

EXXON COMPANY, U.S.A.

P.O. BOX 4032 • CONCORD, CA 94524-2032
MARKETING DEPARTMENT

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FUEL PRODUCTS•BUSINESS SERVICES
ENVIRONMENTAL ENGINEERING

MARLA D. GUENSLER
SENIOR ENVIRONMENTAL ENGINEER

(510) 246-8776
(510) 246-8798 FAX

July 26, 1994

Ms. Eva Chu *TP*
Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

RE: Exxon RAS #7-0236/6630 East 14th Street, Oakland, CA

74621

Dear Ms. Chu:

Attached for your review and comment is a report entitled **Letter Report Groundwater Monitoring** for the above referenced site. This report, prepared by RESNA Industries, Inc., of Novato, California, details the results of the Second Quarter groundwater monitoring and sampling event.

From this event, total petroleum hydrocarbons were detected for the first time in samples collected from upgradient well MW-4. Also concentrations of total petroleum hydrocarbons as diesel increased in samples collected from well MW-6. Exxon will continue quarterly groundwater monitoring and sampling of wells MW-1 through MW-7 to further evaluate petroleum hydrocarbons the groundwater and direction and gradient of groundwater flow. For third quarter 1994, groundwater samples collected during monitoring should be submitted for laboratory analysis for benzene, toluene, ethylbenzene, total xylenes, total petroleum hydrocarbons as gasoline, and for total petroleum hydrocarbons as diesel using modified Environmental Protection Agency methods 8020/8015. Routine well maintenance and quality control will be performed as necessary during site visits.

If you have any questions or comments, please contact me at the above listed phone number.

Sincerely,

Andrea J. Perez

Andrea J. Perez
Environmental Engineering Intern

Marla D. Guensler

Marla D. Guensler
Senior Environmental Engineer

MDG/mdg

enclosure: RESNA Quarterly Report dated May 31, 1994

cc: w/attachment:
Mr. Richard Hiatt - San Francisco Bay RWQCB



73 Digital Drive
Novato, CA 94949
Phone: (415) 382-7400
Fax: (415) 382-7415

May 31, 1994

Ms. Marla Guensler
Exxon Company, U.S.A.
P.O. Box 4032
2300 Clayton Road
Concord, California 94524

Subject: Recommendations to Accompany Letter Report
Quarterly Groundwater Monitoring, Second Quarter 1994
Exxon Station 7-0236
6630 East 14th Street
Oakland, California

Ms. Guensler:

At the request of Exxon Company, U.S.A., RESNA Industries Inc. (RESNA) performed the second quarter 1994 groundwater monitoring event at the subject site on April 29 and May 5, 1994. Total petroleum hydrocarbons, characterized by the analytical laboratory as not matching a diesel standard pattern, were detected for the first time in samples collected from upgradient well MW-4. Also concentrations of total petroleum hydrocarbons as diesel increased in samples collected from well MW-6. Based on the finding of this monitoring event, RESNA recommends *continuing quarterly groundwater monitoring and sampling of wells MW-1 through MW-7* to further evaluate petroleum hydrocarbons in the groundwater and direction and gradient of groundwater flow. For third quarter 1994, groundwater samples collected during monitoring should be submitted for laboratory analysis for benzene, toluene, ethylbenzene, total xylenes, total petroleum hydrocarbons as gasoline, and for total petroleum hydrocarbons as diesel using modified Environmental Protection Agency methods 8020/8015. Routine well maintenance and quality control will be performed as necessary during site visits.

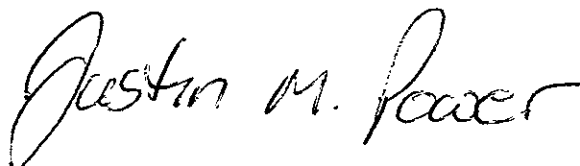
We recommend forwarding copies of this report to:

Mr. Lester Feldman
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street
Oakland, California 94612

73 Digital Drive
Novato, CA 94949
Phone: (415) 382-7400
Fax: (415) 382-7400
Mr. Barney Chan
Alameda County,
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

Please call (415) 382-7400 should you have any questions regarding this letter or the enclosed report.

Sincerely,
RESNA Industries Inc.



Justin M. Power
Project Manager

Enclosure: Letter Report, Quarterly Groundwater Monitoring, Second Quarter 1994

73 Digital Drive
Novato, CA 94949
Phone: (415) 382-7400
Fax: (415) 382-7415

LETTER REPORT
QUARTERLY GROUNDWATER MONITORING
Second Quarter 1994

Exxon Station 7-0236
6630 East 14th Street
Oakland, California

170079.01

73 Digital Drive
Novato, CA 94949
Phone: (415) 382-7400
Fax: (415) 382-7415

May 31, 1994

Ms. Marla Guensler
Exxon Company, U.S.A.
P.O. Box 4032
2300 Clayton Road
Concord, California 94524

Subject: Quarterly Groundwater Monitoring, Second Quarter 1994
Exxon Station 7-0236
6630 East 14th Street
Oakland, California

Ms. Guensler:

At the request of Exxon Company, U.S.A., RESNA Industries Inc. (RESNA) performed the second quarter 1994 groundwater monitoring event at the subject site (Plate 1, Site Vicinity Map). The objectives of groundwater monitoring are to evaluate: groundwater elevations, gradient and flow direction; the presence and thickness of any sheen or liquid phase hydrocarbons; and the distribution of dissolved hydrocarbons in groundwater.

