

Summary Report

*Former Temporary Accumulation Area (TAA) 371A
Solid Waste Management Unit (SWMU) 107
Former Marine Corps Air Station, El Toro, California*

10 May 2002

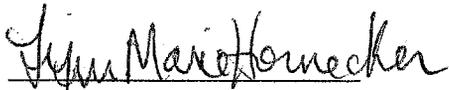
Prepared by:
Southwest Division, Naval Facilities Engineering Command
BRAC Programs Office
San Diego, CA 92101-2404

Summary Report

*Former Temporary Accumulation Area (TAA) 371A
Solid Waste Management Unit (SWMU) 107
Former Marine Corps Air Station, El Toro, California*

10 May 2002

Prepared by:



Lynn Marie Hornecker
Project Manager

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

Transmittal

Date: 10 May 2002

From: Lynn Marie Hornecker *LMA*

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

Subj: Former Temporary Accumulation Area (TAA) 371A
Solid Waste Management Unit (SWMU) 107
Former Marine Corps Air Station, El Toro

Provided for your review as the attachment is the Summary Report for Former Temporary Accumulation Area (TAA) 371A in the southeastern section of the Former Marine Corps Air Station, El Toro. TAA 371A was identified as Solid Waste Management Unit (SWMU) 107 during the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA). Former TAA 371A consists of three concrete pads with a combined surface area of approximately 360 square feet, and each concrete pad is surrounded by a concrete curb or berm.

We reviewed historical RFA documentation and other historical records, calculated screening risk levels based upon the RFA sampling visit data, and conducted visual inspections of former TAA 371A during April and May 2002. The concrete pads and curbs are in excellent condition and no stains or significant cracks were observed. Additionally, no stains were observed on the asphalt-paved ramp or the unpaved areas immediately adjacent to the former TAA. RFA field sampling activities did not identify significant releases at the site. The hazard index (HI) calculations for both the residential and industrial reuse scenarios resulted in HI values that were significantly less than 1. Based upon our evaluation of the historical documentation, the screening risk calculations, and our observations from recent visual inspections, we are recommending that no further action status be designated for TAA 371A in the next BRAC Business Plan update.

If we do not receive comments from your office within sixty (60) days of receipt of this transmittal, then we will assume that you concur with our recommendation to designate no further action status for TAA 371A.

SOUTHWESTNAVFACENGCOM
BRAC Operations
Code 06CC.LMH
1220 Pacific Highway
San Diego, California 92132-5190

File: ettaa371altr.doc

Please do not hesitate to call me at (619) 532-0783 if you have questions on the attachment.
Thank you very much.

Attachment

Summary Report (SWDIV, May 2002)

CF:

Dean Gould (MCAS El Toro BEC)

Project File (MCAS El Toro)

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Section 1 *Introduction*

The purpose of this Summary Report is to present information pertaining to the former Temporary Accumulation Area (TAA) 371A at the Former Marine Corps Air Station (MCAS), El Toro. TAA 371A was identified as Solid Waste Management Unit (SWMU) 107 during the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA), and the original visual inspection report is presented in 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). A sampling visit was conducted in 1992. The former TAA 371A includes three concrete pads, and each pad is surrounded by a concrete berm approximately 6 inches high. While TAA 371A was operational, it was surrounded by a gated chain-link fence. Former TAA 371A is located northwest of Agua Chinon Wash in the vicinity of Installation Restoration Program (IRP) Site 19, Unit 1 (Northeast Stained Area) in the southeast section of the Station as shown on Figure 1. Sample locations from the RFA sampling visit are shown on Figure 2.

The Former Marine Corps Air Station, El Toro, also known as the Station, comprises approximately 4,700 acres in eastern Orange County approximately 45 miles southeast of Los Angeles, California. The Station closed on 2 July 1999 in accordance with the Base Realignment and Closure Act of 1993 (BRAC III). Former TAA 371A is located within a parcel, that prior to 5 March 2002, had been tentatively designated for future use as an airfield as shown on Figure 3. Evaluation of other reuse alternatives is in progress as of May 2002.

Historical facility records and documentation from the environmental compliance program were acquired and reviewed, and the vicinity of former TAA 371A was visually inspected. TAA 371A was constructed in approximately 1990 and was used for approximately 10 years based upon historical documentation. No stains were observed during the visual inspections of December 1994, November 1995, and April and May 2002. Stains were observed on the concrete and the adjacent asphalt-paved ramp during the visual inspection of 30 April 1991 (JEG 1993).

Soil samples were collected adjacent to TAA 371A in 1992 and no significant releases were identified. 2-butanone (also known as methyl ethyl ketone (MEK)) was identified at an estimated value of 3 micrograms per kilogram.

Based upon the review of historical information, the results of the visual inspections, and the screening risk evaluation, it is recommended that no further action status be designated for former TAA 371A (SWMU 107) in the next BRAC Business Plan update.

Section 2

Field Inspections and Historical Records

2.1 Field Inspections and Sampling Activities at nearby Locations of Concern. TAA 371A was identified during the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) as Solid Waste Management Unit (SWMU) 107 (JEG 1993). TAA 371A consists of three concrete pads. A concrete curb or berm, approximately 6 inches high, surrounds each concrete pad. The pads are located on an unpaved area northwest of Agua Chinon Wash near IRP Site 19. An asphalt ramp is located adjacent to the southeast side of former TAA 371A.

A visual inspection was conducted on 30 April 1991 and the TAA was described as an area of approximately 360 square feet (approximately 36 feet long by 10 feet wide). The photograph taken during the 1991 inspection shows drums stored within two of the three pads. Stains were observed on two of the three pads, on the asphalt ramp, and on the soil adjacent to one of the pads.

A sampling visit was conducted in 1992, and two 5-foot deep hand auger borings (107H1 and 107H2) were advanced on the northwest side of the TAA where stains had been reported during the 1991 inspection. Samples were collected at approximate intervals of two and five feet below ground surface. Four samples were collected. Analytical data from the borings is summarized in Table 1 with screening risk calculations. Extracts from the RFA documentation are included in the Appendix.

Visual inspections were conducted in December 1994 and November 1995 during the preparation of the Final Addendum to the RCRA Facility Assessment (Bechtel 1996). Drums were in storage at TAA 371A during these inspections, and no stains were observed on the concrete surface of the TAA or on the adjacent soil.

Table 1. RFA Sampling Visit Data for TAA 371A (SWMU 107).

Sample Identifier	Analytical Results (JEG 1993) Maximum Concentrations are Shown in Bold Print	Comments and Risk Screening Calculations
<p>107H1 (sample depth: 2 feet)</p>	<p>TPH-diesel, TPH-gasoline, TRPH: not detected at or above laboratory reporting limits (ND). Volatile organic compounds: acetone and methylene chloride (present also in laboratory control samples) 2-butanone (MEK): 3 micrograms/kilogram "J" Pesticides/PCBs: ND Semi-volatile organic compounds: ND except di-n-butylphalate (also present in laboratory control samples)</p> <p>Metals: not detected above background</p>	<p>PRGs (USEPA Region 9 November 2000):</p> <p>The cancer risk estimate was calculated using the maximum identified concentration for each analyte with the equation provided in the USEPA Region IX PRG publication dated 2000: $Risk = \{[concentration \div PRG]\} \times 10^{-6}$</p> <p>2-butanone (MEK): Residential PRG: 7.3 E03 mg/kg (non-cancer) HI: $(0.003)/(7.3E03) = 0.00000041$</p> <p>Industrial PRG: 2.8 E04 mg/kg (non-cancer) HI: $(0.003)/(2.8E04) = 0.00000011$</p>
<p>107H1 (sample depth: 5 feet)</p>	<p>TPH-diesel, TPH-gasoline, TRPH: not detected at or above laboratory reporting limits (ND). Volatile organic compounds: acetone and methylene chloride (present also in laboratory control samples) Semi-volatile organic compounds: ND Pesticides/PCBs: ND Metals: not detected above background</p>	
<p>107H2 (sample depth: 2 feet))</p>	<p>TPH-diesel, TPH-gasoline, TRPH: not detected at or above laboratory reporting limits (ND). Volatile organic compounds: acetone and methylene chloride (present also in laboratory control samples) Semi-volatile organic compounds: ND Pesticides/PCBs: ND Metals: not detected above background</p>	
<p>107H2 (sample depth: 5 feet)</p>	<p>TPH-diesel, TPH-gasoline, TRPH: not detected at or above laboratory reporting limits (ND). Volatile organic compounds: acetone and methylene chloride (present also in laboratory control samples) Semi-volatile organic compounds: ND except di-n-butylphalate (also present in laboratory control samples) Pesticides/PCBs: ND Metals: not detected above background</p>	
<p>Risk Summary</p>		<p>Residential Risk (2-butanone): HI: $(0.003)/(7.3E03) = 0.00000041$</p> <p>Industrial Risk (2-butanone): HI: $(0.003)/(2.8E04) = 0.00000011$</p>

The screening risk calculation in Table 1 is based upon the maximum concentration of 2-butanone (MEK) with USEPA Region IX Preliminary Remediation Goals (PRGs) dated November 2000. 2-butanone (MEK) was detected as an estimated value of 3 micrograms per kilogram (or 0.003 milligrams per kilogram); the result was qualified as estimated because it was below reporting limits but above instrument detection limits. The hazard index calculations for the residential and industrial scenarios are each significantly less than 1.

TAA 371A was also identified in the Final Environmental Baseline Survey (EBS) Report (JEG 1995) as an active satellite accumulation area (SAA). The EBS identifies no further action status for SAA 371A based upon the RFA, and extracts from the EBS are included in the Appendix.

Representatives from the Navy conducted visual inspections of the former TAA 371A on 29 April 2002 and on 3 May 2002. Each of the three concrete pads at TAA 371A is approximately 10 feet wide by 12 feet long. On 3 May 2002, the surfaces of the concrete pads were inspected closely and no stains or significant cracks were observed on the pads or on the curbs. The concrete floors and curbs appeared to be in excellent condition. Additionally, no stains were observed on the asphalt-paved ramp that approaches TAA 371A or on the adjacent unpaved areas. Photographs from the visual inspection of May 2002 are included in the Appendix.

2.2 Historical Property Records and Environmental Program Records

Property records and information from previously published environmental compliance and environmental restoration program projects were acquired and reviewed. Some of the documents are included in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Administrative Record. Extracts from selected documents are included in the Appendix.

According to the plant account records, Building 371 was constructed in 1954. The property records do not include a specific construction date for TAA 371A however the RFA documentation indicates that it was constructed during approximately 1990.

The following Summary Table presents historical information pertaining to former TAA 371A and nearby buildings or locations of concern.

Table 2. Former TAA 371A Vicinity, MCAS El Toro.

Building or Feature Identifier	Approximate Date of Construction or Installation	Comments
TAA 371A (SWMU 107)	1990	<p>TAA for Building 371 (hangar). TAA 371A is not visible on a 1963 aerial photograph. TAA 371A is not visible on a 1980 aerial photograph that is provided in the IRP Site 19 RI Report (Bechtel 1996). Additionally, the 1980 photographs of drum storage areas at MCAS El Toro (CERCLA Administrative Record ID M60050.000924) do not show drums in storage at or near Building 371 or the vicinity of former TAA 371A. TAA 371A was documented in the visual site inspection of 1991; drums were stored at the TAA during the 1991 inspection. TAA 371A was inspected and photographs were taken on 7 October 1993 during the preparation of the Hazardous Material/Hazardous Waste Management Plan. Drums were stored at the TAA as shown on the 1993 photographs that are included in the Appendix to this report. TAA 371A was in use during the RFA visual inspections of December 1994 and November 1995. TAA 371A is visible on a 1996 aerial photograph in the IRP Site 19 RI Report (Bechtel 1996).</p>
TAA 371B (SWMU 242)	Prior to 1990	Original TAA for Building 371.
Building 371	1954	<p>Maintenance Hangar. The SPCC Field Survey Report (SCS 1979) identifies the use and/or storage of JP-5 and lube oil at Building 371. SWPPP of 1997 identifies the use or storage of JP-5, solvents, and waste oil at Building 371.</p>
IRP Site 19, Unit 1	-	<p>Northeast Stained Area (Unit 1) was transferred from the IR Program to the petroleum corrective action program, and Unit 1 is located southeast of former TAA 371A. The RWQCB concurred with no further action status for Unit 1 in 1997. The CERCLA Record of Decision for no action at IRP Site 19 was signed in 1997.</p>
IRP Site 25	-	<p>Agua Chinon Wash is located southeast of TAA 371A. Agua Chinon Wash was investigated during the investigation of SWMU 11 and IRP Site 25. The CERCLA Record of Decision for no action was signed in 1997. Storm water discharges to Agua Chinon Wash and the other drainage channels were monitored under a Regional Water Quality Control Board (RWQCB), Santa Ana Region National Pollutant Discharge Elimination System (NPDES) permit for storm water until shortly after the Station closed. Monitoring reports were submitted to the RWQCB.</p>

Regional Water Quality Control Board, Santa Ana Region Correspondence

The RWQCB letter dated 23 June 1989 (Administrative Record ID M60050.001 130) addresses several solvent storage areas and drum storage areas, however, the letter does not identify TAA 371A or Building 371. A copy of the letter is included in the Appendix.

A list dated 17 April 1989 (AR Identifier M60050.000776) of areas where hazardous substances were used or wastes were generated does not identify Building 371 or TAA 371A. The list is included in the Appendix.

Storm Water Pollution Prevention Plan (SWPPP)

Visual inspections of areas where hazardous materials and hazardous wastes were stored were conducted in 1993 during the development of the SWPPP. The SWPPP identifies storage or use of JP-5, solvents, and waste oil at Building 371.

The SWPPP also includes a spill history table in Section 5, and this table does not identify historic spills at or near Building 371 or TAA 371A. Extracts from the SWPPP are included in the Appendix.

Surface water quality in Agua Chinon Wash and the other drainage channels was monitored under the Station's National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water. The permit was issued by the California Regional Water Quality Control Board, Santa Ana Region. The permit was cancelled following the closure of the Station.

Historical Facility Maps

Facility maps dated 1948 and 1954 are included in the Appendix. Building 371 had not been constructed in 1948, and the vicinity of TAA 371A is shown as an undeveloped area along Agua Chinon Wash. The 1954 map shows Building 371 (maintenance hangar) located southeast of the TAA 371A site. The historical maps and property records are included in the Appendix to this report.

Installation Restoration Program

IRP Site 19 – the aircraft expeditionary refueling (ACER) site - was investigated for petroleum hydrocarbons and other possible contaminants. Unit 1 of IRP Site 19 was located southeast of former TAA 371A, and soil samples were collected at Unit 1. Four groundwater monitoring wells were constructed at IRP Site 19, and several quarterly sampling events were completed during the remedial investigation. A no action Record of Decision was signed for IRP Site 19 in 1997.

IRP Site 25 - the major drainages - included Agua Chinon Wash which is located southeast of former TAA 371A. A no action Record of Decision was signed for IRP Site 25 in 1997.

2.3 Ground Water Conditions

Groundwater conditions in the vicinity of former TAA 371A were investigated during the remedial investigation of nearby IRP Site 19, and four monitoring wells were constructed for IRP Site 19. The groundwater beneath former TAA 371A is approximately 150 feet below ground surface based upon water level measurements from well 19_DGMW86, which is located west-northwest of former TAA 371A. Extracts from a routine groundwater monitoring report are included in the Appendix under the section entitled "Extracts from MCAS El Toro Property Records, Building Guides, and Historical Facility Maps".

Section 3

Findings and Recommendations

The following findings are based upon information collected during the record search activities and from observations during the visual inspections of the vicinity of former TAA 371A (SWMU 107):

- Former TAA 371A, a temporary accumulation area northwest of Building 371 (a maintenance hangar), was identified during Resource Conservation and Recovery Act Facility Assessment (RFA) as Solid Waste Management Unit (SWMU) 107. The TAA structure includes three concrete pads, each surrounded by a concrete curb. The accumulation area was surrounded by a gated chain-link fence when TAA 371A was in operation. The concrete pads do not have sumps. Drums were stored at the TAA during the visual inspection of 1991, during the preparation of the Hazardous Material/Hazardous Waste Management Plan in 1993, and during visual inspections in December 1994 and November 1995.
- A sampling visit was conducted at TAA 371A in 1992, and samples were collected at depths of 2 feet and 5 feet below ground surface. The results of the inspections and sampling activities indicated that no significant releases had occurred at TAA 371A. 2-butanone (MEK) was detected at a maximum concentration of 3 micrograms per kilogram "J" (2-foot sample). Screening risk levels were calculated using the maximum 2-butanone concentration, and the hazard indices were significantly less than 1 for residential and industrial reuse scenarios (HI residential: $(0.003)/(7.3E03) = 0.00000041$; HI industrial: $(0.003)/(2.8E04) = 0.00000011$).
- Former TAA 371A is located near the investigation boundary for IRP Site 19. Former TAA 371A is also located northwest of Agua Chinon Wash (IRP Site 25 – major drainages). Four groundwater monitoring wells were constructed and monitored during the remedial investigation for the nearby IRP Site 19. Releases at IRP Site 19 and IRP Site 25 were not determined to pose a significant risk to human health or the environment, and a no action Record of Decision has been signed for IRP Site 19 and IRP Site 25.
- The Navy inspected the former TAA 371A on 29 April 2002 and 3 May 2002. No stains were observed on the concrete surfaces of the pads or on the curbs of the TAA. No significant cracks were observed in the concrete surfaces of the floor or on the curb. No stains were observed on the asphalt ramp on the southeast side of the TAA. No stains were observed on the unpaved areas adjacent to the TAA.

