M60050.000737
MCAS EL TORO
SSIC NO. 5090.3

Addendum to Summary Report

Former Above-Ground Storage Tank (AST) Site 753
Marine Corps Air Station, El Toro, California

15 December 2000

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

M60050.000737
MCAS EL TORO
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SUMMARY REPORT
FORMER ABOVE-GROUND STORAGE TANK (AST)
SITE 753

DATED 3 DECEMBER 1999

IS ENTERED IN THE DATABASE AND FILED AT
ADMINISTRATIVE RECORD NO. **M60050.001405**

Addendum to Summary Report

Former Above-Ground Storage Tank (AST) Site 753
Marine Corps Air Station, El Toro, California

15 December 2000

Prepared by:

Lynn Marie Hornecker
Civil Engineer

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

Section 1
Introduction

The purpose of this Addendum is to provide additional information pertaining to the Former Above-Ground Storage Tank (AST) Site 753 at the Marine Corps Air Station, El Toro. Field sampling was conducted in the vicinity of Former AST Site 753 in response to comments received from the California Regional Water Quality Control Board, Santa Ana Region and the California Department of Toxic Substances Control in August 2000. Additional historical information from the *Initial Assessment Study of Marine Corps Air Station, El Toro, California* (NEESA, 1986) was acquired and reviewed in order to identify test methods for analysis of soils from the tank site.

Former AST Site 753 is located in the southwestern section of the Station within the investigation boundary of Installation Restoration Program (IRP) Site 24 – the Volatile Organic Compound (VOC) Source Area - and near IRP Site 10 and IRP Site 22. AST 753 was a 300-gallon pesticide storage tank, and Former AST Site 753 is located adjacent to Building 753 as shown on Figure 1. The tank was taken out of service in approximately June 1999 and was transported to a waste disposal facility in November 1999. Historical information pertaining to the tank removal and selected information from the nearby IRP Sites is provided in the *Summary Report, Former Above-Ground Storage Tank (AST) Site 753* (Southwest Division, Naval Facilities Engineering Command, December 1999).

Field sampling activities were conducted in September 2000 at Former AST Site 753 in order to determine whether or not a release of pesticides or herbicides occurred during routine use of the tank. Sample locations are shown on Figure 2.

Section 2
Field Sampling Activities

Twelve (12) shallow soil samples were collected by OHM Remediation Services Corporation under Navy Contract N68711-93-D-1459, Delivery Order 70 at four (4) locations in September 2000. Former AST Site 753 is surrounded by asphalt-paved surfaces, and all samples were collected at asphalt-paved surfaces. The asphalt pavement is deteriorated and/or cracked in sections near Former AST Site 753. No stained or discolored areas were observed on the pavement during the visual inspections of 1999 or during the site visit of 8 December 2000.

Sample locations were selected based upon the condition of the asphalt pavement and the direction of flow of surface runoff. Field samples were collected at the following depths:

Table 1. Sample Depths for September 2000 Sampling Activities.

Sample Location	Sample Depths (feet below ground surface)	Comments
AST-753-HA01	1.5 (Sample #18609-3511) 3.0 (Sample #18609-3512) 5.0 (Sample #18609-3513)	AST-753-HA01 is located southwest of Former AST Site 753 on an asphalt-paved area
AST-753-HA02	1.5 (Sample #18609-3514) 3.0 (Sample #18609-3515) 5.0 (Sample #18609-3516)	AST-753-HA02 is located northwest of Former AST Site 753 on an asphalt-paved area
AST-753-HA03	1.0 (Sample #18609-3517) 3.0 (Sample #18609-3518) 5.0 (Sample #18609-3519)	AST-753-HA03 is located northeast of Former AST Site 753 on an asphalt-paved area
AST-753-HA04	1.0 (Sample #18609-3520) 3.0 (Sample #18609-3521) 5.0 (Sample #18609-3522)	AST-753-HA04 is located east-northeast of Former AST Site 753 on an asphalt-paved area near a storm drain inlet

Samples were analyzed by the following analytical test methods at E MAX Laboratories in Torrance, California:

- United States Environmental Protection Agency (US EPA) Method 8081 Pesticides
- US EPA Method 8141A Organophosphorus Pesticides
- US EPA Method 8151A Herbicides
- US EPA Method 8270 Strychnine

The historical use of Strychnine, DDT, and Malathion was documented in the *Initial Assessment Study* (IAS), and extracted information from the IAS is included in the Appendix to this Addendum.

Test methods and the associated analytes and the maximum reported concentrations are identified in Table 2. A summary of detected analytes at each sample location is presented in Table 3. US EPA Region IX Preliminary Remediation Goals are identified in Table 3 for those analytes that were detected at or above the method detection limit.

Table 2. Analytical Test Methods and Analytes.

Analytical Test Method	Analyte	Maximum Concentration Reported
EPA Method 8081	Alpha – BHC	Not detected at or above laboratory reporting limits or practical quantitation limits (PQLs) (ND)
	Beta – BHC	ND
	Delta – BHC	ND
	Gamma – BHC (Lindane)	ND
	Alpha-Chlordane	ND
	Gamma-Chlordane	0.00063 milligrams per kilogram (mg/kg) "J" (Sample 18609-3515 / 753-HA-02)
	4,4'-DDD	ND
	4,4'-DDE	ND
	4,4'-DDT	ND
	Aldrin	ND
	Dieldrin	ND
	Endosulfan I	ND
	Endosulfan II	ND
	Endosulfan sulfate	ND
	Endrin	ND
	Endrin Aldehyde	ND
	Heptachlor	ND
	Heptachlor epoxide	ND
	Methoxychlor	ND
	Toxaphene	ND
	Dicofol	ND
EPA Method 8141A	Diazinon	ND
	Malathion	14 micrograms per kilogram (ug/kg) "J" (Sample 18609-3517 / 753-HA-03)
EPA Method 8151A	2,4-D	0.0066 mg/kg "J" (Sample 18609-3519 / 753-HA-03)
	2,4-DB	ND
	2,4,5-T	ND
	2,4,5-TP (Silvex)	ND
	Dalapon	ND
	Dicamba	ND
	Cichloroprop	ND
	Dinoseb	ND
	MCPA	ND
	MCPP	ND
EPA Method 8270	Strychnine	ND

Table 3. Summary of Detected Analytes at Each Sample Location.

Sample Location and Sample Number	Analytes identified at or above practical quantitation limits	USEPA PRGs
Sample Location 753-HA-01		
Sample 18609-3511 (1.5 foot depth)	All Method 8081, 8141A, 8151A, and 8270 Analytes not detected at or above practical quantitation limits	
Sample 18609-3512 (3 foot depth)	"	
Sample 18609-3513 (5 foot depth)	"	
Sample Location 753-HA-02		
Sample 18609-3514 (1.5 foot depth)	All Method 8081, 8141A, 8151A, and 8270 Analytes not detected at or above practical quantitation limits	
Sample 18609-3515 (3 foot depth)	Gamma-Chlordane 0.00063 milligrams per kilogram (mg/kg) "J"	CHLORDANE Residential 1.6 mg/kg (1999 and 2000) Industrial 11 mg/kg (1999 and 2000)
Sample 18609-3516 (5 foot depth)	All Method 8081, 8141A, 8151A, and 8270 Analytes not detected at or above practical quantitation limits	
Sample Location 753-HA-03		
Sample 18609-3517 (1 foot depth)	Malathion 14 micrograms per kilogram (ug/kg) "J"	Residential 1,200 mg/kg (1999 and 2000) Industrial 18,000 mg/kg (1999 and 2000)
Sample 18609-3518 (3 foot depth)	All Method 8081, 8141A, 8151A, and 8270 Analytes not detected at or above practical quantitation limits	
Sample 18609-3519 (5 foot depth)	2,4-D 0.0066 mg/kg "J"	Residential 690 mg/kg (1999 and 2000) Industrial 12,000 mg/kg (1999 and 2000)
Sample Location 753-HA-04		
Sample 18609-3520 (1 foot depth)	All Method 8081, 8141A, 8151A, and 8270 Analytes not detected at or above practical quantitation limits	
Sample 18609-3521 (3 foot depth)	"	
Sample 18609-3522 (5 foot depth)	"	

Gamma-chlordane, malathion, and 2-4D were identified as estimated values (less than the laboratory reporting limits (practical quantitation limits (PQLs)) in samples collected from 753-HA-02 and/or 753-HA-03.

Gamma-chlordane was identified at 0.0066 mg/kg "J" in the 3-foot sample at 753-HA-02. The estimated value of gamma-chlordane at 753-HA-02 is less than the USEPA Region IX PRGs issued in 1999 and 2000.

Malathion was identified at a maximum concentration of 14 micrograms per kilogram "J" in the 1-foot sample from 753-HA-03 (Sample 18609-3517). The identified concentration is significantly below the USEPA Region IX PRGs issued in 1999 and 2000 for residential and industrial reuse.

2,4-D was identified at 0.0066 mg/kg "J" in the 5-foot sample at 753-HA-03. The estimated value of 2,4-D at 753-HA-03 is significantly less than the USEPA Region IX PRGs issued in 1999 and 2000.

Photographs of Former AST Site 753 and the sample locations, the chain of custody documentation, laboratory test reports, data validation report, and the land survey data for the sample locations are presented in the Appendix.

Section 3
Findings and Recommendations

The following findings are based upon the results of the soil sampling activities that were conducted in September 2000:

- Gamma chlordane, malathion, and 2,4-D were reported as estimated values in samples collected from borings 753 HA-02 and/or 753 HA-03. All identified compounds were reported at concentrations that are less than the USEPA Region IX Preliminary Remediation Goals dated 1999 and 2000.
- The residual concentrations of pesticides and/or herbicides near Former AST Site 753 are not anticipated to pose a significant risk to human health and the environment.

Based upon the previously presented information in the Summary Report dated December 1999, the results of the field sampling activities that were conducted in September 2000, and the absence of evidence of a significant release of pesticides and/or herbicides near Former AST Site 753, it is recommended that *no further action status* be designated for Former AST Site 753 and that *no further action status* be documented in the next BRAC Business Plan Update.

Section 4
References and/or Sources of Information

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

CDM Federal Programs Corporation. 2000. Final Groundwater Monitoring Report, October 1997 Sampling Round, Groundwater Monitoring Program for Marine Corps Air Station, El Toro. [Navy Contract N68711-96-D-2029, Delivery Order 5]

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

Jacobs Engineering Group (JEG). 1993. Marine Corps Air Station, El Toro: Installation Restoration Program, Phase I Remedial Investigation Technical Memorandum.

Naval Energy and Environmental Support Activity (NEESA). 1986. Initial Assessment Study of Marine Corps Air Station, El Toro, California.

OHM Remediation Services Corporation. 2000. Technical Information Package for Former AST Site 753 (laboratory data, land survey data, data validation report). [Navy Contract N68711-93-D-1459, Delivery Order 70]

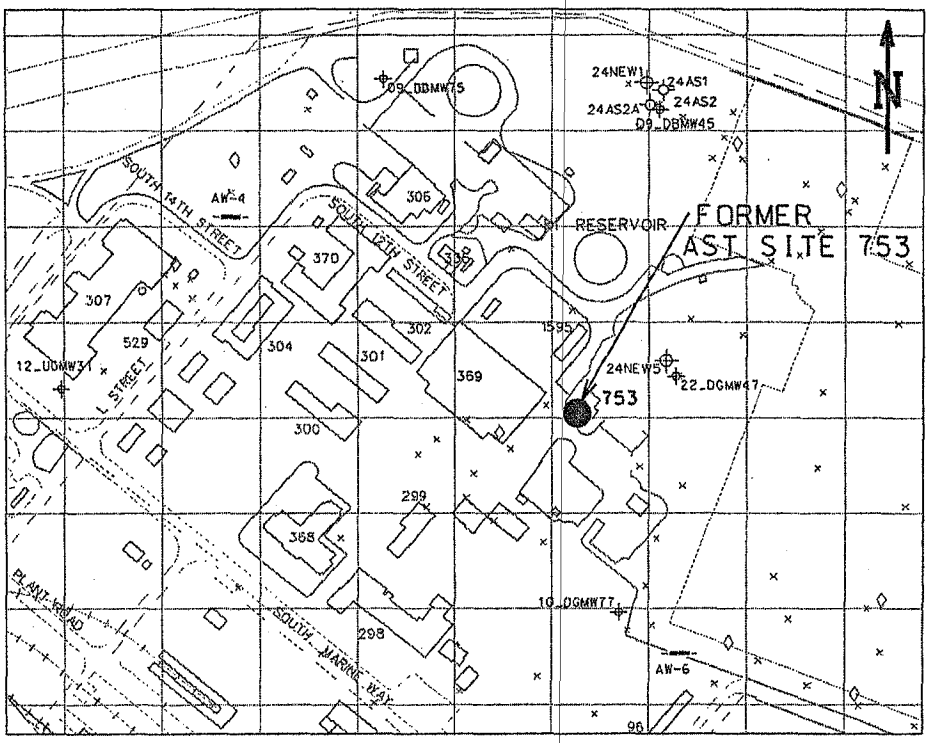
Southwest Division, Naval Facilities Engineering Command. 1999. Summary Report, Former Above-Ground Storage Tank Site 753, Marine Corps Air Station, El Toro. December.

United States Environmental Protection Agency, Region IX. Preliminary Remediation Goals. 1999 and 2000 updates.

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

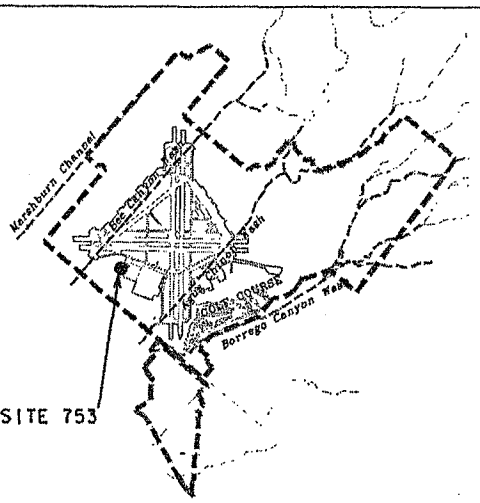
United States Marine Corps Air Station, El Toro. 1999. Base Realignment and Closure (BRAC) Cleanup Plan.

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.



APPROXIMATE SCALE

1 INCH = 400 FEET



MARINE CORPS AIR STATION

EL TORO

Figure 1.

FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

VICINITY MAP

MARINE CORPS AIR STATION, EL TORO

Sample ID	Northing (feet)	Easting (feet)
753-HA-01	2189656	6108594
753-HA-02	2189718	6108552
753-HA-03	2189708	6108669
753-HA-04	2189704	6108686

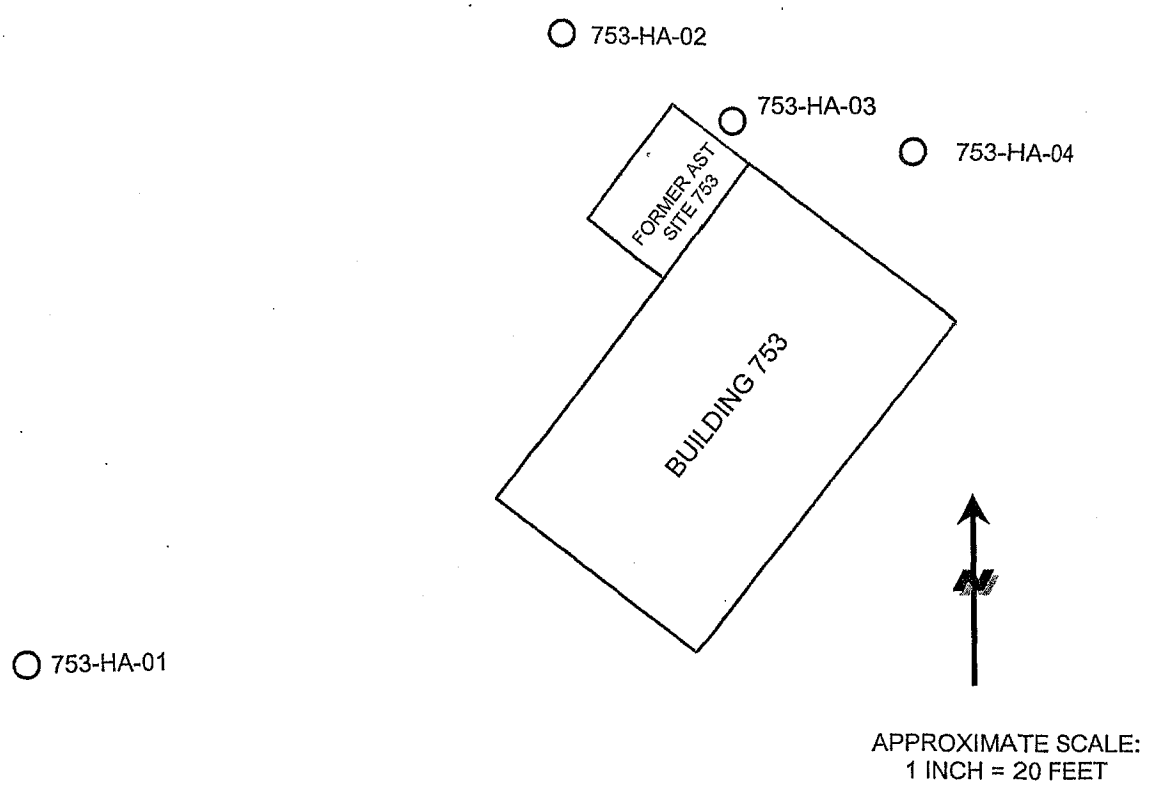


Figure 2.

FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

SAMPLING LOCATIONS

MARINE CORPS AIR STATION, EL TORO

LAND SURVEY BY CALVADA SURVEYING, INC.
FOR OHM REMEDIATION SERVICES

Appendix

Site Photographs and Other Documentation

Site Photographs

Regulatory Correspondence pertaining to AST 753

- RWQCB letter dated 21 August 2000
- DTSC e-mail message dated 26 August 2000

Extract from Initial Assessment Study

Extracts from USEPA Region IX Preliminary Remediation Goals (1999 and 2000)

Chain of Custody Documentation, Laboratory Test Reports, and Land Survey Data

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SITE PHOTOGRAPHS

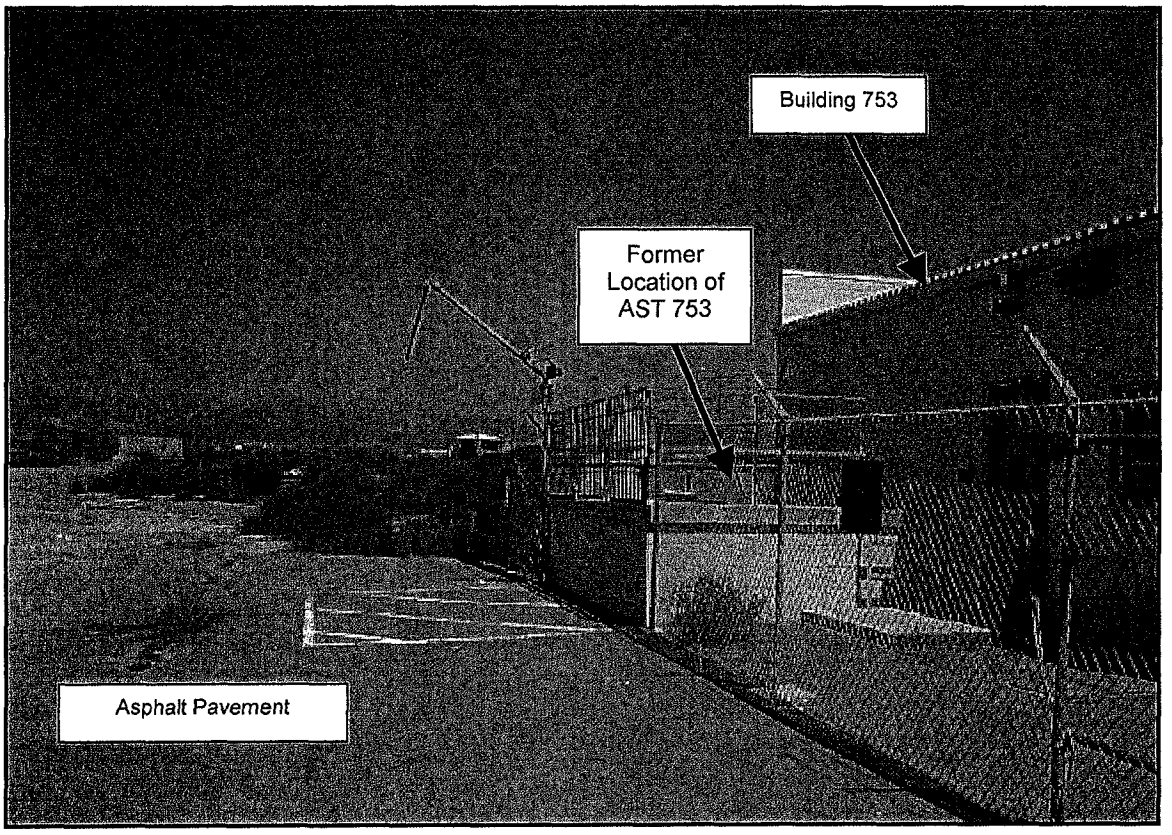
ADDENDUM TO SUMMARY REPORT – FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

DATED 15 DECEMBER 2000

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

File: etast753photo1.doc

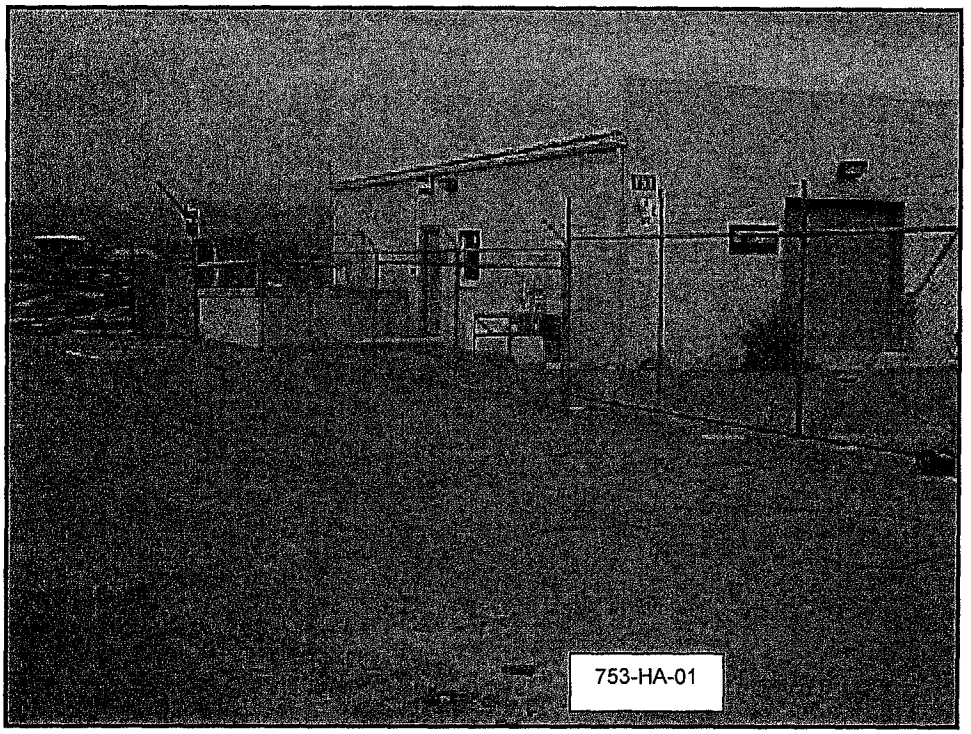
Photograph 1.
Former Above-Ground Storage Tank (AST) Site 753
Looking Approximately Northeast
Marine Corps Air Station, El Toro
Date of Photograph: August 2000



