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Gene N. Ortega
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R0390

ExxonMobil
Refining & Supply

August 28, 2002

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

RE: Former 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, Third Quarter 2002, and Response to Comments,*** dated August 28, 2002, for the above-referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and responds to comments and discusses the results of quarterly monitoring and sampling activities at the subject site.

If you have any questions or comments, please contact me at (925) 246-8747.

Sincerely,

Gene N. Ortega
Territory Manager

Attachment: ERI's Quarterly Groundwater Monitoring Report, Third Quarter 2002, and Response to Comments, dated August 28, 2002.

cc: w/ attachment
Mr. Chuck Headlee, California Regional Water Quality Control Board, San Francisco Bay Region
Mr. Jospeh A. Aldridge, Valero Energy Corporation

w/o attachment
Ms. Paula A. Sime, Environmental Resolutions, Inc.

ENVIRONMENTAL RESOLUTIONS, INC.

August 28, 2002
ERI 229313.R17

Mr. Gene N. Ortega
ExxonMobil Oil Corporation
2300 Clayton Road, Suite 1250
Concord, California 94520

Subject: Quarterly Groundwater Monitoring Report, Third Quarter 2002, and Response to Comments, Former Exxon Service Station 7-0238, 2200 East 12th Street, Oakland, California.

Mr. Ortega:

At the request of ExxonMobil Oil Corporation (ExxonMobil), and pursuant to the Alameda County Health Care Services Agency (the County) letter dated June 3, 2002 (Attachment A), Environmental Resolutions, Inc. (ERI) conducted third quarter 2002 groundwater monitoring and sampling at the subject site, and has prepared this report documenting that monitoring event and ERI's responses to technical comments outlined in the County's letter. The purpose of quarterly monitoring and sampling is to evaluate concentrations of dissolved hydrocarbons in groundwater and the groundwater flow direction and hydraulic gradient. The location of the site is shown on the Site Vicinity Map (Plate 1). The configuration of the site and the locations of select site features are shown on the Generalized Site Plan (Plate 2).

GROUNDWATER MONITORING AND SAMPLING

On July 12, 2002, ERI measured depth to water (DTW) in select wells and collected groundwater samples from these wells for laboratory analysis. Work was performed in accordance with ERI's groundwater sampling protocol (Attachment B). The calculated hydraulic gradient and groundwater flow direction are shown on Plate 2. Historical and recent monitoring data are summarized in Table 1.

Laboratory Analyses and Results

ERI submitted groundwater samples to Test America Incorporated (Test America), a California state-certified laboratory, under Chain-of-Custody protocol. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and methyl tertiary butyl ether (MTBE) using the methods listed in the notes in Table 1. The laboratory analysis report and Chain-of-Custody record are attached (Attachment C). Cumulative analytical laboratory results of groundwater samples are summarized in Table 1. Analytical results of groundwater samples collected during the recent sampling event are shown on Plate 2.

FUTURE ACTIVITIES

Corrective and Remedial Actions

ERI conducted a dual-phase extraction (DPE) feasibility test at the subject site in March 2001. The purpose of the test was to evaluate the effectiveness of DPE as a remedial alternative. Test methods and results of the investigation are presented in ERI's *Dual-Phase Extraction Feasibility Test Report and Conceptual Corrective Action Plan* (CAP), dated September 19, 2001. The County approved ERI's CAP in the June 3, 2002 letter.

ERI has designed a DPE system to remediate hydrocarbon-impacted groundwater and soil vapor. ERI is currently in the process of obtaining the required permits for system installation and operation. System installation is planned for 2003. The DPE system will consist of a liquid-ring pump (LRP) to extract groundwater and soil vapor from four proposed DPE wells (DPE1 through DPE4). Extracted liquid and vapor streams will be separated by an air-water separator and directed to the liquid and vapor abatement systems. The vapor stream will be abated using a catalytic oxidizer and discharged into the atmosphere under permit from the Bay Area Air Quality Management District (BAAQMD). The liquid stream will be abated with granular activated carbon (GAC) and discharged to the sanitary sewer under permit from the East Bay Municipal Utility District (EBMUD).

Quarterly Monitoring and Sampling

Groundwater monitoring and sampling occurs quarterly at this site. The fourth quarter 2002 monitoring and sampling event is scheduled for October 2002.

RESPONSE TO TECHNICAL COMMENTS

The following are ERI's responses to the County's technical comments outlined in their June 3, 2002 letter. The County's technical comments are provided below in bold text, followed by ERI's responses.

It appears that our office has not responded to the Dual-Phase Extraction Feasibility Test Report and Conceptual Corrective Action Plan dated 9/19/01, therefore, this letter formally approves the recommended CAP. This includes the over-drilling of MW9B, MW9C and MW9I and the installation of DPE wells within these wells in addition to DPE1.

ERI is currently implementing the proposed CAP.

Your May 24, 2002 report states that the DPE system installation is planned for 2003. Because of the consistent elevated TPHg and MTBE at this site, our office requests that until the DPE system is installed, regular (monthly?) DPE from a mobile treatment unit should be performed from the highly impacted on-site wells.

ERI is currently in the process of obtaining permits for the permanent DPE system, which is scheduled to be installed in first quarter 2003. The required permits are based on the specifications for the permanent DPE system and are not applicable for a temporary, mobile DPE unit. In order to operate a

temporary DPE unit at the site, it is necessary to obtain additional permits for a temporary unit. The length of time required to obtain permits for a temporary system would likely extend up to or beyond the proposed date to install the permanent DPE system. The duplication of effort required to obtain additional permits is not cost effective, given the minimal number of DPE events that could occur in the time frame between permit approval for the temporary DPE unit and the installation of the permanent system.

Additionally, in ERI's experience, groundwater treatment using a mobile DPE system is not as effective at reducing dissolved hydrocarbon concentrations as a permanent DPE system. ERI proposes to continue the permitting process for the permanent DPE system, and install the system during first quarter 2003.

Please run EPA Method 8260 more frequently on impacted wells to confirm the presence of MTBE. There is not enough confirmation analytical data to state the accuracy of concentrations currently being reported by EPA Method 8021. In addition, please run the impacted wells for the following EPA Method 8260 analytes: TAME, ETBE, DIPE, TBA, EDB and EDC.

ERI proposes to analyze MTBE, TAME, ETBE, DIPE, TBA, EDB, and EDC using EPA Method 8260B, once per year beginning fourth quarter 2002.

As noted in the May 24, 2002 report, since changing analytical laboratories, significant changes in reported TPHg and MTBE concentrations have been observed. Please clarify the way these analytes are quantified by the laboratory and explain the recent trends observed in both TPHg and MTBE.

ERI is currently evaluating recent changes in reported TPHg and MTBE concentrations. As part of that evaluation, ERI requested Test America (ExxonMobil's current contract laboratory) to review the laboratory results and provide documentation concerning the quantitation methods used. The response from Test America is included as Attachment D. ERI has also discussed quantitation methods with previous contract laboratories; the information exchanged during those conversations is consistent with Test America's conclusions. In ERI's opinion, differences in quantitation methods and reporting as discussed in Test America's response adequately account for the increase in reported TPHg concentrations. ERI is still evaluating the changes in reported MTBE concentrations quantitated using EPA Methods 8021B and/or 8260B. ERI will provide additional information as it becomes available.

DOCUMENT DISTRIBUTION

ERI recommends forwarding copies of this report to:

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

Mr. Chuck Headlee
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Mr. Joseph A. Aldridge
Valero Energy Corporation
685 West Third Street
Hanford, California 93230

LIMITATIONS

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

Please call Ms. Paula Sime, ERI's senior staff geologist for this site, at (415) 382-4324, with any questions regarding this report.

Sincerely,
Environmental Resolutions, Inc.

