



Chevron

94 AUG -2 PM W:32

August 2, 1994

Ms. Juliet Shin
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94501

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

Marketing Department
Phone 510 842 9500

**Re: Chevron Service Station #9-0290
1802 Webster Street, Alameda, CA**

Dear Ms. Shin:

Enclosed is the UST Removal, Product Line Replacement & Sampling Report dated July 21, 1994, prepared by our consultant Touchstone Developments for the above referenced site.

As indicated in the report, one 1,000 gallon single wall fiberglass waste oil tank, one 350 gallon steel tank formerly containing either waste oil or heating fuel, and all associated piping were removed.

Soil samples collected beneath the former product piping were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and BTEX. Soil samples collected beneath the former tanks were analyzed for TPH-G, BTEX, TPH-D, total oil and grease (TOG), metals, and EPA Methods 8010 and 8270 compounds. Due to a laboratory oversight, the sample collected beneath the 350 gallon tank was not analyzed for EPA Method 8010 Constituents.

Ground water was present in the 1,000 gallon waste oil tank excavation. Approximately 1,500 gallons of ground water was pumped from the excavation and taken off site for recycling. Ground water was then allowed to recharge into the pit and a sample was collected. All soil and ground water analytical data is summarized in Tables A and B of the report.

Excavation was performed to the extent practical to remove hydrocarbon impacted soils. Source removal at the site included excavating 200 cubic yards of soil from the former product lines and 400 to 500 cubic yards of soil were excavated from the former tank areas. This material was disposed of at appropriate off site facilities.

As you requested in your letter dated July 19, 1994, we anticipate submitting a report by August 4, 1994, documenting the abandonment of monitor wells A-2, B-3, and B-4. However, we would like to request an extension of the September 2, 1994, date for submittal of a comprehensive site review and proposed future action plan. The extension is necessary to allow our consultant enough time to review the recent reports generated for the site. We currently anticipate submitting our action plan by September 30, 1994. Please let me know if this is acceptable to your office.

Due to site construction activities, ground water monitoring and sampling activities could not be performed during the second quarter. We will instruct our consultant to proceed with monitoring and sampling activities for the third quarter.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

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August 2, 1994
Chevron SS#9-0290

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY



Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Kevin Graves, RWQCB - Bay Area
Mr. Eric Anderson, Weiss Associates
Mr. S.A. Willer

Ms. Louise Van De Deere
Housing Authority of the City of Alameda
701 Atlantic Avenue
Alameda, CA 94501

File: 9-0290 TR1



UST Removal, Product Line Replacement & Sampling Report

Chevron Service Station Number 9-0290
1802 Webster Street
Alameda, California

prepared for

Chevron U.S.A.
2410 Camino Ramon
San Ramon, California

prepared by

Touchstone Developments



Michael J. Tambroni
Project Manager



Marc W. Seeley C.E.G. # 1014
Technical Review

July 21, 1994

INTRODUCTION

This report prepared by Touchstone Developments (Touchstone) documents the underground storage tank (UST) removal, product line replacement, sampling and disposal activities at Chevron Service Station Number 9-0290 located at 1802 Webster Street in Alameda, California (Figure 1).

SITE CONDITIONS

The site is bordered by a Jack-in-the-Box Restaurant to the north, residential property to the east, Webster Street to the west and Buena Vista Avenue to the south. Soil types encountered at the site generally consist of sand. Groundwater was observed during the waste oil tank removal at approximately 6 feet below ground surface (bgs).

SITE ACTIVITIES

The UST and piping removal was performed by Fillner Construction, Inc., of West Sacramento, California. A Touchstone representative was on site to observe the removal activities and to collect soil/water samples from the excavation and stockpiled material. Also present during UST and piping removal were: Larry Sato and Don Atkinson-Adams from Alameda County Department of Environmental Health (ACDEH), Steve McKinley of the City of Alameda Fire Department, Mark Miller, Brett Hunter and Belinda Erdelt from Chevron U.S.A. Transportation and disposal of the USTs and associated piping was accomplished by Erickson Inc. of Richmond, California.

1,000 gallon UST

One 1,000 gallon single walled fiberglass tank formerly containing waste oil was excavated and removed on April 6, 1994. Following removal, a water sample (WO-H2O) was collected from water that had accumulated in the excavation by Touchstone at the request of ACDEH, and placed on hold at Superior Analytical Laboratory, Inc., San Francisco. A sheen was observed floating on the water at the time of sampling. The sampling method is described in a following section. The UST was then placed back into the excavation. On April 7, 1994, the UST was again removed from the excavation and transported off-site. Soil samples, WO-1-5.5', WO-2-5.5' and WO-3-5.5' were collected from the excavation sidewalls at approximately 5.5 feet bgs (Figure 2). Approximately 1500 gallons of water was pumped from the excavation by Erickson Inc., Richmond, California into a tanker truck for transportation and disposal off site. Groundwater was then allowed to recharge to approximately 6 feet bgs and a water sample (H2O-2) was collected. A slight sheen was observed on the water surface at the time of sampling.

Product Piping

On April 28, 1994, samples were collected from beneath former product piping which extended from the existing UST complex to the pump islands (Figure 2). Soil samples P-1-3.5', P-2-3.5', P-3-3.5' and P-4-3.5' were collected from beneath the approximately 50 linear feet of piping at approximately 3.5 feet bgs.

350 gallon UST

One 350 gallon single walled steel tank formerly containing waste oil (or heating fuel) was excavated and removed on May 18, 1994. A soil sample, D-1-8', was collected at approximately 8 feet bgs from beneath the former tank following removal.

Soil Stockpiles

Soil generated during product piping replacement activities was stockpiled on site, a total of approximately 200 cubic yards of soil. Soil samples, WSP-1A-D WSP-2A-D, were collected at a frequency of one (four point) composite sample for approximately each 100 cubic yards of soil. The soil was transported by STAMCO (Allwaste) of San Martin, California, to Forward Landfill in Stockton, California. Analytical results are presented in Table B.

Soil generated during UST removal activities was stockpiled on site, a total of approximately 400 to 500 cubic yards of soil. Soil samples, SP-1A-D SP-2A-D, and SP-3A,B,C,D were collected at a frequency of one (four point) composite sample for approximately each 100 cubic yards of soil. The soil was transported by STAMCO (Allwaste) of San Martin, California, to Forward Landfill in Stockton, California.

Soil samples SP-1A,B,C,D and SP-2A,B,C,D were collected at a frequency of one (four point) composite sample for approximately each 100 cubic yards of soil. The soil was transported by STAMCO (Allwaste) of San Martin, California, to Redwood Landfill in Novato, California. Analytical results are presented in Table B.

different stockpile?

SAMPLING PROTOCOL

Water Samples

Water was observed only in the area of the formerly removed 1,000 gallon UST at approximately 6 feet bgs where samples were collected. Water samples were collected using a battery powered submersible purge pump. The sample was decanted from the pump discharge line into nine laboratory supplied 40ml glass VOAs, preserved with hydrochloric acid (HCL). Care was taken to ensure each VOA was free of headspace and then sealed with a teflon lined plastic cap, three laboratory supplied 1 liter glass amber containers, and two laboratory supplied

500 mL plastic bottles preserved with HNO₃. The samples were then labeled, placed in a cooler with blue ice, entered on a Chain-of Custody form, and transported to Superior Precision Analytical Inc., San Francisco, a state certified laboratory.

Soil Samples

Soil samples were collected from the back-hoe bucket by removing the top few inches of soil and pushing a clean, six-inch-long (two inches in diameter) brass sample tube into the soil until completely full. The ends of the tubes were covered with aluminum foil and sealed with plastic end caps. The samples were then labeled, placed in a cooler with blue ice, entered on a Chain-of Custody form, and transported to Superior Precision Analytical Inc., San Francisco, a state certified laboratory.

Stockpile Samples

Four stockpile samples were collected for approximately every 100 cubic yards of soil. Four discrete soil samples were composited into one at the laboratory for a representative analysis of approximately every 100 cubic yards. The samples were collected by removing the top 6 to 12 inches of soil and pushing a clean, six-inch-long (two inches in diameter) brass sample tube into the soil until completely full. The ends of the tubes were covered with aluminum foil and sealed with plastic end caps. The samples were then labeled, placed in a cooler with blue ice, entered on a Chain-of Custody form, and transported to Superior Precision Analytical Inc., San Francisco, a state certified laboratory.

SAMPLE ANALYSIS

Samples collected were analyzed for Total Petroleum Hydrocarbons calculated as gasoline (TPH-Gasoline) according to EPA Method 8015 Modified, Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) according to EPA Method 8020. Additional analysis for specific Samples included Total Petroleum Hydrocarbons calculated as diesel (TPH-Diesel) according to EPA Method 8015 Modified, Total Oil & Grease according to EPA Method 5520F, Analysis for base/neutral and acid extractables according to EPA SW-846 Method 8270, Halogenated Volatile Organics according to EPA SW-846 Method 8010, Total Lead by SW-846 Method 6000 Series, Cadmium, Chromium, Lead, Zinc & Nickel by EPA SW-846 Method 6010, Soluble Lead by California Administration Code Title 22, Paragraph 66700 & EPA Methods SW-846 6010 & 7000 Series and Volatile Organics by EPA SW-846 Method 8240. For specific soil analyses, please refer to Tables A and B. Due to a laboratory error, sample D-1-8' was not analysed for 8010. Copies of the analytical laboratory reports and Chain-of-Custody forms are presented in Appendix A.

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UST & Piping Removal Analytical Summary

Table B
Stockpiled Soil Analytical Summary

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Site Plan

Figure 2
Sample Locations

Appendix A
Analytical Laboratory Reports and Chain-of-Custody

TABLE A
UST & PRODUCT PIPING REMOVAL ANALYTICAL SUMMARY
 Results in mg/Kg - parts per million (ppm)

1000 GALLON WASTE-OIL TANK REMOVAL SAMPLING RESULTS

SAMPLE ID	DEPTH (feet)	DATE	LAB	TPH-Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	TPH-Diesel	TOG
WO-1-5.5'	5.5	6-Apr-94	Superior	11 xx	ND	0.013	0.041	0.14	22	77
WO-2-5.5'	5.5	6-Apr-94	Superior	440 xx	ND	0.026	0.69	3.5	410	60
WO-3-5.5'	5.5	6-Apr-94	Superior	ND	ND	ND	ND	ND	ND	ND
H2O-2 *	6	6-Apr-94	Superior	5600	300	430	140	280	170000 x	8000

1000 GALLON WASTE-OIL TANK REMOVAL SAMPLING RESULTS (additional analytical results)

SAMPLE ID	DEPTH (feet)	DATE	LAB	Cadmium	Chromium	Nickel	Lead	Zinc	8010 (ppb)	8270 (ppb)
WO-1-5.5'	5.5	6-Apr-94	Superior	ND	18	10	16	48	ND	ND
WO-2-5.5'	5.5	6-Apr-94	Superior	ND	21	ND	16	14	CAR	ND
WO-3-5.5'	5.5	6-Apr-94	Superior	ND	22	ND	20	17	ND	ND
H2O-2 **	6	6-Apr-94	Superior	0.03	1.8	2.2	2	14	CAR	CAR

What does
this
mean?