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

File: etast753photo1.doc

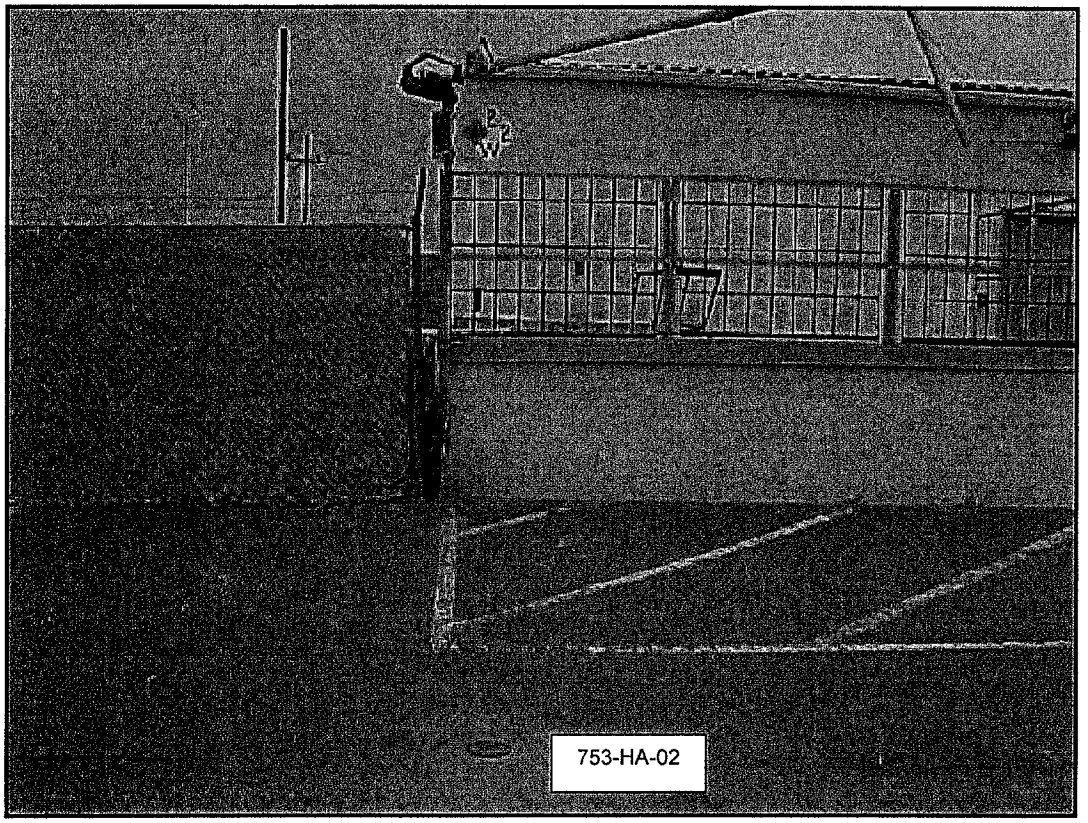
Photograph 2.
Former Above-Ground Storage Tank (AST) Site 753
Sample Location 753 HA-01
Marine Corps Air Station, El Toro
Date of Photograph: December 2000



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

File: etast753photo1.doc

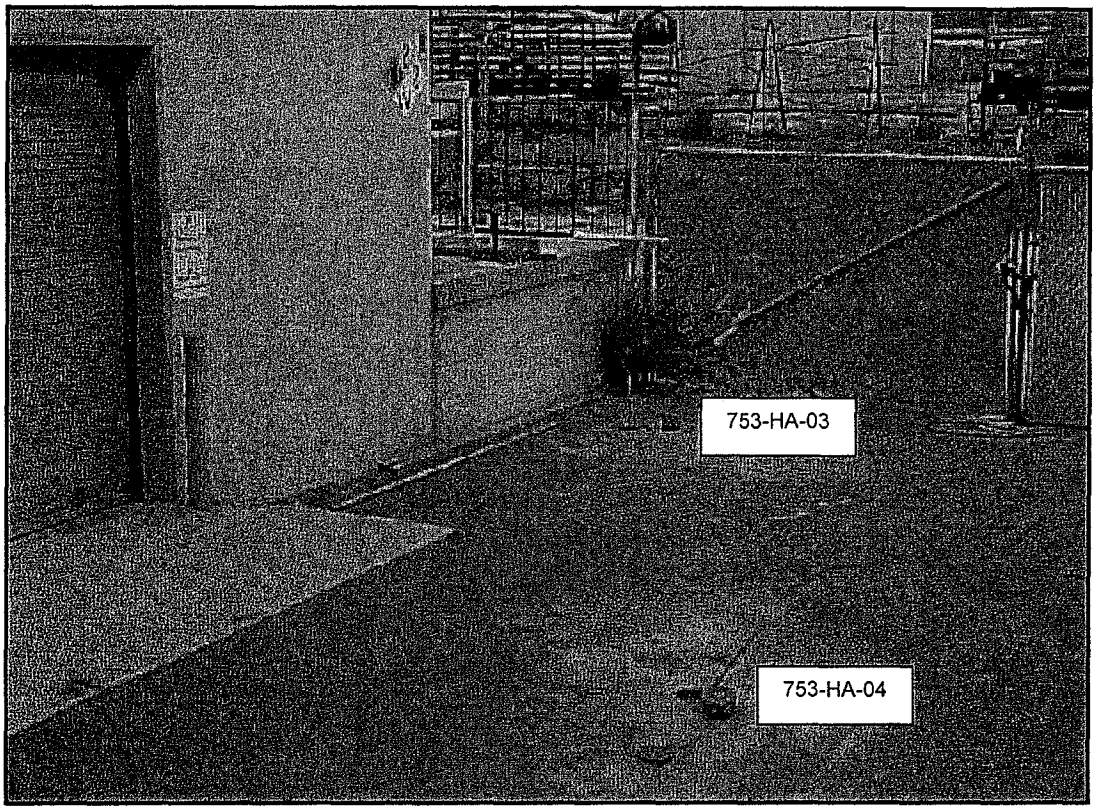
Photograph 3.
Former Above-Ground Storage Tank (AST) Site 753
Sample Location 753 HA-02
Marine Corps Air Station, El Toro
Date of Photograph: December 2000



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

File: etast753photo1.doc

Photograph 4.
Former Above-Ground Storage Tank (AST) Site 753
Sample Locations 753 HA-03 & 753 HA-04
Marine Corps Air Station, El Toro
Date of Photograph: December 2000



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RWQCB LETTER DATED 21 AUGUST 2000

ADDENDUM TO SUMMARY REPORT – FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

DATED 15 DECEMBER 2000

California Regional Water Quality Control Board
Santa Ana Region

on H. Hickox
retary for
onmental
tection

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

Gray Davis
Governor

August 21, 2000

Mr. Dean Gould
BRAC Environmental Coordinator
Base Realignment & Closure, Environmental Div.
P O Box 51718
Irvine, CA 92619 -1718

COMMENTS ON SUMMARY REPORT, FORMER ABOVE-GROUND STORAGE TANK SITE 753, MARINE CORPS AIR STATION, EL TORO

Dear Mr. Gould:

We have completed our review of the above-referenced document, dated December 3, 1999, and received at this office on December 14, 1999. We have the following comments:

1. According to the report, AST 753 was inspected for leaks, and no surface staining was observed around the tank area. However, the July 1997 Storm Water Pollution Prevention Plan (SWPPP) in the Appendix indicated the following observation: "Water, identified by a sign stating 'Contaminated Water,' was observed to be leaking from piping beside the dock, running downslope on the paved parking lot, and entering the subsurface through a significant crack in the paving." The report must address this discrepancy in observations.

2. **Figure 1 and Appendix:** The maps that you provided show the location of two wells, 22-DBMW47 and 24-NEW5, with respect to former AST site 753. However, the location of well 09_DGMW75, the only well that is reported to be downgradient of former AST site 753, is not shown

3. **Appendix**, Table 6-1: Only two sampling results are provided for well 09_DGMW75, and they are from 1992 and 1993. According to historical records that are referenced in the report, the tank was still active in 1997. Furthermore, well 09_DGMW75 is "several hundred feet" northwest of the former AST site. Two samples from this well, prior to operations ceasing in the tank area, provide insufficient data to warrant a "no further action" determination at the site.

4. **Appendix**, Tables 4 through 8: Analytical data for wells 22-DBMW47 and 24-NEW5 are provided, but the groundwater flow direction in the area is toward the northwest. Wells 22-DBMW47 and 24-NEW5 are located approximately 130 feet and 200 feet, respectively, northeast of former AST site 753. These wells are not downgradient of former AST site 753, and they are too far away to be used as indicators of impacts to groundwater from former AST site 753.

5. **Appendix**: Information on Operable Unit 3A Site 10 is provided. The relevance of this supplemental information should be presented in the report.

Based on the information that you have provided, we do not concur with the request for no further action at this site.

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

Sincerely,

John Broderick
SLIC/DoD/AGT Section

cc: Ms. Triss Chesney, Dept. of Toxic Substances Control
Mr. Gregory F. Hurley (El Toro RAB Co-Chair), Kutak Rock, Attorneys
Mr. Polin Modanlou, Orange County Hall of Administration
Ms. Lynn Hornecker, Naval Facility Engineering Command, SW DIV
Mr. Glenn Kistner, U.S. EPA, Region IX

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DTSC E-MAIL MESSAGE DATED 26 AUGUST 2000

ADDENDUM TO SUMMARY REPORT – FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

DATED 15 DECEMBER 2000

Hornecker, Lynn M (EFDSW)

From: Hornecker, Lynn M (EFDSW)
Sent: Saturday, August 26, 2000 10:22 AM
To: 'Triss Chesney'
Subject: RE: Summary Report for AST 753

Hello Triss,

We plan to prepare a supplement for AST Site 753 to address RWQCB and DTSC comments and concerns. We will coordinate with you and John Broderick during the development of the supplement.

V/R
Lynn Marie Hornecker
SOUTHWESTNAVFACENGCOM
BRAC PROGRAMS OFFICE
(619) 532-0783/Fax (619) 532-0780
26 August 2000

> -----Original Message-----
> From: Triss Chesney [SMTP:TChesney@dtsc.ca.gov]
> Sent: Friday, August 25, 2000 8:38 AM
> To: horneckerlm@efdsw.navfac.navy.mil
> Subject: Summary Report for AST 753
>
> I took a look at the Summary Report for AST 753 and my main concern is the
> information from the July 1997 Storm Water Pollution Prevention Plan
> (SWPPP) regarding leaking of "contaminated water" from piping beside the
> dock. I agree with the comment provided the the RWQCB. Additionally, it
> is unclear whether the source of the water is from piping that is separate
> from the tank or from the tank itself.
>
> Also, the tank is described as a pesticide storage tank; however in the
> SWPPP, the contents are described as an unidentified liquid. Based on the
> information provided in the report, the nature of the tank contents
> appears to be uncertain.
>
> I just wanted to confirm that you plan to prepare and forward supplemental
> information on AST 753 in response RWQCB comments. If so, DTSC will wait
> until reviewing the supplemental information before submitting comments.
>
> Triss M. Chesney, P.E.
> Base Closure and Reuse Unit
> Southern California Branch
> Office of Military Facilities
> (714) 484-5395, tchesney@dtsc.ca.gov

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EXTRACT FROM INITIAL ASSESSMENT STUDY

ADDENDUM TO SUMMARY REPORT – FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

DATED 15 DECEMBER 2000

Extracts

MAY 1986

INITIAL ASSESSMENT STUDY OF MARINE CORPS AIR STATION, EL TORO, CALIFORNIA

NEESA 13-074

NAVAL ENERGY AND ENVIRONMENTAL SUPPORT ACTIVITY
Port Hueneme, California

RELEASE OF THIS DOCUMENT REQUIRES PRIOR NOTIFICATION OF THE CHIEF OFFICIAL OF THE STUDIED ACTIVITY

Table 5-1. Used Pesticides Formerly at MCAS El Toro Golf Course and Pest and Weed Shop

Chemical	Type	Dates
Malathion	Insecticide	Used in 1973 - 1975
Kelthane	Insecticide	Used once in mid-1970s
Scott's Proturf	Fungicide	Used once in 1980 to 1982
Strychnine	Rodenticide	Stopped usage in 1973
DDT	Insecticide	Stopped usage in 1973
Retard-X	Herbicide	--

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EXTRACTS FROM USEPA REGION IX PRELIMINARY REMEDIATION GOALS (1999 AND 2000)

ADDENDUM TO SUMMARY REPORT – FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

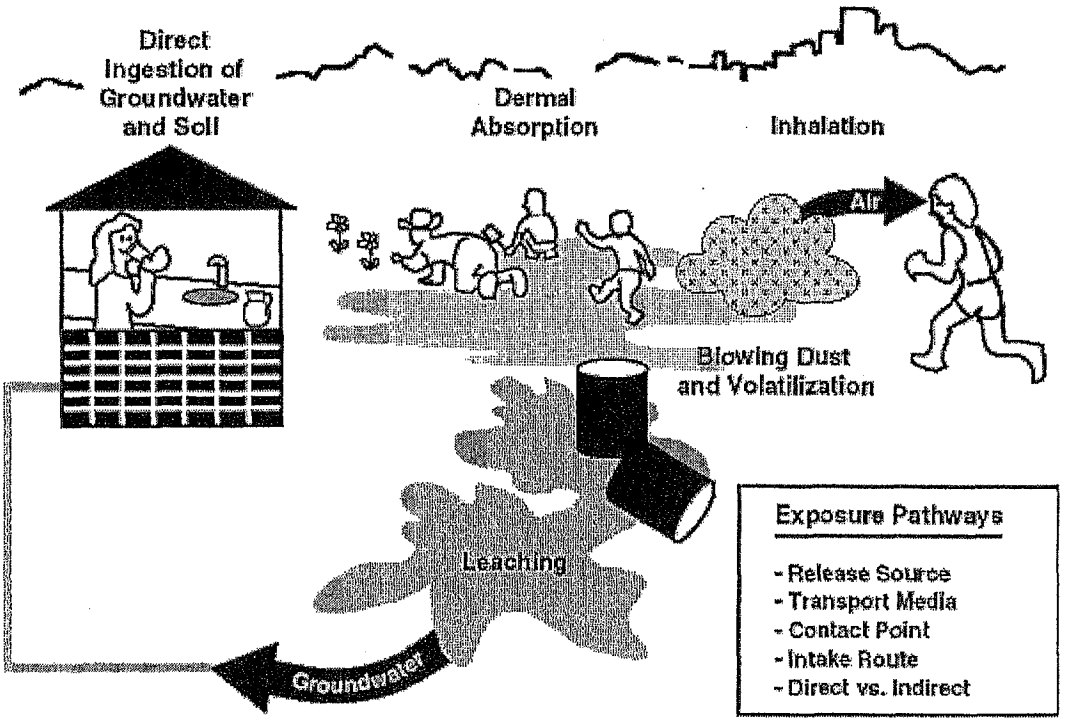
DATED 15 DECEMBER 2000

1999 Update

EPA United States Environmental Protection Agency

Waste Programs

Preliminary Remediation Goals (PRGs)



[Introduction] [R9 PRGs Table] [Soil PRGs]
[Air-Water PRGs] [Toxicity Values] [Phys-Chem Data]

Download the Preliminary Remediation Goals Table in Excel or Lotus 123 and Text in MS Word or WordPerfect.

Go to: [Region 9 Waste Home] [Region 9 Home] [Superfund Home] [EPA Home]

Send questions and comments to: smucker.stan@epa.gov
Region 9 Office: 75 Hawthorne Street, San Francisco, California, 94105-3901

Updated: November 17, 1999

URL: http://www.epa.gov/region09/waste/sfund/prg/index.htm

Key : i=IRIS n=NCEA h=HEAST x=WITHDRAWN o=Other EPA DOCUMENTS r=ROUTE EXTRAPOLATION ca=CANCER PRG nc=NONCANCER PRG sat=SOIL SATURATION max=CEILING LIMIT *(where: nc < 100X ca) **(where: nc < 10X ca)

FOR PLANNING PURPOSES

TOXICITY INFORMATION												CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)								SOIL SCREENING LEVELS	
								V O C	skin abs. soils		CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		Migration to Ground Water DAF 20 (mg/kg)	DAF 1 (mg/kg)
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)																
		1.0E-01	i			1.0E-01	r	0	0.10		100-52-7	Benzaldehyde	6.1E+03	nc	8.8E+04	nc	3.7E+02	nc	3.6E+03	nc		
2.9E-02	i	3.0E-03	n	2.7E-02	i	1.7E-03	n	1			71-43-2	Benzene	6.7E-01	ca*	1.5E+00	ca*	2.5E-01	ca*	4.1E-01	ca*	3.0E-02	2E-03
2.3E+02	i	3.0E-03	i	2.3E+02	i	3.0E-03	r	0	0.10		92-87-5	Benzidine	2.1E-03	ca	1.1E-02	ca	2.9E-05	ca	2.9E-04	ca		
		4.0E+00	i			4.0E+00	r	0	0.10		65-85-0	Benzoic acid	1.0E+05	max	1.0E+05	max	1.5E+04	nc	1.5E+05	nc	4.0E+02	2E+01
1.3E+01	i			1.3E+01	r			0	0.10		98-07-7	Benzotrichloride	3.7E-02	ca	1.9E-01	ca	5.2E-04	ca	5.2E-03	ca		
		3.0E-01	h			3.0E-01	r	0	0.10		100-51-6	Benzyl alcohol	1.8E+04	nc	1.0E+05	max	1.1E+03	nc	1.1E+04	nc		
1.7E-01	i			1.7E-01	r			1			100-44-7	Benzyl chloride	8.9E-01	ca	2.3E+00	ca	4.0E-02	ca	6.6E-02	ca		
		2.0E-03	i	8.4E+00	i	5.7E-06	i	0			7440-41-7	Beryllium and compounds	1.5E+02	nc	2.2E+03	ca**	8.0E-04	ca*	7.3E+01	nc	6.3E+01	3E+00
		1.0E-04	i			1.0E-04	r	0	0.10		141-66-2	Bidrin	6.1E+00	nc	8.8E+01	nc	3.7E-01	nc	3.6E+00	nc		
		1.5E-02	i			1.5E-02	r	0	0.10		82657-04-3	Biphenthrin (Talstar)	9.2E+02	nc	1.3E+04	nc	5.5E+01	nc	5.5E+02	nc		
		5.0E-02	i			5.0E-02	r	1			92-52-4	1,1-Biphenyl	3.5E+02	sat	3.5E+02	sat	1.8E+02	nc	3.0E+02	nc		
1.1E+00	i			1.2E+00	i			1			111-44-4	Bis(2-chloroethyl)ether	2.1E-01	ca	6.2E-01	ca	5.8E-03	ca	9.8E-03	ca	4.0E-04	2E-05
7.0E-02	h	4.0E-02	i	3.5E-02	h	4.0E-02	r	1			108-60-1	Bis(2-chloroisopropyl)ether	2.9E+00	ca	8.1E+00	ca	1.9E-01	ca	2.7E-01	ca		
2.2E+02	i			2.2E+02	i			1			542-88-1	Bis(chloromethyl)ether	1.9E-04	ca	4.4E-04	ca	3.1E-05	ca	5.2E-05	ca		
7.0E-02	h			3.5E-02	h			0	0.10		108-60-1	Bis(2-chloro-1-methylethyl)ether	6.9E+00	ca	3.5E+01	ca	1.9E-01	ca	9.6E-01	ca		
1.4E-02	i	2.0E-02	i	1.4E-02	r	2.2E-02	r	0	0.10		117-81-7	Bis(2-ethylhexyl)phthalate (DEHP)	3.5E+01	ca*	1.8E+02	ca	4.8E-01	ca	4.8E+00	ca		
		5.0E-02	i			5.0E-02	r	0	0.10		80-05-7	Bisphenol A	3.1E+03	nc	4.4E+04	nc	1.8E+02	nc	1.8E+03	nc		
		9.0E-02	i			5.7E-03	h	0	0.10		7440-42-8	Boron	5.5E+03	nc	7.9E+04	nc	2.1E+01	nc	3.3E+03	nc		
						2.0E-04	h	0	0.10		7637-07-2	Boron trifluoride					7.3E-01	nc				
		2.0E-02	n			2.9E-03	n	1			108-86-1	Bromobenzene	2.8E+01	nc	9.2E+01	nc	1.0E+01	nc	2.0E+01	nc		
6.2E-02	i	2.0E-02	i	6.2E-02	r	2.0E-02	r	1			75-27-4	Bromodichloromethane	1.0E+00	ca	2.4E+00	ca	1.1E-01	ca	1.8E-01	ca	6E-01	3E-02
7.9E-03	i	2.0E-02	i	3.9E-03	i	2.0E-02	r	0	0.10		75-25-2	Bromoform (tribromomethane)	6.2E+01	ca*	3.1E+02	ca*	1.7E+00	ca*	8.5E+00	ca*	8E-01	4E-02
		1.4E-03	i			1.4E-03	i	1			74-83-9	Bromomethane (Methyl bromide)	3.9E+00	nc	1.3E+01	nc	5.2E+00	nc	8.7E+00	nc	2E-01	1E-02
								0	0.10		101-55-3	4-Bromophenyl phenyl ether										
		5.0E-03	h			5.0E-03	r	0	0.10		2104-96-3	Bromophos	3.1E+02	nc	4.4E+03	nc	1.8E+01	nc	1.8E+02	nc		
		2.0E-02	i			2.0E-02	r	0	0.10		1689-84-5	Bromoxynil	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
		2.0E-02	i			2.0E-02	r	0	0.10		1689-99-2	Bromoxynil octanoate	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
1.8E+00	r			1.8E+00	i			1			106-99-0	1,3-Butadiene	3.5E-03	ca	7.6E-03	ca	3.7E-03	ca	6.2E-03	ca		
		1.0E-01	i			1.0E-01	r	0	0.10		71-36-3	1-Butanol	6.1E+03	nc	8.8E+04	nc	3.7E+02	nc	3.6E+03	nc	2E+01	9E-01
		5.0E-02	i			5.0E-02	r	0	0.10		2008-41-5	Butylate	3.1E+03	nc	4.4E+04	nc	1.8E+02	nc	1.8E+03	nc		
		1.0E-02	n			1.0E-02	r	1			104-51-8	n-Butylbenzene	1.4E+02	nc	2.4E+02	sat	3.7E+01	nc	6.1E+01	nc		
		1.0E-02	n			1.0E-02	r	1			135-9-88	sec-Butylbenzene	1.1E+02	nc	2.2E+02	sat	3.7E+01	nc	6.1E+01	nc		
		1.0E-02	n			1.0E-02	r	1			98-06-6	tert-Butylbenzene	1.3E+02	nc	3.9E+02	sat	3.7E+01	nc	6.1E+01	nc		
		2.0E-01	i			2.0E-01	r	0	0.10		85-68-7	Butyl benzyl phthalate	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc	9E+02	8E+02
		1.0E+00	i			1.0E+00	r	0	0.10		85-70-1	Butylphthalyl butylglycolate	6.1E+04	nc	1.0E+05	max	3.7E+03	nc	3.6E+04	nc		
		3.0E-03	h			3.0E-03	r	0	0.10		75-60-5	Cacodylic acid	1.8E+02	nc	2.6E+03	nc	1.1E+01	nc	1.1E+02	nc		
		5.0E-04	i	6.3E+00	i			0	0.001		7440-43-9	Cadmium and compounds	3.7E+01	nc	8.1E+02	nc	1.1E-03	ca	1.8E+01	nc	8E+00	4E-01
												"CAL-Modified PRG" (PEA, 1994)	9.0E+00									
		5.0E-01	i			5.0E-01	r	0	0.10		105-60-2	Caprolactam	3.1E+04	nc	1.0E+05	max	1.8E+03	nc	1.8E+04	nc		
8.6E-03	h	2.0E-03	i	8.6E-03	r	2.0E-03	r	0	0.10		2425-06-1	Captafol	5.7E+01	ca**	2.9E+02	ca**	7.8E-01	ca**	7.8E+00	ca**		
3.5E-03	h	1.3E-01	i	3.5E-03	r	1.3E-01	r	0	0.10		133-06-2	Captan	1.4E+02	ca*	7.0E+02	ca	1.9E+00	ca	1.9E+01	ca		
		1.0E-01	i			1.1E-01	r	0	0.10		63-25-2	Carbaryl	6.1E+03	nc	8.8E+04	nc	4.0E+02	nc	3.6E+03	nc		
2.0E-02	h			2.0E-02	r			0	0.10		86-74-8	Carbazole	2.4E+01	ca	1.2E+02	ca	3.4E-01	ca	3.4E+00	ca	6E-01	3E-02
		5.0E-03	i			5.0E-03	r	0	0.10		1563-66-2	Carbofuran	3.1E+02	nc	4.4E+03	nc	1.8E+01	nc	1.8E+02	nc		
		1.0E-01	i			2.0E-01	i	1			75-15-0	Carbon disulfide	3.6E+02	nc	7.2E+02	sat	7.3E+02	nc	1.0E+03	nc	3E+01	2E+00
1.3E-01	i	7.0E-04	i	5.3E-02	i	7.0E-04	r	1			56-23-5	Carbon tetrachloride	2.4E-01	ca**	5.3E-01	ca*	1.3E-01	ca*	1.7E-01	ca*	7E-02	3E-03
		1.0E-02	i			1.0E-02	r	0	0.10		55285-14-8	Carbosulfan	6.1E+02	nc	8.8E+03	nc	3.7E+01	nc	3.6E+02	nc		
		1.0E-01	i			1.0E-01	r	0	0.10		5234-68-4	Carboxin	6.1E+03	nc	8.8E+04	nc	3.7E+02	nc	3.6E+03	nc		
		2.0E-03	i			2.0E-03	r	0	0.10		302-17-0	Chloral	1.2E+02	nc	1.8E+03	nc	7.3E+00	nc	7.3E+01	nc		
		1.5E-02	i			1.5E-02	r	0	0.10		133-90-4	Chloramben	9.2E+02	nc	1.3E+04	nc	5.5E+01	nc	5.5E+02	nc		
4.0E-01	h			4.0E-01	r			0	0.10		118-75-2	Chloranil	1.2E+00	ca	6.1E+00	ca	1.7E-02	ca	1.7E-01	ca		
3.5E-01	i	5.0E-04	i	3.5E-01	i	2.0E-04	i	0	0.04		12789-03-6	Chlordane	1.6E+00	ca*	1.1E+01	ca*	1.9E-02	ca*	1.9E-01	ca*	1E+01	5E-01

