TAA Site 626.

Following the completion of the Phase I investigation, Units 2 and 3 of IRP Site 20 were transferred from the Installation Restoration Program to the petroleum corrective action program (or compliance program). Units 1 and 4 of IRP Site 20 remained in the Installation Restoration Program, and in September 1997, a Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision for no action at IRP Site 20 was signed.

Sixteen shallow soil samples and one sediment sample were collected at Site 20 during the Phase I investigation, and sixteen shallow soil samples were collected during the Phase II investigation.

Selected remedial investigation results for soil samples near Former TAA Site 626 (IRP Site 20, Unit 4) are presented in Table 3. The Remedial Investigation identified cancer risks (based upon United States Environmental Protection Agency or State of California Environmental Protection Agency toxicity values) of  $2.2 \times 10^{-6}$  (industrial use) and  $3.5 \times 10^{-6}$  (residential use) for IRP Site 20, Unit 4 (Bechtel, 1997). The risks were determined to be within generally allowable levels established by the United States Environmental Protection Agency.

**Table 3. Selected Remedial Investigation Soil Data for Unit 4 at IRP Site 20.**

Sample Location	Analytical Data	Comments
<b>Phase I Remedial Investigation, Unit 4 - Hobby Shop Courtyard And Front Slope</b>		
<b>20_GN2</b> <b>Two Samples</b>	<p>0-foot depth:            USEPA CLP Volatile Organic Compounds:            Xylenes: 6,000 mg/kg            USEPA CLP Semi-volatile Organic Compounds: Not detected at or above laboratory reporting limits or reported as an estimated value ("J" qualifier).            TRPH: 4,186 mg/kg            TPH-Diesel: 3,300 mg/kg            TPH-Gasoline: 423 mg/kg</p> <p>2-foot depth:            USEPA CLP Volatile Organic Compounds: Not detected at or above laboratory reporting limits.            USEPA CLP Semi-volatile Organic Compounds: Not detected at or above laboratory reporting limits.            TRPH and TPH-Gasoline: Not detected at or above laboratory reporting limits.            TPH-Diesel: 45.6 mg/kg</p>	West of TAA 626
<b>20_GN3</b> <b>Three Samples</b>	<p>0-foot depth:            USEPA CLP Volatile Organic Compounds: Not detected at or above laboratory reporting limits.            USEPA CLP Semi-volatile Organic Compounds: Not detected at or above laboratory reporting limits.            TRPH: 308 mg/kg            TPH-Diesel: 97 mg/kg            TPH-Gasoline: Not detected at or above laboratory reporting limits.</p> <p>2-foot depth:            USEPA CLP Volatile Organic Compounds: Not detected at or above laboratory reporting limits.            USEPA CLP Semi-volatile Organic Compounds: Not detected at or above laboratory reporting limits.            TRPH and TPH-Gasoline: Not detected at or above laboratory reporting limits.            TPH-Diesel: 16,700 mg/kg</p> <p>4-foot depth:            USEPA CLP Volatile Organic Compounds: Not detected at or above laboratory reporting limits.            USEPA CLP Semi-volatile Organic Compounds: Not detected at or above laboratory reporting limits.            TRPH: Not detected at or above laboratory reporting limits.            TPH-Diesel: 35.4 mg/kg            TPH-Gasoline: 0.0567 mg/kg</p>	Southwest of TAA 626

**Table 3. (Continued).**

Sample Location	Analytical Data	Comments
<b>Phase II Remedial Investigation, Unit 4 - Hobby Shop Courtyard And Front Slope</b>		
<b>20B401</b> Five Samples	Sample Locations: 0.5-1.5 - foot depth 1.5-2.5 - foot depth 3-5 foot depth 5-7 foot depth 8-10 foot depth  VOCs, TPH-diesel, TPH-gasoline, BTEX not reported using field screening methods.	
<b>20B402</b> Four Samples	Sample Locations: 0.5-1.0 - foot depth 1-2 - foot depth 3-5 foot depth 8-10 foot depth  VOCs, TPH-diesel, TPH-gasoline, BTEX not reported using field screening methods.	

## 2.5 Ground Water Conditions

Ground water conditions have been investigated in the vicinity of TAA 626 during the Remedial Investigation of IRP Site 20. Three monitoring wells were constructed adjacent to the hobby shop facility during the Phase I Remedial Investigation, and each well was sampled during several routine sampling events. The gradient is approximately west-northwest, and the depth to ground water is approximately 170 to 180 feet below ground surface. The ROD of 1997 identifies No Action for IRP Site 20 including ground water beneath IRP Site 20.

## Section 3 Findings and Recommendations

The following findings are based upon information collected during the record search activities, the remedial investigation for IRP Site 20, and from observations during the visual inspections of the vicinity of Former TAA Site 626:

- SWMU 158, also known as TAA 626, was identified during the Resource

Conservation and Recovery Act Facility Assessment (RFA). The RFA recommendation was no further action under the RFA program and continued management under the Installation Restoration Program for IRP Site 20 because SWMU 158 is located within the remedial investigation boundary for IRP Site 20.

- Former TAA Site 626 is located within Unit 4 (Courtyard and Front Slope) of IRP Site 20, and since the TAA structure was portable, it may have been operated at various locations within the courtyard. Remedial investigation sampling was conducted near TAA 626 and significant levels of contaminants were not identified. The risk assessment concluded that IRP Site 20 does not pose a significant human health risk.
- The Record of Decision for IRP Site 20 identifies no action as the final remedy for the courtyard area (Unit 4) of Site 20 which encompasses TAA 626.

Based upon the absence of visual evidence of releases to the pavement in and around the former Temporary Accumulation Area 626, the evaluation of the remedial investigation data and the information provided within the ROD for no action for IRP Site 20, and the sampling to support closure of nearby environmental locations of concern within the hobby shop facility, it is recommended that *no further action status* be designated for TAA 626 and that *no further action status* with ECP category 3 be documented in the next BRAC Business Plan Update.

## **Section 4**

### ***References and/or Sources of Information***

Bechtel National, Incorporated. 1997. Draft Final Phase II Remedial Investigation Report, Operable Unit 3A, Marine Corps Air Station, El Toro, California. [Navy Contract N68711-92-D-4670, Contract Task Order 79]

CDM Federal Programs Corporation. 1998. Final Groundwater Monitoring Report, October 1997 Sampling Round, Groundwater Monitoring Program for Marine Corps Air Station, El Toro. [Navy Contract N68711-96-D-2029, Delivery Order 5]

County of Orange. 1999. Preferred Land Use Plan, Concept B. August. [prepared by the MCAS El Toro Local Redevelopment Authority]

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.*}

Jacobs Engineering Group (JEG). 1993. Installation Restoration Program, Final Resource Conservation and Recovery Act Facility Assessment Report for Marine Corps Air Station, El Toro, California. [Navy Contract N68711-89-D-9296, Contract Task Order 193]

Jacobs Engineering Group (JEG). 1995. Marine Corps Air Station El Toro, El Toro, California, Final Environmental Baseline Survey Report. April. [Navy Contract N68711-89-D-9296, Contract Task Order 284]

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]. ]

United States Marine Corps Air Station, El Toro. 1996 through 1999. Base Realignment and Closure (BRAC) Cleanup Plan Updates.

United States Marine Corps Air Station, El Toro. 2000. Base Realignment and Closure (BRAC) Business Plan Update.

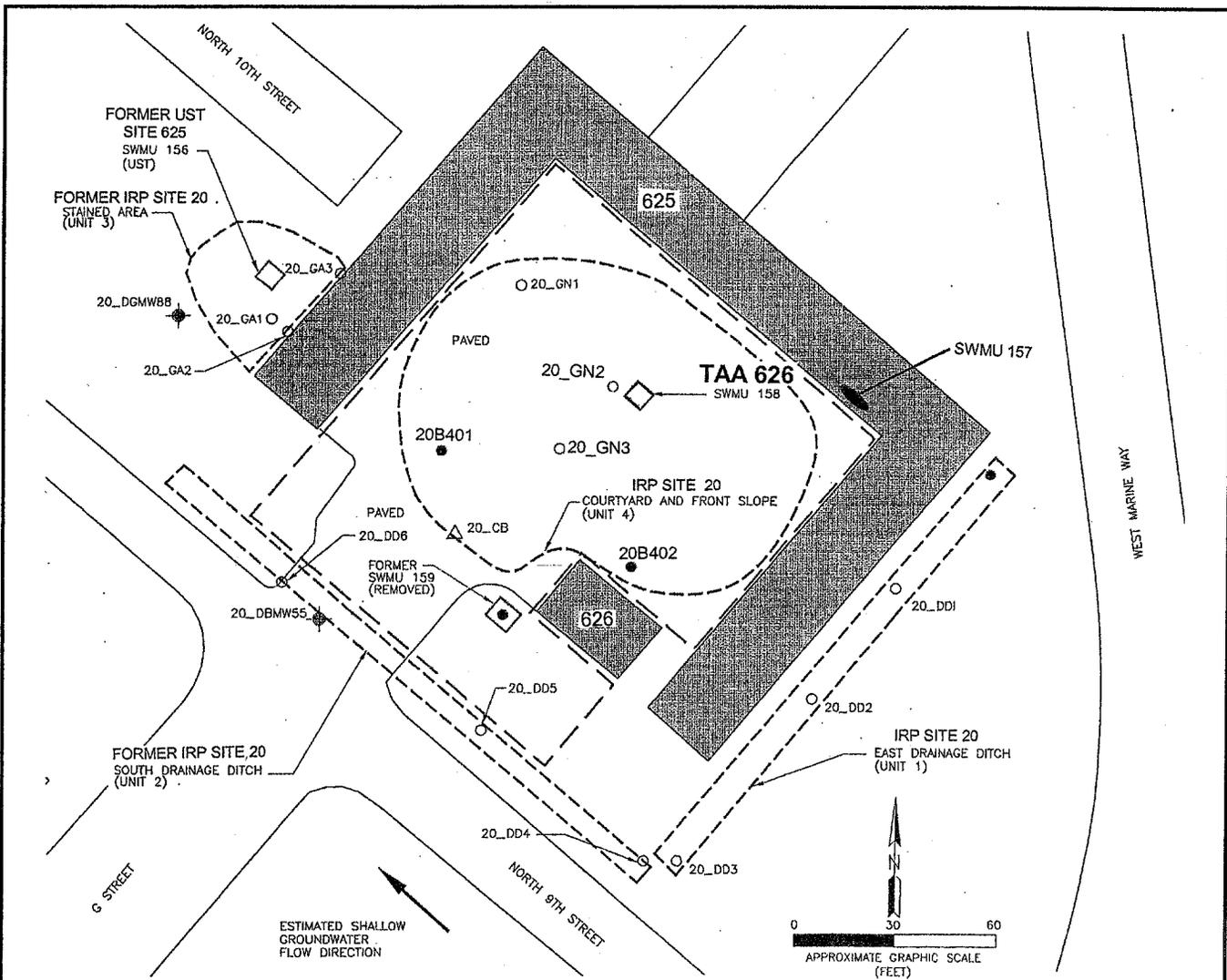
United States Marine Corps Air Station, El Toro. Circa 1946-1999. Station Property Records, Building Guides, and Historical Photographs.

U.S. Marine Corps Air Station, El Toro. 1997. Draft Final Record of Decision, Operable Units 2A and 3A, No Action Sites, Marine Corps Air Station, El Toro, California. September.

United States Marine Corps Air Station, El Toro. 1994. Aerial Photograph.

United States Marine Corps Air Station, El Toro. 1996-2000. No Further Action correspondence from RWQCB, OCHCA, and/or DTSC.

United States Marine Corps Air Station, El Toro. 1997. Proposed Plan for Marine Corps Air Station El Toro, Marine Corps Proposes No Further Action at Eleven Sites. June.

