Chevron

Chevron

93 OCT 13 AM 8:40

October 7, 1993

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

Ms. Jennifer Eberle
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station #9-2506
2630 Broadway, Oakland, CA 94612

Dear Ms. Eberle:

Enclosed is the Ground Water Sampling report dated October 1, 1993, prepared by our consultant Sierra Environmental Services (SES) for the above referenced site. As noted in the Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report submitted to your office in September of 1993, a leak in the mid-grade product line was identified on September 8 and repaired on September 9, 1993. The location of the leak was just to the east of the underground storage tanks. According to the dealer's inventory records, the estimated loss is approximately 20 gallons or less.

A review of Chevron's files indicated that a tank leak occurred at this site in 1982. The tank system was removed and replaced with all new fiberglass tanks and lines. In response to the tank leak, eight monitor wells were installed. Copies of the installation reports are enclosed for your files. Two additional wells were installed in the backfill of the new fuel tanks to monitor the backfill. According to notes in the file, separate-phase hydrocarbons (SPH) were removed from monitor well B-4 on a weekly basis from August of 1982 to February of 1983. SPH removal was discontinued when it was no longer observed to recharge into the well.

→ not here

In response to the recent line leak, SES was dispatched to the site to assess the integrity of the wells. All eight ground water monitor wells and two tank pit backfill wells were observed to exist on site. The wells appeared to be in good condition and were checked for separate-phase hydrocarbons. No separate-phase hydrocarbons were detected. All wells were then monitored and sampled.

As indicated in the enclosed report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in all monitor wells, with the exception of B-6, at concentrations ranging from 1.3 ppb to 3200 ppb. Depth to ground water was measured at approximately 5.2 feet to 9.9 feet below grade and flows in a northerly direction.

SES checked the wells again approximately one week following the initial sampling event to determine if separate-phase hydrocarbons were present. No separate-phase hydrocarbons were observed.

Based on the data gathered to date, it appears that dissolved hydrocarbons have migrated beyond the existing monitoring wells. Chevron has instructed its consultant to prepare a work plan for delineation of hydrocarbons in the ground water. We are currently targeting November 20 as the submittal date for the work plan.

Chevron will continue to monitor and sample all wells at this site and report findings on a quarterly basis. 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

Enclosures

cc: Mr. Rich Hiett, RWQCB - Bay Area
Mr. S.A. Willer
File (9-2506 QM1)

OCT 1 '93 J.M.M.

SIERRA
Environmental Services

October 1, 1993

Mark Miller
Chevron USA Products Company
P.O. Box 5004
San Ramon, CA 94583

Re: Chevron Service Station #9-2506
2630 Broadway
Oakland, California
SES Project #1-364-04

Dear Mr. Miller:

This report presents the results ground water sampling at Chevron Service Station #9-2506, located at 2630 Broadway in Oakland, California. Ten wells, B-1 through B-8, TP-1 and TP-2, were sampled (Figure 1).

On September 9, 1993, SES personnel visited the site. Water level measurements were collected in all site wells and all wells were checked for the presence of free-phase hydrocarbons. Free-phase hydrocarbons were not present in any of the site wells checked. Water level data are shown in Table 1 and ground water elevation contours are included on Figure 1.

The ground water samples were collected on September 9, 1993 in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). All analyses were performed by Superior Precision Analytical, Inc. of Martinez, California. Analytic results for ground water are presented in Table 2. The chain of custody document and laboratory analytic reports are attached. SES is not responsible for laboratory omissions or errors.

Thank you for allowing us to provide services to Chevron. Please call if you have any questions.