Key : i=IRIS n=NCEA h=HEAST x=WITHDRAWN o=Other EPA DOCUMENTS r=ROUTE EXTRAPOLATION ca=CANCER PRG nc=NONCANCER PRG sat=SOIL SATURATION max=CEILING LIMIT *(where: nc < 100X ca) **(where: nc < 10X ca)

FOR PLANNING PURPOSES

TOXICITY INFORMATION												CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)								SOIL SCREENING LEVELS	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs. soils	CAS No.			Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		Migration to Ground Water DAF 20 (mg/kg)	DAF 1 (mg/kg)
		4.0E-02	i					0	0.10	143-33-9		Sodium cyanide	2.4E+03	nc	3.5E+04	nc			1.5E+03	nc		
		5.0E-02	i					0	0.10	557-21-1		Zinc cyanide	3.1E+03	nc	4.4E+04	nc			1.8E+03	nc		
		4.0E-02	i			4.0E-02	r	1		460-19-5		Cyanogen	1.3E+02	nc	4.3E+02	nc	1.5E+02	nc	2.4E+02	nc		
		9.0E-02	i			9.0E-02	r	1		506-68-3		Cyanogen bromide	2.9E+02	nc	9.7E+02	nc	3.3E+02	nc	5.5E+02	nc		
		5.0E-02	i			5.0E-02	r	1		506-77-4		Cyanogen chloride	1.6E+02	nc	5.4E+02	nc	1.8E+02	nc	3.0E+02	nc		
		5.0E+00	i			5.0E+00	r	0	0.10	108-94-1		Cyclohexanone	1.0E+05	max	1.0E+05	max	1.8E+04	nc	1.8E+05	nc		
		2.0E-01	i			2.0E-01	r	0	0.10	108-91-8		Cyclohexylamine	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc		
		5.0E-03	i			5.0E-03	r	0	0.10	68085-85-8		Cyhalothrin/Karate	3.1E+02	nc	4.4E+03	nc	1.8E+01	nc	1.8E+02	nc		
		1.0E-02	i			1.0E-02	r	0	0.10	52315-07-8		Cypermethrin	6.1E+02	nc	8.8E+03	nc	3.7E+01	nc	3.6E+02	nc		
		7.5E-03	i			7.5E-03	r	0	0.10	66215-27-8		Cyromazine	4.6E+02	nc	6.6E+03	nc	2.7E+01	nc	2.7E+02	nc		
		1.0E-02	i			1.0E-02	r	0	0.10	1861-32-1		Dacthal	6.1E+02	nc	8.8E+03	nc	3.7E+01	nc	3.6E+02	nc		
		3.0E-02	i			3.0E-02	r	0	0.10	75-99-0		Dalapon	1.8E+03	nc	2.6E+04	nc	1.1E+02	nc	1.1E+03	nc		
		2.5E-02	i			2.5E-02	r	0	0.10	39515-41-8		Danitol	1.5E+03	nc	2.2E+04	nc	9.1E+01	nc	9.1E+02	nc		
2.4E-01	i			2.4E-01	r			0	0.03	72-54-8		DDD	2.4E+00	ca	1.7E+01	ca	2.8E-02	ca	2.8E-01	ca	2E+01	8E-01
3.4E-01	i			3.4E-01	r			0	0.03	72-55-9		DDE	1.7E+00	ca	1.2E+01	ca	2.0E-02	ca	2.0E-01	ca	5E+01	3E+00
3.4E-01	i	5.0E-04	i	3.4E-01	i	5.0E-04	r	0	0.03	50-29-3		DDT	1.7E+00	ca*	1.2E+01	ca*	2.0E-02	ca*	2.0E-01	ca*	3E+01	2E+00
		1.0E-02	i			1.0E-02	r	0	0.10	1163-19-5		Decabromodiphenyl ether	6.1E+02	nc	8.8E+03	nc	3.7E+01	nc	3.6E+02	nc		
		4.0E-05	i			4.0E-05	r	0	0.10	8065-48-3		Demeton	2.4E+00	nc	3.5E+01	nc	1.5E-01	nc	1.5E+00	nc		
6.1E-02	h			6.1E-02	r			0	0.10	2303-16-4		Diallate	8.0E+00	ca	4.0E+01	ca	1.1E-01	ca	1.1E+00	ca		
		9.0E-04	h			9.0E-04	r	0	0.10	333-41-5		Diazinon	5.5E+01	nc	7.9E+02	nc	3.3E+00	nc	3.3E+01	nc		
		4.0E-03	x			4.0E-03	r	1		132-64-9		Dibenzofuran	2.9E+02	nc	5.1E+03	nc	1.5E+01	nc	2.4E+01	nc		
		1.0E-02	i			1.0E-02	r	0	0.10	106-37-6		1,4-Dibromobenzene	6.1E+02	nc	8.8E+03	nc	3.7E+01	nc	3.6E+02	nc		
8.4E-02	i	2.0E-02	i	8.4E-02	r	2.0E-02	r	1		124-48-1		Dibromochloromethane	1.1E+00	ca	2.7E+00	ca	8.0E-02	ca	1.3E-01	ca	4E-01	2E-02
1.4E+00	h	5.7E-05	r	2.4E-03	h	5.7E-05	i	1		96-12-8		1,2-Dibromo-3-chloropropane	4.5E-01	ca**	4.0E+00	ca**	2.1E-01	nc	4.8E-02	ca**		
												"CAL-Modified PRG" (PEA, 1994)	6.0E-02				9.6E-04		4.7E-03			
8.5E+01	i	5.7E-05	r	7.7E-01	i	5.7E-05	h	1		106-93-4		1,2-Dibromoethane	6.9E-03	ca	4.8E-02	ca*	8.7E-03	ca*	7.6E-04	ca		
		1.0E-01	i			1.0E-01	r	0	0.10	84-74-2		Dibutyl phthalate	6.1E+03	nc	8.8E+04	nc	3.7E+02	nc	3.6E+03	nc	2E+03	3E+02
		3.0E-02	i			3.0E-02	r	0	0.10	1918-00-9		Dicamba	1.8E+03	nc	2.6E+04	nc	1.1E+02	nc	1.1E+03	nc		
		9.0E-02	i			5.7E-02	h	1		95-50-1		1,2-Dichlorobenzene	3.7E+02	sat	3.7E+02	sat	2.1E+02	nc	3.7E+02	nc	2E+01	9E-01
		9.00E-04	n			9.00E-04	r	1		541-73-1		1,3-Dichlorobenzene	1.3E+01	nc	5.2E+01	nc	3.3E+00	nc	5.5E+00	nc		
2.4E-02	h	3.00E-02	n	2.2E-02	n	3.00E-02	i	1		106-46-7		1,4-Dichlorobenzene	3.4E+00	ca	8.1E+00	ca	3.1E-01	ca	5.0E-01	ca	2E+00	1E-01
4.5E-01	i			4.5E-01	r			0	0.10	91-94-1		3,3-Dichlorobenzidine	1.1E+00	ca	5.5E+00	ca	1.5E-02	ca	1.5E-01	ca	7E-03	3E-04
9.3E+00	r			9.3E+00	h			1		764-41-0		1,4-Dichloro-2-butene	7.9E-03	ca	1.8E-02	ca	7.2E-04	ca	1.2E-03	ca		
		2.0E-01	i			5.7E-02	h	1		75-71-8		Dichlorodifluoromethane	9.4E+01	nc	3.1E+02	nc	2.1E+02	nc	3.9E+02	nc		
		1.0E-01	h			1.4E-01	h	1		75-34-3		1,1-Dichloroethane	5.9E+02	nc	2.1E+03	nc	5.2E+02	nc	8.1E+02	nc	2E+01	1E+00
9.1E-02	i	3.0E-02	n	9.1E-02	i	1.4E-03	n	1		107-06-2		1,2-Dichloroethane (EDC)	3.5E-01	ca*	7.6E-01	ca*	7.4E-02	ca*	1.2E-01	ca*	2E-02	1E-03
6.0E-01	i	9.0E-03	i	1.8E-01	i	9.0E-03	r	1		75-35-4		1,1-Dichloroethylene	5.4E-02	ca	1.2E-01	ca	3.8E-02	ca	4.6E-02	ca	6E-02	3E-03
		1.0E-02	h			1.0E-02	r	1		156-59-2		1,2-Dichloroethylene (cis)	4.3E+01	nc	1.5E+02	nc	3.7E+01	nc	6.1E+01	nc	4E-01	2E-02
		2.0E-02	i			2.0E-02	r	1		156-60-5		1,2-Dichloroethylene (trans)	6.3E+01	nc	2.1E+02	nc	7.3E+01	nc	1.2E+02	nc	7E-01	3E-02
		3.0E-03	i			3.0E-03	r	0	0.10	120-83-2		2,4-Dichlorophenol	1.8E+02	nc	2.6E+03	nc	1.1E+01	nc	1.1E+02	nc	1E+00	5E-02
		8.0E-03	i			8.0E-03	r	0	0.10	94-82-6		4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB)	4.9E+02	nc	7.0E+03	nc	2.9E+01	nc	2.9E+02	nc		
		1.0E-02	i			1.0E-02	r	0	0.05	94-75-7		2,4-Dichlorophenoxyacetic Acid (2,4-D)	6.9E+02	nc	1.2E+04	nc	3.7E+01	nc	3.6E+02	nc		
6.8E-02	h	1.1E-03	r	6.8E-02	r	1.1E-03	i	1		78-87-5		1,2-Dichloropropane	3.5E-01	ca*	7.7E-01	ca*	9.9E-02	ca*	1.6E-01	ca*	3E-02	1E-03
1.8E-01	h	3.0E-04	i	1.3E-01	h	5.7E-03	i	1		542-75-6		1,3-Dichloropropene	8.2E-02	ca	1.8E-01	ca	5.2E-02	ca	8.1E-02	ca	4E-03	2E-04
		3.0E-03	i			3.0E-03	r	0	0.10	616-23-9		2,3-Dichloropropanol	1.8E+02	nc	2.6E+03	nc	1.1E+01	nc	1.1E+02	nc		
2.9E-01	i	5.0E-04	i	2.9E-01	r	1.4E-04	i	0	0.10	62-73-7		Dichlorvos	1.7E+00	ca*	8.5E+00	ca*	2.3E-02	ca*	2.3E-01	ca*		
4.4E-01	x			4.4E-01	r			0	0.10	115-32-2		Dicofol	1.1E+00	ca	5.6E+00	ca	1.5E-02	ca	1.5E-01	ca		
		3.0E-02	h			5.7E-05	h	1		77-73-6		Dicyclopentadiene	5.4E-01	nc	1.8E+00	nc	2.1E-01	nc	4.2E-01	nc		
1.6E+01	i	5.0E-05	i	1.6E+01	i	5.0E-05	r	0	0.10	60-57-1		Dieldrin	3.0E-02	ca	1.5E-01	ca	4.2E-04	ca	4.2E-03	ca	4E-03	2E-04
		5.7E-03	r			5.7E-03	h	0	0.10	112-34-5		Diethylene glycol, monobutyl ether	3.5E+02	nc	5.0E+03	nc	2.1E+01	nc	2.1E+02	nc		
		2.0E+00	h			2.0E+00	r	0	0.10	111-90-0		Diethylene glycol, monoethyl ether	1.0E+05	max	1.0E+05	max	7.3E+03	nc	7.3E+04	nc		
		1.1E-02	h			1.1E-02	r	0	0.10	617-84-5		Diethylformamide	6.7E+02	nc	9.7E+03	nc	4.0E+01	nc	4.0E+02	nc		

Key : i=IRIS n=NCEA h=HEAST x=WITHDRAWN o=Other EPA DOCUMENTS r=ROUTE EXTRAPOLATION ca=CANCER PRG nc=NONCANCER PRG sat=SOIL SATURATION max=CEILING LIMIT *(where: nc < 100X ca) **(where: nc < 10X ca)

FOR PLANNING PURPOSES

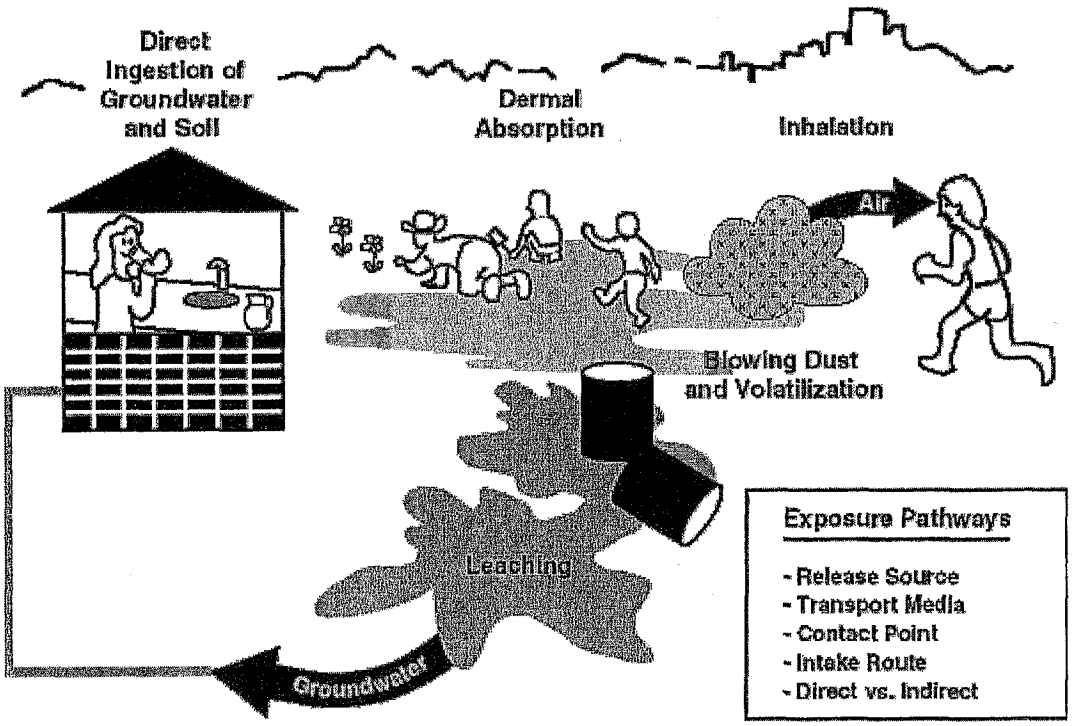
TOXICITY INFORMATION												CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)								SOIL SCREENING LEVELS	
								V O C	skin abs soils				Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		Migration to Ground Water DAF 20 (mg/kg)	DAF 1 (mg/kg)
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)					CAS No.											
1.8E+00	i			1.8E+00	i			0	0.04		608-73-1	HCH-technical	3.2E-01	ca	2.1E+00	ca	3.8E-03	ca	3.7E-02	ca	3E-03	1E-04
		7.0E-03	i			2.0E-05	h	0	0.10		77-47-4	Hexachlorocyclopentadiene	4.2E+02	nc	5.9E+03	nc	7.3E-02	nc	2.6E+02	nc	4E+02	2E+01
6.2E+03	i			4.6E+03	i			0	0.10		19408-74-3	Hexachlorodibenzo-p-dioxin mixture (HxCDD)	7.8E-05	ca	4.0E-04	ca	1.5E-06	ca	1.1E-05	ca		
1.4E-02	i	1.0E-03	i	1.4E-02	i	1.0E-03	r	0	0.10		67-72-1	Hexachloroethane	3.5E+01	ca**	1.8E+02	ca**	4.8E-01	ca**	4.8E+00	ca**	5E-01	2E-02
		3.0E-04	i			3.0E-04	r	0	0.10		70-30-4	Hexachlorophene	1.8E+01	nc	2.6E+02	nc	1.1E+00	nc	1.1E+01	nc		
1.1E-01	i	3.0E-03	i	1.1E-01	i	3.0E-03	r	0	0.10		121-82-4	Hexahydro-1,3,5-trinitro-1,3,5-triazine	4.4E+00	ca*	2.2E+01	ca	6.1E-02	ca	6.1E-01	ca		
		2.9E-06	r			2.9E-06	i	0	0.10		822-06-0	1,6-Hexamethylene diisocyanate	1.7E-01	nc	2.5E+00	nc	1.0E-02	nc	1.0E-01	nc		
		6.0E-02	h			5.7E-02	i	1			110-54-3	n-Hexane	1.1E+02	sat	1.1E+02	sat	2.1E+02	nc	3.5E+02	nc		
		3.3E-02	i			3.3E-02	r	0	0.10		51235-04-2	Hexazinone	2.0E+03	nc	2.9E+04	nc	1.2E+02	nc	1.2E+03	nc		
3.0E+00	i			1.7E+01	i			0	0.10		302-01-2	Hydrazine, hydrazine sulfate	1.6E-01	ca	8.2E-01	ca	3.9E-04	ca	2.2E-02	ca		
						5.7E-03	i				7647-01-0	Hydrogen chloride					2.1E+01	nc				
		3.0E-03	i			2.9E-04	i				7783-06-4	Hydrogen sulfide					1.0E+00	nc	1.1E+02	nc		
		4.0E-02	h			4.0E-02	r	0	0.10		123-31-9	p-Hydroquinone	2.4E+03	nc	3.5E+04	nc	1.5E+02	nc	1.5E+03	nc		
		1.3E-02	i			1.3E-02	r	0	0.10		35554-44-0	Imazalil	7.9E+02	nc	1.1E+04	nc	4.7E+01	nc	4.7E+02	nc		
		2.5E-01	i			2.5E-01	r	0	0.10		81335-37-7	Imazaquin	1.5E+04	nc	1.0E+05	max	9.1E+02	nc	9.1E+03	nc		
		4.0E-02	i			4.0E-02	r	0	0.10		36734-19-7	Iprodione	2.4E+03	nc	3.5E+04	nc	1.5E+02	nc	1.5E+03	nc		
		3.0E-01	n					0			7439-89-6	Iron	2.3E+04	nc	1.0E+05	max			1.1E+04	nc		
		3.0E-01	i			3.0E-01	r	1			78-83-1	Isobutanol	1.3E+04	nc	4.0E+04	sat	1.1E+03	nc	1.8E+03	nc		
9.5E-04	i	2.0E-01	i	9.5E-04	r	2.0E-01	r	0	0.10		78-59-1	Isophorone	5.1E+02	ca*	2.6E+03	ca*	7.1E+00	ca	7.1E+01	ca	5E-01	3E-02
		1.5E-02	i			1.5E-02	r	0	0.10		33820-53-0	Isopropalin	9.2E+02	nc	1.3E+04	nc	5.5E+01	nc	5.5E+02	nc		
		1.0E-01	i			1.1E-01	r	0	0.10		1832-54-8	Isopropyl methyl phosphonic acid	6.1E+03	nc	8.8E+04	nc	4.0E+02	nc	3.6E+03	nc		
		5.0E-02	i			5.0E-02	r	0	0.10		82558-50-7	Isoxaben	3.1E+03	nc	4.4E+04	nc	1.8E+02	nc	1.8E+03	nc		
1.8E+01	n			1.8E+01	r			0	0.10		143-50-0	Kepone	2.7E-02	ca	1.4E-01	ca	3.7E-04	ca	3.7E-03	ca		
		2.0E-03	i			2.0E-03	r	0	0.10		77501-63-4	Lactofen	1.2E+02	nc	1.8E+03	nc	7.3E+00	nc	7.3E+01	nc		
PRGs Based on EPA Models, IEUBK (1994) and TRW (1996)											7439-92-1	Lead	4.0E+02	nc	1.0E+03	nc						
		1.0E-07	i					0	0.10		78-00-2	Lead (tetraethyl)	6.1E-03	nc	8.8E-02	nc			3.6E-03	nc		
		2.0E-03	i			2.0E-03	r	0	0.10		330-55-2	Linuron	1.2E+02	nc	1.8E+03	nc	7.3E+00	nc	7.3E+01	nc		
		2.0E-02	x					0			7439-93-2	Lithium	1.6E+03	nc	4.1E+04	nc			7.3E+02	nc		
		2.0E-01	i			2.0E-01	r	0	0.10		83055-99-6	Londax	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc		
		2.0E-02	i			2.0E-02	r	0	0.10		121-75-5	Malathion	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
		1.0E-01	i			1.0E-01	r	0	0.10		108-31-6	Maleic anhydride	6.1E+03	nc	8.8E+04	nc	3.7E+02	nc	3.6E+03	nc		
		5.0E-01	i			5.0E-01	r	1			123-33-1	Maleic hydrazide	1.7E+03	nc	2.4E+03	sat	1.8E+03	nc	3.0E+03	nc		
		2.0E-05	h			2.0E-05	r	0	0.10		109-77-3	Malononitrile	1.2E+00	nc	1.8E+01	nc	7.3E-02	nc	7.3E-01	nc		
		3.0E-02	h			3.0E-02	r	0	0.10		8018-01-7	Mancozeb	1.8E+03	nc	2.6E+04	nc	1.1E+02	nc	1.1E+03	nc		
6.0E-02	o	5.0E-03	i	6.0E-02	r	5.0E-03	r	0	0.10		12427-38-2	Maneb	8.1E+00	ca*	4.1E+01	ca	1.1E-01	ca	1.1E+00	ca		
		2.4E-02	i			1.4E-05	i	0			7439-96-5	Manganese and compounds	1.8E+03	nc	3.2E+04	nc	5.1E-02	nc	8.8E+02	nc		
		9.0E-05	h			9.0E-05	r	0	0.10		950-10-7	Mephosfolan	5.5E+00	nc	7.9E+01	nc	3.3E-01	nc	3.3E+00	nc		
		3.0E-02	i			3.0E-02	r	0	0.10		24307-26-4	Mepiquat	1.8E+03	nc	2.6E+04	nc	1.1E+02	nc	1.1E+03	nc		
2.9E-02	n	1.0E-01	n	2.9E-02	r	1.0E-01	r	0	0.10		149-30-4	2-Mercaptobenzothiazole	1.7E+01	ca	8.5E+01	ca	2.3E-01	ca	2.3E+00	ca		
		3.0E-04	i					0			7487-94-7	Mercury and compounds	2.3E+01	nc	6.1E+02	nc			1.1E+01	nc		
						8.6E-05	i				7439-97-6	Mercury (elemental)					3.1E-01	nc				
		1.0E-04	i					0	0.10		22967-92-6	Mercury (methyl)	6.1E+00	nc	8.8E+01	nc			3.6E+00	nc		
		3.0E-05	i			3.0E-05	r	0	0.10		150-50-5	Merphos	1.8E+00	nc	2.6E+01	nc	1.1E-01	nc	1.1E+00	nc		
		3.0E-05	i			3.0E-05	r	0	0.10		78-48-8	Merphos oxide	1.8E+00	nc	2.6E+01	nc	1.1E-01	nc	1.1E+00	nc		
		6.0E-02	i			6.0E-02	r	0	0.10		57837-19-1	Metalaxyl	3.7E+03	nc	5.3E+04	nc	2.2E+02	nc	2.2E+03	nc		
		1.0E-04	i			2.0E-04	h	1			126-98-7	Methacrylonitrile	2.1E+00	nc	8.8E+00	nc	7.3E-01	nc	1.0E+00	nc		
		5.0E-05	i			5.0E-05	r	0	0.10		10265-92-6	Methamidophos	3.1E+00	nc	4.4E+01	nc	1.8E-01	nc	1.8E+00	nc		
		5.0E-01	i			5.0E-01	r	0	0.10		67-56-1	Methanol	3.1E+04	nc	1.0E+05	max	1.8E+03	nc	1.8E+04	nc		
		1.0E-03	i			1.0E-03	r	0	0.10		950-37-8	Methidathion	6.1E+01	nc	8.8E+02	nc	3.7E+00	nc	3.6E+01	nc		
		2.5E-02	i			2.5E-02	i	1			16752-77-5	Methomyl	4.4E+01	nc	1.5E+02	nc	9.1E+01	nc	1.5E+02	nc		
		5.0E-03	i			5.0E-03	r	0	0.10		72-43-5	Methoxychlor	3.1E+02	nc	4.4E+03	nc	1.8E+01	nc	1.8E+02	nc	2E+02	8E+00
		1.0E-03	h			5.7E-03	i	0	0.10		109-86-4	2-Methoxyethanol	6.1E+01	nc	8.8E+02	nc	2.1E+01	nc	3.6E+01	nc		