UST PIPING SAMPLING RESULTS

SAMPLE ID	DEPTH (feet)	DATE	LAB	TPH-Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	TPH-Diesel	TOG
P-1-3.5'	3.5	28-Apr-94	Superior	910	0.87	3.8	10	31	NA	NA
P-2-3.5'	3.5	28-Apr-94	Superior	1100	4.6	48	22	130	NA	NA
P-3-3.5'	3.5	28-Apr-94	Superior	4900	2.9	58	55	260	NA	NA
P-4-3.5'	3.5	28-Apr-94	Superior	58	0.063	0.4	0.59	0.91	NA	NA

CAR = Certified Analytical Results, meaning contaminants were identified

TABLE A
UST & PRODUCT PIPING REMOVAL ANALYTICAL SUMMARY
 Results in mg/Kg - parts per million (ppm)

350 GALLON UST REMOVAL SAMPLING RESULTS

SAMPLE ID	DEPTH (feet)	DATE	LAB	TPH-Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	TPH-Diesel	TOG
D-1-8'	8	18-May-94	Superior	1200	0.64	3.8	6.2	5.3	580 z	580

350 GALLON UST REMOVAL SAMPLING RESULTS (additional analytical results)

SAMPLE ID	DEPTH (feet)	DATE	LAB	Cadmium	Chromium	Nickel	Lead	Zinc	8270 (ppb)
D-1-8'	8	18-May-94	Superior	ND	35	27	ND	350	ND

* = Results in ug/L, parts per billion (ppb).

** = Results in mg/L, parts per million (ppm).

x = Pattern not typical of diesel - mixture of light and heavy hydrocarbons present.

xx = Pattern not typical of gasoline - heavier hydrocarbons present.

z = Does not match typical diesel pattern - lighter hydrocarbons present.

ppb = parts per billion (ug/Kg)

TPH-Gasoline = Total Petroleum Hydrocarbons calculated as Gasoline

TPH-Diesel = Total Petroleum hydrocarbons calculated as Diesel

ND = Not detected at or above laboratory detection limits.

NA = Analysis not requested.

TABLE B
STOCKPILED SOIL ANALYTICAL SUMMARY
 Results in mg/Kg - parts per million (ppm)

1000 gallon and 350 gallon UST Stockpile Soil Results

SAMPLE ID	DATE	LAB	TPH-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel	TOG
WSP-1A-D	6-Apr-94	Superior	1100	1.9	9.6	8.3	21	200	ND
WSP-2A-D	6-Apr-94	Superior	920	1.6	1.9	7.6	16	320	780

1000 gallon and 350 gallon UST Stockpile Soil Results (additional analytical results)

SAMPLE ID	DATE	LAB	Cadmium	Chromium	Nickel	Lead	Zinc	8010 (ppb)	8270 (ppb)
WSP-1A-D	6-Apr-94	Superior	ND	41	ND	39	24	ND	ND
WSP-2A-D	6-Apr-94	Superior	ND	31	8	27	110	ND	CAR

UST Complex Stockpiled Soil Results

SAMPLE ID	DATE	LAB	TPH-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	Organic Lead	Soluble Lead
SP-1A,B,C,D	1-Jun-94	Superior	ND	ND	ND	ND	ND	ND	NA
SP-2A,B,C,D	1-Jun-94	Superior	ND	ND	ND	ND	ND	ND	NA
SP-3A,B,C,D	25-May-94	Superior	ND	ND	ND	ND	ND	NA	1.7
SP-1A-D	28-Apr-94	Superior	44	0.066	0.34	0.29	1.6	26 **	NA
SP-2A-D	28-Apr-94	Superior	130	ND	1.2	1.1	5.2	76 **	NA

CAR = Certified Analytical Results, meaning contaminants were identified.

TABLE B
STOCKPILED SOIL ANALYTICAL SUMMARY
 Results in mg/Kg - parts per million (ppm)

TCLP FOR DISPOSAL PURPOSES (results in ug/L)

SAMPLE ID	DATE	LAB	Benzene	Toluene	Ethyl-benzene	Xylenes	Organic Lead	Soluble Lead
SP-1A-D	28-Apr-94	Superior	180	290	200	750	ND	1.1
SP-2A-D	28-Apr-94	Superior	22	220	61	650	ND	2.6

x = Pattern not typical of diesel - mixture of light and heavy hydrocarbons present.

xx = Pattern not typical of gasoline - heavier hydrocarbons present.

z = Does not match typical diesel pattern - lighter hydrocarbons present.

* = Results in ug/L - parts per billion (ppb)

** = Total Lead

ppb = parts per billion (ug/Kg)

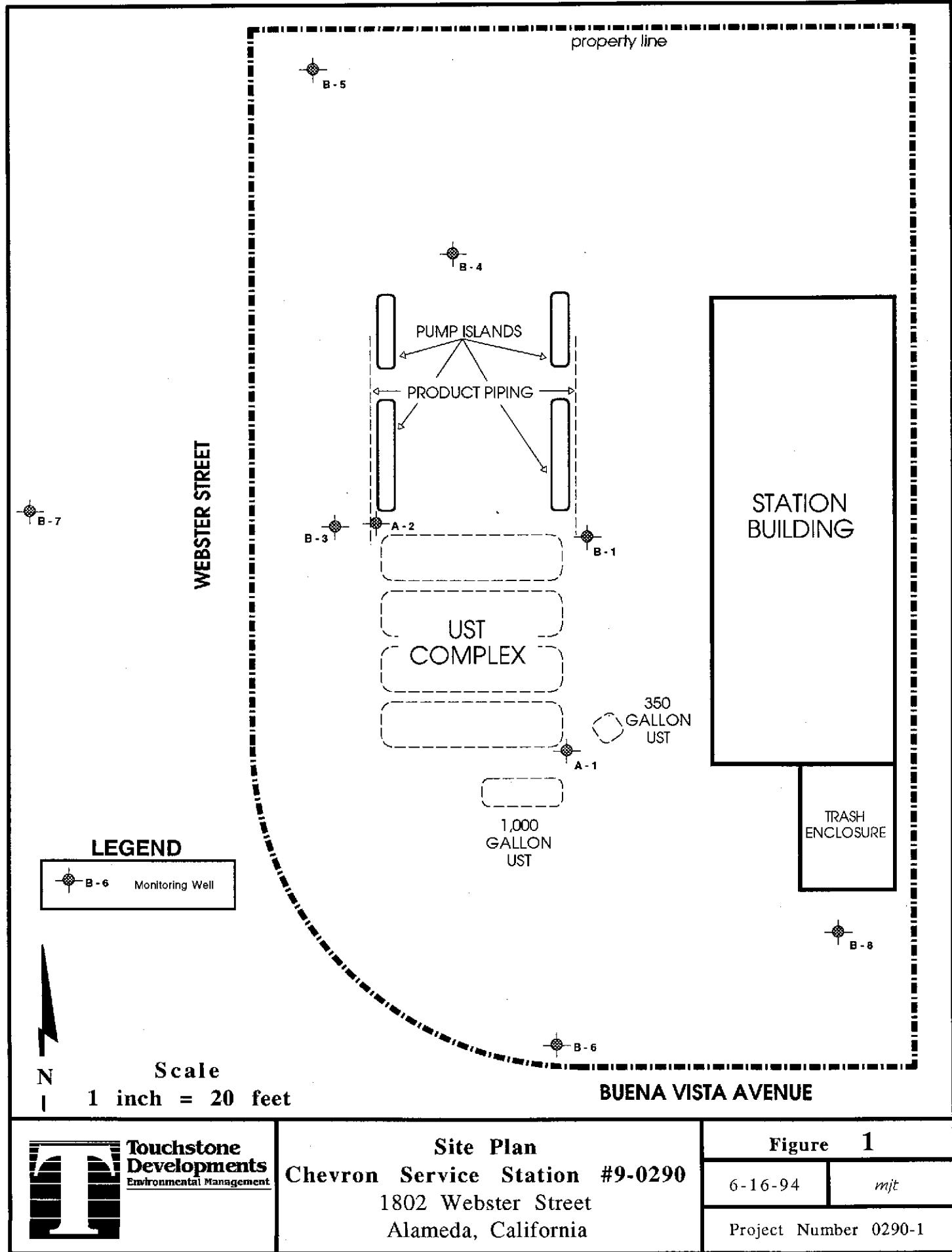
TPH-Gasoline = Total Petroleum Hydrocarbons calculated as Gasoline

TPH-Diesel = Total Petroleum hydrocarbons calculated as Diesel

VPH = Volatile Petroleum Hydrocarbons for Gasoline quantified as all compounds between C6 and C10.

ND = Not detected at or above laboratory detection limits.

NA = Analysis not requested.



