EXXON COMPANY, U.S.A.

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

MARLA D. GUENSLER
SENIOR ENGINEER

(925) 246-8776
(925) 246-8798 FAX

R0590

May 22, 1998

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

RE: Exxon RAS #7-0238/2200 East 12th Street/Oakland, California.

Dear Mr. Chan:

Attached for your review and comment is a letter report entitled ***Quarterly Groundwater Monitoring Report, First Quarter 1998,*** dated May 1, 1998, for the above referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and details the results of the quarterly groundwater monitoring activities at the subject site.

If you have any questions or comments, please contact me at (925) 246-8776.

Sincerely,

Marla D. Guensler

Marla D. Guensler
Senior Engineer

MDG/tjm

Attachment: ERI's Quarterly Groundwater Monitoring Report, First Quarter 1998, dated May 1, 1998

cc: w/ attachment
Mr. Stephen Hill - California Regional Water Quality Control Board, San Francisco Bay Region

w/o attachment
Mr. Marc A. Briggs - ERI

ENVIRONMENTAL RESOLUTIONS, INC.

May 1, 1998
ERI 229303.R01

R0390

Ms. Marla D. Guensler
Exxon Company, U.S.A.
P.O. Box 4032
Concord, California 94524-4032

Subject: Quarterly Groundwater Monitoring, First Quarter 1998, Exxon Service Station 7-0238, 2200 East 12th Street, Oakland, California.

Ms. Guensler:

At the request of Exxon Company, U.S.A. (Exxon), Environmental Resolutions, Inc. (ERI) performed the first quarter 1998 groundwater monitoring event at the subject site (Plate 1). The purpose of quarterly monitoring is to evaluate fluctuations in dissolved hydrocarbon concentrations in groundwater and groundwater flow direction and gradient.

GROUNDWATER MONITORING AND SAMPLING

On March 16, 1998, ERI measured depth to water (DTW) in monitoring wells MW9A through MW9D, and MW9F and collected groundwater samples from these wells for laboratory analysis. Monitoring well MW9F and MW9G was not sampled due to lack of encroachment permits. Monitoring well MW9H could not be located. No measurable liquid phase hydrocarbons were observed in the monitoring wells. ERI's groundwater sampling protocol is attached (Attachment A).

Based on DTW measurements the groundwater appears to flow west with a hydraulic gradient of 0.012 (Plate 2). Historical and recent monitoring data are summarized in Table 1.

LABORATORY ANALYSES AND RESULTS

Groundwater samples were submitted to Sequoia Analytical Laboratories (California State Certification Number 1210) in Redwood City, California, under chain of custody protocol. The samples were analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), and total petroleum hydrocarbons as gasoline (TPHg), using the methods listed in the notes in Table 1. The laboratory analysis reports and chain of custody records are attached (Attachment B). Current and historic results of laboratory analysis of groundwater samples are summarized in Table 1. The results of analyses of groundwater samples collected during the recent sampling event are shown on Plate 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 and any reliance on this report by third parties shall be at such party's sole risk.

If you have any questions or comments regarding this report, please call (415) 382-5988.

Sincerely,
Environmental Resolutions, Inc.

Scott R. Graham
Environmental Technician

Robert H. Enkeboll
R.G. No. 5034

REGISTERED GEOLOGIST
ROBERT H. ENKEBOLL
NO. 5034
REGISTERED GEOLOGIST
STATE OF CALIFORNIA

Enclosures:
Table 1: Cumulative Groundwater Monitoring and Sampling Data

Plate 1: Site Vicinity Map
Plate 2: Generalized Site Plan

Attachment A: Groundwater Sampling Protocol
Attachment B: Laboratory Reports and Chain of Custody Record

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Exxon Service Station 7-0238
2200 East 12th Street
Oakland, California