2000 update

EPA United States Environmental Protection Agency Waste Programs

Region 9

Preliminary Remediation Goals



Preliminary Remediation Goals (PRGs) are tools for evaluating and cleaning up contaminated sites. They are risk-based concentrations derived from standardized equations, combining exposure information assumptions and EPA toxicity data. The PRGs contained in the Region 9 PRG Table are generic; they are calculated without site specific information. However, they may be re-calculated using site specific data.

PRGs should be viewed as Agency guidelines, not legally enforceable standards. They are used for site "screening" and as initial cleanup goals if applicable. PRGs are not *de facto* cleanup standards and should not be applied as such. However, they are helpful in providing long-term targets to use during the analysis of different remedial alternatives. By developing PRGs early in the decision-making process, design staff may be able to streamline the consideration of remedial alternatives.

Background Information (241K PDF)
This document is also available in WordPerfect (174K).

What's New in 2000

Frequently Asked Questions About the PRG Tables

Useful Toxicology/Risk Assessment Links

R9 PRG Tables: summary table that presents the final list of generic PRG (for soil, air, and water) selected for site screening in Region 9.

A-Bu | Ca-De | Di-Fe | Fl-Mo | Na-Pu | Py-Z

These tables can be downloaded in PDF format (130 K).

InterCalc Tables: present additional information not available in the R9 PRG Table above.

Soil Calculations: lists pathway-specific values for soils under residential and industrial land-use scenarios.
A-Bu | Ca-De | Di-Fe | Fl-Mo | Na-Pu | Py-Z

Air-Water Calculations: lists pathway-specific values for air and water assuming a residential exposure scenario.
A-Bu | Ca-De | Di-Fe | Fl-Mo | Na-Pu | Py-Z

Toxicity Values: lists toxicity values used in the PRG calculations.
A-Bu | Ca-De | Di-Fe | Fl-Mo | Na-Pu | Py-Z

Phys-Chem Data: includes volatilization factors (VF) and soil saturation values (SAT) for VOCs only.
A-Di | Ep-Tr

The InterCalc Tables may be downloaded in PDF Format (144 K). The complete set, which includes both R9 PRG Tables and the InterCalc Tables, is also available as an Excel Workbook file (647 K).

Region 9 Waste Home | Region 9 Superfund Home | Region 9 PRG Home
Region 9 Home | EPA Home | Search | Comments/Questions

Region 9 Office: 75 Hawthorne St., San Francisco, Calif., 94105
Send PRG-related comments and questions to smucker.stan@epa.gov

Updated: November 22, 2000

URL: http://www.epa.gov/region09/waste/sfund/prg/otherlinks.htm

Key : i=IRIS h=HEAST n=NCEA x=WITHDRAWN o=Other EPA DOCUMENTS r=ROUTE EXTRAPOLATION ca=CANCER PRG nc=NONCANCER PRG sat=SOIL SATURATION max=CEILING LIMIT *(where: nc < 100X ca) **(where: nc < 10X ca)

FOR PLANNING PURPOSES

TOXICITY INFORMATION												CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)								SOIL SCREENING LEVELS	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V, skin O, abs C, soils			GAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m3)		Tap Water (ug/l)		Migration to Ground Water DAF 20 (mg/kg)	DAF 1 (mg/kg)
2.3E+02	i	3.0E-03	i	2.3E+02	i	3.0E-03	r	0	0.1		92-87-5	Benzidine	2.1E-03	ca	1.1E-02	ca	2.9E-05	ca	2.9E-04	ca		
		4.0E+00	i			4.0E+00	r	0	0.1		65-85-0	Benzoic acid	1.0E+05	max	1.0E+05	max	1.5E+04	nc	1.5E+05	nc	4.0E+02	2.0E+01
1.3E+01	i			1.3E+01	r			0	0.1		98-07-7	Benzotrichloride	3.7E-02	ca	1.9E-01	ca	5.2E-04	ca	5.2E-03	ca		
		3.0E-01	h			3.0E-01	r	0	0.1		100-51-6	Benzyl alcohol	1.8E+04	nc	1.0E+05	max	1.1E+03	nc	1.1E+04	nc		
1.7E-01	i			1.7E-01	r			1			100-44-7	Benzyl chloride	8.9E-01	ca	2.3E+00	ca	4.0E-02	ca	6.6E-02	ca		
		2.0E-03	i	8.4E+00	i	5.7E-06	i	0			7440-41-7	Beryllium and compounds	1.5E+02	nc	2.2E+03	ca**	8.0E-04	ca*	7.3E+01	nc	6.3E+01	3.0E+00
		1.0E-04	i			1.0E-04	r	0	0.1		141-66-2	Bidrin	6.1E+00	nc	8.8E+01	nc	3.7E-01	nc	3.6E+00	nc		
		1.5E-02	i			1.5E-02	r	0	0.1		82657-04-3	Biphenthrin (Talstar)	9.2E+02	nc	1.3E+04	nc	5.5E+01	nc	5.5E+02	nc		
		5.0E-02	i			5.0E-02	r	1			92-52-4	1,1-Biphenyl	3.5E+02	sat	3.5E+02	sat	1.8E+02	nc	3.0E+02	nc		
1.1E+00	i			1.2E+00	i			1			111-44-4	Bis(2-chloroethyl)ether	2.1E-01	ca	6.2E-01	ca	5.8E-03	ca	9.8E-03	ca	4.0E-04	2.0E-05
7.0E-02	h	4.0E-02	i	3.5E-02	h	4.0E-02	r	1			108-60-1	Bis(2-chloroisopropyl)ether	2.9E+00	ca	8.1E+00	ca	1.9E-01	ca	2.7E-01	ca		
2.2E+02	i			2.2E+02	i			1			542-88-1	Bis(chloromethyl)ether	1.9E-04	ca	4.4E-04	ca	3.1E-05	ca	5.2E-05	ca		
7.0E-02	h	4.0E-02	i	3.5E-02	h	4.0E-02	r	1			108-60-1	Bis(2-chloro-1-methylethyl)ether	2.9E+00	ca	8.1E+00	ca	1.9E-01	ca	2.7E-01	ca		
1.4E-02	i	2.0E-02	i	1.4E-02	r	2.2E-02	r	0	0.1		117-81-7	Bis(2-ethylhexyl)phthalate (DEHP)	3.5E+01	ca*	1.8E+02	ca	4.8E-01	ca	4.8E+00	ca		
		5.0E-02	i			5.0E-02	r	0	0.1		80-05-7	Bisphenol A	3.1E+03	nc	4.4E+04	nc	1.8E+02	nc	1.8E+03	nc		
		9.0E-02	i			5.7E-03	h	0	0.1		7440-42-8	Boron	5.5E+03	nc	7.9E+04	nc	2.1E+01	nc	3.3E+03	nc		
						2.0E-04	h	0	0.1		7637-07-2	Boron trifluoride					7.3E-01	nc				
		2.0E-02	n			2.9E-03	n	1			108-86-1	Bromobenzene	2.8E+01	nc	9.2E+01	nc	1.0E+01	nc	2.0E+01	nc		
6.2E-02	i	2.0E-02	i	6.2E-02	r	2.0E-02	r	1			75-27-4	Bromodichloromethane	1.0E+00	ca	2.4E+00	ca	1.1E-01	ca	1.8E-01	ca	6.0E-01	3.0E-02
7.9E-03	i	2.0E-02	i	3.9E-03	i	2.0E-02	r	0	0.1		75-25-2	Bromoform (tribromomethane)	6.2E+01	ca*	3.1E+02	ca*	1.7E+00	ca*	8.5E+00	ca*	8.0E-01	4.0E-02
		1.4E-03	i			1.4E-03	i	1			74-83-9	Bromomethane (Methyl bromide)	3.9E+00	nc	1.3E+01	nc	5.2E+00	nc	8.7E+00	nc	2.0E-01	1.0E-02
								0	0.1		101-55-3	4-Bromophenyl phenyl ether										
		5.0E-03	h			5.0E-03	r	0	0.1		2104-96-3	Bromophos	3.1E+02	nc	4.4E+03	nc	1.8E+01	nc	1.8E+02	nc		
		2.0E-02	i			2.0E-02	r	0	0.1		1689-84-5	Bromoxynil	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
		2.0E-02	i			2.0E-02	r	0	0.1		1689-99-2	Bromoxynil octanoate	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
1.8E+00	r			1.8E+00	i			1			106-99-0	1,3-Butadiene	3.5E-03	ca	7.6E-03	ca	3.7E-03	ca	6.2E-03	ca		
		1.0E-01	i			1.0E-01	r	0	0.1		71-36-3	1-Butanol	6.1E+03	nc	8.8E+04	nc	3.7E+02	nc	3.6E+03	nc	1.7E+01	9.0E-01
		5.0E-02	i			5.0E-02	r	0	0.1		2008-41-5	Butylate	3.1E+03	nc	4.4E+04	nc	1.8E+02	nc	1.8E+03	nc		
		1.0E-02	n			1.0E-02	r	1			104-51-8	n-Butylbenzene	1.4E+02	nc	2.4E+02	sat	3.7E+01	nc	6.1E+01	nc		
		1.0E-02	n			1.0E-02	r	1			135-98-8	sec-Butylbenzene	1.1E+02	nc	2.2E+02	sat	3.7E+01	nc	6.1E+01	nc		
		1.0E-02	n			1.0E-02	r	1			98-06-6	tert-Butylbenzene	1.3E+02	nc	3.9E+02	sat	3.7E+01	nc	6.1E+01	nc		
		2.0E-01	i			2.0E-01	r	0	0.1		85-68-7	Butyl benzyl phthalate	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc	9.3E+02	8.1E+02
		1.0E+00	i			1.0E+00	r	0	0.1		85-70-1	Butylphthalyl butylglycolate	6.1E+04	nc	1.0E+05	max	3.7E+03	nc	3.6E+04	nc		
		3.0E-03	h			3.0E-03	r	0	0.1		75-60-5	Cacodylic acid	1.8E+02	nc	2.6E+03	nc	1.1E+01	nc	1.1E+02	nc		
		5.0E-04	i	6.3E+00	i			0	0.001		7440-43-9	Cadmium and compounds	3.7E+01	nc	8.1E+02	nc	1.1E-03	ca	1.8E+01	nc	8.0E+00	4.0E-01
												"CAL-Modified PRG" (PEA, 1994)	9.0E+00									
		5.0E-01	i			5.0E-01	r	0	0.1		105-60-2	Caprolactam	3.1E+04	nc	1.0E+05	max	1.8E+03	nc	1.8E+04	nc		
8.6E-03	h	2.0E-03	i	8.6E-03	r	2.0E-03	r	0	0.1		2425-06-1	Captafol	5.7E+01	ca**	2.9E+02	ca**	7.8E-01	ca**	7.8E+00	ca**		
3.5E-03	h	1.3E-01	i	3.5E-03	r	1.3E-01	r	0	0.1		133-06-2	Captan	1.4E+02	ca*	7.0E+02	ca	1.9E+00	ca	1.9E+01	ca		
		1.0E-01	i			1.1E-01	r	0	0.1		63-25-2	Carbaryl	6.1E+03	nc	8.8E+04	nc	4.0E+02	nc	3.6E+03	nc		
2.0E-02	h			2.0E-02	r			0	0.1		86-74-8	Carbazole	2.4E+01	ca	1.2E+02	ca	3.4E-01	ca	3.4E+00	ca	6.0E-01	3.0E-02
		5.0E-03	i			5.0E-03	r	0	0.1		1563-66-2	Carbofuran	3.1E+02	nc	4.4E+03	nc	1.8E+01	nc	1.8E+02	nc		
		1.0E-01	i			2.0E-01	i	1			75-15-0	Carbon disulfide	3.6E+02	nc	7.2E+02	sat	7.3E+02	nc	1.0E+03	nc	3.2E+01	2.0E+00
1.3E-01	i	7.0E-04	i	5.3E-02	i	7.0E-04	r	1			56-23-5	Carbon tetrachloride	2.4E-01	ca**	5.3E-01	ca*	1.3E-01	ca*	1.7E-01	ca*	7.0E-02	3.0E-03
		1.0E-02	i			1.0E-02	r	0	0.1		55285-14-8	Carbosulfan	6.1E+02	nc	8.8E+03	nc	3.7E+01	nc	3.6E+02	nc		
		1.0E-01	i			1.0E-01	r	0	0.1		5234-68-4	Carboxin	6.1E+03	nc	8.8E+04	nc	3.7E+02	nc	3.6E+03	nc		
		1.5E-02	i			1.5E-02	r	0	0.1		133-90-4	Chloramben	9.2E+02	nc	1.3E+04	nc	5.5E+01	nc	5.5E+02	nc		
4.0E-01	h			4.0E-01	r			0	0.1		118-75-2	Chloranil	1.2E+00	ca	6.1E+00	ca	1.7E-02	ca	1.7E-01	ca		
3.5E-01	i	5.0E-04	i	3.5E-01	i	2.0E-04	i	0	0.04		12789-03-6	Chlordane	1.6E+00	ca*	1.1E+01	ca*	1.9E-02	ca*	1.9E-01	ca*	1.0E+01	5.0E-01
		2.0E-02	i			2.0E-02	r	0	0.1		90982-32-4	Chlorimuron-ethyl	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
		1.0E-01	i			5.7E-05	n				7782-50-5	Chlorine					2.1E-01	nc				
						5.7E-05	i				10049-04-4	Chlorine dioxide					2.1E-01	nc				
								1			107-20-0	Chloroacetaldehyde										
		2.0E-03	h			2.0E-03	r	0	0.1		79-11-8	Chloroacetic acid	1.2E+02	nc	1.8E+03	nc	7.3E+00	nc	7.3E+01	nc		

Key : i=IRIS h=HEAST n=NCEA x=WITHDRAWN o=Other EPA DOCUMENTS r=ROUTE EXTRAPOLATION ca=CANCER PRG nc=NONCANCER PRG sat=SOIL SATURATION max=CEILING LIMIT *(where: nc < 100X ca) **(where: nc < 10X ca)

FOR PLANNING PURPOSES

TOXICITY INFORMATION												CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)								SOIL SCREENING LEVELS	
													Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		Migration to Ground Water DAF 20 (mg/kg)	DAF 1 (mg/kg)
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V-skin O-abs C-soils		CAS No.												
		1.0E-02	i			1.0E-02	r	0	0.1	1163-19-5		Decabromodiphenyl ether	6.1E+02	nc	8.8E+03	nc	3.7E+01	nc	3.6E+02	nc		
		4.0E-05	i			4.0E-05	r	0	0.1	8065-48-3		Demeton	2.4E+00	nc	3.5E+01	nc	1.5E-01	nc	1.5E+00	nc		
6.1E-02	h			6.1E-02	r			0	0.1	2303-16-4		Diallate	8.0E+00	ca	4.0E+01	ca	1.1E-01	ca	1.1E+00	ca		
		9.0E-04	h			9.0E-04	r	0	0.1	333-41-5		Diazinon	5.5E+01	nc	7.9E+02	nc	3.3E+00	nc	3.3E+01	nc		
		4.0E-03	n			4.0E-03	r	1		132-64-9		Dibenzofuran	2.9E+02	nc	5.1E+03	nc	1.5E+01	nc	2.4E+01	nc		
		1.0E-02	i			1.0E-02	r	0	0.1	106-37-6		1,4-Dibromobenzene	6.1E+02	nc	8.8E+03	nc	3.7E+01	nc	3.6E+02	nc		
8.4E-02	i	2.0E-02	i	8.4E-02	r	2.0E-02	r	1		124-48-1		Dibromochloromethane	1.1E+00	ca	2.7E+00	ca	8.0E-02	ca	1.3E-01	ca	4.0E-01	2.0E-02
1.4E+00	h	5.7E-05	r	2.4E-03	h	5.7E-05	i	1		96-12-8		1,2-Dibromo-3-chloropropane	4.5E-01	ca**	4.0E+00	ca**	2.1E-01	nc	4.8E-02	ca**		
												"CAL-Modified PRG" (PEA, 1994)	6.0E-02				9.6E-04		4.7E-03			
8.5E+01	i	5.7E-05	r	7.7E-01	i	5.7E-05	h	1		106-93-4		1,2-Dibromoethane	6.9E-03	ca	4.8E-02	ca*	8.7E-03	ca*	7.6E-04	ca		
		1.0E-01	i			1.0E-01	r	0	0.1	84-74-2		Dibutyl phthalate	6.1E+03	nc	8.8E+04	nc	3.7E+02	nc	3.6E+03	nc	2.3E+03	2.7E+02
		3.0E-02	i			3.0E-02	r	0	0.1	1918-00-9		Dicamba		nc	2.6E+04	nc	1.1E+02	nc	1.1E+03	nc		
		9.0E-02	i			5.7E-02	h	1		95-50-1		1,2-Dichlorobenzene	3.7E+02	sat	3.7E+02	sat	2.1E+02	nc	3.7E+02	nc	1.7E+01	9.0E-01
		9.0E-04	n			9.0E-04	r	1		541-73-1		1,3-Dichlorobenzene	1.3E+01	nc	5.2E+01	nc	3.3E+00	nc	5.5E+00	nc		
2.4E-02	h	3.0E-02	n	2.2E-02	n	2.3E-01	i	1		106-46-7		1,4-Dichlorobenzene	3.4E+00	ca	8.1E+00	ca	3.1E-01	ca	5.0E-01	ca	2.0E+00	1.0E-01
4.5E-01	i			4.5E-01	r			0	0.1	91-94-1		3,3-Dichlorobenzidine	1.1E+00	ca	5.5E+00	ca	1.5E-02	ca	1.5E-01	ca	7.0E-03	3.0E-04
		3.0E-02	n			3.0E-02	r		0.1	90-98-2		**4,4'-Dichlorobenzophenone**	1.8E+03	nc	2.6E+04	nc	1.1E+02	nc	1.1E+03	nc		
9.3E+00	r			9.3E+00	h			1		764-41-0		1,4-Dichloro-2-butene	7.9E-03	ca	1.8E-02	ca	7.2E-04	ca	1.2E-03	ca		
		2.0E-01	i			5.7E-02	h	1		75-71-8		Dichlorodifluoromethane	9.4E+01	nc	3.1E+02	nc	2.1E+02	nc	3.9E+02	nc		
		1.0E-01	h			1.4E-01	h	1		75-34-3		1,1-Dichloroethane	5.9E+02	nc	2.1E+03	nc	5.2E+02	nc	8.1E+02	nc	2.3E+01	1.0E+00
5.7E-03				5.7E-03				1				**"CAL-Modified PRG"**	3.3E+00	ca	7.1E+00	ca	1.2E+00	ca	2.0E+00	ca		
9.1E-02	i	3.0E-02	n	9.1E-02	i	1.4E-03	n	1		107-06-2		1,2-Dichloroethane (EDC)	3.5E-01	ca*	7.6E-01	ca*	7.4E-02	ca*	1.2E-01	ca*	2.0E-02	1.0E-03
6.0E-01	i	9.0E-03	i	1.8E-01	i	9.0E-03	r	1		75-35-4		1,1-Dichloroethylene	5.4E-02	ca	1.2E-01	ca	3.8E-02	ca	4.6E-02	ca	6.0E-02	3.0E-03
		1.0E-02	h			1.0E-02	r	1		156-59-2		1,2-Dichloroethylene (cis)	4.3E+01	nc	1.5E+02	nc	3.7E+01	nc	6.1E+01	nc	4.0E-01	2.0E-02
		2.0E-02	i			2.0E-02	r	1		156-60-5		1,2-Dichloroethylene (trans)	6.3E+01	nc	2.1E+02	nc	7.3E+01	nc	1.2E+02	nc	7.0E-01	3.0E-02
		3.0E-03	i			3.0E-03	r	0	0.1	120-83-2		2,4-Dichlorophenol	1.8E+02	nc	2.6E+03	nc	1.1E+01	nc	1.1E+02	nc	1.0E+00	5.0E-02
		8.0E-03	i			8.0E-03	r	0	0.1	94-82-6		4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB)	4.9E+02	nc	7.0E+03	nc	2.9E+01	nc	2.9E+02	nc		
		1.0E-02	i			1.0E-02	r	0	0.05	94-75-7		2,4-Dichlorophenoxyacetic Acid (2,4-D)	6.9E+02	nc	1.2E+04	nc	3.7E+01	nc	3.6E+02	nc		
6.8E-02	h	1.1E-03	r	6.8E-02	r	1.1E-03	i	1		78-87-5		1,2-Dichloropropane	3.5E-01	ca*	7.7E-01	ca*	9.9E-02	ca*	1.6E-01	ca*	3.0E-02	1.0E-03
1.0E-01	i	3.0E-02	i	1.4E-02	i	5.7E-03	i	1		542-75-6		**1,3-Dichloropropene**	7.0E-01	ca	1.6E+00	ca	4.8E-01	ca	4.0E-01	ca	4.0E-03	2.0E-04
		3.0E-03	i			3.0E-03	r	0	0.1	616-23-9		2,3-Dichloropropanol	1.8E+02	nc	2.6E+03	nc	1.1E+01	nc	1.1E+02	nc		
2.9E-01	i	5.0E-04	i	2.9E-01	r	1.4E-04	i	0	0.1	62-73-7		Dichlorvos	1.7E+00	ca*	8.5E+00	ca*	2.3E-02	ca*	2.3E-01	ca*		
4.4E-01	x			4.4E-01	r			0	0.1	115-32-2		Dicofol	1.1E+00	ca	5.6E+00	ca	1.5E-02	ca	1.5E-01	ca		
		3.0E-02	h			5.7E-05	h	1		77-73-6		Dicyclopentadiene	5.4E-01	nc	1.8E+00	nc	2.1E-01	nc	4.2E-01	nc		
1.6E+01	i	5.0E-05	i	1.6E+01	i	5.0E-05	r	0	0.1	60-57-1		Dieldrin	3.0E-02	ca	1.5E-01	ca	4.2E-04	ca	4.2E-03	ca	4.0E-03	2.0E-04
		5.7E-03	r			5.7E-03	h	0	0.1	112-34-5		Diethylene glycol, monobutyl ether	3.5E+02	nc	5.0E+03	nc	2.1E+01	nc	2.1E+02	nc		
		2.0E+00	h			2.0E+00	r	0	0.1	111-90-0		Diethylene glycol, monoethyl ether	1.0E+05	max	1.0E+05	max	7.3E+03	nc	7.3E+04	nc		
		1.1E-02	h			1.1E-02	r	0	0.1	617-84-5		Diethylformamide	6.7E+02	nc	9.7E+03	nc	4.0E+01	nc	4.0E+02	nc		
1.2E-03	i	6.0E-01	i	1.2E-03	r	6.0E-01	r	0	0.1	103-23-1		Di(2-ethylhexyl)adipate	4.1E+02	ca	2.1E+03	ca	5.6E+00	ca	5.6E+01	ca		
		8.0E-01	i			8.0E-01	r	0	0.1	84-66-2		Diethyl phthalate	4.9E+04	nc	1.0E+05	max	2.9E+03	nc	2.9E+04	nc		
4.7E+03	h			4.7E+03	r			0	0.1	56-53-1		Diethylstilbestrol	1.0E-04	ca	5.2E-04	ca	1.4E-06	ca	1.4E-05	ca		
		8.0E-02	i			8.0E-02	r	0	0.1	43222-48-6		Difenzoquat (Avenge)	4.9E+03	nc	7.0E+04	nc	2.9E+02	nc	2.9E+03	nc		
		2.0E-02	i			2.0E-02	r	0	0.1	35367-38-5		Diflubenzuron	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
		1.1E+01	r			1.1E+01	i	1		75-37-6		1,1-Difluoroethane					4.2E+04	nc	6.9E+04	nc		
		2.0E-02	n			2.0E-02	r		0.1	28553-12-0		**Diisononyl phthalate**	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
		8.0E-02	i			8.0E-02	r	0	0.1	1445-75-6		Diisopropyl methylphosphonate	4.9E+03	nc	7.0E+04	nc	2.9E+02	nc	2.9E+03	nc		
		2.0E-02	i			2.0E-02	r	0	0.1	55290-64-7		Dimethipin	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
		2.0E-04	i			2.0E-04	r	0	0.1	60-51-5		Dimethoate	1.2E+01	nc	1.8E+02	nc	7.3E-01	nc	7.3E+00	nc		
1.4E-02	h			1.4E-02	r			0	0.1	119-90-4		3,3'-Dimethoxybenzidine	3.5E+01	ca	1.8E+02	ca	4.8E-01	ca	4.8E+00	ca		
		5.7E-06	r			5.7E-06	x	1		124-40-3		Dimethylamine	6.7E-02	nc	2.5E-01	nc	2.1E-02	nc	3.5E-02	nc		
		2.0E-03	i			2.0E-03	r	0	0.1	121-69-7		N-N-Dimethylaniline	1.2E+02	nc	1.8E+03	nc	7.3E+00	nc	7.3E+01	nc		
7.5E-01	h			7.5E-01	r			0	0.1	95-68-1		2,4-Dimethylaniline	6.5E-01	ca	3.3E+00	ca	9.0E-03	ca	9.0E-02	ca		
5.8E-01	h			5.8E-01	r			0	0.1	21436-96-4		2,4-Dimethylaniline hydrochloride	8.4E-01	ca	4.3E+00	ca	1.2E-02	ca	1.2E-01	ca		
9.2E+00	h			9.2E+00	r			0	0.1	119-93-7		3,3'-Dimethylbenzidine	5.3E-02	ca	2.7E-01	ca	7.3E-04	ca	7.3E-03	ca		