GROUNDWATER MONITORING AND SAMPLING

On April 29, 1994, RESNA measured depth to water in monitoring wells MW-1 through MW-7, and collected groundwater samples from wells MW-1 through MW-7 for laboratory analysis. Groundwater samples from all wells were subjectively analyzed for the presence of liquid phase hydrocarbons. No measurable liquid phase hydrocarbons were observed in the monitoring wells. Because a sample container was lost by the laboratory, RESNA returned to the site on May 5, 1994 and collected an additional sample from well MW-2. RESNA's groundwater sampling protocol is in Appendix A, Groundwater Sampling Protocol.

Based on April 29, 1994 depth to water measurements, groundwater elevations in the wells at the site have increased an average of approximately 0.7 feet since last quarter. The groundwater appears to flow southwestward with a hydraulic gradient of 0.032 (Plate 2, Groundwater Gradient and Chemical Concentrations). The flow direction beneath the site is consistent with last quarter. Historical and recent monitoring data are summarized in Table 1, Cumulative Groundwater Monitoring and Sampling Data.

LABORATORY ANALYSES AND RESULTS

Groundwater samples were submitted to Pace Incorporated Laboratories (California State Certification Number 1282) in Novato, California, under chain of custody protocol. The samples were analyzed for benzene, toluene, ethylbenzene, total xylenes, total petroleum hydrocarbons as gasoline (TPHg), and total petroleum hydrocarbons as diesel (TPHd) using the methods listed in the notes in Table 1. The laboratory analysis reports and chain of custody records are in Appendix B, Laboratory Analysis Reports and Chain of Custody Records.

Results of laboratory analysis of groundwater samples are summarized in Table 1. Selected analytical results are summarized below if the concentrations detected are greater than the method detection limit (MDL) for TPHg or TPHd; the California Department of Health (DHS) maximum contaminant levels (MCLs) for benzene, ethylbenzene, or total xylenes; or the DHS drinking water action level (DWAL) for toluene, as listed in table 1.

- Concentrations of TPHg were greater than the MDL in wells MW-2 and MW-3.
- Concentrations of TPHd were greater than the MDL in wells MW-2, MW-3, MW-4, and MW-6.
- Concentrations of benzene were greater than the MCL in well MW-2.

LIMITATIONS

This report was prepared in accordance with generally accepted standards of environmental geological practice in California at the time this investigation was performed. This report has been prepared for Exxon Company, U.S.A and any reliance on this report by third parties shall be at such party's sole risk.

Please call with any questions or comments regarding this report, please call (415) 382-7400.

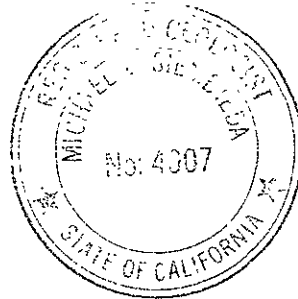
Sincerely,
RESNA Industries Inc.