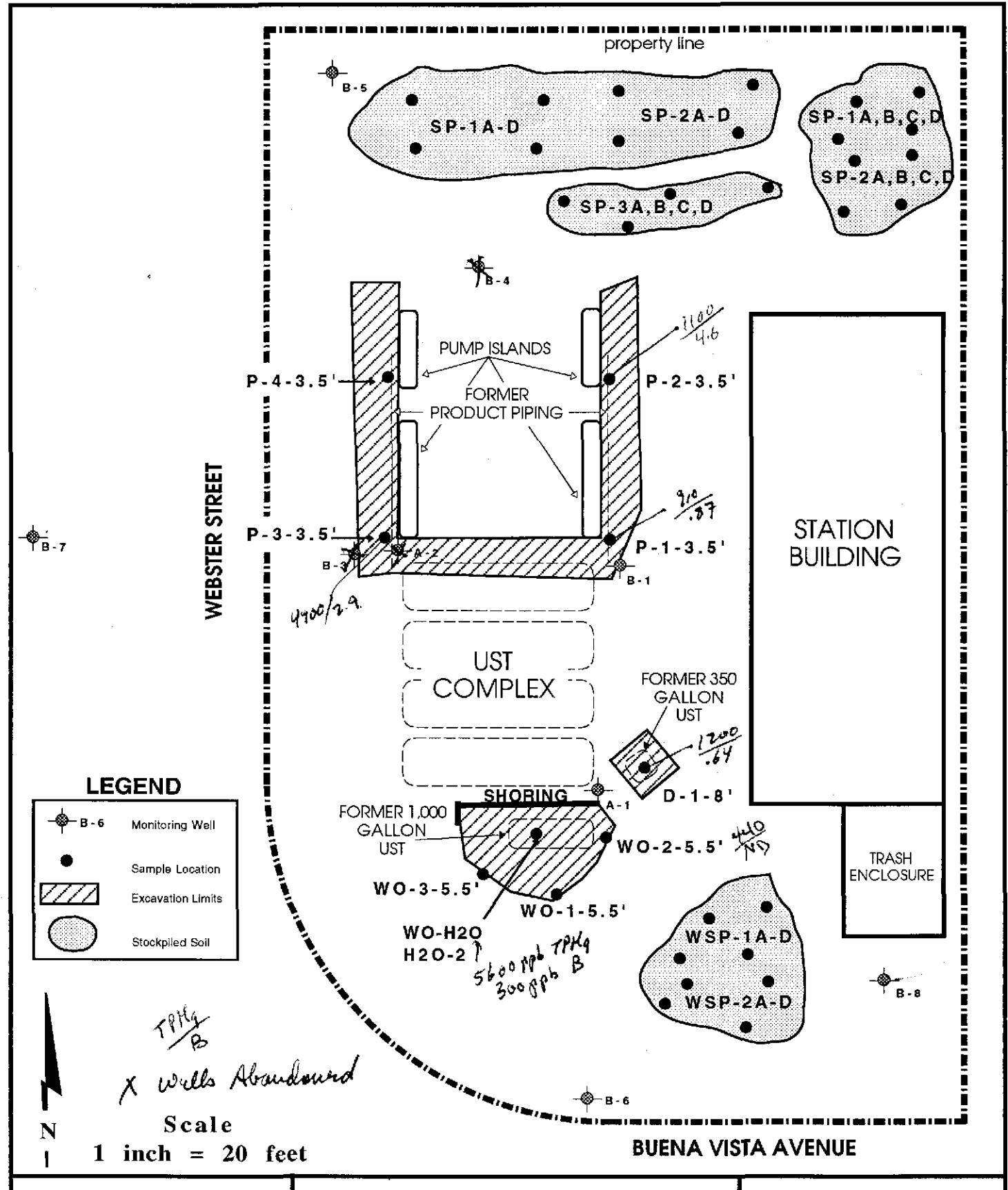
**Touchstone
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Environmental Management

Figure 1

6-16-94

mjt

Project Number 0290-1



**Touchstone
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Environmental Management

Figure 2

6-16-94 mjt

Project Number 0290-1

Appendix A



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 12-April-1994

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD, NICKEL, & ZINC
by EPA Method SW-846 6010

Identification	Sampled	Received	Extracted	Analyzed	Run #	Laboratory Number 15387	Lab #
H2O-2	04/06/94	04/07/94	04/11/94	04/11/94			2
WO-1-5.5'	04/06/94	04/07/94	04/11/94	04/11/94			3
WO-2-5.5'	04/06/94	04/07/94	04/11/94	04/11/94			4
WO-3-5.5'	04/06/94	04/07/94	04/11/94	04/11/94			5
WSP-1A-D'	04/06/94	04/07/94	04/11/94	04/11/94			6
WSP-2A-D'	04/06/94	04/07/94	04/11/94	04/11/94			7



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Project 0290-1
Reported 12-April-1994

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD, NICKEL, & ZINC

Laboratory Number	Sample Identification	Matrix
15387- 2	H2O-2	Water
15387- 3	WO-1-5.5'	Soil
15387- 4	WO-2-5.5'	Soil
15387- 5	WO-3-5.5'	Soil
15387- 6	WSP-1A-D'	Soil
15387- 7	WSP-2A-D'	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 2 15387- 3 15387- 4 15387- 5 15387- 6

Cadmium	(Cd) :	0.03	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Chromium	(Cr) :	1.8	18	21	22	41
Lead	(Pb) :	2.2	10	ND<5	ND<5	ND<5
Nickel	(Ni) :	2.0	16	16	20	39
Zinc	(Zn) :	14	48	14	17	24
Concentration:		mg/L	mg/Kg	mg/Kg	mg/Kg	mg/Kg

Laboratory Number: 15387- 7

Cadmium	(Cd) :	ND<0.5
Chromium	(Cr) :	31
Lead	(Pb) :	8
Nickel	(Ni) :	27
Zinc	(Zn) :	110
Concentration:		mg/Kg



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD, NICKEL, & ZINC Quality Assurance and Control Data - Water

Laboratory Number 15387

Compound	Method	Blank (mg/L)	RL (mg/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Cadmium	(Cd) :	ND<0.01	0.01	99/99	75-125	0%
Chromium	(Cr) :	ND<0.02	0.02	92/92	75-125	0%
Lead	(Pb) :	ND<0.1	0.1	95/97	75-125	2%
Nickel	(Ni) :	ND<0.02	0.02	96/97	75-125	1%
Zinc	(Zn) :	ND<0.02	0.02	100/100	75-125	0%

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/L = Parts per million (ppm)

QC File No. 15387



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD, NICKEL, & ZINC Quality Assurance and Control Data - Soil

Laboratory Number 15387

Compound	Method	Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Cadmium	(Cd) :	ND<0.5	0.5	95/91	75-125	4%
Chromium	(Cr) :	ND<5	5	93/92	75-125	1%
Lead	(Pb) :	ND<5	5	97/91	75-125	6%
Nickel	(Ni) :	ND<5	5	97/94	75-125	3%
Zinc	(Zn) :	ND<5	5	96/94	75-125	2%

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/Kg = Parts per million (ppm)

QC File No. 15387

Alvaro L. Soto
Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

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TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 18-April-1994

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Identification	Sampled	Received	Extracted	Analyzed	Run #	Laboratory Number 15387	Lab #
H2O-2	04/06/94	04/07/94	/ /	04/11/94			2
WO-1-5.5'	04/06/94	04/07/94	/ /	04/11/94			3
WO-2-5.5'	04/06/94	04/07/94	/ /	04/11/94			4
WO-3-5.5'	04/06/94	04/07/94	/ /	04/11/94			5
WSP-1A-D'	04/06/94	04/07/94	/ /	04/11/94			6
WSP-2A-D'	04/06/94	04/07/94	/ /	04/11/94			7



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Attn: MICHAEL TAMBRONI

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Reported 18-April-1994

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Laboratory Number	Sample Identification	Matrix
15387- 2	H2O-2	Water
15387- 3	WO-1-5.5'	Soil
15387- 4	WO-2-5.5'	Soil
15387- 5	WO-3-5.5'	Soil
15387- 6	WSP-1A-D'	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 2 15387- 3 15387- 4 15387- 5 15387- 6

Chloromethane:	ND<0.5	ND<5	ND<5	ND<5	ND<5
Vinyl Chloride:	12	ND<5	ND<5	ND<5	ND<5
Bromomethane:	ND<0.5	ND<5	ND<5	ND<5	ND<5
Chloroethane:	200	ND<5	ND<5	ND<5	ND<5
Trichlorofluoromethane:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,1-Dichloroethene:	ND<0.5	ND<5	ND<5	ND<5	ND<5
Dichloromethane:	ND<1.0	ND<10	ND<10	ND<10	ND<10
t-1,2-Dichloroethene:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,1-Dichloroethane:	910	ND<5	ND<5	ND<5	ND<5
c-1,2-Dichloroethene:	24	ND<5	ND<5	ND<5	ND<5
Chloroform:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,1,1-Trichloroethane:	32	ND<5	ND<5	ND<5	ND<5
Carbon tetrachloride:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,2-Dichloroethane:	ND<0.5	ND<5	ND<5	ND<5	ND<5
Trichloroethene:	0.8	ND<5	ND<5	ND<5	ND<5
c-1,3-Dichloropropene:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,2-Dichloropropane:	ND<0.5	ND<5	ND<5	ND<5	ND<5
t-1,3-Dichloropropene:	ND<0.5	ND<5	ND<5	ND<5	ND<5
Bromodichloromethane:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,1,2-Trichloroethane:	ND<0.5	ND<5	ND<5	ND<5	ND<5
Tetrachloroethene:	0.7	ND<5	17	ND<5	ND<5
Dibromochloromethane:	ND<0.5	ND<5	ND<5	ND<5	ND<5
Chlorobenzene:	ND<0.5	ND<5	ND<5	ND<5	ND<5
Bromoform:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,1,2,2-Tetrachloroeth:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,3-Dichlorobenzene:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,2-Dichlorobenzene:	ND<0.5	ND<5	ND<5	ND<5	ND<5
1,4-Dichlorobenzene:	ND<0.5	ND<5	ND<5	ND<5	ND<5
Concentration:	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 18-April-1994

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Laboratory Number	Sample Identification	Matrix
15387- 7	WSP-2A-D'	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 7

Chloromethane:	ND<5
Vinyl Chloride:	ND<5
Bromomethane:	ND<5
Chloroethane:	ND<5
Trichlorofluoromethane:	ND<5
1,1-Dichloroethene:	ND<5
Dichloromethane:	ND<10
t-1,2-Dichloroethene:	ND<5
1,1-Dichloroethane:	ND<5
c-1,2-Dichloroethene:	ND<5
Chloroform:	ND<5
1,1,1-Trichloroethane:	ND<5
Carbon tetrachloride:	ND<5
1,2-Dichloroethane:	ND<5
Trichloroethene:	ND<5
c-1,3-Dichloropropene:	ND<5
1,2-Dichloropropane:	ND<5
t-1,3-Dichloropropene:	ND<5
Bromodichloromethane:	ND<5
1,1,2-Trichloroethane:	ND<5
Tetrachloroethene:	ND<5
Dibromochloromethane:	ND<5
Chlorobenzene:	ND<5
Bromoform:	ND<5
1,1,2,2-Tetrachloroeth:	ND<5
1,3-Dichlorobenzene:	ND<5
1,2-Dichlorobenzene:	ND<5
1,4-Dichlorobenzene:	ND<5

Concentration: ug/Kg



Superior Precision Analytical, Inc.