Paula Sime
Senior Staff Geologist

John B. Bobbitt
R.G. 4313

Attachments:
Table 1: Cumulative Groundwater Monitoring and Sampling Data

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

Attachment A: Alameda County Health Care Services Agency Letter, Dated June 3, 2002
Attachment B: Groundwater Sampling Protocol
Attachment C: Laboratory Analysis Report and Chain-of-Custody Record
Attachment D: Letter from Test America Incorporated

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

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	MTBE	B	T	E	X
		<	feet	>	<		g/L			>
MW9A	11/02/95	NLPH	7.16	4.30	<50	<10	<0.5	<0.5	<0.5	<0.5
(11.46)	04/26/96	NLPH	6.33	5.13	---	---	---	---	---	---
	08/22/96	NLPH	7.02	4.44	---	---	---	---	---	---
	02/24/97	---	---	---	---	---	---	---	---	---
	03/16/98	NLPH	6.14	5.32	<200	40,000	7.9	<2.0	<2.0	<2.0
	04/21/98	NLPH	6.29	5.17	<50	53,000	3.8	<0.5	<0.5	<0.5
(14.53)	07/22/98	NLPH	6.58	7.95	<250	18,000	<2.5	<2.5	<2.5	<2.5
	12/22/98	NLPH	6.47	8.06	<50	5,200	<0.5	<0.5	<0.5	<0.5
	02/26/99	NLPH	6.38	8.15	<100	10,000	<1.0	<1.0	<1.0	<1.0
	5/27/99 b	NLPH	6.56	7.97	<5,000	15,300	<50	<50	<50	<50
	08/03/99	NLPH	9.39	5.14	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	12/03/99	NLPH	6.52	8.01	<50	1,400	<0.5	<0.5	<0.5	0.67 c
	02/29/00	NLPH	5.31	9.22	<50	20,000	1.2	<0.5	<0.5	<0.5
	05/18/00	NLPH	6.31	8.22	<50	14,000/11,000a	<0.5	<0.5	<0.5	<0.5
	07/24/00	NLPH	6.54	7.99	<50	7,400	<0.5	<0.5	<0.5	<0.5
	10/09/00	NLPH	6.00	8.53	<50	2,300	<0.5	<0.5	<0.5	<0.5
	01/10/01	NLPH	6.34	8.19	<50	3,700	<0.5	<0.5	<0.5	<0.5
	04/10/01	NLPH	9.31	5.22	<50	11,000	<0.5	<0.5	<0.5	<0.5
	07/12/01	NLPH	---	---	<50	3,600	<0.5	<0.5	<0.5	<0.5
	8/17/01 d	---	6.61	7.92	---	---	---	---	---	---
	10/11/01	NLPH	7.03	7.50	<50	1,700	<0.5	<0.5	<0.5	<0.5
(14.51)	10/11/01	Well surveyed in compliance with AB2886 requirements.								
	01/11/02	NLPH	5.93	8.58	2,090 f	31,000 f	18.6 f	<0.50	<0.50	<0.50
	04/12/02	NLPH	6.41	8.10	34,300	32,200	<5.00	<5.00	<5.00	<5.00
	07/12/02	**NLPH**	**6.64**	**7.87**	**6,760**	**8,070**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW9B	11/02/95	NLPH	6.14	3.66	130	<10	3.3	<0.5	<0.5	<0.5
(9.80)	04/26/96	NLPH	5.66	4.14	270	70	130	2.8	6.7	<3
	08/22/96	NLPH	6.16	3.64	210	31	5.7	6.8	1.1	9.2
	02/24/97	NLPH	5.58	4.22	1,400	1,300	76	1.4	4.1	1.2
	03/16/98	NLPH	5.32	4.48	860	1,500	140	2.0	11	<2.0
	04/21/98	NLPH	5.49	4.31	1,800	18,000	300	<5.0	7.9	<5.0
(12.83)	07/22/98	NLPH	5.79	7.04	<500	26,000	13	<5.0	<5.0	<5.0
	12/22/98	NLPH	5.69	7.14	700	21,000	110	3.1	9.1	14
	02/26/99	NLPH	5.10	7.73	8,800	8,000	2,000	<25	52	38
	05/18/99	NLPH	5.65	7.18	<10,000	42,100	158	<100	<100	<100
	08/03/99	NLPH	6.24	6.59	960	24,900	<5.0	<5.0	<5.0	<5.0

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

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	MTBE	B	T	E	X
		<	feet	>	<	g/L				>
MW9B (cont.)	12/03/99	NLPH	5.66	7.17	<50	1,000	<0.5	<0.5	<0.5	<0.5
(12.83)	02/29/00	NLPH	4.61	8.22	3,100	25,000	900	7	23	7.1
	05/18/00	NLPH	5.54	7.29	780	34,000/26,000a	150	<2.5	4.5	<2.5
	07/24/00	NLPH	8.75	4.08	<250	39,000	8	<2.5	<2.5	<2.5
	10/09/00	NLPH	4.84	7.99	<1,200	30,000	1.7	<0.5	<0.5	<0.5
	01/10/01	NLPH	5.56	7.27	<250	32,000	5.3	<0.5	<0.5	<0.5
	04/10/01	NLPH	5.40	7.43	360	27,000	69.0	<2.5	22.0	29.8
	07/12/01	NLPH	---	---	<250	41,000	<2.5	<2.5	<2.5	<2.5
	8/17/01 d	---	5.83	7.00	---	---	---	---	---	---
	10/11/01	NLPH	8.70	4.13	<250	24,000	<2.5	<2.5	<2.5	<2.5
(12.84)	Nov-01	Well surveyed in compliance with AB2886 requirements.								
	01/11/02	NLPH	5.16	7.68	9,170 f	14,600 f	66.0 f	<10.0	54.0	<10.0
	04/12/02	NLPH	5.57	7.27	29,600	28,600	12.0	<5.00	<5.00	<5.00
	07/12/02	**NLPH**	**5.81**	**7.03**	**20,200**	**27,700**	**<10.0**	**14.0**	**<10.0**	**16.0**
MW9C	11/02/95	---	---	---	---	---	---	---	---	---
(11.14)	04/26/96	---	---	---	---	---	---	---	---	---
	08/22/96	---	---	---	---	---	---	---	---	---
	02/24/97	---	---	---	---	---	---	---	---	---
	03/16/98	NLPH	5.51	5.63	<500	150,000	24	<5.0	<5.0	<5.0
	04/21/98	NLPH	5.83	5.31	150	130,000/150,000a	<0.5	<0.5	<0.5	<0.5
(14.19)	07/22/98	NLPH	6.43	7.76	<500	95,000	<5.0	<5.0	<5.0	<5.0
	12/22/98	NLPH	6.16	8.03	<500	84,000	<5.0	<5.0	<5.0	<5.0
	02/26/99	NLPH	5.46	8.73	<250	55,000	<2.5	<2.5	<2.5	<2.5
	05/18/99	NLPH	6.27	7.92	<25,000	68,900	<250	<250	<250	<250
	08/03/99	NLPH	7.13	7.06	210	69,200	<1.0	1.3	<1.0	<1.0
	12/03/99	NLPH	6.17	8.02	290	50,000	<2.5	<2.5	<2.5	<2.5
	02/29/00	NLPH	4.49	9.70	<250	40,000	<2.5	<2.5	<2.5	<2.5
	05/18/00	NLPH	5.96	8.23	<250	46,000/33,000	<2.5	<2.5	<2.5	<2.5
	07/24/00	NLPH	6.47	7.72	<250	44,000	<2.5	<2.5	<2.5	<2.5
	10/09/00	NLPH	6.57	7.62	<250	39,000	<2.5	<2.5	<2.5	<2.5
	01/10/01	NLPH	6.09	8.10	<250	42,000	<2.5	<2.5	<2.5	<2.5
	04/10/01	NLPH	7.88	6.31	<250	35,000	<2.5	<2.5	<2.5	<2.5
	07/12/01	NLPH	---	---	<250	32,000	<2.5	<2.5	<2.5	<2.5
	8/17/01 d	---	6.60	7.59	---	---	---	---	---	---
	10/11/01	NLPH	6.67	7.52	<250	53,000	<2.5	<2.5	<2.5	<2.5
(14.16)	Nov-01	Well surveyed in compliance with AB2886 requirements.								