Mark P. Frye
Environmental Scientist

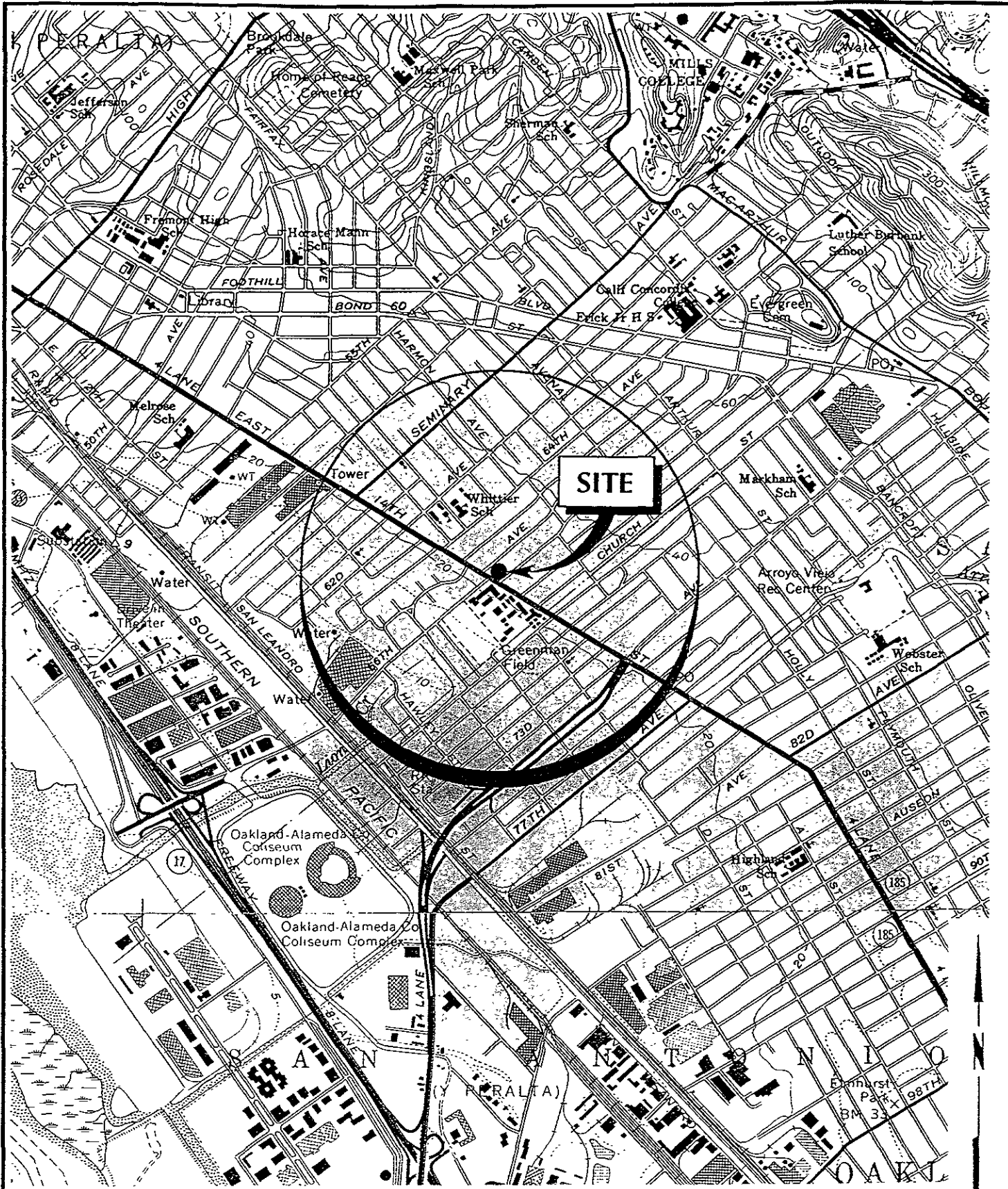


Michael L. Siembieda, RG 4007
Geoscience Manager

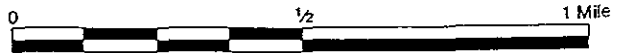


Attachments

- | | |
|-------------|--|
| Plate 1: | Site Vicinity Map |
| Plate 2: | Groundwater Gradient and Chemical Concentrations
(April 29, 1994) |
| Table 1: | Cumulative Groundwater Monitoring And Sampling Data |
| Appendix A: | Groundwater Sampling Protocol |
| Appendix B: | Laboratory Analysis Reports and Chain of Custody Records |



Source USGS Topographic Map, 7.5 minute series, Oakland East, Calif and San Leandro, Calif quadrangles, 1980

