Chevron

94 DEC -7 PM 3:15

Chevron U.S.A. Products Company
6001 Bollinger Canyon Rd., Bldg. L
P.O. Box 5004
San Ramon, CA 94583-0804

Site Assessment & Remediation Group
Phone (510) 842-9500

November 30, 1994

Ms. Madhulla Logan
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Service Station #9-3415
4500 Park Boulevard, Oakland, CA

Dear Ms. Logan:

Enclosed is the Product Line Removal, Waste Oil Tank Removal, and Soil Sampling Report dated November 3, 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 and all underground product piping were removed.

Soil samples collected beneath the former waste oil tank were analyzed for TPH-G, BTEX, TPH-D, total oil and grease (TOG), metals, and EPA Methods 8010 and 8270 compounds. Soil samples collected beneath the former product piping were analyzed for TPH-G and BTEX. All analytical data is summarized in Table A of the report.

Approximately 275 cubic yards of soil was excavated during this work and transported to Redwood Landfill in Novato, CA for disposal.

Based on the data collected to date, it appears that the extent of hydrocarbon impact to soil and ground water is currently undefined. We will instruct our consultant to prepare a work plan for the installation of soil borings and/or ground water monitor wells. We anticipate forwarding this document to your office during January of 1995.

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

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. S.A. Willer

File: 9-0191 TD TR1

Touchstone Developments
Environmental Management

Product Line Removal, Waste Oil Tank Removal, and Soil Sampling Report

Chevron Service Station Number 9-3415
4500 Park Boulevard
Oakland, California

prepared for

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

prepared by

Touchstone Developments

Timothy J. Walker
Project Manager

November 3, 1994

17170 Keaton Avenue • Sonoma, CA 95476 • Tel/Fax (707) 935-0601 • Mobile/Fax: (707) 953-0252

INTRODUCTION

This report prepared by Touchstone Developments (Touchstone) documents the 1000 gallon, single-walled waste-oil tank removal, product line removal and soil sampling performed between August 16, and September 20, 1994 at Chevron Service Station No. 9-3415 located at 4500 Park Boulevard, Oakland, California (Figure 1).

SITE CONDITIONS AND ACTIVITIES

The current UST complex consists of three 10,000 gallon, single-walled, fiberglass gasoline storage tanks and one 1,000 gallon, double-walled fiberglass waste-oil tank. Groundwater was not encountered during the excavation activities. The station building consists of two service-lube bays each with a hydraulic hoist (Figure 1).

The product piping removal, waste-oil tank excavation, and backfill was performed by Armer-Norman Construction of Walnut Creek, California. A Touchstone representative was on site to collect soil samples from the product line excavations, waste-oil tank excavation and stockpiled soil. Roel Meregiallano and Brian Olivia from Alameda County Health Agency, a representative from the Oakland Fire Department, and Belinda Erdelt and Mark Miller from Chevron U.S.A. Products Company were also on site during the product line soil sampling and waste oil tank removal.

Product Piping Sampling

On August 16, 1994, soil samples P-1 through P-6 were collected from the former product-line trenches at depths of approximately 3 1/2 feet bgs. The location of the product-line trench excavations and soil sample locations are shown on Figure 2. The sample analytical results are presented in Table A.

Waste-Oil Tank Excavation

On September 19, 1994, soil samples WO-1-8.5' and WO-2-8.5' were collected in native soil from beneath the ends of the waste-oil tank at approximately 8 1/2 feet bgs. The location of the waste-oil tank and soil sample locations are shown on Figure 2. The sample analytical results are presented in Table A.

STOCKPILE SAMPLING

Soil stockpiles SP-1 (A-D) and SP-2 (A-D) represent approximately 200 cubic yards (cy) of soil removed from the product piping trenches. Soil stockpile WOSP-1 represents approximately 75 cubic yards of material generated from the waste-oil tank excavation. On September 20, 1994, soil stockpile also designated as SP-1a-d was sampled. This soil represents material generated from utility trenches brought onsite during construction activities. The chemical analytical results are summarized on Table A. After receipt of the chemical analytical data, the soil stockpiles were removed from the site and transported to Redwood Landfill located in Novato, California.

SAMPLING PROTOCOL

Soil samples from the product-line trenches and waste-oil tank excavation were collected from the excavator bucket by removing the top few inches of soil and pushing a clean, six-inch-long, two-inch diameter, brass sample tube into the soil until completely full. The ends of the sample tubes were covered with aluminum foil and sealed with plastic end caps. The samples were then labeled, placed in a cooler with ice, entered on a Chain-of-Custody form and transported to Superior Precision Analytical, Inc., a State-certified laboratory located in Martinez, California.

Stockpile Sampling

Four discrete stockpile samples were collected for approximately every 100 cubic yards of soil generated. The four samples were then composited in the laboratory and analyzed as one. These samples were collected by removing the top 6 to 12 inches of soil, then pushing a sample tube into the soil until completely full. The samples were sealed, labeled and handled as previously described in this report.

SAMPLE ANALYSIS

Soil samples collected were analyzed for Total Petroleum Hydrocarbons calculated as gasoline (TPH-Gasoline) according to EPA Method 8015 (Modified), and Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) according to EPA Method 8020.

Additional analysis for specific soil samples included Total Organic Lead, Halogenated Volatile Organics according to EPA Method 8010, Semi-volatile Organics according to EPA Method 8270, TPH-Diesel according to EPA Method 8015 (Modified), Total Oil & Grease according to Standards Methods Method 5520F, and ICAP Metals (Cadmium, Chromium, Lead, Nickel, and Zinc) according EPA Method SW-846 6010. For specific soil sample analyses, please refer to Table A. Copies of the analytical laboratory reports and Chain-of-Custody forms are presented in Appendix A.

TABLES

TABLE A
PRODUCT PIPING, WASTE-OIL EXCAVATION AND STOCKPILE ANALYTICAL SUMMARY
Results in mg/Kg - parts per million, (ppm)

PRODUCT LINE SAMPLING RESULTS

SAMPLE ID	DEPTH (ft.)	LAB	DATE	TPH - Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
P-1	3.5	Sequoia	16-Aug-94	8200	0.26	3.6	6.7	6.5
P-2	3.5	Sequoia	16-Aug-94	420	0.58	9.4	6.5	44
P-3	3.5	Sequoia	16-Aug-94	ND	ND	ND	ND	ND
P-4	3.5	Sequoia	16-Aug-94	ND	ND	ND	ND	ND
P-5	3.5	Sequoia	16-Aug-94	ND	ND	ND	ND	ND
P-6	3.5	Sequoia	16-Aug-94	ND	ND	ND	ND	ND