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

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	MTBE	B	T	E	X
		<	feet	>	<		g/L			>
MW9C (cont.)	01/11/02	NLPH	5.29	8.87	2,470 f	90,000 f	0.90 f	<0.50	<0.50	<0.50
(14.16)	04/12/02	NLPH	6.14	8.02	70,400	66,800	<5.00	<5.00	<5.00	<5.00
	07/12/02	**NLPH**	**6.54**	**7.62**	**50,900**	**58,300**	**<500**	**<500**	**<500**	**<500**
MW9D	11/02/95	---	---	---	---	---	---	---	---	---
(12.90)	04/26/96	---	--	--	---	---	---	---	---	---
	08/22/96	---	---	---	---	---	---	---	---	---
	02/24/97	---	---	---	---	---	---	---	---	---
	03/16/98	NLPH	6.94	5.96	<50	10	<0.5	<0.5	<0.5	<0.5
	04/21/98	NLPH	7.22	5.68	<50	12	<0.5	<0.5	<0.5	<0.5
(15.98)	07/22/98	NLPH	7.85	8.13	<50	13	<0.5	<0.5	<0.5	<0.5
	12/22/98	NLPH	7.58	8.40	<50	12	<0.5	<0.5	<0.5	<0.5
	02/26/99	NLPH	6.42	9.56	<50	310	<0.5	<0.5	<0.5	<0.5
	05/18/99	NLPH	6.55	9.43	<2,500	13,500	<25	<25	<25	<25
	08/03/99	NLPH	8.34	7.64	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	12/03/99	NLPH	7.56	8.42	<50	<2	<0.5	<0.5	<0.5	<0.5
	02/29/00	NLPH	4.82	11.16	<50	2.5	<0.5	<0.5	<0.5	<0.5
	05/18/00	NLPH	7.40	8.58	<50	6.2	<0.5	<0.5	<0.5	<0.5
	07/24/00	NLPH	7.91	8.07	<50	14	<0.5	<0.5	0.85	0.74
	10/09/00	NLPH	8.02	7.96	<50	14	<0.5	<0.5	<0.5	<0.5
	01/10/01	NLPH	7.26	8.72	<50	18	<0.5	<0.5	<0.5	<0.5
	04/10/01	NLPH	7.32	8.66	<50	14	<0.5	<0.5	<0.5	<0.5
	07/12/01	NLPH	--	--	<50	22	<0.5	<0.5	<0.5	<0.5
	08/17/01 e	---	---	---	---	---	---	---	---	---
	10/11/01	NLPH	8.16	7.82	<50	24	<0.5	<0.5	<0.5	<0.5
(15.97)	Nov-01	Well surveyed in compliance with AB2886 requirements.								
	01/11/02	NLPH	6.64	9.33	352 f	2.0 f	<0.50	<0.50	<0.50	<0.50
	04/12/02	NLPH	7.58	8.39	191	192	<0.50	<0.50	<0.50	<0.50
	07/12/02	**NLPH**	**8.01**	**7.96**	**108**	**124**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW9F	11/02/95	---	---	---	---	--	---	---	---	---
(8.37)	04/26/96	NLPH	---	---	<50	57	<0.5	<0.5	<0.5	<0.5
	08/22/96	NLPH	---	---	<50	5.8	<0.5	<0.5	<0.5	<0.5
	02/24/97	NLPH	---	---	<50	<30	<0.5	<0.5	<0.5	<0.5
	03/16/98	NLPH	---	---	---	---	---	---	---	---
	04/21/98	---	---	---	---	---	---	---	---	---
(11.38)	07/22/98	---	---	---	---	---	---	---	---	---

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

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	MTBE	B	T	E	X
		<	feet	>	<	g/L				>
MW9F (cont.)	12/22/98	NLPH	5.47	5.91	<50	81	<0.5	<0.5	<0.5	<0.5
(11.38)	02/26/99	NLPH	5.35	6.03	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	05/18/99	NLPH	5.62	5.76	<50	61.6	<0.5	<0.5	<0.5	<0.5
	08/03/99	NLPH	6.32	5.06	<50	3.10	<0.5	<0.5	<0.5	<0.5
	12/03/99	NLPH	5.59	5.79	<50	<2	<0.5	<0.5	0.71	<0.5
	02/29/00	NLPH	4.70	6.68	<50	52	<0.5	<0.5	<0.5	<0.5
	05/18/00	NLPH	5.37	6.01	<50	65	<0.5	<0.5	<0.5	<0.5
	07/24/00	NLPH	5.65	5.73	<50	170	<0.5	<0.5	<0.5	<0.5
	10/09/00	NLPH	5.71	5.67	<50	170	<0.5	<0.5	<0.5	<0.5
	01/10/01	NLPH	4.30	7.08	<50	140	<0.5	<0.5	<0.5	<0.5
	04/10/01	NLPH	5.20	6.18	<50	50	<0.5	<0.5	<0.5	<0.5
	07/12/01	NLPH	--	--	<50	190	<0.5	<0.5	<0.5	<0.5
	08/17/01 e	--	--	--	--	--	--	--	--	--
	10/11/01	NLPH	5.82	5.56	<50	260	<0.5	<0.5	<0.5	<0.5
(11.38)	Nov-01	Well surveyed in compliance with AB2886 requirements.								
	01/11/02	NLPH	5.12	6.26	<100	67.0 f	<1.00	<1.00	<1.00	<1.00
	04/12/02	NLPH	5.50	5.88	55.9	58.6	<0.50	<0.50	<0.50	<0.50
	07/12/02	**NLPH**	**5.65**	**5.73**	**102**	**121**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW9G	11/02/95	NLPH	5.92	4.03	<50	<10	<0.5	<0.5	<0.5	<0.5
(9.95)	04/26/96	NLPH	5.28	4.67	<50	18	<0.5	<0.5	<0.5	<0.5
	08/22/96	NLPH	5.57	4.38	<50	18	<0.5	<0.5	<0.5	<0.5
	02/24/97	NLPH	5.30	4.65	<50	240	<0.5	0.57	<0.5	0.62
	03/16/98	---	---	---	---	---	---	---	---	---
	04/21/98	---	---	---	---	---	---	---	---	---
(12.99)	07/22/98	---	---	---	---	---	---	---	---	---
	12/22/98	NLPH	5.28	7.71	<50	1,100	<0.5	<0.5	<0.5	<0.5
	02/26/99	NLPH	5.31	7.68	<50	50	<0.5	<0.5	<0.5	<0.5
	05/18/99	NLPH	5.18	7.81	<1,000	3,990	<10	<10	<10	<10
	08/03/99	NLPH	6.00	6.99	<50	1,340	<0.5	<0.5	<0.5	<0.5
	12/03/99	NLPH	5.27	7.72	<50	<2	<0.5	<0.5	<0.5	0.55 c
	02/29/00	NLPH	4.60	8.39	<50	7,900	<0.5	<0.5	<0.5	<0.5
	05/18/00	NLPH	5.16	7.83	<50	2,400	<0.5	<0.5	<0.5	<0.5
	07/24/00	NLPH	5.20	7.79	<50	1,000	<0.5	<0.5	<0.5	<0.5
	10/09/00	NLPH	5.26	7.73	<50	180	<0.5	<0.5	<0.5	<0.5
	01/10/01	NLPH	5.18	7.81	<50	1,200	<0.5	<0.5	<0.5	<0.5