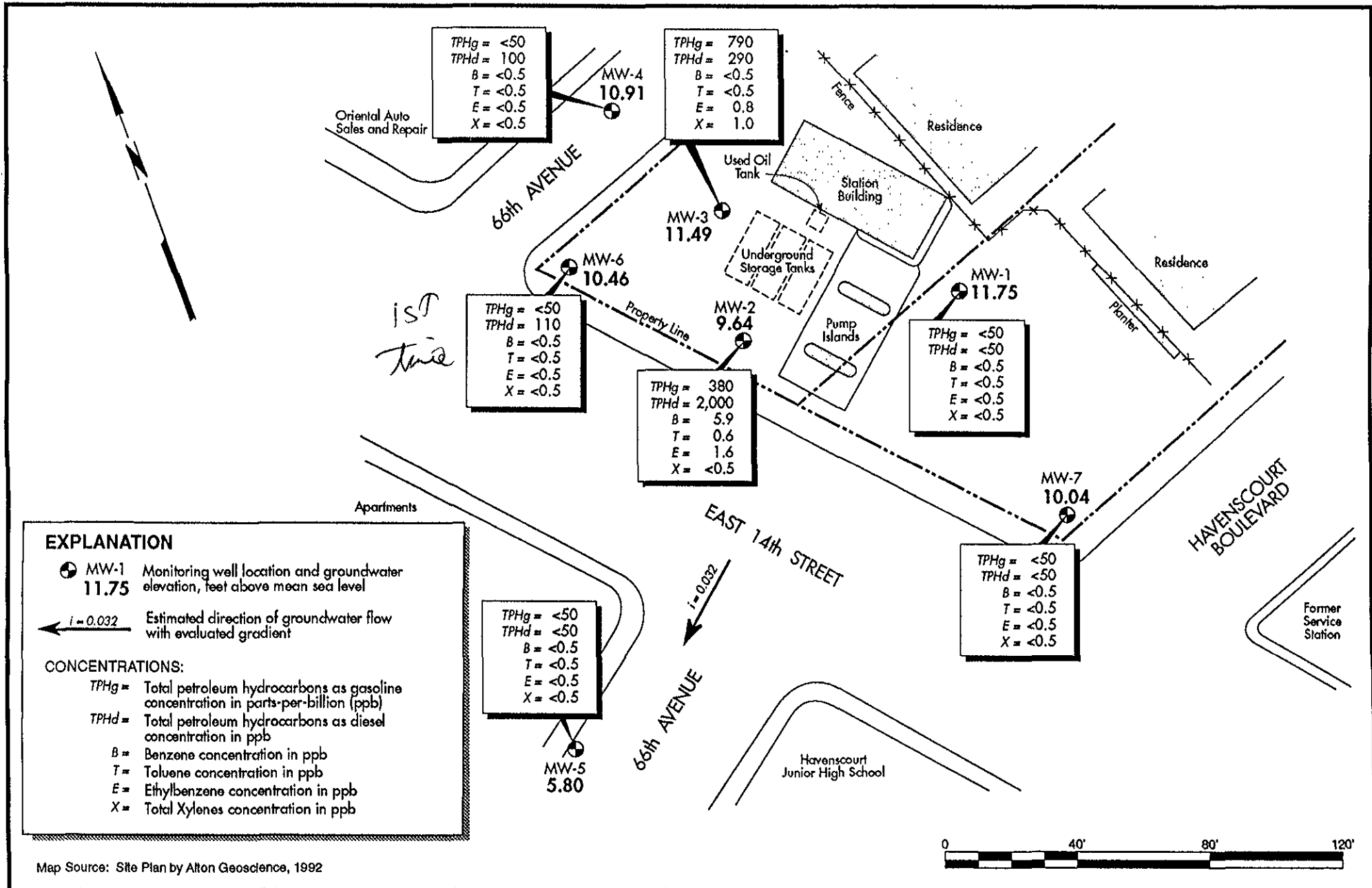


SITE VICINITY MAP
 Exxon Service Station No. 7-0236
 6630 East 14th Street
 Oakland, California

PLATE
1

PROJECT NO. 170079.01

1/94



TPHg = <50
 TPHd = 100
 B = <0.5
 T = <0.5
 E = <0.5
 X = <0.5

TPHg = 790
 TPHd = 290
 B = <0.5
 T = <0.5
 E = 0.8
 X = 1.0

TPHg = <50
 TPHd = 110
 B = <0.5
 T = <0.5
 E = <0.5
 X = <0.5

TPHg = 380
 TPHd = 2,000
 B = 5.9
 T = 0.6
 E = 1.6
 X = <0.5

TPHg = <50
 TPHd = <50
 B = <0.5
 T = <0.5
 E = <0.5
 X = <0.5

TPHg = <50
 TPHd = <50
 B = <0.5
 T = <0.5
 E = <0.5
 X = <0.5

TPHg = <50
 TPHd = <50
 B = <0.5
 T = <0.5
 E = <0.5
 X = <0.5



GROUNDWATER GRADIENT and CHEMICAL CONCENTRATIONS

April 29, 1994

Exxon Service Station No. 7-0236
 6630 East 14th Street
 Oakland, California

PLATE
2

PROJECT NO. 170079.01

5/94

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
 Exxon Station 7-0236
 6630 East 14th
 Oakland, California
 (Page 1 of 3)

Well ID# (TOC)	Sampling Date	SUBJ <.....>	DTW feet	Elev.	TPHd <.....>	TPHg parts per billion	B	T	E	X
MW-1 (20.20)	03/15/91	NR	7.44	12.76	---	<50	<0.3	0.5	0.3	1.3
	01/15/92 (H,T)	NR	10.60	9.60	<300	<50	<0.5	0.7	<0.5	0.9
	03/23/92 (H,T)	NR	6.38	13.82	<50	<50	<0.5	<0.5	<0.5	<0.5
	04/06/92	NR	7.55	12.65	---	---	---	---	---	---
	07/08/92 (H,T)	NR	9.85	10.35	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/13/92 (H,T)	NR	12.95	7.25	<50	<50	<0.5	<0.5	<0.5	<0.5
	03/09/93	NP	7.38	12.82	<50	<50	<0.5	<0.5	<0.5	<0.5
	06/04/93	NP	8.55	11.65	<50	<50	<0.5	<0.5	<0.5	<0.5
	09/02/93	NP	10.85	9.35	<50	<50	<0.5	<0.5	<0.5	<0.5
	11/16/93	NP	12.43	7.77	<50	<50	<0.5	<0.5	<0.5	<0.5
	02/04/94	NP	9.10	11.10	<50	<50	<0.5	<0.5	<0.5	<0.5
	04/29/94	NP	8.45	11.75	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-2 (19.15)	03/15/91 (H,T)	NR	9.05	10.10	120	1,700	190	2.6	12	64
	01/15/92 (H,T)	NR	11.60	7.55	1,000	6,800	81	<10	320	170
	03/23/92 (H,T)	NR	9.42	9.73	3,000	7,100	740	30	810	490
	04/06/92	NR	9.09	10.06	---	---	---	---	---	---
	07/08/92	NR	10.08	9.07	2,100	7,000	250	14	300	160
	10/13/92	NR	12.06	7.09	1,900	3,200	97	2.6	97	53
	03/09/93	sheen	9.71	9.44	---	---	---	---	---	---
	06/04/93	sheen	9.40	9.75	---	---	---	---	---	---
	09/02/93 (M)	sheen	10.46	8.69	3,700	11,000	210	18	260	59
	11/16/93 (M*)	NP	11.44	7.71	3,300	8,500	75	27	51	32
	02/04/94	NP	10.41	8.74	2,700	4,400	120	16	22	7.7
	04/29/94 (C,M*)	NP	9.51	9.64	2,000	380	5.9	0.6	1.6	<0.5
MW-3 (19.59)	03/15/91 (H,T)	NR	7.84	11.75	160	3,100	2.2	1.9	100	84
	01/15/92 (H,T)	NR	10.30	9.29	<300	250	0.7	6.8	1.5	1.5
	03/23/92 (H,T)	NR	6.84	12.75	440	640	<0.5	12	25	6.5
	04/06/92	NR	7.84	11.75	---	---	---	---	---	---
	07/08/92 (H,T)	NR	8.63	10.96	960	2,900	<0.5	2.6	12	63.7
	10/13/92 (H)	NR	12.10	7.49	400	1,100	5.5	<0.5	4.6	1.1
	03/09/93	sheen	9.05	10.54	---	---	---	---	---	---
	06/04/93	sheen	8.43	11.16	---	---	---	---	---	---
	09/02/93	NP	10.22	9.37	690	840	2.7	3.6	5.4	2.9
	11/16/93	NP	11.44	8.15	310	650	<0.5	11	7.7	2.4
	02/04/94	NP	9.27	10.32	340	870	0.6	14	1.2	0.8
	04/29/94	NP	8.10	11.49	290	790	<0.5	<0.5	0.8	1.0