Based upon the absence of visual evidence of a significant release at or near former TAA 371A, the results of the screening risk calculations, and the excellent condition of the concrete pads and curbs, it is recommended that no further action status be designated for TAA 371A (SWMU 107) in the next BRAC Business Plan Update

Section 4

References and/or Sources of Information

Bechtel National, Inc. 1996. Final Addendum to the RCRA Facility Assessment, MCAS El Toro, California. [Navy Contract N68711-92-D-4670, CTO 65]

Bechtel National, Inc. 1997. Draft Final Phase II Remedial Investigation Report, OU-3A Sites, Marine Corps Air Station, El Toro, California. June. [Navy Contract N68711-92-D-4670, CTO 79]

California Regional Water Quality Control Board, Santa Ana Region. 1998. Statement of Basis, Renewal of Waste Discharge Requirements for Marine Corps Air Station, El Toro, Order Number 98-42 (NPDES Number CAS 618006). March.

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

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

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). 1993. Marine Corps Air Station, El Toro: Installation Restoration Program, Phase I Remedial Investigation Technical Memorandum. [Navy Contract N68711-89-D-9296, Contract Task Order 145]

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]

Naval Facilities Engineering Command, Southwest Division. 1997. Plant Account Record for MCAS El Toro.

NBS/Lowry Engineers - Planners. 1988. Oil and Hazardous Substance Spill Prevention, Control and Countermeasure Field Survey Report, SPCC Plan, and Spill Contingency Plan for the U. S. Marine Corps Air Station, El Toro, California. [Administrative Record ID # M60050.000800]

Roy F. Weston. 1984. Hazardous Materials/Hazardous Waste Engineering Study. [Administrative Record ID # M60050.000899]

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].]

SCS Engineers. 1979. Oil and Hazardous Substance Spill Prevention, Control, and Countermeasure Field Survey Report and SPCC Plan (Administrative Record Identifier M60050.000808).

Southwest Division, Naval Facilities Engineering Command. 1999. Summary Report, Aerial Photograph Anomaly APHO 9, Marine Corps Air Station, El Toro.

United States Marine Corps Air Station, El Toro. 2001. Base Realignment and Closure (BRAC) Business Plan.

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. Circa 1946-1999. Station Property Records, Utility Maps, Construction Drawings, Facility Maps, Aerial Photographs, and Building Guides.

MCAS El Toro CERCLA Administrative Record ID M60050.000924 (1980 photographs of drum storage areas)

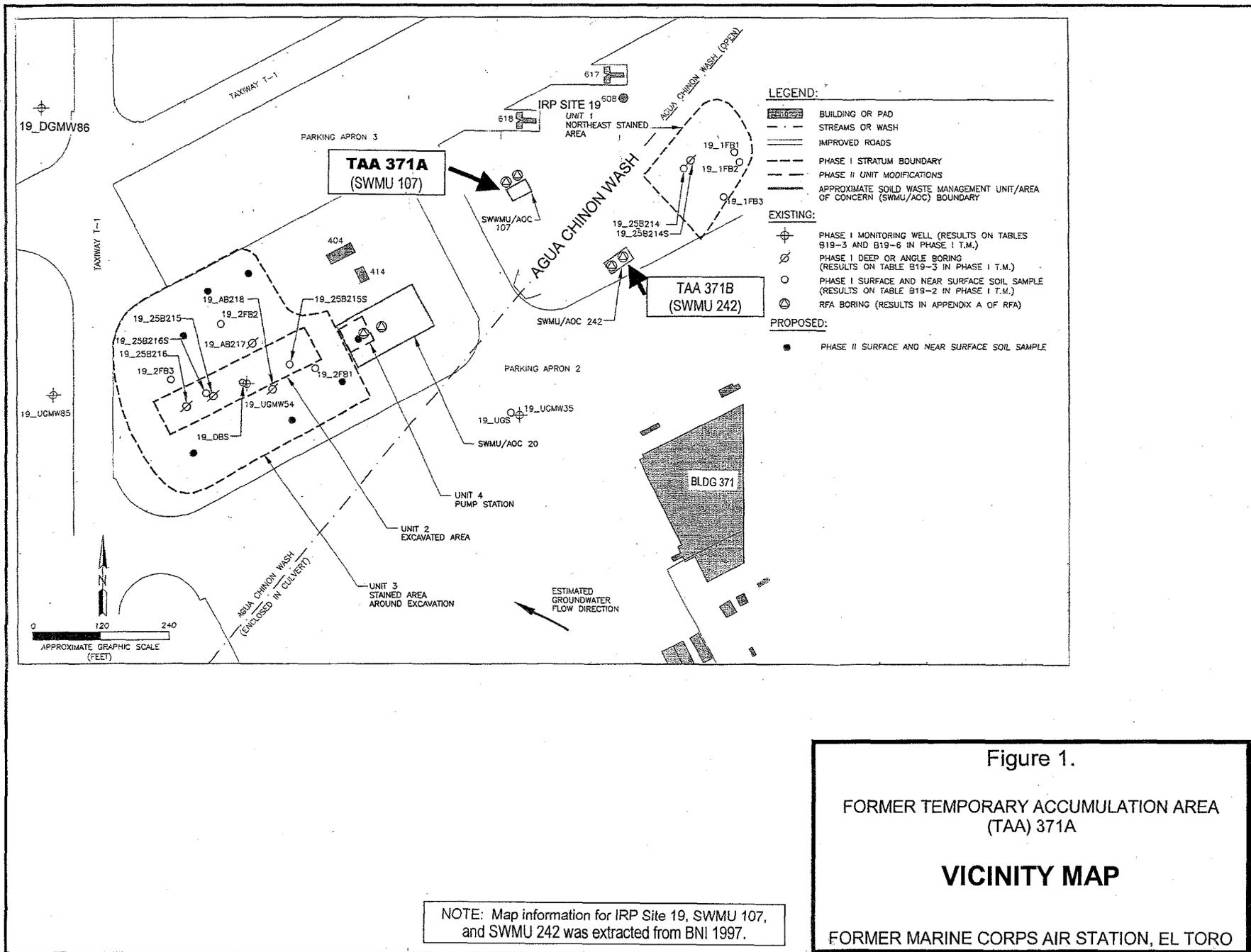


Figure 1.
 FORMER TEMPORARY ACCUMULATION AREA
 (TAA) 371A
VICINITY MAP
 FORMER MARINE CORPS AIR STATION, EL TORO

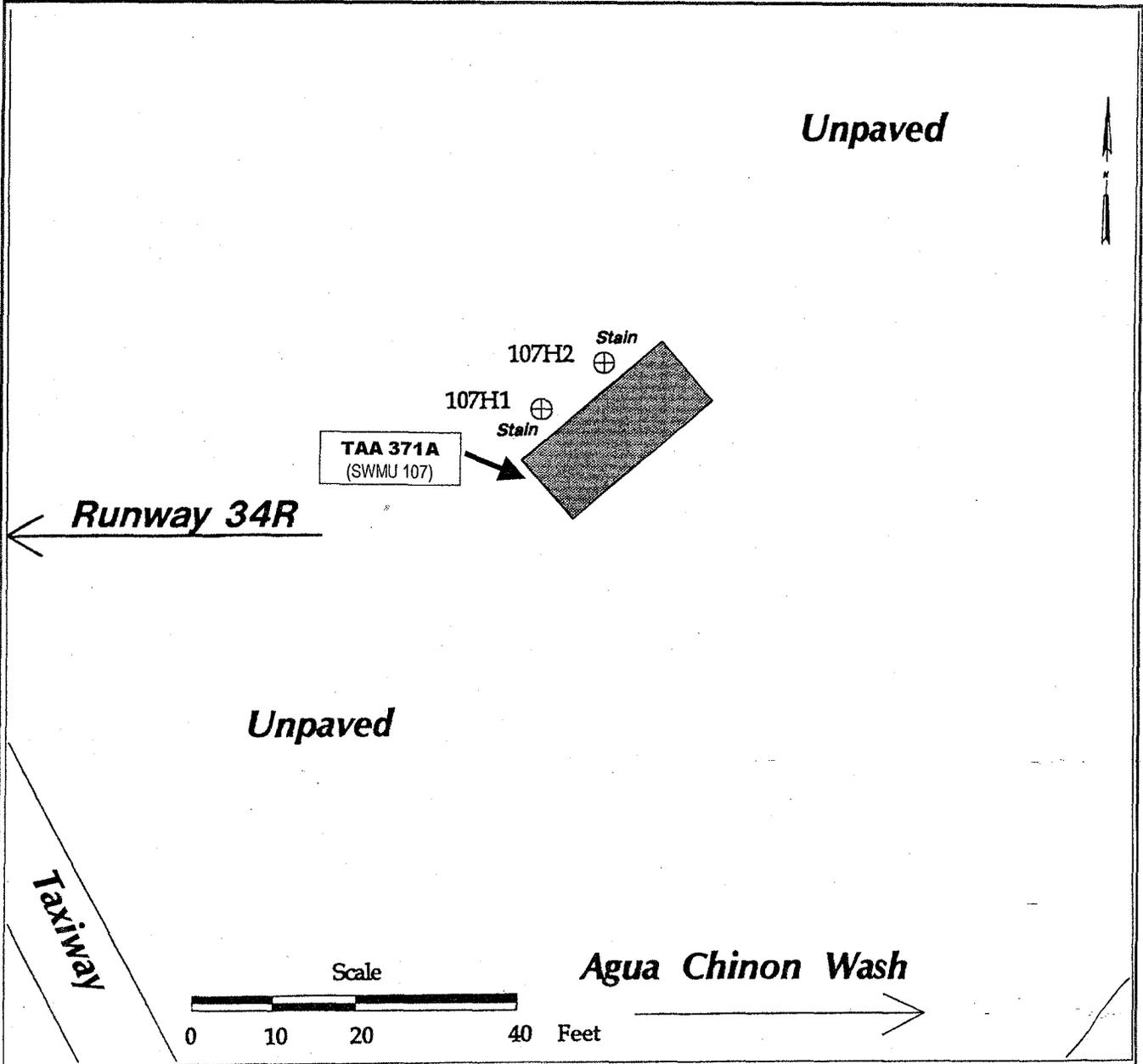
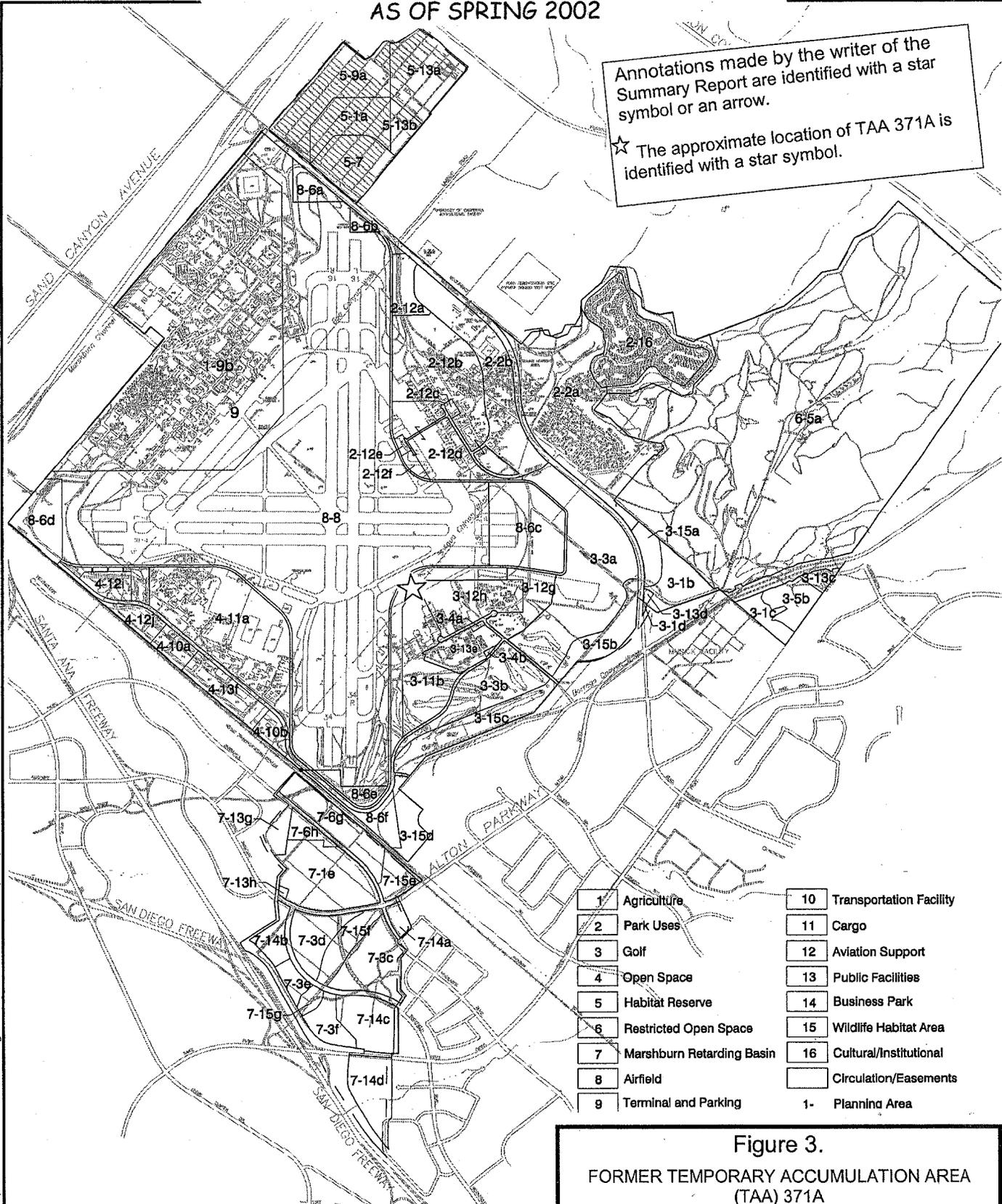


Figure 2.
 TEMPORARY ACCUMULATION AREA (TAA) 371A
SAMPLE LOCATION MAP
 MARINE CORPS AIR STATION, EL TORO

REUSE OF FACILITY IS UNDER RE-EVALUATION
AS OF SPRING 2002

Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.
★ The approximate location of TAA 371A is identified with a star symbol.



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	1-	Planning Area

Figure 3.
FORMER TEMPORARY ACCUMULATION AREA (TAA) 371A
TENTATIVE REUSE PARCEL LOCATIONS
FORMER MARINE CORPS AIR STATION, EL TORO

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)

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5/18/00 11:17 AM

Jane Witzel-Yanez, Witzel-Yanez Design

Appendix

Site Photographs and Other Documentation

Site Photographs

Extracts From RFA and EBS Documentation

Extracts from MCAS El Toro Property Records, Building Guides, and
Historical Facility Maps

Extracts from historical hazardous waste management documents

No Further Action Decision Documents and Other Documents for Nearby
Locations of Concern

Photograph 1. Looking Approximately Northwest at Former Temporary Accumulation Area 371A [Solid Waste Management Unit (SWMU) 107].

TAA 371A consists of three bermed concrete pads.

Marine Corps Air Station, El Toro

Date of Photograph: 3 May 2002



Photograph 2. Former Temporary Accumulation Area 371A (SWMU 107)

Marine Corps Air Station, El Toro

Date of Photograph: 3 May 2002



Photograph 3. Surface of Concrete Pad at Former Temporary
Accumulation Area 371A (SWMU 107)

Marine Corps Air Station, El Toro

Date of Photograph: 3 May 2002

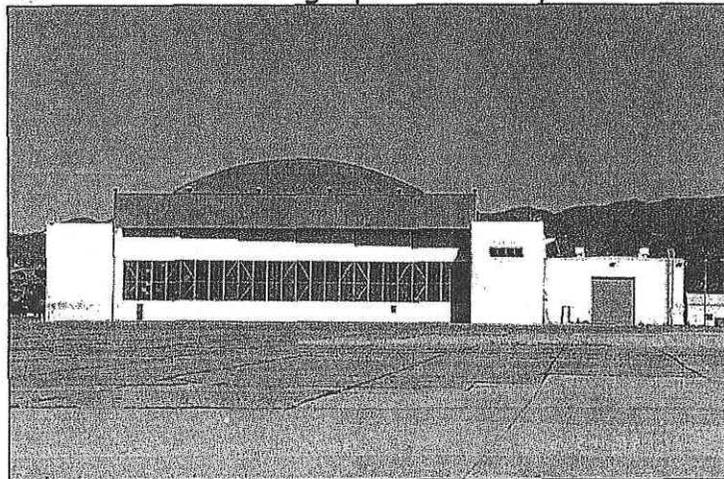


Photograph 4. Looking East-Northeast at Maintenance Hangar
(Building 371).

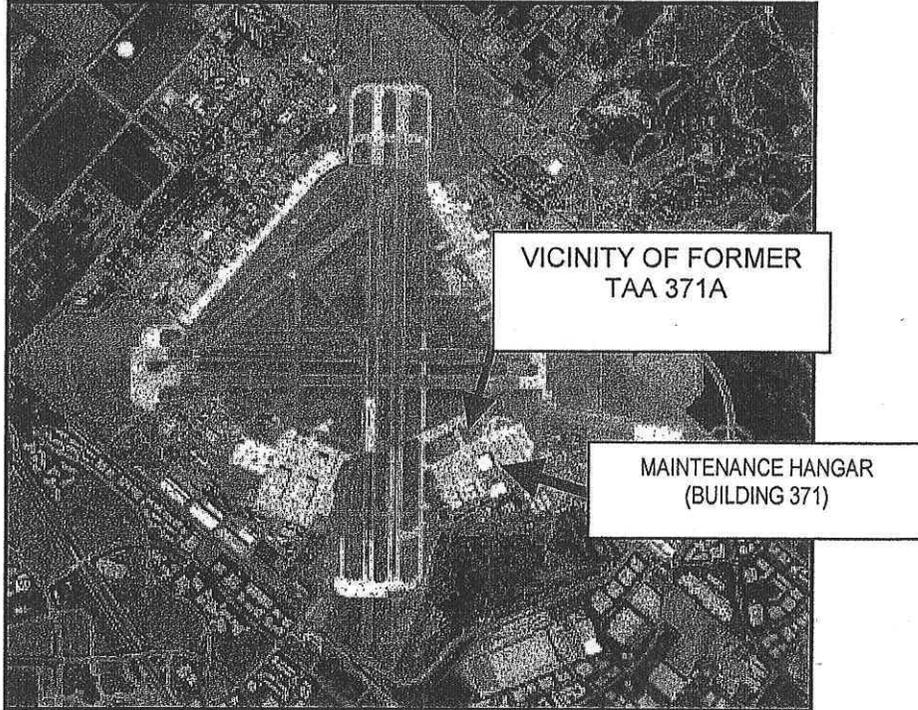
Building 371 is located several hundred feet southeast of Former TAA 371A and
was the source of wastes that were stored at the TAA.