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

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	MTBE	B	T	E	X
		<	feet	>	<	g/L				>
MW9G (cont.)	04/10/01	NLPH	5.08	7.91	<50	9,100	<0.5	<0.5	<0.5	<0.5
(12.99)	07/12/01	NLPH	--	--	<50	3,000	<0.5	<0.5	<0.5	<0.5
	8/17/01 e	---	---	---	---	---	---	---	---	---
	10/11/01	NLPH	5.48	7.51	<50	1,600	<0.5	<0.5	<0.5	<0.5
(12.98)	Nov-01	Well surveyed in compliance with AB2886 requirements.								
	01/11/02	NLPH	4.97	8.01	419 f	945 f	<0.50	<0.50	<0.50	<0.50
	04/12/02	NLPH	5.12	7.86	10,700	11,000	<0.50	<0.50	<0.50	<0.50
	07/12/02	**NLPH**	**5.31**	**7.67**	**2,310**	**3,140**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW9H	11/02/95	NLPH	8.40	0.18	<50	<10	<0.5	<0.5	<0.5	<0.5
(8.58)	04/26/96	NLPH	8.05	0.53	---	---	---	---	---	---
	08/22/96	NLPH	8.17	0.41	---	---	---	---	---	---
	02/24/97	---	---	---	---	---	---	---	---	---
	03/16/98	---	---	---	---	---	---	--	---	---
	04/21/98	---	---	---	---	---	---	---	---	---
(11.61)	07/22/98	---	---	---	---	---	---	---	---	---
	12/22/98	NLPH	7.81	3.80	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	02/26/99	NLPH	7.61	4.00	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	05/18/99	NLPH	8.00	3.61	<50	3.98	<0.5	<0.5	<0.5	<0.5
	08/03/99	NLPH	6.05	5.56	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	12/03/99	NLPH	5.32	6.29	<50	<2	<0.5	<0.5	<0.5	0.57 c
	02/29/00	NLPH	7.10	4.51	<50	<2	<0.5	<0.5	<0.5	<0.5
	05/18/00	NLPH	7.84	3.77	<50	9.7	<0.5	<0.5	<0.5	<0.5
	07/24/00	NLPH	7.94	3.67	<50	17	<0.5	<0.5	<0.5	<0.5
	10/09/00	NLPH	8.09	3.52	<50	13	<0.5	<0.5	<0.5	1.1
	01/10/01	NLPH	7.89	3.72	<50	11	<0.5	<0.5	<0.5	0.5
	04/10/01	NLPH	8.71	2.90	<50	44	<0.5	0.78	0.52	2.36
	07/12/01	NLPH	--	--	<50	28	<0.5	<0.5	<0.5	<0.5
	8/17/01 e	---	---	---	---	---	---	---	---	---
	10/11/01	NLPH	8.15	3.46	<50	30	<0.5	<0.5	<0.5	<0.5
(11.59)	Nov-01	Well surveyed in compliance with AB2886 requirements.								
	01/11/02	NLPH	7.48	4.11	<50.0	20.5 f	<0.50	<0.50	<0.50	<0.50
	04/12/02	NLPH	7.68	3.91	<50.0	32.8	<0.50	<0.50	<0.50	<0.50
	07/12/02	**NLPH**	**8.06**	**3.53**	**<50.0**	**34.6**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

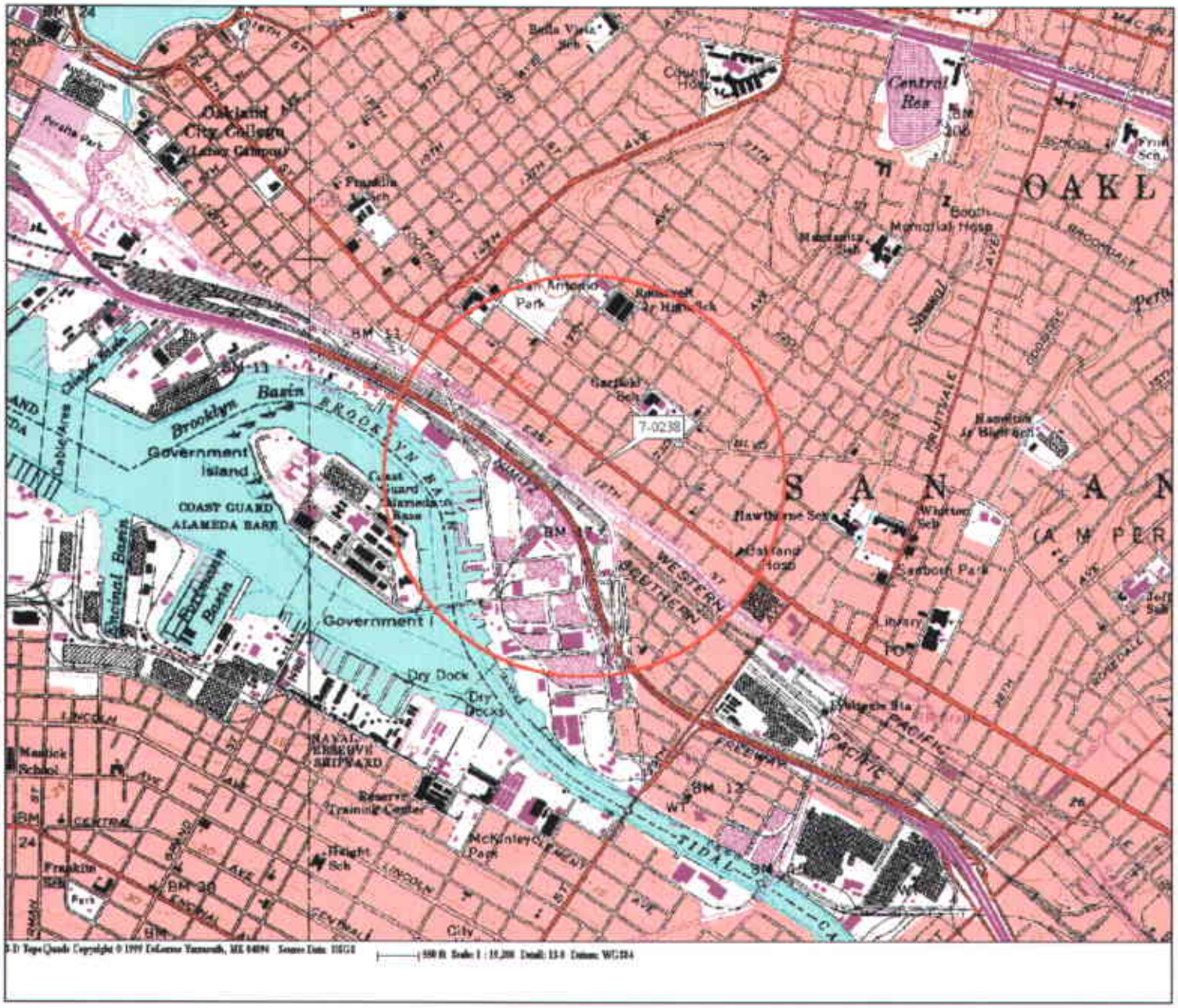
TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-0238
2200 East 12th Street
Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	MTBE	B	T	E	X
		<	feet	>	<		g/L			>
MW9I	11/02/95	NLPH	6.04	4.07	<50	<10	<0.5	<0.5	<0.5	<0.5
(10.11)	04/26/96	NLPH	5.27	4.84	<50	99	<0.5	<0.5	<0.5	<0.5
	08/22/96	NLPH	5.66	4.45	<50	170	<0.5	<0.5	<0.5	<0.5
	02/24/97	NLPH	5.24	4.87	120	9,100	<0.5	<0.5	<0.5	<0.5
	03/16/98	NLPH	4.91	5.20	<200	59,000	13	<2.0	<2.0	<2.0
	04/21/98	NLPH	5.08	5.03	<500	59,000	<5.0	<5.0	<5.0	<5.0
(13.14)	07/22/98	NLPH	5.44	7.70	<500	62,000	<5.0	<5.0	<5.0	<5.0
	12/22/98	NLPH	5.32	7.82	200	51,000	1.7	<0.5	<0.5	<0.5
	02/26/99	NLPH	4.71	8.43	<500	9,700	<5.0	<5.0	<5.0	<5.0
	05/18/99	NLPH	5.30	7.84	<1,000	3,730	<10	<10	<10	<10
	08/03/99	NLPH	5.98	7.16	<50	21,900	<0.5	0.650	<0.5	<0.5
	12/03/99	NLPH	5.31	7.83	<250	2,000	3.9	2.9	<2.5	14
	02/29/00	NLPH	4.20	8.94	50	16,000	0.74	<0.5	<0.5	<0.5
	05/18/00	NLPH	5.12	8.02	<50	2,900	<0.5	<0.5	<0.5	<0.5
	07/24/00	NLPH	5.41	7.73	<250	43,000	<2.5	<2.5	<2.5	<2.5
	10/09/00	NLPH	5.41	7.73	<2,500	54,000	1.6	<0.5	<0.5	<0.5
	01/10/01	NLPH	5.24	7.90	<250	36,000	<2.5	<2.5	<2.5	<2.5
	04/10/01	NLPH	4.84	8.30	<50	4,800	<0.5	<0.5	<0.5	<0.5
	07/12/01	NLPH	---	---	<50	8,400	<0.5	<0.5	<0.5	<0.5
	08/17/01	---	6.49	6.65	---	---	---	---	---	---
	10/11/01	NLPH	5.64	7.50	<250	38,000	<2.5	<2.5	<2.5	<2.5
(13.13)	Nov-01	Well surveyed in compliance with AB2886 requirements.								
	01/11/02	NLPH	4.80	8.33	1,330 f	5,400 f	4.80 f	<0.50	<0.50	<0.50
	04/12/02	NLPH	5.22	7.91	1,460	1,480	<0.50	<0.50	<0.50	<0.50
	07/12/02	**NLPH**	**5.50**	**7.63**	**4,460**	**6,490**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