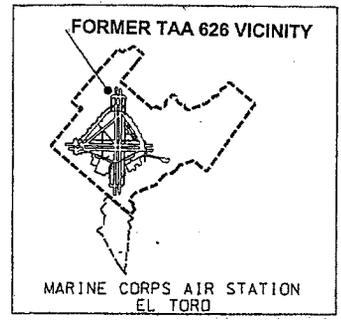


**LEGEND:**

-  BUILDING OR PAD
-  IMPROVED ROADS
-  PHASE I STRATUM BOUNDARY
-  PHASE II UNIT MODIFICATIONS
-  SOLID WASTE MANAGEMENT UNIT/ AREA OF CONCERN (SWMU/AOC) BOUNDARY

**RI SAMPLING LOCATIONS**

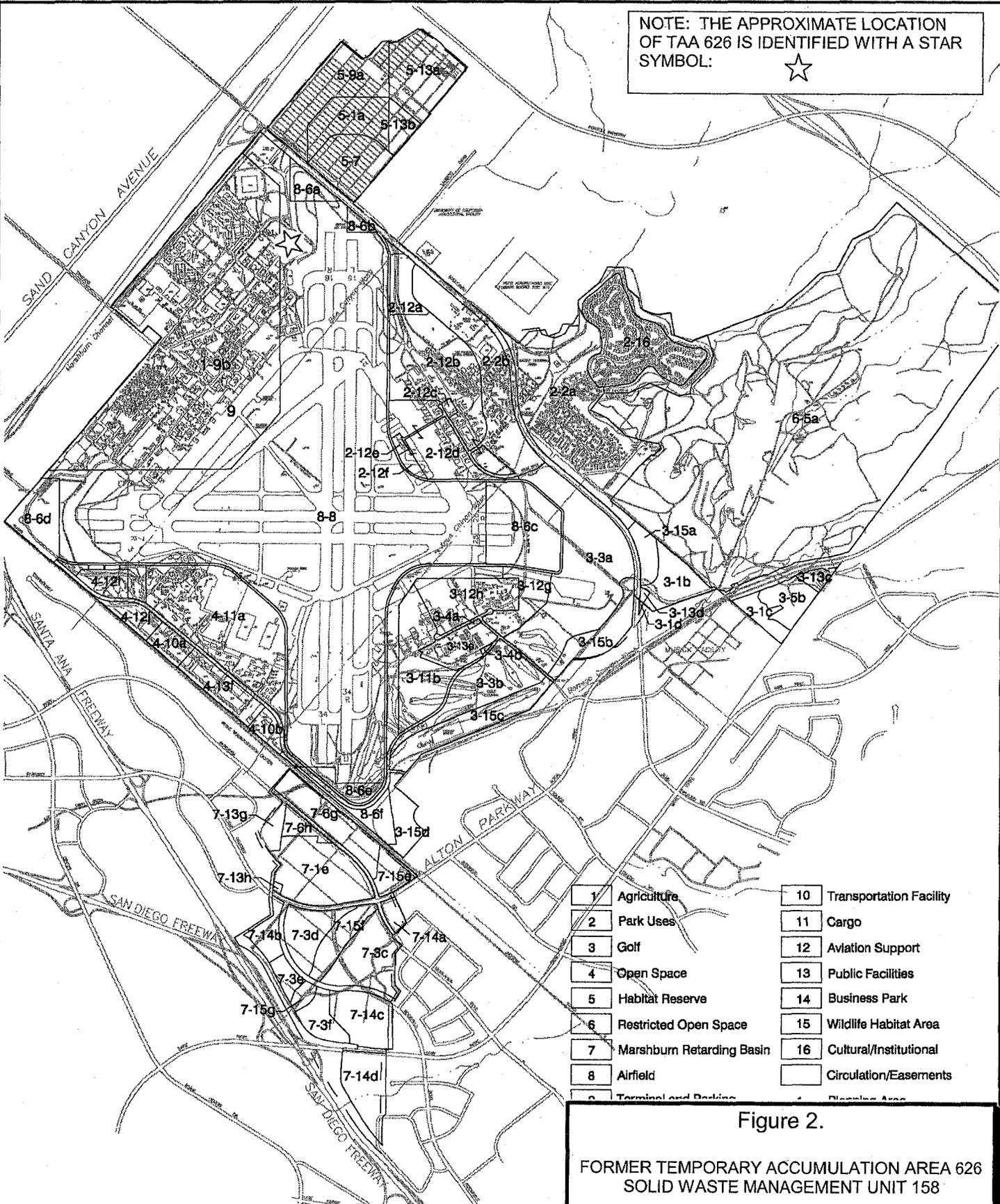
-  PHASE I MONITORING WELL
-  PHASE I SURFACE AND NEAR SURFACE SOIL SAMPLE
-  PHASE I SEDIMENT SAMPLE
-  PHASE II SURFACE AND NEAR SURFACE SOIL SAMPLE



**Figure 1.**  
**FORMER TEMPORARY ACCUMULATION AREA 626**  
**SOLID WASTE MANAGEMENT UNIT 158**  
  
**VICINITY MAP**  
  
**MARINE CORPS AIR STATION, EL TORO**

NOTE: THE APPROXIMATE LOCATION OF TAA 626 IS IDENTIFIED WITH A STAR SYMBOL: ☆

18292602.dwg  
5/18/00 11:17 AM  
Jane Witzel-Yanez, Witzel-Yanez Design



1	Agriculture	10	Transportation Facility
2	Park Uses	11	Cargo
3	Golf	12	Aviation Support
4	Open Space	13	Public Facilities
5	Habitat Reserve	14	Business Park
6	Restricted Open Space	15	Wildlife Habitat Area
7	Marshburn Retarding Basin	16	Cultural/Institutional
8	Airfield		Circulation/Easements
9	Terminal and Parking		Classified Area

NOTE: PARCEL IDENTIFIERS ARE PROVIDED FOR THE PURPOSE OF ILLUSTRATION AND ARE SUBJECT TO FINAL DESIGN AND PHASING.

Source of Reuse Information: County of Orange (1999)

**Figure 2.**  
FORMER TEMPORARY ACCUMULATION AREA 626  
SOLID WASTE MANAGEMENT UNIT 158  
**TENTATIVE REUSE PARCELS**  
MARINE CORPS AIR STATION, EL TORO

# **Appendix**

## **Site Photographs and Other Documentation**

### **Site Photographs**

**Exhibit 1. Nearby Locations of Concern**

**Extracts from Property Records**

**Extracts from RI and RFA Documentation**

**Extracts from Aerial Photograph Assessment**

**Extracts from Environmental Baseline Survey Documentation**

**Extracts from Base Realignment and Closure Business Plan**

**Extracts from Storm Water Pollution Prevention Plan (SWPPP)**

**Extracts from HM/HWMP**

**Extracts from Draft Final Record of Decision for OU-2A and OU-3A, No  
Action Sites and No Further Action Decision Documents for Nearby  
Environmental Locations of Concern**

**Photograph 1. Former Temporary Accumulation Area (TAA) 626  
Auto Hobby Shop (Buildings 625 and 626)  
Marine Corps Air Station, El Toro**

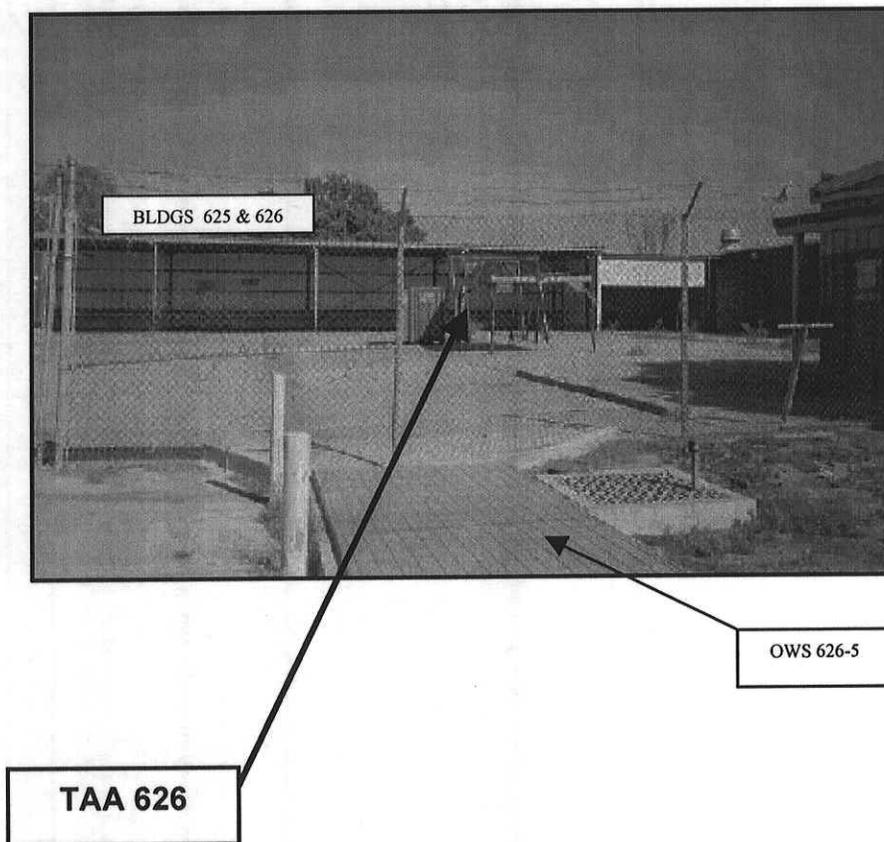
**Date of Photograph: July 2001**



**TAA 626**

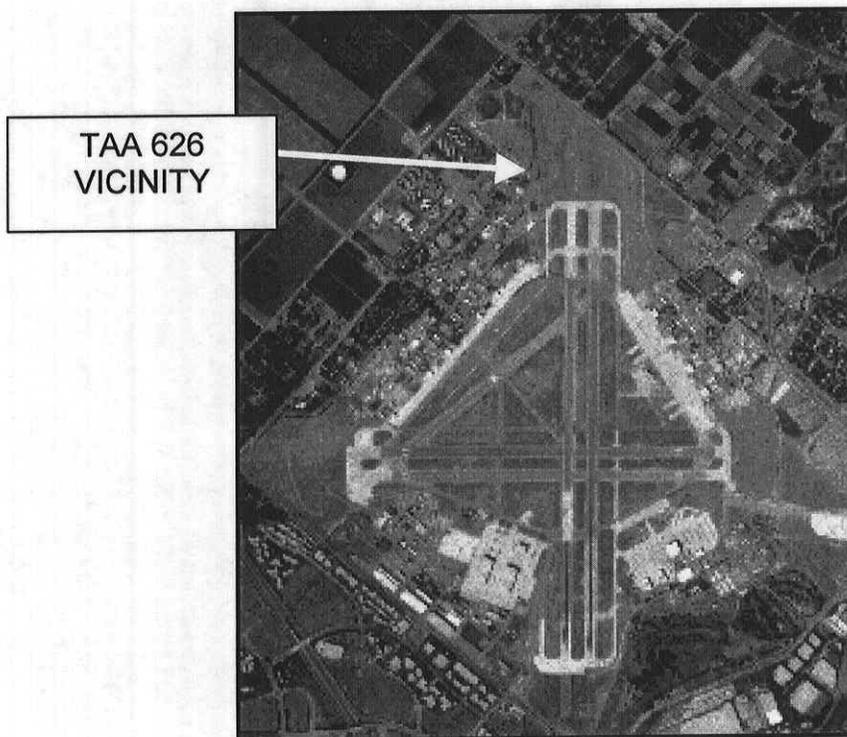
**Photograph 2. Former Temporary Accumulation Area 626.  
Hobby Shop Facility, Buildings 625 and 626  
Installation Restoration Program Site 20**

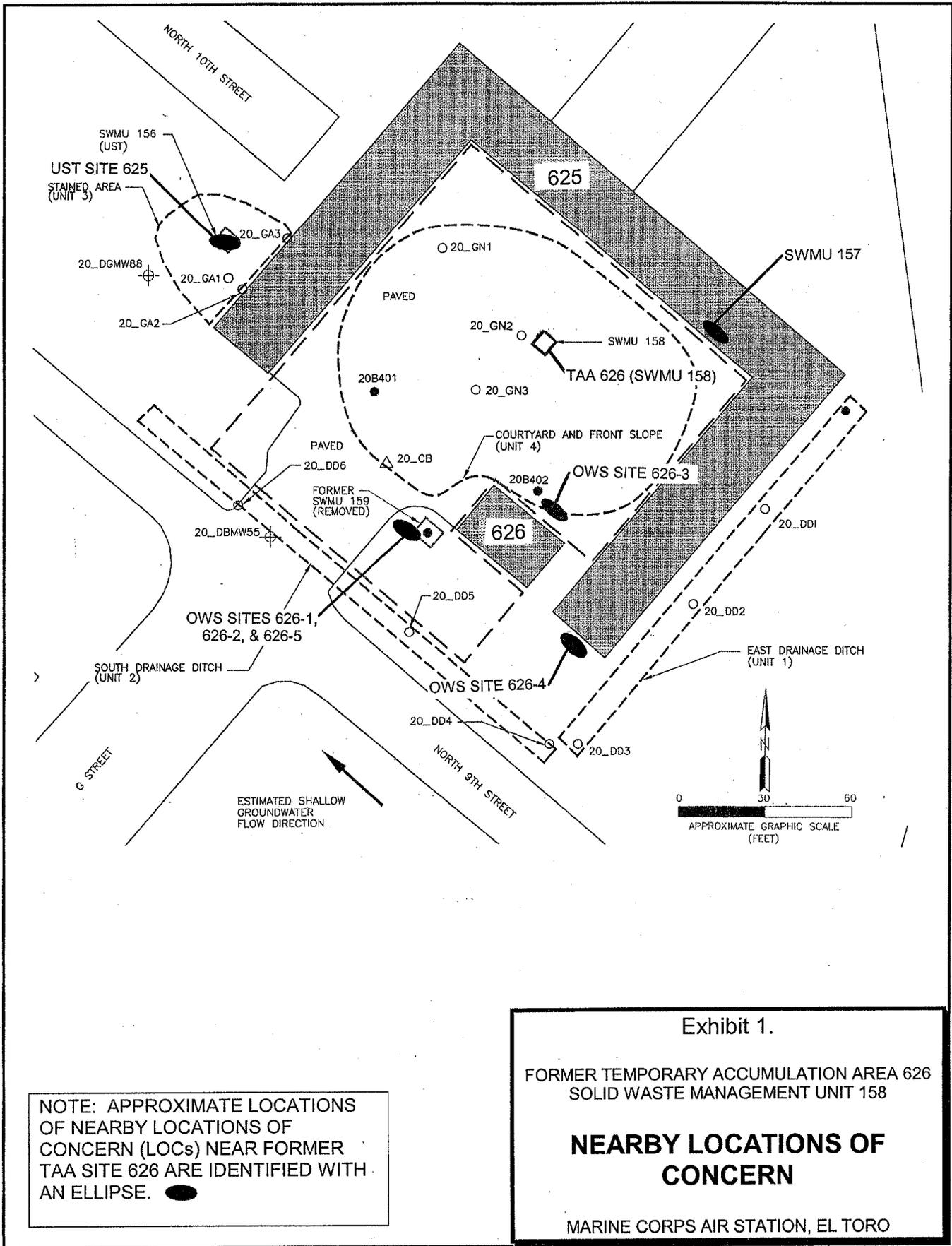
**Date of Photograph: 30 October 1999**



Photograph 3. TAA 626 Vicinity.  
Marine Corps Air Station, El Toro

Date of Aerial Photograph: 1994





NOTE: APPROXIMATE LOCATIONS OF NEARBY LOCATIONS OF CONCERN (LOCs) NEAR FORMER TAA SITE 626 ARE IDENTIFIED WITH AN ELLIPSE. ●