REGISTERED PROFESSIONAL ENGINEER
CHRIS J. BRAMER
C 048846
CIVIL
STATE OF CALIFORNIA

Sincerely,
Sierra Environmental Services

Argy Mena
Staff Geologist

Chris J. Bramer
Professional Engineer #C48846

AJM/CJB/cb
36404QM.OC3

Attachments Figure
Tables
SES Standard Operating Procedure
Chain of Custody Document and Laboratory Analytic Reports

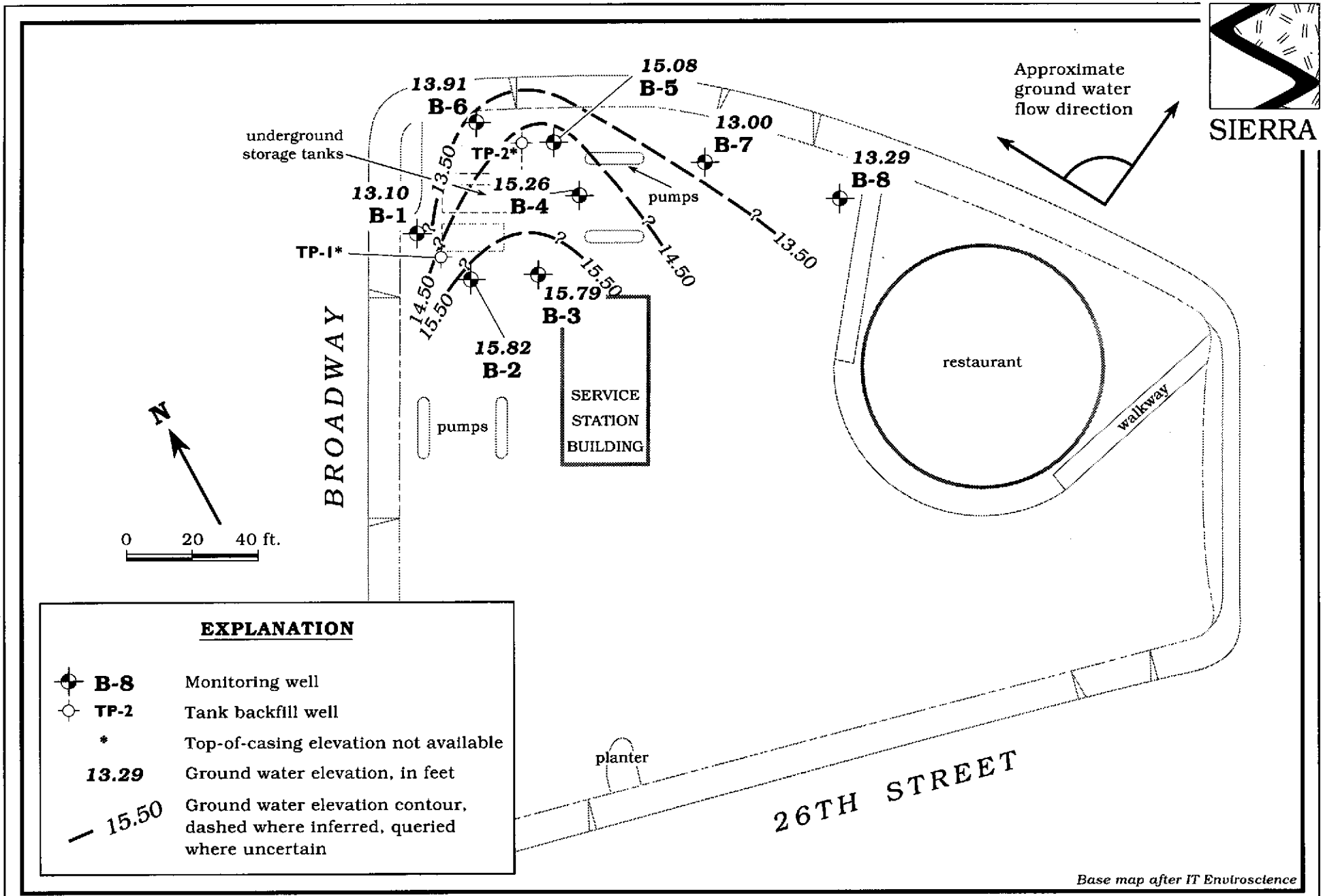


Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - September 9, 1993 - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California

