

FAX TRANSMITTAL

Date: 9/23/92

**HARDING LAWSON ASSOCIATES**  
Engineering and Environmental Services

Marathon Plaza  
303 Second Street, Suite 630 North  
San Francisco, California 94107  
(415) 543-8422  
FAX: (415) 777-9706

TO: Larry Seta ✓  
FAX #: (510) 569 4757  
FROM: David Dixon  
SUBJECT: USDA Tank Closure Investigation Results  
NUMBER OF PAGES (INCLUDING COVER SHEET): 10

HLA JOB NUMBER: \_\_\_\_\_ NON-CHARGEABLE: \_\_\_\_\_

INSTRUCTIONS/REMARKS: \_\_\_\_\_  
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COPIES TO:  
1. Tom Cox (EMC) (510) 559-5777  
2. \_\_\_\_\_

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Received/Sent by: \_\_\_\_\_  
Time: \_\_\_\_\_

**APPENDIX C**  
**MONITORING WELL INSTALLATION PROCEDURES**

Harding Lawson Associates



Transmittal/Memorandum

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**To:** Alameda Department of Environmental Health  
Hazardous Materials Division  
80 Swan Way, Room 200  
Oakland, California 94621  
Attention: Mr. Larry Seto

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**From:** David Dixon  
**Date:** September 23, 1992  
**Subject:** Chemical Analysis Results, USDA Tank Closure Investigation  
**Job No.:** 12387-002

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**Remarks:** This memorandum includes Plate 1 showing the groundwater well and soil boring locations and Table 1 which summarizes the chemical analysis results for samples collected at the USDA facility in Albany, California.

No total petroleum hydrocarbons as diesel (TPH-D) or benzene, toluene, ethylbenzene, or xylenes (BTEX) were found in the soil or groundwater around the 34,000-gallon USTs that are planned to be closed in place.

Because of extensive utility locations around the USTs, we had to relocate on proposed well and boring locations between 10 and 20 feet each. We believe that the relocated borings are still in locations suitable to determine if a leak has occurred from the USTs.

Groundwater was encountered during our borings between 9 and 12 feet, and stabilized at 6.3 feet in the monitoring well. Details about the investigation procedures and boring logs will be included in our final report on the tank closure. If you have any questions, please call.

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**cc:** B15561-CT96

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**APPENDIX B**  
**DRILLING AND SOIL SAMPLING**

Harding Lawson Associates

**Table 1. Chemical Analysis Results for Soil and Groundwater  
UST Closure Investigation  
USDA Facility, Albany, California  
(parts per million)**

Sample No.	Medium	Depth (feet)	TPH-D	Benzene	Toluene	Ethylbenzene	Xylenes
B-1-8.5	Soil	8.5	ND	ND	ND	ND	ND
B-1-12.0	Soil	12.0	ND	ND	ND	ND	ND
B-2-5.0	Soil	5.0	ND	ND	ND	ND	ND
B-2-13	Soil	13.0	ND	ND	ND	ND	ND
MW-1-11.0	Soil	11.0	ND	ND	ND	ND	ND
MW-1	Water	NA	ND	ND	ND	ND	ND