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HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010. Quality Assurance and Control Data - Water

Laboratory Number 15387

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Chloromethane:	ND<0.5	0.5			
Vinyl Chloride:	ND<0.5	0.5			
Bromomethane:	ND<0.5	0.5			
Chloroethane:	ND<0.5	0.5			
Trichlorofluoromethane:	ND<0.5	0.5			
1,1-Dichloroethene:	ND<0.5	0.5	79/80	48-180	1%
Dichloromethane:	ND<1.0	1.0			
t-1,2-Dichloroethene:	ND<0.5	0.5			
1,1-Dichloroethane:	ND<0.5	0.5			
c-1,2-Dichloroethene:	ND<0.5	0.5			
Chloroform:	ND<0.5	0.5			
1,1,1-Trichloroethane:	ND<0.5	0.5			
Carbon tetrachloride:	ND<0.5	0.5			
1,2-Dichloroethane:	ND<0.5	0.5			
Trichloroethene:	ND<0.5	0.5	75/77	71-138	3%
c-1,3-Dichloropropene:	ND<0.5	0.5			
1,2-Dichloropropane:	ND<0.5	0.5			
t-1,3-Dichloropropene:	ND<0.5	0.5			
Bromodichloromethane:	ND<0.5	0.5			
1,1,2-Trichloroethane:	ND<0.5	0.5			
Tetrachloroethene:	ND<0.5	0.5			
Dibromochloromethane:	ND<0.5	0.5			
Chlorobenzene:	ND<0.5	0.5	95/87	79-134	9%
Bromoform:	ND<0.5	0.5			
1,1,2,2-Tetrachloroeth:	ND<0.5	0.5			
1,3-Dichlorobenzene:	ND<0.5	0.5			
1,2-Dichlorobenzene:	ND<0.5	0.5			
1,4-Dichlorobenzene:	ND<0.5	0.5			

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

ug/Kg = Parts per billion (ppb)

QC File No. 15387

Steven L. Hart
Senior Chemist
Account Manager



TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 04/14/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
15387- 2	H2O-2	04/06/94	04/11/94 Water
15387- 3	WO-1-5.5'	04/06/94	04/11/94 Soil
15387- 4	WO-2-5.5'	04/06/94	04/11/94 Soil
15387- 5	WO-3-5.5'	04/06/94	04/11/94 Soil
15387- 6	WSP-1A-D	04/06/94	04/12/94 Soil
15387- 7	WSP-2A-D	04/06/94	04/12/94 Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 2 15387- 3 15387- 4 15387- 5 15387- 6

Gasoline:	5600	11**	440**	ND<1	1100
Benzene:	300	ND<.005	ND<0.05	ND<.005	1.9
Toluene:	430	0.013	0.026	ND<.005	9.6
Ethyl Benzene:	140	0.041	0.69	ND<.005	8.3
Total Xylenes:	280	0.14	3.5	ND<.005	21
Diesel:	*170000	22	410	ND<1	200
Oil and Grease:	8000	77	60	ND<50	ND<50
Concentration:	ug/L	mg/kg	mg/kg	mg/kg	mg/kg

Laboratory Number: 15387- 7

Gasoline:	920
Benzene:	1.6
Toluene:	1.9
Ethyl Benzene:	7.6
Total Xylenes:	16
Diesel:	320
Oil and Grease:	780
Concentration:	mg/kg

*Pattern not typical of diesel - mixture of light and heavy hydrocarbons present.

**Pattern not typical of gasoline - heavier hydrocarbons present.



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

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 15387

NA = ANALYSIS NOT REQUESTED

ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

mg/kg = parts per million (ppm)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:

Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:

Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:

Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE

Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	83/85	2%	61-141
Benzene:	110/100	10%	68-133
Toluene:	115/102	12%	68-133
Ethyl Benzene:	115/105	9%	68-133
Total Xylenes:	123/110	11%	68-133
Diesel:	127/137	8%	52-152
Oil and Grease:	85/86	1%	47-164

Cecilia G. Jaques
Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

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TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 14-April-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Chronology

Laboratory Number 15387

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
H2O-2	04/06/94	04/07/94	04/07/94	04/08/94		2
WO-1-5.5'	04/06/94	04/07/94	04/11/94	04/12/94		3
WO-2-5.5'	04/06/94	04/07/94	04/11/94	04/12/94		4
WO-3-5.5'	04/06/94	04/07/94	04/11/94	04/13/94		5
WSP-1A-D	04/06/94	04/07/94	04/11/94	04/13/94		6
WSP-2A-D	04/06/94	04/07/94	04/11/94	04/13/94		7



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Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 14-April-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Laboratory Number	Sample Identification	Matrix
15387- 2	H2O-2	Water
15387- 3	WO-1-5.5'	Soil
15387- 4	WO-2-5.5'	Soil
15387- 5	WO-3-5.5'	Soil
15387- 6	WSP-1A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 2 15387- 3 15387- 4 15387- 5 15387- 6

bis(2-chloroethyl)ethane:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
aniline:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
phenol:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2-chlorophenol:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
1,3-dichlorobenzene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
1,4-dichlorobenzene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
1,2-dichlorobenzene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
benzyl alcohol:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
bis-(2-chloroisopropyl):	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2-methylphenol:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
hexachloroethane:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
n-nitroso-di-n-propylamine:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
4-methylphenol:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
nitrobenzene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
isophorone:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2-nitrophenol:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2,4-dimethylphenol:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
bis(2-chloroethoxy)ether:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2,4-dichlorophenol:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
1,2,4-trichlorobenzene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
naphthalene:	240	ND<3300	ND<3300	ND<330	ND<3300
benzoic acid:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
4-chloroaniline:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
hexachlorobutadiene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
4-chloro-3-methylphenoxy:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2-methyl-naphthalene:	130	ND<3300	ND<3300	ND<330	ND<3300
hexachlorocyclopentadiene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2,4,6-trichlorophenol:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2,4,5-trichlorophenol:	ND<250	ND<8000	ND<8000	ND<800	ND<8000

Concentration: ug/L ug/Kg ug/Kg ug/Kg ug/Kg

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TOUCHSTONE DEVELOPMENTS
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Project 0290-1
Reported 14-April-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Laboratory Number	Sample Identification	Matrix
15387- 2	H2O-2	Water
15387- 3	WO-1-5.5'	Soil
15387- 4	WO-2-5.5'	Soil
15387- 5	WO-3-5.5'	Soil
15387- 6	WSP-1A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 2 15387- 3 15387- 4 15387- 5 15387- 6

2-chloronaphthalene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2-nitroaniline:	ND<250	ND<8000	ND<8000	ND<800	ND<8000
acenaphthylene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
dimethylphthalate:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2,6-dinitrotoluene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
acenaphthene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
3-nitroaniline:	ND<250	ND<8000	ND<8000	ND<800	ND<8000
2,4-dinitrophenol:	ND<250	ND<8000	ND<8000	ND<800	ND<8000
dibenzofuran:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
2,4-dinitrotoluene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
4-nitrophenol:	ND<250	ND<8000	ND<8000	ND<800	ND<8000
fluorene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
4-chlorophenyl-phenyle:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
diethylphthalate:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
4-nitroaniline:	ND<250	ND<8000	ND<8000	ND<800	ND<8000
4,6-dinitro-2-methylph:	ND<250	ND<8000	ND<8000	ND<800	ND<8000
n-nitrosodiphenylamine:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
4-bromo-phenyl-phenyle:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
hexachlorobenzene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
pentachlorophenol:	ND<250	ND<8000	ND<8000	ND<800	ND<8000
phenanthrene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
anthracene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
di-n-butylphthalate:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
fluoranthene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
benzidine:	ND<500	ND<17000	ND<17000	ND<1700	ND<17000
pyrene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
butylbenzylphthalate:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
3,3'-dichlorobenzidine:	ND<100	ND<6600	ND<6600	ND<660	ND<6600
benzo[a]anthracene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300

Concentration: ug/L ug/Kg ug/Kg ug/Kg ug/Kg



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Project 0290-1
Reported 14-April-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Laboratory Number	Sample Identification	Matrix
15387- 2	H2O-2	Water
15387- 3	WO-1-5.5'	Soil
15387- 4	WO-2-5.5'	Soil
15387- 5	WO-3-5.5'	Soil
15387- 6	WSP-1A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 2 15387- 3 15387- 4 15387- 5 15387- 6

chrysene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
bis(2-ethylhexyl)phtha:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
di-n-octylphthalate:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
benzo(b,k)fluoranthene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
benzo[a]pyrene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
indeno[1,2,3-cd]pyrene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
dibenzo[a,h]anthracene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300
benzo[g,h,i]anthracene:	ND<100	ND<3300	ND<3300	ND<330	ND<3300

Concentration:	ug/L	ug/Kg	ug/Kg	ug/Kg	ug/Kg
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-- Surrogate % Recoveries --

2-fluorophenol:	44	91	95	61	96
phenol-d6:	49	97	98	71	104
nitrobenzene-d5:	112	91	97	66	103
2-fluorobiphenyl:	103	96	105	73	101
2,4,6-tribromophenol:	103	88	100	62	81
terphenyl-d14:	93	103	129	121	127



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TOUCHSTONE DEVELOPMENTS
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Project 0290-1
Reported 14-April-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Laboratory Number	Sample Identification	Matrix
15387- 7	WSP-2A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 7

bis(2-chloroethyl)ethe:	ND<3300
aniline:	ND<3300
phenol:	ND<3300
2-chlorophenol:	ND<3300
1, 3-dichlorobenzene:	ND<3300
1, 4-dichlorobenzene:	ND<3300
1, 2-dichlorobenzene:	ND<3300
benzyl alcohol:	ND<3300
bis-(2-chloroisopropyl:	ND<3300
2-methylphenol:	ND<3300
hexachloroethane:	ND<3300
n-nitroso-di-n-propyla:	ND<3300
4-methylphenol:	ND<3300
nitrobenzene:	ND<3300
isophorone:	ND<3300
2-nitrophenol:	ND<3300
2, 4-dimethylphenol:	ND<3300
bis(2-chloroethoxy)met:	ND<3300
2, 4-dichlorophenol:	ND<3300
1, 2, 4-trichlorobenzene:	ND<3300
naphthalene:	5300
benzoic acid:	ND<3300
4-chloroaniline:	ND<3300
hexachlorobutadiene:	ND<3300
4-chloro-3-methylpheno:	ND<3300
2-methyl-naphthalene:	4100
hexachlorocyclopentadie:	ND<3300
2, 4, 6-trichlorophenol:	ND<3300
2, 4, 5-trichlorophenol:	ND<8000

Concentration: ug/Kg



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TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 14-April-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Laboratory Number	Sample Identification	Matrix
15387- 7	WSP-2A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 7