Exhibit 1.  
 FORMER TEMPORARY ACCUMULATION AREA 626  
 SOLID WASTE MANAGEMENT UNIT 158  
**NEARBY LOCATIONS OF CONCERN**  
 MARINE CORPS AIR STATION, EL TORO

115	21105	AIRCRAFT MAINTENANCE HANGAR	NBY57700	19670201	SF	25,414	246	112	40	\$641,053	\$2,728,957	1966	1985
	13520	TELEPHONE CONDUIT		19670201		0	0	0	0	\$834,824	\$8,524,978	1945	1991
	14950	BLAST DEFLECTOR FENCE		19670201	SY	0	3358	6	10	\$51,345	\$407,474	1949	
	11320	AIRCRAFT PARKING APRON	NOY5421	19430201	SY	579,188	0	0	0	\$5,396,613	\$50,796,524	1943	1990
	88010	FIRE ALARM SYSTEM	NOY72540	19670201		0	0	0	0	\$558,734	\$1,444,172	1954	1991
	11610	A/C WASH RACK PAVEMENT	VARIOUS	19670201		0	0	0	0	\$732,168	\$907,673	1992	1992
	85210	PARKING AREA		19430201	SY	650,460	0	0	0	\$2,632,997	\$10,931,528	1943	1991
	83210	SANITARY SEWER		19670201		0	0	0	0	\$1,547,288	\$6,886,052	1946	1991
	87135	RETAINING WALL		19670201		0	0	0	0	\$84,528	\$172,962	1965	1991
1804	21107	N A E S U SHOP		19670401	SF	480	24	20	8	\$7,077	\$32,462	1966	
614	75020	AQUA CHINON PLAYGROUND	NBY70039	19670401	SY	0	0	0	0	\$10,210	\$43,399	1966	1986
	85235	CON MISC AFLD PAVEMENT	NBY63181	19670401	SY	544	0	0	0	\$4,031	\$18,462	1966	
	87120	DRAINAGE DITCH	NBY78486	19670401	SY	0	2431	41	0	\$64,597	\$240,832	1966	
	85110	ROADS	NOY5421	19430301	SY	952,767	0	0	0	\$4,196,855	\$18,308,998	1943	1995
	87110	STORM DRAIN	NOY5421	19671201		0	0	0	0	\$4,968,005	\$43,534,302	1943	1991
→	625	HOBBY SHOP-AUTO CENT	B2612	19671101	SF	10,582	138	142	14	\$204,375	\$369,840	1967	1990
→	626	HOBBY SHOP-AUTO CENT OFC	B2612	19671101	SF	488	20	24	11	\$15,215	\$22,456	1967	1990
	85235	OTHER PAVED AREAS	NBY63181	19680101	SY	93,051	0	0	0	\$54,562	\$250,712	1966	
	13610	34R SEQ STROBE LTG.	NBY67389	19680101	SY	0	2000	0	0	\$184,917	\$1,001,695	1959	
619	81159	STAND-BY GEN BLDG	NBY67389	19661001	SF	1,329	55	32	10	\$32,991	\$151,099	1966	
	81230	STATION ELECTRICAL DISTRIBUT		19680401		0	0	0	0	\$11,454,533	\$34,444,874	1951	1991
	84210	WATER DISTRIBUTION SYSTEM		19680401		0	0	0	0	\$2,898,043	\$18,582,357	1946	1991
610	84209	WATER-DISTRIB BLDG	NBY67350	19680401	SF	1,126	56	22	9	\$92,843	\$406,051	1966	1983
633	85115	LOADING/UNLOADING RAMP		19680401	SY	68	32	19	4	\$2,523	\$11,169	1967	
6101	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,427	\$113,949	1964	
6106	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,427	\$113,949	1964	
6108	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,427	\$113,949	1964	
6112	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,427	\$113,949	1964	
6116	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,428	\$113,954	1964	
6136	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,428	\$113,954	1964	
6146	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,428	\$113,954	1964	
6160	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,428	\$113,954	1964	
6164	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,428	\$113,954	1964	
6166	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	11	\$23,428	\$113,954	1964	
6123	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	13	\$23,428	\$113,954	1964	
6129	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	13	\$23,428	\$113,954	1964	
6137	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	13	\$23,428	\$113,954	1964	
6150	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	49	13	\$23,428	\$113,954	1964	
6102	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	11	\$23,428	\$113,954	1964	
6105	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	11	\$23,428	\$113,954	1964	
6113	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	11	\$23,428	\$113,954	1964	
6117	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	11	\$23,428	\$113,954	1964	
6119	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	11	\$23,428	\$113,954	1964	
6131	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	11	\$23,428	\$113,954	1964	
6135	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	11	\$23,428	\$113,954	1964	
6159	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	11	\$23,428	\$113,954	1964	
6162	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	11	\$23,428	\$113,954	1964	
6115	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	13	\$23,428	\$113,954	1964	
6121	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	13	\$23,428	\$113,954	1964	
6139	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	13	\$23,428	\$113,954	1964	
6144	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	13	\$23,428	\$113,954	1964	
6156	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,134	101	58	13	\$23,428	\$113,954	1964	
6104	71130	PUBLIC QUARTERS/ENL/	NBY45605	19680801	SF	3,338	117	50	11	\$25,248	\$122,806	1964	

# El Toro Building Guide

BLDG	GRI	DESCRIPTION	TENANT	CATCO	CAC	SIZE
606	N8	Maint Hangar OH Space	HMM-163	21105	EBVO	5350 SF
607	R13	Public Toilet/Golf Course	MWR/Rec	73075	EBLO	92 SF
610	M9	Water Distribution Bldg	Installation	84209	EHCO	1126 SF
611	O12	Missile Magazine	Sta Ordn	42172	EBQO	930 SF
614	L10	Aqua Chinon Playground	Housing	75020	ECNO	2 EA
615	M2	Handball Courts	MWR/Rec	74084	EBLO	1743 SF
616	U7	Admin Office	Sta/G-4	61010	EBFO	792 SF
619	T12	Standby Generator Bldg	Installation	81159	EAAO	1329 SF
624	O4	Air Terminal	SOMS	14111	EBNO	2077 SF
624	O4	SQ Headquarters	SOMS	61010	EBFO	9393 SF
625	M3	Hobby Shop, Automotive	MWR/Rec	74038	EBLO	6153 SF
626	M3	Hobby Shop, Automotive	MWR/Rec	74038	EBLO	480 SF
629	P4	Academic Instruction Bldg	FASOTRAG	17110	EBAO	4260 SF
631	U9	Applied Instruction Bldg	MALS-11	17120	EBAO	12870
633	U9	Loading/Unloading Ramp	DRMO	85115	EDAO	68 SY
634	M9	Avionics Shop	MALS-11	21154	EBVO	675 SF
634	M9	Maintenance Hangar 01 Space	MALS-11	21106	EBVO	2611 SF
634	M9	Engine Maintenance Shop	MALS-11	21121	EBVO	23365
634	M9	(Maint Hangar OH Space)	Vacant	21105	EBVO	13163
634	M9	(Maint Hangar O2 Space)	Vacant	21107	EBVO	5119 SF
634	M9	(Maint Hangar 01 Space)	Vacant	21106	EBVO	9958 SF
635	T9	Weighing Facility	Supply	89056	EAP0	1 EA
636	R12	Cryogenics Office	MALS-11	14187	EBNO	500 SF
636	R12	Parachute/Surv Equip Shop	MALS-11	21175	EBVO	8530 SF
637	M8	Exchange Gas Station	MWR/Ret	74031	EBLO	900 SF
638	Q10	Wind Direction Indicator	Sta/G-3	13462	ECXO	1 EA
639	N8	Electric Power Plant Bldg	Installation	81109	EAAO	144 SF
640	N8	Electric Power Plant Bldg	Installation	81109	EAAO	144 SF
641	N8	Electric Power Plant Bldg	Installation	81109	EAAO	144 SF
642	N9	Electric Power Plant Bldg	Installation	81109	ECEO	144 SF
643	N8	Fixed ACFT Start System	Installation	14915	ECEO	32 EA
644	N6	Arresting Gear	SOMS	14930	ECEO	1 EA
645	N6	Arresting Gear	SOMS	14930	ECEO	1 EA
646	P10	Arresting Gear	SOMS	14930	ECEO	1 EA
647	P10	Arresting Gear	SOMS	14930	ECEO	1 EA
649	O2	Cafeteria	MWR/Ret	74004	EBLO	6855 SF
649	O2	Exchange Retail Store	MWR/Ret	74001	EBLO	64191
649	O2	Exchange Warehouse	MWR/Ret	74085	EBLO	38318
650	P2	Exchange Retail Store Whse	MWR/Ret	74001	EBLO	3800 SF
651	O2	Exchange Auto Repair Sta	MWR/Ret	74030	EBLO	10495
651	O2	Exchange Supplmtl Gas Sta	MWR/Ret	74030	EBLO	3344 SF
655	U8	Field Maint Shop	CSSD-14	21453	EBBO	18600
656	P3	Child Development Center	Sta/G-1	74074	EBLO	12733
657	Q3	Visitor/Vehicle Registration	PMO	73025	EBLO	315 SF
658	N10	Engine Test Cell	MALS-11	21181	EBVO	2894 SF
659	N10	Storage Tank/Nonpotable	Installation	84440	EAOQ	25000

Southwest Division  
Naval Facilities Engineering Command  
Contracts Department  
1220 Pacific Highway, Room 135  
San Diego, California 92132-5187

Contract No. N68711-92-D-4670

**COMPREHENSIVE LONG-TERM ENVIRONMENTAL  
ACTION NAVY**

**CLEAN II**

**EXTRACTS**

NOTE: Annotations by the writer of the  
Summary Report are identified by an  
arrow.

**DRAFT FINAL PHASE II  
REMEDIAL INVESTIGATION REPORT  
OU-3A SITES  
MARINE CORPS AIR STATION  
EL TORO, CALIFORNIA**

CTO-0079/0391

June 1997

Prepared by:

BECHTEL NATIONAL, INC.  
401 West A Street, Suite 1000  
San Diego, California 92101



Signature: John C. Scholfield  
John C. Scholfield, CTO Leader

Date: 6/10/97

Table 1-1 (continued)

Site No.	Site Name	Planned Action	Site Units Addressed in this Report	Site Description
19	Aircraft Expeditionary Refueling Site	RI/FS <sup>b</sup> (OU-3A)	Units 2 and 3	Six aboveground fuel bladders, each containing 20,000 gallons of jet fuel, were used from 1964 to 1987. In 1986, one bladder ruptured, spilling an estimated 20,000 gallons of jet fuel. A 300- by 60-foot area was excavated to a depth of 2 feet; the soil is stockpiled at the site.
20	Hobby Shop	RI/FS <sup>h</sup> (OU-3A)	Units 1 and 4	The area is used by military personnel to service privately owned vehicles. Until 1976, kerosene was routinely used to wash down the pavement in Unit 4.
21	Materials Management Group	RI/FS (OU-3A)	Unit 1 (entire site)	The area was used to store drums of hazardous materials prior to their use. The hazard potential of these materials was not documented. In 1964, approximately 1,000 drums were stored in the area. By 1986, only 100 to 125 drums were stored in this area. No reported leakages or spills have occurred.
22	Tactical Air Fuel Dispensing System	RI/FS (OU-3A)	Units 1 and 2 (entire site)	This site has a history of undocumented spills and leakages of jet fuel.