See notes on page 3 of 3

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
 Exxon Station 7-0236
 6630 East 14th
 Oakland, California
 (Page 2 of 3)

Well ID# (TOC)	Sampling Date	SUBJ	DTW feet	Elev.	TPHd	TPHg	parts per billion			
							B	T	E	X
MW-4 (19.46)	04/06/92	NR	7.76	11.70	<50	<50	<0.5	<0.5	<0.5	<0.5
	07/08/92	NR	9.56	9.90	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/13/92	NR	12.09	7.37	<80	<50	<0.5	<0.5	<0.5	<0.5
	03/09/93	NP	7.53	11.93	<50	<50	<0.5	<0.5	<0.5	<0.5
	06/04/93	NP	8.50	10.96	<50	<50	<0.5	<0.5	<0.5	<0.5
	09/02/93	NP	10.30	9.16	<50	<50	<0.5	<0.5	<0.5	0.5
	11/16/93 *	---	---	---	---	---	---	---	---	---
	02/04/94	NP	8.82	10.64	<50	<50	<0.5	<0.5	<0.5	<0.5
	04/29/94 (D)	NP	8.55	10.91	100	<50	<0.5	<0.5	<0.5	<0.5
MW-5 (16.95)	04/06/92	NR	10.66	6.29	<50	<50	<0.5	<0.5	<0.5	<0.5
	07/08/92 *	---	---	---	---	---	---	---	---	---
	10/13/92	NR	15.02	1.93	<50	69	<0.5	<0.5	<0.5	<0.5
	03/09/93	NP	10.27	6.68	<50	<50	<0.5	<0.5	<0.5	<0.5
	06/04/93	NP	11.35	5.60	<50	<50	<0.5	<0.5	<0.5	<0.5
	09/02/93	NP	13.15	3.80	<50	<50	<0.5	<0.5	<0.5	<0.5
	11/16/93	NP	14.35	2.60	<50	<50	<0.5	<0.5	<0.5	<0.5
	02/04/94	NP	11.83	5.12	60	<50	<0.5	<0.5	<0.5	<0.5
	04/29/94	NP	11.15	5.80	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-6 (18.79)	04/06/92 (H)	NR	8.29	10.50	<50	<50	<0.5	<0.5	<0.5	<0.5
	07/08/92 (H,T)	NR	9.22	9.57	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/13/92	NR	11.51	7.28	<50	<50	<0.5	<0.5	<0.5	<0.5
	03/09/93	NP	8.26	10.53	<50	<50	<0.5	<0.5	<0.5	<0.5
	06/04/93	NP	8.90	9.89	<50	<50	<0.5	<0.5	<0.5	<0.5
	09/02/93	NP	9.92	8.87	60	<50	<0.5	<0.5	<0.5	<0.5
	11/16/93	NP	10.65	8.14	<50	<50	<0.5	<0.5	<0.5	<0.5
	02/04/94	NP	9.26	9.53	80	<50	<0.5	<0.5	<0.5	<0.5
	04/29/94	NP	8.33	10.46	110	<50	<0.5	<0.5	<0.5	<0.5
MW-7 (19.23)	04/06/92	NR	8.34	10.89	<50	<50	<0.5	<0.5	<0.5	<0.5
	07/08/92	NR	10.30	8.93	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/13/92	NR	12.91	6.32	94	670	0.8	<0.5	<0.5	2.5
	03/09/93 *	---	---	---	---	---	---	---	---	---
	06/04/93	NP	8.68	10.55	<50	<50	<0.5	<0.5	<0.5	<0.5
	09/02/93	NP	10.80	8.43	<50	<50	<0.5	<0.5	<0.5	<0.5
	11/16/93	NP	12.38	6.85	<50	<50	<0.5	<0.5	<0.5	<0.5
	02/04/94	NP	9.28	9.95	<50	<50	<0.5	<0.5	<0.5	<0.5
	04/29/94	NP	9.19	10.04	<50	<50	<0.5	<0.5	<0.5	<0.5