2-chloronaphthalene:	ND<3300
2-nitroaniline:	ND<8000
acenaphthylene:	ND<3300
dimethylphthalate:	ND<3300
2,6-dinitrotoluene:	ND<3300
acenaphthene:	ND<3300
3-nitroaniline:	ND<8000
2,4-dinitrophenol:	ND<8000
dibenzofuran:	ND<3300
2,4-dinitrotoluene:	ND<3300
4-nitrophenol:	ND<8000
fluorene:	ND<3300
4-chlorophenyl-phenyle:	ND<3300
diethylphthalate:	ND<3300
4-nitroaniline:	ND<8000
4,6-dinitro-2-methylph:	ND<8000
n-nitrosodiphenylamine:	ND<3300
4-bromo-phenyl-phenyle:	ND<3300
hexachlorobenzene:	ND<3300
pentachlorophenol:	ND<8000
phenanthrene:	ND<3300
anthracene:	ND<3300
di-n-butylphthalate:	ND<3300
fluoranthene:	ND<3300
benzidine:	ND<17000
pyrene:	ND<3300
butylbenzylphthalate:	ND<3300
3,3'-dichlorobenzidine:	ND<6600
benzo[a]anthracene:	ND<3300

Concentration: ug/Kg



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TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 14-April-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Laboratory Number	Sample Identification	Matrix
15387- 7	WSP-2A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15387- 7

chrysene: ND<3300
bis(2-ethylhexyl)phtha:ND<3300
di-n-octylphthalate: ND<3300
benzo(b,k)fluoranthene:ND<3300
benzo[a]pyrene: ND<3300
indeno[1,2,3-cd]pyrene:ND<3300
dibenzo[a,h]anthracene:ND<3300
benzo[g,h,i]anthracene:ND<3300

Concentration: ug/Kg

-- Surrogate % Recoveries --

2-fluorophenol: 99
phenol-d6: 104
nitrobenzene-d5: 110
2-fluorobiphenyl: 101
2,4,6-tribromophenol: 93
terphenyl-d14: 81



Superior Precision Analytical, Inc.

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EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Quality Assurance and Control Data - Water

Laboratory Number 15387

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
bis(2-chloroethyl)ethene:	ND<10	10			
aniline:	ND<10	10			
phenol:	ND<10	10	46/47	12-80	2%
2-chlorophenol:	ND<10	10	76/77	54-111	1%
1,3-dichlorobenzene:	ND<10	10			
1,4-dichlorobenzene:	ND<10	10	84/86	36-139	2%
1,2-dichlorobenzene:	ND<10	10			
benzyl alcohol:	ND<10	10			
bis-(2-chloroisopropyl:	ND<10	10			
2-methylphenol:	ND<10	10			
hexachloroethane:	ND<10	10			
n-nitroso-di-n-propyla:	ND<10	10	76/80	41-161	5%
4-methylphenol:	ND<10	10			
nitrobenzene:	ND<10	10			
isophorone:	ND<10	10			
2-nitrophenol:	ND<10	10			
2,4-dimethylphenol:	ND<10	10			
bis(2-chloroethoxy)met:	ND<10	10			
2,4-dichlorophenol:	ND<10	10			
1,2,4-trichlorobenzene:	ND<10	10	92/95	39-134	3%
naphthalene:	ND<10	10			
benzoic acid:	ND<10	10			
4-chloroaniline:	ND<10	10			
hexachlorobutadiene:	ND<10	10			
4-chloro-3-methylpheno:	ND<10	10	77/77	51-105	0%
2-methyl-naphthalene:	ND<10	10			
hexachlorocyclopentadi:	ND<10	10			
2,4,6-trichlorophenol:	ND<10	10			
2,4,5-trichlorophenol:	ND<25	25			



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EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS
Quality Assurance and Control Data - Water

Laboratory Number 15387

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
2-chloronaphthalene:	ND<10	10			
2-nitroaniline:	ND<25	25			
acenaphthylene:	ND<10	10			
dimethylphthalate:	ND<10	10			
2,6-dinitrotoluene:	ND<10	10			
acenaphthene:	ND<10	10	94/92	46-137	2%
3-nitroaniline:	ND<25	25			
2,4-dinitrophenol:	ND<25	25			
dibenzofuran:	ND<10	10			
2,4-dinitrotoluene:	ND<10	10	77/75	24-119	3%
4-nitrophenol:	ND<25	25	94/27	10-83	111%
fluorene:	ND<10	10			
4-chlorophenyl-phenyle:	ND<10	10			
diethylphthalate:	ND<10	10			
4-nitroaniline:	ND<25	25			
4,6-dinitro-2-methylph:	ND<25	25			
n-nitrosodiphenylamine:	ND<10	10			
4-bromo-phenyl-phenyle:	ND<10	10			
hexachlorobenzene:	ND<10	10			
pentachlorophenol:	ND<25	25	69/70	9-139	1%
phenanthrene:	ND<10	10			
anthracene:	ND<10	10			
di-n-butylphthalate:	ND<10	10			
fluoranthene:	ND<10	10			
benzidine:	ND<50	50			
pyrene:	ND<10	10	90/91	29-157	1%
butylbenzylphthalate:	ND<10	10			
3,3'-dichlorobenzidine:	ND<10	10			
benzo[a]anthracene:	ND<10	10			



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EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS Quality Assurance and Control Data - Water

Laboratory Number 15387

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
chrysene:	ND<10	10			
bis(2-ethylhexyl)phtha:	ND<10	10			
di-n-octylphthalate:	ND<10	10			
benzo(b,k)fluoranthene:	ND<10	10			
benzo[a]pyrene:	ND<10	10			
indeno[1,2,3-cd]pyrene:	ND<10	10			
dibenzo[a,h]anthracene:	ND<10	10			
benzo[g,h,i]anthracene:	ND<10	10			
2-fluorophenol:	68			21-110	
phenol-d6:	58			10-110	
nitrobenzene-d5:	66			35-114	
2-fluorobiphenyl:	78			43-116	
2,4,6-tribromophenol:	84			10-123	
terphenyl-d14:	75			33-141	

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

ug/L = Parts per billion (ppb)

QC File No. 15387



Superior Precision Analytical, Inc.

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EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS Quality Assurance and Control Data - Soil

Laboratory Number 15387

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
bis(2-chloroethyl)ethane:	ND<330	330			
aniline:	ND<330	330			
phenol:	ND<330	330	101/101	55-105	0%
2-chlorophenol:	ND<330	330	101/102	60-111	1%
1,3-dichlorobenzene:	ND<330	330			
1,4-dichlorobenzene:	ND<330	330	108/110	52-116	2%
1,2-dichlorobenzene:	ND<330	330			
benzyl alcohol:	ND<330	330			
bis-(2-chloroisopropyl:	ND<330	330			
2-methylphenol:	ND<330	330			
hexachloroethane:	ND<330	330			
n-nitroso-di-n-propylamine:	ND<330	330	112/110	59-130	2%
4-methylphenol:	ND<330	330			
nitrobenzene:	ND<330	330			
isophorone:	ND<330	330			
2-nitrophenol:	ND<330	330			
2,4-dimethylphenol:	ND<330	330			
bis(2-chloroethoxy)methane:	ND<330	330			
2,4-dichlorophenol:	ND<330	330			
1,2,4-trichlorobenzene:	ND<330	330	106/108	45-119	2%
naphthalene:	ND<330	330			
benzoic acid:	ND<330	330			
4-chloroaniline:	ND<330	330			
hexachlorobutadiene:	ND<330	330			
4-chloro-3-methylphenol:	ND<330	330	96/95	50-120	1%
2-methyl-naphthalene:	ND<330	330			
hexachlorocyclopentadiene:	ND<330	330			
2,4,6-trichlorophenol:	ND<330	330			
2,4,5-trichlorophenol:	ND<800	800			



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EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS Quality Assurance and Control Data - Soil

Laboratory Number 15387

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
2-chloronaphthalene:	ND<330	330			
2-nitroaniline:	ND<800	800			
acenaphthylene:	ND<330	330			
dimethylphthalate:	ND<330	330			
2,6-dinitrotoluene:	ND<330	330			
acenaphthene:	ND<330	330	110/111	55-112	1%
3-nitroaniline:	ND<800	800			
2,4-dinitrophenol:	ND<800	800			
dibenzofuran:	ND<330	330			
2,4-dinitrotoluene:	ND<330	330	88/85	40-101	3%
4-nitrophenol:	ND<800	800	71/64	11-157	10%
fluorene:	ND<330	330			
4-chlorophenyl-phenyle:	ND<330	330			
diethylphthalate:	ND<330	330			
4-nitroaniline:	ND<800	800			
4,6-dinitro-2-methylph:	ND<800	800			
n-nitrosodiphenylamine:	ND<330	330			
4-bromo-phenyl-phenyle:	ND<330	330			
hexachlorobenzene:	ND<330	330			
pentachlorophenol:	ND<800	800	77/78	17-144	1%
phenanthrene:	ND<330	330			
anthracene:	ND<330	330			
di-n-butylphthalate:	ND<330	330			
fluoranthene:	ND<330	330			
benzidine:	ND<1700	1700			
pyrene:	ND<330	330	106/108	55-136	2%
butylbenzylphthalate:	ND<330	330			
3,3'-dichlorobenzidine:	ND<660	660			
benzo[a]anthracene:	ND<330	330			



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EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS Quality Assurance and Control Data - Soil

Laboratory Number 15387

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
chrysene:	ND<330	330			
bis(2-ethylhexyl)phtha:	ND<330	330			
di-n-octylphthalate:	ND<330	330			
benzo(b,k)fluoranthene:	ND<330	330			
benzo[a]pyrene:	ND<330	330			
indeno[1,2,3-cd]pyrene:	ND<330	330			
dibenzo[a,h]anthracene:	ND<330	330			
benzo[g,h,i]anthracene:	ND<330	330			
2-fluorophenol:	79			50-108	
phenol-d6:	79			54-106	
nitrobenzene-d5:	68			45-109	
2-fluorobiphenyl:	80			52-115	
2,4,6-tribromophenol:	72			37-122	
terphenyl-d14:	80			55-131	

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

ug/Kg = Parts per billion (ppb)

QC File No. 15387

Cecilia G. Joaquin

Senior Chemist
Account Manager

Fax copy of Lab Report and COC to Chevron Contact: Yes No **15387** Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number	9-0290
	Facility Address	1802 Webster St, Alameda
	Consultant Project Number	0290-1
	Consultant Name	TOUCHSTONE DENECAIRIANTS
	Address	684 30th AVE, SF, CA
	Project Contact (Name)	M. TAMBROWI
	(Phone)	366-8791 (Fax Number) 386-8791
Chevron Contact (Name)	MARIE MILLER	
(Phone)	510-842-8134	
Laboratory Name	SUPERIOR	
Laboratory Release Number	1144000	
Samples Collected by (Name)	M. TAMBROWI	
Collection Date	4-6-94 / 4-7-94	
Signature	M. TAMBROWI	