SIERRA

Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						<----------*feet below grade*---------->		
B-1	3/18/82	7.81	23.00[1]	15.19	0	5 - 20	4 - 20	0 - 4
	3/25/82	8.67		14.33	0			
	5/21/82	9.30		13.70	0			
	5/26/82	10.18		12.82	0			
	6/24/82	9.92		13.08	0			
	9/9/93	**9.90**		**13.10**	**0**			
B-2	3/18/82	3.83	22.28[1]	18.45	0	5 - 20	4 - 20	0 - 4
	3/25/82	5.79		16.49	0			
	5/21/82	4.85		17.43	0			
	5/26/82	8.53		13.75	0			
	6/24/82	8.40		13.88	0			
	9/9/93	**6.46**		**15.82**	**0**			
B-3	3/18/82	5.65	21.78[1]	16.13	0			
	3/25/82	5.75		16.03	0			
	5/21/82	5.58		16.20	0			
	5/26/82	7.99		13.79	0			
	6/24/82	7.68		14.10	0			
	9/9/93	**5.99**		**15.79**	**0**			
B-4	3/18/82	4.65	21.35[1]	16.70	0	5 - 20	4 - 20	0 - 4
	3/25/82	5.08		16.27	0			
	5/21/82	---		---	2.5			
	5/26/82	9.21		12.14	---			
	6/24/82	8.22		13.13	0.5			
	9/9/93	**6.09**		**15.26**	**0**			
B-5	3/18/82	5.13	21.53[1]	16.40	0	5 - 20	4 - 20	0 - 4
	3/25/82	5.27		16.26	0			
	5/21/82	4.40		17.13	0			
	5/26/82	7.55		13.98	0			
	6/24/82	7.27		14.26	0			
	9/9/93	**6.45**		**15.08**	**0**			

SIERRA

Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						<----------feet below grade---------->		
B-6	3/18/82	7.56	22.03[1]	14.47	0	5 - 20	4 - 20	0 - 4
	3/25/82	6.08		15.95	0			
	5/21/82	4.85		17.18	0			
	5/26/82	8.31		13.72	0			
	6/24/82	8.03		14.00	0			
	9/9/93	**8.12**		**13.91**	**0**			
B-7	3/18/82	4.08	19.54[1]	15.46	0	5 - 20	4 - 20	0 - 4
	3/25/82	4.00		15.54	0			
	5/21/82	3.00		16.54	0			
	5/26/82	4.96		14.58	0			
	6/24/82	4.90		14.64	0			
	9/9/93	**6.54**		**13.00**	**0**			
B-8	3/18/82	4.27	18.49[1]	14.22	0	5 - 20	4 - 20	0 - 4
	3/25/82	4.06		14.43	0			
	5/21/82	4.86		13.63	0			
	5/26/82	4.96		13.53	0			
	6/24/82	4.87		13.62	0			
	9/9/93	**5.20**		**13.29**	**0**			
TP-1	**9/9/93**	**7.33**	---	---	**0**	---	---	---
TP-2	**9/9/93**	**6.18**	---	---	**0**	---	---	---

SIERRA

Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Ground water elevation
msl = Measurements referenced relative to mean sea level
--- = Not available/not applicable

NOTES:

Water level data prior to September 9, 1993, compiled from IT Enviroscience Progress Report, prepared for Chevron, August 2, 1982.

Well construction details for wells B-1 through B-8 were compiled from the Well Installation Report prepared by Kleinfelder, March 26, 1982.

Well construction details for TP-1 and TP-2 not available for inclusion in this report.

* Product thickness was measured on and after September 9, 1993, with an MMC flexi-dip interface probe.

[1] Top of casing elevations were compiled from IT Enviroscience Program Report, August 2, 1982. TOC for MW-1 was assumed to be 23 feet MSL.