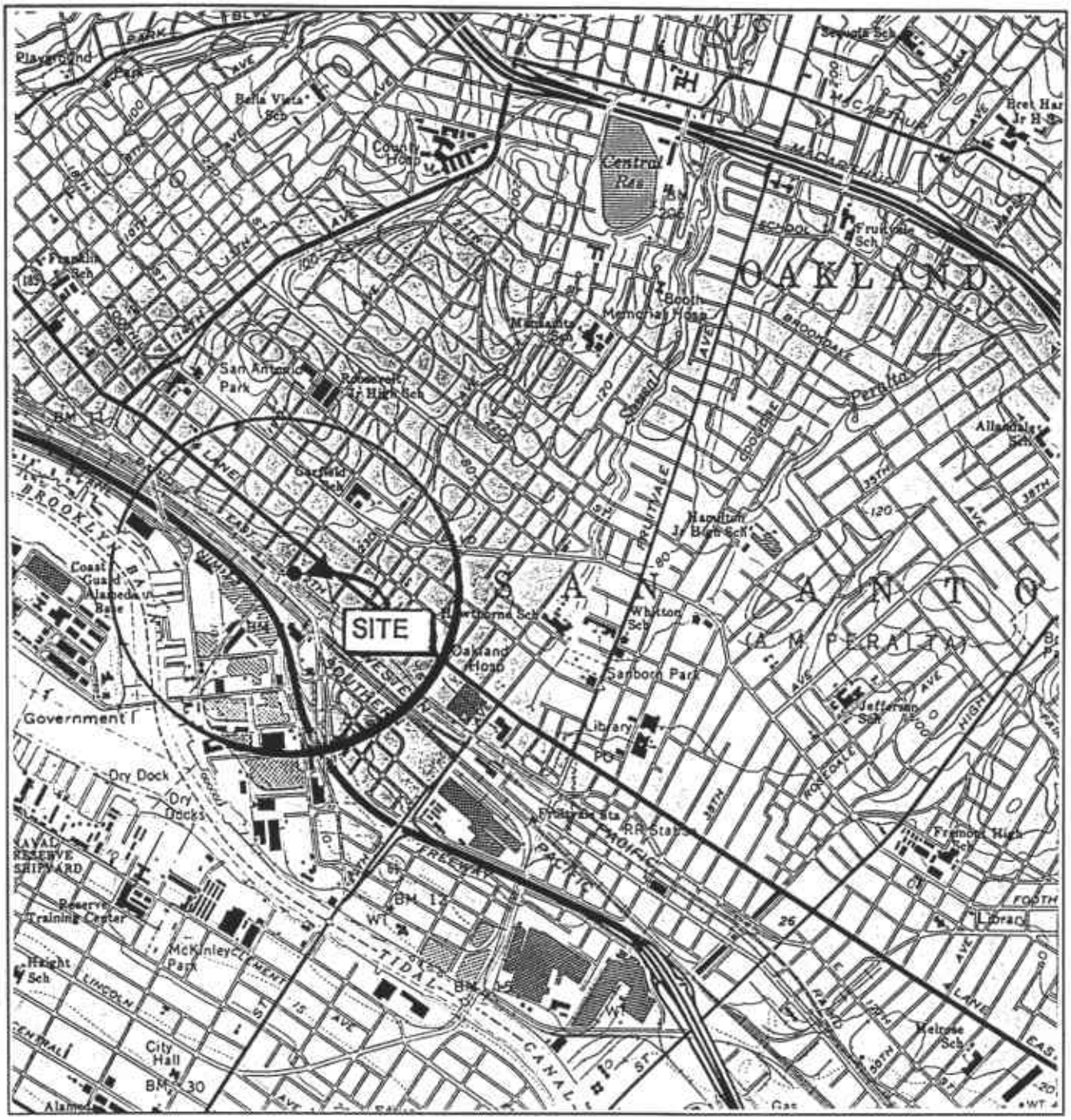
Well ID # (TOC)	Sampling Date	SUBJ	DTW feet	Elev.	TPPHg	B	T	E	X	MTBE
		<			> <		parts per billion			>
MW-9A										
(11.46)	11/2/95	NLPH	7.16	4.30	<50	<0.5	<0.5	<0.5	<0.5	<10
	4/26/96	NLPH	6.33	5.13	---	---	---	---	---	---
	8/22/96	NLPH	7.02	4.44	---	---	---	---	---	---
	2/24/97	---	---	---	---	---	---	---	---	---
	3/16/98	NLPH	6.14	5.32	<200	7.9	<2.0	<2.0	<2.0	40,000
MW-9B										
(9.80)	11/2/95	NLPH	6.14	3.66	130	3.3	<0.5	<0.5	<0.5	<10
	4/26/96	NLPH	5.66	4.14	270	130	2.8	6.7	<3	70
	8/22/96	NLPH	6.16	3.64	210	5.7	6.8	1.1	9.2	31
	2/24/97	NLPH	5.58	4.22	1,400	76	1.4	4.1	1.2	1,300
	3/16/98	NLPH	5.32	4.48	860	140	2.0	11	<2.0	1,500
MW-9C										
(11.14)	11/2/95	---	---	---	---	---	---	---	---	---
	4/26/96	---	---	---	---	---	---	---	---	---
	8/22/96	---	---	---	---	---	---	---	---	---
	2/24/97	---	---	---	---	---	---	---	---	---
	3/16/98	NLPH	5.51	5.63	<500	24	<5.0	<5.0	<5.0	150,000
MW-9D										
(12.90)	11/2/95	---	---	---	---	---	---	---	---	---
	4/26/96	---	--	--	---	---	---	---	---	---
	8/22/96	---	---	---	---	---	---	---	---	---
	2/24/97	---	---	---	---	---	---	---	---	---
	3/16/98	NLPH	6.94	5.96	<50	<0.5	<0.5	<0.5	<0.5	10
MW-9F										
(8.37)	11/2/95	---	---	---	---	---	---	---	---	---
	4/26/96	NLPH	---	---	<50	<0.5	<0.5	<0.5	<0.5	57
	8/22/96	NLPH	---	---	<50	<0.5	<0.5	<0.5	<0.5	5.8
	2/24/97	NLPH	---	---	<50	<0.5	<0.5	<0.5	<0.5	<30
	3/16/98	NLPH	---	---	---	---	---	---	---	---
MW-9G										
(9.95)	11/2/95	NLPH	5.92	4.03	<50	<0.5	<0.5	<0.5	<0.5	<10
	4/26/96	NLPH	5.28	4.67	<50	<0.5	<0.5	<0.5	<0.5	18
	8/22/96	NLPH	5.57	4.38	<50	<0.5	<0.5	<0.5	<0.5	18
	2/24/97	NLPH	5.30	4.65	<50	<0.5	0.57	<0.5	0.62	240
	3/16/98	---	---	---	---	---	---	---	---	---