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

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.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 5030/8015 (modified).
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8021B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B.
<	=	Less than the indicated detection limit shown by the laboratory.
---	=	Not measured or sampled.
g/L	=	Micrograms per liter.
a	=	MTBE confirmed using EPA Method 8260.
b	=	Miscalculation in field. Field technician may have inadvertently monitored and sampled the wrong well. Resampled 5/27/99.
c	=	Analyte detected in the trip blank and/or bailer blank.
d	=	Due to measurement error during initial sampling event, DTW was re-measured on August 17, 2001. No samples were taken.
e	=	Well inaccessible due to uncontrollable traffic conditions.
f	=	Samples collected after fourth quarter 2001 analyzed by Test America, Inc. Reported concentrations may be affected by differing laboratory quantitation methods.



FN 2293TOPO

EXPLANATION

1/2-mile radius circle

N

APPROXIMATE SCALE

0 0.5 1 mile

SOURCE:
Modified from a map
provided by
DeLorme 3-D TopoQuads

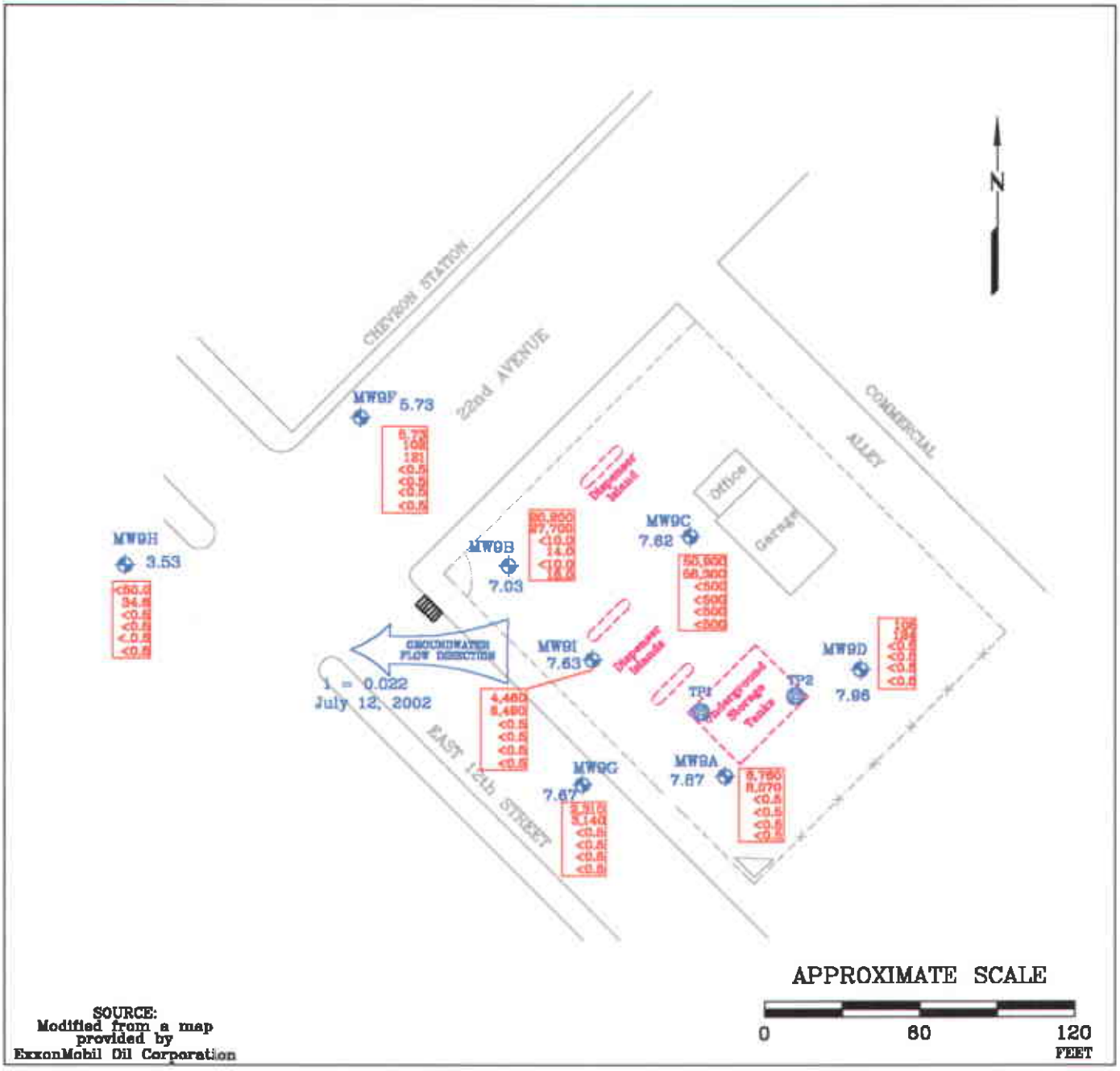
ERI ENVIRONMENTAL RESOLUTIONS, INC.

SITE VICINITY MAP

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

PROJECT NO. 2293

PLATE 1



SOURCE:
Modified from a map provided by ExxonMobil Oil Corporation

FN 22930002

EXPLANATION

MW9I
Groundwater Monitoring Well

7.63 Groundwater elevation in feet; datum is mean sea level

i = Interpreted Hydraulic Gradient

TP2
UST Observation Well

Analyte Concentrations in ug/L
Sampled July 12, 2002

- Total Petroleum Hydrocarbons as gasoline
- Methyl Tertiary Butyl Ether
- Benzene
- Toluene
- Ethylbenzenes
- Total Xylenes

< Less Than the Stated Laboratory Reporting Limit

ug/L Micrograms per Liter

ENVIRONMENTAL RESOLUTIONS, INC.