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FOR PLANNING PURPOSES

TOXICITY INFORMATION												CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs)								SOIL SCREENING LEVELS	
								V. Sol. O. Labs C. soils			CAS No		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m3)		Tap Water (ug/l)		Migration to Ground Water DAF 20 (mg/kg)	DAF 1 (mg/kg)
		1.3E-02	i			1.3E-02	r	0	0.1		35554-44-0	Imazalil	7.9E+02	nc	1.1E+04	nc	4.7E+01	nc	4.7E+02	nc		
		2.5E-01	i			2.5E-01	r	0	0.1		81335-37-7	Imazaquin	1.5E+04	nc	1.0E+05	max	9.1E+02	nc	9.1E+03	nc		
		4.0E-02	i			4.0E-02	r	0	0.1		36734-19-7	Iprodione	2.4E+03	nc	3.5E+04	nc	1.5E+02	nc	1.5E+03	nc		
		3.0E-01	n					0			7439-89-6	Iron	2.3E+04	nc	1.0E+05	max			1.1E+04	nc		
		3.0E-01	i			3.0E-01	r	1			78-83-1	Isobutanol	1.3E+04	nc	4.0E+04	sat	1.1E+03	nc	1.8E+03	nc		
9.5E-04	i	2.0E-01	i	9.5E-04	r	2.0E-01	r	0	0.1		78-59-1	Isophorone	5.1E+02	ca*	2.6E+03	ca*	7.1E+00	ca	7.1E+01	ca	5.0E-01	3.0E-02
		1.5E-02	i			1.5E-02	r	0	0.1		33820-53-0	Isopropalin	9.2E+02	nc	1.3E+04	nc	5.5E+01	nc	5.5E+02	nc		
		1.0E-01	i			1.1E-01	r	0	0.1		1832-54-8	Isopropyl methyl phosphonic acid	6.1E+03	nc	8.8E+04	nc	4.0E+02	nc	3.6E+03	nc		
		5.0E-02	i			5.0E-02	r	0	0.1		82558-50-7	Isoxaben	3.1E+03	nc	4.4E+04	nc	1.8E+02	nc	1.8E+03	nc		
1.8E+01	n			1.8E+01	r			0	0.1		143-50-0	Kepone	2.7E-02	ca	1.4E-01	ca	3.7E-04	ca	3.7E-03	ca		
		2.0E-03	i			2.0E-03	r	0	0.1		77501-63-4	Lactofen	1.2E+02	nc	1.8E+03	nc	7.3E+00	nc	7.3E+01	nc		
PRGs Based on EPA Models (IEUBK 1994 and TRW 1996)											7439-92-1	**Lead**	4.0E+02	nc	7.5E+02	nc						
		1.0E-07	i					0	0.1		78-00-2	Lead (tetraethyl)	6.1E-03	nc	8.8E-02	nc			3.6E-03	nc		
		2.0E-03	i			2.0E-03	r	0	0.1		330-55-2	Linuron	1.2E+02	nc	1.8E+03	nc	7.3E+00	nc	7.3E+01	nc		
		2.0E-02	x					0			7439-93-2	Lithium	1.6E+03	nc	4.1E+04	nc			7.3E+02	nc		
		2.0E-01	i			2.0E-01	r	0	0.1		83055-99-6	Londax	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc		
		2.0E-02	i			2.0E-02	r	0	0.1		121-75-5	Malathion	1.2E+03	nc	1.8E+04	nc	7.3E+01	nc	7.3E+02	nc		
		1.0E-01	i			1.0E-01	r	0	0.1		108-31-6	Maleic anhydride	6.1E+03	nc	8.8E+04	nc	3.7E+02	nc	3.6E+03	nc		
		5.0E-01	i			5.0E-01	r	1			123-33-1	Maleic hydrazide	1.7E+03	nc	2.4E+03	sat	1.8E+03	nc	3.0E+03	nc		
		2.0E-05	h			2.0E-05	r	0	0.1		109-77-3	Malononitrile	1.2E+00	nc	1.8E+01	nc	7.3E-02	nc	7.3E-01	nc		
		3.0E-02	h			3.0E-02	r	0	0.1		8018-01-7	Mancozeb	1.8E+03	nc	2.6E+04	nc	1.1E+02	nc	1.1E+03	nc		
6.0E-02	o	5.0E-03	i	6.0E-02	r	5.0E-03	r	0	0.1		12427-38-2	Maneb	8.1E+00	ca*	4.1E+01	ca	1.1E-01	ca	1.1E+00	ca		
		2.4E-02	i			1.4E-05	i	0			7439-96-5	Manganese and compounds	1.8E+03	nc	3.2E+04	nc	5.1E-02	nc	8.8E+02	nc		
		9.0E-05	h			9.0E-05	r	0	0.1		950-10-7	Mephosfolan	5.5E+00	nc	7.9E+01	nc	3.3E-01	nc	3.3E+00	nc		
		3.0E-02	i			3.0E-02	r	0	0.1		24307-26-4	Mepiquat	1.8E+03	nc	2.6E+04	nc	1.1E+02	nc	1.1E+03	nc		
2.9E-02	n	1.0E-01	n	2.9E-02	r	1.0E-01	r	0	0.1		149-30-4	2-Mercaptobenzothiazole	1.7E+01	ca	8.5E+01	ca	2.3E-01	ca	2.3E+00	ca		
		3.0E-04	i					0			7487-94-7	Mercury and compounds	2.3E+01	nc	6.1E+02	nc			1.1E+01	nc		
						8.6E-05	i				7439-97-6	Mercury (elemental)					3.1E-01	nc				
		1.0E-04	i					0	0.1		22967-92-6	Mercury (methyl)	6.1E+00	nc	8.8E+01	nc			3.6E+00	nc		
		3.0E-05	i			3.0E-05	r	0	0.1		150-50-5	Merphos	1.8E+00	nc	2.6E+01	nc	1.1E-01	nc	1.1E+00	nc		
		3.0E-05	i			3.0E-05	r	0	0.1		78-48-8	Merphos oxide	1.8E+00	nc	2.6E+01	nc	1.1E-01	nc	1.1E+00	nc		
		6.0E-02	i			6.0E-02	r	0	0.1		57837-19-1	Metalaxyl	3.7E+03	nc	5.3E+04	nc	2.2E+02	nc	2.2E+03	nc		
		1.0E-04	i			2.0E-04	h	1			126-98-7	Methacrylonitrile	2.1E+00	nc	8.8E+00	nc	7.3E-01	nc	1.0E+00	nc		
		5.0E-05	i			5.0E-05	r	0	0.1		10265-92-6	Methamidophos	3.1E+00	nc	4.4E+01	nc	1.8E-01	nc	1.8E+00	nc		
		5.0E-01	i			5.0E-01	r	0	0.1		67-56-1	Methanol	3.1E+04	nc	1.0E+05	max	1.8E+03	nc	1.8E+04	nc		
		1.0E-03	i			1.0E-03	r	0	0.1		950-37-8	Methidathion	6.1E+01	nc	8.8E+02	nc	3.7E+00	nc	3.6E+01	nc		
		2.5E-02	i			2.5E-02	r	1			16752-77-5	Methomyl	4.4E+01	nc	1.5E+02	nc	9.1E+01	nc	1.5E+02	nc		
		5.0E-03	i			5.0E-03	r	0	0.1		72-43-5	Methoxychlor	3.1E+02	nc	4.4E+03	nc	1.8E+01	nc	1.8E+02	nc	1.6E+02	8.0E+00
		1.0E-03	h			5.7E-03	i	0	0.1		109-86-4	2-Methoxyethanol	6.1E+01	nc	8.8E+02	nc	2.1E+01	nc	3.6E+01	nc		
		2.0E-03	h			2.0E-03	r	0	0.1		110-49-6	2-Methoxyethanol acetate	1.2E+02	nc	1.8E+03	nc	7.3E+00	nc	7.3E+01	nc		
4.6E-02	h			4.6E-02	r			0	0.1		99-59-2	2-Methoxy-5-nitroaniline	1.1E+01	ca	5.4E+01	ca	1.5E-01	ca	1.5E+00	ca		
		1.0E+00	h			1.0E+00	r	1			79-20-9	Methyl acetate	2.2E+04	nc	9.6E+04	nc	3.7E+03	nc	6.1E+03	nc		
		3.0E-02	h			3.0E-02	r	1			96-33-3	Methyl acrylate	7.0E+01	nc	2.3E+02	nc	1.1E+02	nc	1.8E+02	nc		
2.4E-01	h			2.4E-01	r			0	0.1		95-53-4	2-Methylaniline (o-toluidine)	2.0E+00	ca	1.0E+01	ca	2.8E-02	ca	2.8E-01	ca		
1.8E-01	h			1.8E-01	r			0	0.1		636-21-5	2-Methylaniline hydrochloride	2.7E+00	ca	1.4E+01	ca	3.7E-02	ca	3.7E-01	ca		
		1.0E+00	x			1.0E+00	r	0	0.1		79-22-1	Methyl chlorocarbonate	6.1E+04	nc	1.0E+05	max	3.7E+03	nc	3.6E+04	nc		
		5.0E-04	i			5.0E-04	r	0	0.1		94-74-6	2-Methyl-4-chlorophenoxyacetic acid	3.1E+01	nc	4.4E+02	nc	1.8E+00	nc	1.8E+01	nc		
		1.0E-02	i			1.0E-02	r	0	0.1		94-81-5	4-(2-Methyl-4-chlorophenoxy) butyric acid	6.1E+02	nc	8.8E+03	nc	3.7E+01	nc	3.6E+02	nc		
		1.0E-03	i			1.0E-03	r	0	0.1		93-65-2	2-(2-Methyl-4-chlorophenoxy) propionic acid	6.1E+01	nc	8.8E+02	nc	3.7E+00	nc	3.6E+01	nc		
		1.0E-03	i			1.0E-03	r	0	0.1		16484-77-8	2-(2-Methyl-1,4-chlorophenoxy) propionic acid	6.1E+01	nc	8.8E+02	nc	3.7E+00	nc	3.6E+01	nc		
		8.6E-01	r			8.6E-01	h	1			108-87-2	Methylcyclohexane	2.6E+03	nc	8.8E+03	nc	3.1E+03	nc	5.2E+03	nc		
2.5E-01	h			2.5E-01	r			0	0.1		101-77-9	4,4'-Methylenebisbenzeneamine	1.9E+00	ca	9.9E+00	ca	2.7E-02	ca	2.7E-01	ca		
1.3E-01	h	7.0E-04	h	1.3E-01	h	7.0E-04	r	0	0.1		101-14-4	4,4'-Methylene bis(2-chloroaniline)	3.7E+00	ca*	1.9E+01	ca*	5.2E-02	ca*	5.2E-01	ca*		
4.6E-02	i			4.6E-02	r			0	0.1		101-61-1	4,4'-Methylene bis(N,N'-dimethyl)aniline	1.1E+01	ca	5.4E+01	ca	1.5E-01	ca	1.5E+00	ca		

Chain of Custody Documentation, Laboratory Test Reports, Data Validation Report, and Land Survey Data

COMPLETED (LW 9/29 WG 10/11

the IT group

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 12324

FORM 0019 REV. 9-99

AST 753

IT'S LAB COORDINATOR	LAB COORDINATOR'S PHONE	LAB COORDINATOR'S FAX	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
M. Concepcion	949-660-7550	949-475-5433	00I128	EMAX	IT Group
PROJECT NAME	**PROJECT LOCATION**	**PROJECT NUMBER**	**LABORATORY PHONE**	**LABORATORY FAX**	**RECIPIENT NAME**
AST 753	MCAS El Toro, CA	18609	310-618-8889	310-618-0818	Dwayne Ishida
PROJECT CONTACT	**PROJECT PHONE NUMBER**	**PROJECT FAX**	**LABORATORY ADDRESS**		**ADDRESS**
M. Concepcion	949-475-1166	949-451-1672	1630 Maple Ave		3347 Michelson #200
PROJECT ADDRESS	**CITY, STATE AND ZIP CODE**	**CLIENT**	**CITY, STATE AND ZIP CODE**		**CITY, STATE AND ZIP CODE**
BLDG 311, MCAS El Toro	Santa Ana, CA	SWDIV	Torrance, CA		Irvine, CA 92612
PROJECT MANAGER	**PROJECT MANAGER'S PHONE**	**PROJECT MANAGER'S FAX**			
D. Rawal	949-660-7576				

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: Organo Phosphorus Pesticides (EPA 8141)	Chlorinated Herbicides (EPA 8151)	Pesticides (EPA 8081)	Herbicide				Comments
1	18609-3511	S	9/21	1024	4°c	1	3	5 day	*	*	*	X	X			* hold till further notice
2	18609-3512			1030												
3	18609-3513			1040												Hold unless 18609-3511 or 18609-3512 is detected.
4	18609-3514			1055												
5	18609-3515			1105												hit peak
6	18609-3516			1107												Hold unless 18609-3514 or 18609-3515 is detected
7	18609-3517			1115												
8	18609-3518			1135												
9	18609-3519			1150												Hold unless 18609-3517 or 18609-3518
10	18609-3520			1210												

SAMPLES COLLECTED BY: W. Jefferson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Way-Lynn Jeffers	[illegible]	9.21.00	2:30	

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

Project Information Section
For Project Personnel Only
Do Not Submit to Laboratory

Sample Point Location	Sample Type G	C	F	QC
① AST 753 - HA-01 @ 1.5'-2.0'	X			
② AST 753-HA-01 @ 3.0'-3.5'	X			
③ AST 753-HA-01 @ 5.0'-5.5'	X			
④ AST 753-HA-02 @ 1.5'-2.0'				
⑤ AST 753-HA-02 @ 3.0'-3.5'				
⑥ AST 753-HA-02 @ 5.0'-5.5'				
⑦ AST 753-HA-03 1.0'-1.5'				
⑧ AST 753-HA-03 3.0-3.5'				
⑨ AST 753-HA-03 5.0'-5.5'				
⑩ AST 753-HA-04 1.0'-1.5'				

Comments

753

due rec'd 10/16/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

8081 8151 8270 } 5899 / 603

COMPLETED

the i group

IT Corporation
2790 Mosside Blvd.
Monroeville, PA 15146-2792
(412)372-7701

CHAIN-OF-CUSTODY RECORD

PROJECT DATA MANAGER'S COPY

A 12325

AST 753

FORM 0019 REV. 9-99

IT'S LAB COORDINATOR: M. Concepcion	LAB COORDINATOR'S PHONE: 949-660-7550	LAB COORDINATOR'S FAX: 949-475-5433	LABORATORY SERVICE ID: 00F128	LABORATORY CONTACT: EMAX	MAIL REPORT (COMPANY NAME): IT Group
PROJECT NAME: AST 753	PROJECT LOCATION: MCAS El Toro, CA	PROJECT NUMBER: 18609	LABORATORY PHONE: 310-618-8889	LABORATORY FAX: 310-618-0818	RECIPIENT NAME: Dwayne Ishida
PROJECT CONTACT: M. Concepcion	PROJECT PHONE NUMBER: 949-475-1666	PROJECT FAX: 949-451-1666/1672	LABORATORY ADDRESS: 630 Maple Ave		ADDRESS: 3347 Michelson #200
PROJECT ADDRESS: BLDG 311, MCAS, El Toro	CITY, STATE AND ZIP CODE: Santa Ana, CA	CLIENT: SWDIV	CITY, STATE AND ZIP CODE: Torrance, CA		CITY, STATE AND ZIP CODE: Irvine, CA. 92612
PROJECT MANAGER: D. Rawal	PROJECT MANAGER'S PHONE: 949-660-7576	PROJECT MANAGER'S FAX:			

Item	Sample Identifier	Matrix	Date 2000	Time	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: Pesticide	Herbicide	Organo Phosphate 8270				Comments
1	18609-3521	S	9/21	1215	4°C	1	3	5 day	X	X	X	← ~~Hold for Organo Phosphate~~			dicofocol, diazanone
2	18609-3522	S	9/21	1223	4°C	1	3	5 day	X	X	X				diazanone, malathione, strychnine
3															
4															
5															
6															
7															
8															
9															
10															

W.J. 9/21/00

Hold 18609-3522 is on hold unless 18609-3520 or 18609-3521 has detect.

Fax call regarding Hold compound

SAMPLES COLLECTED BY: W. Jefferson

COURIER AND AIR BILL NUMBER: Courier

COOLER TEMPERATURE UPON RECEIPT:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Wayne Ryan Jeff	[illegible]	9/21/00	2:30	

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

Project Information Section
For Project Personnel Only
Do Not Submit to Laboratory

AST 753

Sample Point Location	Sample Type G	C	F	QC
(11) AST 753-HA-04 3.0'-3.5'	X			
(12) AST 753-HA-04 5.0'-5.5'	X			

Comments

due 9/29/00 rec'd 10/16/00

Sample Type: G - Grab, C - Composite, F - Field Sample, QC - Quality Control Sample

8081 8151 8270 > 5599 / 603

5588A5

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 10-12-2000
EMAX Batch No.: 001128

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

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

Enclosed is the Laboratory report for samples received on 09/21/00. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18609-3511	I128-01	09/21/00	SOIL	PESTICIDES ORGANOCHLORINE HERBICIDES CHLORINATED SEMIVOLATILE ORGANICS BY GCMS
18609-3512	I128-02	09/21/00	SOIL	HERBICIDES CHLORINATED PESTICIDES ORGANOCHLORINE SEMIVOLATILE ORGANICS BY GCMS
18609-3513	I128-03	09/21/00	SOIL	PESTICIDES ORGANOCHLORINE HERBICIDES CHLORINATED
18609-3514	I128-04	09/21/00	SOIL	HERBICIDES CHLORINATED PESTICIDES ORGANOCHLORINE SEMIVOLATILE ORGANICS BY GCMS
18609-3515	I128-05	09/21/00	SOIL	PESTICIDES ORGANOCHLORINE HERBICIDES CHLORINATED SEMIVOLATILE ORGANICS BY GCMS
18609-3516	I128-06	09/21/00	SOIL	PESTICIDES ORGANOCHLORINE HERBICIDES CHLORINATED
18609-3517	I128-07	09/21/00	SOIL	HERBICIDES CHLORINATED

Sample ID	Control #	Col Date	Matrix	Analysis
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
18609-3518	I128-08	09/21/00	SOIL	PESTICIDES ORGANOCHLORINE
				HERBICIDES CHLORINATED
				SEMIVOLATILE ORGANICS BY GCMS
18609-3519	I128-09	09/21/00	SOIL	HERBICIDES CHLORINATED
				PESTICIDES ORGANOCHLORINE
18609-3520	I128-10	09/21/00	SOIL	PESTICIDES ORGANOCHLORINE
				HERBICIDES CHLORINATED
				SEMIVOLATILE ORGANICS BY GCMS
18609-3521	I128-11	09/21/00	SOIL	HERBICIDES CHLORINATED
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
18609-3522	I128-12	09/21/00	SOIL	PESTICIDES ORGANOCHLORINE
				HERBICIDES CHLORINATED

The results are summarized on the following pages.