SIERRA

Table 2. Analytic Results for Ground Water - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	E	X
				<------		*ppb*		------>
B-1	9/9/93	SPA	8015/8020	8,800[1]	240	280	<2.5	<7.5
B-2	9/9/93	SPA	8015/8020	4,700	470	630	180	590
B-3	9/9/93	SPA	8015/8020	7,800	500	760	180	720
B-4	9/9/93	SPA	8015/8020	68,000	3,200	16,000	2,000	9,500
B-5	9/9/93	SPA	8015/8020	110,000	1,800	1,800	6,300	25,000
B-6	9/9/93	SPA	8015/8020	6,600[1]	<0.5	<0.5	<0.5	<1.5
B-7	9/9/93	SPA	8015/8020	280	1.3	2.3	0.6	2.1
B-8	9/9/93	SPA	8015/8020	<50	3.4	<0.5	<0.5	<1.5
TP-1	9/9/93	SPA	8015/8020	2,500	770	890	120	590
TP-2	9/9/93	SPA	8015/8020	13,000	2,400	3,200	380	1,900
Trip-Lab Blank TB-LB	9/9/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
Bailer Blank BB	9/9/93	SPA	8025/8020	<50	<0.5	<0.5	<0.5	<1.5

SIERRA

Table 2. Analytic Results for Ground Water - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

EXPLANATION:

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
ppb = Parts per billion
--- = Not analyzed/Not applicable

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)
8020 = EPA Method 8020 for BTEX

ANALYTIC LABORATORIES:

SPA = Superior Precision Analytical, Inc. of Martinez, California

NOTES:

[1] Laboratory indicates a non-typical gasoline pattern.

SIERRA

SES STANDARD OPERATING PROCEDURE
GROUND WATER SAMPLING

The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is checked for the presence of free-phase hydrocarbons using an MMC flexi-dip interface probe. Product thickness (measured to the nearest 0.01 foot) is noted on the sampling form. Water level measurements are also made using either a water level meter or the interface probe. The water level measurements are also noted on the sampling form.

Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, pH or conductivity do not exceed ±0.5°F, 0.1 or 5%, respectively).

The purge water is taken to Chevron's Richmond Refinery for disposal.

Ground water samples are collected from the wells with steam-cleaned Teflon bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Pre-preserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4°C) for transport under chain of custody to the laboratory.

The chain of custody form includes the project number, analysis requested, sample ID, date analysis and the SES field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

A trip blank and bailer blank accompanies each sampling set, or 5% trip blanks and 5% bailer blanks are included for sets of greater than 20 samples. The bailer blank is prepared by pouring previously boiled water into a steam-cleaned Teflon bailer prior to sampling a well. The trip and bailer blanks are analyzed for some or all of the same compounds as the ground water samples.

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No 89927

Chain-of-Custody-Record

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

Chevron Facility Number 9-2506
Facility Address 2630 BROADWAY, OAKLAND
Consultant Project Number 1-364-04
Consultant Name SIERRA ENVIRONMENTAL SVCS
Address P.O. BOX 2546, MARTINEZ
Project Contact (Name) ARGY MENA
(Phone) 370.1280 (Fax Number) 370.7959

Chevron Contact (Name) MARK MILLER
(Phone) 842-8134
Laboratory Name SUPERIOR PRECISION
Laboratory Release Number 8842480
Samples Collected by (Name) ARGY MENA / CAROL EATON
Collection Date 9 SEPT 93
Signature [signature]

NOTE: Do NOT BILL TB-LB SAMPLES

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)						Remarks
TB-LB		3	W	G	1603	HCL	Y	Y													ANALYZE IN ORDER
BB					1610																
B-8					1612																
B-7					1621																
B-1					1640																
B-6					1640																
B-5					1627																
B-4					1620																
B-3					[illegible]																
B-2					1645																
TP-1					1630																
TP-2					168																

[illegible] Val
yes <5°C
yes
None yes
None

* dilute before analysis per client

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	SES	10:50 10 SEPT '93			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) Val Ogunbe		09/10/93 1051

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
(As Contracted) — circled
9/10/93