Marine Corps Air Station, El Toro

Date of Photograph: February 2002



Aerial Photograph. Vicinity of Former TAA 371A (SWMU 107)
Marine Corps Air Station, El Toro
Date of Aerial Photograph: 1994



Extracts from RFA and EBS Documentation

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

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

M. W. Arends

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

7/16/93
Date

Raoul Portillo

Raoul Portillo
CLEAN Technical Reviewer
Jacobs Engineering Group Inc.

15 July 1993
Date

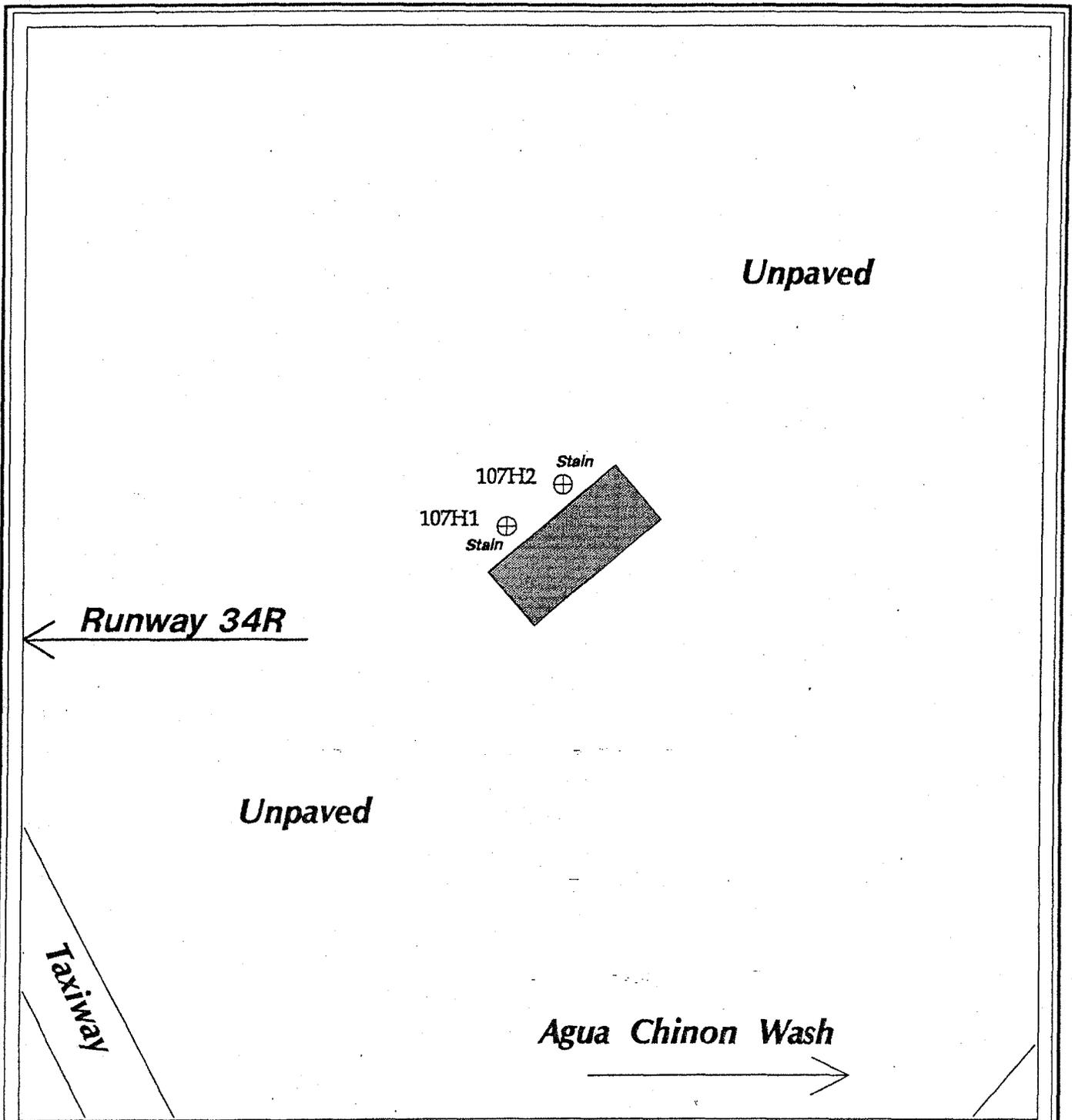


Figure 34 Sample Location Map

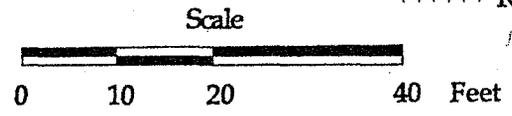
SWMU/AOC Number and Type:
107 - Hazardous Waste Storage Area

Boring Location and Number:

Features:

- ⊕ 123H4 5' Deep Boring
- 123B4 25' Deep Boring
- ▲ 123A4 60' Long, Angle Boring

-  Building
-  Concrete
-  Fence
-  Railroad



MCAS El Toro
RCRA Facility Assessment

MCAS EL TORO RCRA FACILITY ASSESSMENT - - SAMPLING VISIT RESULTS

SWMU/AOC NUMBER	SWMU/AOC TYPE (FIGURE)	BORING NUMBER	SAMPLE DEPTH (FEET)	ANALYTICAL TEST RESULTS							RECOMMENDATIONS	
				TPH (mg/kg)	TFH (mg/kg)		VOCs (ug/kg)	SVOCs (ug/kg)	PESTICIDES/PCBs (ug/kg)	METALS (mg/kg)	Action	Rationale
					Gasoline	Diesel						
107	Hazardous Waste Storage Area (34)	H1	2	ND	ND	ND	Methylene Chloride-4 BJ * Acetone-10 BJ * 2-Butanone-3 J	Di-n-butylphthalate-120 BJ *	ND	NAB	NFA TPH/TFH < 100 ppm VOCs < CRDL SVOCs < CRDL Pest/PCB < CRDL Metals < BGT CRDL - Contract Required Detection Limit BGT - Background Threshold Value	
			5	ND	ND	ND	Methylene Chloride-5 BJ * Acetone-8 BJ *	ND	ND	NAB		
		H2	2	ND	ND	ND	Methylene Chloride-6 BJ * Acetone-10 BJ *	ND	ND	NAB		
			5	ND	ND	ND	Methylene Chloride-5 BJ * Acetone-10 BJ *	Di-n-butylphthalate-43 BJ *	ND	NAB		

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
91	Underground Storage Tank	f	314	Active	1945	50,000 gal	Concrete	Waste Oil
92	Underground Storage Tank	f	314	Active	1945	50,000 gal	Concrete	Waste Oil
93	Drum Storage Area	a,b	317					
94	Drum Storage Area	a,b	320	R/FS Site				
95	Engine Test Cell	a	324					
96	Drum Storage Area	a	343	Possible Duplicate of SWMU/AOC 107 or 242				
97	Drum Storage Area	a	357					
98	Vehicle Wash Rack	a	359					
99	Drum Storage Area	a	359					
100	TCE Degreasers	a	359					
101	Oil/Water Separator	f	359	Active	1952	100 gal	Concrete	
102	Underground Storage Tank	f	359	Active	1982	500 gal	Steel	Waste Stoddard Solvent
103	Drum Storage Area (2)	c	359			120 sq ft		
104	Drum Storage Area	b	360	R/FS Site				
105	Drum Storage Area	c	360	R/FS Site				
106	Drum Storage Area	c	360	R/FS Site		5,076 sq ft		
107	Hazardous Waste Storage Area	Active	371					
108	Underground Storage Tank	f	T-10	Spill Containment Tank, Active	1988	1,000 gal	Fiberglass-Coated Steel	Fuel Slop
109	Drum Storage Area (2)	b	379					
110	Vehicle Wash Rack	a	386					
111	Hazardous Waste Storage Area	Active, a	386	Duplicate of SWMU/AOC 223				
112	Oil/Water Separator	f	386		1982	100 gal	Steel	
113	Underground Storage Tank	f	386	Active	1982	185 gal	Steel	Waste Oil
114	Drum Storage Area	c	386	Active		50 sq ft		
115	Vehicle Wash Rack	a	388	Duplicate of SWMU/AOC 201				
116	Drum Storage Area	a,b	388					
117	Underground Storage Tank	f	388	Active, Identified as gasoline tank in VSI	1955	2,000 gal	Steel	Waste Oil
118	Oil/Water Separator (2)	f	388	Active	1955	100 gal	Steel	
119	Drum Storage Area	b	389					
120	Vehicle Wash Rack	a	390					

4-13

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

Contract No. N68711-92-D-4670

**COMPREHENSIVE LONG-TERM ENVIRONMENTAL
ACTION NAVY
CLEAN II**

EXTRACTS

**FINAL ADDENDUM TO THE
RCRA FACILITY ASSESSMENT
MCAS EL TORO, CALIFORNIA
(VOLUME 6 OF THE FINAL RFA REPORT)**

CTO-0065/0170

May 1996

Prepared by:

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



Signature: _____

Jacques Lord, CTO Leader

Date: _____

31 May 1996

ACCUMULATION AREA EVALUATION CHECKLIST

(CIRCLE AS APPROPRIATE AND FILL IN COMPLETELY)

JOB 22214 CTO-0065
NAVY CLEAN II MCAS EL TORO RFA CONFIRMATION ACTIVITIES

GENERAL DESCRIPTION:

SWMU #: 107 Accumulation Area (AA) #: 371A
Location (bldg): HWSA/Bldg. 371A
Site Contact: SDO in Bldg. 371 Ext: N/A
Permission for Access? Y N If yes, explain: Locked Entry
Type of Wastes Observed None

TYPE: (CIRCLE AS APPROPRIATE)

~~Locker~~ ~~Cabinet~~ ~~Pad~~ Concrete Soil ~~Asphalt~~ floor
~~Berm~~ Fence Fence Type: Cyclone ~~Indoor~~
Pallets Drum(s) No. of Drums: 19 on berm Outdoor
plus 18 empty and 12 overpicks

CONDITION:

~~Stain(s)~~ ~~Odor(s)~~ ~~Crack(s)~~

Placards/Labels: Y N If Yes, list: Hazwaste

Aliphatic Polyurethane
Batteries; Paint Remover
Rags with fuel & oil

Observations: Waste Area #29; Concrete bermed pad is clean. no stains seen on the soil surface. 13 of 19 drums are labeled "LUBE OIL."

Status: No significant changes as of 11-10-95.

DIMENSIONS: (ESTIMATED SIZE OR AREA IN FT)

AA/SWMU: 20x50 ft.

"Stain(s)" : None observed.

Any Restrictions To Access?: Fence and Pallets.

EVALUATION OF REMOVAL/DECONTAMINATION STRATEGY (CIRCLE AS APPROPRIATE)

Yes No Potential for release evident based on this surveillance
Yes No Potential for simple removal
Yes No Potential for decontamination activities prior to removal
Yes No Potential for sampling (describe:)
Yes No Potential for removal after additional assessment activities

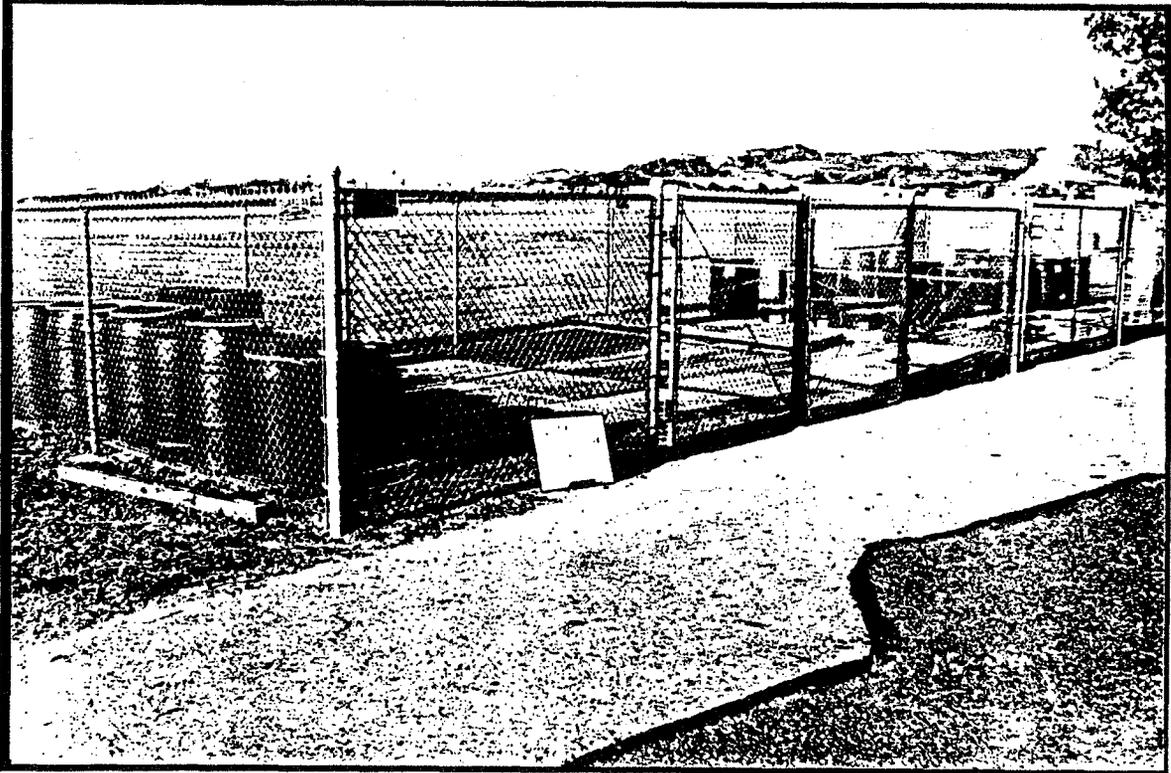
SKETCH: (MAKE A SKETCH or ATTACH PHOTO(S) OF RELEVANT ACCESS, OBJECTS, WORK SPACE, ETC., AS APPROPRIATE, ON REVERSE OF THIS FORM)

DATE/TIME OF SURVEILLANCE: 12-5-94/14:05

UPDATED: 11-10-95/13:52

SURVEILLANCE PERFORMED BY: Larry Bauman

PHOTO LOG



SWMU #: 107

PHOTO DATE: 12-15-94

EXTRACTS

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

01 April 1995

Revision 0

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 El 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 PR/VS	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 PR/VS	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 PR/VS	2
SAA 115	115	Active	39	Shallow Soil Borings Recommended	7
SAA 130A	130	Inactive	294	Sampling Visit Not Recommended During PR/VS	2
SAA 130B	130	Active	295	Sampling Visit Not Recommended During PR/VS	2
SAA 130C	130	Inactive	42	Sampling Visit Not Recommended During PR/VS	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 PR/VS	2
SAA 242	242	Inactive	67	Sampling Visit Not Recommended During PR/VS	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 PR/VS	2
IRP 21	320	Active	94	IRP Site 21 (1)	6
SAA 357	357	Inactive	97	Sampling Visit Not Recommended During PR/VS	2
SAA 359A	359	Inactive	254	Sampling Visit Not Recommended During PR/VS	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 PR/VS	2
SAA 388A	388	Active	116	RFA recommended NFA	3
SAA 388B	388	Inactive	251	Sampling Visit Not Recommended During PR/VS	2
SAA 389A	389	Inactive	119	Sampling Visit Not Recommended During PR/VS	2
SAA 389B	389	Inactive	259	Sampling Visit Not Recommended During PR/VS	2
SAA 390A	390	Active	122	Sampling Visit Not Recommended During PR/VS	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

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



THE EBS INDICATES THAT NO FURTHER ACTION IS RECOMMENDED FOR TAA 371A (ALSO KNOWN AS SATELLITE ACCUMULATION AREA (SAA) 371A)

SOUTHWESTNAVFACENGCOM
CODE 06CC.LMH
SAN DIEGO, CA 92101

Extracts from MCAS El Toro Property Records, Building Guides, and Historical Facility Maps

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

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



Plant Account Record for Building 371.