WASTE-OIL TANK EXCAVATION SAMPLING RESULTS

SAMPLE ID	DEPTH (ft.)	LAB	DATE	TPH - Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel	TOG
WO-1-8.5'	8.5	Superior	19-Sep-94	440	ND	3.1	2.3	21	1200	1100
WO-2-8.5'	8.5	Superior	19-Sep-94	170	ND	0.5	ND	4.2	1500	1000

SAMPLE ID	DEPTH (ft.)	LAB	DATE	Cadmium	Chromium	Lead	Nickel	Zinc	8010	8270
WO-1-8.5' *	8.5	Superior	19-Sep-94	0.3	11	11	33	29	ND	ND
WO-2-8.5' **	8.5	Superior	19-Sep-94	0.4	14	8	36	32	ND	ND

WRONG

* .190 ppm 1,1,1-TCA and .220 ppm PCE

** .12 ppm 1,1,1-TCA and 1.7 ppm PCE

TABLE A
PRODUCT PIPING, WASTE-OIL EXCAVATION AND STOCKPILE ANALYTICAL SUMMARY
Results in mg/Kg - parts per million, (ppm)

STOCKPILE SAMPLING RESULTS

SAMPLE ID	LAB	DATE	TPH - Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	Total Organic Lead
SP-1 a-d	Sequoia	19-Aug-94	ND	ND	ND	ND	ND	ND
SP-2 a-d	Sequoia	19-Aug-94	ND	ND	ND	ND	ND	NA
SP-1 A-D *	Sequoia	20-Sep-94	ND	ND	ND	ND	ND	ND

WASTE-OIL STOCKPILE SAMPLING RESULTS

SAMPLE ID	LAB	DATE	TPH - Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
WOSP-1	Superior	20-Sep-94	84	ND	0.50	0.38	2.600

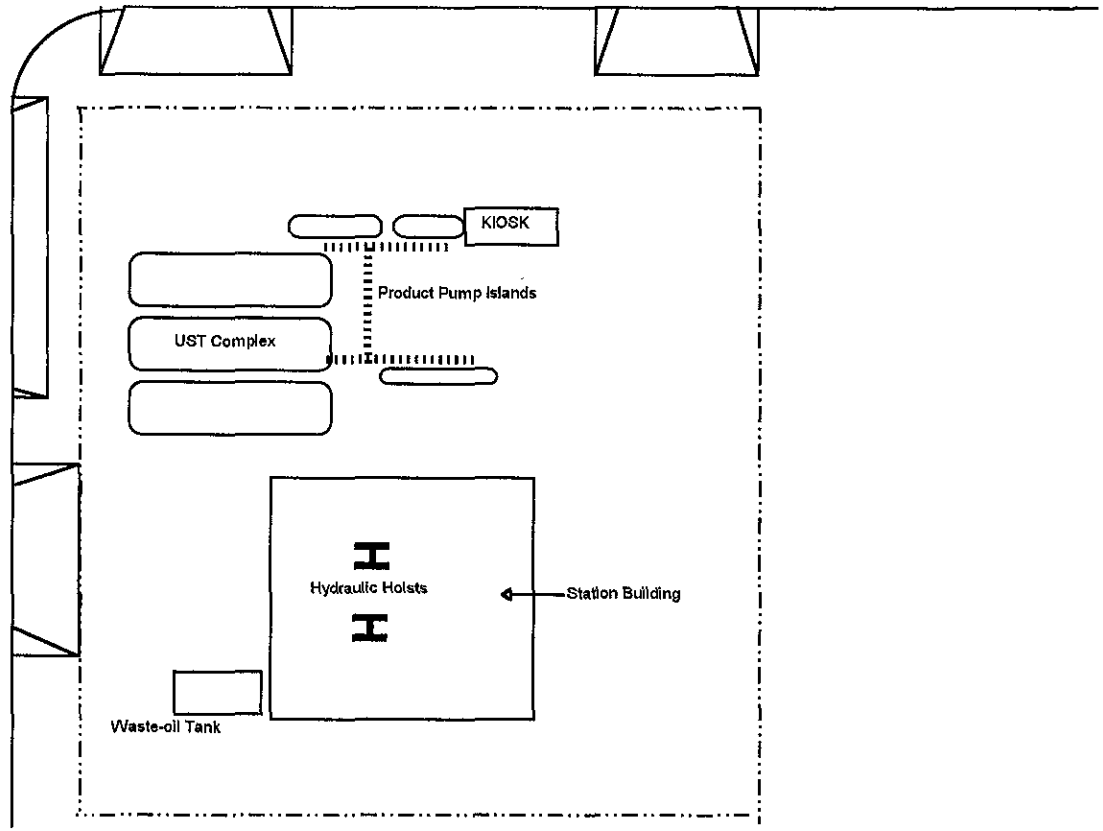
SAMPLE ID	LAB	DATE	Total Organic Lead	TPH-Diesel	TOG	CAM 17 METALS	8010	8270
WOSP-1	Superior	20-Sep-94	ND	790	660	CAR	CAR	ND

TPH-Gasoline = Total Petroleum Hydrocarbons calculated as gasoline
TPH-Diesel = Total Petroleum Hydrocarbons calculated as Diesel
TOG = Total Oil & Grease
ND = Not detected at or above the laboratory detection limits.
NA = Analysis not requested.
CAR = See Certified Analytical Report for results
* = stockpile from utility trenches

FIGURES

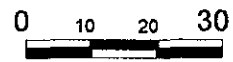
PARK BOULEVARD

EVERETT STREET



EXPLANATION

UST	Underground Storage Tanks
⋯⋯	Product Lines
H	Hydraulic Hoist



Touchstone Developments
Environmental Management

SITE PLAN

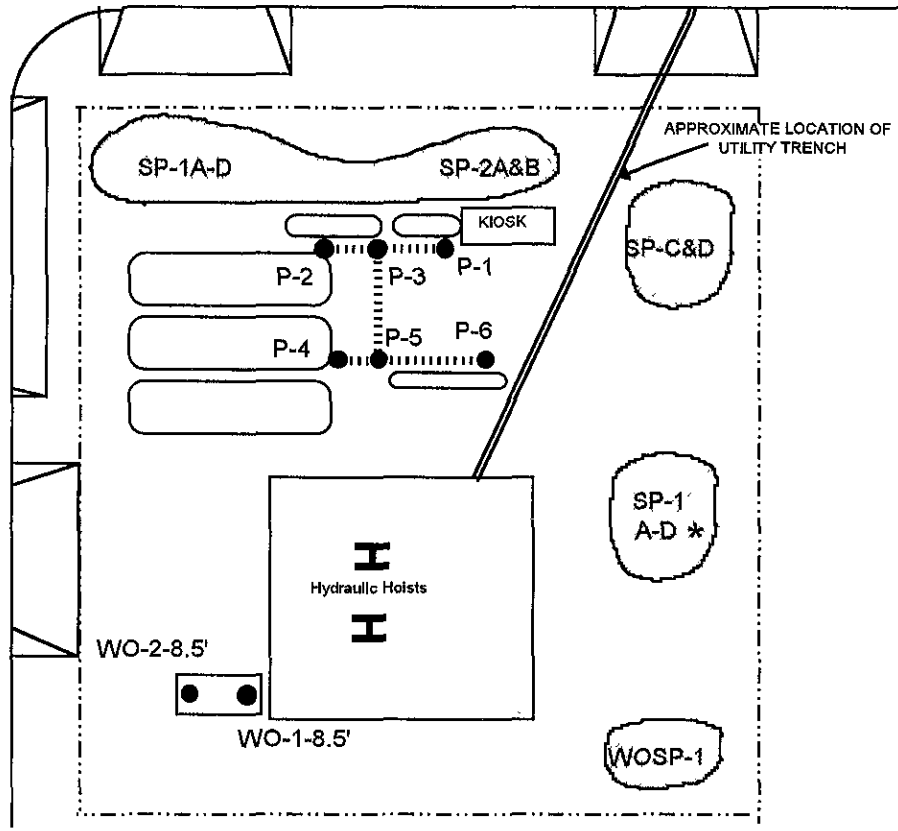
CHEVRON SERVICE STATION #9-3415
4500 Park Boulevard
Oakland, California