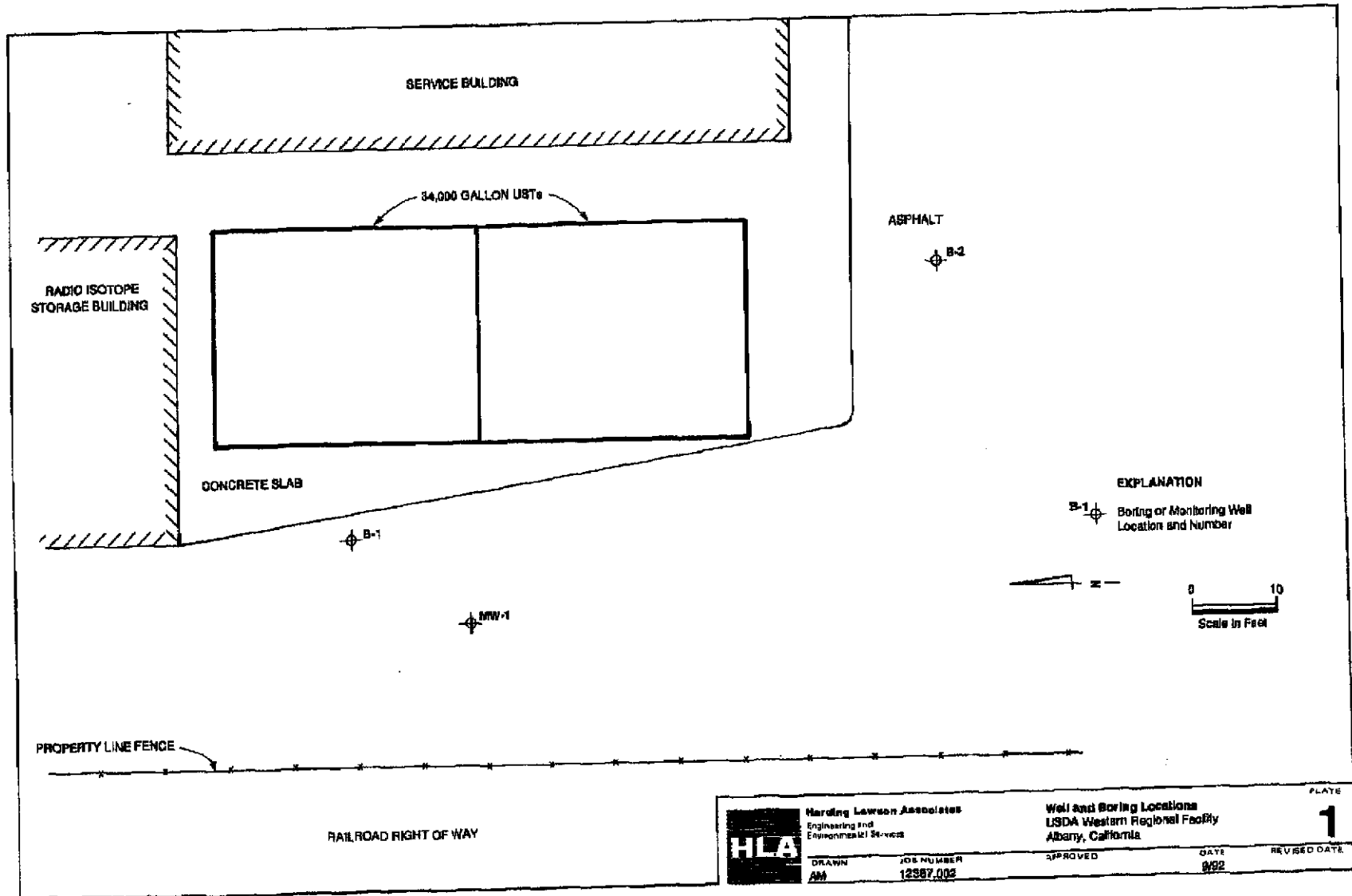
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ND = Not detected

NA = Not applicable

B15561-CT06

**APPENDIX A**  
**SENSITIVE RECEPTORS SURVEY**



SENT BY: Xerox Telescopier 7020 : 9-23-92 : 11:35AM :

NET PACIFIC-

415 777 9706:# 1



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

NET Pacific, Inc.  
435 Tascora Circle  
Santa Rosa, CA 95401  
Tel: (707) 528-7200  
Fax: (707) 528-8829

Dave Dixon  
Harding Lawson Associates  
Marathon Plaza  
303 Second St., Ste 430 N  
San Francisco, CA 94107

Date: 09/23/1992  
NET Client ACCT. No: 28103  
NET Pacific Job No: 92.48351  
Received: 09/19/1992