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

Sierra Environmental
Attn: ARGY MENA

Project 1-364-04
Reported 09/20/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
89927- 1	TB-LB	09/09/93	09/10/93	Water
89927- 2	BB	09/09/93	09/10/93	Water
89927- 3	B-8	09/09/93	09/10/93	Water
89927- 4	B-7	09/09/93	09/10/93	Water
89927- 5	B-1	09/09/93	09/18/93	Water
89927- 6	B-6	09/09/93	09/18/93	Water
89927- 7	B-5	09/09/93	09/15/93	Water
89927- 8	B-4	09/09/93	09/15/93	Water
89927- 9	B-3	09/09/93	09/14/93	Water
89927-10	B-2	09/09/93	09/11/93	Water

RESULTS OF ANALYSIS

Laboratory Number:	89927- 1	89927- 2	89927- 3	89927- 4	89927- 5
Gasoline:	ND<50	ND<50	ND<50	230	*8800
Benzene:	ND<0.5	ND<0.5	3.4	1.3	240
Toluene:	ND<0.5	ND<0.5	ND<0.5	2.3	280
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	0.6	**ND<2.5
Total Xylenes:	ND<1.5	ND<1.5	ND<1.5	2.1	**ND<7.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number:	89927- 6	89927- 7	89927- 8	89927- 9	89927-10
Gasoline:	*6800	110000	88000	7800	4700
Benzene:	ND<0.5	1800	3200	500	470
Toluene:	ND<0.5	1800	16000	760	630
Ethyl Benzene:	ND<0.5	6300	2000	180	180
Total Xylenes:	ND<1.5	25000	9500	720	590
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

* - Does not match typical gasoline pattern.

** - Increased detection limits due to sample dilution.

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

Sierra Environmental
Attn: ARGY MENA

Project 1-364-04
Reported 09/20/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
89927-11	TP-1	09/09/93	09/14/93	Water
89927-12	TP-2	09/09/93	09/14/93	Water

RESULTS OF ANALYSIS

Laboratory Number:	89927-11	89927-12
Gasoline:	8500	13000
Benzene:	770	2400
Toluene:	890	3200
Ethyl Benzene:	120	380
Total Xylenes:	590	1900
Concentration:	ug/L	ug/L

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 ▪ Martinez, California 94553 ▪ (510) 229-1512 / fax (510) 229-1526

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: 89927

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = parts per billion (ppb)