FIGURE
1

PROJECT NO.	DATE	DRAWN BY:	BASE MAP:
3415	9/94	WTJ	GEOSTRATEGIES 7/91

PARK BOULEVARD

EVERETT STREET



EXPLANATION

UST	Underground Storage Tanks
	Product Lines
P-1 ●	Sample ID and location
H	Hydraulic Hoist
SP-C&D	Soil Stocpile
*	Soil generated from the utility trenches

N

0 10 20 30

Scale in feet

Touchstone Developments
Environmental Management

PRODUCT PIPING, WASTE-OIL TANK, AND STOCKPILE SAMPLING LOCATIONS

CHEVRON SERVICE STATION #9-3415
4500 Park Boulevard
Oakland, California

FIGURE
2

PROJECT NO.	DATE	DRAWN BY:	BASE MAP:
3415	9/94	WTJ	GEOSTRATEGIES 7/91

APPENDIX A

Chemical Analytical Reports and Chain-of-Custody Forms

Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415
Reported 09/01/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
30715- 1	P-1	08/16/94	08/24/94	Soil
30715- 2	P-2	08/16/94	08/31/94	Soil
30715- 3	P-3	08/16/94	08/22/94	Soil
30715- 4	P-4	08/16/94	08/22/94	Soil
30715- 5	P-5	08/16/94	08/22/94	Soil
30715- 6	P-6	08/16/94	08/23/94	Soil

RESULTS OF ANALYSIS

Laboratory Number:	30715- 1	30715- 2	30715- 3	30715- 4	30715- 5
Gasoline:	8200	420	ND<1	ND<1	ND<1
Benzene:	.26	.58	ND<.005	ND<.005	ND<.005
Toluene:	3.6	9.4	ND<.005	ND<.005	ND<.005
Ethyl Benzene:	6.7	6.5	ND<.005	ND<.005	ND<.005
Total Xylenes:	6.5	44	ND<.005	ND<.005	ND<.005
Concentration:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg

Laboratory Number:	30715- 6
Gasoline:	ND<1
Benzene:	ND<.005
Toluene:	ND<.005
Ethyl Benzene:	ND<.005
Total Xylenes:	ND<.005
Concentration:	mg/kg

Certified Laboratories

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

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

309 S. Cloverdale St., Suite B-24
Seattle, Washington 98108
(206) 763-2992 / fax (206) 763-8429

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

QA/QC INFORMATION
SET: 30715

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:	120/124	3%	70-130
Benzene:	101/103	2%	70-130
Toluene:	102/107	5%	70-130
Ethyl Benzene:	89/98	10%	70-130
Total Xylenes:	103/122	17%	70-130

Michael F. Veiom
Senior Chemist

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No 30715 ~~92773~~

Chain-of-Custody-Record

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

Chevron Facility Number: 9-3415
Facility Address: 4500 PARK BLVD
Consultant Project Number: 3415
Consultant Name: TOUCHSTONE DEVELOPMENTS
Address: 17170 KEATON AVE
Project Contact (Name): JEFF MONROE / TIM WALKER
(Phone) (707) 538-8818 (Fax Number) (707) 538-8812

Chevron Contact (Name): MARK MILLER
(Phone) (510) 842-8134
Laboratory Name: SUPERIOR
Laboratory Release Number: 1790290
Samples Collected by (Name): TIM WALKER
Collection Date: 8-16-94
Signature: Tim Walker

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water 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 (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)						Remarks
P-1		1	S			NO	Y	X	/												
P-2		1	S			NO	Y	X													
P-3		1	S			NO	Y	X													
P-4		1	S			NO	Y	X													
P-5		1	S			NO	Y	X													
P-6		1	S			NO	Y	X													

(Analyses To Be Performed: BTEX + TPH GAS through Metals and blank columns)

Please Initial: G
Samples Stored in ice. Yes 5°C
Appropriate containers Yes
Samples preserved /
VOA's without headspace /
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Tim Walker	TD	8/18/94 11:00	A Walker	Aero	8.18. 1100
A Walker	Aero	8/18 1230			
			Received For Laboratory By (Signature): [signature]		8/18/94 12:45 pm

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
(10 Days) — circled
As Contracted

COC-3.DWG/03 91/HCH

Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 3415-1
Reported 22-August-1994

ANALYSIS FOR TOTAL ORGANIC LEAD
by California LUFT Method

Chronology

Laboratory Number 15743

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
SP-1-A-D	08/19/94	08/19/94	08/22/94	08/22/94		1

Certified Laboratories
825 Arnold Dr., Suite 114 • Martinez, California 94553 • (510) 313-0850 / fax (510) 229-1526

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 3415-1
Reported 22-August-1994

ANALYSIS FOR TOTAL ORGANIC LEAD

Laboratory Number	Sample Identification	Matrix
15743- 1	SP-1-A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15743- 1

ORGANIC LEAD:	ND<2
Concentration:	mg/Kg

Certified Laboratories
825 Arnold Dr., Suite 114 ▪ Martinez, California 94553 ▪ (510) 313-0850 / fax (510) 229-1526

Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

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

Laboratory Number 15743

Compound	Method Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
ORGANIC LEAD:	ND<2	2	88/99	75-125	12%

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
mg/Kg = Parts per million (ppm)
QC File No. 15743

Michael R. Verong
Senior Chemist
Account Manager

Certified Laboratories
825 Arnold Dr., Suite 114 ▪ Martinez, California 94553 ▪ (510) 313-0850 / fax (510) 229-1526

Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 3415-1
Reported 08/20/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
15743- 1	SP-1(A-D)	08/19/94	08/20/94	Soil
15743- 2	SP-2(A-D)	08/19/94	08/20/94	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15743- 1 15743- 2