1994 BUILDING GUIDE

e No.
14/94

7

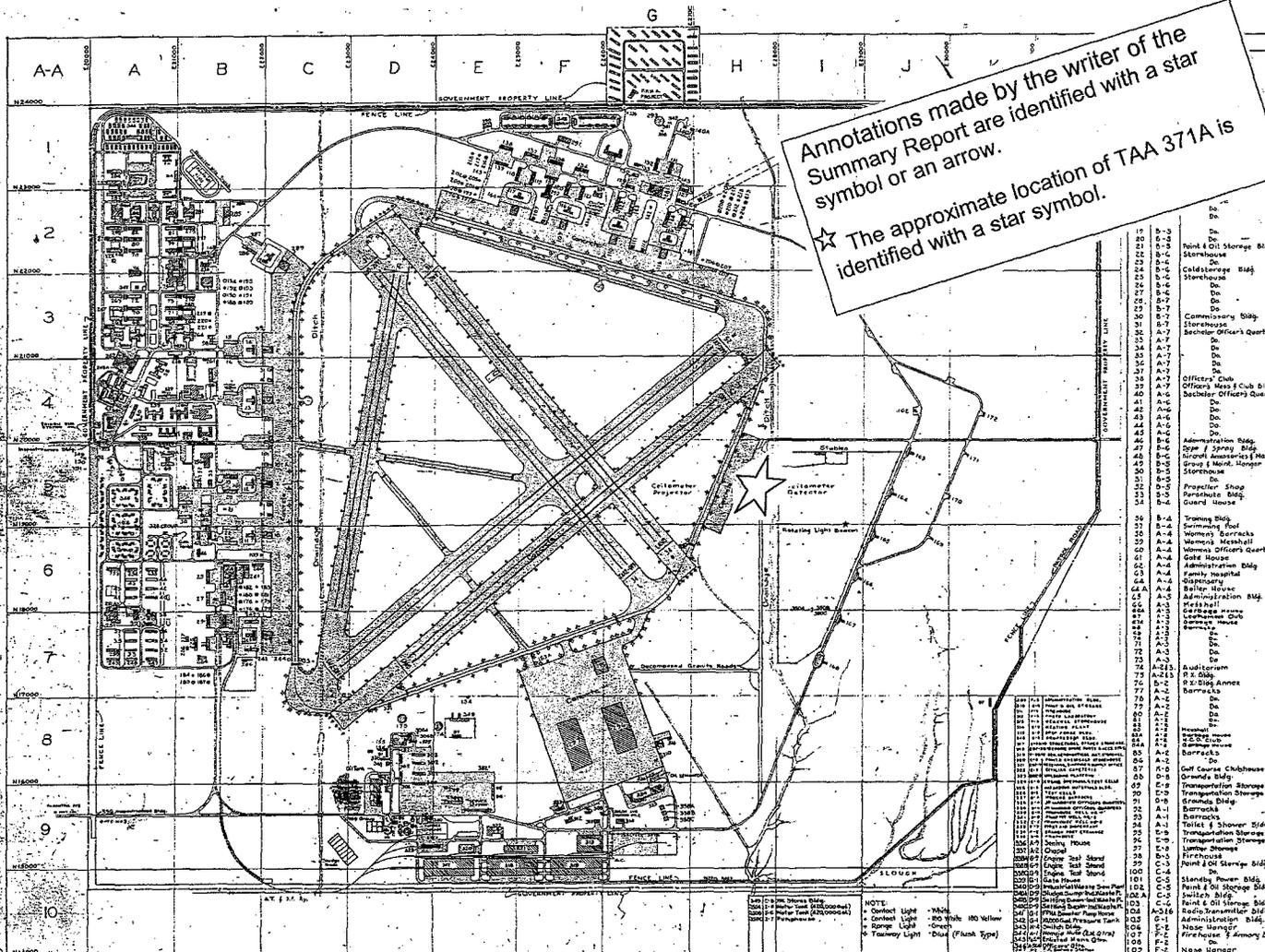
MCAS EL TORO BUILDING GUIDE

FAC NO.	MAP GRID	DESCRIPTION	TENANT	CAT CODE NUMB	COST ACCT CODE	SIZE
370	T6	FW Paint/Carp/Metal Trades	Installation	21910	EBBO	15280 SF
371	Q11	Maint Hangar OH Space	VMFAT-101	21105	EBVO	36000 SF
371	Q11	Maint Hangar 01 Space	VMFAT-101	21106	EBVO	16952 SF
371	Q11	Maint Hangar 02 Space	VMFAT-101	21107	EBVO	21117 SF
371	Q11	Engine Maintenance Shop	MALS-11	21121	EBVO	12992 SF
372	08	Airfield Operations Bldg	SOMS/FAA	14140	EBND	11323 SF
372	08	Stand-by Generator Bldg	SOMS	81159	EAAO	400 SF
372	08	Control Tower	SOMS	14170	EBNO	1323 SF
372	08	Field Lighting Vault	SOMS	81209	EHAO	674 SF
372	08	Snack Bar #3	MWR-Hosp	74005	EBLO	1000 SF
374	Q11	Heating Plant Bldg	Installation	82109	EAOO	3773 SF
374	Q11	Conversion Station	Installation	81310	EHAO	1813 SF
375	S3	Bachelor Officers Quarters	Sta/G-4	72412	EBKO	24 FN
376	04	Fire Station Dispatch	Sta/G-1	73110	EBLO	1649 SF
377	Q11	Water Storage Tank	Installation	84330	EAUO	316000 GA
379	U9	Truck Weighing Facility	Supply	89056	EAFD	1 EA
380	M10	Standby Generator Bldg	Installation	81159	EAAO	1050 SF
382	P3	Electrical Distr Subs #1	Installation	81209	EABO	207 SF
383	U8	Electrical Distr Subs #2	Installation	81209	EHAO	160 SF
384	R12	Electrical Distr Subs #3	Installation	81209	EHAO	160 SF
385	M10	Electrical Distr Subs #4	Installation	81209	EHAO	160 SF
386	T7	Construction Equip Shop	Installation	21420	EBBO	7136 SF
387	T8	Loading/Unloading Ramp	CSSD-14	85115	EDAO	159 SF
388	U8	Field Maint Shop	CSSD-14	21453	ERBO	7040 SF
389	P12	Loading/Unloading Ramp	Station	85115	EDAO	159 SF
390	P13	Golf Cart Shop	MWR	74080	EBLO	6400 SF
391	M9	Loading/Unloading Ramp	MAG-11	85115	EDAO	159 SF
392	M9	ACFT Ground Supt Equip Shop	MALS-11	21860	EBBO	6400 SF
394	K13	Transmitter (UHF/VHF COMMxMTR)	Sta/G-6	13150	EBMO	1596 SF
396	N10	Aircraft Truck Fueling	Supply	12120	ECWO	1 EA
399	P7	Vortac Facility	Sta/G-6	13325	EBVO	425 SF
402	K8	Stables Toilet	MWR	73075	EBLO	75 SF
404	Q10	Receiver Bldg	Sta/G-6	13150	EBMO	909 SF
405	P12	Applied Instruction Bldg	AWTU-3	17120	EBAD	3208 SF
406	P12	Applied Instruction Bldg	AWTU-3	17120	EBAD	2285 SF
407	P12	Squadron Headquarters	AWTU-3	61072	EBFO	400 SF
408	P12	Guard Tower	AWTU-3	87220	ECNO	64 SF
409	P12	Guard Tower	AWTU-3	87220	ECNO	64 SF
410	L2	Playing Fields, Softball	MWR	75020	ESCO	4 EA
414	Q10	Standby Generator Bldg	Sta/G-3	81159	EAAO	384 SF
5	L8	Storage out of Stores	MAG-11	44112	EBDO	40313 SF
6	P14	Storage Bldg	FAA	44110	EBDO	480 SF
419	P5	Saluting Battery	Supply	69015	ECLO	1 EA
420	Q3	Station Flagpole	Adjutant	69010	ECLO	1 EA
421	R3	Playing Courts, Tennis	MWR	75010	ECNO	2 EA
422	Q3	Playing Courts, Tennis	MWR	75010	ECNO	1 EA
427	N4	Playing Courts, Hndbl/Bsktbl	MWR	75010	ECNO	1 EA
430	P3	Playing Court, Tennis	MWR	75010	ECNO	1 EA

El Toro Building Guide

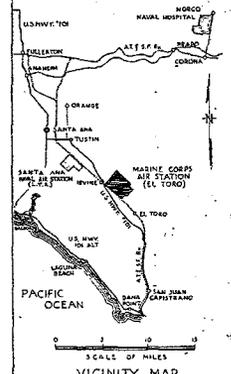
1997 BUILDING GUIDE

BLDG	GRI	DESCRIPTION	TENANT	CATCO	CAC	SIZE
318	U8	MTIS Bldg	Supply	44173	EBDO	40803 SF
319	U8	General Warehouse MC	DRMO	44111	EBDO	70150 SF
319	U8	General Warehouse Navy	Supply	44111	EBDO	56579 SF
320	U7	Hazardous/Flam Storehouse	Supply	44130	EBDD	17100 SF
321	U8	Admin Office	Supply	61010	EBFO	37940 SF
321	U8	(Admin Office)	Vacant	61010	EBFO	4820 SF
321	U8	General Warehouse MC	Supply	44111	EBDO	25838 SF
321	U8	Admin Office	Station/G-4	61010	EBFO	3302 SF
322	U7	(EM Mess Open)	Vacant	72210	EBHO	10653 SF
324	U9	(Applied Instruction)	Vacant	17120	EBAO	32680 SF
324	U9	CO2 Storage	Sta/G-4	44112	EBDO	1611 SF
324	U9	Storage	Installation	21977	EBBO	11567 SF
325	U9	(Hazardous/Flam Storehouse)	Vacant	44130	EBDD	251 SF
326	T9	Hazardous/Flam Storehouse	Environment	83141	EAQO	11446 SF
328	P4	Temp Admin Spaces	MACG-38	61071	EBFO	43923 SF
329	P3	DECA Headquarters	DECA	61010	EBFO	22328 SF
333	U8	Field Maint Shop	CSSD-14	21453	EBBO	2610 SF
335	T6	Water Distribution Bldg	Installation	84209	EHCO	1125 SF
341	M9	GSE Shop	MALS-11	21860	EBBO	468 SF
347	O3	Exchange Food Service Whse	MWR/Hosp	74085	EBLO	9306 SF
349	M10	Aircraft Beacon	Sta/G-3	13420	ECXO	1 EA
355	U8	(Snack Bar #12)	Vacant	74005	EBLO	900 SF
357	U9	Hazardous/Flam Storehouse	Installation	44130	EBDO	192 SF
358	V3	Water Distribution Bldg	Installation	84209	EHCO	711 SF
359	U8	MTIS Building	Supply	44173	EBDO	13065 SF
360	U9	Strg MC Air/Grnd Organic Unit	Supply	44112	EBDO	124920
363	N10	Misc POL Pipeline Shelter	Supply	12520	ECJO	200 SF
364	N1	Mess Hall #2	Food Serv	72210	EBHO	40817 SF
366	O2	Bachelor Enlisted Quarters	Billeting	72111	EBGO	44016 SF
367	O2	Bachelor Enlisted Quarters	Billeting	72111	EBGO	27725 SF
368	U6	Installations/Environmental	Installation	61010	EBFO	19950 SF
368	U6	Installations	Installations	61010	EBFO	17868 SF
369	T7	Servmart	Supply	44172	EBDO	29568 SF
370	T6	PW Paint/Carp/Metal Trades	Installation	21910	EBBO	15280 SF
371	Q11	Engine Maintenance Shop	MALS-11	21121	EBVO	14094 SF
371	Q11	Maint Hangar 01 Space	VMFAT-101	21106	EBVO	16704 SF
371	Q11	Maint Hangar 02 Space	VMFAT-101	21107	EBVO	16704 SF
371	Q11	Maint Hangar OH Space	VMFAT-101	21105	EBVO	39150 SF
372	O8	Airfield Operations Bldg	Sta/G-3	14140	EBNO	22178 SF
372	O8	Control Tower	Sta/G-3	14170	EBNO	1323 SF
372	O8	Field Lighting Vault	Sta/G-3	81209	EHAO	674 SF
372	O8	(Snack Bar #3)	Vacant	74005	EBLO	1000 SF
372	O8	Stand-by Generator Bldg	Sta/G-3	81159	EAAO	400 SF
372	O8	Operations	FAA	14140	EBNO	1700 SF
374	Q11	Conversion Station	Installation	81310	EHAO	1813 SF
374	Q11	Heating Plant Bldg	Installation	82109	EABO	3773 SF



Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.
 ☆ The approximate location of TAA 371A is identified with a star symbol.

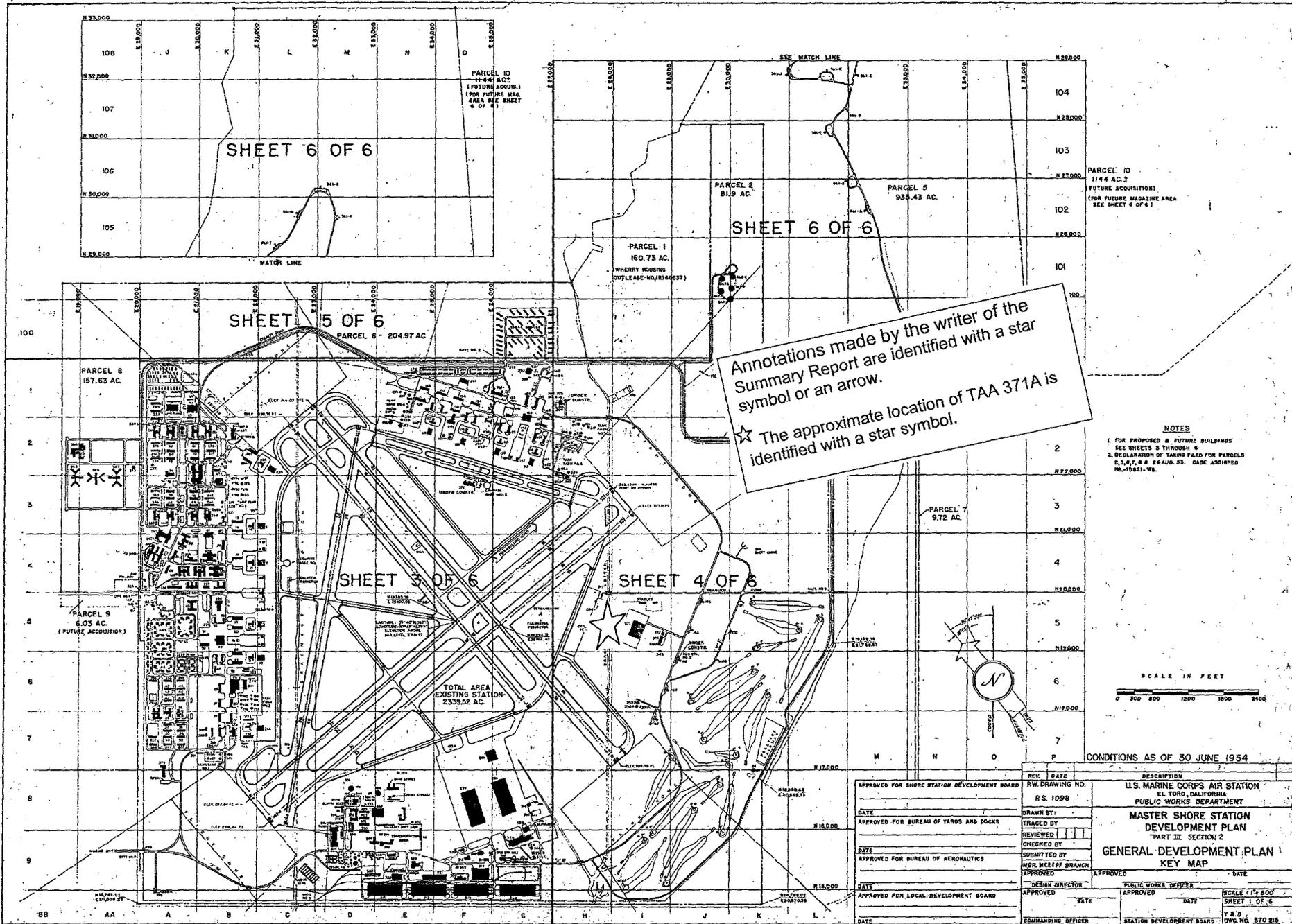
NR	LOCATION	USE
110	G-2	Motor Hangar
111	G-2	Footlocker & Armory Bldg
112	G-2	Do
113	G-2	Do
114	G-2	Do
115	G-2	Do
116	F-2	Do
117	F-2	Do
118	F-2	Do
119	F-1	Do
120	F-2	Do
121	F-2	Do
122	G-2	Do
123	G-2	Do
124	G-2	Do
125	G-2	Do
126	G-2	Do
127	G-2	Do
128	G-2	Do
129	G-2	Do
130	G-1	Do
131	G-1	Do
132	G-1	Do
133	G-1	Do
134	F-1	Do
135	F-1	Do
136	F-1	Do
137	F-1	Do
138	F-1	Do
139	F-1	Do
140	F-1	Do
141	F-1	Do
142	F-1	Do
143	F-1	Do
144	F-1	Do
145	F-1	Do
146	F-1	Do
147	F-2	Do
148	F-2	Do
149	F-2	Do
150	F-2	Do
151	F-2	Do
152	F-2	Do
153	F-2	Do
154	F-2	Do
155	F-2	Do
156	F-2	Do
157	F-2	Do
158	F-2	Do
159	F-2	Do
160	F-2	Do
161	F-2	Do
162	F-2	Do
163	F-2	Do
164	F-2	Do
165	F-2	Do
166	F-2	Do
167	F-2	Do
168	F-2	Do
169	F-2	Do
170	F-2	Do
171	F-2	Do
172	F-2	Do
173	F-2	Do
174	F-2	Do
175	F-2	Do
176	F-2	Do
177	F-2	Do
178	F-2	Do
179	F-2	Do
180	F-2	Do
181	F-2	Do
182	F-2	Do
183	F-2	Do
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185	F-2	Do
186	F-2	Do
187	F-2	Do
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189	F-2	Do
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192	F-2	Do
193	F-2	Do
194	F-2	Do
195	F-2	Do
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198	F-2	Do
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335	F-2	Do
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339	F-2	Do
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395	F-2	Do
396	F-2	Do
397	F-2	Do
398	F-2	Do
399	F-2	Do
400	F-2	Do



NR	LOCATION	USE	NR	LOCATION	USE
211	A-1	Elevated Water Tank			
212	A-1	Do			
213	A-1	Do			
214	A-1	Do			
215	A-1	Do			
216	A-1	Do			
217	A-1	Do			
218	A-1	Do			
219	A-1	Do			
220	A-1	Do			
221	A-1	Do			
222	A-1	Do			
223	A-1	Do			
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297	A-1	Do			
298	A-1	Do			
299	A-1	Do			
300	A-1	Do			

MAP OF 46795
 MARINE CORPS AIR STATION
 EL TORO, CALIF.
 ELEVENTH NAVAL DISTRICT
 SAN DIEGO, CALIF.
 SHOWING CONDITIONS AS OF
 JUNE 30, 1948
 SCALE OF FEET
 1" = 1000'
 1" = 1000'
 1" = 1000'

1948 Facility Map of MCAS El Toro



Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.
 ☆ The approximate location of TAA 371A is identified with a star symbol.