Notes:

- <sup>a</sup> RI/FS – Remedial Investigation/Feasibility Study
- <sup>b</sup> Site 7 Units 1 and 3 Phase II RI/FS soil sampling will be completed at a later date
- <sup>c</sup> PCB – polychlorinated biphenyl
- <sup>d</sup> WWTP – wastewater treatment plant
- <sup>e</sup> Site 14 Unit 1 is part of OU-3B
- <sup>f</sup> Site 15 Unit 1 has been petroleum-excluded
- <sup>g</sup> Site 19 Unit 1 has been petroleum-excluded, and Unit 2 is a removal action site
- <sup>h</sup> Site 20 Units 2 and 3 have been petroleum-excluded

Table 1-2 (continued)

Site	Site Name	Approximate Site Area (square feet)	Approximate Depth to Groundwater (feet bgs <sup>a</sup> )	Waste Type	Constituents Detected During Phase I	Units of Site Investigated During Phase II RI <sup>b,c</sup>
20	Hobby Shop	20,000	185 – 190	Waste oil, solvents, kerosene	VOCs, SVOCs, TPH, metals, pesticides	Units 1 and 4
21	Materials Management Group	14,000	95	Waste oil, paint, solvents, herbicides, pesticides, PCB oil	VOCs, SVOCs, TPH, metals, pesticides, herbicides	Unit 1 (entire site)
22	Tactical Air Fuel Dispensing System	80,000	110 – 120	JP-5, other aviation fuels, pesticides	VOCs, SVOCs, TPH, pesticides	Units 1 and 2 (entire site)

## Notes:

- <sup>a</sup> bgs – below ground surface
- <sup>b</sup> RI – Remedial Investigation
- <sup>c</sup> results of Phase I and II RI presented in this report unless otherwise noted
- <sup>d</sup> VOC – volatile organic compound
- <sup>e</sup> SVOC – semivolatile organic compound
- <sup>f</sup> TPH – total petroleum hydrocarbons
- <sup>g</sup> JP-5 – jet propulsion fuel, grade 5
- <sup>h</sup> metals indicated where any target analyte list metal concentration exceeding interim site background level as established during Phase I RI
- <sup>i</sup> PCB – polychlorinated biphenyl

#### 4.3.2.1 UNIT 4: FIELD-SCREENING RESULTS

Field-screening results (Table 4-5) for PAHs reported three shallow-soil samples in Unit 4 with concentrations between 60 and 275  $\mu\text{g}/\text{kg}$ . The only VOC reported was 1,1,1-trichloroethane at a concentration of 1.1  $\mu\text{g}/\text{kg}$  in the surface sample from 20B403. Petroleum hydrocarbons were not reported in any of the shallow-soil samples.

#### 4.3.2.2 UNIT 4: FIXED-BASE LABORATORY RESULTS

Fixed-base laboratory results for soil samples from the Phase I and Phase II RIs of Unit 4 reported VOCs, SVOCs and PAHs, petroleum hydrocarbons, TAL metals, pesticides, and PCBs.

##### *Volatile Organic Compounds*

VOCs were reported in shallow soil at four of the six sampling locations in Unit 4 (20\_GN1, 20\_GN2, 20B401, and 20B403). VOCs reported in shallow soil were toluene, xylene, 1,3-dichlorobenzene, and 2-butanone. The reported VOC concentrations were less than 10  $\mu\text{g}/\text{kg}$  except for xylene and 2-butanone, which were reported at concentrations of 6,000 and 8,000  $\mu\text{g}/\text{kg}$ , respectively, in the surface sample from 20\_GN2.

##### *Semivolatile Organic Compounds/Polynuclear Aromatic Hydrocarbons*

SVOCs and PAHs were reported in the surface samples from 20\_GN2 and 20B403. In the surface sample from 20\_GN2, bis(2-ethylhexyl)phthalate was reported a concentration of 4,700  $\mu\text{g}/\text{kg}$ . Naphthalene and 2-methylnaphthalene were also reported in the surface sample from 20\_GN2. Naphthalene was reported at 5,600  $\mu\text{g}/\text{kg}$  and 2-methylnaphthalene at 7,500  $\mu\text{g}/\text{kg}$ . Benzo(b)fluoranthene, benzo(g,h,i)perylene, and indeno(1,2,3-c,d)pyrene were reported in the surface sample from 20B403. The highest concentration was 26  $\mu\text{g}/\text{kg}$  of benzo(g,h,i)perylene.

##### *Total Petroleum Hydrocarbons*

Diesel was reported in the surface and 2-foot-bgs samples from 20\_GN1, 20\_GN2, and 20\_GN3 and in the 4-foot-bgs sample from 20\_GN3. The highest concentration of diesel reported in Unit 4 was 16,700 mg/kg in the 2-foot sample from 20\_GN3. The next highest reported concentration was 3,300 mg/kg in the surface sample from 20\_GN2. All other reported diesel concentrations were less than 100 mg/kg.

Gasoline was reported in surface samples from 20\_GN1, 20\_GN2, and 20B403 and in the 4-foot-bgs sample from 20\_GN3. Gasoline in the surface sample from 20\_GN2 was reported at a concentration of 423 mg/kg. All other reported gasoline concentrations were less than 0.3 mg/kg.

TRPH and motor oil were reported in surface samples from 20\_GN1, 20\_GN2, 20\_GN3, and 20B403. The highest TRPH concentration was 4,186 mg/kg in the surface sample from 20\_GN2. The TRPH concentrations in the surface samples from 20\_GN1 and

Section 4 Nature and Extent of Contamination

Table 4-4  
Unit 4 Phase I Soil Data Summary

Analyte Name/ Method Code	Result Units	SAMPLE LOCATIONS/SAMPLE DEPTH (feet bgs <sup>a</sup> )							
		20_GN1 0	20_GN1 2	20_GN2 0	20_GN2 2	20_GN3 0	20_GN3 2	20_GN3 4	
<b>VOC<sup>b</sup>/U.S. EPA<sup>c</sup> CLP<sup>d</sup> OLM<sup>e</sup> 01.5</b>									
2-butanone	µg/kg <sup>f</sup>	11 U <sup>g</sup>	11 U	8,000*** <sup>h</sup>	11 U	12 U	11 U	11 U	
Toluene	µg/kg	7 J <sup>i</sup>	3 J	2,800 U	11 U	12 U	11 U	11 U	
Total xylenes	µg/kg	11 U	11 U	6,000	11 U	12 U	11 U	11 U	
<b>TPH<sup>j</sup>/U.S. EPA 418.1</b>									
TRPH <sup>k</sup>	mg/kg <sup>l</sup>	364	20 U	4,186	20 U	308	20 U	20 U	
<b>TPH/CA LUFT/SW<sup>m</sup></b>									
Diesel	µg/kg	50,200	29,200	3,300,000	45,600	97,000	16,700,000	35,400	
Gasoline	µg/kg	289	55.4 U	423,000	53.7 U	58.5 U	54.5 U	56.7	
<b>SVOC<sup>n</sup>/U.S. EPA CLP OLM 01.5</b>									
bis(2-ethylhexyl)phthalate	µg/kg	730 U	730 U	4,700 J* <sup>o</sup>	710 U	770 U	720 U	730 U	
<b>PAH<sup>p</sup>/U.S. EPA CLP OLM 01.5</b>									
2-methylnaphthalene	µg/kg	730 U	730 U	7,500 J	710 U	770 U	720 U	730 U	
Naphthalene	µg/kg	730 U	730 U	5,600 J	710 U	770 U	720 U	730 U	
<b>Metals/U.S. EPA 200.7/S, 239.2/S</b>									
Aluminum (14,800) <sup>q</sup>	mg/kg	4,000	10,400	3,660	6,240	3,140	5,430	14,100	
Arsenic (6.86)	mg/kg	2.1 b <sup>r</sup>	2.5	3	3.2	1.8 b	3.3	4.9	
Barium (173)	mg/kg	29.2 b	109	46.2 b	105	30.8 b	98.8	191	
Beryllium (0.669)	mg/kg	0.31 U	0.33 U	0.4 U	0.34 U	0.41 U	0.43 U	0.63 b	
Cadmium (2.35)	mg/kg	0.49 b	1.3	1.2	1.2	0.82 b	1.1 b	1.8	
Chromium (26.9)	mg/kg	5.5	11.2	20.2	6.9	5.3	6.7	15.7	
Cobalt (6.98)	mg/kg	42.9	3.6 b	49.4	3.5 b	83.3	2.7 b	6 b	
Copper (10.5)	mg/kg	6.9	7	18.2	4.8 b	10.9	5.3 b	10.7	
Lead (15.1)	mg/kg	3.4	1.6	34.3	1.5	6.6	1.7	3.1	
Manganese (291)	mg/kg	72.6	213	102	170	101	168	285	
Nickel (15.3)	mg/kg	5.6 b	7.6 b	9.9	5.3 b	5.1 b	6.6 b	11.6	
Selenium (0.32)	mg/kg	0.13 U	0.22 b	0.34 U	0.17 U	0.16 U	0.11 U	0.12 U	
Silver (0.539)	mg/kg	0.47 U	0.47 U	1.2 b	0.46 U	0.91 b	0.47 b	0.49 U	
Thallium (0.42)	mg/kg	0.16 U	0.16 U	0.16 U	0.15 b	0.17 U	0.15 U	0.35 b	
Vanadium (71.8)	mg/kg	16.7	38	15.1	26.9	14.2	24.8	50.4	
Zinc (77.9)	mg/kg	22.2	37.6	66.9	30	26.9	29.8	58.1	

(table continues)

Table 4-4 (continued)

Notes:

- <sup>a</sup> bgs – below ground surface
- <sup>b</sup> VOC – volatile organic compound
- <sup>c</sup> U.S. EPA – United States Environmental Protection Agency
- <sup>d</sup> CLP – (U.S. EPA) Contract Laboratory Program
- <sup>e</sup> OLM – organic laboratory method
- <sup>f</sup> µg/kg – micrograms per kilogram
- <sup>g</sup> U – compound not detected
- <sup>h</sup> \*\* – compound is observed in field blanks at the same order of magnitude
- <sup>i</sup> J – estimated value
- <sup>j</sup> TPH – total petroleum hydrocarbons
- <sup>k</sup> TRPH – total recoverable petroleum hydrocarbons
- <sup>l</sup> mg/kg – milligrams per kilogram
- <sup>m</sup> CALUFT/SW – California Leaking Underground Fuel Tank/Solid Waste
- <sup>n</sup> SVOC – semivolatile organic compound
- <sup>o</sup> J\* – estimated value, compound is observed in sample at concentration 5 to 10 times greater than that observed in the field blanks
- <sup>p</sup> PAH – polynuclear aromatic hydrocarbon
- <sup>q</sup> values in parentheses are background concentrations for metals at Marine Corps Air Station El Toro (see Appendix D)
- <sup>r</sup> b – reported value is less than the contract required detection limit but greater than or equal to the instrument detection limit

20\_GN3 were 364 and 308 mg/kg, respectively. Motor oil was reported at a concentration of 120 mg/kg in the surface sample from 20B403.

### Metals

Eleven TAL metals at concentrations exceeding their respective background values were reported in shallow-soil samples from the six sampling locations in Unit 4. The metal exceeding background by the greatest amount was cadmium, reported at concentrations of 42.9 mg/kg (6.1 times background) in the surface sample from 20\_GN1, 49.4 mg/kg (7.1 times background) in the surface sample from 20\_GN2, and 83.3 mg/kg (11.9 times background) in the surface sample from 20\_GN3. All of the remaining metals were reported at concentrations less than 2.3 times their respective background values. Cadmium was also the metal most frequently reported at concentrations above background. Figure 4-3 presents data for the TAL metals reported at concentrations above background in shallow soil at Site 20. As the data in Figure 4-3 indicates, metals were reported at concentrations above background throughout the 0- to 10-foot-bgs interval in Unit 4.

### Pesticides

Pesticides were reported in shallow-soil samples from 20B401, 20B402, and 20B403. None of the pesticides were identified below a depth of 5 feet bgs. Pesticides reported in shallow soil include 4,4'-dichlorodiphenyldichloroethane (DDD), 4,4'-dichlorodiphenyldichloroethene (DDE), 4,4'-dichlorodiphenyltrichloroethane (DDT),

Section 4 Nature and Extent of Contamination

Table 4-5  
 Unit 4 Field-Screening Results

Sample ID	Borehole Number	Sample Depth (feet)	PAHs <sup>a</sup> -Immunoassay		VOCs <sup>c</sup> (µg/kg)	BTEX <sup>d</sup> (µg/kg)	TPH <sup>e</sup> (mg/kg) <sup>f</sup>	
			60 µg/kg <sup>b</sup>	275 µg/kg			Diesel	Gasoline
79S0012	20B401	0.5 - 1.5	>	<	ND <sup>g</sup>	ND	ND	ND
79S0013	20B401	1.5 - 2.5	>	<	ND	ND	ND	ND
79S0014 <sup>h</sup>	20B401	3 - 5	<	<	ND	ND	ND	ND
79S0015	20B401	5 - 7	— <sup>i</sup>	—	ND	ND	ND	ND
79S0016	20B401	8 - 10	<	<	ND	ND	ND	ND
79S0017	20B402	0.5 - 1	<	<	ND	ND	ND	ND
79S0018	20B402	1 - 2	<	<	ND	ND	ND	ND
79S0019	20B402	3 - 5	<	<	ND	ND	ND	ND
79S0020	20B402	8 - 10	<	<	ND	ND	ND	ND
79S0021	20B403	0 - 1	>	<	1,1-TCA <sup>j</sup> = 1.1	ND	ND	ND
79S0022	20B403	1 - 2	<	<	ND	ND	ND	ND
79S0023	20B403	3 - 5	<	<	ND	ND	ND	ND
79S0024	20B403	8 - 10	<	<	ND	ND	ND	ND

Notes:

- <sup>a</sup> PAH - polynuclear aromatic hydrocarbon
- <sup>b</sup> µg/kg - micrograms per kilogram
- <sup>c</sup> VOC - volatile organic compound
- <sup>d</sup> BTEX - benzene, toluene, ethylbenzene, and xylenes
- <sup>e</sup> TPH - total petroleum hydrocarbons
- <sup>f</sup> mg/kg - milligrams per kilogram
- <sup>g</sup> ND - nondetect
- <sup>h</sup> shading indicates samples submitted to the fixed laboratory for confirmation analysis
- <sup>i</sup> — - not analyzed
- <sup>j</sup> 1,1-TCA - 1,1,1-trichloroethane

alpha-chlordane, gamma-chlordane, and endrin. The pesticides were all reported at concentrations less than 50 µg/kg.