Gasoline_Range:	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

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

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

QA/QC INFORMATION
SET: 15743

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:	83/67	21%	55-141
Benzene:	90/90	0%	67-141
Toluene:	95/93	2%	67-141
Ethyl Benzene:	85/85	0%	67-141
Total Xylenes:	90/88	2%	67-141

8/22/94

Senior Chemist
Account Manager

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

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No #5743

Chain-of-Custody-Record

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

Chevron Facility Number: 9-3415
Facility Address: 4500 PARK BLVD, OAKLAND
Consultant Project Number: 3415-1
Consultant Name: TRACKSTONE
Address: 684 30th AVE, SF
Project Contact (Name): M. HAMBROW
(Phone): 386-8791 (Fax Number): 386-8794

Chevron Contact (Name): BRENDA ERDELT
(Phone): 510-842-9625
Laboratory Name: SUPERIOR
Laboratory Release Number: 179090
Samples Collected by (Name): M. HAMBROW
Collection Date: 8-19-94
Signature:

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)	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)	ORGANIC Pb				Remarks
SP-1A-D		4	S	C	1250		Yes	X								X				
SP-2A-D		4	S	C	1255		Yes	X												

Initial: CJJ
Samples Stored in Ice: Yes 4°C
Appropriate containers: Yes
Samples preserved: N/A
VOA without headspace: N/A
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
		8-19-94			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received for Laboratory By (Signature)		Date/Time 1639 8/19/94

Turn Around Time (Circle Choice)
24 Hour
48 Hrs.
5 Days
10 Days
As Contracted

COC-3.DWG/03 91/HCH

Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 3415-2
Reported 03-October-1994

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

Chronology

Laboratory Number 15801

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
WO-1-8.5'	09/19/94	09/22/94	09/30/94	09/30/94		1
WO-2-8.5'	09/19/94	09/22/94	09/30/94	09/30/94		2

Certified Laboratories

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

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

309 S. Cloverdale St., Suite B-24
Seattle, Washington 98108
(206) 763-2992 / fax (206) 763-8429

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 3415-2
Reported 03-October-1994

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

Laboratory Number	Sample Identification	Matrix
15801- 1	WO-1-8.5'	Soil
15801- 2	WO-2-8.5'	Soil

RESULTS OF ANALYSIS

Laboratory Number:	15801- 1	15801- 2
Chloromethane:	ND<25	ND<25
Vinyl Chloride:	ND<25	ND<25
Bromomethane:	ND<25	ND<25
Chloroethane:	ND<25	ND<25
Trichlorofluoromethane:	ND<25	ND<25
1,1-Dichloroethene:	ND<25	ND<25
Dichloromethane:	ND<25	ND<25
t-1,2-Dichloroethene:	ND<25	ND<25
1,1-Dichloroethane:	ND<25	ND<25
c-1,2-Dichloroethene:	ND<25	ND<25
Chloroform:	ND<25	ND<25
1,1,1-Trichloroethane:	190	120
Carbon tetrachloride:	ND<25	ND<25
1,2-Dichloroethane:	ND<25	ND<25
Trichloroethene:	ND<25	ND<25
c-1,3-Dichloropropene:	ND<25	ND<25
1,2-Dichloropropane:	ND<25	ND<25
t-1,3-Dichloropropene:	ND<25	ND<25
Bromodichloromethane:	ND<25	ND<25
1,1,2-Trichloroethane:	ND<25	ND<25
Tetrachloroethene:	220	1700
Dibromochloromethane:	ND<25	ND<25
Chlorobenzene:	ND<25	ND<25
Bromoform:	ND<25	ND<25
1,1,2,2-Tetrachloroeth:	ND<25	ND<25
1,3-Dichlorobenzene:	ND<25	ND<25
1,2-Dichlorobenzene:	ND<25	ND<25
1,4-Dichlorobenzene:	ND<25	ND<25
Concentration:	ug/Kg	ug/Kg

Certified Laboratories

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

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

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

Laboratory Number 15801

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Chloromethane:	ND<5	5			
Vinyl Chloride:	ND<5	5			
Bromomethane:	ND<5	5			
Chloroethane:	ND<5	5			
Trichlorofluoromethane:	ND<5	5			
1,1-Dichloroethene:	ND<5	5	65/69	44-184	6%
Dichloromethane:	ND<10	10			
t-1,2-Dichloroethene:	ND<5	5			
1,1-Dichloroethane:	ND<5	5			
c-1,2-Dichloroethene:	ND<5	5			
Chloroform:	ND<5	5			
1,1,1-Trichloroethane:	ND<5	5			
Carbon tetrachloride:	ND<5	5			
1,2-Dichloroethane:	ND<5	5			
Trichloroethene:	ND<5	5	84/84	55-141	0%
c-1,3-Dichloropropene:	ND<5	5			
1,2-Dichloropropane:	ND<5	5			
t-1,3-Dichloropropene:	ND<5	5			
Bromodichloromethane:	ND<5	5			
1,1,2-Trichloroethane:	ND<5	5			
Tetrachloroethene:	ND<5	5			
Dibromochloromethane:	ND<5	5			
Chlorobenzene:	ND<5	5	100/99	63-158	1%
Bromoform:	ND<5	5			
1,1,2,2-Tetrachloroeth:	ND<5	5			
1,3-Dichlorobenzene:	ND<5	5			
1,2-Dichlorobenzene:	ND<5	5			
1,4-Dichlorobenzene:	ND<5	5			

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
ug/Kg = Parts per billion (ppb)
QC File No. 15801

Michael R. Veroni
Senior Chemist
Account Manager

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Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 3415-2
Reported 29-September-1994

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

Chronology

Laboratory Number 15801

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
WO-1-8.5'	09/19/94	09/22/94	09/27/94	09/28/94		1
WO-2-8.5'	09/19/94	09/22/94	09/27/94	09/28/94		2

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TOUCHSTONE
Attn: MICHAEL TAMBRONI

Project 3415-1
Reported 29-September-1994

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

Laboratory Number	Sample Identification	Matrix
15801- 1	WO-1-8.5'	Soil
15801- 2	WO-2-8.5'	Soil

RESULTS OF ANALYSIS

Laboratory Number:		15801- 1	15801- 2
Cadmium	(Cd):	0.3	0.4
Chromium	(Cr):	11	14
Lead	(Pb):	11	8
Nickel	(Ni):	33	36
Zinc	(Zn):	29	32
Concentration:		mg/Kg	mg/Kg

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

Laboratory Number 15801

Compound		Method Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Cadmium	(Cd):	ND<0.1	0.1	97/96	75-125	1%
Chromium	(Cr):	ND<0.2	0.2	94/96	75-125	2%
Lead	(Pb):	ND<2	2	95/93	75-125	2%
Nickel	(Ni):	ND<1	1	96/91	75-125	5%
Zinc	(Zn):	ND<0.5	0.5	99/97	75-125	2%