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Exxon Service Station 7-0238
2200 East 12th Street
Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW feet	Elev.	TPPHg	B	T	E	X	MTBE
		<			> <		parts per billion			>
MW-9H										
(8.58)	11/2/95	NLPH	8.40	0.18	<50	<0.5	<0.5	<0.5	<0.5	<10
	4/26/96	NLPH	8.05	0.53	---	---	---	---	---	---
	8/22/96	NLPH	8.17	0.41	---	---	---	---	---	---
	2/24/97	---	---	---	---	---	---	---	---	---
	3/16/98	---	---	---	---	---	--	---	---	---
MW-9I										
(10.11)	11/2/95	NLPH	6.04	4.07	<50	<0.5	<0.5	<0.5	<0.5	<10
	4/26/96	NLPH	5.27	4.84	<50	<0.5	<0.5	<0.5	<0.5	99
	8/22/96	NLPH	5.66	4.45	<50	<0.5	<0.5	<0.5	<0.5	170
	2/24/97	NLPH	5.24	4.87	120	<0.5	<0.5	<0.5	<0.5	9,100
	3/16/98	NLPH	4.91	5.20	<200	13	<2.0	<2.0	<2.0	59,000

Notes:

SUBJ	=	Results of subjective evaluation
NLPH	=	No liquid-phase hydrocarbons present in well
TOC	=	Elevation of top of well casing; relative to mean sea level
DTW	=	Depth to water
Elev.	=	Elevation of groundwater surface; relative to mean sea level
TPPHg	=	Total purgeable petroleum hydrocarbons as gasoline analyzed using EPA method 5030/8015 (modified).
BTEX	=	Benzene, Toluene, Ethylbenzene, and total Xylenes using EPA method 5030/8020.
MTBE	=	Methyl tertiary-butyl ether analyzed using EPA method 5030/8020.
<	=	Less than the indicated detection limit shown by the laboratory
---	=	Not measured or sampled



FN: 22930001

EXPLANATION

N

Source: U.S.G.S. 7.5 minute topographic quadrangle map Oakland East, California (Photorevised 1980)

APPROXIMATE SCALE

0 1/2 1

MILE

ERI ENVIRONMENTAL RESOLUTIONS, INC.