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

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

5588 B17

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 10-25-2000
EMAX Batch No.: 001128A

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

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

Enclosed is the Laboratory report for samples received on 09/21/00 and requested additional analyses on 10/03/00. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18609-3511	I128-01	09/21/00	SOIL	PESTICIDES ORGANOPHOSPHORUS
18609-3512	I128-02	09/21/00	SOIL	PESTICIDES ORGANOPHOSPHORUS
18609-3513	I128-03	09/21/00	SOIL	HOLD
18609-3514	I128-04	09/21/00	SOIL	PESTICIDES ORGANOPHOSPHORUS
18609-3515	I128-05	09/21/00	SOIL	PESTICIDES ORGANOPHOSPHORUS
18609-3516	I128-06	09/21/00	SOIL	HOLD
18609-3517	I128-07	09/21/00	SOIL	PESTICIDES ORGANOPHOSPHORUS
18609-3518	I128-08	09/21/00	SOIL	PESTICIDES ORGANOPHOSPHORUS
18609-3519	I128-09	09/21/00	SOIL	HOLD
18609-3520	I128-10	09/21/00	SOIL	PESTICIDES ORGANOPHOSPHORUS
18609-3521	I128-11	09/21/00	SOIL	PESTICIDES ORGANOPHOSPHORUS
18609-3522	I128-12	09/21/00	SOIL	HOLD

The results are summarized on the following pages.

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

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3511	Date Analyzed:	09/27/00 17:42
Lab Samp ID:	I128-01	Dilution Factor:	1
Lab File ID:	WI27015A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	8.8
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
ALPHA-BHC	(ND)|ND	.021	.00068|.00058
BETA-BHC	(ND)|ND	.036	.0016|.0005
DELTA-BHC	(ND)|ND	.012	.0009|.00086
GAMMA-BHC (LINDANE)	(ND)|ND	.022	.00034|.0014
ALPHA-CHLORDANE	(ND)|ND	.016	.00022|.00094
GAMMA-CHLORDANE	(ND)|ND	.016	.00028|.00028
4,4'-DDD	(ND)|ND	.046	.001|.0021
4,4'-DDE	(ND)|ND	.027	.00079|.00055
4,4'-DDT	(ND)|ND	.039	.00096|.00042
ALDRIN	(ND)|ND	.024	.0016|.0015
DIELDRIN	(ND)|ND	.038	.00078|.0022
ENDOSULFAN I	(ND)|ND	.023	.00056|.00035
ENDOSULFAN II	(ND)|ND	.026	.00052|.00094
ENDOSULFAN SULFATE	(ND)|ND	.039	.00058|.00039
ENDRIN	(ND)|ND	.039	.00047|.00059
ENDRIN ALDEHYDE	(ND)|ND	.018	.00053|.00048
HEPTACHLOR	(ND)|ND	.022	.00065|.0008
HEPTACHLOR EPOXIDE	(ND)|ND	.023	.00062|.00032
METHOXYCHLOR	(ND)|ND	.063	.0042|.0039
TOXAPHENE	(ND)|ND	.77	.016|.013

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	(87)|65	25-143
TETRACHLORO-M-XYLENE	(61)|60	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3511	Date Analyzed:	09/27/00 17:42
Lab Samp ID:	1128-01	Dilution Factor:	1
Lab File ID:	WI27015A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	8.8
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0091	.00066|.0009

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3S12	Date Analyzed:	09/27/00 18:08
Lab Samp ID:	I128-02	Dilution Factor:	1
Lab File ID:	WI27016A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	4.5
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
ALPHA-BHC	(ND) | ND	.02	.00065 | .00056
BETA-BHC	(ND) | ND	.035	.0015 | .00048
DELTA-BHC	(ND) | ND	.012	.00086 | .00082
GAMMA-BHC (LINDANE)	(ND) | ND	.021	.00032 | .0014
ALPHA-CHLORDANE	(ND) | ND	.016	.00021 | .0009
GAMMA-CHLORDANE	(ND) | ND	.016	.00027 | .00027
4,4'-DDD	(ND) | ND	.044	.00099 | .002
4,4'-DDE	(ND) | ND	.026	.00075 | .00053
4,4'-DDT	(ND) | ND	.038	.00092 | .00041
ALDRIN	(ND) | ND	.023	.0015 | .0014
DIELDRIN	(ND) | ND	.037	.00075 | .0021
ENDOSULFAN I	(ND) | ND	.022	.00053 | .00034
ENDOSULFAN II	(ND) | ND	.025	.0005 | .0009
ENDOSULFAN SULFATE	(ND) | ND	.038	.00055 | .00038
ENDRIN	(ND) | ND	.038	.00045 | .00057
ENDRIN ALDEHYDE	.00072J | (ND)	.017	.0005 | .00045
HEPTACHLOR	(ND) | ND	.021	.00062 | .00076
HEPTACHLOR EPOXIDE	(ND) | ND	.022	.00059 | .00031
METHOXYCHLOR	(ND) | ND	.06	.004 | .0038
TOXAPHENE	(ND) | ND	.73	.015 | .012

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	94 | (96)	25-143
TETRACHLORO-M-XYLENE	(84) | 82	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3512	Date Analyzed:	09/27/00 18:08
Lab Samp ID:	I128-02	Dilution Factor:	1
Lab File ID:	WI27016A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	4.5
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0087	.00063|.00086

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

5060A

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3513	Date Analyzed:	09/27/00 18:33
Lab Samp ID:	I128-03	Dilution Factor:	1
Lab File ID:	WI27017A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	3.7
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)		PQL (mg/kg)	MDL (mg/kg)	
ALPHA-BHC	(ND)	ND	.02	.00064	.00055
BETA-BHC	(ND)	ND	.034	.0015	.00048
DELTA-BHC	(ND)	ND	.011	.00086	.00082
GAMMA-BHC (LINDANE)	(ND)	ND	.021	.00032	.0014
ALPHA-CHLORDANE	(ND)	ND	.016	.00021	.00089
GAMMA-CHLORDANE	(ND)	ND	.016	.00026	.00026
4,4'-DDD	(ND)	ND	.044	.00098	.002
4,4'-DDE	(ND)	ND	.026	.00075	.00052
4,4'-DDT	(ND)	ND	.037	.00091	.0004
ALDRIN	(ND)	ND	.023	.0015	.0014
DIELDRIN	(ND)	ND	.036	.00074	.0021
ENDOSULFAN I	(ND)	ND	.022	.00053	.00034
ENDOSULFAN II	(ND)	ND	.025	.00049	.00089
ENDOSULFAN SULFATE	(ND)	ND	.037	.00055	.00037
ENDRIN	(ND)	ND	.037	.00045	.00056
ENDRIN ALDEHYDE	.00059J	(ND)	.017	.0005	.00045
HEPTACHLOR	(ND)	ND	.021	.00062	.00076
HEPTACHLOR EPOXIDE	(ND)	ND	.022	.00059	.00031
METHOXYCHLOR	(ND)	ND	.059	.004	.0037
TOXAPHENE	(ND)	ND	.73	.015	.012

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
DECACHLOROBIPHENYL	95	(96)	25-143
TETRACHLORO-M-XYLENE	(85)	77	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3513	Date Analyzed:	09/27/00 18:33
Lab Samp ID:	I128-03	Dilution Factor:	1
Lab File ID:	WI27017A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	3.7
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0086	.00062|.00085

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3514	Date Analyzed:	09/27/00 18:59
Lab Samp ID:	I128-04	Dilution Factor:	1
Lab File ID:	WI27018A	Matrix	: SOIL
Ext Btch ID:	CPI032S	% Moisture	: 6.1
Calib. Ref.:	WI27008A	Instrument ID	: GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
ALPHA-BHC	(ND) | ND	.02	.00066 | .00057
BETA-BHC	(ND) | ND	.035	.0016 | .00049
DELTA-BHC	(ND) | ND	.012	.00088 | .00084
GAMMA-BHC (LINDANE)	(ND) | ND	.021	.00033 | .0014
ALPHA-CHLORDANE	(ND) | ND	.016	.00021 | .00091
GAMMA-CHLORDANE	(ND) | ND	.016	.00027 | .00027
4,4'-DDD	(ND) | ND	.045	.001 | .0021
4,4'-DDE	(ND) | ND	.027	.00077 | .00053
4,4'-DDT	(ND) | ND	.038	.00094 | .00041
ALDRIN	(ND) | ND	.023	.0015 | .0015
DIELDRIN	(ND) | ND	.037	.00076 | .0022
ENDOSULFAN I	(ND) | ND	.022	.00054 | .00034
ENDOSULFAN II	(ND) | ND	.026	.00051 | .00091
ENDOSULFAN SULFATE	(ND) | ND	.038	.00056 | .00038
ENDRIN	(ND) | ND	.038	.00046 | .00058
ENDRIN ALDEHYDE	.00075J | (ND)	.017	.00051 | .00046
HEPTACHLOR	(ND) | ND	.021	.00063 | .00078
HEPTACHLOR EPOXIDE	(ND) | ND	.022	.0006 | .00032
METHOXYCHLOR	(ND) | ND	.061	.0041 | .0038
TOXAPHENE	(ND) | ND	.75	.016 | .012

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	94 | (95)	25-143
TETRACHLORO-M-XYLENE	79 | (79)	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3514	Date Analyzed:	09/27/00 18:59
Lab Samp ID:	I128-04	Dilution Factor:	1
Lab File ID:	WI27018A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	6.1
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0088	.00064|.00087

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3515	Date Analyzed:	09/27/00 19:24
Lab Samp ID:	I128-05	Dilution Factor:	1
Lab File ID:	WI27019A	Matrix	: SOIL
Ext Btch ID:	CPI032S	% Moisture	: 7.1
Calib. Ref.:	WI27008A	Instrument ID	: GCT016

PARAMETERS	RESULTS (mg/kg)		PQL (mg/kg)	MDL (mg/kg)	
ALPHA-BHC	(ND)	ND	.02	.00066	.00057
BETA-BHC	(ND)	ND	.036	.0016	.00049
DELTA-BHC	(ND)	ND	.012	.00089	.00085
GAMMA-BHC (LINDANE)	(ND)	ND	.022	.00033	.0014
ALPHA-CHLORDANE	.00086J	(ND)	.016	.00022	.00092
GAMMA-CHLORDANE	(.00063J)	.00045J	.016	.00027	.00027
4,4'-DDD	(ND)	ND	.045	.001	.0021
4,4'-DDE	(ND)	ND	.027	.00078	.00054
4,4'-DDT	(ND)	ND	.039	.00095	.00042
ALDRIN	(ND)	ND	.024	.0016	.0015
DIELDRIN	(ND)	ND	.038	.00077	.0022
ENDOSULFAN I	(ND)	ND	.023	.00055	.00035
ENDOSULFAN II	(ND)	ND	.026	.00051	.00092
ENDOSULFAN SULFATE	(ND)	ND	.039	.00057	.00039
ENDRIN	(ND)	ND	.039	.00047	.00058
ENDRIN ALDEHYDE	.0022J	(ND)	.017	.00052	.00047
HEPTACHLOR	(ND)	.0011J	.022	.00064	.00079
HEPTACHLOR EPOXIDE	(ND)	ND	.023	.00061	.00032
METHOXYCHLOR	(ND)	ND	.061	.0041	.0039
TOXAPHENE	(ND)	ND	.75	.016	.013

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
DECACHLOROBIPHENYL	93	(93)	25-143
TETRACHLORO-M-XYLENE	76	(78)	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: DDI128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3515	Date Analyzed:	09/27/00 19:24
Lab Samp ID:	I128-05	Dilution Factor:	1
Lab File ID:	WI27019A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	7.1
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0089	.00065|.00088

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3516	Date Analyzed:	09/27/00 19:50
Lab Samp ID:	I128-06	Dilution Factor:	1
Lab File ID:	WI27020A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	5.9
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
ALPHA-BHC	(ND) | ND	.02	.00065 | .00057
BETA-BHC	(ND) | ND	.035	.0016 | .00049
DELTA-BHC	(ND) | ND	.012	.00088 | .00084
GAMMA-BHC (LINDANE)	(ND) | ND	.021	.00033 | .0014
ALPHA-CHLORDANE	(ND) | ND	.016	.00021 | .00091
GAMMA-CHLORDANE	(ND) | ND	.016	.00027 | .00027
4,4'-DDD	(ND) | ND	.045	.001 | .0021
4,4'-DDE	(ND) | ND	.027	.00077 | .00053
4,4'-DDT	(ND) | ND	.038	.00094 | .00041
ALDRIN	(ND) | ND	.023	.0015 | .0015
DIELDRIN	(ND) | ND	.037	.00076 | .0022
ENDOSULFAN I	(ND) | ND	.022	.00054 | .00034
ENDOSULFAN II	(ND) | ND	.026	.00051 | .00091
ENDOSULFAN SULFATE	(ND) | ND	.038	.00056 | .00038
ENDRIN	(ND) | ND	.038	.00046 | .00057
ENDRIN ALDEHYDE	.00053J | (ND)	.017	.00051 | .00046
HEPTACHLOR	(ND) | ND	.021	.00063 | .00078
HEPTACHLOR EPOXIDE	(ND) | ND	.022	.0006 | .00031
METHOXYCHLOR	(ND) | ND	.061	.0041 | .0038
TOXAPHENE	(ND) | ND	.74	.016 | .012

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	91 | (97)	25-143
TETRACHLORO-M-XYLENE	(66) | 63	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3516	Date Analyzed:	09/27/00 19:50
Lab Samp ID:	I128-06	Dilution Factor:	1
Lab File ID:	WI27020A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	5.9
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0088	.00064|.00087

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3517	Date Analyzed:	09/27/00 20:16
Lab Samp ID:	I128-07	Dilution Factor:	1
Lab File ID:	WI27021A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	6.6
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)		PQL (mg/kg)	MDL (mg/kg)	
ALPHA-BHC	(ND)	ND	.02	.00066	.00057
BETA-BHC	(ND)	ND	.035	.0016	.00049
DELTA-BHC	(ND)	ND	.012	.00088	.00084
GAMMA-BHC (LINDANE)	(ND)	ND	.021	.00033	.0014
ALPHA-CHLORDANE	(ND)	ND	.016	.00022	.00092
GAMMA-CHLORDANE	.00041J	(ND)	.016	.00027	.00027
4,4'-DDD	(ND)	ND	.045	.001	.0021
4,4'-DDE	(ND)	ND	.027	.00077	.00054
4,4'-DDT	(ND)	ND	.039	.00094	.00041
ALDRIN	(ND)	ND	.024	.0015	.0015
DIELDRIN	(ND)	ND	.037	.00077	.0022
ENDOSULFAN I	(ND)	ND	.022	.00054	.00035
ENDOSULFAN II	(ND)	ND	.026	.00051	.00092
ENDOSULFAN SULFATE	(ND)	ND	.039	.00056	.00038
ENDRIN	(ND)	ND	.039	.00046	.00058
ENDRIN ALDEHYDE	.0017J	(ND)	.017	.00051	.00046
HEPTACHLOR	(ND)	ND	.021	.00064	.00078
HEPTACHLOR EPOXIDE	(ND)	ND	.022	.00061	.00032
METHOXYCHLOR	(ND)	ND	.061	.0041	.0039
TOXAPHENE	(ND)	ND	.75	.016	.013

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
DECACHLOROBIPHENYL	94	(98)	25-143
TETRACHLORO-M-XYLENE	(89)	88	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3517	Date Analyzed:	09/27/00 20:16
Lab Samp ID:	I128-07	Dilution Factor:	1
Lab File ID:	WI27021A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	6.6
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0089	.00064|.00088

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3518	Date Analyzed:	09/27/00 20:41
Lab Samp ID:	I128-08	Dilution Factor:	1
Lab File ID:	WI27022A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	7.1
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)		PQL (mg/kg)	MDL (mg/kg)	
ALPHA-BHC	(ND)	ND	.02	.00066	.00057
BETA-BHC	(ND)	ND	.036	.0016	.00049
DELTA-BHC	(ND)	ND	.012	.00089	.00085
GAMMA-BHC (LINDANE)	(ND)	ND	.022	.00033	.0014
ALPHA-CHLORDANE	(ND)	ND	.016	.00022	.00092
GAMMA-CHLORDANE	(ND)	ND	.016	.00027	.00027
4,4'-DDD	(ND)	ND	.045	.001	.0021
4,4'-DDE	(ND)	ND	.027	.00078	.00054
4,4'-DDT	(ND)	ND	.039	.00095	.00042
ALDRIN	(ND)	ND	.024	.0016	.0015
DIELDRIN	(ND)	ND	.038	.00077	.0022
ENDOSULFAN I	(ND)	ND	.023	.00055	.00035
ENDOSULFAN II	(ND)	ND	.026	.00051	.00092
ENDOSULFAN SULFATE	(ND)	ND	.039	.00057	.00039
ENDRIN	(ND)	ND	.039	.00047	.00058
ENDRIN ALDEHYDE	.001J	(ND)	.017	.00052	.00047
HEPTACHLOR	(ND)	ND	.022	.00064	.00079
HEPTACHLOR EPOXIDE	(ND)	ND	.023	.00061	.00032
METHOXYCHLOR	(ND)	ND	.061	.0041	.0039
TOXAPHENE	(ND)	ND	.75	.016	.013

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
DECACHLOROBIPHENYL	92	(95)	25-143
TETRACHLORO-M-XYLENE	70	(71)	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3518	Date Analyzed:	09/27/00 20:41
Lab Samp ID:	I128-08	Dilution Factor:	1
Lab File ID:	WI27022A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	7.1
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0089	.00065|.00088

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3519	Date Analyzed:	09/27/00 21:07
Lab Samp ID:	I128-09	Dilution Factor:	1
Lab File ID:	WI27023A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	19.8
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)		PQL (mg/kg)	MDL (mg/kg)	
ALPHA-BHC	(ND)	ND	.024	.00077	.00066
BETA-BHC	(ND)	ND	.041	.0018	.00057
DELTA-BHC	(ND)	ND	.014	.001	.00098
GAMMA-BHC (LINDANE)	(ND)	ND	.025	.00038	.0016
ALPHA-CHLORDANE	(ND)	ND	.019	.00025	.0011
GAMMA-CHLORDANE	(ND)	ND	.019	.00032	.00032
4,4'-DDD	(ND)	ND	.052	.0012	.0024
4,4'-DDE	(ND)	ND	.031	.0009	.00063
4,4'-DDT	(ND)	ND	.045	.0011	.00048
ALDRIN	(ND)	ND	.027	.0018	.0017
DIELDRIN	(ND)	ND	.044	.00089	.0025
ENDOSULFAN I	(ND)	ND	.026	.00063	.0004
ENDOSULFAN II	(ND)	ND	.03	.00059	.0011
ENDOSULFAN SULFATE	(ND)	ND	.045	.00065	.00045
ENDRIN	(ND)	ND	.045	.00054	.00067
ENDRIN ALDEHYDE	.0016J	(ND)	.02	.0006	.00054
HEPTACHLOR	(ND)	ND	.025	.00074	.00091
HEPTACHLOR EPOXIDE	(ND)	ND	.026	.00071	.00037
METHOXYCHLOR	(ND)	ND	.071	.0048	.0045
TOXAPHENE	(ND)	ND	.87	.018	.015

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
DECACHLOROBIPHENYL	86	(89)	25-143
TETRACHLORO-M-XYLENE	62	(63)	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3519	Date Analyzed:	09/27/00 21:07
Lab Samp ID:	I128-09	Dilution Factor:	1
Lab File ID:	WI27023A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	19.8
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.01	.00075|.001

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3520	Date Analyzed:	09/27/00 21:33
Lab Samp ID:	I128-10	Dilution Factor:	1
Lab File ID:	WI27024A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	7.0
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)		PQL (mg/kg)	MDL (mg/kg)	
ALPHA-BHC	(ND)	ND	.02	.00066	.00057
BETA-BHC	(ND)	ND	.035	.0016	.00049
DELTA-BHC	(ND)	ND	.012	.00089	.00085
GAMMA-BHC (LINDANE)	(ND)	ND	.022	.00033	.0014
ALPHA-CHLORDANE	(ND)	ND	.016	.00022	.00092
GAMMA-CHLORDANE	(ND)	ND	.016	.00027	.00027
4,4'-DDD	(ND)	ND	.045	.001	.0021
4,4'-DDE	(ND)	ND	.027	.00077	.00054
4,4'-DDT	(ND)	ND	.039	.00095	.00042
ALDRIN	(ND)	ND	.024	.0015	.0015
DIELDRIN	(ND)	ND	.038	.00077	.0022
ENDOSULFAN I	(ND)	ND	.023	.00055	.00035
ENDOSULFAN II	(ND)	ND	.026	.00051	.00092
ENDOSULFAN SULFATE	(ND)	ND	.039	.00056	.00039
ENDRIN	(ND)	ND	.039	.00047	.00058
ENDRIN ALDEHYDE	.001J	(ND)	.017	.00052	.00047
HEPTACHLOR	(ND)	ND	.022	.00064	.00078
HEPTACHLOR EPOXIDE	(ND)	ND	.023	.00061	.00032
METHOXYCHLOR	(ND)	ND	.061	.0041	.0039
TOXAPHENE	(ND)	ND	.75	.016	.013

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
DECACHLOROBIPHENYL	92	(95)	25-143
TETRACHLORO-M-XYLENE	(68)	65	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3520	Date Analyzed:	09/27/00 21:33
Lab Samp ID:	I128-10	Dilution Factor:	1
Lab File ID:	WI27024A	Matrix	: SOIL
Ext Btch ID:	CPI032S	% Moisture	: 7.0
Calib. Ref.:	WI27012A	Instrument ID	: GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0089	.00065|.00088

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3521	Date Analyzed:	09/27/00 21:58
Lab Samp ID:	I128-11	Dilution Factor:	1
Lab File ID:	WI27025A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	5.5
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)		PQL (mg/kg)	MDL (mg/kg)	
ALPHA-BHC	(ND)	ND	.02	.00065	.00056
BETA-BHC	(ND)	ND	.035	.0015	.00048
DELTA-BHC	(ND)	ND	.012	.00087	.00083
GAMMA-BHC (LINDANE)	(ND)	ND	.021	.00032	.0014
ALPHA-CHLORDANE	(ND)	ND	.016	.00021	.0009
GAMMA-CHLORDANE	(ND)	ND	.016	.00027	.00027
4,4'-DDD	(ND)	ND	.044	.0010	.0021
4,4'-DDE	(ND)	ND	.026	.00076	.00053
4,4'-DDT	(ND)	ND	.038	.00093	.00041
ALDRIN	(ND)	ND	.023	.0015	.0015
DIELDRIN	(ND)	ND	.037	.00076	.0021
ENDOSULFAN I	(ND)	ND	.022	.00054	.00034
ENDOSULFAN II	(ND)	ND	.025	.0005	.00091
ENDOSULFAN SULFATE	(ND)	ND	.038	.00056	.00038
ENDRIN	(ND)	ND	.038	.00046	.00057
ENDRIN ALDEHYDE	.0008J	(ND)	.017	.00051	.00046
HEPTACHLOR	(ND)	ND	.021	.00063	.00077
HEPTACHLOR EPOXIDE	(ND)	ND	.022	.0006	.00031
METHOXYCHLOR	(ND)	ND	.06	.004	.0038
TOXAPHENE	(ND)	ND	.74	.015	.012