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
mg/Kg = Parts per million (ppm)
QC File No. 15801

Senior Chemist
Account Manager

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TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 3415-2
Reported 09/28/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
15801- 1	WO-1-8.5'	09/19/94	09/26/94	Soil
15801- 2	WO-2-8.5'	09/19/94	09/26/94	Soil

RESULTS OF ANALYSIS

Laboratory Number:	15801- 1	15801- 2
Gasoline_Range:	440	170
Benzene:	ND<0.50	ND<0.5
Toluene:	3.1	0.5
Ethyl Benzene:	2.3	ND<0.5
Total Xylenes:	21	4.2
Diesel Range:	1200*	1500*
Oil and Grease:	1100	1000
Concentration:	mg/kg	mg/kg

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CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 15801

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:	115/89	25%	50-123
Benzene:	65/60	8%	59-153
Toluene:	83/80	4%	59-153
Ethyl Benzene:	85/80	6%	59-153
Total Xylenes:	104/94	10%	59-153
Diesel Range:	137/150	9%	50-150
Oil and Grease:	88/84	5%	50-150

* Does not match typical Diesel Pattern.

Cecilia Joaquin 9/28/94
Senior Chemist
Account Manager

TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 3415-2
Reported 26-September-1994

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

Chronology

Laboratory Number 15801

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
WO-1-8.5'	09/19/94	09/21/94	09/24/94	09/24/94		1
WO-2-8.5'	09/19/94	09/21/94	09/24/94	09/24/94		2

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TOUCHSTONE DEVELOPMENTS
Attn: MICHAEL TAMBRONI

Project 3415-2
Reported 26-September-1994

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

Laboratory Number	Sample Identification	Matrix
15801- 1	WO-1-8.5'	Soil
15801- 2	WO-2-8.5'	Soil

RESULTS OF ANALYSIS

Laboratory Number:	15801- 1	15801- 2
bis(2-chloroethyl)ethe:	ND<3000	ND<3000
aniline:	ND<3000	ND<3000
phenol:	ND<3000	ND<3000
2-chlorophenol:	ND<3000	ND<3000
1,3-dichlorobenzene:	ND<3000	ND<3000
1,4-dichlorobenzene:	ND<3000	ND<3000
1,2-dichlorobenzene:	ND<3000	ND<3000
benzyl alcohol:	ND<3000	ND<3000
bis-(2-chloroisopropyl:	ND<3000	ND<3000
2-methylphenol:	ND<3000	ND<3000
hexachloroethane:	ND<3000	ND<3000
n-nitroso-di-n-propyla:	ND<3000	ND<3000
4-methylphenol:	ND<3000	ND<3000
nitrobenzene:	ND<3000	ND<3000
isophorone:	ND<3000	ND<3000
2-nitrophenol:	ND<3000	ND<3000
2,4-dimethylphenol:	ND<3000	ND<3000
bis(2-chloroethoxy)met:	ND<3000	ND<3000
2,4-dichlorophenol:	ND<3000	ND<3000
1,2,4-trichlorobenzene:	ND<3000	ND<3000
naphthalene:	ND<3000	ND<3000
benzoic acid:	ND<3000	ND<3000
4-chloroaniline:	ND<3000	ND<3000
hexachlorobutadiene:	ND<3000	ND<3000
4-chloro-3-methylpheno:	ND<3000	ND<3000
2-methyl-naphthalene:	ND<3000	ND<3000
hexaclorocyclopentadie:	ND<3000	ND<3000
2,4,6-trichlorophenol:	ND<3000	ND<3000
2,4,5-trichlorophenol:	ND<3000	ND<3000
Concentration:	ug/Kg	ug/Kg

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Project 3415-2
Reported 26-September-1994

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

Laboratory Number	Sample Identification	Matrix
15801- 1	WO-1-8.5'	Soil
15801- 2	WO-2-8.5'	Soil

RESULTS OF ANALYSIS

Laboratory Number:	15801- 1	15801- 2
2-chloronaphthalene:	ND<3000	ND<3000
2-nitroaniline:	ND<3000	ND<3000
acenaphthylene:	ND<3000	ND<3000
dimethylphthlate:	ND<3000	ND<3000
2,6-dinitrotoluene:	ND<3000	ND<3000
acenaphthene:	ND<3000	ND<3000
3-nitroaniline:	ND<3000	ND<3000
2,4-dinitrophenol:	ND<3000	ND<3000
dibenzofuran:	ND<3000	ND<3000
2,4-dinitrotoluene:	ND<3000	ND<3000
4-nitrophenol:	ND<3000	ND<3000
fluorene:	ND<3000	ND<3000
4-chlorophenyl-phenyle:	ND<3000	ND<3000
diethylphthlate:	ND<3000	ND<3000
4-nitroaniline:	ND<3000	ND<3000
4,6-dinitro-2-methylph:	ND<3000	ND<3000
n-nitrosodiphenylamine:	ND<3000	ND<3000
1,2-diphenylhydrazine:	ND<3000	ND<3000
4-bromo-phenyl-phenyle:	ND<3000	ND<3000
hexachlorobenzene:	ND<3000	ND<3000
pentachlorophenol:	ND<3000	ND<3000
phenanthrene:	ND<3000	ND<3000
anthracene:	ND<3000	ND<3000
di-n-butylphthlate:	ND<3000	ND<3000
fluoranthene:	ND<3000	ND<3000
benzidine:	ND<3000	ND<3000
pyrene:	ND<3000	ND<3000
butylbenzylphthlate:	ND<3000	ND<3000
3.3'-dichlorobenzidine:	ND<3000	ND<3000
Concentration:	ug/Kg	ug/Kg

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Project 3415-2
Reported 26-September-1994

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

Laboratory Number	Sample Identification	Matrix
15801- 1	WO-1-8.5'	Soil
15801- 2	WO-2-8.5'	Soil

RESULTS OF ANALYSIS

Laboratory Number:	15801- 1	15801- 2
benzo[a]anthracene:	ND<3000	ND<3000
chrysene:	ND<3000	ND<3000
bis(2-ethylhexyl)phtha:	ND<3000	ND<3000
di-n-octylphthalate:	ND<3000	ND<3000
benzo(b,k)fluoranthene:	ND<3000	ND<3000
benzo[a]pyrene:	ND<3000	ND<3000
indeno[1,2,3-cd]pyrene:	ND<3000	ND<3000
dibenzo[a,h]anthracene:	ND<3000	ND<3000
benzo[g,h,i]anthracene:	ND<3000	ND<3000
Concentration:	ug/Kg	ug/Kg
-- Surrogate % Recoveries --		
2-fluorophenol:	103	104
phenol-d5:	110	110
nitrobenzene-d5:	117	108
2-fluorobiphenyl:	108	106
2,4,6-tribromophenol:	115	117
terphenyl-d14:	118	121

Detection limits raised due to matrix interference.