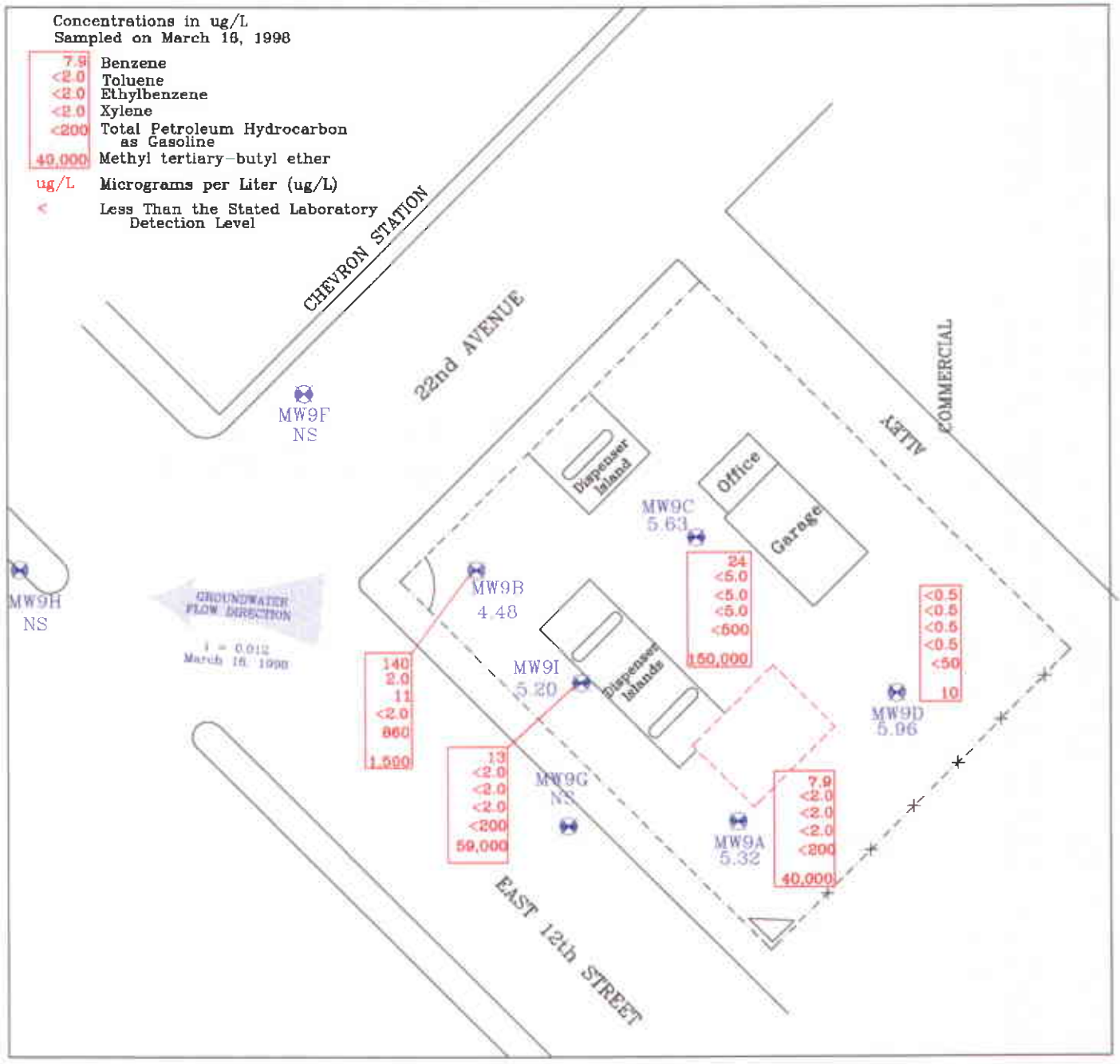
PROJECT ERI 2293

SITE VICINITY MAP

EXXON SERVICE STATION 7-0238
2200 East 12th Street
Oakland, California

PLATE

1



FN 22930002

EXPLANATION

MW9I
Groundwater Monitoring Well
Groundwater Elevation (March 16, 1998)

NS Not Sampled

------ Underground Storage Tanks

N

APPROXIMATE SCALE

0 50 100 FEET

SOURCE:
Modified from a map provided by EXXON U.S.A.

ERI ENVIRONMENTAL RESOLUTIONS, INC.

GENERALIZED SITE PLAN

EXXON SERVICE STATION 7-0238
2200 East 12th Street
Oakland, California

PROJECT NO. 2293

PLATE 2

DATE: 4/24/98

ATTACHMENT A

GROUNDWATER SAMPLING PROTOCOL

GROUNDWATER SAMPLING PROTOCOL

The static water level and separate phase product level, if present, in each well that contained water and/or separate phase product are measured with a MMC Interface Probe, 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.

Groundwater 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 are checked for measurable free-phase hydrocarbons or sheen. Any free-phase hydrocarbons are 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 is obtained, or until a minimum of three well casing volumes are purged. 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
π	=	3.1418

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

After purging, each well is allowed to recharge to at least 80% of the initial water level. Water samples from wells that do not recover at least 80% (due to slow recharging of the well) between purging and sampling are considered to be "grab samples". Water samples are collected with a new, disposable Teflon® bailer. The groundwater is 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.

ATTACHMENT B

LABORATORY REPORTS
AND CHAIN OF CUSTODY RECORD

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Environmental Resolutions	Client Proj. ID: Exxon 7-0238, 229313X	Sampled: 03/16/98