PARCEL 10
 1144 AC.
 (FUTURE ACQUISITION)
 (FOR FUTURE MAGAZINE AREA
 SEE SHEET 6 OF 6)

- NOTES**
- FOR PROPOSED & FUTURE BUILDINGS SEE SHEETS 3 THROUGH 6
 - DECLARATION OF TAKING FIELD FOR PARCELS 5, 6, 7, 8 & 28 AUG. 53. CASE ASSIGNED WL-15621-WG.

CONDITIONS AS OF 30 JUNE 1954

APPROVED FOR SHORE STATION DEVELOPMENT BOARD	REV. DATE	DESCRIPTION
DATE	R.W. DRAWING NO.	U.S. MARINE CORPS AIR STATION
APPROVED FOR BUREAU OF YARDS AND DOCKS	P.S. 1028	EL TORO, CALIFORNIA
DATE	DRAWN BY	PUBLIC WORKS DEPARTMENT
APPROVED FOR BUREAU OF AERONAUTICS	TRACED BY	MASTER SHORE STATION
DATE	REVIEWED BY	DEVELOPMENT PLAN
APPROVED FOR LOCAL DEVELOPMENT BOARD	CHECKED BY	PART III SECTION 2
DATE	SUBMITTED BY	GENERAL DEVELOPMENT PLAN
	HEAD OFFICE BRANCH	KEY MAP
	APPROVED	APPROVED
	DESIGN DIRECTOR	PUBLIC WORKS OFFICER
	APPROVED	APPROVED
	DATE	DATE
	SCALE 1" = 500'	SCALE 1" = 500'
	Y.S.D.	SHEET 1 OF 6
	COMMANDED OFFICER	STATION DEVELOPMENT BOARD
		DWG. NO. 870-B18

Extracts

FINAL

**GROUNDWATER MONITORING REPORT
OCTOBER 1997 SAMPLING ROUND**

**GROUNDWATER MONITORING PROGRAM
FOR
MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA**

Contract No. N68711-96-D-2029
Delivery Order 005

Prepared for:

**SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 Pacific Highway
San Diego, California 92132**

Prepared by:

**CDM FEDERAL PROGRAMS CORPORATION
3760 Convoy Street, Suite 210
San Diego, California 92111**

March 1998

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING ELEVATION (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
19 DGMW86	WT	158 - 198	332.87	12-Jan-96	150.34	182.53	
			332.87	12-Feb-96	149.94	182.93	0.40
			332.87	27-Mar-96	149.47	183.40	0.47
			332.87	31-Oct-96	149.46	183.41	0.01
			332.87	26-Nov-96	148.88	183.99	0.58
			332.87	27-Dec-96	149.15	183.72	-0.27
			332.87	24-Jan-97	148.12	184.75	1.03
			332.87	27-Feb-97	147.31	185.56	0.81
			332.87	27-Mar-97	148.15	184.72	-0.84
			332.87	26-Jun-97	147.94	184.93	0.21
			332.87	12-Aug-97	147.76	185.11	0.18
			332.87	25-Sep-97	147.42	185.45	0.34
			332.87	6-Nov-97	147.10	185.77	0.32
19 UGMW35	WT	148 - 185	343.66	12-Jan-96	150.62	193.04	
			343.66	8-Feb-96	150.29	193.37	0.33
			343.66	27-Feb-96	149.97	193.69	0.32
			343.66	27-Mar-96	149.65	194.01	0.32
			343.66	31-Oct-96	149.26	194.40	0.39
			343.66	26-Nov-96	148.94	194.72	0.32
			343.66	27-Dec-96	149.50	194.16	-0.56
			343.66	24-Jan-97	147.84	195.82	1.66
			343.66	27-Feb-97	147.29	196.37	0.55
			343.66	27-Mar-97	148.20	195.46	-0.91
			343.66	26-Jun-97	147.69	195.97	0.51
			343.66	11-Aug-97	142.42	201.24	5.27
			343.66	7-Nov-97	146.62	197.04	-4.20
20 DBMW55	WT	187 - 227	331.56	11-Jan-96	180.53	151.03	
			331.56	27-Feb-96	179.62	151.94	0.91
			331.56	28-Feb-96	179.92	151.64	-0.30
			331.56	27-Mar-96	179.34	152.22	0.58
			331.56	31-Oct-96	179.30	152.26	0.04
			331.56	26-Nov-96	179.14	152.42	0.16
			331.56	26-Dec-96	178.58	152.98	0.56
			331.56	24-Jan-97	178.42	153.14	0.16
			331.56	27-Feb-97	178.40	153.16	0.02
			331.56	27-Mar-97	177.60	153.96	0.80
			331.56	26-Jun-97	178.23	153.33	-0.63
			331.56	11-Aug-97	178.47	153.09	-0.24
			331.56	25-Sep-97	178.12	153.44	0.35
			331.56	5-Nov-97	178.03	153.53	0.09
20 DGMW88	WT	185 - 225	331.65	11-Jan-96	181.59	150.06	
			331.65	1-Feb-96	181.38	150.27	0.21
			331.65	28-Feb-96	181.10	150.55	0.28
			331.65	27-Mar-96	180.55	151.10	0.55
			331.65	31-Oct-96	180.54	151.11	0.01
			331.65	26-Nov-96	180.26	151.39	0.28
			331.65	26-Dec-96	179.82	151.83	0.44
			331.65	24-Jan-97	179.32	152.33	0.50
			331.65	28-Feb-97	178.88	152.77	0.44
			331.65	27-Mar-97	179.12	152.53	-0.24
			331.65	26-Jun-97	179.58	152.07	-0.46
			331.65	11-Aug-97	179.68	151.97	-0.10
			331.65	25-Sep-97	179.23	152.42	0.45
			331.65	5-Nov-97	179.24	152.41	-0.01

Table 4-1: SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS
MCAS El Toro Groundwater Monitoring Program

Station ID	Base Screen Depth (Ft BGS)	Sample Date	PRIMARY VOCs DETECTED AND REGULATORY STANDARDS - All Results in Micrograms per Liter (ug/L)												OTHER VOCs DETECTED	
			TCE 5.0	PCE 5.0	CCl ₄ 0.5	1,1-DCE 6.0	1,2-DCE (total)	Chloroform 100.0	Chloro- methane	Benzene 1.0	Toluene 100.0	Ethyl- benzene 680.0	Xylenes (total) 1750.0	Freon-113	Compound	Concent.
19 DGMW86	198	17-Dec-92	0.8 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		6-Nov-93	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		27-Feb-96	3.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		27-Feb-96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		3-Dec-96	10.0	5.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		3-Dec-96	11.0	10.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		11-Mar-97	0.9 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
19 UGMW35	185	12-Aug-92	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		15-Jul-93	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		8-Feb-96	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		8-Feb-96	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		21-Nov-96 *	3.0	2.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
		18-Mar-97 *	1.0 U	1.0 J	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		18-Mar-97 *	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
20 DBMW56	227	12-Sep-92	0.5 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		17-Jun-93	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		27-Feb-96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		14-Nov-96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		25-Mar-97	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
20 DGMW88	225	11-Apr-92	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 J	1.0 U	1.0 U	1.0 U	1.0 U			
		17-Jun-93	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		1-Feb-96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		1-Feb-96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		25-Nov-96 *	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		25-Nov-96 *	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	METHYLENE CHLORIDE	1.0
		20-Mar-97 *	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
20 UGMW36	223	28-Oct-92	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.9 J	1.0 U	1.0 U	1.0 U	1.0 U			
		18-Jun-93	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U		METHYLENE CHLORIDE	0.6 J
		5-Feb-96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		14-Nov-96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		27-Mar-97	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	METHYLENE CHLORIDE	1.0
21 DBMW56	132	18-Nov-92	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0	1.0 U	1.0 U	1.0 U	1.0 U			
		24-Jun-93	0.7 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0					3.0 JN		
		15-Feb-96	47.0	1.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	7.0	1.0 U	1.0 U	10.0 U		
		13-Nov-96	7.0	4.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		25-Mar-97	8.0	4.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
21 DGMW90	135	18-Dec-92	1.0	0.8 J	1.0 U	1.0 U	1.0 U	0.6 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U		METHYLENE CHLORIDE	0.6 J
		6-Oct-93	3.0	1.0	1.0 U	1.0 U	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		2-Feb-96	3.0	2.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		26-Nov-96 *	3.0	2.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	METHYLENE CHLORIDE	1.0
		20-Mar-97 *	4.0	3.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		

Table 7-1: SUMMARY OF METALS ANALYSES
MCAS El Toro Groundwater Monitoring Program

TARGET ANALYTE LIST METALS AND REGULATORY STANDARDS -- All Results in Micrograms per Liter (ug/L)																					
Station ID	Base Screen Depth (Ft BGS)	Sample Date - Type	Aluminum 50.0	Antimony 6.0	Arsenic 50.0	Barium 1000.0	Calcium	Chromium 50.0	Copper 1000.0	Iron 300.0	Lead 15.0	Magnesium	Manganese 50.0	Nickel 100.0	Potassium	Selenium 50.0	Silver 50.0	Sodium	Vanadium	Zinc 5000.0	
18_RW1	470	11-Sep-89	NA				94,000		50.0 U	1300.0		24,000	50.0 U		3,000			162,000		50.0 U	
		14-Dec-92	F	43.2 B	10.7 U	1.3 B	34.3 B	89,800	3.3 B	2.3 U	55.3 B	1.4 U	22,400	30.7	5.3 U	2,680 B	2.2 BW	2.0 U	161,000	5.2 B	9.6 U
		15-Dec-92	F	46.0 B	13.5 B	1.0 U	33.1 B	88,900	2.9 U	2.3 U	80.2 B	1.4 U	22,300	29.3	5.3 U	2,460 B	2.1 U	2.0 U	162,000	3.1 B	9.6 U
		8-Jul-93	F	17.6 B	17.0 B	2.4 B	33.2 BE	89,700	2.9 U	1.4 B	32.8 B	0.4 U	20,300	17.3	7.1 U	2,700 B	3.5 U	1.2 U	158,000	6.3 B	2.3 B
		23-Jan-96	F	200.0 U	60.0 U	10.0 U	200.0 U	92,000	10.0 U	25.0 U	260.0	5.0	22,000	63.0	40.0 U	3,010 J	5.0	10.0 U	169,000	50.0 U	20.0 U
		23-Jan-96	UF	200.0 U	60.0 U	10.0 U	200.0 U	92,000	10.0 U	25.0 U	6780.0	5.0	22,000	74.0	40.0 U	3,010 J	5.0 U	10.0 U	169,000	50.0 U	20.0 U
		17-Mar-97	F	15.5 B	60.0 U	2.6 B	28.7 B	73,100	1.0 B	8.8 B	290.0	5.0 U	17,700	52.6	40.0 U	3,170 B	5.6	10.0 U	131,000	6.5 B	6.2 B
		17-Mar-97	UF	17.6 B	60.0 U	2.0 B	32.0 B	78,900	0.8 B	1.6 B	344.0	5.0 U	19,500	60.2	40.0 U	3,520 B	4.6 B	10.0 U	145,000	7.4 B	6.1 B
18_RW2	310	11-Sep-89	NA				85,000		50.0 U	5500.0		16,000	80.0		2,700			132,000		80.0	
		22-Dec-92	F	39.4 U	18.7 B	3.0 B	40.3 B	82,000	3.0 B	2.3 U	93.5 B	1.4 U	16,100	17.0	5.3 U	2,560 B	19.3 S	2.0 U	112,000	9.7 B	9.6 U
		13-Jul-93	F	11.8 B	9.0 U	3.4 B	42.3 B	67,300	2.9 U	0.8 B	8.2 U	0.4 U	16,300	2.2 B	7.1 U	2,890 B	11.8 N	1.2 U	114,000	11.6 B	2.7 B
		24-Jan-96	F	200.0 U	60.0 U	10.0 U	200.0 U	91,000	10.0 U	25.0 U	270.0	3.0 U	16,000	29.0	40.0 U	2,310 J	11.0	10.0 U	109,000	50.0 U	20.0 U
		24-Jan-96	UF	200.0 U	60.0 U	10.0 U	200.0 U	92,000	10.0 U	25.0 U	590.0	3.0 U	16,000	33.0	40.0 U	2,360 J	11.0	10.0 U	111,000	33.0	50.0 U
		14-Mar-97	F	200.0 U	60.0 U	10.0 U	41.6 B	88,700	10.0 U	5.7 B	111.0	5.0 U	16,300	20.9	40.0 U	3,570 B	12.9	10.0 U	118,000	7.9 B	6.0 B
18_RW3	390	11-Sep-89	NA				72,000		50.0 U	820.0		18,000	60.0		3,400			182,000		50.0 U	
		4-Jun-93	F	29.4 B	9.0 U	2.2 BW	43.3 B	244,000	2.9 U	0.7 U	30.0 B	0.4 U	52,000	6.7 B	7.1 U	2,250 B	11.8 BW	1.2 U	194,000	18.1 B	8.0 B
		25-Jan-96	F	200.0 U	60.0 U	10.0 U	200.0 U	76,000	10.0 U	25.0 U	1100.0	4.0	19,000	91.0	40.0 U	2,560 J	6.0	10.0 U	174,000	50.0 U	20.0 U
		25-Jan-96	UF	200.0 U	60.0 U	10.0 U	200.0 U	75,000	10.0 U	25.0 U	3330.0	4.0	18,000	110.0	40.0 U	2,550 J	5.0 U	10.0 U	170,000	50.0 U	20.0 U
18_RW4	85	11-Sep-89	NA				250,000		50.0 U	530.0		60,000	50.0 U		2,100			225,000		50.0 U	
		7-Jun-93	F	16.2 B	9.0 U	1.8 BW	25.6 B	58,600	2.9 U	0.7 U	221.0	0.4 U	16,100	35.0	7.1 U	2,840 B	3.5 UN	1.2 U	168,000	8.0 B	4.1 B
		26-Jan-96	F	200.0 U	60.0 U	10.0 U	200.0 U	229,000	10.0 U	25.0 U	100.0 U	5.0	50,000	15.0 U	40.0 U	1,690 J	10.0	10.0 U	212,000	50.0 U	20.0 U
		26-Jan-96	UF	200.0 U	60.0 U	10.0 U	200.0 U	231,000	10.0 U	25.0 U	1800.0	5.0	49,000	34.0	40.0 U	1,750 J	7.0	10.0 U	211,000	50.0 U	20.0 U
19_DBMW54	181	18-Dec-92	F	67.4 B	13.2 B	1.0 B	26.5 B	102,000	3.7 U	1.2 B	4.5 B	0.6 U	31,300	8.7 B	40.8	2,510 B	36.6	2.2 B	71,100	13.8 B	31.3
		22-Jun-93	F	27.3 B	13.7 B	0.6 U	26.2 BE	104,000	5.0 B	3.0 B	35.1 B	0.4 U	33,100	11.8 B	253.0	2,590 B	18.0 BN	1.2 U	78,700	10.2 B	18.4 B
		19-Feb-96	F	200.0 U	60.0 U	10.0 U	200.0 U	114,000	10.0 U	25.0 U	100.0 U	6.0	35,000	15.0 U	60.0	2,930 J	5.0 U	10.0 U	69,000	50.0 U	22.0
		19-Feb-96	UF	430.0	60.0 U	10.0 U	200.0 U	115,000	281.0	25.0 U	2730.0	10.0	35,000	49.0	96.0	3,060 J	5.0 U	10.0 U	69,000	50.0 U	66.0
		11-Mar-97	F	15.2 B	60.0 U	10.0 U	29.8 B	113,000	5.3 B	2.5 B	34.8 B	5.0 U	35,600	3.7 B	42.7	2,800 B	15.3	10.0 U	74,000	13.8 B	5.6 B
19_DGMW85	183	16-Dec-92	F	31.0 U	20.2 B	0.7 B	26.5 B	113,000	5.2 B	2.1 B	71.5 B	0.6 U	35,500	73.7	167.0	3,630 B	21.6 S	2.2 B	83,700	9.9 B	2.2 U
		16-Dec-92	F	31.0 U	12.1 U	0.8 B	26.3 B	114,000	4.2 B	0.9 U	75.6 B	0.6 U	35,500	77.4	172.0	3,660 B	21.8 S	3.9 B	82,400	9.9 B	2.2 U
		10-Jun-93	F	18.7 B	9.0 U	0.8 U	27.8 BE	130,000	6.5 B	1.2 B	142.0	0.4 U	41,200	53.9	618.0	3,830 B	27.2 N	1.9 B	92,100	8.4 B	7.0 B
		19-Feb-96	F	200.0 U	60.0 U	10.0 U	200.0 U	134,000	10.0 U	25.0 U	100.0 U	5.0	45,000	19.0	660.0	3,130 J	5.0 U	10.0 U	95,000	50.0 U	65.0
		19-Feb-96	UF	200.0 U	60.0 U	10.0 U	200.0 U	137,000	227.0	25.0 U	2150.0	7.0	46,000	35.0	680.0	3,330 J	11.0	10.0 U	97,000	50.0 U	94.0
		11-Mar-97	F	13.2 B	3.2 B	10.0 U	37.0 B	145,000	8.0 B	3.3 B	18.1 B	5.0 U	46,800	6.7 B	476.0	3,240 B	19.3	10.0 U	110,000	7.2 B	8.1 B
19_DGMW86	198	17-Dec-92	F	31.0 U	19.4 B	1.0 B	37.9 B	112,000	5.0 B	0.9 U	6.8 B	0.6 U	38,100	152.0	116.0	4,240 B	22.2 S	2.8 B	74,500	8.1 B	20.4
		11-Jun-93	F	19.4 B	9.0 U	0.8 B	39.7 BE	144,000	2.9 U	0.7 B	20.5 B	0.4 U	44,800	36.0	210.0	3,730 B	28.2 N	1.2 U	65,600	5.8 B	4.9 B
		27-Feb-96	F	200.0 U	60.0 U	10.0 U	200.0 U	158,000	10.0 U	25.0 U	300.0	3.0 U	52,000	62.0	760.0	3,240 J	25.0	10.0 U	70,000	50.0 U	20.0 U
		27-Feb-96	UF	200.0 U	60.0 U	10.0 U	200.0 U	156,000	130.0	25.0 U	4140.0	3.0 U	51,000	90.0	770.0	3,270 J	24.0	10.0 U	68,000	50.0 U	26.0
		27-Feb-96	F	200.0 U	60.0 U	10.0 U	200.0 U	141,000	11.0	25.0 U	210.0	3.0 U	49,000	20.0	730.0	3,790 J	19.0	10.0 U	75,000	50.0 U	17.0 J
		27-Feb-96	UF	910.0	60.0 U	10.0 U	200.0 U	145,000	85.0	25.0 U	2540.0	3.0 U	49,000	170.0	866.0	3,900 J	18.0	10.0 U	74,000	50.0 U	72.0
		11-Mar-97	F	18.3 B	3.2 B	10.0 U	40.7 B	143,000	4.6 B	1.9 B	100.0 U	5.0 U	42,800	11.6 B	284.0	3,150 B	33.1	10.0 U	67,900	8.0 B	9.4 B

Extracts from historical hazardous waste management documents

DUPLICATE

EXTRACTS

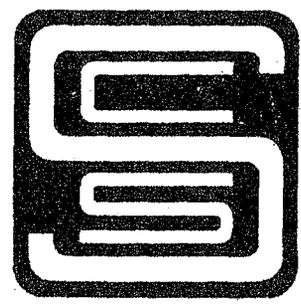
Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.