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

Laboratory Number 15801

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
bis(2-chloroethyl)ethe:	ND<300	300			
aniline:	ND<300	300			
phenol:	ND<300	300	90/89	48-106	1%
2-chlorophenol:	ND<300	300	93/91	40-113	2%
1,3-dichlorobenzene:	ND<300	300			
1,4-dichlorobenzene:	ND<300	300	90/89	43-111	1%
1,2-dichlorobenzene:	ND<300	300			
benzyl alcohol:	ND<300	300			
bis-(2-chloroisopropyl:	ND<300	300			
2-methylphenol:	ND<300	300			
hexachloroethane:	ND<300	300			
n-nitroso-di-n-propyla:	ND<300	300	70/71	43-115	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	103/103	39-124	0%
naphthalene:	ND<300	300			
benzoic acid:	ND<300	300			
4-chloroaniline:	ND<300	300			
hexachlorobutadiene:	ND<300	300			
4-chloro-3-methylpheno:	ND<300	300	94/94	43-115	0%
2-methyl-naphthalene:	ND<300	300			
hexaclorocyclopentadie:	ND<300	300			
2,4,6-trichlorophenol:	ND<300	300			
2,4,5-trichlorophenol:	ND<300	300			

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

Laboratory Number 15801

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
2-chloronaphthalene:	ND<300	300			
2-nitroaniline:	ND<300	300			
acenaphthylene:	ND<300	300			
dimethylphthlate:	ND<300	300			
2,6-dinitrotoluene:	ND<300	300			
acenaphthene:	ND<300	300	90/90	35-137	0%
3-nitroaniline:	ND<300	300			
2,4-dinitrophenol:	ND<300	300			
dibenzofuran:	ND<300	300			
2,4-dinitrotoluene:	ND<300	300	77/76	28-118	1%
4-nitrophenol:	ND<300	300	70/69	1-111	1%
fluorene:	ND<300	300			
4-chlorophenyl-phenyle:	ND<300	300			
diethylphthlate:	ND<300	300			
4-nitroaniline:	ND<300	300			
4,6-dinitro-2-methylph:	ND<300	300			
n-nitrosodiphenylamine:	ND<300	300			
1,2-diphenylhydrazine:	ND<300	300			
4-bromo-phenyl-phenyle:	ND<300	300			
hexachlorobenzene:	ND<300	300			
pentachlorophenol:	ND<300	300	88/89	14-123	1%
phenanthrene:	ND<300	300			
anthracene:	ND<300	300			
di-n-butylphthlate:	ND<300	300			
fluoranthene:	ND<300	300			
benzidine:	ND<300	300			
pyrene:	ND<300	300	98/93	41-131	5%
butylbenzylphthlate:	ND<300	300			
3.3'-dichlorobenzidine:	ND<300	300			

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

Laboratory Number 15801

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
benzo[a]anthracene:	ND<300	300			
chrysene:	ND<300	300			
bis(2-ethylhexyl)phtha:	ND<300	300			
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:	81			25-121	
phenol-d5:	86			24-113	
nitrobenzene-d5:	92			23-120	
2-fluorobiphenyl:	90			30-115	
2,4,6-tribromophenol:	99			19-122	
terphenyl-d14:	90			18-137	

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
ug/Kg = Parts per billion (ppb)
QC File No. 15801

Cecilia Joaquin 9/28/94
Senior Chemist
Account Manager

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Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No 15801

Chain-of-Custody-Record

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

Chevron Facility Number 9-3415
Facility Address 4500 PARK BLVD
Consultant Project Number 3415-2
Consultant Name TOUCHSTONE
Address 687 30th Ave
Project Contact (Name) M. THOMPSON
(Phone) 386-8791 (Fax Number) 386-8791

Chevron Contact (Name) MARK MILLER
(Phone) 510-842-8134
Laboratory Name SUPERIOR
Laboratory Release Number 179O290
Samples Collected by (Name) M. THOMPSON
Collection Date 9-19-94
Signature

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: 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)						Remarks
WO-1-8.5'		1	S	D	1100		yes	X	X	X	X			X	X						
WO-2-8.5'		1	S	D	1110		yes	X	X	X	X			X	X						

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	TD	9-22-94 1715			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
				9/22/94	14:15

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

COC-3.DWG/6/8 91/HCH

Superior Precision Analytical, Inc.
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TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415-1
Reported 22-September-1994

ANALYSIS FOR TOTAL ORGANIC LEAD
by California LUFT Method

Chronology

Laboratory Number 15798

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
WSP-1(A-D)	09/20/94	09/20/94	09/22/94	09/22/94		1
SP-1(A-D)	09/20/94	09/20/94	09/22/94	09/22/94		2

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TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415-1
Reported 22-September-1994

ANALYSIS FOR TOTAL ORGANIC LEAD

Laboratory Number	Sample Identification	Matrix
15798- 1	WSP-1(A-D)	Soil
15798- 2	SP-1(A-D)	Soil

RESULTS OF ANALYSIS

Laboratory Number:	15798- 1	15798- 2
ORGANIC LEAD:	ND<2	ND<2
Concentration:	mg/Kg	mg/Kg

Certified Laboratories

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

Laboratory Number 15798

Compound	Method Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
ORGANIC LEAD:	ND<2	2	118/120	75-125	2%

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
mg/Kg = Parts per million (ppm)
QC File No. 15798

Senior Chemist
Account Manager

Certified Laboratories

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TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415-1
Reported 09/22/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
15798- 1	WSP-1A-D	09/20/94	09/20/94	Soil
15798- 2	SP-1A-D	09/20/94	09/20/94	Soil

RESULTS OF ANALYSIS

Laboratory Number:	15798- 1	15798- 2
Gasoline_Range:	84	ND<1
Benzene:	ND<.05	ND<.005
Toluene:	0.50	ND<.005
Ethyl Benzene:	0.38	ND<.005
Total Xylenes:	2.6	ND<.005
Diesel:	790*	NA
Oil and Grease:	660	NA
Concentration:	mg/kg	mg/kg

* Does not match typical diesel pattern.