74 Digital Drive , Suite 6	Sample Descript: W-5-MW9I	Received: 03/17/98
Novato, CA 94949	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 03/27/97
Attention: Marc Briggs	Lab Number: 9803C45-01	Reported: 04/05/98

QC Batch Number: GC032798BTEX17A
Instrument ID: GCHP-17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	200	N.D.
Methyl t-Butyl Ether	**1250**	**59000**
Benzene	**2.0**	**13**
Toluene	2.0	N.D.
Ethyl Benzene	2.0	N.D.
Xylenes (Total)	2.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	78

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Richard Herling
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: Exxon 7-0238, 229313X	Sampled: 03/16/98
74 Digital Drive , Suite 6	Sample Descript: W-6-MW9A	Received: 03/17/98
Novato, CA 94949	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 03/27/97
Attention: Marc Briggs	Lab Number: 9803C45-02	Reported: 04/05/98

QC Batch Number: GC032798BTEX17A
Instrument ID: GCHP-17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	200	N.D.
Methyl t-Butyl Ether	**1250**	**40000**
Benzene	**2.0**	**7.9**
Toluene	2.0	N.D.
Ethyl Benzene	2.0	N.D.
Xylenes (Total)	2.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	78

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Richard Herling
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: Exxon 7-0238, 229313X	Sampled: 03/16/98
74 Digital Drive , Suite 6	Sample Descript: W-5-MW9C	Received: 03/17/98
Novato, CA 94949	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 03/27/97
Attention: Marc Briggs	Lab Number: 9803C45-03	Reported: 04/05/98

QC Batch Number: GC032798BTEX17A
Instrument ID: GCHP-17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	N.D.
Methyl t-Butyl Ether	**10000**	**150000**
Benzene	**5.0**	**24**
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	75