GENERALIZED SITE PLAN

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

PROJECT NO.
2293

PLATE
2

ATTACHMENT A

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY LETTER, DATED JUNE 3, 2002

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

June 3, 2002

Mr. Gene Ortega
ExxonMobil Oil Company
2300 Clayton Road, Suite 250
Concord, CA 94520

Dear Mr. Ortega:

Subject: Fuel Leak Site No. RO0000390, 2200 E. 12th St., Oakland CA 94606

Alameda County Environmental Health, Local Oversight Program (LOP), has recently reviewed the files for the referenced site up to and including the May 24, 2002 Second Quarter 2002 Monitoring Report and determined that additional information is needed to progress this case to closure. Please address the following technical comments.

Technical Comments

1. It appears that our office has not responded to the Dual-Phase Extraction Feasibility Test Report and Conceptual Corrective Action Plan dated 9/19/01, therefore, this letter formally approves the recommended CAP. This includes the over-drilling of MW9B, MW9C and MW9I and the installation of DPE wells within these wells in addition to DPE1.
2. Your May 24, 2002 report states that the DPE system installation is planned for 2003. Because of the consistent elevated TPHg and MTBE at this site, our office requests that until the DPE system is installed, regular (monthly?) DPE from a mobile treatment unit should be performed from the highly impacted on-site wells.
3. Please run EPA Method 8260 more frequently on impacted wells to confirm the presence of MTBE. There is not enough confirmation analytical data to state the accuracy of concentrations currently being reported by EPA Method 8021. In addition, please run the impacted wells for the following EPA Method 8260 analytes: TAME, ETBE, DIPE, TBA, EDB and EDC.
4. As noted in the May 24, 2002 report, since changing analytical laboratories, significant changes in reported TPHg and MTBE concentrations have been observed. Please clarify the way these analytes are quantified by the laboratory and explain the recent trends observed in both TPHg and MTBE.

Please provide your response to these technical comments in your Third Quarter 2002 Monitoring Report, which should be submitted no later than August 30, 2002.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Ms. Paula Sime, ERI, 73 Digital Drive, Suite 100, Novato, CA 94949-5791
02com2200E12thSt

ATTACHMENT B

GROUNDWATER SAMPLING PROTOCOL

GROUNDWATER SAMPLING PROTOCOL

The static water level and separate-phase product level, if present, in each well that contains water and/or separate-phase product are measured with an ORS 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 top of casing elevations.

Groundwater samples collected for subjective evaluation are collected by gently lowering approximately half the length of a clean Teflon® or polypropylene 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. If appropriate, free-phase hydrocarbons are removed from the well.

Before water samples are collected from the groundwater monitoring wells, the wells are purged until a minimum of three well casing volumes is purged and stabilization of the temperature, pH, and conductivity is obtained. 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	=	ratio of the circumference of a circle to its diameter

Gallons of water purged/gallons in 1 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® or polypropylene bailer. The groundwater is carefully poured into selected sample containers (40-milliliter (ml) glass vials, 1,000 ml glass amber bottles, etc.), which are filled so as to produce a positive meniscus.

Depending on the required analysis, each sample container is preserved with hydrochloric acid, nitric acid, etc., or it is preservative free. The type of preservative used for each sample is specified on the chain of custody form.

Each vial and glass amber bottle is 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 state-certified laboratory.

ATTACHMENT C

LABORATORY ANALYSIS REPORT AND CHAIN-OF-CUSTODY RECORD

TestAmerica INCORPORATED

7/27/02

ERI - NORTHERN CA 3876
PAULA SIME
73 DIGITAL DRIVE, SUITE 100
NOVATO, CA 94949

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project 229313X EXXONMOBIL 70238. The Laboratory Project number is 293112. An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
MW9A	02-A116077	7/12/02
MW9B	02-A116078	7/12/02
MW9C	02-A116079	7/12/02
MW9D	02-A116080	7/12/02
MW9F	02-A116081	7/12/02
MW9G	02-A116082	7/12/02
MW9H	02-A116083	7/12/02
MW9I	02-A116084	7/12/02

Report Approved By: J Mitchell Report Date: 7/27/02

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 01168CA

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ERI - NORTHERN CA 3876
PAULA SIME
73 DIGITAL DRIVE, SUITE 100
NOVATO, CA 94949

Project: 229313X
Project Name: EXXONMOBIL 70238
Sampler: SAM

Lab Number: 02-A116077
Sample ID: MW9A
Sample Type: Water
Site ID: 70238

Date Collected: 7/12/02
Time Collected: 20:26
Date Received: 7/16/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	0.5	1.0	7/26/02	2:33	D.Yeager	8021B	9769
Ethylbenzene	ND	ug/L	0.5	1.0	7/26/02	2:33	D.Yeager	8021B	9769
Toluene	ND	ug/L	0.5	1.0	7/26/02	2:33	D.Yeager	8021B	9769
Xylenes (Total)	ND	ug/L	0.5	1.0	7/26/02	2:33	D.Yeager	8021B	9769
Methyl-t-butylether	8070	ug/L	25.0	50.0	7/26/02	14:03	D.Yeager	8021B	3966
TPH (Gasoline Range)	6760	ug/L	2500	50.0	7/26/02	14:03	D.Yeager	8015B	3966

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	102.	69. - 132.

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
E - Estimated Value above the calibration limit of the instrument.
- Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ERI - NORTHERN CA 3876
PAULA SIME
73 DIGITAL DRIVE, SUITE 100
NOVATO, CA 94949

Project: 229313X
Project Name: EXXONMOBIL 70238
Sampler: SAM

Lab Number: 02-A116078
Sample ID: MW9B
Sample Type: Water
Site ID: 70238

Date Collected: 7/12/02
Time Collected: 20:08
Date Received: 7/16/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	10.0	20.0	7/26/02	2:54	D.Yeager	8021B	9769
Ethylbenzene	ND	ug/L	10.0	20.0	7/26/02	2:54	D.Yeager	8021B	9769
Toluene	14.0	ug/L	10.0	20.0	7/26/02	2:54	D.Yeager	8021B	9769
Xylenes (Total)	16.0	ug/L	10.0	20.0	7/26/02	2:54	D.Yeager	8021B	9769
Methyl-t-butylether	27700	ug/L	500.	1000	7/26/02	17:39	D.Yeager	8021B	3966
TPH (Gasoline Range)	20200	ug/L	1000	20.0	7/26/02	2:54	D.Yeager	8015B	9769

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	102.	69. - 132.

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
E - Estimated Value above the calibration limit of the instrument.
- Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ERI - NORTHERN CA 3876
PAULA SIME
73 DIGITAL DRIVE, SUITE 100
NOVATO, CA 94949

Project: 229313X
Project Name: EXXONMOBIL 70238
Sampler: SAM

Lab Number: 02-A116079
Sample ID: MW9C
Sample Type: Water
Site ID: 70238

Date Collected: 7/12/02
Time Collected: 20:41
Date Received: 7/16/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	500.	1000	7/26/02	18:10	D.Yeager	8021B	3966
Ethylbenzene	ND	ug/L	500.	1000	7/26/02	18:10	D.Yeager	8021B	3966
Toluene	ND	ug/L	500.	1000	7/26/02	18:10	D.Yeager	8021B	3966
Xylenes (Total)	ND	ug/L	500.	1000	7/26/02	18:10	D.Yeager	8021B	3966
Methyl-t-butylether	58300	ug/L	500.	1000	7/26/02	18:10	D.Yeager	8021B	3966
TPH (Gasoline Range)	50900	ug/L	50000	1000	7/26/02	18:10	D.Yeager	8015B	3966

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	102.	69. - 132.