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
DECACHLOROBIPHENYL	91	(96)	25-143
TETRACHLORO-M-XYLENE	(72)	69	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3521	Date Analyzed:	09/27/00 21:58
Lab Samp ID:	I128-11	Dilution Factor:	1
Lab File ID:	WI27025A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	5.5
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0088	.00063|.00087

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3522	Date Analyzed:	09/27/00 22:24
Lab Samp. ID:	I128-12	Dilution Factor:	1
Lab File ID:	WI27026A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	16.1
Calib. Ref.:	WI27008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)		PQL (mg/kg)	MDL (mg/kg)	
ALPHA-BHC	(ND)	ND	.023	.00073	.00063
BETA-BHC	(ND)	ND	.039	.0017	.00055
DELTA-BHC	(ND)	ND	.013	.00098	.00094
GAMMA-BHC (LINDANE)	(ND)	ND	.024	.00037	.0016
ALPHA-CHLORDANE	(ND)	ND	.018	.00024	.001
GAMMA-CHLORDANE	(ND)	ND	.018	.0003	.0003
4,4'-DDD	(ND)	ND	.05	.0011	.0023
4,4'-DDE	(ND)	ND	.03	.00086	.0006
4,4'-DDT	(ND)	ND	.043	.001	.00046
ALDRIN	(ND)	ND	.026	.0017	.0016
DIELDRIN	(ND)	ND	.042	.00085	.0024
ENDOSULFAN I	(ND)	ND	.025	.0006	.00038
ENDOSULFAN II	(ND)	ND	.029	.00057	.001
ENDOSULFAN SULFATE	(ND)	ND	.043	.00063	.00043
ENDRIN	(ND)	ND	.043	.00052	.00064
ENDRIN ALDEHYDE	.00063J	(ND)	.019	.00057	.00052
HEPTACHLOR	(ND)	ND	.024	.00071	.00087
HEPTACHLOR EPOXIDE	(ND)	ND	.025	.00068	.00035
METHOXYCHLOR	(ND)	ND	.068	.0046	.0043
TOXAPHENE	(ND)	ND	.83	.017	.014

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
DECACHLOROBIPHENYL	93	(100)	25-143
TETRACHLORO-M-XYLENE	81	(81)	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	18609-3522	Date Analyzed:	09/27/00 22:24
Lab Samp ID:	I128-12	Dilution Factor:	1
Lab File ID:	WI27026A	Matrix	: SOIL
Ext Btch ID:	CPI032S	% Moisture	: 16.1
Calib. Ref.:	WI27012A	Instrument ID	: GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0099	.00072|.00098

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
PESTICIDES

Client	: IT CORPORATION	Date Collected:	NA
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/22/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	MBLK1S	Date Analyzed:	09/27/00 16:50
Lab Samp ID:	CP1032SB	Dilution Factor:	1
Lab File ID:	W127013A	Matrix :	SOIL
Ext Btch ID:	CP1032S	% Moisture :	NA
Calib. Ref.:	W127008A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
ALPHA-BHC	(ND) | ND	.019	.00062 | .00053
BETA-BHC	(ND) | ND	.033	.0015 | .00046
DELTA-BHC	(ND) | ND	.011	.00083 | .00079
GAMMA-BHC (LINDANE)	(ND) | ND	.02	.00031 | .0013
ALPHA-CHLORDANE	(ND) | ND	.015	.0002 | .00085
GAMMA-CHLORDANE	(ND) | ND	.015	.00025 | .00025
4,4'-DDD	(ND) | ND	.042	.00094 | .0019
4,4'-DDE	(ND) | ND	.025	.00072 | .0005
4,4'-DDT	(ND) | ND	.036	.00088 | .00039
ALDRIN	(ND) | ND	.022	.0014 | .0014
DIELDRIN	(ND) | ND	.035	.00071 | .002
ENDOSULFAN I	(ND) | ND	.021	.00051 | .00032
ENDOSULFAN II	(ND) | ND	.024	.00048 | .00086
ENDOSULFAN SULFATE	(ND) | ND	.036	.00052 | .00036
ENDRIN	(ND) | ND	.036	.00043 | .00054
ENDRIN ALDEHYDE	(ND) | ND	.016	.00048 | .00043
HEPTACHLOR	(ND) | ND	.02	.0006 | .00073
HEPTACHLOR EPOXIDE	(ND) | ND	.021	.00057 | .0003
METHOXYCHLOR	(ND) | ND	.057	.0038 | .0036
TOXAPHENE	(ND) | ND	.7	.015 | .012

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
DECACHLOROBIPHENYL	98 | (101)	25-143
TETRACHLORO-M-XYLENE	(89) | 84	35-135

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

METHOD 3550A/8081
DICOFOL

Client	: IT CORPORATION	Date Collected:	NA
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/22/00
Batch No.	: 001128	Date Extracted:	09/22/00 18:00
Sample ID:	MBLK1S	Date Analyzed:	09/27/00 16:50
Lab Samp ID:	CPI032SB	Dilution Factor:	1
Lab File ID:	WI27013A	Matrix :	SOIL
Ext Btch ID:	CPI032S	% Moisture :	NA
Calib. Ref.:	WI27012A	Instrument ID :	GCT016

PARAMETERS	RESULTS (mg/kg)	PQL (mg/kg)	MDL (mg/kg)
DICOFOL	(ND)|ND	.0083	.0006|.00082

PQL : Practical Quantitation Limit
Left of | is result from the first column. Right of | result from the second column
( ) Final result
* Outside of QC limit
J : An estimated value between PQL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 001128
METHOD: METHOD 3550A/8081

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: CP1032SB CP1032SL
LAB FILE ID: WI27013A WI27014A
DATE EXTRACTED: 09/22/0018:00 09/22/0018:00 DATE COLLECTED: NA
DATE ANALYZED: 09/27/0016:50 09/27/0017:16 DATE RECEIVED: 09/22/00
PREP. BATCH: CP1032S CP1032S
CALIB. REF: WI27008A WI27008A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
gamma-BHC (Lindane)	(ND)|ND	.00667	(.00626J)|.0061J	(94)|91	33-130
4,4'-DDT	(ND)|ND	.0133	.0126J|(.0133J)	95|(100)	25-153
Aldrin	(ND)|ND	.00667	(.00628J)|.00619J	(94)|93	37-126
Dieldrin	(ND)|ND	.0133	(.0125J)|.0123J	(94)|92	32-142
Endrin	(ND)|ND	.0133	(.0137J)|.0136J	(103)|102	33-144
Heptachlor	(ND)|ND	.00667	(.00643J)|.00639J	(96)|96	35-138

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Decachlorobiphenyl	.0133	.0131|(.0136)	(99)|102	25-143
Tetrachloro-m-xylene	.0133	(.0126)|.0119	(95)|89	35-133

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00I128
METHOD: METHOD 3550A/8081

MATRIX: SOIL % MOISTURE: 16.1

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	18609-3522				
LAB SAMP ID:	I128-12	I128-12M	I128-12S		
LAB FILE ID:	WI27026A	WI27027A	WI27028A		
DATE EXTRACTED:	09/22/0018:00	09/22/0018:00	09/22/0018:00	DATE COLLECTED:	09/21/00
DATE ANALYZED:	09/27/0022:24	09/27/0022:50	09/27/0023:15	DATE RECEIVED:	09/21/00
PREP. BATCH:	CPI032S	CPI032S	CPI032S		
CALIB. REF:	WI27008A	WI27008A	WI27008A		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
gamma-BHC (Lindane)	(ND)|ND	.00795	(.0071J)|.0071J	(89)|89	.00795	(.007J)|.0068J	(88)|86	(1)|4	33-130	50
4,4'-DDT	(ND)|ND	.0159	.015J|(.016J)	94|(101)	.0159	.015J|(.016J)	94|(101)	0|(0)	25-153	50
Aldrin	(ND)|ND	.00795	.0071J|(.0073J)	89|(92)	.00795	.0071J|(.0072J)	89|(91)	0|(1)	37-126	50
Dieldrin	(ND)|ND	.0159	(.014J)|.014J	(88)|88	.0159	(.014J)|.014J	(88)|88	(0)|0	32-142	50
Endrin	(ND)|ND	.0159	(.016J)|.016J	(101)|101	.0159	(.016J)|.016J	(101)|101	(0)|0	33-144	50
Heptachlor	(ND)|ND	.00795	.0079J|(.0083J)	99|(104)	.00795	.0075J|(.0081J)	94|(102)	5|(2)	35-138	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT (%)
Decachlorobiphenyl	.0159	.015|(.016)	97|(102)	.0159	.015|(.016)	95|(104)	25-143
Tetrachloro-m-xylene	.0159	(.013)|.013	(84)|80	.0159	(.014)|.013	(85)|82	35-133

5085

EPA METHOD 8141A
ORGANOPHOSPHORUS PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128A	Date Extracted:	10/06/00 13:00
Sample ID:	18609-3511	Date Analyzed:	10/10/00 09:40
Lab Samp ID:	I128-01	Dilution Factor:	1
Lab File ID:	YJ09012A	Matrix :	SOIL
Ext Btch ID:	NPJ004S	% Moisture :	8.8
Calib. Ref.:	YJYJ09010A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
DIAZINON	ND	110	6.6
MALATHION	ND	110	9.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIPHENYL PHOSPHATE	152*	30-150

PRL: Project Reporting Limit

EPA METHOD 8141A
ORGANOPHOSPHORUS PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128A	Date Extracted:	10/06/00 13:00
Sample ID:	18609-3512	Date Analyzed:	10/10/00 11:15
Lab Samp ID:	I128-02	Dilution Factor:	1
Lab File ID:	YJ09016A	Matrix :	SOIL
Ext Btch ID:	NPJ004S	% Moisture :	4.5
Calib. Ref.:	YJYJ09010A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
DIAZINON	ND	100	6.3
MALATHION	ND	100	8.8

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIPHENYL PHOSPHATE	119	30-150

PRL: Project Reporting Limit

EPA METHOD 8141A
ORGANOPHOSPHORUS PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128A	Date Extracted:	10/06/00 13:00
Sample ID:	18609-3514	Date Analyzed:	10/10/00 12:02
Lab Samp ID:	I128-04	Dilution Factor:	1
Lab File ID:	YJ09018A	Matrix :	SOIL
Ext Btch ID:	NPJ004S	% Moisture :	6.1
Calib. Ref.:	YJYJ09010A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
DIAZINON	ND	110	6.4
MALATHION	ND	110	8.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIPHENYL PHOSPHATE	138	30-150

PRL: Project Reporting Limit

EPA METHOD 8141A
ORGANOPHOSPHORUS PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128A	Date Extracted:	10/06/00 13:00
Sample ID:	18609-3515	Date Analyzed:	10/10/00 12:25
Lab Samp ID:	I128-05	Dilution Factor:	1
Lab File ID:	YJ09019A	Matrix :	SOIL
Ext Btch ID:	NPJ004S	% Moisture :	7.1
Calib. Ref.:	YJYJ09010A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
DIAZINON	ND	110	6.5
MALATHION	ND	110	9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIPHENYL PHOSPHATE	132	30-150

PRL: Project Reporting Limit

EPA METHOD 8141A
ORGANOPHOSPHORUS PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128A	Date Extracted:	10/06/00 13:00
Sample ID:	18609-3517	Date Analyzed:	10/10/00 13:36
Lab Samp ID:	I128-07	Dilution Factor:	1
Lab File ID:	YJ09022A	Matrix :	SOIL
Ext Btch ID:	NPJ004S	% Moisture :	6.6
Calib. Ref.:	YJYJ09021A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
DIAZINON	ND	110	6.5
MALATHION	14J	110	9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIPHENYL PHOSPHATE	155*	30-150

PRL: Project Reporting Limit

EPA METHOD 8141A
ORGANOPHOSPHORUS PESTICIDES

Client : IT CORPORATION	Date Collected: 09/21/00
Project : MCAS EL TORO/18609/D.O. 70	Date Received: 09/21/00
Batch No. : 001128A	Date Extracted: 10/06/00 13:00
Sample ID: 18609-3518	Date Analyzed: 10/10/00 14:00
Lab Samp ID: I128-08	Dilution Factor: 1
Lab File ID: YJ09023A	Matrix : SOIL
Ext Btch ID: NPJ004S	% Moisture : 7.1
Calib. Ref.: YJYJ09021A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
DIAZINON	ND	110	6.5
MALATHION	ND	110	9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIPHENYL PHOSPHATE	146	30-150

PRL: Project Reporting Limit

EPA METHOD 8141A
ORGANOPHOSPHORUS PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128A	Date Extracted:	10/06/00 13:00
Sample ID:	18609-3520	Date Analyzed:	10/10/00 14:47
Lab Samp ID:	I128-10	Dilution Factor:	1
Lab File ID:	YJ09025A	Matrix :	SOIL
Ext Btch ID:	NPJ004S	% Moisture :	7.0
Calib. Ref.:	YJYJ09021A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
DIAZINON	ND	110	6.5
MALATHION	ND	110	9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIPHENYL PHOSPHATE	127	30-150

PRL: Project Reporting Limit

EPA METHOD 8141A
ORGANOPHOSPHORUS PESTICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128A	Date Extracted:	10/06/00 13:00
Sample ID:	18609-3521	Date Analyzed:	10/10/00 15:10
Lab Samp ID:	I128-11	Dilution Factor:	1
Lab File ID:	YJ09026A	Matrix :	SOIL
Ext Btch ID:	NPJ004S	% Moisture :	5.5
Calib. Ref.:	YJYJ09021A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
DIAZINON	ND	110	6.4
MALATHION	ND	110	8.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIPHENYL PHOSPHATE	127	30-150

PRL: Project Reporting Limit

EPA METHOD 8141A
ORGANOPHOSPHORUS PESTICIDES

Client	: IT CORPORATION	Date Collected:	NA
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	10/06/00
Batch No.	: 001128A	Date Extracted:	10/06/00 13:00
Sample ID:	MBLK1S	Date Analyzed:	10/07/00 06:31
Lab Samp ID:	NPJ004SB	Dilution Factor:	1
Lab File ID:	YJ05030A	Matrix :	SOIL
Ext Btch ID:	NPJ004S	% Moisture :	NA
Calib. Ref.:	YJYJ05026A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
DIAZINON	ND	100	6
MALATHION	ND	100	8.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIPHENYL PHOSPHATE	146	30-150

PRL: Project Reporting Limit

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00I128A
METHOD: EPA 8141A

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	NPJ004SB	NPJ004SL		
LAB FILE ID:	YJ05030A	YJ09011A		
DATE EXTRACTED:	10/06/0013:00	10/06/0013:00	DATE COLLECTED:	NA
DATE ANALYZED:	10/07/0006:31	10/10/0009:17	DATE RECEIVED:	10/06/00
PREP. BATCH:	NPJ004S	NPJ004S		
CALIB. REF:	YJYJ05026A	YJYJ09010A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Diazinon	ND	833	1140	136	30-150
Malathion	ND	833	1290	155*	30-150

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Triphenyl Phosphate	833	1430	172*	30-150

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00I128A
METHOD: EPA 8141A

MATRIX:	SOIL			% MOISTURE:	8.8
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	18609-3511				
LAB SAMP ID:	I128-01	I128-01M	I128-01S		
LAB FILE ID:	YJ09012A	YJ09013A	YJ09014A		
DATE EXTRACTED:	10/06/0013:00	10/06/0013:00	10/06/0013:00	DATE COLLECTED:	09/21/00
DATE ANALYZED:	10/10/0009:40	10/10/0010:04	10/10/0010:28	DATE RECEIVED:	09/21/00
PREP. BATCH:	NPJ004S	NPJ004S	NPJ004S		
CALIB. REF:	YJYJ09010A	YJYJ09010A	YJYJ09010A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diazinon	ND	913	995	109	913	1000	110	1	30-150	50
Malathion	ND	913	1030	113	913	1040	114	1	30-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
Triphenyl Phosphate	913	1180	129	913	1140	124	30-150

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/25/00 19:40
Sample ID:	18609-3511	Date Analyzed:	09/28/00 07:09
Lab Samp ID:	I128-01	Dilution Factor:	1
Lab File ID:	QI26061A	Matrix :	SOIL
Ext Btch ID:	HEI010S	% Moisture :	8.8
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.011	.0013	.00078
2,4-DB	(ND)	ND	.011	.0016	.0018
2,4,5-T	(ND)	ND	.11	.0015	.0012
2,4,5-TP(SILVEX)	.007J	(ND)	.11	.0012	.00097
DALAPON	.029J	(ND)	4.4	.00056	.00054
DICAMBA	(ND)	ND	.22	.0011	.0014
DICHLOROPROP	(ND)	ND	.55	.00084	.0013
DINOSEB	(ND)	.0035J	.055	.0014	.0011
MCPA	(ND)	ND	1.1	.17	.15
MCPP	(ND)	ND	1.1	.14	.078

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	60	(63)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/25/00 19:40
Sample ID:	18609-3512	Date Analyzed:	09/28/00 07:48
Lab Samp ID:	I128-02	Dilution Factor:	1
Lab File ID:	QI26062A	Matrix :	SOIL
Ext Btch ID:	HEI010S	% Moisture :	4.5
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.01	.0013	.00074
2,4-DB	(ND)	ND	.01	.0016	.0017
2,4,5-T	(ND)	.0013J	.1	.0014	.0011
2,4,5-TP(SILVEX)	.0059J	(ND)	.1	.0012	.00092
DALAPON	.025J	(ND)	4.2	.00053	.00052
DICAMBA	(ND)	ND	.21	.0011	.0013
DICHLOROPROP	(ND)	ND	.52	.0008	.0012
DINOSEB	(ND)	.0029J	.052	.0013	.0011
MCPA	(ND)	ND	1	.16	.14
MCPP	(ND)	ND	1	.13	.074

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	59	(62)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/25/00 19:40
Sample ID:	18609-3513	Date Analyzed:	09/28/00 09:34
Lab Samp ID:	I128-03	Dilution Factor:	1
Lab File ID:	QI26063A	Matrix :	SOIL
Ext Btch ID:	HEI010S	% Moisture :	3.7
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.01	.0013	.00074
2,4-DB	(ND)	ND	.01	.0016	.0017
2,4,5-T	(ND)	.0015J	.1	.0014	.0011
2,4,5-TP(SILVEX)	.0064J	(ND)	.1	.0011	.00092
DALAPON	.033J	(ND)	4.2	.00053	.00052
DICAMBA	(ND)	ND	.21	.0011	.0013
DICHLOROPROP	(ND)	ND	.52	.0008	.0012
DINOSEB	(ND)	.0027J	.052	.0013	.0011
MCPA	(ND)	ND	1	.16	.14
MCPP	.13J	(ND)	1	.13	.074

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	83	(85)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client : IT CORPORATION	Date Collected: 09/21/00
Project : MCAS EL TORO/18609/D.O. 70	Date Received: 09/21/00
Batch No. : 00I128	Date Extracted: 09/25/00 19:40
Sample ID: 18609-3514	Date Analyzed: 09/28/00 10:13
Lab Samp ID: I128-04	Dilution Factor: 1
Lab File ID: QI26064A	Matrix : SOIL
Ext Btch ID: HEI010S	% Moisture : 6.1
Calib. Ref.: QI26057A	Instrument ID : GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.011	.0013	.00076
2,4-DB	(ND)	ND	.011	.0016	.0017
2,4,5-T	(ND)	.0017J	.11	.0014	.0012
2,4,5-TP(SILVEX)	.005J	(ND)	.11	.0012	.00094
DALAPON	.015J	(ND)	4.3	.00054	.00053
DICAMBA	(ND)	ND	.21	.0011	.0013
DICHLOROPROP	(ND)	ND	.53	.00082	.0012
DINOSEB	(ND)	.0042J	.053	.0013	.0011
MCPA	(ND)	ND	1.1	.17	.15
MCPP	(ND)	ND	1.1	.13	.076

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	77	(78)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/25/00 19:40
Sample ID:	18609-3515	Date Analyzed:	09/28/00 10:52
Lab Samp ID:	I128-05	Dilution Factor:	1
Lab File ID:	QI26065A	Matrix :	SOIL
Ext Btch ID:	HEI010S	% Moisture :	7.1
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.011	.0013	.00076
2,4-DB	(ND)	ND	.011	.0016	.0017
2,4,5-T	(ND)	ND	.11	.0014	.0012
2,4,5-TP(SILVEX)	.0067J	(ND)	.11	.0012	.00095
DALAPON	.039J	(ND)	4.3	.00055	.00053
DICAMBA	(ND)	ND	.22	.0011	.0014
DICHLOROPROP	(ND)	ND	.54	.00083	.0012
DINOSEB	(ND)	.003J	.054	.0013	.0011
MCPA	(ND)	ND	1.1	.17	.15
MCPP	(ND)	ND	1.1	.14	.076

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	38	(40)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/25/00 19:40
Sample ID:	18609-3516	Date Analyzed:	09/28/00 11:29
Lab Samp ID:	I128-06	Dilution Factor:	1
Lab File ID:	QI26066A	Matrix :	SOIL
Ext Btch ID:	HEI010S	% Moisture :	5.9
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.011	.0013	.00075
2,4-DB	(ND)	ND	.011	.0016	.0017
2,4,5-T	(ND)	ND	.11	.0014	.0011
2,4,5-TP(SILVEX)	.0065J	(ND)	.11	.0012	.00094
DALAPON	.047J	(ND)	4.3	.00054	.00053
DICAMBA	(ND)	ND	.21	.0011	.0013
DICHLOROPROP	(ND)	ND	.53	.00082	.0012
DINOSEB	(ND)	ND	.053	.0013	.0011
MCPA	(ND)	ND	1.1	.17	.15
MCPP	.16J	(ND)	1.1	.13	.075

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	64	(66)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/25/00 19:40
Sample ID:	18609-3517	Date Analyzed:	09/28/00 12:08
Lab Samp ID:	I128-07	Dilution Factor:	1
Lab File ID:	QI26067A	Matrix :	SOIL
Ext Btch ID:	HE1010S	% Moisture :	6.6
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.011	.0013	.00076
2,4-DB	(ND)	ND	.011	.0016	.0017
2,4,5-T	(ND)	ND	.11	.0014	.0012
2,4,5-TP(SILVEX)	.006J	(ND)	.11	.0012	.00095
DALAPON	.052J	(ND)	4.3	.00054	.00053
DICAMBA	(ND)	ND	.21	.0011	.0014
DICHLOROPROP	(ND)	ND	.54	.00082	.0012
DINOSEB	(ND)	ND	.054	.0013	.0011
MCPA	(ND)	ND	1.1	.17	.15
MCPP	(ND)	ND	1.1	.13	.076

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	58	(60)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/25/00 19:40
Sample ID:	18609-3518	Date Analyzed:	09/28/00 12:46
Lab Samp ID:	1128-08	Dilution Factor:	1
Lab File ID:	QI26068A	Matrix :	SOIL
Ext Btch ID:	HEI010S	% Moisture :	7.1
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	.0024J	(ND)	.011	.0013	.00076
2,4-DB	(ND)	ND	.011	.0016	.0017
2,4,5-T	(ND)	ND	.11	.0014	.0012
2,4,5-TP(SILVEX)	.0029J	(ND)	.11	.0012	.00095
DALAPON	.031J	(ND)	4.3	.00055	.00053
DICAMBA	(ND)	ND	.22	.0011	.0014
DICHLOROPROP	(ND)	ND	.54	.00083	.0012
DINOSEB	(ND)	.0031J	.054	.0013	.0011
MCPA	(ND)	ND	1.1	.17	.15
MCPP	(ND)	ND	1.1	.14	.076