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Richard Herling
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: Exxon 7-0238, 229313X	Sampled: 03/16/98
74 Digital Drive , Suite 6	Sample Descript: W-7-MW9D	Received: 03/17/98
Novato, CA 94949	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 03/27/97
Attention: Marc Briggs	Lab Number: 9803C45-04	Reported: 04/05/98

QC Batch Number: GC032798BTEX17A
Instrument ID: GCHP-17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**10**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	79

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Richard Herling
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: Exxon 7-0238, 229313X	Sampled: 03/16/98
74 Digital Drive , Suite 6	Sample Descript: W-5-MW9B	Received: 03/17/98
Novato, CA 94949	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 03/27/97
Attention: Marc Briggs	Lab Number: 9803C45-05	Reported: 04/05/98

QC Batch Number: GC032798BTEX17A
nstrument ID: GCHP-17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**200**	**860**
Methyl t-Butyl Ether	**250**	**1500**
Benzene	**2.0**	**140**
Toluene	**2.0**	**2.0**
Ethyl Benzene	**2.0**	**11**
Xylenes (Total)	2.0	N.D.
Chromatogram Pattern:		**gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	104

nalytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

ichard Herling
roject Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
74 Digital Drive , Suite 6
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: Exxon 7-0238, 229313X
Sample Descript: W-BB-MW9F
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803C45-06

Sampled: 03/16/98
Received: 03/17/98

Analyzed: 03/27/97
Reported: 04/05/98

QC Batch Number: GC032698BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**13**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	77

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Richard Herling
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Environmental Resolutions
74 Digital Drive, Ste. 6
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: Exxon 7-0238, 229313X
Matrix: Liquid
Work Order #: 9803C45 01-05

Reported: Apr 14, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC032798BTEX17A	GC032798BTEX17A	GC032798BTEX17A	GC032798BTEX17A	GC032798BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini
MS/MSD #:	9803C1002	9803C1002	9803C1002	9803C1002	9803C1002
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/27/98	3/27/98	3/27/98	3/27/98	3/27/98
Analyzed Date:	3/27/98	3/27/98	3/27/98	3/27/98	3/27/98
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	11.3	11.1	10.9	37	56
MS % Recovery:	113	111	109	123	93
Dup. Result:	11.2	10.4	10.2	33	51
MSD % Recov.:	112	104	102	110	85
RPD:	0.89	6.5	6.6	11	9.3
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK032698	BLK032698	BLK032698	BLK032698	BLK032698
Prepared Date:	3/27/98	3/27/98	3/27/98	3/27/98	3/27/98
Analyzed Date:	3/27/98	3/27/98	3/27/98	3/27/98	3/27/98
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10.9	10.2	10.5	31	50
LCS % Recov.:	109	102	105	103	83
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Richard Herling
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Environmental Resolutions
74 Digital Drive, Ste. 6
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: Exxon 7-0238, 229313X
Matrix: Liquid
Work Order #: 9803C45 06

Reported: Apr 14, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC032698BTEX03A	GC032698BTEX03A	GC032698BTEX03A	GC032698BTEX03A	GC032698BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini
MS/MSD #:	9803C4406	9803C4406	9803C4406	9803C4406	9803C4406
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/26/98	3/26/98	3/26/98	3/26/98	3/26/98
Analyzed Date:	3/26/98	3/26/98	3/26/98	3/26/98	3/26/98
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.3	9.7	10.7	33	59
MS % Recovery:	83	97	107	110	98
Dup. Result:	8.1	9.6	10.6	32	58
MSD % Recov.:	81	96	106	107	97
RPD:	2.4	1.0	0.94	3.1	1.7
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK032698	BLK032698	BLK032698	BLK032698	BLK032698
Prepared Date:	3/26/98	3/26/98	3/26/98	3/26/98	3/26/98
Analyzed Date:	3/26/98	3/26/98	3/26/98	3/26/98	3/26/98
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.2	9.5	10.6	32	58
LCS % Recov.:	82	95	106	107	97
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Richard Herling
Project Manager