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
E - Estimated Value above the calibration limit of the instrument.
- Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ERI - NORTHERN CA 3876
PAULA SIME
73 DIGITAL DRIVE, SUITE 100
NOVATO, CA 94949

Project: 229313X
Project Name: EXXONMOBIL 70238
Sampler: SAM

Lab Number: 02-A116080
Sample ID: MW9D
Sample Type: Water
Site ID: 70238

Date Collected: 7/12/02
Time Collected: 19:27
Date Received: 7/16/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	0.5	1.0	7/26/02	4:55	D.Yeager	8021B	9769
Ethylbenzene	ND	ug/L	0.5	1.0	7/26/02	4:55	D.Yeager	8021B	9769
Toluene	ND	ug/L	0.5	1.0	7/26/02	4:55	D.Yeager	8021B	9769
Xylenes (Total)	ND	ug/L	0.5	1.0	7/26/02	4:55	D.Yeager	8021B	9769
Methyl-t-butylether	124.	ug/L	0.5	1.0	7/26/02	4:55	D.Yeager	8021B	9769
TPH (Gasoline Range)	108.	ug/L	50.0	1.0	7/26/02	4:55	D.Yeager	8015B	9769

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	104.	69. - 132.

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
E - Estimated Value above the calibration limit of the instrument.
- Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ERI - NORTHERN CA 3876
PAULA SIME
73 DIGITAL DRIVE, SUITE 100
NOVATO, CA 94949

Project: 229313X
Project Name: EXXONMOBIL 70238
Sampler: SAM

Lab Number: 02-A116081
Sample ID: MW9F
Sample Type: Water
Site ID: 70238

Date Collected: 7/12/02
Time Collected: 16:44
Date Received: 7/16/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	0.5	1.0	7/26/02	5:25	D.Yeager	8021B	9769
Ethylbenzene	ND	ug/L	0.5	1.0	7/26/02	5:25	D.Yeager	8021B	9769
Toluene	ND	ug/L	0.5	1.0	7/26/02	5:25	D.Yeager	8021B	9769
Xylenes (Total)	ND	ug/L	0.5	1.0	7/26/02	5:25	D.Yeager	8021B	9769
Methyl-t-butylether	121.	ug/L	0.5	1.0	7/26/02	5:25	D.Yeager	8021B	9769
TPH (Gasoline Range)	102.	ug/L	50.0	1.0	7/26/02	5:25	D.Yeager	8015B	9769

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	103.	69. - 132.

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
E - Estimated Value above the calibration limit of the instrument.
- Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ERI - NORTHERN CA 3876
PAULA SIME
73 DIGITAL DRIVE, SUITE 100
NOVATO, CA 94949

Project: 229313X
Project Name: EXXONMOBIL 70238
Sampler: SAM

Lab Number: 02-A116082
Sample ID: MW9G
Sample Type: Water
Site ID: 70238

Date Collected: 7/12/02
Time Collected: 15:35
Date Received: 7/16/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	0.5	1.0	7/26/02	5:56	D.Yeager	8021B	9769
Ethylbenzene	ND	ug/L	0.5	1.0	7/26/02	5:56	D.Yeager	8021B	9769
Toluene	ND	ug/L	0.5	1.0	7/26/02	5:56	D.Yeager	8021B	9769
Xylenes (Total)	ND	ug/L	0.5	1.0	7/26/02	5:56	D.Yeager	8021B	9769
Methyl-t-butylether	3140	ug/L	50.0	100.	7/26/02	15:36	D.Yeager	8021B	3966
TPH (Gasoline Range)	2310	ug/L	50.0	1.0	7/26/02	5:56	D.Yeager	8015B	9769

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	103.	69. - 132.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ERI - NORTHERN CA 3876
PAULA SIME
73 DIGITAL DRIVE, SUITE 100
NOVATO, CA 94949

Project: 229313X
Project Name: EXXONMOBIL 70238
Sampler: SAM

Lab Number: 02-A116083
Sample ID: MW9H
Sample Type: Water
Site ID: 70238

Date Collected: 7/12/02
Time Collected: 14:14
Date Received: 7/16/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	0.5	1.0	7/26/02	6:26	D.Yeager	8021B	9769
Ethylbenzene	ND	ug/L	0.5	1.0	7/26/02	6:26	D.Yeager	8021B	9769
Toluene	ND	ug/L	0.5	1.0	7/26/02	6:26	D.Yeager	8021B	9769
Xylenes (Total)	ND	ug/L	0.5	1.0	7/26/02	6:26	D.Yeager	8021B	9769
Methyl-t-butylether	34.6	ug/L	0.5	1.0	7/26/02	6:26	D.Yeager	8021B	9769
TPH (Gasoline Range)	ND	ug/L	50.0	1.0	7/26/02	6:26	D.Yeager	8015B	9769

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	104.	69. - 132.

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
E - Estimated Value above the calibration limit of the instrument.
- Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

ERI - NORTHERN CA 3876
PAULA SIME
73 DIGITAL DRIVE, SUITE 100
NOVATO, CA 94949

Project: 229313X
Project Name: EXXONMOBIL 70238
Sampler: SAM

Lab Number: 02-A116084
Sample ID: MW9I
Sample Type: Water
Site ID: 70238

Date Collected: 7/12/02
Time Collected: 19:46
Date Received: 7/16/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	0.5	1.0	7/26/02	6:56	D.Yeager	8021B	9769
Ethylbenzene	ND	ug/L	0.5	1.0	7/26/02	6:56	D.Yeager	8021B	9769
Toluene	ND	ug/L	0.5	1.0	7/26/02	6:56	D.Yeager	8021B	9769
Xylenes (Total)	ND	ug/L	0.5	1.0	7/26/02	6:56	D.Yeager	8021B	9769
Methyl-t-butylether	6490	ug/L	50.0	100.	7/26/02	16:06	D.Yeager	8021B	3966
TPH (Gasoline Range)	4460	ug/L	50.0	1.0	7/26/02	6:56	D.Yeager	8015B	9769

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	102.	69. - 132.

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
E - Estimated Value above the calibration limit of the instrument.
- Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

PROJECT QUALITY CONTROL DATA
Project Number: 229313X
Page: 1

Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
UST ANALYSIS								
Benzene	mg/l	< 0.0005	0.0487	0.0500	97	74. - 129.	9769	blank
Toluene	mg/l	< 0.0005	0.0479	0.0500	96	74. - 128.	9769	blank
Ethylbenzene	mg/l	< 0.0005	0.0476	0.0500	95	75. - 128.	9769	blank
Xylenes (Total)	mg/l	< 0.0005	0.0943	0.100	94	72. - 126.	9769	blank
Methyl-t-butylether	mg/l	< 0.0005	0.0475	0.0500	95	64. - 133.	9769	blank
TPH (Gasoline Range)	mg/l	< 0.0500	0.914	1.00	91	59. - 128.	3966	blank
TPH (Gasoline Range)	mg/l	< 0.0500	0.949	1.00	95	59. - 128.	9769	blank
BTEX/GRO Surr., a,a,a-TFT	% Recovery				100	69. - 132.	3966	
BTEX/GRO Surr., a,a,a-TFT	% Recovery				101	69. - 132.	9769	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.0521	0.0473	9.66	15.	3966
Benzene	mg/l	0.0487	0.0473	2.92	15.	9769
Toluene	mg/l	0.0514	0.0464	10.22	15.	3966
Toluene	mg/l	0.0479	0.0464	3.18	15.	9769
Ethylbenzene	mg/l	0.0515	0.0461	11.07	15.	3966
Ethylbenzene	mg/l	0.0476	0.0462	2.99	15.	9769
Xylenes (Total)	mg/l	0.102	0.0917	10.64	19.	3966
Xylenes (Total)	mg/l	0.0943	0.0918	2.69	19.	9769
Methyl-t-butylether	mg/l	0.0499	0.0465	7.05	23.	3966
Methyl-t-butylether	mg/l	0.0475	0.0467	1.70	23.	9769
TPH (Gasoline Range)	mg/l	0.914	0.949	3.76	22.	3966
TPH (Gasoline Range)	mg/l	0.949	0.914	3.76	22.	9769
BTEX/GRO Surr., a,a,a-TFT	% Recovery		99.			3966
BTEX/GRO Surr., a,a,a-TFT	% Recovery		101.			9769

Project QC continued . . .