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	64	(66)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/25/00 19:40
Sample ID:	18609-3519	Date Analyzed:	09/28/00 13:24
Lab Samp ID:	I128-09	Dilution Factor:	1
Lab File ID:	QI26069A	Matrix :	SOIL
Ext Btch ID:	HEI010S	% Moisture :	19.8
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	.0057J	(.0066J)	.012	.0015	.00088
2,4-DB	(ND)	ND	.012	.0019	.002
2,4,5-T	(ND)	ND	.12	.0017	.0013
2,4,5-TP(SILVEX)	.0057J	(ND)	.12	.0014	.0011
DALAPON	.046J	(ND)	5	.00063	.00062
DICAMBA	(ND)	ND	.25	.0013	.0016
DICHLOROPROP	(ND)	ND	.62	.00096	.0014
DINOSEB	(ND)	ND	.062	.0016	.0013
MCPA	(ND)	ND	1.2	.2	.17
MCPP	(ND)	ND	1.2	.16	.089

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	49	(51)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/25/00 19:40
Sample ID:	18609-3520	Date Analyzed:	09/28/00 14:02
Lab Samp ID:	I128-10	Dilution Factor:	1
Lab File ID:	QI26070A	Matrix :	SOIL
Ext Btch ID:	HEI010S	% Moisture :	7.0
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	.0027J	(ND)	.011	.0013	.00076
2,4-DB	(ND)	ND	.011	.0016	.0017
2,4,5-T	(ND)	ND	.11	.0014	.0012
2,4,5-TP(SILVEX)	.0023J	(ND)	.11	.0012	.00095
DALAPON	.026J	(ND)	4.3	.00055	.00053
DICAMBA	(ND)	ND	.22	.0011	.0014
DICHLOROPROP	(ND)	ND	.54	.00082	.0012
DINOSEB	(ND)	.0023J	.054	.0013	.0011
MCPA	(ND)	ND	1.1	.17	.15
MCPP	(ND)	ND	1.1	.14	.076

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	64	(67)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client : IT CORPORATION	Date Collected: 09/21/00
Project : MCAS EL TORO/18609/D.O. 70	Date Received: 09/21/00
Batch No. : 001128	Date Extracted: 09/25/00 19:40
Sample ID: 18609-3521	Date Analyzed: 09/28/00 14:39
Lab Samp ID: I128-11	Dilution Factor: 1
Lab File ID: QI26071A	Matrix : SOIL
Ext Btch ID: HEI010S	% Moisture : 5.5
Calib. Ref.: QI26057A	Instrument ID : GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.011	.0013	.00075
2,4-DB	(ND)	ND	.011	.0016	.0017
2,4,5-T	(ND)	ND	.11	.0014	.0011
2,4,5-TP(SILVEX)	.0055J	(ND)	.11	.0012	.00093
DALAPON	.045J	(ND)	4.2	.00054	.00052
DICAMBA	(ND)	ND	.21	.0011	.0013
DICHLOROPROP	(ND)	ND	.53	.00081	.0012
DINOSEB	(ND)	ND	.053	.0013	.0011
MCPA	(ND)	ND	1.1	.17	.14
MCPP	.15J	(ND)	1.1	.13	.075

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	69	(73)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client : IT CORPORATION	Date Collected: 09/21/00
Project : MCAS EL TORO/18609/D.O. 70	Date Received: 09/21/00
Batch No. : 00I128	Date Extracted: 09/25/00 19:40
Sample ID: 18609-3522	Date Analyzed: 09/28/00 15:15
Lab Samp ID: I128-12	Dilution Factor: 1
Lab File ID: QI26072A	Matrix : SOIL
Ext Btch ID: HEI010S	% Moisture : 16.1
Calib. Ref.: QI26057A	Instrument ID : GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.012	.0014	.00085
2,4-DB	(ND)	ND	.012	.0018	.0019
2,4,5-T	(ND)	ND	.12	.0016	.0013
2,4,5-TP(SILVEX)	.0062J	(ND)	.12	.0013	.0011
DALAPON	.022J	(ND)	4.8	.00061	.00059
DICAMBA	(ND)	ND	.24	.0012	.0015
DICHLOROPROP	(ND)	ND	.6	.00091	.0014
DINOSEB	(ND)	ND	.06	.0015	.0012
MCPA	(ND)	ND	1.2	.19	.16
MCPP	(ND)	ND	1.2	.15	.085

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	53	(55)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EPA METHOD 8151A
HERBICIDES

Client	: IT CORPORATION	Date Collected:	NA
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/25/00
Batch No.	: 001128	Date Extracted:	09/25/00 19:40
Sample ID:	MBLK1S	Date Analyzed:	09/28/00 05:49
Lab Samp ID:	HE1010SB	Dilution Factor:	1
Lab File ID:	QI26059A	Matrix :	SOIL
Ext Btch ID:	HE1010S	% Moisture :	NA
Calib. Ref.:	QI26057A	Instrument ID :	GCT009

PARAMETERS	RESULTS (mg/kg)		PRL (mg/kg)	MDL (mg/kg)	
2,4-D	(ND)	ND	.01	.0012	.00071
2,4-DB	.075	(ND)	.01	.0015	.0016
2,4,5-T	(ND)	ND	.1	.0013	.0011
2,4,5-TP(SILVEX)	.0081J	(ND)	.1	.0011	.00088
DALAPON	.0068J	(.0044J)	4	.00051	.0005
DICAMBA	(ND)	ND	.2	.001	.0013
DICHLOROPROP	(ND)	ND	.5	.00077	.0012
DINOSEB	.054	(ND)	.05	.0013	.001
MCPA	(ND)	ND	1	.16	.14
MCPP	(ND)	ND	1	.13	.071

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
2,4-DCPAA	70	(75)	30-150

PQL: Practical Quantitation Limit
Left of | is related to first column; Right of | related to second column
( ) included the reported data

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 001128
METHOD: EPA 8151A

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: HEI010SB HEI010SL
LAB FILE ID: QI26059A QI26060A
DATE EXTRACTED: 09/25/0019:40 09/25/0019:40 DATE COLLECTED: NA
DATE ANALYZED: 09/28/0005:49 09/28/0006:29 DATE RECEIVED: 09/25/00
PREP. BATCH: HEI010S HEI010S
CALIB. REF: QI26057A QI26057A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
2,4-D	(ND) | ND	.05	.0332 | (.0355)	66 | (71)	30-150
2,4,5-T	(ND) | ND	.05	.0405J | (.044J)	81 | (88)	30-150
2,4,5-TP(Silvex)	.0081J | (ND)	.05	.0446J | (.0382J)	73 | (76)	30-150

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
2,4-DCPAA	.5	(.385) | .384	(77) | 77	30-150

5018

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 001128
METHOD: EPA 8151A

MATRIX: SOIL
% MOISTURE: 16.1

DILUTION FACTOR:	1	1	1
SAMPLE ID:	18609-3522		
LAB SAMP ID:	I128-12	I128-12M	I128-12S
LAB FILE ID:	QI26072A	QI26075A	QI26076A
DATE EXTRACTED:	09/25/0019:40	09/25/0019:40	09/25/0019:40
DATE ANALYZED:	09/28/0015:15	09/28/0017:47	09/28/0018:26
PREP. BATCH:	HEI010S	HEI010S	HEI010S
CALIB. REF:	QI26057A	QI26073A	QI26073A

DATE COLLECTED: 09/21/00
DATE RECEIVED: 09/21/00

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
2,4-D	(ND) | ND	.0596	.0457 | (.0452)	77 | (76)	.0596	.0504 | (.0511)	85 | (86)	10 | (12)	30-150	50
2,4,5-T	(ND) | ND	.0596	.0465J | (.0492J)	78 | (83)	.0596	.049J | (.0519J)	82 | (87)	5 | (5)	30-150	50
2,4,5-TP(Silvex)	.0062J | (ND)	.0596	.0476J | (.0427J)	69 | (72)	.0596	.0486J | (.0416J)	71 | (70)	2 | (3)	30-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT (%)
2,4-DCPAA	.596	.352 | (.357)	59 | (60)	.596	.31 | (.317)	52 | (53)	30-150

METHOD 3550A/8270B
SEMIVOLATILE ORGANICS BY GC/MS

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/27/00 18:00
Sample ID:	18609-3511	Date Analyzed:	09/29/00 23:51
Lab Samp ID:	I128-01	Dilution Factor:	1
Lab File ID:	RIB241	Matrix :	SOIL
Ext Btch ID:	SVI023S	% Moisture :	8.8
Calib. Ref.:	RIB224	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
STRYCHNINE	ND	730	260

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TERPHENYL-D14	73	32-136

PRL : Project Reporting Limit

METHOD 3550A/8270B
SEMIVOLATILE ORGANICS BY GC/MS

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/27/00 18:00
Sample ID:	18609-3512	Date Analyzed:	09/30/00 00:31
Lab Samp ID:	I128-02	Dilution Factor:	1
Lab File ID:	RIB242	Matrix :	SOIL
Ext Btch ID:	SVI023S	% Moisture :	4.5
Calib. Ref.:	RIB224	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
STRYCHNINE	ND	700	250

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TERPHENYL-D14	74	32-136

PRL : Project Reporting Limit

METHOD 3550A/8270B
SEMIVOLATILE ORGANICS BY GC/MS

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/27/00 18:00
Sample ID:	18609-3514	Date Analyzed:	09/30/00 01:49
Lab Samp ID:	1128-04	Dilution Factor:	1
Lab File ID:	RIB244	Matrix :	SOIL
Ext Btch ID:	SVI023S	% Moisture :	6.1
Calib. Ref.:	RIB224	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
STRYCHNINE	ND	710	260

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TERPHENYL-D14	77	32-136

PRL : Project Reporting Limit

METHOD 3550A/8270B
SEMIVOLATILE ORGANICS BY GC/MS

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/27/00 18:00
Sample ID:	18609-3517	Date Analyzed:	09/30/00 03:46
Lab Samp ID:	I128-07	Dilution Factor:	1
Lab File ID:	RIB247	Matrix :	SOIL
Ext Btch ID:	SVI023S	% Moisture :	6.6
Calib. Ref.:	RIB224	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
STRYCHNINE	ND	720	260

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TERPHENYL-D14	74	32-136

PRL : Project Reporting Limit

METHOD 3550A/8270B
SEMIVOLATILE ORGANICS BY GC/MS

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/27/00 18:00
Sample ID:	18609-3518	Date Analyzed:	09/30/00 04:25
Lab Samp ID:	I128-08	Dilution Factor:	1
Lab File ID:	R1B248	Matrix :	SOIL
Ext Btch ID:	SVI023S	% Moisture :	7.1
Calib. Ref.:	R1B224	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
STRYCHNINE	ND	720	260

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TERPHENYL-D14	76	32-136

PRL : Project Reporting Limit

METHOD 3550A/8270B
SEMIVOLATILE ORGANICS BY GC/MS

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 00I128	Date Extracted:	09/27/00 18:00
Sample ID:	18609-3520	Date Analyzed:	09/30/00 07:00
Lab Samp ID:	I128-10	Dilution Factor:	1
Lab File ID:	RIB253	Matrix :	SOIL
Ext Btch ID:	SVI023S	% Moisture :	7.0
Calib. Ref.:	RIB224	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
STRYCHNINE	ND	720	260

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TERPHENYL-D14	75	32-136

PRL : Project Reporting Limit

METHOD 3550A/8270B
SEMIVOLATILE ORGANICS BY GC/MS

Client	: IT CORPORATION	Date Collected:	09/21/00
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	09/21/00
Batch No.	: 001128	Date Extracted:	09/27/00 18:00
Sample ID:	18609-3521	Date Analyzed:	09/30/00 07:39
Lab Samp ID:	I128-11	Dilution Factor:	1
Lab File ID:	RIB254	Matrix :	SOIL
Ext Btch ID:	SVI023S	% Moisture :	5.5
Calib. Ref.:	RIB224	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
STRYCHNINE	ND	710	250

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TERPHENYL-D14	71	32-136

PRL : Project Reporting Limit

METHOD 3550A/8270B
SEMIVOLATILE ORGANICS BY GC/MS

Client	: IT CORPORATION	Date Collected:	NA
Project	: MCAS EL TORO/18609/D.O. 70	Date Received:	NA
Batch No.	: 001128	Date Extracted:	09/27/00 18:00
Sample ID:	MBLK1S	Date Analyzed:	09/29/00 18:01
Lab Samp ID:	SVI023SB	Dilution Factor:	1
Lab File ID:	RIB232	Matrix :	SOIL
Ext Btch ID:	SVI023S	% Moisture :	NA
Calib. Ref.:	RIB224	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)	MDL (ug/kg)
STRYCHNINE	ND	670	240

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TERPHENYL-D14	95	32-136

PRL : Project Reporting Limit

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 001128
METHOD: METHOD 3550A/8270B

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MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SV1023SB SV1023SL
LAB FILE ID: RIB232 RIB233
DATE EXTRACTED: 09/27/0018:00 09/27/0018:00 DATE COLLECTED: NA
DATE ANALYZED: 09/29/0018:01 09/29/0018:40 DATE RECEIVED: NA
PREP. BATCH: SV1023S SV1023S
CALIB. REF: RIB224 RIB224

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Strychnine	ND	2670	3080	115	30-150

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SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Terphenyl-d14	3330	2950	89	32-136

DATA VALIDATION REPORT

(LDC, Inc., November 2000)

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro

Collection Date: September 21, 2000

LDC Report Date: November 10, 2000

Matrix: Soil

Parameters: Chlorinated Pesticides & Dicofol

Validation Level: NFESC Level C

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00I128

Sample Identification

18609-3511
18609-3512
18609-3513
18609-3514
18609-3515
18609-3516
18609-3517
18609-3518
18609-3519
18609-3520
18609-3521
18609-3522
18609-3522MS
18609-3522MSD

Introduction

This data review covers 14 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081 for Chlorinated Pesticides and Dicofol.

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

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

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

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

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

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

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

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

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

The individual 4,4'-DDT and Endrin breakdowns were less than 15.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide or dicofol contaminants were found in the method blanks.

VI. Surrogate Spikes

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

VII. Matrix Spike/Matrix Spike Duplicates

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

VIII. Laboratory Control Samples (LCS)

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

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and Reported CRQLs

Raw data were not reviewed for this SDG.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

MCAS El Toro
Chlorinated Pesticides - Data Qualification Summary - SDG 00I128

No Sample Data Qualified in this SDG

MCAS El Toro
Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 00I128

No Sample Data Qualified in this SDG

LDC Report# 5588B17

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro

Collection Date: September 21, 2000

LDC Report Date: November 14, 2000

Matrix: Soil

Parameters: Organophosphorus Pesticides

Validation Level: NFESC Level C

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00I128A

Sample Identification

18609-3511
18609-3512
18609-3514
18609-3515
18609-3517
18609-3518
18609-3520
18609-3521
18609-3511MS
18609-3511MSD

Introduction

This data review covers 10 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8141A for Organophosphorus Pesticides.

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

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

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

Sample	Compound	Total Days From Sample Collection Until Extraction	Required Holding Time (in Days) From Sample Collection Until Extraction	Flag	A or P
All samples in SDG 00I128A	All TCL compounds	15	14	J (all detects) UJ (all non-detects)	P

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

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds with the following exceptions:

Date	Column	Compound	%RSD	Associated Samples	Flag	A or P
10/9/00	DB-5	Diazinon	25.2	All samples in SDG 00I128A	J (all detects) UJ (all non-detects)	P

b. Calibration Verification

Calibration verification was performed at the required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were less than or equal to 15.0% .

III. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. The

percent recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
18609-3511	Not specified	Triphenyl phosphate	152 (30-150)	All TCL compounds	J (all detects)	P
18609-3517	Not specified	Triphenyl phosphate	155 (30-150)	All TCL compounds	J (all detects)	P

b. Matrix Spike/Matrix Spike Duplicates

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

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
NPJ004SL	Malathion	155 (30-150)	All samples in SDG 00I128A	J (all detects)	P

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

MCAS El Toro
Organophosphorus Pesticides - Data Qualification Summary - SDG 00I128A

SDG	Sample	Compound	Flag	A or P	Reason
00I128A	18609-3511 18609-3512 18609-3514 18609-3515 18609-3517 18609-3518 18609-3520 18609-3521	All TCL compounds	J (all detects) UJ (all non-detects)	P	Technical holding times
00I128A	18609-3511 18609-3512 18609-3514 18609-3515 18609-3517 18609-3518 18609-3520 18609-3521	Diazinon	J (all detects) UJ (all non-detects)	P	Initial calibration (%RSD)
00I128A	18609-3511 18609-3517	All TCL compounds	J (all detects)	P	Surrogate recovery (%R)
00I128A	18609-3511 18609-3512 18609-3514 18609-3515 18609-3517 18609-3518 18609-3520 18609-3521	Malathion	J (all detects)	P	Laboratory control samples (%R)

MCAS El Toro
Organophosphorus Pesticides - Laboratory Blank Data Qualification Summary - SDG 00I128A

No Sample Data Qualified in this SDG

LDC Report# 5588A5

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro

Collection Date: September 21, 2000

LDC Report Date: November 10, 2000

Matrix: Soil

Parameters: Herbicides

Validation Level: NFESC Level C

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00I128

Sample Identification

18609-3511
18609-3512
18609-3513
18609-3514
18609-3515
18609-3516
18609-3517
18609-3518
18609-3519
18609-3520
18609-3521
18609-3522
18609-3522MS
18609-3522MSD

Introduction

This data review covers 14 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8151A for Herbicides.

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

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

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

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

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

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

b. Calibration Verification

Calibration verification was performed at the required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
9/28/00	QI26073A	DB-608	Dinoseb	29	18609-3522MS 18609-3522MSD	J (all detects) UJ (all non-detects)	A

III. Blanks

Method blanks were reviewed for each matrix as applicable. No herbicide contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
HEI010SB	9/25/00	Dalapon	0.0044 mg/Kg	All samples in SDG 00I128

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

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

b. Matrix Spike/(Matrix Spike) Duplicates

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

c. Laboratory Control Samples

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

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

MCAS El Toro
Herbicides - Data Qualification Summary - SDG 00I128

No Sample Data Qualified in this SDG

MCAS El Toro
Herbicides - Laboratory Blank Data Qualification Summary - SDG 00I128

No Sample Data Qualified in this SDG

LDC Report# 5588A2

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS El Toro

Collection Date: September 21, 2000

LDC Report Date: November 13, 2000

Matrix: Soil

Parameters: Strychnine

Validation Level: NFESC Level C

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00I128

Sample Identification

18609-3511
18609-3512
18609-3514
18609-3515
18609-3517
18609-3518
18609-3520
18609-3521

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270B for Strychnine.

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

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

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

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

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

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

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

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

Average relative response factors (RRF) for all semivolatile target compounds and system monitoring compounds were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 20.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

All of the continuing calibration RRF values were greater than or equal to 0.05 .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No strychnine was found in the method blanks.

VI. Surrogate Spikes

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

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

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

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

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

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

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

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

MCAS El Toro
Strychnine - Data Qualification Summary - SDG 00I128

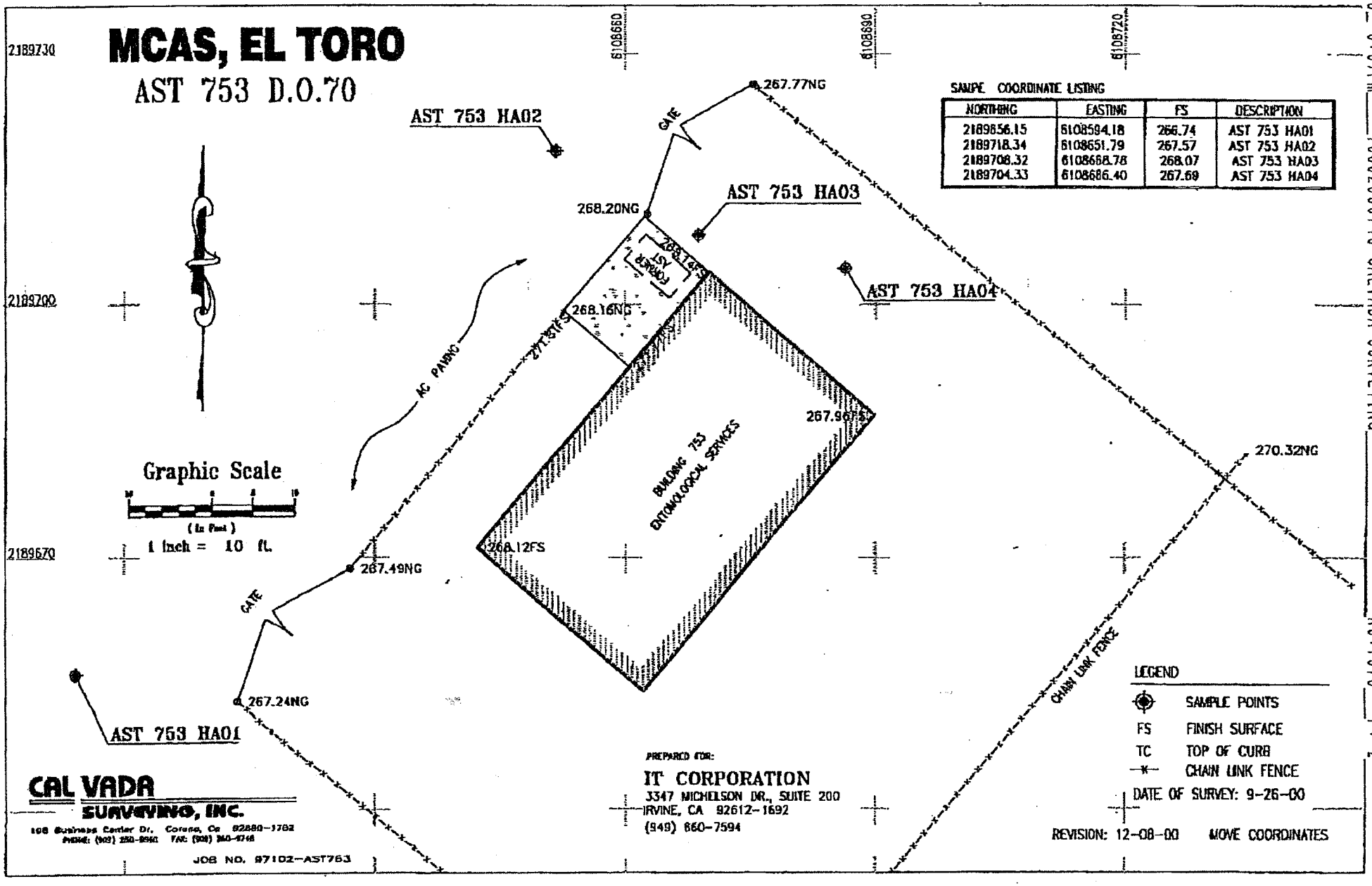
No Sample Data Qualified in this SDG

MCAS El Toro
Strychnine - Laboratory Blank Data Qualification Summary - SDG 00I128

No Sample Data Qualified in this SDG

MCAS, EL TORO

AST 753 D.0.70



SAMPLE COORDINATE LISTING

NORTHING	EASTING	FS	DESCRIPTION
2189856.15	6108594.18	266.74	AST 753 HA01
2189718.34	6108651.79	267.57	AST 753 HA02
2189708.32	6108668.78	268.07	AST 753 HA03
2189704.33	6108686.40	267.69	AST 753 HA04

LEGEND

- SAMPLE POINTS
- FS FINISH SURFACE
- TC TOP OF CURB
- CHAIN LINK FENCE

DATE OF SURVEY: 9-26-00

REVISION: 12-08-00 MOVE COORDINATES

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

CAL VADA SURVEYING, INC.
108 Business Center Dr. Corona, Ca 92880-1782
PHONE: (909) 250-8960 FAX: (909) 360-4746

JOB NO. 97102-AST753