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Environmental Resolutions
74 Digital Drive, Ste. 6
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: Exxon 7-0238, 229313X
Matrix: Liquid
Work Order #: 9803C45 01-03
Reported: Apr 14, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC033098BTEX03A	GC033098BTEX03A	GC033098BTEX03A	GC033098BTEX03A	GC033098BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini
MS/MSD #:	9803F0201	9803F0201	9803F0201	9803F0201	9803F0201
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/30/98	3/30/98	3/30/98	3/30/98	3/30/98
Analyzed Date:	3/30/98	3/30/98	3/30/98	3/30/98	3/30/98
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10.1	10.4	10.4	31	60
MS % Recovery:	101	104	104	103	100
Dup. Result:	10.1	10.3	10.4	31	60
MSD % Recov.:	101	103	104	103	100
RPD:	0.0	1.0	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK033098	BLK033098	BLK033098	BLK033098	BLK033098
Prepared Date:	3/30/98	3/30/98	3/30/98	3/30/98	3/30/98
Analyzed Date:	3/30/98	3/30/98	3/30/98	3/30/98	3/30/98
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10.3	10.6	10.6	32	61
LCS % Recov.:	103	106	106	107	102
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

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EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Consultant's Name: ENVIRONMENTAL RESOLUTIONS, INC.			**Page** 1 **of** 2
Address: 74 DIGITAL DRIVE, SUITE 6, NOVATO, CA 94949			**Site Location:** 2200 E. 12TH ST.
Project #:	**Consultant Project #:** 229313X		**Consultant Work Release #:** 19802889
Project Contact: MARC BRIGGS	**Phone #:** (415) 382-5991		**Laboratory Work Release #:**
EXXON Contact: MARLA QUENSLER	**Phone #:** (510) 246-8776		**EXXON RAS #:** 7-0238
Sampled by (print): PAUL BLANK	**Sampler's Signature:** Paul D. Blank		OAKLAND
Shipment Method: COURIER	**Air Bill #:**		

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☒ Standard (10 day)

ANALYSIS REQUIRED

MAR 17 13 22

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample # 9803C45	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	MTBE 8020		Temperature: _____ Inbound Seal: Yes No Outbound Seal: Yes No
W-5-MW9F	3-16-98	1330	WATER	ICE	3	01	X			X		
W-6-MW9A	"	1345	"	"	"	02	X			X		
W-5-MW9C	"	1400	"	"	"	03	X			X		
W-7-MW9D	"	1410	"	"	"	04	X			X		
W-5-MW9B	"	1420	"	"	↓	05	X			X		
W-BB-MW9F	"	1325	"	"	1	06	X			X		
W-BB-MW9A	"	1340	"	"	"	07	HOLD					
W-BB-MW9C	"	1355	"	"	"	08	HOLD					
W-BB-MW9D	↓	1405	↓	↓	↓	09	HOLD					

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
Paul D Blank	3/17/98	12:15	Jeff Bonneville/Sequoia	3/17/98	12:15	
Jeff Bonneville/Sequoia	3/17/98					
			Jeni Dennis	3/17	1522	

Pink - Client
Yellow - Sequoia
White - Sequoia

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Page 2 of 2

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Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample # 9803C45	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520			Temperature: 11 13 22 / Inbound Seal: Yes No / Outbound Seal: Yes No
W-BB-MW9B	3-16-98	1415	WATER	ICE	1	10	HOLD					
W-TB			"	"	"	11	HOLD					

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
Paul D. Blank	3/17/98	12:15	Jeff Bonneville / Sequoia	3/17/98	12:15	
Jeff Bonneville / Sequoia	3/17/98					
			Terri Downs	3/17	1522	

Pink - Client
Yellow - Sequoia
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Environmental Resolutions 74 Digital Drive , Suite 6 Novato, CA 94949 Attention: Marc Briggs	Client Proj. ID: Exxon 7-0238, 229313X Lab Proj. ID: 9803C45	Received: 03/17/98 Reported: 04/05/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 12 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

MTBE Note: The samples 9803C45-01, -02 & -03 were analyzed twice for MTBE. MTBE is reported from the QC batch GC033098BTEX03A.

SEQUOIA ANALYTICAL

Richard Herling
Project Manager