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA
Project Number: 229313X
Page: 2

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.100	0.105	105	74 - 124	3966
Benzene	mg/l	0.100	0.108	108	74 - 124	9769
Toluene	mg/l	0.100	0.103	103	74 - 121	3966
Toluene	mg/l	0.100	0.106	106	74 - 121	9769
Ethylbenzene	mg/l	0.100	0.102	102	75 - 123	3966
Ethylbenzene	mg/l	0.100	0.105	105	75 - 123	9769
Xylenes (Total)	mg/l	0.200	0.202	101	72 - 120	3966
Xylenes (Total)	mg/l	0.200	0.208	104	72 - 120	9769
Methyl-t-butylether	mg/l	0.100	0.0962	96	64 - 128	3966
Methyl-t-butylether	mg/l	0.100	0.0970	97	64 - 128	9769
TPH (Gasoline Range)	mg/l	1.00	0.914	91	61 - 139	3966
TPH (Gasoline Range)	mg/l	1.00	0.949	95	61 - 139	9769
BTEX/GRO Surr., a,a,a-TFT	% Recovery			98	69 - 132	3966
BTEX/GRO Surr., a,a,a-TFT	% Recovery			100	69 - 132	9769

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
Benzene	< 0.0005	mg/l	9769	7/25/02	18:43
Toluene	< 0.0005	mg/l	9769	7/25/02	18:43
Ethylbenzene	< 0.0005	mg/l	9769	7/25/02	18:43
Xylenes (Total)	< 0.0005	mg/l	9769	7/25/02	18:43
Methyl-t-butylether	< 0.0005	mg/l	9769	7/25/02	18:43
TPH (Gasoline Range)	< 0.0500	mg/l	9769	7/25/02	18:43
TPH (Gasoline Range)	< 0.0500	mg/l	3966	7/26/02	12:01

Project QC continued . . .

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA
Project Number: 229313X
Page: 3

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
BTEX/GRO Surr., a,a,a-TFT	103.	% Recovery	9769	7/25/02	18:43
BTEX/GRO Surr., a,a,a-TFT	103.	% Recovery	3966	7/26/02	12:01

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 293112

TESTAMERICA INC.-NASHVILLE

COOLER RECEIPT FORM

Client: ERI EC# 29-3112

Cooler Received On: 7/16 And Opened On: 7/16 By: Shane Gambill

116077 - 116084 Shane Gambill
(Signature)

1. Temperature of Cooler when opened 4.0 Degrees Celsius
2. Were custody seals on outside of cooler? ..... YES NO
   a. If yes, how many, what kind and where: _____
3. Were custody seals on containers and intact? ..... NO YES
4. Were the seals intact, signed, and dated correctly? ..... YES NO
5. Were custody papers inside cooler? ..... YES NO
6. Were custody papers properly filled out (ink, signed, etc)? ..... YES NO
7. Did you sign the custody papers in the appropriate place? ..... YES NO
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Was sufficient ice used (if appropriate)? ..... YES NO
10. Did all bottles arrive in good condition (unbroken)? ..... YES NO
11. Were all bottle labels complete (#, date, signed, pres, etc)? ..... YES NO
12. Did all bottle labels and tags agree with custody papers? ..... YES NO
13. Were correct bottles used for the analysis requested? ..... YES NO
14. a. Were VOA vials received? ..... YES NO
    b. Was there any observable head space present in any VOA vial? ..... NO YES
15. Was sufficient amount of sample sent in each bottle? ..... YES NO
16. Were correct preservatives used? ..... YES NO
17. Was residual chlorine present? ..... NO YES
18. Corrective action taken, if necessary:

See attached for resolution

CHAIN OF CUSTODY RECORD

TestAmerica INCORPORATED

(615) 726-0177
Nashville Division
2960 Foster Creighton
Nashville, TN 37204

293112
116077 - 116084

ExxonMobil

Consultant Name:	Environmental Resolutions, Inc.
Address:	73 Digital Drive, Suite 100
City/State/Zip:	Novato, California 94949
Project Manager	Paula Sime
Telephone Number:	(415) 382-9105
ERI Job Number:	229313X
Sampler Name: (Print)	Sean
Sampler Signature:	

☐ Lab Courier ☐ Hand Deliver ☑ Commercial Express ☐ Other:

ExxonMobil Engineer	Gene N. Ortega
Telephone Number	(925) 246-8747
Account #:	3876
PO #:	4501667113
Facility ID #	70238
Global ID#	T0600101343
Site Address	2200 East 12th Street
City, State Zip	Oakland, California

TAT
☐ 24 hour ☐ 72 hour
☐ 48 hour ☐ 96 hour
☑ 8 day

PROVIDE:
EDF Report
FAX Results

Special Instructions:
Hold analyses for sample "TB".

Sample ID / Description	DATE	TIME	COMP	GRAB	PRESERV	NUMBER	Matrix: Water	Soil	Vapor	Analyze For: TPHd 8015B	TPHg 8015B	BTEX 8021B	MTBE 8021B	Confirm MTBE 8260B	Oxygenates 8260B	VOCs 8260B				
TB	—	—		X	HCl	2 VOAs	X				H	O	L	D						
MW9A 116077	07/11/02	2026		X	HCl	4 VOAs	X				X	X	X							
MA9B 078	~~07/12/02~~ 07/12/02	0008		X	HCl	4 VOAs	X				X	X	X							
MW9C 079	07/12/02	2041		X	HCl	4 VOAs	X				X	X	X							
MW9D 080	7-12-02	1927		X	HCl	4 VOAs	X				X	X	X							
MW9F 081	7-12-02	1644		X	HCl	4 VOAs	X				X	X	X							
MW9G 082	7-12-02	1535		X	HCl	4 VOAs	X				X	X	X							
MW9H 083	7-12-02	1414		X	HCl	4 VOAs	X				X	X	X							
MW9I 084	7-12-02	1946		X	HCl	4 VOAs	X				X	X	X							

Relinquished by: Date 07/15/02 Time 1400 Received by: Time

Relinquished by: Date Time Received by TestAmerica: Time 7/16 9:40

Laboratory Comments:
Temperature Upon Receipt:
Sample Containers Intact?
VOAs Free of Headspace?

ATTACHMENT D

LETTER FROM TEST AMERICA INCORPORATED

TestAmerica
INCORPORATED

ERI
73 Digital Drive
Suite 100
Novato, CA 94949

Paula,

I have been made aware of some questions you may have regarding differences in the levels of TPH-Gas reported recently by TestAmerica compared to historical data. In the state of California, we analyze TPH-Gas using method SW846 8015B. The method requires an integration range of the chromatogram beginning with the elution of 2-methylpentane and ending after the elution of 1,2,4-Trimethylbenzene. On the two columns we are currently using for this analysis, DB-VRX and RTX-5, we do show co-elution between the 2-methylpentane and MTBE, resulting in the inclusion of MTBE in the TPH-Gas range by the method. In some regulatory jurisdictions, the CA-LUFT method is also referenced for reporting TPH-Gas organics. This method, as in SW846 8015B, uses gasoline as the reference material for calibration; however, the CA-LUFT method does not specifically define a beginning and ending point for the integration, and previous laboratories may not have included the MTBE peak in the TPH-Gas range. Without access to the integration parameters used in the previous data, I can not make any definitive statements regarding the levels reported.

The individual target analytes, Benzene, Toluene, Ethylbenzene, and total Xylenes, can be analyzed by either methods SW846 8021B or SW846 8260B. Because the integration of these analytes are as discreet peaks, any laboratory following the requirements of the method should result in similar differences within the approximately 15 % or 20 % variance inherent in the calibrations, respectively.

I hope this information is helpful by defining the integration parameters and columns used by TestAmerica for the TPH-Gas analysis. If you need more specific information, please contact me at jmitchell@testamericainc.com.

Thank you.

Johnny A. Mitchell
Technical Services Director
TestAmerica, Inc – Nashville, TN