**Polychlorinated Biphenyls**

Aroclor 1254 was reported in the 1.5- to 2.5-foot-bgs sample from 20B401 and in the surface sample from 20B403. Aroclor 1254 was reported at a concentration of 91 µg/kg in 20B401 and 31 µg/kg in 20B403.

**4.3.2.3 UNIT 4: SUMMARY OF NATURE AND EXTENT**

VOCs, SVOCs and PAHs, petroleum hydrocarbons, pesticides, PCBs, and TAL metals were reported in shallow soil at Unit 4. While VOCs, petroleum hydrocarbons, and pesticides were reported in samples collected throughout Unit 4, SVOCs and PAHs were reported in surface soil at one location within the courtyard and at the location of a

CLEAN II  
CTO-0079/0220  
Date: 11/20/96

#### Section 4 Nature and Extent of Contamination

former oil/water separator in the front slope area of Unit 4. Similarly, PCBs were only reported in one sample at a location in the courtyard near the entry driveway. VOCs were reported in shallow soil to depths of 7 feet bgs, but the concentrations were less than 10 µg/kg with one exception. Higher concentrations (greater than 1,000 µg/kg) were reported in one surface sample under asphalt near the middle of the courtyard. The highest petroleum hydrocarbon, VOC, SVOC, and PAH concentrations were also reported in shallow soil at this location. Although metals were present in samples from throughout the 0- to 10-foot-bgs interval in Unit 4, petroleum hydrocarbons were only reported in shallow soil to depths of 4 feet bgs, and pesticides were only reported to depths of 5 feet bgs.

#### 4.3.3 Catch Basin

VOCs, SVOCs, petroleum hydrocarbons, and TAL metals at concentrations above background were reported in the sediment sample (20\_CB) collected from the catch basin in Unit 4. One VOC (acetone) was reported at a concentration of 56 µg/kg. One SVOC (bis[2-ethylexyl]phthalate) was reported at a concentration of 84,000 µg/kg. Diesel, gasoline, and TRPH were reported at concentrations of 4,830, 0.083, and 35,706 mg/kg, respectively. Eleven TAL metals (antimony, arsenic, barium, cadmium, chromium, copper, lead, manganese, nickel, selenium, and zinc) were reported at concentrations exceeding their respective background levels. The metals exceeding their background levels by the greatest amount were lead (59.6 times background), zinc (26.6 times background), and copper (21.1 times background).



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

VOLUME I

16 July 1993

EXTRACTS

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

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

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

In association with:  
International Technology Corporation  
CH2M HILL

TABLE 4-1  
 COMPREHENSIVE LIST OF SWMUs AND AREAS OF CONCERN  
 IDENTIFIED DURING THE PRELIMINARY REVIEW/VISUAL SITE INSPECTION  
 MCAS EL TORO RFA

SWMU	SWMU TYPE	SOURCE (1)	LOCATION/BUILDING	COMMENTS	DATE	SIZE	MATERIAL	CONTENTS
151	Oil/Water Separator	f	605	Active	1984	100 gal	Steel	
152	Aircraft Wash Area	a	606					
153	Drum Storage Area	a	606	Possible Duplicate of SWMU/AOC 255				
154	Oil/Water Separator	f	606	Duplicate of SWMU/AOC 163	1965	100 gal	Concrete	
155	Vehicle Wash Rack	a	616	Duplicate of SWMU/AOC 195				
156	Underground Storage Tank	f	625	Active, RI/FS Site	1967	500 gal	Cath. Prot. Steel	Waste Oil
157	Vehicle Wash Rack	a	626	RI/FS Site				
158	Drum Storage Area	a,b	626	RI/FS Site				
159	Oil/Water Separator	f	626	Active, RI/FS Site	1967		Concrete	
160	Hazardous Waste Storage Area	Active	636					
161	Hazardous Waste Storage Area	Active	641	Duplicate of SWMU/AOC 39				
162	Underground Storage Tank	f	643	Active	1982	165 gal	Cath. Prot. Steel	Waste Oil
163	Oil/Water Separator	f	643	Active	1982	100 gal	Concrete	
164	Vehicle Wash Rack	a	651					
165	Drum Storage Area	a	651	Located within SWMU/AOC 164				
166	Underground Storage Tank	f	651	Active	1971	500 gal	Steel	Product Oil
167	Underground Storage Tank	f	651	Active	1971	500 gal	Steel	Product Oil
168	Underground Storage Tank	f	651	Active	1971	500 gal	Steel	Waste Oil
169	Underground Storage Tank	f	651		1971	500 gal	Concrete	
170	Drum Storage Area (2)	a,b	655					
171	Hazardous Waste Storage Area	Active, a	658					
172	Hazardous Waste Storage Area	Active	671					
173	Oil/Water Separator	f	671					
174	Underground Storage Tank (2)	f	672	Active	Unknown	500 gal	Steel	Waste JP-5
175	Underground Storage Tank	f	672	Active	1982	100 gal	Steel	
176	Underground Storage Tank	f	672	Active	1982	1,000 gal	Steel	Waste Oil
177	Drum Storage Area	c	672			360 gal		
178	Vehicle Wash Rack	a	673					
179	Oil/Water Separator	f	673	Active	1982	100 gal	Steel	
180	Underground Storage Tank	f	673	Active	1982	300 gal	Steel	Waste Oil

4-17

TABLE 4-1  
 COMPREHENSIVE LIST OF SWMUs AND AREAS OF CONCERN  
 IDENTIFIED DURING THE PRELIMINARY REVIEW/VISUAL SITE INSPECTION  
 MCAS EL TORO RFA

SWMU	SWMU TYPE	SOURCE (1)	LOCATION/BUILDING	COMMENTS	DATE	SIZE	MATERIAL	CONTENTS
301	Manx Arrest System	m	East side of Runway 34R					
302	Manx Arrest System	m	West side of Runway 34R					
303	Underground Storage Tank	m	359					
304	Trenches inside Building 359	m	359					
305	Septic Tank	l	601			2,000 gal	Concrete	Sanitary Waste
306	Septic Tank	l	687			2,000 gal	Concrete	Sanitary Waste
307	Septic Tank	l	819		1986	2,200 gal	Concrete	Sanitary Waste

## NOTES:

## (1) SOURCE:

Current - Based on site visits Jan-Feb 1991

Past - Based on agency records review and miscellaneous records for MCAS El Toro as identified below:

- a - Regional Water Quality Control Board, letter to LL Rehor (June 23, 1989)
- b - SPCC map (no date)
- c - Department of Health Services, 1980 Photographs
- d - EPA, Region IX, Compliance Inspection Report, May 1987
- e - interview
- f - UST list EG & G Idaho, Inc., November 1990
- l - Department of Conservation, California Division of Oil and Gas, Long Beach
- j - Per MCAS El Toro List of Oil/Water Separators
- k - Observed during VSI
- l - Other
- m - Per Navy direction (added during SV)

(2) SWMU/AOC was not able to be accurately located and/or identified from the records review information and the site visits.

4-27

**EXTRACTS**

Final Report  
Aerial Photograph Assessment  
MCAS El Toro  
Contract No. N68711-91-D-4658  
Delivery Order 0002  
SAIC Project No. 01-0892-02-0817

Submitted to:

Naval Facilities Engineering Command  
Southwest Division  
1220 Pacific Highway, Room 18  
San Diego, CA 92132-5181

Submitted by:

Science Applications International Corporation  
Engineering Sciences Division  
10260 Campus Point Drive, MS F1  
San Diego, CA 92121

October 25, 1993

Aerial Photographic Interpretation  
 MCAS El Toro  
 Santa Ana, California

1960  
 Figure 6

Sheet 1 of 2  
 June 28, 1960

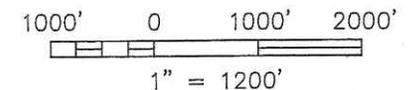
Photo Number C-23870, 2010  
 Source: Map and Imagery Library,  
 University of California, Santa Barbara

Prepared for:

Southwest Division  
 Naval Facilities Engineering Command  
 Contract N68711-92-D-4658

LEGEND:

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
B	Building	IM	Impoundment
D	Drums	LQ	Liquid
DB	Debris	LT	Light-Toned
DG	Disturbed Ground	M	Material
DK	Dark-Toned	MM	Mounded Material
EX	Excavation	OS	Open Storage
EXT	Extraction	R	Refuse
FA	Fill Area	ST	Stain
FBR	Fuel Bladder	TR	Trench
	Revetment	UO	Unidentified Object
GR	Graded Area	VT	Vertical Tank
GS	Ground Scar	WS	Wet Soil
HT	Horizontal Tank		



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 International Corporation  
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MARINE CORPS AIR STATION EL TORO  
EL TORO, CALIFORNIA  
INSTALLATION RESTORATION PROGRAM  
FINAL ENVIRONMENTAL  
BASELINE SURVEY REPORT

01 April 1995

Revision 0

EXTRACTS

Annotations made by the writer of the  
Summary Report are identified with a  
star symbol or an arrow.

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

THROUGH:  
CONTRACT #N68711-89-D-9296  
CTO #284  
DOCUMENT CONTROL NO:  
CLE-C01-01F284-S2-0004

WITH:  
Jacobs Engineering Group Inc.  
401 West A Street, Suite 1905  
San Diego, California 92101

In association with:  
International Technology Corporation  
CH2M HILL

*M. W. Arends*

*3/31/95*

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

Date

*Max Pan*

*3-31-95*

Max Pan, P.E.  
CLEAN Technical Reviewer  
IT Corporation

Date

**Table 3-7**  
**Less Than 90-Day Accumulation Area Inventory**  
**MCAS EI Toro EBS Report - April 1995**

Database Tracking	Building Number	Status	SWMU/AOC	Comments	AREA TYPE
SAA 2	2	Active		Identified in 1994 SPCC Plan	7
SAA 5A	5	Inactive	25	Sampling Visit Not Recommended During PRVSI	2
SAA 5B	5	Active	26	RFA recommended excavation of shallow stained soil.	6
SAA 7	7	Inactive		Identified in 1994 SPCC Plan	7
SAA 10	10	Active	27	RFA recommended NFA	2*
SAA 19	19	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 22	22	Active		Identified in 1994 SPCC Plan	7
SAA 29A	29	Inactive	30	RFA recommended NFA	3*
SAA 29B	29	Inactive	31	Sampling Visit Not Recommended During PRVSI	7
SAA 31A	31	Active	272	RFA recommended NFA	3
SAA 31B	31	Inactive		Identified in 1994 SPCC Plan	7
SAA 51	51	Active	33	Excavate Shallow Stained Soil	6
SAA 77	77	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 114	114	Inactive	38	Sampling Visit Not Recommended During PRVSI	2
SAA 115	115	Active	39	Shallow Soil Borings Recommended	7
SAA 130A	130	Inactive	294	Sampling Visit Not Recommended During PRVSI	2
SAA 130B	130	Active	295	Sampling Visit Not Recommended During PRVSI	2
SAA 130C	130	Inactive	42	Sampling Visit Not Recommended During PRVSI	2
SAA 155A	155	Inactive	240	No evidence of release	2
SAA 155B	155	Inactive	241	RFA recommended NFA	3
SAA 155C	155	Inactive	45	RFA recommended NFA	3
SAA 240	240	Inactive	64	Sampling Visit Not Recommended During PRVSI	2
SAA 242	242	Inactive	67	Sampling Visit Not Recommended During PRVSI	7
SAA 289	289	Active	70	RFA recommended NFA	3
IRP 7	295	Active	71	IRP Site 7 (1)	6
IRP 7	296	Active	72	IRP Site 7 (1)	6
SAA 297	297	Active	73	RFA recommended NFA	3
SAA 298	298	Inactive	83	RFA recommended NFA	2
SAA 306	306	Inactive	88	Shallow Soil Borings Recommended	7
SAA 307	307	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 314	314	Inactive	269	RFA recommended NFA	3
SAA 317	317	Inactive	93	Sampling Visit Not Recommended During PRVSI	2
IRP 21	320	Active	94	IRP Site 21 (1)	6
SAA 357	357	Inactive	97	Sampling Visit Not Recommended During PRVSI	2
SAA 359A	359	Inactive	254	Sampling Visit Not Recommended During PRVSI	2
SAA 359B	359	Inactive	99	RFA recommended NFA	3
IRP 8	360	Inactive	104	IRP Site 8 (1)	6
IRP 8	360	Inactive	105	IRP Site 8 (1)	6
IRP 8	360	Inactive	106	IRP Site 8 (1)	6
SAA 370	370	Active		Identified in 1994 SPCC Plan	7
SAA 371A	371	Active	107	RFA recommended NFA	2
SAA 371B	371	Inactive	242	RFA recommended NFA	3
SAA 386	386	Active	114	Sampling Visit Not Recommended During PRVSI	2
SAA 388A	388	Active	116	RFA recommended NFA	3
SAA 388B	388	Inactive	251	Sampling Visit Not Recommended During PRVSI	2
SAA 389A	389	Inactive	119	Sampling Visit Not Recommended During PRVSI	2
SAA 389B	389	Inactive	259	Sampling Visit Not Recommended During PRVSI	2
SAA 390A	390	Active	122	Sampling Visit Not Recommended During PRVSI	2
SAA 390B	390	Inactive	261	RFA recommended NFA	3
SAA 392A	392	Active	124	RFA recommended NFA	3
SAA 392B	392	Inactive	271	RFA recommended NFA	3
SAA 398	398	Inactive	252	RFA recommended NFA	3