TITLE: OIL & HAZARDOUS SUBSTANCE SPILL
PREVENTION, CONTROL &
COUNTERMEASURE FIELD SURVEY
REPORT & SPCC PLAN

AUTHOR: SCS ENGINEERS

DATE: 11/01/79

CATEGORY: 1.2



SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.

OIL AND HAZARDOUS SUBSTANCE
SPILL PREVENTION, CONTROL,
AND COUNTERMEASURE
FIELD SURVEY REPORT AND SPCC PLAN
FOR THE
MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

Prepared for

DEPARTMENT OF THE NAVY
WESTERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA 92132

Prepared by

SCS ENGINEERS
4014 Long Beach Boulevard
Long Beach, California 90807
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CONTRACT NO. N62474-78-C-0776

NOVEMBER 1979

SPCC Key Map Quadrant	Activity Description	Item Stored or Handled	Spill or Discharge*	Path to Waterway	Potential Impact	Improvements Required	Corrective Measures- Improvements (see notes)
<u>Aircraft Maintenance Hangers</u>							
N-7	Aircraft Maintenance Hanger #605	JP-5, Lube oil	S2	SW to storm sewers in apron to Aqua Chinon Wash	Minor	Yes	(9)
N-8	Aircraft Maintenance Hanger #606	JP-5, Lube oil	S2	SW to storm sewers in apron to Aqua Chinon Wash	Minor	Yes	(9)
N-9	Aircraft Maintenance Hanger #114	JP-5, Lube oil	S2	SW to storm sewers in apron to Aqua Chinon Wash	Minor	Yes	(9)
N-9	Aircraft Maintenance Hanger #115	JP-5, Lube oil	S2	SW to storm sewers in apron to Aqua Chinon Wash	Minor	Yes	(9)
Q-11	Aircraft Maintenance Hanger #371	JP-5, Lube oil	S2	Variable to interior grated trench drains to Aqua Chinon Wash	Minor	Yes	(9)
Q-11	Aircraft Maintenance Hanger #463	JP-5, Lube oil	S2	Variable to exterior grated trench drains to Aqua Chinon Wash	Minor	Yes	(9)
R-11	Aircraft Maintenance Hanger #461	JP-5, Lube oil	S2	Variable to exterior grated trench drains to Aqua Chinon Wash	Minor	Yes	(9)
R-11	Aircraft Maintenance Hanger #462	JP-5, Lube oil	S2	Variable to exterior grated trench drains to Aqua Chinon Wash	Minor	Yes	(9)
S-8	Aircraft Maintenance Hanger #295	JP-5, Lube oil	S2	Variable to exterior grated trench drains to Aqua Chinon Wash	Minor	Yes	(9)
T-8	Aircraft Maintenance Hanger #297	JP-5, Lube oil	S2	Variable to exterior grated trench drains to Bee Canyon Wash	Minor	Yes	(9)
T-9	Aircraft Maintenance Hanger #296	JP-5, Lube oil	S2	Variable to exterior grated trench drains to Aqua Chinon Wash	Minor	Yes	(9)

85



Final

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

August 1994

EXTRACTS

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



Prepared for:

Southwest Division Naval Facilities Engineering Command
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Prepared by:

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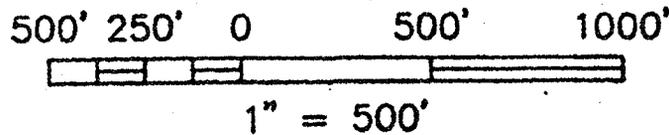
Contract No. N68711-92-D-4658
Delivery Order No. 0004

- ▲ HAZARDOUS MATERIALS STORAGE
- HAZARDOUS WASTE ACCUMULATION POINT
- ONE YEAR PERMITTED HAZARDOUS WASTE STORAGE AREA

MCAS El Toro
Santa Ana, California

HAZARDOUS WASTE ACCUMULATION POINTS AND HAZARDOUS MATERIAL STORAGE LOCATIONS

NOVEMBER 5, 1993



Science Applications
International Corporation
An Employee-Owned Company

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

★
The location of TAA 371A corresponds to the location for VMFAT-101. The location of former Building 343 is identified due to proximity to TAA 371A.

EXTRACTS

BUILDING 343

VMFAT-101

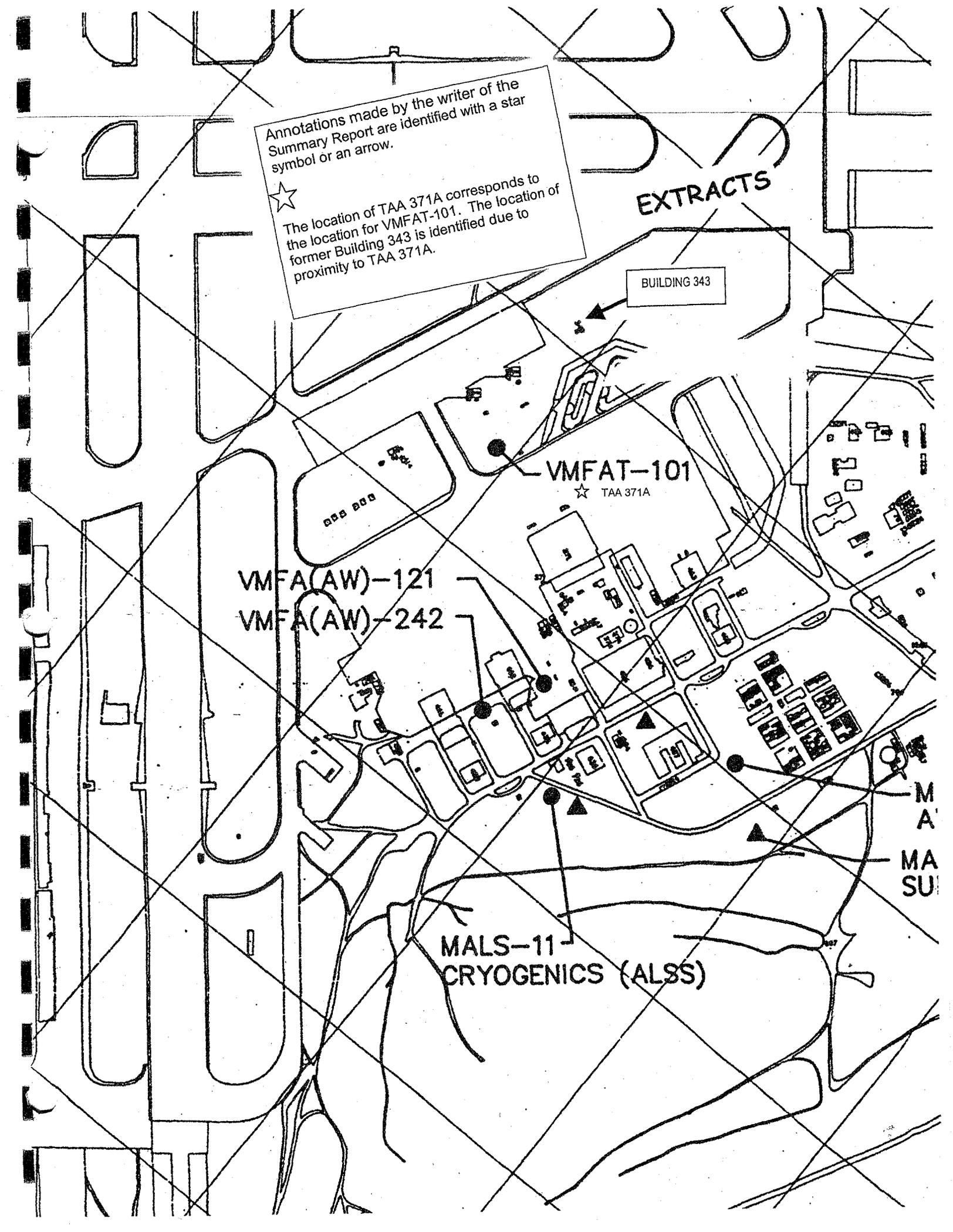
★ TAA 371A

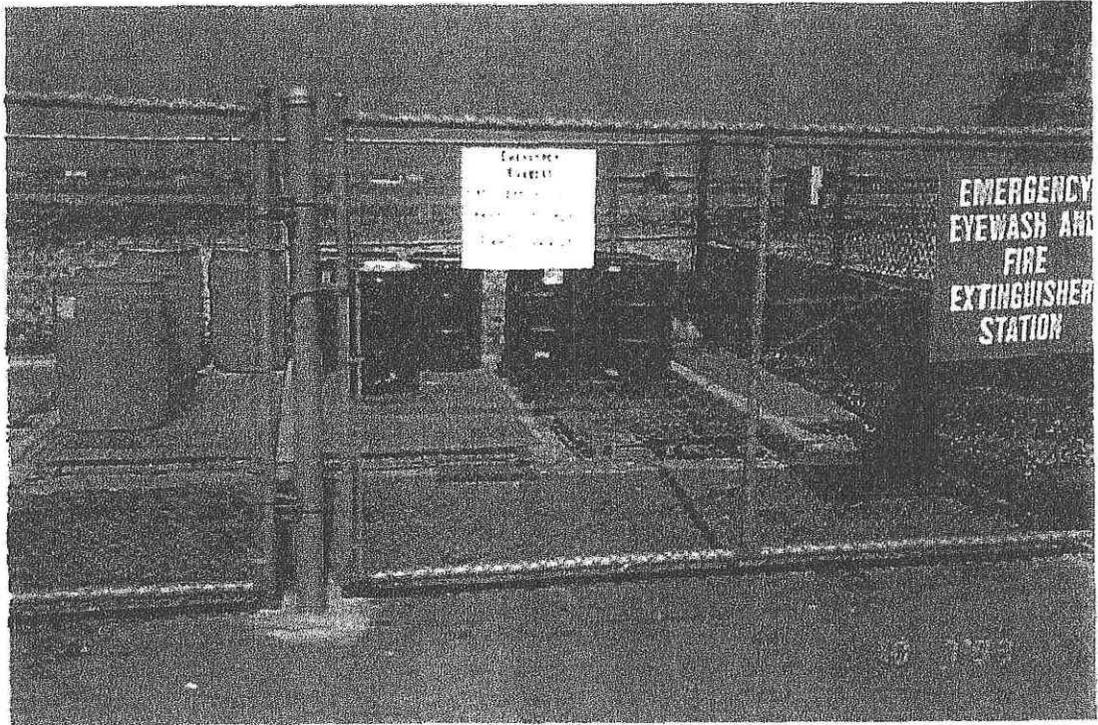
VMFA(AW)-121

VMFA(AW)-242

MALS-11
CRYOGENICS (ALSS)

M
A
S
U





Marine Fighter Attack Training Squadron 101 (VFMAT 101)

Bldg 371



Marine Fighter Attack Training Squadron 101 (VFMAT 101)

Bldg 371

ADDITIONAL SITES NEEDING INVESTIGATION

Tom D Peltier

Test Cells 658 and 447

DUPLICATE

M60050.000776
MCAS El Toro

- Bldg. 626 Wash Rack
- Bldg. 392 Wash Rack and Drum Storage Area
- Bldg. 127 Wash Rack
- Bldg. 673 Wash Rack and Drum Storage
- Bldg. 390 Wash Rack
- Bldg. 386 Steam Cleaning Area
- Bldg. 298 Maintenance Shop
- Bldg. 388 Wash Rack
- Hanger 605 Aircraft Wash Area
- Hanger 606 Aircraft Wash Area
- Hanger 114 Aircraft Wash Area
- Hanger 463 Aircraft Wash Area
- Hanger 461 Aircraft Wash Area
- Hanger 297 Aircraft Wash Area and Drum Storage
- Bldg. 320 Trichloroethylene Drum Storage
- Bldg. 357 Drum Storage
- Bldg. 454/456 Drum Storage
- Bldg. 317 Drum Storage
- Bldg. 534 Drum Storage
- Bldg. 655 Drum Storage
- Bldg. 359 Drum Storage
- Bldg. 130 Drum Storage
- Bldg. 602 Drum Storage
- Salvage Yard Drum Storage

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

 The 1989 list does not identify Building 371 or TAA 371A.

TITLE: ADDITIONAL SITES NEEDING INVESTIGATION, POTENTIAL AREAS OF CONTAMINATION

AUTHOR: TOM D. PELTIER/7

DATE: 4/17/89

CATEGORY: 1.2

OTHER POTENTIAL AREAS OF CONTAMINATION

Mag. 13	Paint Sheds
Auto Hobby Shop	Leaking waste Oil Tank
Bldg. 103	Paint Shed
Heavy Equipment	Vehicle Wash Area
Empty or Destroyed Buildings 143, 343, and 1789	
Combat Ready Vehicle Storage and Wash Area	
Bldgs. 359 & 651	Wash Areas
Bldg. 262	Wash Rack
Exchange Car Wash	

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
INDIANA AVENUE, SUITE 200
SANTA ANA, CALIFORNIA 92506
PHONE: (714) 782-4130

ML00050.001130



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



The RWQCB letter of 23 June 1989
does not identify Building 371 or TAA
371A.

ATE

June 23, 1989

LTJG Michael Rehor, Environmental Dir
MCAS El Toro (Code 1JG)
Santa Ana, CA 92709-5001

MCAS EL TORO - SITE INSPECTION PLAN OF ACTION

Dear LTJG Rehor:

As we discussed in our May 30, 1989 meeting, we are hereby transmitting our recommendations for additional sites at the El Toro Marine Corps Air Station (MCAS) which we believe should be included in the Site Inspection Plan of Action.

Although the Installation Restoration (IRP) program is intended to address only past facility operations, we believe that some currently operating facilities should be included in the IRP program. Past and current chemical use and disposal practices at these sites may have allowed contaminants to be discharged where they could impact water quality. We believe that it is appropriate to include these sites in the present phase of investigation. The sites listed are areas where trichloroethylene (TCE) is either known or suspected to have been used. Chemical use and disposal practices, documented in the November 1987 Oil and Hazardous Substance Spill Prevention Control and Countermeasure (SPCC) plan, strongly suggest that there are areas on the base where TCE was routinely discharged to bare ground and unlined channels.

Although some of these areas are located near sites that have already been selected for investigation, we believe that the sites require individual investigation to adequately evaluate the threat to water quality from past chemical use practices. In some cases adequate coverage may be provided by expanding the specific site investigations. However, in most cases separate site investigations will be necessary. Investigation of these sites should focus on potential discharge areas and any adjacent drainage channels. The following sites should be given highest priority:

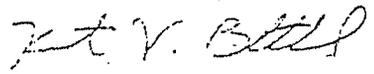
1. Building 359 - corrosion control facility, which housed 2 TCE degreasers.
2. Three engine test cells - the SPCC plan documents oily discharges from two of these test cells, located in buildings 658 and 447, that eventually entered storm drains. The location of the third test cell is not indicated.

3. Six drum storage areas - The SPCC plan depicts numerous drum storage areas on bare ground. The plan documents solvent storage in the following areas:
 - A. Northeast of building 392
 - B. Southeast of building 602
 - C. Between buildings 454 and 456
 - D. Northeast of building 320
 - E. Northeast of building 317
 - F. East of building 359
4. Hazardous and flammable materials storehouses 320 and 357.
5. Oil/water separators at Bee Canyon Wash and Agua Chinon Wash.

In addition, the SPCC plan identifies 23 wash areas including seven aircraft wash facilities. Each of these wash areas should be evaluated to determine whether solvents were used. If solvents were used at any wash area, that area should be included in the investigation.