Sample Number	Lab Sample Number	Number of Containers	Matrix: A = Soil S = Water W = Air C = Charcoal	Type: G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed							Remarks
								BITEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8220)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	
W0-H2O	10	W G		Yes	Yes	X X X X						X X			HOLD
H2O-2	14	W D	1215	Yes											
W0-1-55	1	S D	1310	N/A											
W0-2-55	1	S D	1315	N/A											
W0-3-55	1	S D	1320	N/A											
WSP-1A-D	4	S C	1435	N/A											
WSP-2A-D	4	S C	1440	N/A											

Please initial:

EP

Samples Stored in ice

45°C

Appropriate containers

YB

Samples preserved

YB

VOA's without headspace

C/PD

Comments:

OK

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
M. TAMBROWI	TD	4-7-94 1715				24 Hrs.
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	48 Hrs.
						5 Days
Relinquished By (Signature)	Organization	Date/Time	Received At Laboratory By (Signature)	Organization	Date/Time	10 Days
			Superior		4-7-94 1715	As Contracted

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
M. TAMBROWI	TD	4-7-94 1715				24 Hrs.
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	48 Hrs.
						5 Days
Relinquished By (Signature)	Organization	Date/Time	Received At Laboratory By (Signature)	Organization	Date/Time	10 Days
			Superior		4-7-94 1715	As Contracted

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
M. TAMBROWI	TD	4-7-94 1715				24 Hrs.
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	48 Hrs.
						5 Days
Relinquished By (Signature)	Organization	Date/Time	Received At Laboratory By (Signature)	Organization	Date/Time	10 Days
			Superior		4-7-94 1715	As Contracted



Superior Precision Analytical, Inc.

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

TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 05/24/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
15530- 1	D-1-8'	05/18/94	05/23/94 Soil

RESULTS OF ANALYSIS

Laboratory Number: 15530- 1

Gasoline_Range:	1200
Benzene:	0.64
Toluene:	3.8
Ethyl Benzene:	6.2
Total Xylenes:	5.3
Diesel:	*580
Oil and Grease:	580

Concentration: mg/kg

* DOES NOT MATCH TYPICAL DIESEL PATTERN - LIGHTER HYDROCARBONS PRESENT.



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

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 15530

NA = ANALYSIS NOT REQUESTED

ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

mg/kg = parts per million (ppm)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:

Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:

Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

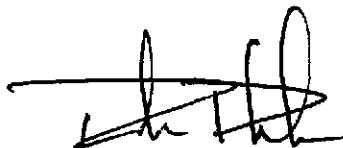
EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:

Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE

Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline_Range:	91/83	9%	55-141
Benzene:	70/70	0%	67-141
Toluene:	107/107	0%	67-141
Ethyl Benzene:	125/125	0%	67-141
Total Xylenes:	126/125	1%	67-141
Diesel:	107/114	6%	75-145
Oil and Grease:	85/84	1%	50-150


5/26/94

Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

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

TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 25-May-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Chronology

Laboratory Number 15530

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
D-1-8'	05/18/94	05/18/94	05/24/94	05/25/94		1



Superior Precision Analytical, Inc.

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TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 25-May-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Laboratory Number	Sample Identification	Matrix
15530- 1	D-1-8'	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15530- 1

2-chloronaphthalene:	ND<3000
2-nitroaniline:	ND<8000
acenaphthylene:	ND<3000
dimethylphthalate:	ND<3000
2,6-dinitrotoluene:	ND<3000
acenaphthene:	ND<3000
3-nitroaniline:	ND<8000
2,4-dinitrophenol:	ND<8000
dibenzofuran:	ND<3000
2,4-dinitrotoluene:	ND<3000
4-nitrophenol:	ND<8000
fluorene:	ND<3000
4-chlorophenyl-phenyle:	ND<3000
diethylphthalate:	ND<3000
4-nitroaniline:	ND<8000
4,6-dinitro-2-methylph:	ND<8000
n-nitrosodiphenylamine:	ND<4000
4-bromo-phenyl-phenyle:	ND<3000
hexachlorobenzene:	ND<3000
pentachlorophenol:	ND<8000
phenanthrene:	ND<3000
anthracene:	ND<3000
di-n-butylphthalate:	ND<3000
fluoranthene:	ND<3000
benzidine:	ND<2000
pyrene:	ND<3000
butylbenzylphthalate:	ND<3000
3,3'-dichlorobenzidine:	ND<7000
benzo[a]anthracene:	ND<3000

Concentration: ug/Kg



Superior Precision Analytical, Inc.

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

TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 25-May-1994

EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS

Laboratory Number	Sample Identification	Matrix
15530- 1	D-1-8'	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15530- 1

chrysene: ND<3000
bis(2-ethylhexyl)phtha:ND<4000
di-n-octylphthalate: ND<3000
benzo(b,k)fluoranthene:ND<3000
benzo[a]pyrene: ND<3000
indeno[1,2,3-cd]pyrene:ND<3000
dibenzo[a,h]anthracene:ND<3000
benzo[g,h,i]anthracene:ND<3000

Concentration: ug/Kg

-- Surrogate % Recoveries --

2-fluorophenol: 86
phenol-d6: 97
nitrobenzene-d5: 112
2-fluorobiphenyl: 105
2,4,6-tribromophenol: 86
terphenyl-d14: 115



EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS
Quality Assurance and Control Data - Soil

Laboratory Number 15530

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
bis(2-chloroethyl)ethane:	ND<300	300			
aniline:	ND<400	400			
phenol:	ND<300	300	68/69	55-105	1%
2-chlorophenol:	ND<300	300	69/71	60-111	3%
1,3-dichlorobenzene:	ND<400	400			
1,4-dichlorobenzene:	ND<400	400	64/65	52-116	2%
1,2-dichlorobenzene:	ND<300	300			
benzyl alcohol:	ND<300	300			
bis-(2-chloroisopropyl:	ND<300	300			
2-methylphenol:	ND<300	300			
hexachloroethane:	ND<400	400			
n-nitroso-di-n-propylamine:	ND<300	300	70/71	59-130	1%
4-methylphenol:	ND<300	300			
nitrobenzene:	ND<300	300			
isophorone:	ND<300	300			
2-nitrophenol:	ND<300	300			
2,4-dimethylphenol:	ND<300	300			
bis(2-chloroethoxy)met:	ND<300	300			
2,4-dichlorophenol:	ND<300	300			
1,2,4-trichlorobenzene:	ND<300	300	74/75	45-119	1%
naphthalene:	ND<300	300			
benzoic acid:	ND<300	300			
4-chloroaniline:	ND<400	400			
hexachlorobutadiene:	ND<400	400			
4-chloro-3-methylpheno:	ND<300	300	75/76	50-120	1%
2-methyl-naphthalene:	ND<300	300			
hexachlorocyclopentadiene:	ND<300	300			
2,4,6-trichlorophenol:	ND<300	300			
2,4,5-trichlorophenol:	ND<800	800			



EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS
Quality Assurance and Control Data - Soil

Laboratory Number 15530

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
2-chloronaphthalene:	ND<300	300			
2-nitroaniline:	ND<800	800			
acenaphthylene:	ND<300	300			
dimethylphthalate:	ND<300	300			
2,6-dinitrotoluene:	ND<300	300			
acenaphthene:	ND<300	300	74/77	55-112	4%
3-nitroaniline:	ND<800	800			
2,4-dinitrophenol:	ND<800	800			
dibenzofuran:	ND<300	300			
2,4-dinitrotoluene:	ND<300	300	72/73	40-101	1%
4-nitrophenol:	ND<800	800	60/65	11-157	8%
fluorene:	ND<300	300			
4-chlorophenyl-phenyle:	ND<300	300			
diethylphthalate:	ND<300	300			
4-nitroaniline:	ND<800	800			
4,6-dinitro-2-methylph:	ND<800	800			
n-nitrosodiphenylamine:	ND<400	400			
4-bromo-phenyl-phenyle:	ND<300	300			
hexachlorobenzene:	ND<300	300			
pentachlorophenol:	ND<800	800	65/69	17-144	6%
phenanthrene:	ND<300	300			
anthracene:	ND<300	300			
di-n-butylphthalate:	ND<300	300			
fluoranthene:	ND<300	300			
benzidine:	ND<2000	2000			
pyrene:	ND<300	300	79/81	55-136	3%
butylbenzylphthalate:	ND<300	300			
3,3'-dichlorobenzidine:	ND<700	700			
benzo[a]anthracene:	ND<300	300			



Superior Precision Analytical, Inc.

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EPA SW-846 METHOD 8270 SEMIVOLATILE ORGANICS BY GC/MS Quality Assurance and Control Data - Soil

Laboratory Number 15530

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
chrysene:	ND<300	300			
bis(2-ethylhexyl)phtha:	ND<400	400			
di-n-octylphthalate:	ND<300	300			
benzo(b,k)fluoranthene:	ND<300	300			
benzo[a]pyrene:	ND<300	300			
indeno[1,2,3-cd]pyrene:	ND<300	300			
dibenzo[a,h]anthracene:	ND<300	300			
benzo[g,h,i]anthracene:	ND<300	300			
2-fluorophenol:	50			50-108	
phenol-d6:	58			54-106	
nitrobenzene-d5:	59			45-109	
2-fluorobiphenyl:	62			52-115	
2,4,6-tribromophenol:	60			37-122	
terphenyl-d14:	69			55-131	

Definitions:

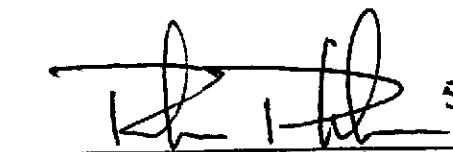
ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

ug/Kg = Parts per billion (ppb)

QC File No. 15530

 5/26/94
K. H. Johnson
Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 25-May-1994

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD, NICKEL, & ZINC
by EPA Method SW-846 6010

Identification	Sampled	Received	Extracted	Analyzed	Run #	Laboratory Number 15530	Lab #
D-1-8'	05/18/94	05/18/94	05/23/94	05/24/94			1

Page 1 of 3

Certified Laboratories

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



Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 25-May-1994

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD, NICKEL, & ZINC

Laboratory Number	Sample Identification	Matrix
15530- 1	D-1-8'	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15530- 1