**Table 3-7**  
**Less Than 90-Day Accumulation Area Inventory**  
**MCAS EI Toro EBS Report - April 1995**

Database Tracking	Building Number	Status	SWMU/AOC	Comments	AREA TYPE
SAA 441	441	Inactive	256	RFA recommended NFA	3
SAA 442	442	Inactive	126	Sampling Visit Not Recommended During PRVSI	2
SAA 445	445	Inactive	127	Sampling Visit Not Recommended During PRVSI	2
SAA 447	447	Inactive	130	RFA recommended NFA	3
SAA 456	456	Inactive	135	Sampling Visit Not Recommended During PRVSI	2
SAA 461	461	Active	138	RFA recommended NFA (1)	2
SAA 462	462	Active	140	Sampling Visit Not Recommended During PRVSI	2
SAA 529	529	Inactive	144	RFA recommended NFA	2
SAA 534	534	Inactive	146	Sampling Visit Not Recommended During PRVSI	2
SAA 602	602	Inactive	147	RFA recommended NFA	3
SAA 605	605	Active	149	RFA recommended NFA	3
SAA 606	606	Active	255	RFA recommended NFA	2
SAA 626	626	Active	158	IRP Site 20 (1)	7
SAA 634	634	Active		Identified in 1994 SPCC Plan	7
SAA 636	636	Inactive	160	RFA recommended NFA	3
SAA 651	651	Active	165	Located within SWMU/AOC 164	3
SAA 658	658	Active	171	Shallow soil borings recommended	7
SAA 671	671	Active	172	RFA recommended NFA	2
SAA 672	672	Inactive	177	Sampling Visit Not Recommended During PRVSI	2
SAA 673	673	Active	186	RFA recommended NFA	2
SAA 693	693	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 698	698	Active		Identified in 1994 SPCC Plan	7
SAA 744	744	Active		Identified in 1994 SPCC Plan	7
SAA 746	746	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 747	747	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 761	761	Inactive		Located at IRP Site 6 (2)	7
SAA 765	765	Inactive	266	Sampling Visit Not Recommended During PRVSI	2
SAA 769	769	Inactive	222	RFA recommended NFA	2
SAA 770	770	Inactive	223	RFA recommended NFA	3
SAA 771	771	Inactive	224	RFA recommended NFA	2
SAA 772	772	Inactive	225	RFA recommended NFA	3
SAA 778	778	Inactive	226	RFA recommended NFA	3
SAA 779	779	Inactive	227	RFA recommended NFA	3
SAA 800	800	Active	229	RFA recommended NFA	2
SAA 831	831	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 856	856	Active	234	RFA recommended NFA	3
SAA 900	900	Active		Environmental Office accumulation area	7

Table 3-7 Less Than 90-Day Accumulation Area Inventory MCAS El Toro EBS Report - April 1995				
Database Tracking	Building Number	Status	SWMU/AOC	Comments
				AREA TYPE
<p>NOTES:</p> <p>(1) - SWMUs/AOCs that were determined to be located within RI/FS site boundaries were eliminated from RFA sampling visits. These SWMUs/AOCs will be investigated in the IRP.</p> <p>(2) - Accumulation areas are currently being evaluated for removal and/or decontamination strategies.</p> <p>* - Indicates RFA recommendation of "no further action" is pending U.S. EPA approval.</p> <p>PR/VS I - Preliminary Review/Visual Site Inspection performed as part of the RFA.</p> <p>IRP - Installation Restoration Program</p> <p>RFA - RCRA Facility Assessment</p> <p>NFA - No Further Action</p> <p>Sources:</p> <p>Jacobs, 1993. MCAS El Toro Final RCRA Facility Assessment Report.</p> <p>MCAS El Toro Hazardous Waste Open Drum Inspection Report Sheet</p> <p>SAIC, 1994. Draft Oil and Hazardous Substances Spill Prevention and Countermeasure Plan and Contingency Plan (SPCC).</p>				

United States Marine Corps

# Base Realignment and Closure Business Plan

**EXTRACTS**

NOTE: Annotations by the writer of the  
Summary Report are identified by an  
arrow.



For  
**Marine Corps Air Station  
El Toro, CA**

March 2001

**Table 2**  
**Site Summary**  
(Sheet 28 of 43)

Database Tracking	Reuse Parcel	Description	Material Disposed	Date of Operation	Status	Regulatory Mechanism	NFA	NFA Date	Comments	ECP Area Type	Approx. ECP Area (acres)
TAA 370	11A	Hazardous material storage/ < 90-day accumulation area- Bldg. 370			Inactive					7	0.18
TAA 371A	12H	< 90-day accumulation area- Bldg. 371			Inactive				SWMU/AOC 107	6	0.18
TAA 371B	12H	< 90-day accumulation area- Bldg. 371			Inactive				SWMU/AOC 242	6	0.18
TAA 388A	11A	< 90-day accumulation area- Bldg. 388			Inactive				SWMU/AOC 116	6	0.18
TAA 388B	11A	< 90-day accumulation area- Bldg. 388			Inactive				SWMU/AOC 251	6	0.18
TAA 389A	12G	< 90-day accumulation area- Bldg. 389			Closed	DTSC	X	11/24/99	SWMU/AOC 119	1	0.18
TAA 389B	12G	< 90-day accumulation area- Bldg. 389			Closed	DTSC	X	11/24/99	SWMU/AOC 259	1	0.18
TAA 390A	12G	< 90-day accumulation area- Bldg. 390			Closed	DTSC	X	6/10/99	SWMU/AOC 122	4	0.18
TAA 390B	12G	< 90-day accumulation area- Bldg. 390			Closed	DTSC	X	6/10/99	SWMU/AOC 261	4	0.18
TAA 392A	12B	< 90-day accumulation area- Bldg. 392			Inactive				SWMU/AOC 124	6	0.18
TAA 392B	12B	< 90-day accumulation area- Bldg. 392			Inactive				SWMU/AOC 271	6	0.18
TAA 441	12H	< 90-day accumulation area- Bldg. 441			Inactive				SWMU/AOC 256	6	0.18
TAA 461	11B	< 90-day accumulation area- Bldg. 461			Inactive				SWMU/AOC 138	6	0.18
TAA 462	11B	< 90-day accumulation area- Bldg. 462			Inactive				SWMU/AOC 140	6	0.18
TAA 529	11A	< 90-day accumulation area- Bldg. 529			Inactive				SWMU/AOC 144	6	0.18
TAA 605	12B	< 90-day accumulation area- Bldg. 605			Inactive				SWMU/AOC 149	6	0.18
TAA 606	12D	< 90-day accumulation area- Bldg. 606			Inactive				SWMU/AOC 255	6	0.18
TAA 626	8	< 90-day accumulation area- Bldg. 626			Inactive				SWMU/AOC 158	6	0.18
TAA 634	12B	< 90-day accumulation area- Bldg. 634			Inactive					7	0.18

**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.**

### **Buildings 625/626 - Hobby Shop/Automotive - MWR-Rec**

Industrial activities at this facility include vehicle maintenance and repair. Potential pollutants include paint, gasoline, waste oil and antifreeze. There are two oil/water separators (#626(1)-626(2)) near Building 626 which discharge to the sanitary sewer. The majority of storm water run-off from this facility appears to be captured and routed to the oil/water separators which significantly reduces discharge of contaminated run-off to the storm drain system. A covered hazardous waste storage area is located in the center of the yard at the facility. Waste drums containing antifreeze, gasoline, paint, waste oil, and sludge from the car wash rack, are stored on secondary containment pallets in this area. A main spill kit is located in a storage locker at the north side of Building 626. Additional satellite spill kits are located in the maintenance bays. A SPCCP is readily accessible in the office of Building 626.

Recommended BMPs include the routine inspection and maintenance of the oil/water separators in accordance with the manufacturer's specifications. Additional BMPs include the use of drip pans under vehicles during servicing and proper handling and disposal of wastes.

### **5.28.3 Summary of Potential Pollutants**

The following pollutants pose a potential threat to storm water quality in Drainage Basin 28:

antifreeze                      gasoline                      paint                      waste oil

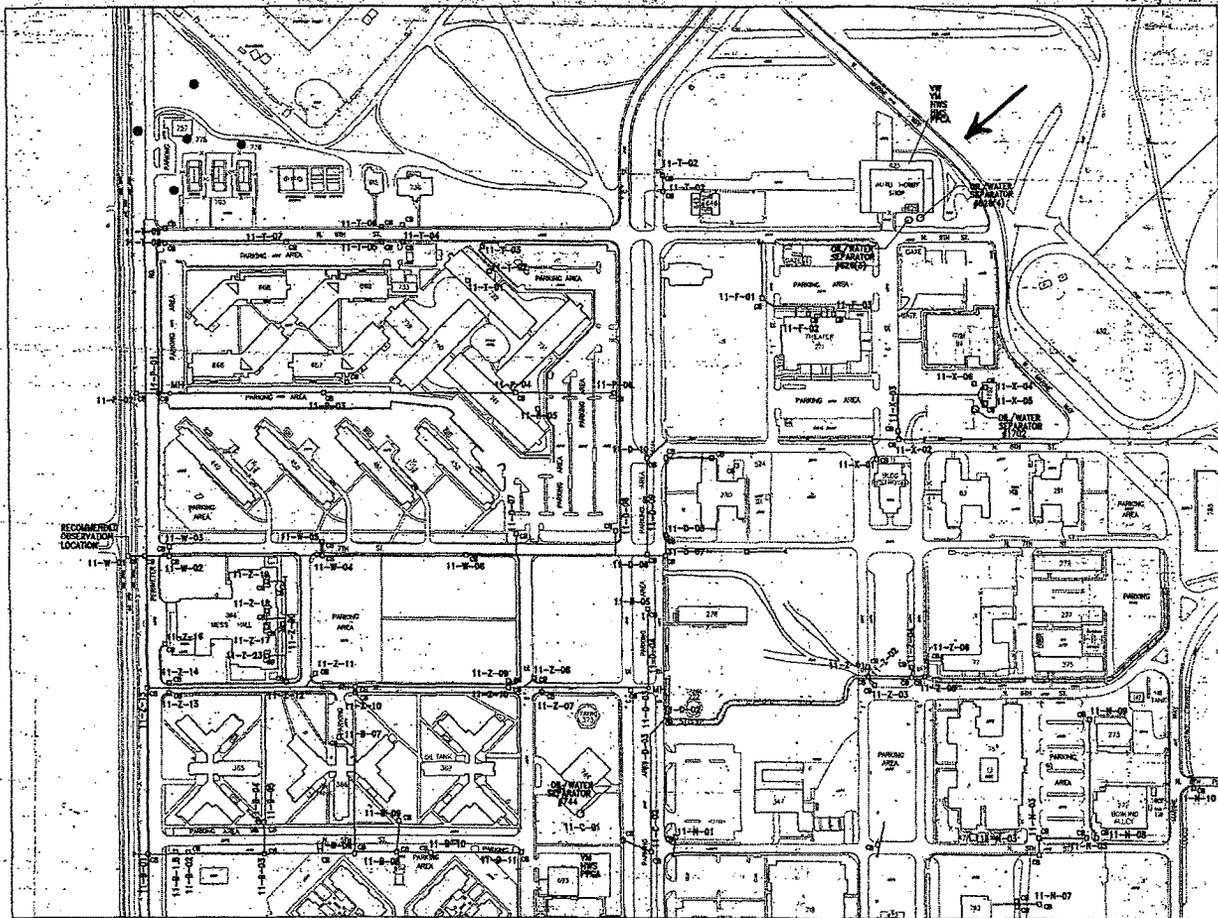
### **5.28.4 Summary of Best Management Practices**

The following BMPs are general management practices for the control or prevention of storm water pollution associated with activities at MCAS El Toro. These BMPs have been formulated based on the existing conditions at the various buildings and facilities throughout MCAS El Toro, as described above. Table 5-29 lists the existing and recommended BMPs for each building located within the drainage basin.