Please submit a proposed sampling program for the sites discussed above in the form of an amendment to the Site Inspection Plan of Action. If you should have any questions, please call me or Steven Overman of our Pollutant Investigation Section.

Sincerely,


Kurt V. Berchtold
Supervising Engineer

cc: OCWD - Jim Reilly

TDP/mcaset2

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	Q4
MAG-46 Fixed Wing	295	T8
MAG-46 Helo Mals-46	295	S8
MALS-11 Air Frames	130	M9
MALS-11 Avionics	656	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	Q5
MWR Auto #1	651	O2
MWR Golf Course	390	P13
MWSS-Libraries	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	287	T8
VFMA-314	605	N7



DUPLICAT

**Environmental Quality Division
Naval Facilities Engineering Command
Alexandria, Virginia**

EXTRACTS

Hazardous Materials/Hazardous Waste Engineering Study

February 1984

ANNOTATIONS MADE BY THE WRITER OF
THE SUMMARY REPORT ARE IDENTIFIED
WITH A STAR SYMBOL OR AN ARROW.

**Hazardous Materials/Wastes Generation
Survey, Hazard Analysis and Storage
Facility Design Recommendations
Marine Corps Air Station
El Toro, California**

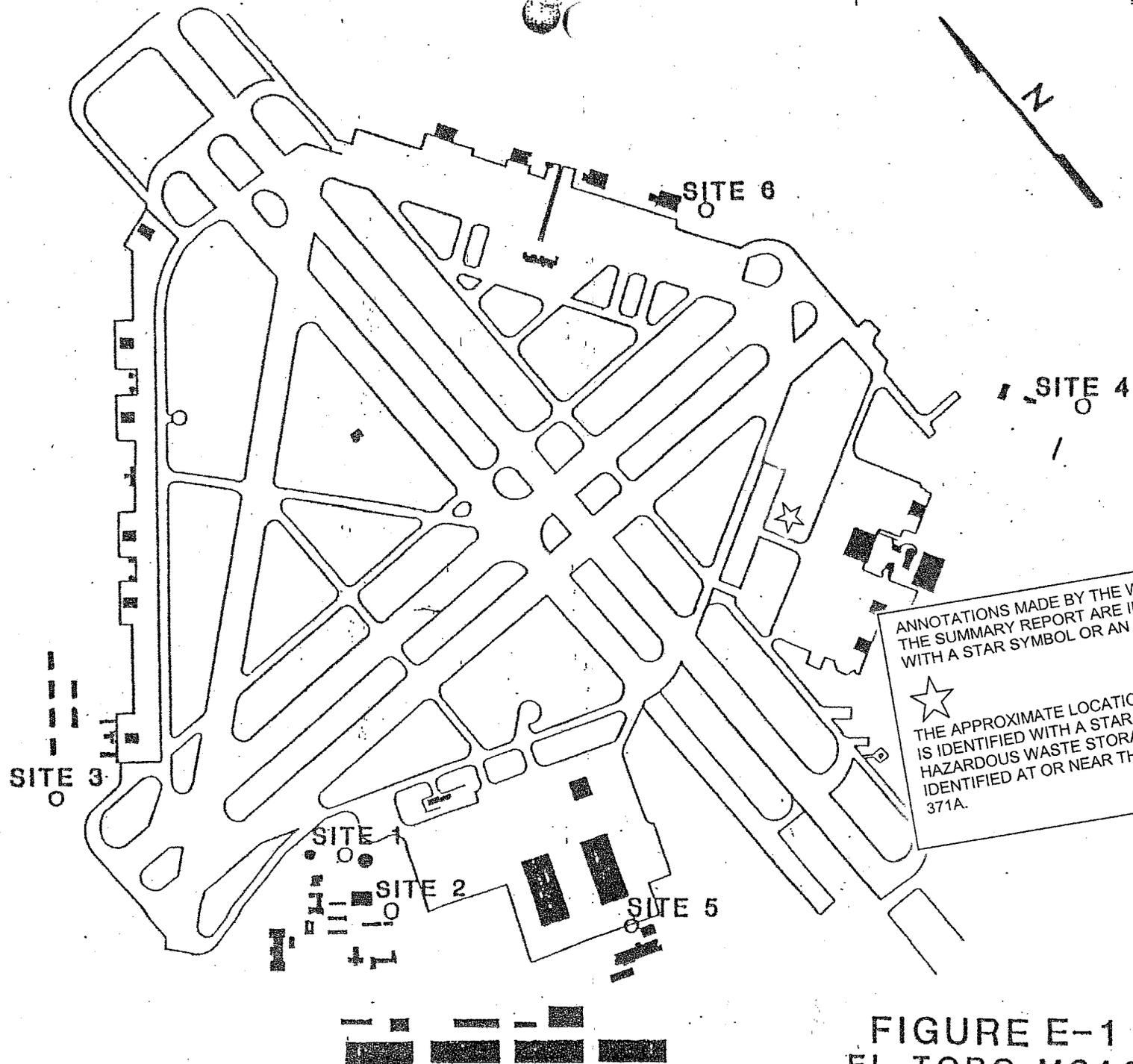
**TITLE: HAZARDOUS MATERIALS/HAZARDOUS
WASTE ENGINEERING STUDY**

AUTHOR: ROY F. WESTON, INC.

DATE: 02/01/84

CATEGORY: 1.2





ANNOTATIONS MADE BY THE WRITER OF THE SUMMARY REPORT ARE IDENTIFIED WITH A STAR SYMBOL OR AN ARROW.

★ THE APPROXIMATE LOCATION OF TAA 371A IS IDENTIFIED WITH A STAR SYMBOL. HAZARDOUS WASTE STORAGE IS NOT IDENTIFIED AT OR NEAR THE FORMER TAA 371A.

FIGURE E-1
EL TORO MCAS
HW STORAGE AREAS

**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.

**TABLE 7-1
 MCAS EL TORO MATERIALS INVENTORY**

BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	TRADE/COMMON NAME	MAX. DAY	AVE. Day	CONT.
360	01	Storage MC Air/Ground Organic Unit	Supply Flam/storage	Concern	Lubricating Oil, Eng 80/90W	55 gal	5 gal	5 gal
360	01	Storage MC Air/Ground Organic Unit	C POOL HM storage	Concern	Lubricating Oil, Eng 80/90W	165 gal	55 gal	55 gal
360	01	Storage MC Air/Ground Organic Unit	Supply Outside storage	Concern	Lubricating Oil, Helicopter	55 gal	5 gal	55 gal
360	01	Storage MC Air/Ground Organic Unit	C POOL HM storage	Concern	MOPAR Transmission fluid	385 gal	110 gal	55 gal
364	28	Mess Hall #2	Food Service	Concern	N/A			
369	01	Servmart	Supply	Concern	Bleaches	N/A	N/A	N/A
369	01	Servmart	Supply	Concern	Lacquers	N/A	N/A	N/A
369	01	Servmart	Supply	Concern	Paints	N/A	N/A	N/A
369	01	Servmart	Supply	Concern	Solvents	N/A	N/A	N/A
369	01	Servmart	Supply	Concern	Waste Oil	N/A	N/A	N/A
369	01	Servmart	Supply	Concern	Wax Remover	N/A	N/A	N/A
370	01	PW Paint/Carp/Metal Trades	Installation	Concern	Oil	N/A	N/A	55 gal
→ 371	37	Maint Hngr Space	VMFAT-101	Concern	Jet Fuel JP-5	N/A	N/A	N/A
→ 371	37	Maint Hngr Space	VMFAT-101	Concern	Solvents	N/A	N/A	N/A

TABLE 7-1 MCAS EL TORO MATERIALS INVENTORY								
BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	TRADE/COMMON NAME	MAX. DAY	AVE. Day	CONT.
→ 371	37	Maint Hngr Space	VMFAT-101	Concern	Waste Oil	N/A	N/A	N/A
374	37	Conversion Station	Installation	Concern	N/A			
386	01	Const. Equip Shop	Installation	Concern	Diesel Fuel	N/A	N/A	N/A
386	01	Const. Equip Shop	Installation	Concern	Gear Oil	N/A	N/A	N/A
386	01	Const. Equip Shop	Installation	Concern	Hydraulic Oil	N/A	N/A	N/A
386	01	Const. Equip Shop	Installation	Concern	Solvents	N/A	N/A	N/A
386	01	Const. Equip Shop	Installation	Concern	Waste Oil	N/A	N/A	N/A
388 B	01	UST - Field Maint Area	CSSD-14	Concern	Diesel Fuel No. 2	18000 gal	1000 gal	2000 gal
388	01	Field Maint Shop	CSSD-14	Concern	Jet Fuel JP-5	N/A	N/A	55 gal
388	01	Field Maint Shop	CSSD-14	Concern	Waste Oil	N/A	N/A	55 gal
389	10	Loading/Unloading Ramp	Station	Concern	Aerosol Paint	N/A	N/A	N/A
389	10	Loading/Unloading Ramp	Station	Concern	Antifreeze	N/A	N/A	N/A
389	10	Loading/Unloading Ramp	Station	Concern	Grease	N/A	N/A	N/A
389	10	Loading/Unloading Ramp	Station	Concern	Lubricating Oil	N/A	N/A	N/A
390 A	10	Tank - Golf course maint	MWR	Concern	Diesel Fuel No. 2	500 gal	250 gal	500 gal
390 B	10	Tank - Golf course maint	MWR	Concern	Gasoline, Regular Unleaded	500 gal	250 gal	500 gal
390	10	Golf Cart Shop	MWR	Concern	Waste Oil	N/A	N/A	N/A

TABLE 5-39 MCAS EL TORO SPILL HISTORY		
Date	Incident No.	Description
November 28, 1995	N/A	Approximately 2 quarts of hydraulic fluid were lost on the roadway and shoulder when a forklift's hydraulic line was inadvertently punctured. A drip pan was placed under the leaking line to contain the leak and contaminated soil was removed and drummed as hazardous waste.
September 18, 1995	N/A	A one gallon container of liquid scale dissolver spilled when it was dropped by warehouse personnel. The spill was diked and absorbed with ash. Spill contained to the warehouse floor.
September 12, 1995	N/A	Three quarts of hydraulic fluid spilled onto the concrete warehouse floor when a forklift's fork punctured the stored material during issuance. Spilled cleaned up with speedy dry absorbent. Spill contained to the warehouse floor.
July 21, 1995	N/A	Approximately 80 gallons of JP-5 fuel spilled when a fuel truck attempted to fuel an aircraft with an open fuel cell. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
July 20, 1995	N/A	Approximately 10 gallons of JP-5 fuel spilled when an aircraft vented it's tanks. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
June 29, 1995	N/A	Approximately 70 gallons of JP-5 fuel spilled from an aircraft fuel tank with a dysfunctional valve. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
November 1, 1994	N/A	Approximately 400 gallons of JP-5 fuel leaked from an F/A-18 aircraft. Three hundred gallons were recovered and 100 gallons were cleaned up with speedy dry absorbent. Spill contained to the flightline.
November 1, 1994	N/A	Approximately 250 gallons of JP-5 fuel leaked from an F/A-18 aircraft. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.

TABLE 5-39
MCAS EL TORO
SPILL HISTORY

Date	Incident No.	Description
September 1, 1994	N/A	Approximately 1 gallon of hydrochloric acid and another gallon of chlorine spilled when their lines ruptured. Pumping through the line was stopped immediately and the spill was cleaned up with sodium bicarbonate. Spill contained to the flightline.
August 12, 1994	N/A	A small amount of paint stripper (methylene chloride) from a 5 gallon can spilled when the can overheated and blew its cap. The small amount evaporated before cleanup could occur.
July 14, 1994	249777	Approximately 25 gallons of transformer oil, possibly containing more than 55 ppm PCBs, spilled when the personnel handling the transformer overturned it. The initial responders laid down absorbent socks, mats pads and Lite-Dri absorbent around the spill and on the liquid. Workers then removed and drummed soil from the spill area as hazardous waste. Cleanup began immediately on 14 July 94 and was completed 15 July 94. Additional hazardous waste included the absorbent materials, personal protective gear rags and mops used to cleanup the spill.
April 26, 1994	N/A	Approximately 100 gallons of JP-5 fuel spilled when an aircraft vented its tanks. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
March 8, 1994	N/A	Approximately 20 gallons of JP-5 fuel spilled when an aircraft was refueling. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
May 11, 1993	318	Caustic soap leaked from a container behind Bldg. 317.
March 1, 1993	146	Approximately one quart of methyl ethyl ketone spilled to the ground at Bldg. 306.
September 9, 1992	873	Unknown quantity of fumigant released into the soil at Strawberry Field.
August 16, 1992	788	Fire occurred at Bldg. 751 with a van containing Hg, Li, Cd, and Pb-acid batteries. This caused a chemical release into the atmosphere.

TABLE 5-39 MCAS EL TORO SPILL HISTORY		
Date	Incident No.	Description
June 1, 1992	560	Approximately 3,950 gallons of JP-5 spilled from a refueler. Fuel was contained and did not enter storm drains.
May 28, 1992	552	JP-5 smell coming from storm drain at Bldg. 368. Flow from drain diverted to oil/water separators.
March 5, 1992	228	Three quarts of Hg spilled at Bldg. 297. The spill was contained.
March 5, 1992	223	Tractor trailer spilled 15-20 gallons of diesel fuel into sanitary sewer. Sewer system was diked and covered.
February 5, 1992	121	One gallon of transformer oil containing PCBs spilled at Bldg. 439. The spill was contained.
January 17, 1992	053	Approximately 100 gallons of antifreeze spilled into ditch and then to Agua Chinon.
December 18, 1991	1092	Lithium battery exploded at Bldg. 17. The debris was contained with some off-gassing.
November 19, 1991	997	Approximately 10 Lithium Batteries leaking and off-gassing at Bldg. 673T3.
September 16, 1991	754	Contaminated oil spilled into sewer at Bldg 295.
July 12, 1991	580	Paint stripper spilled into ditch near Bldg. 800. The spill was diverted to oil/water separator.
May 23, 1991	453	Unknown white substance found at Officer's Club crystal room.

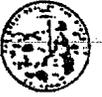
A reference to a major spill is contained in the May 1990 SPCCP written for the MCAS. The SPCC states that "one major unauthorized release has occurred in the last two years. In August 1988, a 108,000 gallon JP-5 storage tank pipe was reported to have leaked causing soil and ground water contamination. The leak was reportedly repaired in early 1990."

SOUTHWESTNAVFACENGCOM
CODE 06CC.LMH
SAN DIEGO, CA 92101

No Further Action Decision Documents and Other Documents for Nearby
Locations of Concern

**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



May 14, 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

**SUBJECT: CASE CLOSURE AIRCRAFT EXPEDITIONARY REFUELING
(ACER) SITE, NORTHWEST STAINED AREA (FORMER IRP
SITE 19 UNIT 1), MARINE CORPS AIR STATION EL TORO**

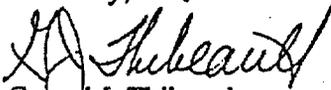
Dear Mr. Lee:

This letter confirms the completion of site investigations and remedial actions for the subject site. Based on the information provided in the Site Assessment Report Aircraft Expeditionary Refueling (ACER) Site Northwest Stained Area (Former IRP Site 19 Unit 1) dated April 1, 1997 and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the site 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,


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



Department of Toxic Substances Control



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

Winston H. Hickox
Secretary for
Environmental
Protection

Gray Da
Governor

October 6, 1999

Mr. Dean Gould
BRAC Environmental Coordinator
U.S. Marine Corps Air Station - El Toro
P. O. Box 51718
Irvine, California 92619-1718

SUMMARY REPORT FOR AERIAL PHOTOGRAPH ANOMALY (APHO) 9, MARINE CORPS AIR STATION (MCAS) EI TORO

Dear Mr. Gould:

The Department of Toxic Substances Control (DTSC) has reviewed the above report dated August 31, 1999 and received by this office on September 10, 1999. The report presents the results of the record search activities and a visual inspection of APHO 9 (Also known as Science Applications International Corporation (SAIC) 53). The anomaly is described as liquid flowing near a former hangar on a photograph taken in 1946. The location of APHO 9 coincides with part of Installation Restoration Program (IRP) Site 19 (the Aircraft Expeditionary Refueling Site) and is adjacent to Agua Chinon Wash, which was investigated as part of IRP Site 25.

On page 2, third paragraph, fourth line, please correct the word, "standy" to "standby."

The report recommends a no further action status for APHO 9 based on evaluation of historical aerial photographs, Station maps and plans, Station property records, environmental program management plans, the results of previous environmental restoration program investigations, and a visual site inspection conducted in August 1999. No liquids were observed flowing on the paved and unpaved areas of APHO 9 and no wet soils or stains were observed during the visual inspection. Field sampling was conducted at or near APHO 9 during the Remedial Investigation of IRP Sites 19 (Unit 1) and 25, and no further action status has been achieved for these sites.

Based on our review of the documentation presented, DTSC concurs with the proposed no further action status designation for APHO 9. The no further action status can be documented in the next BRAC Cleanup Plan update.

If you have any questions, please contact me at (714) 484-5429.