Client Reference Information

USDA Albany Tank Closure, Job No. 12387,002

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

  
Jules Skamarack  
Laboratory Manager

Enclosure(s)



**Superior Precision Analytical, Inc.**

1555 Burke, Unit 1 • San Francisco, California 94124 • (415) 647 2081 / fax (415) 821-7123

**C E R T I F I C A T E   O F   A N A L Y S I S**LABORATORY NO.: 55552  
CLIENT: Harding Lawson Associates  
CLIENT JOB NO.: 12387-1.0DATE RECEIVED: 09/15/92  
DATE REPORTED: 09/22/92**ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS  
by Modified EPA SW-846 Method 8015**

LAB #	Sample Identification	Concentration (mg/kg) Diesel Range
3	B1@8.5'	ND<10
4	B1@12.0'	ND<10
5	B2@5.5'	ND<10
6	B2@13'	ND<10
8	MW1@11'	ND<10

mg/kg - parts per million (ppm)

Minimum Detection Limit for Diesel in Soil: 10mg/kg

**QAQC Summary:**Daily Standard run at 200mg/L: %DIFF Diesel = <15%  
MS/MSD Average Recovery = 90%: Duplicate RPD = 2%

Richard Srna, Ph.D.

  
Laboratory Director



# Superior Precision Analytical, Inc.

1555 Burke, Unit 1 - San Francisco, California 94124 - (415) 647-2081 / fax (415) 871-7123

## C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 55552  
CLIENT: Harding Lawson Associates  
CLIENT JOB NO.: 12387-1.0

DATE RECEIVED: 09/15/92  
DATE REPORTED: 09/22/92

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES  
by EPA SW-846 Methods 5030 and 8020

LAB #	Sample Identification	Concentration (mg/kg)			
		Benzene	Toluene	Ethyl Benzene	Xylenes
3	B108.5'	ND<.003	ND<.003	ND<.003	ND<.003
4	B1012.0'	ND<.003	ND<.003	ND<.003	ND<.003
5	B205.5'	ND<.003	ND<.003	ND<.003	ND<.003
6	B2013'	ND<.003	ND<.003	ND<.003	ND<.003
8	NW1011'	ND<.003	ND<.003	ND<.003	ND<.003

ug/kg - parts per billion (ppb)

Method Detection Limit in Soil: 0.003 mg/kg

### QAQC Summary:

Daily Standard run at 20 ug/L: RPD = <15%  
MS/MSD Average Recovery = 101%: Duplicate RPD = 3%

Richard Srna, Ph.D.

*Richard Srna*  
Laboratory Manager



Client Acct: 26103  
Client Name: Harding Lawson Associates  
NET Job No: 92.48351

Date: 09/23/1992  
Page: 2

Ref: USCA Albany Tank Closure, Job No. 12387.002

SAMPLE DESCRIPTION: MW-1  
Date Taken: 09/17/1992  
Time Taken: 15:30  
LAB Job No: (-137205 )

Parameter	Method	Reporting Limit	Results	Units
METHOD 8020 (GC, Liquid)				
DATE ANALYZED			09-22-92	
DILUTION FACTOR*			1	
Benzene	8020	0.5	ND	ug/L
Ethylbenzene	8020	0.5	ND	ug/L
Toluene	8020	0.5	ND	ug/L
Xylene (Total)	8020	0.5	ND	ug/L
SURROGATE RESULTS				
Bromofluorobenzene			99	% Rec.
METHOD 3510 (GC, FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			09-22-92	
DATE ANALYZED			09-22-92	
As Diesel	3510	0.05	ND	ng/L



## KEY TO ABBREVIATIONS and METHOD REFERENCES

- : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- MEAN : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference, 100 [(Value 1 - Value 2)/mean value].
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 421: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 401 through 425: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1985.

Methods 1000 through 2132: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1985.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.