**TABLE 5-29**  
**BASIN 28**  
**SUMMARY OF BMPs**

BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	BMP STATUS	BMP #	BMP Description
271	28	Auditorium	Training	Limited			No Additional BMPs Recommended
280	28	Library	MWR-Rec	Concern	Rec	110	Regularly Inspect and Maintain Storm Water Conveyance Systems
280	28	Library	MWR-Rec	Limited			No Additional BMPs Recommended
<u>625</u>	28	Hobby Shop/Automotive	MWR-Rec	Concern	Existing	009	Personnel Training
					Existing	112	Prepare Appropriate Spill Prevention and Response Plans
					Rec	012	Construct Berm or Dike Around Critical Areas
					Rec	016	Store Waste and Recycling Materials in Proper Containers
					Rec	110	Regularly Inspect and Maintain Storm Water Conveyance System
					Rec	044	Use Drip Pans under Leaking Equipment
					Existing	065	Place Spill Kit in Area
<u>626</u>	28	Hobby Shop/Automotive	MWR-Rec	Concern	Existing	009	Personnel Training
					Existing	112	Prepare Appropriate Spill Prevention and Response Plans
					Rec	012	Construct Berm or Dike Around Critical Areas
					Rec	016	Store Waste and Recycling Materials in Proper Containers
					Rec	110	Regularly Inspect and Maintain Storm Water Conveyance System
					Rec	044	Use Drip Pans under Leaking Equipment
					Existing	065	Place Spill Kit in Area

TABLE 7-1 MCAS EL TORO MATERIALS INVENTORY								
BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	TRADE/Common NAME	MAX. DAY	AVE. Day	CONT.
606	07	Maint Hngr Space	HMM-163	Concern	Thinner	N/A	N/A	N/A
606	07	Maint Hngr Space	HMM-163	Concern	Waste Oil	N/A	N/A	N/A
610	08	Tank - Fuel Farm			Diesel Fuel No. 2	200 gal	100 gal	200 gal
619	37	Tank -MWR Golf course	Installation	Concern	Diesel Fuel No. 2	1000 gal	500 gal	1500 gal
625	28	Hobby Shop/Automotive	MWR-Rec	Concern	Antifreeze	N/A	N/A	N/A
625	28	Hobby Shop/Automotive	MWR-Rec	Concern	Gasoline	N/A	N/A	N/A
625	28	Hobby Shop/Automotive	MWR-Rec	Concern	Paint	N/A	N/A	N/A
625	28	Hobby Shop/Automotive	MWR-Rec	Concern	Waste Oil	N/A	N/A	N/A
626	28	Hobby Shop/Automotive	MWR-Rec	Concern	Cleaning compound	60 gal	25 gal	1 gal
634	08	Maint Hanger Space	MALS-11	Concern	Fuel	N/A	N/A	55 gal
637 - 3	08	Tank - Exchange Gas Station	MWR	Concern	Gasoline - Unleaded Regular	8000 gal	5000 gal	12000 gal
634	08	Maint Hanger Space	MALS-11	Concern	Hydraulic Fluid	N/A	N/A	55 gal
634	08	Maint Hanger Space	MALS-11	Concern	Lubricating Oil	N/A	N/A	55 gal
634	08	Maint Hanger Space	MALS-11	Concern	Solvents	N/A	N/A	55 gal
634	08	Maint Hanger Space	MALS-11	Concern	Waste Oil	N/A	N/A	55 gal
637 - 2	08	Tank - Exchange Gas Station	MWR	Concern	Gasoline - Unleaded Mid Grade	9000 gal	5000 gal	12000 gal

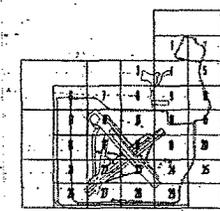


**MCAS EL TORO - AREA 11**  
SCALE: 1"=150'-0"

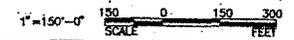
DATE	DESCRIPTION	PREP'D BY	DATE	APPROVED

**LEGENDS**

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



**KEY PLAN**  
SCALE: NONE



IF SHEET IS LESS THAN 22X34 IT IS A REDUCED PRINT SCALE ACCORDINGLY

**IEM**  
INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

PROJECT NO. 0140 TR-001 - 0140 TR-002		DEPARTMENT OF THE NAVY		NAVAL FACILITIES ENGINEERING COMMAND	
EL TORO		SOUTHWEST DIVISION		CALIFORNIA	
MORNING CAMP AIR STATION		EL TORO, CA			
<b>MCAS EL TORO</b>					
<b>AREA 11 - STORM DRAINS</b>					
DESIGNED BY	DATE	SCALE	CODE BOOK NO.	AMFC DRAWING NO.	
CHECKED BY	DATE	SCALE	CODE BOOK NO.	AMFC DRAWING NO.	
APPROVED BY	DATE	SCALE	CODE BOOK NO.	AMFC DRAWING NO.	

Final

EXTRACTS

Marine Corps Air Station El Toro  
Hazardous Material/Hazardous Waste  
Management Plan

August 1994



Prepared for:

Southwest Division Naval Facilities Engineering Command  
1220 Pacific Highway  
San Diego, CA 92132-5190

Prepared by:

Science Applications International Corporation  
Engineering Sciences Division  
10260 Campus Point Drive  
San Diego, CA 92121

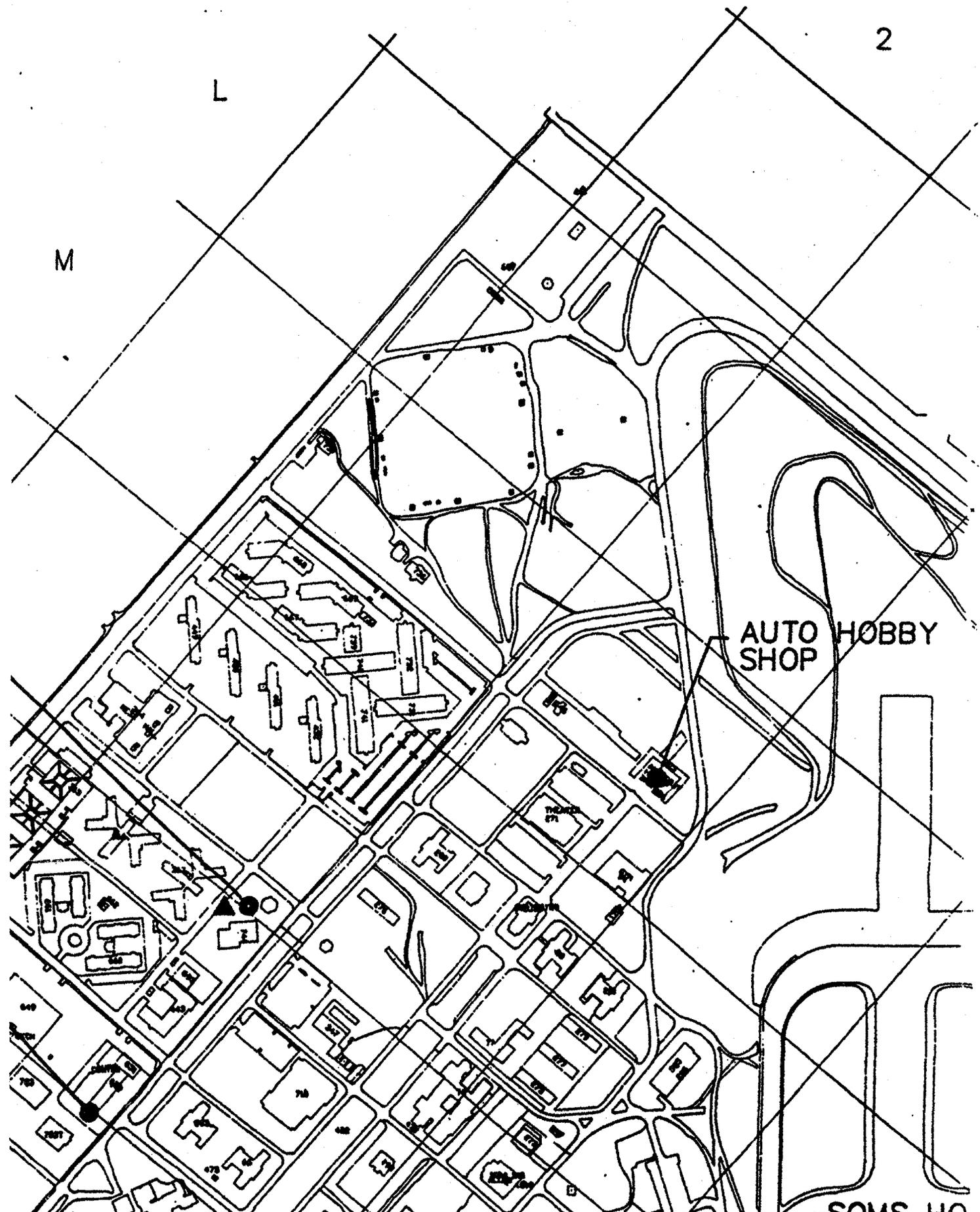
Contract No. N68711-92-D-4658  
Delivery Order No. 0004

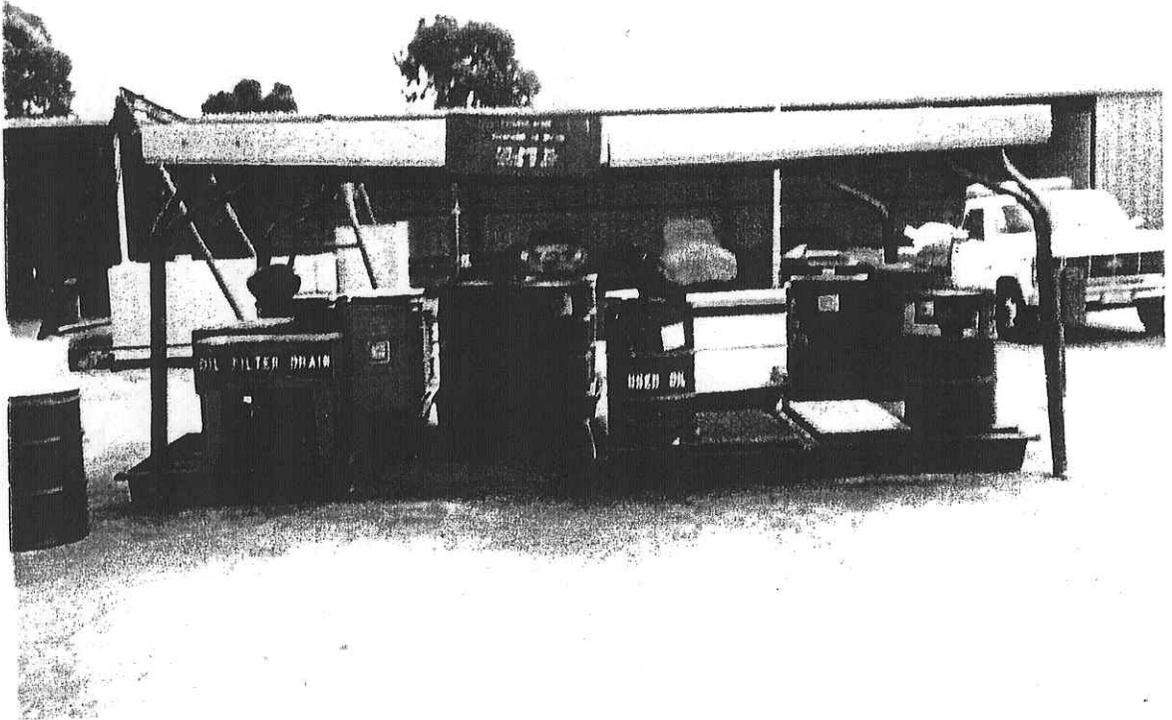
Hazardous Waste Accumulation Point Summary		
Unit	Bldg #	Coordinates
Aero Club	10	R5
Armory	744	O2
Auto Hobby Shop	626	M3
CSSD-14	388	U8
Environmental Above Ground Storage Tank	n/a	U6
FMD Shops, Bldg 1601	370	T6
Fuels Division	314	U9
H&HS 38	22	R4
MACG-38 MWCS 38	HGR 5	R4
MAG-46	51	O4
MAG-46 Fixed Wing	296	T9
MAG-46 Helo Mals-46	295	S8
MALS-11 Air Frames	130	M9
MALS-11 Avionics	856	Q12
MALS-11 Cryogenics (ALSS)	636	R12
MALS-11 GSE North	392	M9
MALS-11 Ordnance	673	P12
MALS-11 Power Plant	658	N10
MALS-11 Power Plant	634	N9
MALS-11 Supply	441	P12
Maytag Aircraft Corp	779	N10
MOD Team	115	N9
Motor Pool (G-4), Bldg 770	386	T7
MWHS-3	7	O5
MWR Auto #1	651	O2
MWR Golf Course	390	P13
MWSS-Utilities	31	S4
MWSS-373 HQ	800	U10
MWSS-373 Refuelers	671	U9
SOMS HQ	289	N5
SOMS Maintenance	HGR 2	O4
SOMS Recovery		
Supply	320	U7
VMFA (AW)-121	462	R11
VMFA (AW) 225	698	N9
VMFA (AW)-242	461	R11
VMFAT-101	371	Q10
VMFA-323	606	N8
VMGR-352	297	T8
VFMA-314	605	N7