Sincerely,



Alice Gimeno
Southern California Branch
Office of Military Facilities

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

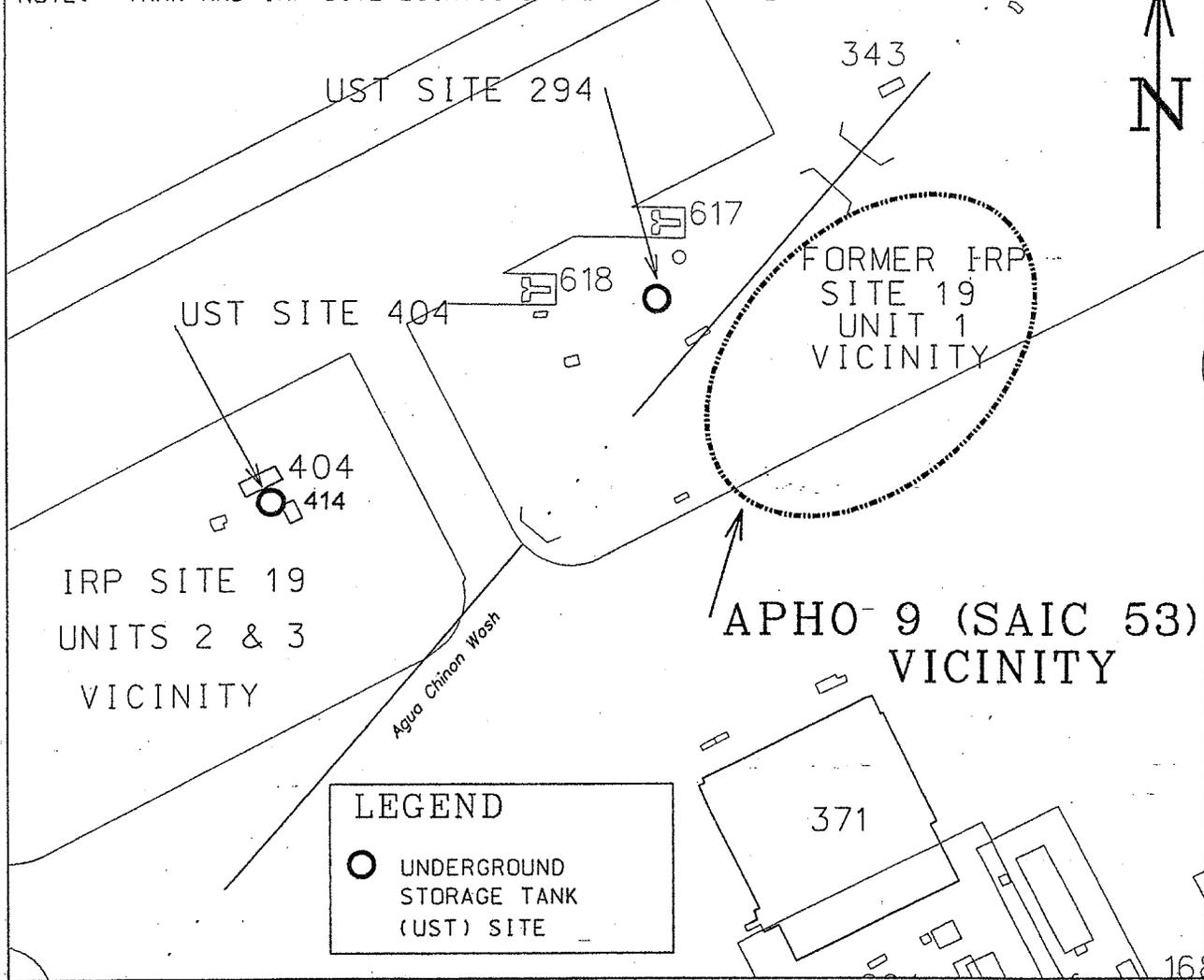
Ms. Patricia Hannon
Remedial Project Manager
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3339

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

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

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

NOTE: TANK AND IRP SITE LOCATIONS ARE APPROXIMATE.



APPROXIMATE SCALE:
1 INCH = 240 FEET

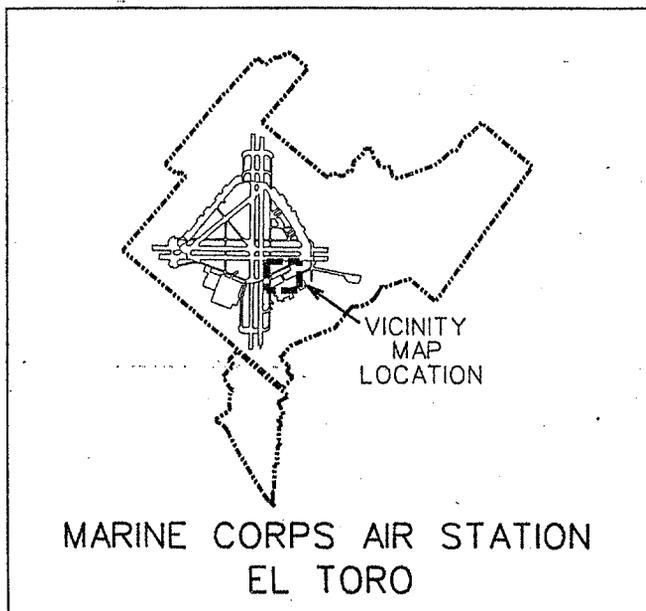
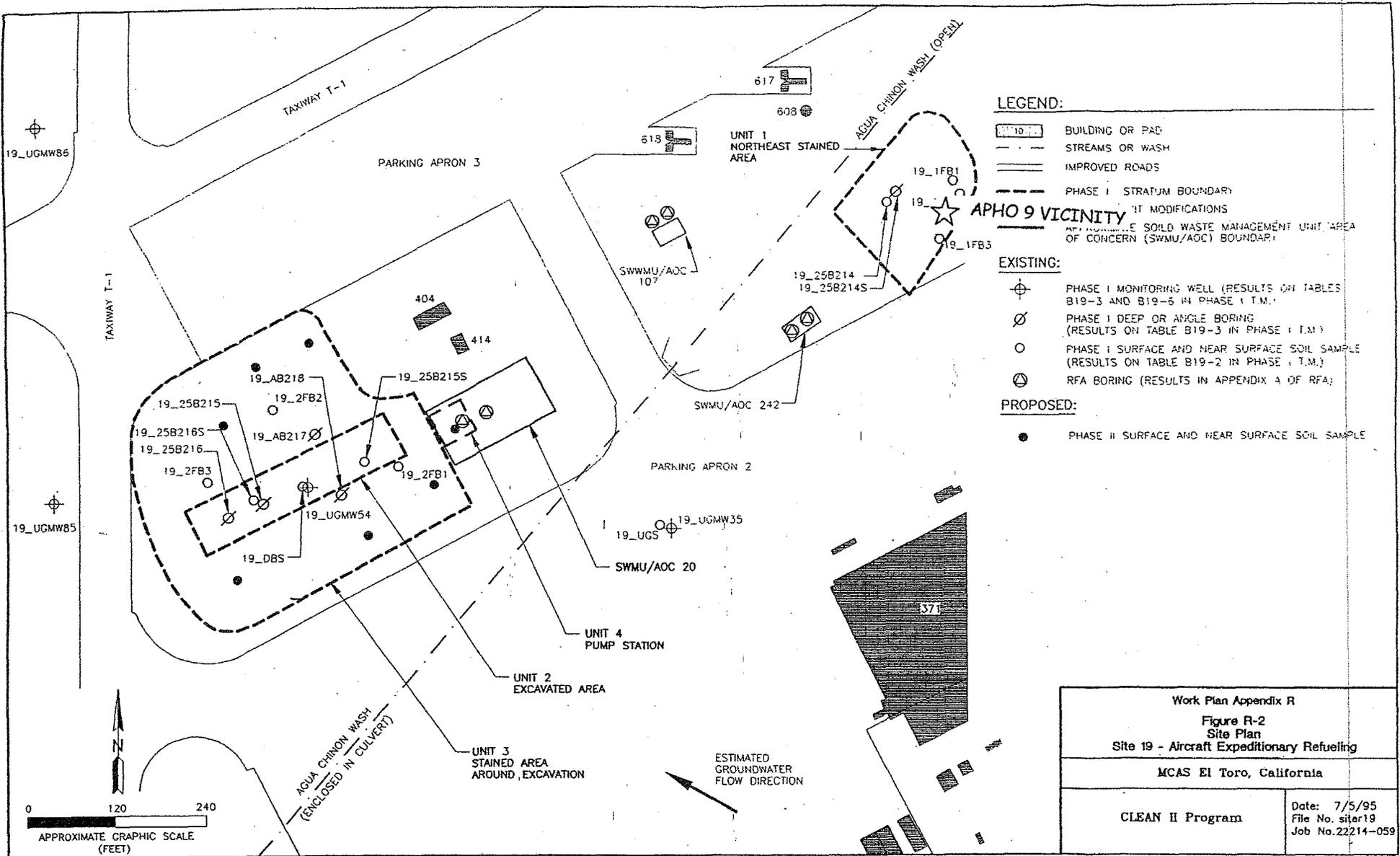


Figure 1.
AERIAL PHOTOGRAPH ANOMALY PROGRAM
APHO 9 VICINITY MAP
MARINE CORPS AIR STATION, EL TORO



Work Plan Appendix R	
Figure R-2	
Site Plan	
Site 19 - Aircraft Expeditionary Refueling	
MCAS El Toro, California	
CLEAN II Program	Date: 7/5/95 File No. star19 Job No. 22214-059



**COUNTY OF ORANGE
HEALTH CARE AGENCY**

TOM URAM
DIRECTOR

HUGH F. STALLWORTH, M.D.
HEALTH OFFICER

JACK MILLER, REHS
DEPUTY DIRECTOR

MAILING ADDRESS:
2009 EAST EDINGER AVENUE
SANTA ANA CA 92705-4720

TELEPHONE: (714) 667-3600
FAX: (714) 972-0743

**PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH**

April 4, 1997

LT. Hope Katcharian
Director, Environmental Engineering Division
Commanding General
AC/S Environmental IAU
Marine Corps Air Station El Toro
P.O. Box 95001
Santa Ana, CA 92709-5001

Subject: Completion of Tank Removal Project

RE: Marine Corps Air Station El Toro
Tank #294
Santa Ana, CA 92709

Dear Lt. Katcharian:

This is in response to your request for a confirmation of the completion of the tank removal project. With the provision that the results for the soil samples obtained during the soil sampling activities on December 17, 1996, were accurate and representative of existing conditions, it is the position of this office that no significant soil contamination has occurred at the above noted tank location.

It should be pointed out that this letter does not relieve you of any responsibilities mandated under the California Health and Safety Code if additional or previously unidentified contamination is discovered at the subject site.

If you have any questions regarding this matter, please contact Arghavan Rashidi-Fard at (714) 667-3713.

Sincerely,

William J. Diekmann, M.S., REHS
Supervising Hazardous Waste Specialist
Hazardous Materials Management Section
Environmental Health Division

cc: Larry Vitale, Santa Ana Regional Water Quality Control Board



**COUNTY OF ORANGE
HEALTH CARE AGENCY**

**PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH**

RONALD R. DILUIGI
INTERIM DIRECTOR

HUGH F. STALLWORTH, M.D., MPH
HEALTH OFFICER

JACK MILLER, REHS
DEPUTY DIRECTOR

MAILING ADDRESS:
2009 EAST EDINGER AVENUE
SANTA ANA, CA 92705-4720

TELEPHONE: (714) 667-3800
FAX: (714) 586-5116

April 20, 1999

Maj. Jeff Matthews
Director, Environmental Engineering Division
Commanding General
AC/S Environmental IAU
Marine Corps Air Station El Toro
P.O. Box 95001
Santa Ana, CA 92709-5001

Subject: Completion of Tank Removal Project

**RE: Marine Corps Air Station El Toro
Tank #404
Santa Ana, CA 92709**

Dear Major Matthews:

This is in response to your request for a confirmation of the completion of the tank removal project. With the provision that the results for the soil samples obtained during the tank removal on November 13, 1998, were accurate and representative of existing conditions, it is the position of this office that no significant soil contamination has occurred at the above noted facility location.

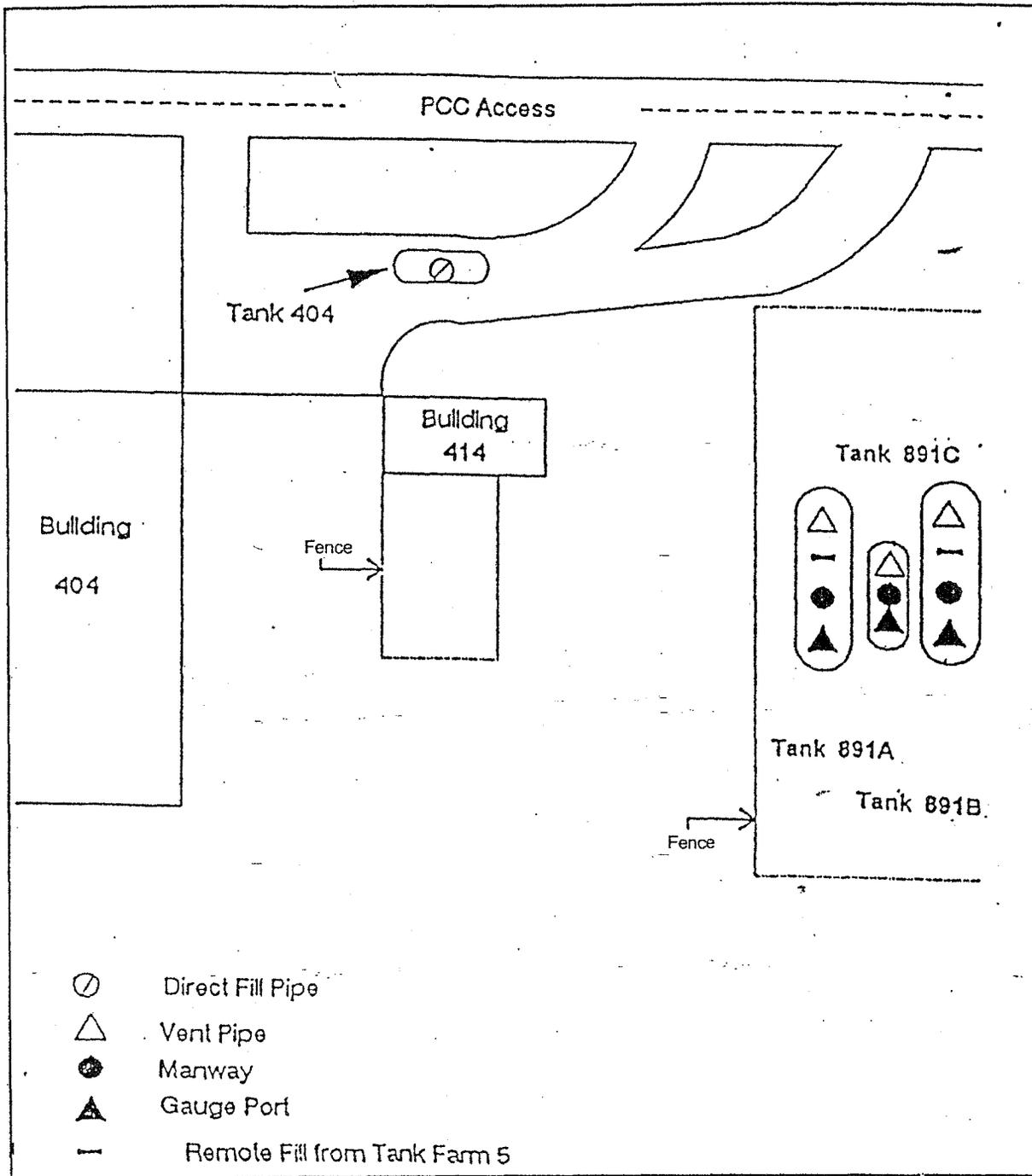
It should be pointed out that this letter does not relieve you of any responsibilities mandated under the California Health and Safety Code if additional or previously unidentified contamination is discovered at the subject site.

If you have any questions regarding this matter, please contact Arghavan Rashidi-Fard at (714) 667-3713.

Sincerely,

Deborah A. Greco, M.S.
Supervising Hazardous Waste Specialist
Hazardous Materials Management Section
Environmental Health Division

cc: Patricia Hannon, Santa Ana Regional Water Quality Control Board
Lynn Hornecker, SWDIV



GEOFON
INCORPORATED

PROJECT NO.:
97-404.170

**SITE LOCATION MAP
UST 404**

Not To Scale

12/98

Figure 2



**COUNTY OF ORANGE
HEALTH CARE AGENCY**

**REGULATORY HEALTH SERVICES
ENVIRONMENTAL HEALTH**

**MICHAEL SCHUMACHER, Ph.D.
DIRECTOR**

**MIKE SPURGEON
DEPUTY AGENCY DIRECTOR
REGULATORY HEALTH SERVICES**

**JACK MILLER, REHS
DIRECTOR
ENVIRONMENTAL HEALTH**

**MAILING ADDRESS:
2009 EAST EDINGER AVENUE
SANTA ANA, CA 92705-4720**

**TELEPHONE: (714) 667-3600
FAX: (714) 568-5116**

E-MAIL: environhealth@hca.co.orange.ca.us

July 28, 2000

Ms. Patricia Hannon
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3339

RE: Marine Corps Air Station El Toro
Tanks #891A, 891B and 891C
Santa Ana, CA 92709

Dear Ms. Hannon:

Due to the detection of soil contamination in samples collected from beneath the tanks during tank removal activities at the above referenced site, this Agency is referring the case to you for assessment and remediation oversight. It is this Agency's understanding that a copy of the tank closure report documenting the removal and results of all soil sampling will be forwarded to your Agency.

If you have any questions or require any further information, please contact me at (714) 667-3713.

Sincerely,

Arghavan Rashidi-Fard
Hazardous Waste Specialist
Hazardous Materials Management Section
Environmental Health

cc: Lynn Hornecker, SWDIV

TRANSMITTAL

Date: 16 May 2002

From: Lynn Marie Hornecker *LMA*
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): ~~FORM~~ FORMERTAA 371A

Author: Lynn Marie Hornecker, Navy

Recipient: Triss Chesney DTSC

Record Date: 10 May 2002

Approximate Number of Pages: 100

EPA Category: 01.1

Sites: (near IRP Site 19) TAA 371 A (SWMU 187)

Key Words: TAA

Contract: N/A

CTO Number: N/A

TAA 371A is adjacent to IRP site 19