See notes on page 3 of 3

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
 Exxon Service Station No. 7-0236
 6630 East 14th
 Oakland, California
 (Page 3 of 3)

Well ID# (TOC)	Sampling Date	SUBJ <.....feet.....>	DTW	Elev.	TPHd <.....parts per billion.....>	TPHg	B	T	E	X
							1.0	---	680	1,750
							---	100	---	---

Notes:

- TOC = Elevation of top of well casing; related to mean sea level (MSL)
- SUBJ = Results of subjective evaluation, liquid phase hydrocarbon thickness (PT) in feet
- NP = Liquid phase hydrocarbons not present in well
- sheen = Liquid phase hydrocarbons present as a sheen
- NR = not recorded
- DTW = Depth to water
- Elev. = Elevation of groundwater; relative to MSL
Elev. = TOC - (DTW + (PT * 0.8))
- TPHg = Total petroleum hydrocarbons as gasoline analyzed using modified EPA method 5030/8015
- BTEX = Benzene, toluene, ethylbenzene, total xylene isomers analyzed using modified EPA method 5030/8020
- < = Less than the laboratory detection limit
- DHS = Department of Health Services, State of California, October 1990
- = Not sampled / Not measured
- * = Well not accessible : well obstructed / wellhead cover damaged / well paved over
- C = High boiling point hydrocarbons are present in sample.
- D = Sample pattern does not match diesel standard pattern.
- H = EPA Method 8010 compounds not detected at or above their respective laboratory detection limits
 Exceptions: MW-2, 03/15/91, Methylene chloride detected at 1 ppb
 MW-3, 03/15/91, Methylene chloride detected at 21 ppb
- M = Methyl tert-butyl ether detected at approximately 2,500 ppb
- M* = A compound suspected to be Methyl tert-butyl ether was present
- T = Total Oil and Grease (TOG) using EPA Method 5520 not detected at or above the laboratory detection limit of 5,000 ppb.

APPENDIX A

GROUNDWATER SAMPLING PROTOCOL

GROUNDWATER SAMPLING PROTOCOL

The static water level and liquid phase hydrocarbons level, if present, in each well that contained water and/or liquid phase hydrocarbons are measured with a ORS Interface Probe Model No. 106801, which is accurate to the nearest 0.01 foot. To calculate groundwater elevations and evaluate groundwater gradient, depth to water (DTW) levels are subtracted from wellhead elevations and corrected for product thickness, when necessary, by multiplying product thickness (PT) by a correction factor 0.8 and subtracting from the DTW level (Adjusted DTW = DTW - [PT x 0.8])

Water samples collected for subjective evaluation are collected by gently lowering approximately half the length of a clean Teflon[®] bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples were checked for measurable separate phase hydrocarbon product or sheen. Any liquid phase hydrocarbons is removed from the well.

Before water samples are collected from the groundwater monitoring wells, the wells are purged until stabilization of the temperature, pH, and conductivity are obtained. Approximately three to four well casing volumes are purged before those characteristics stabilized. Water samples from the wells that do not obtain stability of the temperature, pH, and conductivity are considered to be "grab samples". The quantity of water purged from each well is calculated as follows:

1 well casing volume = $\pi r^2 h (7.48)$ where:

- r = radius of the well casing in feet.
- h = column of water in the well in feet (depth to bottom - depth to water)
- 7.48 = conversion constant from cubic feet to gallons

gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

After purging, each well was allowed to recharge to at least 80% of the initial water level. Water samples from wells that do not recover to at least 80% (due to slow recharging of the well) between purging and sampling are considered to be "grab samples". Water samples were collected with a Teflon bailer which had been cleaned with Alconox[®] and deionized water, and were carefully poured into 40-milliliter (ml) glass vials, which are filled so as to produce a positive meniscus. Each vial is preserved with hydrochloric acid, sealed with a cap containing a Teflon[®] septum, and subsequently examined for air bubbles to avoid headspace which would allow volatilization to occur. The samples are promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.

APPENDIX B

**LABORATORY ANALYSIS REPORTS
AND CHAIN OF CUSTODY RECORDS**



170079-01

REPORT OF LABORATORY ANALYSIS

May 06, 1994

Mr. Mark Frye
RESNA
73 Digital Dr.
Novato, CA 94949

RE: PACE Project No. 440429.513
Client Reference: Exxon 7-0236 (EE)

Dear Mr. Frye:

Enclosed is the report of laboratory analyses for samples received April 29, 1994.