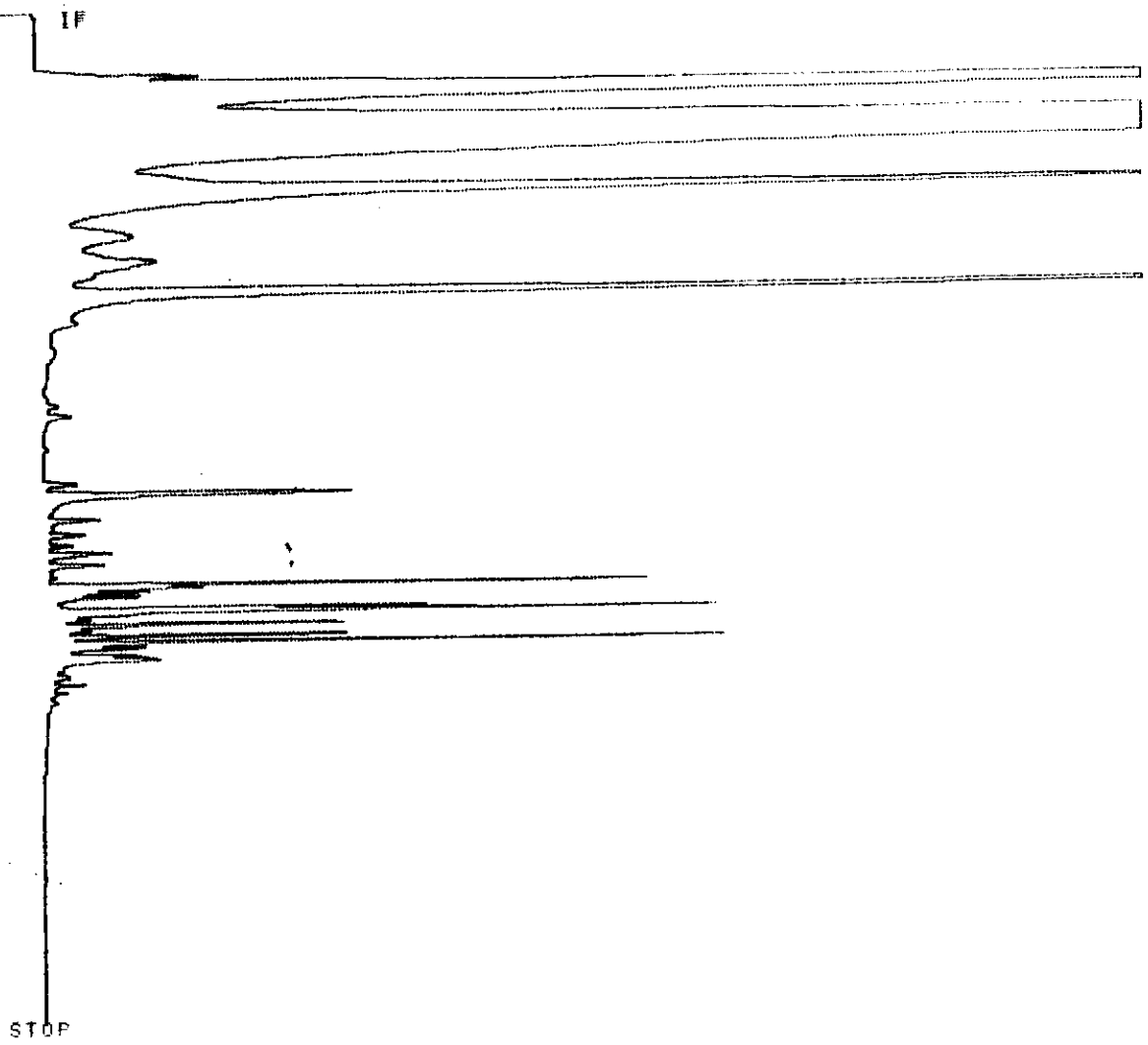
EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	87/81	7%	70-130
Benzene:	119/101	16%	70-130
Toluene:	133/118	12%	70-130
Ethyl Benzene:	135/113	18%	70-130
Total Xylenes:	138/115	18%	70-130