Cadmium	(Cd): ND<0.5
Chromium	(Cr): 35
Lead	(Pb): ND<5
Nickel	(Ni): 27
Zinc	(Zn): 350

Concentration: mg/Kg



Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD, NICKEL, & ZINC Quality Assurance and Control Data - Soil

Laboratory Number 15530

Compound	Method	Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Cadmium	(Cd) :	ND<0.5	0.5	93/96	75-125	3%
Chromium	(Cr) :	ND<5	5	89/91	75-125	2%
Lead	(Pb) :	ND<5	5	96/95	75-125	1%
Nickel	(Ni) :	ND<5	5	93/94	75-125	1%
Zinc	(Zn) :	ND<5	5	91/98	75-125	7%

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/Kg = Parts per million (ppm)

QC File No. 15530

Cecilia G. Jaquix

Senior Chemist
Account Manager

Fax copy of Lab Report and COC to Chevron Contact:

Yes
 No

15520 Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>9-0290</u> Facility Address <u>1602 Webster St, Alameda</u> Consultant Project Number <u>0290-1</u> Consultant Name <u>TOUCHSTONE</u> Address <u>684 30th Ave, SF</u> Project Contact (Name) <u>M. TAMBROWI</u> (Phone) <u>386-8791</u> (Fax Number) <u>386-8791</u>	Chevron Contact (Name) <u>MACK MILLER</u> (Phone) <u>510-842-8134</u> Laboratory Name <u>Superior</u> Laboratory Release Number <u>1144000</u> Samples Collected by (Name) <u>M. TAMBROWI</u> Collection Date <u>5/10/97</u> Signature <u>Mack Miller</u>
--	---	---

Reinquainted By (Signature) <i>Mark J. Smith</i>	Organization TD	Date/Time 5-18-94 1735	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
Reinquainted By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	<input type="radio"/> 24 Hrs. <input type="radio"/> 48 Hrs. <input checked="" type="radio"/> 5 Days <input type="radio"/> 10 Days <input checked="" type="radio"/> Contracted
Reinquainted by (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <i>Mickey Heath</i>		Date/Time 4:40 5/18/94	



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 05/10/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
30476- 1	SP1A-D	04/28/94	05/02/94 Soil
30476- 2	SP2A-D	04/28/94	05/04/94 Soil

RESULTS OF ANALYSIS

Laboratory Number: 30476- 1 30476- 2

Gasoline:	44	130
Benzene:	0.066	ND<0.25
Toluene:	0.34	1.2
Ethyl Benzene:	0.29	1.1
Total Xylenes:	1.6	5.2
Concentration:	mg/kg	mg/kg



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

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 30476

NA = ANALYSIS NOT REQUESTED

ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

mg/kg = parts per million (ppm)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:

Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:

Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

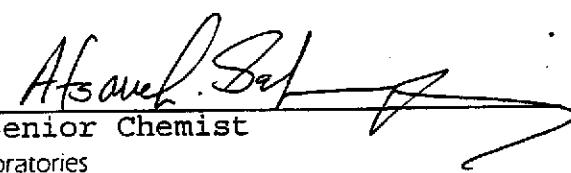
EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:

Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE

Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	76/79	4%	70-130
Benzene:	111/110	1%	70-130
Toluene:	101/102	1%	70-130
Ethyl Benzene:	97/99	2%	70-130
Total Xylenes:	101/101	0%	70-130


Afzaneh Saljoughi
Senior Chemist
Certified Laboratories



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 09-May-1994

ANALYSIS FOR TOTAL LEAD
by EPA Method SW-846 6010

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
SP1A-D	04/28/94	05/06/94	05/06/94	05/06/94		1
SP2A-D	04/28/94	05/06/94	05/06/94	05/06/94		2



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TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 09-May-1994

ANALYSIS FOR TOTAL LEAD

Laboratory Number	Sample Identification	Matrix
30476- 1	SP1A-D	Soil
30476- 2	SP2A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 30476- 1 30476- 2

TOTAL LEAD: 26 76

Concentration: mg/Kg mg/Kg



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ANALYSIS FOR TOTAL LEAD Quality Assurance and Control Data - Soil

Laboratory Number 30476

Compound	Method Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
TOTAL LEAD:	ND<5	5	101/87	75-125	15%

Definitions:

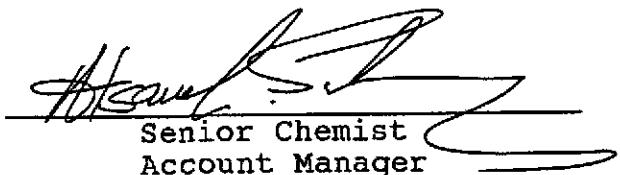
ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/Kg = Parts per million (ppm)

QC File No. 30476



Howard S. Johnson
Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 05/10/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
30460- 1	P-1-3.5	04/28/94	05/06/94 Soil
30460- 2	P-2-3.5	04/28/94	05/06/94 Soil
30460- 3	P-3-3.5	04/28/94	05/09/94 Soil
30460- 4	P-4-3.5	04/28/94	05/09/94 Soil

RESULTS OF ANALYSIS

Laboratory Number: 30460- 1 30460- 2 30460- 3 30460- 4

Gasoline:	910	1100	4900	58
Benzene:	0.87	4.6	2.9	0.063
Toluene:	3.8	48	58	0.40
Ethyl Benzene:	10	22	55	0.59
Total Xylenes:	31	130	260	0.91
Concentration:	mg/Kg	mg/Kg	mg/Kg	mg/Kg



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

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 30460

NA = ANALYSIS NOT REQUESTED

ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

mg/kg = parts per million (ppm)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:

Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:

Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:

Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE

Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	73/72	1%	70-130
Benzene:	89/91	2%	70-130
Toluene:	75/86	14%	70-130
Ethyl Benzene:	86/91	6%	70-130
Total Xylenes:	96/97	1%	70-130

Muriel L. Vernon
Senior Chemist



Superior Precision Analytical, Inc.

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

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 05-May-1994

VOLATILE PETROLEUM HYDROCARBONS

Sample preparation by Purge and Trap (EPA SW-846 method 5030). Gasoline analysis by SW-846 method 8015 modified. Gasoline range quantified as all compounds between C6 and C10.

Chronology						Laboratory Number	30460
Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #	
SP1-A-D	04/28/94	04/29/94	05/02/94	05/02/94		5	
SP2-A-D	04/28/94	04/29/94	05/04/94	05/04/94		6	



Superior Precision Analytical, Inc.

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TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 05-May-1994

VOLATILE PETROLEUM HYDROCARBONS

Laboratory Number	Sample Identification	Matrix
30460- 5	SP1-A-D	Soil
30460- 6	SP2-A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 30460- 5 30460- 6

Gasoline:	44	130
Concentration:	mg/Kg	mg/Kg



Superior Precision Analytical, Inc.

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VOLATILE PETROLEUM HYDROCARBONS Quality Assurance and Control Data - Soil

Laboratory Number 30460

Compound	Method Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Gasoline:	ND<1	1	98/93	70-130	5%

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/Kg = Parts per million (ppm)

QC File No. 30460

Asanah Solt
Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

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

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 05-May-1994

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE, & XYLENES
by EPA Method 1311 & Modified EPA SW-846 Method 8015
Zero Head Space Extraction
Toxicity Characteristic Leachate Procedure

Identification	Sampled	Received	Extracted	Analyzed	Run #	Laboratory Number 30460	Lab #
SP1-A-D	04/28/94	04/29/94	05/02/94	05/04/94			5
SP2-A-D	04/28/94	04/29/94	05/02/94	05/04/94			6



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TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 05-May-1994

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE, & XYLENES

Laboratory Number	Sample Identification	Matrix
30460- 5	SP1-A-D	Soil
30460- 6	SP2-A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 30460- 5 30460- 6

Benzene:	180	22
Toluene:	290	220
Ethyl Benzene:	200	61
Xylenes:	750	650

Concentration: ug/L ug/L



Superior Precision Analytical, Inc.

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

ANALYSIS FOR TCLP BTXE Quality Assurance and Control Data - Soil

Laboratory Number 30460

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Benzene:	ND<5	5	75/74	70-130	1%
Toluene:	ND<5	5	78/77	70-130	1%
Ethyl Benzene:	ND<5	5	70/70	70-130	0%
Xylenes:	ND<5	5	83/82	70-130	1%

Definitions:

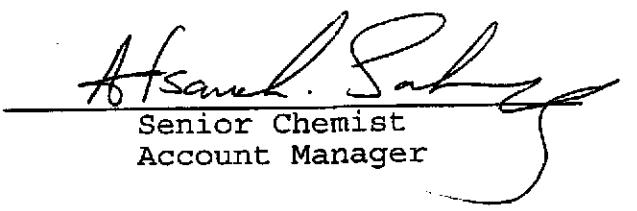
ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

ug/L = Parts per billion (ppb)

QC File No. 30460


Sarah Salas

Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 03-May-1994

ANALYSIS FOR TOTAL ORGANIC LEAD
by Modified HML Method 938
California Department of Health Services

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
SP1-A-D	04/28/94	04/29/94	05/03/94	05/03/94		5
SP2-A-D	04/28/94	04/29/94	05/03/94	05/03/94		6



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TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 03-May-1994

ANALYSIS FOR TOTAL ORGANIC LEAD

Laboratory Number	Sample Identification	Matrix
30460- 5	SP1-A-D	Soil
30460- 6	SP2-A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 30460- 5 30460- 6

ORGANIC LEAD:	ND<2	ND<2
Concentration:	mg/Kg	mg/Kg



Superior Precision Analytical, Inc.

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ANALYSIS FOR TOTAL ORGANIC LEAD Quality Assurance and Control Data - Soil

Laboratory Number 30460

Compound	Method Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
ORGANIC LEAD:	ND<2	2	103/105	75-125	2%

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/Kg = Parts per million (ppm)

QC File No. 30460

Afsaneh Salimpour
Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 24-May-1994

ANALYSIS FOR SOLUBLE LEAD
by California Administrative Code Title 22 & SW-846 Method 6010

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
SP1A-D	04/28/94	05/18/94	05/18/94	05/24/94		1
SP2A-D	04/28/94	05/18/94	05/18/94	05/24/94		2



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TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-1
Reported 24-May-1994

ANALYSIS FOR SOLUBLE LEAD

Laboratory Number	Sample Identification	Matrix
30509- 1	SP1A-D	Soil
30509- 2	SP2A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 30509- 1 30509- 2

Soluble Lead (Pb) : 1.1 2.6

Concentration: mg/L mg/L



Superior Precision Analytical, Inc.