Please note that when analyzing the following sample a peak eluting earlier than Benzene and suspected to be Methyl Tert Butyl Ether (MTBE) was present:

<u>Client ID.</u>	<u>PACE Sample #</u>
MW-2	700312957

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,


for Stephanie Matzo
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

RESNA
73 Digital Dr.
Novato, CA 94949

May 06, 1994
PACE Project Number: 440429513

Attn: Mr. Mark Frye

Client Reference: Exxon 7-0236 (EE)

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0312906
04/29/94
04/29/94
MW-5

<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
--------------	------------	----------------------

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS				05/03/94
TOTAL FUEL HYDROCARBONS, (LIGHT):				05/03/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	05/03/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):				05/03/94
Benzene	ug/L	0.5	ND	05/03/94
Toluene	ug/L	0.5	ND	05/03/94
Ethylbenzene	ug/L	0.5	ND	05/03/94
Xylenes, Total	ug/L	0.5	ND	05/03/94
EXTRACTABLE FUELS EPA 3510/8015				05/03/94
Extractable Fuels, as Diesel	mg/L	0.05	ND	05/02/94
Date Extracted				

**REPORT OF LABORATORY ANALYSIS**

Mr. Mark Frye
Page 2

May 06, 1994
PACE Project Number: 440429513

Client Reference: Exxon 7-0236 (EE)

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0312914
04/29/94
04/29/94
MW-4

Units MDL DATE ANALYZED

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):				
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	-	05/03/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):				
Benzene	ug/L	0.5	ND	05/03/94
Toluene	ug/L	0.5	ND	05/03/94
Ethylbenzene	ug/L	0.5	ND	05/03/94
Xylenes, total	ug/L	0.5	ND	05/03/94
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	0.10(*)	05/04/94
Date Extracted			05/02/94	



REPORT OF LABORATORY ANALYSIS

Mr. Mark Frye
Page 3

May 06, 1994
PACE Project Number: 440429513

Client Reference: Exxon 7-0236 (EE)

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0312922
04/29/94
04/29/94
MW-6

<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M) ug/L

PURGEABLE AROMATICS (BTXE BY EPA 8020M):

Benzene

Toluene

Ethylbenzene

Xylenes, Total

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel

Date Extracted

	-	05/03/94
50	ND	05/03/94
	-	05/03/94
0.5	ND	05/03/94
0.5	ND	05/03/94
0.5	ND	05/03/94
0.5	ND	05/03/94
0.05	0.11	05/03/94
	05/02/94	

**REPORT OF LABORATORY ANALYSIS**

Mr. Mark Frye
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May 06, 1994
PACE Project Number: 440429513

Client Reference: Exxon 7-0236 (EE)

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0312930
04/29/94
04/29/94
MW-7

UnitsMDLDATE ANALYZEDORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M) ug/L

50

ND

05/03/94

PURGEABLE AROMATICS (BTXE BY EPA 8020M):

Benzene ug/L

0.5

ND

05/03/94

Toluene ug/L

0.5

ND

05/03/94

Ethylbenzene ug/L

0.5

ND

05/03/94

Xylenes, Total

ug/L

0.5

ND

05/03/94

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel

mg/L

0.05

ND

05/03/94

Date Extracted

05/02/94

**REPORT OF LABORATORY ANALYSIS**

Mr. Mark Frye
Page 5

May 06, 1994
PACE Project Number: 440429513

Client Reference: Exxon 7-0236 (EE)

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0312949
04/29/94
04/29/94
MW-1

Units MDL DATE ANALYZED

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	-	05/03/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	05/03/94
Benzene	ug/L	0.5	ND	05/03/94
Toluene	ug/L	0.5	ND	05/03/94
Ethylbenzene	ug/L	0.5	ND	05/03/94

Xylenes, Total	ug/L	0.5	ND	05/03/94
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EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel	mg/L	0.05	ND	05/03/94
Date Extracted			05/02/94	

**REPORT OF LABORATORY ANALYSIS**

Mr. Mark Frye
Page 6

May 06, 1994
PACE Project Number: 440429513

Client Reference: Exxon 7-0236 (tt)

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0312957
04/29/94
04/29/94
MW-2

Units MDL DATE ANALYZED

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS			-	05/04/94
TOTAL FUEL HYDROCARBONS, (LIGHT):				05/04/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	380	05/04/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	05/04/94
Benzene	ug/L	0.5	5.9	05/04/94
Toluene	ug/L	0.5	0.6	05/04/94
Ethylbenzene	ug/L	0.5	1.6	05/04/94
Xylenes, Total	ug/L	0.5	ND	05/04/94
EXTRACTABLE FUELS FPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	2.0 (H)	05/04/94
Date Extracted			05/04/94	



REPORT OF LABORATORY ANALYSIS

Mr. Mark Frye
Page 7

May 06, 1994
PACE Project Number: 440429513

Client Reference: Exxon 7-0236 (EE)

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

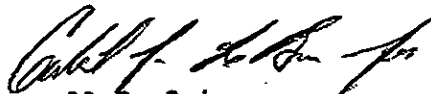
70 0312965
04/29/94
04/29/94
MW-3

Units	MDL	DATE ANALYZED
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ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS			-	05/04/94
TOTAL FUEL HYDROCARBONS, (LIGHT):				
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	790	05/04/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):				
Benzene	ug/L	0.5	ND	05/04/94
Toluene	ug/L	0.5	ND	05/04/94
Ethylbenzene	ug/L	0.5	0.8	05/04/94
Xylenes, Total	ug/L	0.5	1.0	05/04/94
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	0.29	05/05/94
Date Extracted			05/02/94	

These data have been reviewed and are approved for release.