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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

QA/QC INFORMATION
SET: 15798

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:	96/89	8%	50-123
Benzene:	80/96	18%	59-153
Toluene:	88/80	10%	59-153
Ethyl Benzene:	95/88	8%	59-153
Total Xylenes:	101/101	0%	59-153
Diesel:	57/52	9%	50-150
Oil and Grease:	82/77	6%	60-110

Cecilia G Joaquin 9/22/94
Senior Chemist
Account Manager

Superior Precision Analytical, Inc.
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TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415-1
Reported 20-September-1994

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

Chronology — Laboratory Number 15798

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
WSP-1(A-D)	09/20/94	09/20/94	09/22/94	09/22/94		1

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TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415-1
Reported 20-September-1994

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

Laboratory Number	Sample Identification	Matrix
15798- 1	WSP-1(A-D)	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15798- 1

Chloromethane:	ND<5
Vinyl Chloride:	ND<5
Bromomethane:	ND<5
Chloroethane:	ND<5
Trichlorofluoromethane:	ND<10
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:	20
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

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

Laboratory Number 15798

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Chloromethane:	ND<5	5			
Vinyl Chloride:	ND<5	5			
Bromomethane:	ND<5	5			
Chloroethane:	ND<5	5			
Trichlorofluoromethane:	ND<10	10			
1,1-Dichloroethene:	ND<5	5	107/113	44-184	5%
Dichloromethane:	ND<10	10			
t-1,2-Dichloroethene:	ND<5	5			
1,1-Dichloroethane:	ND<5	5			
c-1,2-Dichloroethene:	ND<5	5			
Chloroform:	ND<5	5			
1,1,1-Trichloroethane:	ND<5	5			
Carbon tetrachloride:	ND<5	5			
1,2-Dichloroethane:	ND<5	5			
Trichloroethene:	ND<5	5	80/85	55-141	6%
c-1,3-Dichloropropene:	ND<5	5			
1,2-Dichloropropane:	ND<5	5			
t-1,3-Dichloropropene:	ND<5	5			
Bromodichloromethane:	ND<5	5			
1,1,2-Trichloroethane:	ND<5	5			
Tetrachloroethene:	ND<5	5			
Dibromochloromethane:	ND<5	5			
Chlorobenzene:	ND<5	5	88/92	63-158	4%
Bromoform:	ND<5	5			
1,1,2,2-Tetrachloroeth:	ND<5	5			
1,3-Dichlorobenzene:	ND<5	5			
1,2-Dichlorobenzene:	ND<5	5			
1,4-Dichlorobenzene:	ND<5	5			

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
ug/Kg = Parts per billion (ppb)
QC File No. 15798

Senior Chemist
Account Manager

Certified Laboratories

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TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415-1
Reported 22-September-1994

ANALYSIS FOR CAM 17 METALS
California Administration Code Title 22, Paragraph 66700 & EPA Methods
SW-846 6010 & 7000 series.

Chronology

Laboratory Number 15798

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
WSP-1(A-D)	09/20/94	09/20/94	09/21/94	09/22/94		1

Certified Laboratories

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TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415-1
Reported 22-September-1994

ANALYSIS FOR CAM 17 METALS

Laboratory Number	Sample Identification	Matrix
15798- 1	WSP-1(A-D)	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15798- 1

Antimony	(Sb):	ND<2.5
Arsenic	(As):	ND<0.5
Barium	(Ba):	160
Beryllium	(Be):	0.7
Cadmium	(Cd):	0.4
Chromium	(Cr):	18
Cobalt	(Co):	8
Copper	(Cu):	9
Lead	(Pb):	11
Mercury	(Hg):	ND<0.05
Molybdenum	(Mo):	ND<1
Nickel	(Ni):	46
Selenium	(Se):	ND<0.5
Silver	(Ag):	6.4
Thallium	(Tl):	ND<1.4
Vanadium	(V):	25
Zinc	(Zn):	39

Concentration: mg/Kg

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ANALYSIS FOR CAM 17 METALS
Quality Assurance and Control Data - Soil

Laboratory Number 15798

Compound		Method Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Antimony	(Sb):	ND<2.5	2.5	104/107	75-125	3%
Arsenic	(As):	ND<0.5	0.5	115/119	75-125	3%
Barium	(Ba):	ND<1	1	109/107	75-125	2%
Beryllium	(Be):	ND<0.1	0.1	114/114	75-125	0%
Cadmium	(Cd):	ND<0.1	0.1	111/113	75-125	2%
Chromium	(Cr):	ND<0.2	0.2	108/109	75-125	1%
Cobalt	(Co):	ND<1	1	112/114	75-125	2%
Copper	(Cu):	ND<1	1	111/111	75-125	0%
Lead	(Pb):	ND<2	2	109/111	75-125	2%
Mercury	(Hg):	ND<0.05	0.05	100/100	75-125	0%
Molybdenum	(Mo):	ND<1	1	109/113	75-125	4%
Nickel	(Ni):	ND<1	1	113/114	75-125	1%
Selenium	(Se):	ND<0.5	0.5	124/124	75-125	0%
Silver	(Ag):	ND<0.5	0.5	111/106	75-125	5%
Thallium	(Tl):	ND<1.4	1.4	111/121	75-125	9%
Vanadium	(V):	ND<2	2	106/107	75-125	1%
Zinc	(Zn):	ND<0.5	0.5	111/113	75-125	2%

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
mg/Kg = Parts per million (ppm)
QC File No. 15798

Senior Chemist
Account Manager

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TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415-1
Reported 21-September-1994

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

Chronology

Laboratory Number 15798

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
WSP-1A-D	09/20/94	09/20/94	09/20/94	09/20/94		1

Certified Laboratories

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TOUCHSTONE DEVELOPMENTS
Attn: JEFF MONROE

Project 3415-1
Reported 21-September-1994

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

Laboratory Number	Sample Identification	Matrix
15798- 1	WSP-1A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15798- 1

bis(2-chloroethyl)ethe:	ND<3000
aniline:	ND<3000
phenol:	ND<3000
2-chlorophenol:	ND<3000
1,3-dichlorobenzene:	ND<3000
1,4-dichlorobenzene:	ND<3000
1,2-dichlorobenzene:	ND<3000
benzyl alcohol:	ND<3000
bis-(2-chloroisopropyl:	ND<3000
2-methylphenol:	ND<3000
hexachloroethane:	ND<3000
n-nitroso-di-n-propyla:	ND<3000
4-methylphenol:	ND<3000
nitrobenzene:	ND<3000
isophorone:	ND<3000
2-nitrophenol:	ND<3000
2,4-dimethylphenol:	ND<3000
bis(2-chloroethoxy)met:	ND<3000
2,4-dichlorophenol:	ND<3000
1,2,4-trichlorobenzene:	ND<3000
naphthalene:	ND<3000
benzoic acid:	ND<3000
4-chloroaniline:	ND<3000
hexachlorobutadiene:	ND<3000
4-chloro-3-methylpheno:	ND<3000
2-methyl-naphthalene:	ND<3000
hexaclorocyclopentadie:	ND<3000
2,4,6-trichlorophenol:	ND<3000
2,4,5-trichlorophenol:	ND<3000
Concentration:	ug/Kg

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Project 3415-1
Reported 21-September-1994

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

Laboratory Number	Sample Identification	Matrix
15798- 1	WSP-1A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15798- 1