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ANALYSIS FOR SOLUBLE LEAD Quality Assurance and Control Data - Extract

Laboratory Number 30509

Compound	Method Blank (mg/L)	RL (mg/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Soluble Lead (Pb) :	ND<0.5	0.5	106/105	75-125	1%

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/L = Parts per million (ppm)

QC File No. 30509

Alan L. Shultz
Senior Chemist
Account Manager

Fax copy of Lab Report and COC to Chevron Contact: No

Yes

Chain-of-Custody-Record

<p>Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591</p>	Chevron Facility Number	<u>9-0290</u>
	Facility Address	<u>1802 Webster St., ALAMEDA</u>
	Consultant Project Number	<u>0290-1</u>
	Consultant Name	<u>TOUCHSTONE</u>
	Address	<u>689 30th AVE, SF, CA</u>
	Project Contact (Name)	<u>M. TAMBROW</u>
(Phone)	<u>386-8791</u>	
(Fax Number)	<u>386-8791</u>	

卷之三

Relinquished By (Signature) <i>Mal</i>	Organization	Date/Time 5-6-94	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	<input type="radio"/> 24 Hrs. <input checked="" type="radio"/> 48 Hrs. <input type="radio"/> 5 Days <input type="radio"/> 10 Days <input type="radio"/> As Contracted
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	

Fax copy of Lab Report and COC to Chevron Contact: No

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

9-0290
1802 Webster St, Alameda
0290-1
TOUCHSTONE
684 30th Ave, SF
M. TAMBROW
386-8791 386-8791

Mark Miller
510-842-8134
Superior
1144000
M. Tambrown
5-16-97
Mark Miller

Chain-of-Custody-Record

Sample Number	Lab Sample Number	Number of Containers	Analyses To Be Performed										Remarks			
			Matrix S = Soil W = Water	A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (B240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)
D-1-8	1	S D	1155				Y/A	X X	X X	X X				X X		

ECC-31005 / 03 81 / HCH

Reinquished By (Signature)

Organization

Date/Time
5-18-97 7:35

Received By (Signature)

Organization

Date/Time

Turn Around Time (Circle Choice)

24 Hrs.

48 Hrs.

5 Days

10 Days

1 Control

Reconciled By (Signature)

Organization

100/100

Received By (Signature) _____

Organization

Date/Time

Belgium *[Signature]*

Organization

Date/Time

Received For Laboratory By (Signature)

Date/Time 4/14/16

5/18/94

Fax copy of Lab Report and COC to Chevron Contact:

 Yes No 304160

Chain-of-Custody-Record

<p style="text-align: right;">FDSR</p> <p>Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591</p>	Chevron Facility Number	9-0290	Chevron Contact (Name)	MARK MILLER
	Facility Address	1802 Webster St. Alameda	(Phone)	510-842-8134
	Consultant Project Number	0290-1	Laboratory Name	Superior
	Consultant Name	TOUCASTONE	Laboratory Release Number	1144000
	Address	684 30th Ave, SF, CA	Samples Collected by (Name)	M. THIBROW
	Project Contact (Name)	M. THIBROW	Collection Date	4-28-94
(Phone)	386-8791 (Fax Number)	Signature	<i>Mark J. Miller</i>	

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water	A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed							Remarks	
									STEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,N (ICAP or AA)	TPH -GAS / TCLP BTXE
P-1-3.5'	1	5	D	1430			X										
P-2-3.5'	1	1	D	1435			X										
P-3-3.5'	1	1	D	1440				X									
P-4-3.5'	1	1	D	1445				X									
SP1-A-D	4	1	C	1455												X X	72 Hour TAT
SP2-A-D	4	1	C	1500												X X	72 Hour TAT

Please initial:

NH

Samples Stored in ice

-

Appropriate containers

✓

Samples preserved

NA

VOA's without hood space

NA

Comments:

40

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
<i>Mark J. Miller</i>	TD	4-29-94 9:00				<input type="radio"/> 24 Hrs. <input type="radio"/> 48 Hrs. <input type="radio"/> 5 Days <input type="radio"/> 10 Days
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time	
			<i>Mark J. Miller</i>		4-29-94	<input checked="" type="radio"/> As Contracted

Fax copy of Lab Report and COC to Chevron Contact:

 Yes No

Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number	9-0290	Chevron Contact (Name)	Mark Miller
	Facility Address	1802 Webster St	(Phone)	510-842-8134
	Consultant Project Number	0290-2	Laboratory Name	Syntex
	Consultant Name	TUCKSTON R	Laboratory Release Number	114400
	Address	b87 3rd Ave	Samples Collected by (Name)	M. THOMAS R.
	Project Contact (Name)	M. TAMBRONI	Collection Date	4-28-94
(Phone)	386-8791	(Fax Number)	386-8791	
		Signature	<i>Mark P. J. Miller</i>	

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water	A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed							Remarks
									BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)
SP-1A-D	30476-1	4	S	C					X							
SP-2A-D	30476-2	4	S	C					X							

PLEASE RUN THE FOLLOWING
SAMPLES ON 72 Hour TAT

Mark P. J. Miller 5-16-94

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
<i>Mark P. J. Miller</i>	5-16-94					<input type="radio"/> 24 Hrs. <input type="radio"/> 48 Hrs. <input type="radio"/> 5 Days <input type="radio"/> 10 Days <input type="radio"/> As Contracted
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time	



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 0290
Reported 03-June-1994

ANALYSIS FOR TOTAL ORGANIC LEAD
by California LUFT Method

Identification	Sampled	Received	Extracted	Analyzed	Run #	Laboratory Number 30549	Lab #
SP-1-A,B,C,D	06/01/94	06/03/94	06/03/94	06/03/94			1
SP-2-A,B,C,D	06/01/94	06/03/94	06/03/94	06/03/94			2



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 0290
Reported 03-June-1994

ANALYSIS FOR TOTAL ORGANIC LEAD

Laboratory Number	Sample Identification	Matrix
30549- 1	SP-1-A,B,C,D	Soil
30549- 2	SP-2-A,B,C,D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 30549- 1 30549- 2

ORGANIC LEAD: ND<2 ND<2

Concentration: mg/Kg mg/Kg



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

ANALYSIS FOR TOTAL ORGANIC LEAD Quality Assurance and Control Data - Soil

Laboratory Number 30549

Compound	Method Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
ORGANIC LEAD:	ND<2	2	91/89	75-125	2%

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/Kg = Parts per million (ppm)

QC File No. 30549

Muthal R. Veer

Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 0290
Reported 06/03/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
30549- 1	SP-1-A,B,C,D	06/01/94	06/03/94 Soil
30549- 2	SP-2-A,B,C,D	06/01/94	06/03/94 Soil

RESULTS OF ANALYSIS

Laboratory Number: 30549- 1 30549- 2

Gasoline:	ND<1	ND<1
Benzene:	ND<.005	ND<.005
Toluene:	ND<.005	ND<.005
Ethyl Benzene:	ND<.005	ND<.005
Total Xylenes:	ND<.005	ND<.005

Concentration: mg/kg mg/kg



Superior Precision Analytical, Inc.

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

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 30549

NA = ANALYSIS NOT REQUESTED

ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

mg/kg = parts per million (ppm)

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	84/109	26%	70-130
Benzene:	89/95	7%	70-130
Toluene:	88/95	8%	70-130
Ethyl Benzene:	76/84	10%	70-130
Total Xylenes:	91/101	10%	70-130

Michael L. Varen

Senior Chemist

Fax copy of Lab Report and COC to Chevron Contact: No

Yes
 No

30549

Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>9-C1290</u> Facility Address <u>18602 Webster</u> Consultant Project Number <u>0290</u> Consultant Name <u>Touchstone</u> Address <u>P.O. Box 2559</u> Project Contact (Name) <u>Jeff Monroe</u> (Phone) <u>707 536-8812</u> (Fax Number) <u>707 536 8812</u>	Chevron Contact (Name) <u>Mark Miller</u> (Phone) <u>510-842-8134</u> Laboratory Name <u>Superior</u> Laboratory Release Number <u>1144000</u> Samples Collected by (Name) <u>Robert Lavitzon</u> Collection Date <u>6/1/94</u> Signature <u>Robert Lavitzon</u>
--	--	--

DOC-3.DWG/03 91/H	Relinquished By (Signature) <i>Robert W. Vanier</i>	Organization <i>Pouchbox</i>	Date/Time <i>655 4/1/94</i>	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice) <ul style="list-style-type: none"> <input checked="" type="radio"/> 24 Hrs. <input type="radio"/> 48 Hrs. <input type="radio"/> 5 Days <input type="radio"/> 10 Days <input type="radio"/> As Contracted
	Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
	Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <i>Robert W. Vanier</i>	Date/Time	<i>6-194 7/2/94</i>	<i>dog-in as received 6-2-94</i>



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TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-2
Reported 03-June-1994

ANALYSIS FOR SOLUBLE LEAD
by California Administrative Code Title 22 & SW-846 Method 6010

Chronology	Laboratory Number 30540				
Identification	Sampled	Received	Extracted	Analyzed	Run # Lab #
SP-3A,B,C,D	05/25/94	05/26/94	05/31/94	06/02/94	1



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TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-2
Reported 03-June-1994

ANALYSIS FOR SOLUBLE LEAD

Laboratory Number	Sample Identification	Matrix
30540- 1	SP-3A,B,C,D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 30540- 1

Soluble Lead (Pb): 1.7

Concentration: mg/L



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ANALYSIS FOR SOLUBLE LEAD Quality Assurance and Control Data - Extract

Laboratory Number 30540

Compound	Method Blank (mg/L)	RL (mg/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Soluble Lead (Pb):	ND<0.5	0.5	90/91	75-125	1%

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/L = Parts per million (ppm)

QC File No. 30540

Michael R. Vernon
Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 0290-2
Reported 06/03/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
30540- 1	SP-3A,B,C,D	05/25/94	06/01/94 Soil

Superior Precision Analytical, Inc.

RESULTS OF ANALYSIS

Laboratory Number: 30540- 1

Gasoline: ND<1
Benzene: ND<.005
Toluene: ND<.005
Ethyl Benzene: ND<.005
Total Xylenes: ND<.005

Concentration: mg/kg



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

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 30540

NA = ANALYSIS NOT REQUESTED

ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

mg/kg == parts per million (ppm)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:

Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:

Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:

Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE

Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	113/94	18%	70-130
Benzene:	117/113	3%	70-130
Toluene:	116/112	4%	70-130
Ethyl Benzene:	101/96	5%	70-130
Total Xylenes:	121/116	4%	70-130

Michael R. Vernon
Senior Chemist

Fax copy of Lab Report and COC to Chevron Contact: Yes No

res
 No

3054

Chain-of-Custody-Record