L

M

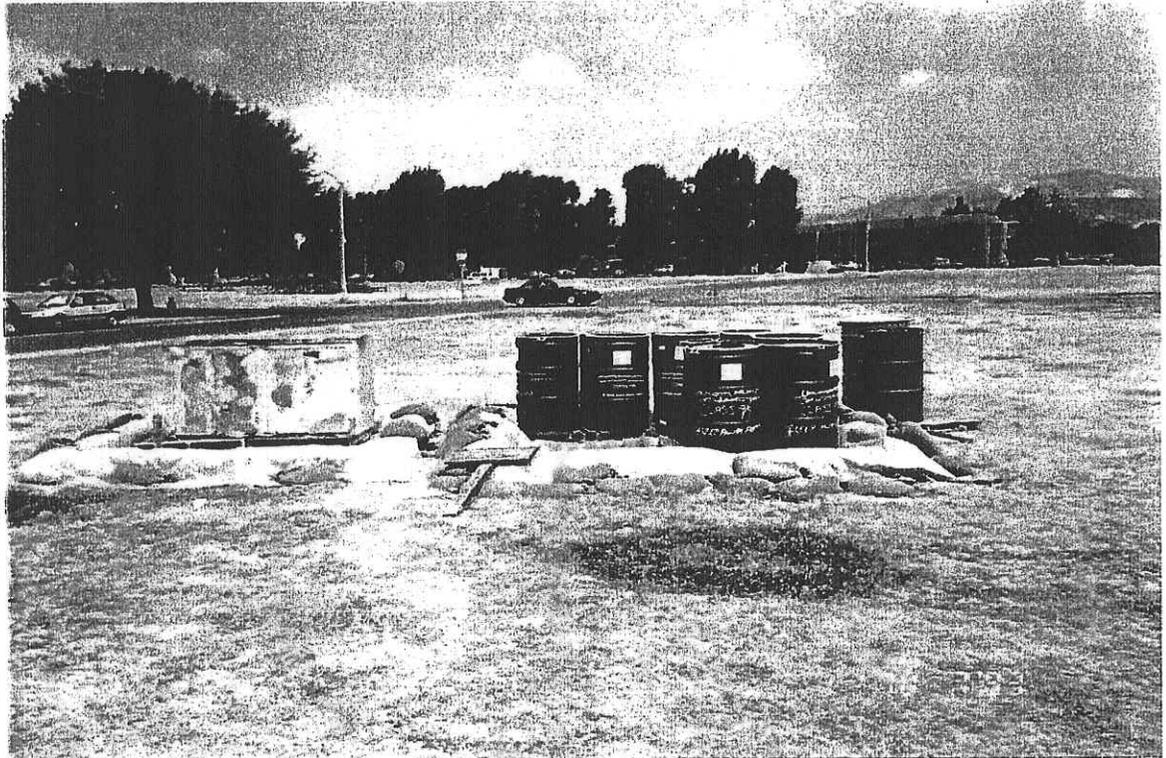
AUTO HOBBY  
SHOP





Auto Hobby Shop

Bldg 626



Armory

Bldg 744

SOUTHWESTNAVFACENGCOM  
CODE 06CC.LMH  
SAN DIEGO, CA 92101

EXTRACTS FROM RECORD OF DECISION FOR IRP SITE 20 AND NO FURTHER  
ACTION DECISION DOCUMENTS FOR VARIOUS LOCATIONS OF CONCERN NEAR  
TAA 626

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SANTA ANA REGION**

3737 MAIN STREET, SUITE 500  
RIVERSIDE, CA 92501-3339  
PHONE: (909) 782-4130  
FAX: (909) 781-6288



October 28, 1997

Mr. Wayne D. Lee  
Assistant Chief of Staff  
Environment and Safety  
Marine Corps Air Station El Toro  
P.O. Box 95001  
Santa Ana, CA 92709-5001

**CASE CLOSURE, SOUTH DRAINAGE DITCH AT THE HOBBY SHOP FORMER  
INSTALLATION RESTORATION PROGRAM SITE, MARINE CORPS AIR STATIO EL  
TORO**

Dear Mr. Lee:

This letter confirms the completion of site investigations and remedial actions for the South Drainage Ditch at the Hobby Shop site. Based on the information provided in the Site Assessment Report South Drainage Ditch at the Hobby Shop Site dated 10/2/97 and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the petroleum release is required.

If you have any questions regarding this matter, please contact Lawrence Vitale at (909) 782-4998.

Sincerely,

A handwritten signature in dark ink, appearing to read "Gerard J. Thibeault", is written over a faint circular stamp.

Gerard J. Thibeault  
Executive Officer

cc: Mr. Tayseer Mahmud, DTSC, Office of Military Facilities, Region 4  
LT. Hope Katcharian, Marine Corps Air Station El Toro  
Mr. John Adams Jr., State Water Resources Control Board, Division of Clean  
Water Programs

STATE OF CALIFORNIA—CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, Governor A**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SANTA ANA REGION**3737 MAIN STREET, SUITE 500  
RIVERSIDE, CA 92501-3339

PHONE: (909) 782-4130

FAX: (909) 781-8268



September 11, 1996

Commanding Officer  
United States Marine Corps  
Headquarters Marine Corps Air Station El Toro  
Mr. Joseph Joyce  
BRAC Environmental Coordinator  
P.O. Box 95001  
Santa Ana CA 92709-5001

Dear Mr. Joyce:

This is to acknowledge receipt of your letter, August 28, 1996 which we received on September 6, 1996. We concur with the understanding as stated in your letter regarding agreements reached at the August 21, 1996 Base Realignment and Closure Cleanup-Team meeting. Site 20, Unit 3 coincides with Underground Storage Tank (UST) Site 625, which was approved for closure by our letter August 13, 1996. Therefore, no further corrective action is required at Site 20, Unit 3. In addition, Site 20, Unit 2 is transferred from the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Program to the Petroleum Corrective Action Program under our regulatory oversight.

If you have any questions, please call me at (909) 782-4998.

Sincerely,

*Lawrence Vitale*  
Lawrence Vitale  
DoD Section

cc: Ms. Bonnie Arthur, U.S. Environmental Protection Agency, Region 9, 75  
Hawthorne (H-9-2), San Francisco CA 94105-3901  
Mr. Tayseer Mahmoud, Department of Toxic Substances Control, 245 West  
Broadway, Suite 350, Long Beach CA 90802-4444  
Mr. John Adams, Jr., State Water Resources Control Board, Division of Clean  
Water Programs

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SANTA ANA REGION**

3737 MAIN STREET, SUITE 500  
RIVERSIDE, CA 92501-3339  
PHONE: (909) 782-4130  
FAX: (909) 781-6288



August 13, 1996

Mr. Wayne D. Lee  
Headquarters  
Marine Corps Air Station El Toro  
Environmental and Safety  
P.O. Box 95001  
Santa Ana, CA 92709-5001

**SUBJECT: CASE CLOSURE, FORMER UNDERGROUND STORAGE TANK NO. 625**

Dear Mr. Lee,

This letter confirms the completion of site investigations and remedial actions for the subject underground storage tank NO. 625. Based on the information provided in the Closure Report, Removal & Remediation of Underground Storage Tank 625 Marine Corps Air Station El Toro, California and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground storage tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations.

If you have any questions, regarding this matter, please contact Lawrence Vitale at (909) 782-4998.

Sincerely,

A handwritten signature in dark ink, appearing to read "G. J. Thibeault", is written over the typed name.

for Gerard J. Thibeault  
Executive Officer

cc: LT Hope Katcharian, Marine Corps Air Station El Toro  
Mr. Bill Diekman, Orange County Health Care Agency  
Mr. John Adams Jr., State Water Resources Control Board, Division of Clean  
Water Programs



# California Regional Water Quality Control Board

## Santa Ana Region



Winston H. Hickox  
Secretary for  
Environmental  
Protection

Internet Address: <http://www.swrcb.ca.gov/rwqcb8>  
3737 Main Street, Suite 500, Riverside, California 92501-3348  
Phone (909) 782-4130 - FAX (909) 781-6288

Gray Davis  
Governor

September 28, 2000

Mr. Dean Gould  
BRAC Environmental Coordinator  
MCAS El Toro  
P O Box 51718  
Irvine, CA 92619 -1718

### COMMENTS ON SITE ASSESSMENT REPORT, FORMER OIL/WATER SEPARATOR SITES 626-1, 626-2, AND 626-3, MARINE CORPS AIR STATION, EL TORO

Dear Mr. Gould:

We have completed our review of the above-referenced document, dated January 20, 1999, which we received on March 18, 1999. We do not have significant comments on this report, and concur with the recommendation for no further action.

For any questions on this review or related matters, please call me at (909) 782-4494.

Sincerely,

John Broderick  
SLIC/DoD/AGT Section

cc: Ms. Triss Chesney, Department of Toxic Substances Control, OMF  
Mr. Gregory F. Hurley, El Toro RAB Co-Chair  
Ms. Lynn Hornecker, Naval Facility Engineering Command, SWDIV  
Mr. Glenn Kistner, U.S. EPA, Region IX



# California Regional Water Quality Control Board

## Santa Ana Region



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Gray Davis  
Governor

September 28, 2000

Mr. Dean Gould  
BRAC Environmental Coordinator  
MCAS El Toro  
P O Box 51718  
Irvine, CA 92619 -1718

### COMMENTS ON SITE ASSESSMENT REPORT, OIL/WATER SEPARATOR SITES 626-4 AND 626-5, MARINE CORPS AIR STATION, EL TORO

Dear Mr. Gould:

We have completed our review of the above-referenced document, dated March 24, 1999, which we received on April 23, 1999. We do not have significant comments on this report, and concur with the recommendation for no further action.

For any questions on this review or related matters, please call me at (909) 782-4494.

Sincerely,

  
John Broderick  
SLIC/DoD/AGT Section

cc: Ms. Triss Chesney, Department of Toxic Substances Control, OMF  
Mr. Gregory F. Hurley, El Toro RAB Co-Chair  
Ms. Lynn Hornecker, Naval Facility Engineering Command, SWDIV  
Mr. Glenn Kistner, U.S. EPA, Region IX



# California Regional Water Quality Control Board

## Santa Ana Region



Winston H. Hickox  
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3737 Main Street, Suite 500, Riverside, California 92501-3348  
Phone (909) 782-4130 - FAX (909) 781-6288

Gray Davis  
Governor

March 31, 2000

Mr. Dean Gould  
BRAC Environmental Coordinator  
MCAS EL Toro  
P.O. Box 51718  
Irvine, California 92619-1718

Dear Mr. Gould:

REVIEW OF SUMMARY REPORTS, SOLID WASTE MANAGEMENT UNIT (SWMU) No. 14 & 157, FORMER MARINE CORPS AIR STATION, EL TORO

We have completed our review of Summary Report(s), Site Verification at Former Aircraft Drop Tank Fuel Storage Area near Building 606, SWMU Number 14 and Site Verification at Former Vehicle Washrack at the Hobby shop, SWMU Number 157, Petroleum Corrective Action Program, dated November 9 and November 19, 1999, which we received on December 28, 1999. We concur with the no further action status recommendations for these SWMU sites.

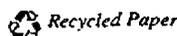
For any questions on these reviews or related matters, please call me at (909) 782-4498.

Sincerely,

Patricia Hannon  
SLIC/DOD/AGT Section

cc: Mr. Glenn Kistner, U.S. Environmental Protection Agency, Region 9  
Ms. Triss Chesney, Department of Toxic Substances Control, Office of Military Facilities  
Gregory F. Hurley, RAB Co-Chair, MCAS El Toro  
Ms. Polin Modanlou, MCAS El Toro Master Development Program  
Ms. Lynn Homecker, Southwest Division NAVFACENGCOM

*California Environmental Protection Agency*



**EXTRACTS**

**DRAFT FINAL  
RECORD OF DECISION  
OPERABLE UNITS 2A AND 3A  
NO ACTION SITES  
MARINE CORPS AIR STATION  
EL TORO, CALIFORNIA**

**SEPTEMBER 1997**

# DECLARATION

## DECLARATION

---

### SITE NAME AND LOCATION

Marine Corps Air Station (MCAS) El Toro  
Operable Unit-3A, Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, and 22  
Operable Unit-2A, Site 25  
Orange County, California

### STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, 22, and 25 at MCAS El Toro in Orange County, California. The document was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan. This decision is based on the administrative record file for these sites.

The State of California (through the California Environmental Protection Agency, Department of Toxic Substances Control, and Santa Ana Regional Water Quality Control Board) and the U.S. Environmental Protection Agency concur with the selected remedy.

### DESCRIPTION OF THE SELECTED REMEDY: NO ACTION

The selected remedy for Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, 22, and 25 is no action. In selecting the no action remedy for these sites, the Navy has determined that the existing condition of the sites is protective of human health and the environment.

Although no deed restrictions are required because of chemicals present in soils at the no action sites, shallow groundwater underlying Sites 9, 10, 13, 15, 21, 22, and portions of Site 25 is contaminated by trichloroethene and tetrachloroethene. Remedial investigations have shown that the contamination does not originate from these sites but from Site 24, the volatile organic compound source area. Use restrictions for several sites (including Site 24 and the no action sites listed above) prohibiting drilling of wells and/or extraction of groundwater and allowing access for groundwater monitoring and maintenance of equipment associated with groundwater remediation will be addressed in the Proposed Plan(s) and Record(s) of Decision for Operable Unit-1 and -2A regarding groundwater.

### DECLARATION STATEMENT

Based on extensive field investigations, laboratory analyses, and a thorough assessment of potential human-health risks at each location and of potential ecological risks at Site 25, the Navy has determined that no remedial action is necessary to assure the protection of human health and the environment at Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, 22, and 25. The Remedial Investigations of these sites show that contamination is limited to the shallow soil interval (Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, and 22) and to sediment and

Date: 09/28/97

Declaration

surface water (Site 25). The human health and ecological risk assessments show that the chemicals present in these media do not present an unacceptable risk to human health or the environment. Therefore, no remedial action is required at these sites. Since hazardous substances are not present at concentrations above unacceptable levels, CERCLA Section 121 cleanup standards do not apply.

Signature: *Joseph Joyce*  
Mr. Joseph Joyce  
Base Closure and Realignment Environmental Coordinator  
Marine Corps Air Station El Toro

Date: Sept 23, 1997

Signature: *John E. Scandiff*  
Mr. John E. Scandiff, Chief  
Southern California Operations  
Office of Military Facilities  
Department of Toxic Substances Control

Date: Sept. 26, 1997

Signature: *Daniel D. Opalski*  
Mr. Daniel D. Opalski, Chief  
Federal Facilities Cleanup Branch  
United States Environmental Protection Agency, Region IX

Date: 9/29/97

Signature: *Gerald J. Thiobault*  
Mr. Gerald J. Thiobault  
Executive Officer  
Regional Water Quality Control Board, Santa Ana Region

Date: 9/30/97