2-chloronaphthalene:	ND<3000
2-nitroaniline:	ND<3000
acenaphthylene:	ND<3000
dimethylphthlate:	ND<3000
2,6-dinitrotoluene:	ND<3000
acenaphthene:	ND<3000
3-nitroaniline:	ND<3000
2,4-dinitrophenol:	ND<3000
dibenzofuran:	ND<3000
2,4-dinitrotoluene:	ND<3000
4-nitrophenol:	ND<3000
fluorene:	ND<3000
4-chlorophenyl-phenyle:	ND<3000
diethylphthlate:	ND<3000
4-nitroaniline:	ND<3000
4,6-dinitro-2-methylph:	ND<3000
n-nitrosodiphenylamine:	ND<3000
1,2-diphenylhydrazine:	ND<3000
4-bromo-phenyl-phenyle:	ND<3000
hexachlorobenzene:	ND<3000
pentachlorophenol:	ND<3000
phenanthrene:	ND<3000
anthracene:	ND<3000
di-n-butylphthlate:	ND<3000
fluoranthene:	ND<3000
benzidine:	ND<3000
pyrene:	ND<3000
butylbenzylphthlate:	ND<3000
3.3'-dichlorobenzidine:	ND<3000

Concentration: ug/Kg

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TOUCHSTONE DEVELOPMENTS
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Project 3415-1
Reported 21-September-1994

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

Laboratory Number	Sample Identification	Matrix
15798- 1	WSP-1A-D	Soil

RESULTS OF ANALYSIS

Laboratory Number: 15798- 1

benzo[a]anthracene:	ND<3000
chrysene:	ND<3000
bis(2-ethylhexyl)phtha:	ND<3000
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:	107
phenol-d5:	MI
nitrobenzene-d5:	109
2-fluorobiphenyl:	MI
2,4,6-tribromophenol:	112
terphenyl-d14:	131

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

Laboratory Number 15798

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
bis(2-chloroethyl)ethe:	ND<300	300			
aniline:	ND<300	300			
phenol:	ND<300	300	96/96	48-106	0%
2-chlorophenol:	ND<300	300	95/95	40-113	0%
1,3-dichlorobenzene:	ND<300	300			
1,4-dichlorobenzene:	ND<300	300	96/96	43-111	0%
1,2-dichlorobenzene:	ND<300	300			
benzyl alcohol:	ND<300	300			
bis-(2-chloroisopropyl:	ND<300	300			
2-methylphenol:	ND<300	300			
hexachloroethane:	ND<300	300			
n-nitroso-di-n-propyla:	ND<300	300	80/82	43-115	2%
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	116/116	39-124	0%
naphthalene:	ND<300	300			
benzoic acid:	ND<300	300			
4-chloroaniline:	ND<300	300			
hexachlorobutadiene:	ND<300	300			
4-chloro-3-methylpheno:	ND<300	300	101/101	43-115	0%
2-methyl-naphthalene:	ND<300	300			
hexaclorocyclopentadie:	ND<300	300			
2,4,6-trichlorophenol:	ND<300	300			
2,4,5-trichlorophenol:	ND<300	300			

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

Laboratory Number 15798

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
2-chloronaphthalene:	ND<300	300			
2-nitroaniline:	ND<300	300			
acenaphthylene:	ND<300	300			
dimethylphthlate:	ND<300	300			
2,6-dinitrotoluene:	ND<300	300			
acenaphthene:	ND<300	300	100/100	35-137	0%
3-nitroaniline:	ND<300	300			
2,4-dinitrophenol:	ND<300	300			
dibenzofuran:	ND<300	300			
2,4-dinitrotoluene:	ND<300	300	94/94	28-118	0%
4-nitrophenol:	ND<300	300	56/56	1-111	0%
fluorene:	ND<300	300			
4-chlorophenyl-phenyle:	ND<300	300			
diethylphthlate:	ND<300	300			
4-nitroaniline:	ND<300	300			
4,6-dinitro-2-methylph:	ND<300	300			
n-nitrosodiphenylamine:	ND<300	300			
1,2-diphenylhydrazine:	ND<300	300			
4-bromo-phenyl-phenyle:	ND<300	300			
hexachlorobenzene:	ND<300	300			
pentachlorophenol:	ND<300	300	67/67	14-123	0%
phenanthrene:	ND<300	300			
anthracene:	ND<300	300			
di-n-butylphthlate:	ND<300	300			
fluoranthene:	ND<300	300			
benzidine:	ND<300	300			
pyrene:	ND<300	300	118/122	41-131	3%
butylbenzylphthlate:	ND<300	300			
3.3'-dichlorobenzidine:	ND<300	300			

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

Laboratory Number 15798

Compound	Method Blank (ug/Kg)	RL (ug/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
benzo[a]anthracene:	ND<300	300			
chrysene:	ND<300	300			
bis(2-ethylhexyl)phtha:	ND<300	300			
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:	86			25-121	
phenol-d5:	93			24-113	
nitrobenzene-d5:	95			23-120	
2-fluorobiphenyl:	97			30-115	
2,4,6-tribromophenol:	68			19-122	
terphenyl-d14:	102			18-137	

Definitions:
ND = Not Detected
RPD = Relative Percent Difference
RL = Reporting Limit
ug/Kg = Parts per billion (ppb)
QC File No. 15798

Cecilia G Joaquin 9/22/94
Senior Chemist
Account Manager

Certified Laboratories

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

1555 Burke St., Unit I
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(415) 647-2081 / fax (415) 821-7123

309 S. Cloverdale St., Suite B-24
Seattle, Washington 98108
(206) 763-2992 / fax (206) 763-8429

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No 15798

Chain-of-Custody-Record

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

Chevron Facility Number 9-345
Facility Address 4500 Park Blvd. Oakland
Consultant Project Number 3415-1
Consultant Name Touchstone Developments
Address PO Box 2554 Santa Rosa CA
Project Contact (Name) Jeff Monroe
(Phone) 7075388818 (Fax Number) 5388812

Chevron Contact (Name) Mark Miller / Belinda
(Phone) 510 842 8134
Laboratory Name Superior
Laboratory Release Number 1790290
Samples Collected by (Name) Jeff Monroe
Collection Date 9-20-94
Signature Jeff Monroe

Analyses To Be Performed

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water 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 (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	CAM 17 Metals	Organic Pb				Remarks
WSP-1a-d		4	S	C	10:10		Yes	X	X	X	X			X		X		← Comp 4 into 1			
SP-1a-d		4	S	C	10:15		Yes	X									X				

Lower DLs for Metals per BEI requirements

Please initial: CGJ
Samples Stored in ice Yes 4°C
Appropriate containers Yes
Samples preserved NA
VOA's without headspace NA
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Jeff Monroe	TD	9-20-94 13:10			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) Cecilia G. Joaquin		Date/Time 9/20/94 1310

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

COC-3.DWG/03 91/HCH