Darrell C. Cain
Regional Director



REPORT OF LABORATORY ANALYSIS

Mr. Mark Frye
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FOOTNOTES
for pages 1 through 7

May 06, 1994
PACE Project Number: 440429513

Client Reference: Exxon /-0236 (EE)

- MDL Method Detection Limit
- ND Not detected at or above the MDL.
- (+) Sample pattern does not match Diesel Standard pattern.
- (H) High boiling point hydrocarbons are present in sample.

Novato, CA, 11 Digital Drive, 94949
(415) 883-6100

Huntington Beach, CA, 5702 Bolsa Avenue, 92649
(714) 892-2565

MAY-06-1994 14:31 FROM PACE INCORPORATED

TD

3827415

P. 11

Consultant's Name: RESNA

Address: 73 DIGITAL DR. Site Location: ORLANDO

Project #: _____ Consultant Project #: 170079.01 Consultant Work Release #: 09300640

Project Contact: Mark FINE Phone #: 382-7400 Fax #: _____ Laboratory Work Release #: _____

EXXON Contact: MARLIN GUYOTER EE C&M Phone #: _____ Fax #: _____ EXXON RAS #: 7-0236

Sampled by (print): STEVEN LEALIO Sampler's Signature: [Signature]

Shipment Method: WARRANT DELIVER Air Bill #: _____ Shipment Date: _____

Retention Time: 24 hr 48 hr 72 hr Standard (5 day)

ANALYSIS REQUIRED

Sample Description	Collection Date/Time	Matrix Soil/Water	Prv	# of Cont	PACB Sample #	OPH/GAS/BTEX EPA 801.5/8020	TPH/Diesel EPA 8015	TRPH EPA 418.1							Sample Condition as Received		COMMENTS		
															Temperature °C: _____	Cooler #: _____		Inbound Seal Yes No	Outbound Seal Yes No
W-5	4/29/94:38	WATER	NEL	3/1	31290.6	X	X											Ph	
W-4	4/29/12:10			3/1	31291.4	X	X												
W-6	4/29/12:58			3/1	31292.2	X	X												
W-7	4/29/1:45			3/1	31293.0	X	X												
W-1	4/29/2:48			3/1	31294.9	X	X												
W-2	4/29/3:35			3/1	31295.7	X	X												
W-3	4/29 4:15			3/1	31296.5	X	X												

Relinquished by/Affiliation: [Signature] Date: 4/29/94 Time: 5:46

Accepted by/Affiliation: James Cost Date: 4/29/94 Time: 5:46

Additional Comments: lost due to lab mishap. on 5/2/94. Replaced on 5/4/94. REL.



EXXON COMPANY, U.S.A.

P.O. Box 4415, Houston, TX 77210-4415

CHAIN OF CUSTODY

Novato, CA, 11 Digital Drive, 94949 (415) 883-6100

Huntington Beach, CA, 5702 Bolsa Avenue, 92649 (714) 892-2565

MAY-06-1994 14:32 FROM PACE INCORPORATED TO 3827415 P.12

Consultant's Name: RESMA INDUSTRIES INC

Address: 73 DIGITAL DR Site Location: E 14TH OAKLAND

Project #: _____ Consultant Project #: 1700 79.01 Consultant Work Release #: 07300640

Project Contact: MARK FRYE Phone #: _____ Fax #: _____ Laboratory Work Release #: _____

EXXON Contact: MARLA GUNSLOR EE C&M Phone #: _____ Fax #: _____ EXXON RAS #: 7-0236

Sampled by (print): MARK FRYE Sampler's Signature: [Signature]

Shipment Method: _____ Air Bill #: _____ Shipment Date: _____

Retention Time: 24 hr 48 hr 72 hr Standard (5 day) ANALYSIS REQUIRED

Sample Description	Collection Date/Time	Matrx Soil/Water	Pres	# of Cont	PACE Sample #	TPH/GAS/BTEX EPA 8015/8020	TPH/Diesel EPA 8015	TRPH EPA 418.1	ANALYSIS REQUIRED										Sample Condition as Received			COMMENTS	
																			Temperature °C: _____	Cooler #: _____	Inbound Seal Yes No		Outbound Seal Yes No
<u>HW-2</u>	<u>5-4-94 7:30</u>	<u>W</u>	<u>-</u>	<u>1</u>			<u>X</u>																<u>SAMPLE TO REPLACE</u> <u>BROKEN CONTAINER</u> <u>PREVIOUSLY SUBMITTED</u> <u>PLEASE INCLUDE</u> <u>ALL IN THIS</u> <u>SAMPLE REPORT.</u>

Requested by/Affiliation <u>[Signature]</u>	Date <u>5-4-94</u>	Time <u>0942</u>	Accepted by/Affiliation <u>Mark Frye</u>	Date <u>5/19/94</u>	Time <u>0942</u>	Additional Comments:
--	-----------------------	---------------------	---	------------------------	---------------------	----------------------