9/20/93
Senior Chemist

START PENDING
RUN # 6543 SEP 18, 1993 13:08:07
START

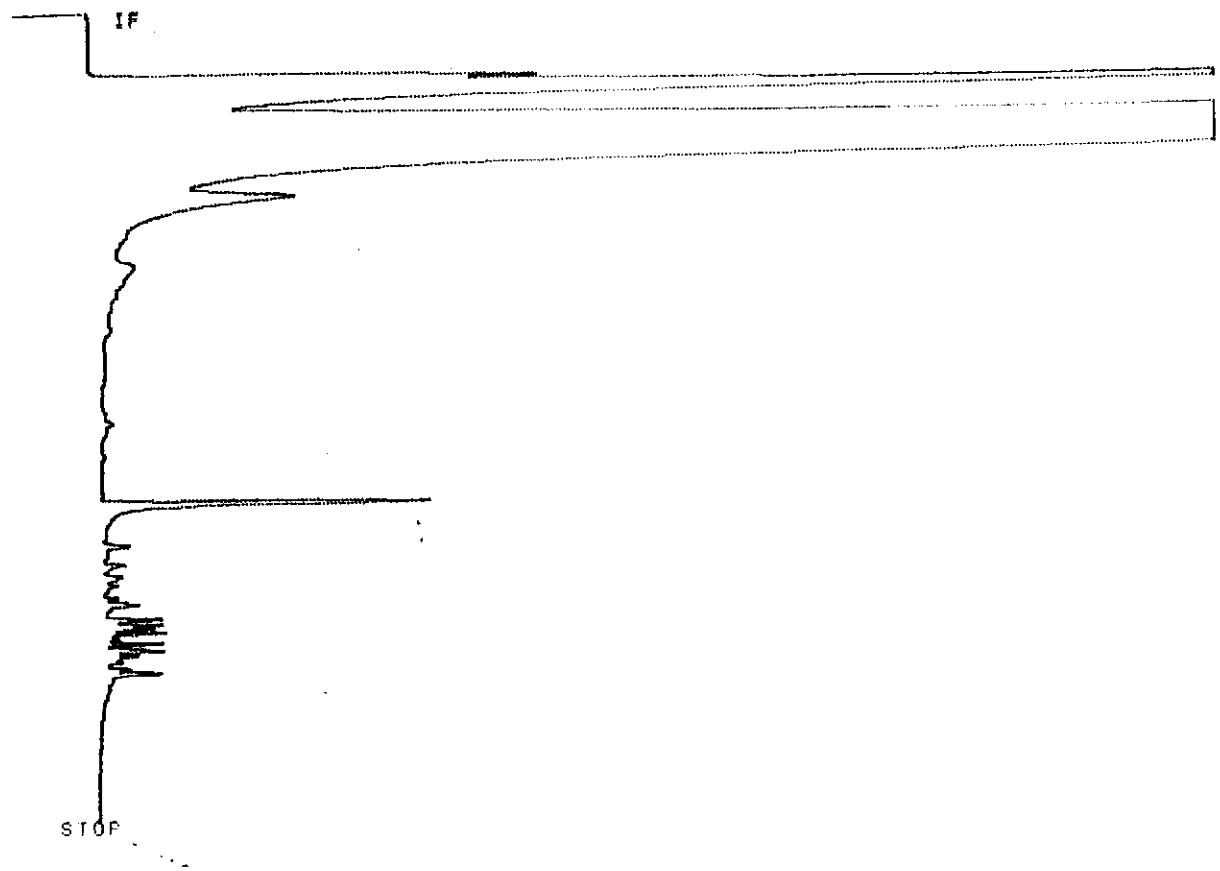


RUNNUM: 6543 ALS POSITION: 4

SAMPLE: 89927-5
SAMPLE AMOUNT: 1 ml OR g

AREA: 19412544.
ug TOTAL: 8.75372
CONCENTRATION: 8.75372 mg/L OR mg/kg
GC-5 SERIAL # 2950A27656

RT PENDING
N # 6542 SEP 18, 1993 12:40:25
TART



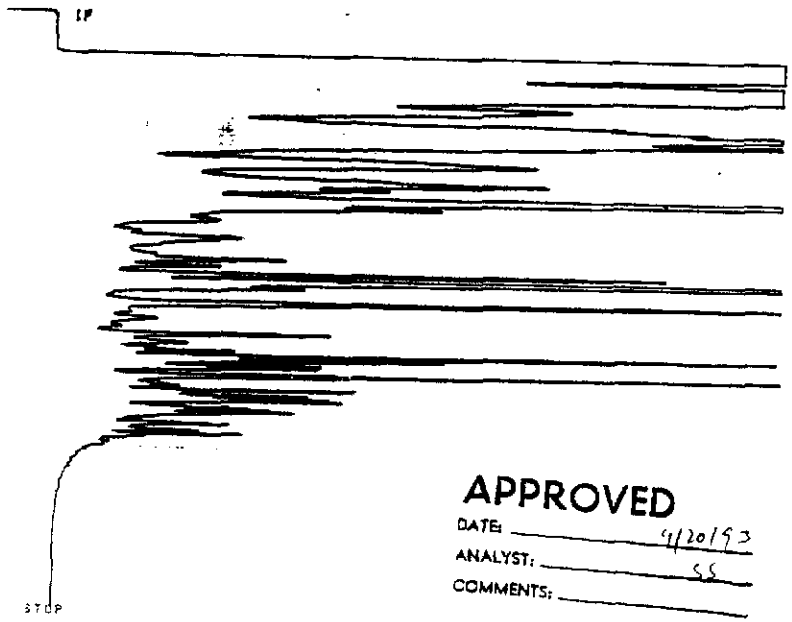
RUNNUM: 6542 ALS POSITION: 3

SAMPLE: 89927-6
SAMPLE AMOUNT: 5 ml OR g

AREA: 62297920.
ug TOTAL: 33.8629
CONCENTRATION: 6.77257 mg/L OR mg/kg
GC-5 SERIAL # 2950A27656

AREA: 19412544.
ug TOTAL: 8.75372
CONCENTRATION: 8.75372 mg/L OR mg/kg
GC-5 SERIAL # 2950A27656

START PENDING
RUN # 6538 SEP 18, 1993 10:20:27
START



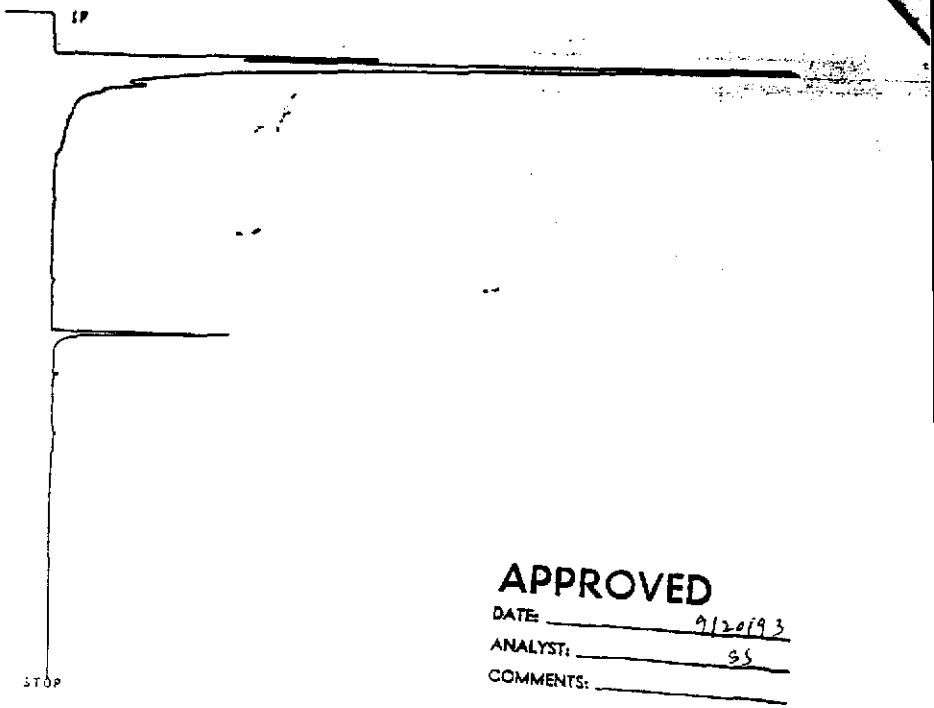
APPROVED
DATE: 9/20/93
ANALYST: SS
COMMENTS:

RUNNUM: 6538 ALS POSITION: 2

SAMPLE: CAS-STD
SAMPLE AMOUNT: 5 ml OR g

AREA: 21454648.
ug TOTAL: 4.7692
CONCENTRATION: 1.35384 ng/L OR ng/kg
GC-5 SERIAL # 2950A27656

START PENDING
RUN # 6539 SEP 18, 1993 10:57:03
START



APPROVED
DATE: 9/20/93
ANALYST: SS
COMMENTS:

RUNNUM: 6539 ALS POSITION: 3

SAMPLE: BLK-CC
SAMPLE AMOUNT: 5 ml OR g

AREA: 277199.
ug TOTAL: 0.11354
CONCENTRATION: 0.0227081 ng/L OR ng/kg
GC-5 SERIAL # 2950A27656