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**Gene N. Ortega**  
Project Manager  
Global Remediation - U.S. Retail

**ExxonMobil**  
*Refining & Supply*

March 17, 2004

Alameda County  
MAR 23 2004  
Environmental Health

Mr. Scott Seery  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, CA 94501-6577

Subject: Former Exxon RAS #7-0210, 7840 Amador Valley Boulevard, Dublin, California

Dear Mr. Seery:

Attached for your review and comment is a copy of the *Report of Groundwater Monitoring, First Quarter 2004* for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the January 2004 sampling event.

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

Sincerely,



Gene N. Ortega  
Project Manager

Attachment: ETIC Groundwater Monitoring Report dated March 2004

- c: w/ attachment:  
Mr. Joseph A. Aldridge - Valero Energy Corporation
- c: w/o attachment:  
Mr. Joseph Muehleck - ETIC Engineering, Inc.



Alameda County

MAR 23 2004

Environmental Health

# Report of Groundwater Monitoring First Quarter 2004

## Former Exxon Retail Site 7-0210 7840 Amador Valley Boulevard Dublin, California

Prepared for

ExxonMobil Refining and Supply Company  
25A Crescent Drive #407  
Pleasant Hill, California 94523

Prepared by

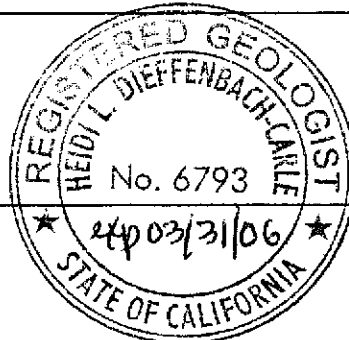
ETIC Engineering, Inc.  
2285 Morello Avenue  
Pleasant Hill, California 94523  
(925) 602-4710

3/15/04

Ted Moise  
Senior Project Manager

Date

Heidi Dieffenbach-Carle, R.G. #6793  
Senior Geologist



march 15, 2004

Date

March 2004

## SITE CONTACTS

Station Number: Former Exxon Retail Site 7-0210

Station Address: 7840 Amador Valley Boulevard  
Dublin, California

ExxonMobil Project Manager: Gene N. Ortega  
ExxonMobil Refining and Supply Company  
25A Crescent Drive #407  
Pleasant Hill, California 94523  
(925) 246-8747

Consultant to ExxonMobil: ETIC Engineering, Inc.  
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(925) 602-4710

ETIC Project Manager: Ted Moise

Regulatory Oversight: Scott Seery  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, California 94501-6577  
(510) 567-6783

## INTRODUCTION

At the request of ExxonMobil Refining and Supply Company, ETIC Engineering, Inc. has prepared this quarterly groundwater monitoring report for former Exxon Retail Site 7-0210. This report presents the results for the most recent groundwater monitoring conducted at the site and summarizes recent site activities. This report covers site activities from 17 October 2003, the date of the last monitoring event, until 28 January 2004, the date of the recent monitoring event. Groundwater monitoring results, well construction details, and a groundwater monitoring plan are provided in the attached figures and tables. Groundwater monitoring protocols, field data, and analytical results are provided in the attached appendixes.

## GENERAL SITE INFORMATION

<b>Site name:</b>	Former Exxon Retail Site 7-0210
<b>Site address:</b>	7840 Amador Valley Boulevard, Dublin, California
<b>Current property owner:</b>	Dublin Valero, Inc.
<b>Current site use:</b>	Active Valero-branded station operated by Dublin Valero, Inc.
<b>Current phase of project:</b>	Groundwater monitoring
<b>Tanks at site:</b>	Three underground storage tanks (gasoline)
<b>Number of wells:</b>	3 (all onsite)

## GROUNDWATER MONITORING SUMMARY

<b>Gauging and sampling date:</b>	28 January 2004
<b>Wells gauged and sampled:</b>	MW5-MW7
<b>Wells gauged only:</b>	None
<b>Groundwater flow direction:</b>	Southeast
<b>Groundwater gradient:</b>	0.003
<b>Well screens submerged:</b>	None
<b>Well screens not submerged:</b>	MW5-MW7
<b>Liquid-phase hydrocarbons:</b>	Not observed or detected
<b>Laboratory:</b>	TestAmerica, Inc., Nashville, Tennessee

### Analyses performed:

- Total Petroleum Hydrocarbons as gasoline by EPA Method 8015B
- Total Petroleum Hydrocarbons as diesel by EPA Method 8015B
- Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8021B
- Methyl t-butyl ether by EPA Method 8021B
- Methyl t-butyl ether by EPA Method 8260B (confirmation samples)

### Additional comments:

Well MW5 could not be analyzed for TPH-d as the sample bottles were broken in transit to the laboratory.

## **ADDITIONAL ACTIVITIES PERFORMED AT SITE**

No additional activities were performed at the site.

## **WORK PROPOSED FOR NEXT QUARTER**

Groundwater will be monitored in accordance with the attached groundwater monitoring plan.

### **Attachments:**

Figure 1: Site Plan Showing Groundwater Elevations and Analytical Results

Table 1: Well Construction Details

Table 2: Groundwater Monitoring Data

Table 3: Groundwater Monitoring Plan

Appendix A: Field Protocols

Appendix B: Field Documents

Appendix C: Laboratory Analytical Reports



Groundwater  
Flow Direction  
Gradient = 0.003

Benzene	<0.5
Toluene	0.9
Ethylbenzene	<0.5
Xylenes	1.1
TPH-g	283
TPH-d	NA
MTBE(8021)	485
MTBE(8260)	453

Benzene	<0.5
Toluene	1.0
Ethylbenzene	<0.5
Xylenes	0.9
TPH-g	<50
TPH-d	<50
MTBE(8021)	<0.5
MTBE(8260)	NA

Benzene	<0.5
Toluene	0.8
Ethylbenzene	<0.5
Xylenes	0.9
TPH-g	154
TPH-d	<50
MTBE(8021)	283
MTBE(8260)	244

**LEGEND**

- GROUNDWATER MONITORING WELL LOCATION
  - SOIL BORING / GROUNDWATER SAMPLING LOCATION
  - DESTROYED GROUNDWATER MONITORING WELL
  - (340.29) GROUNDWATER ELEVATION (FEET)
  - TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
  - TPH-d TOTAL PETROLEUM HYDROCARBONS AS DIESEL
  - MTBE METHYL T-BUTYL ETHER
  - NA NOT ANALYZED
- CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L).



SITE PLAN SHOWING GROUNDWATER ELEVATIONS  
AND ANALYTICAL RESULTS  
FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BLVD., DUBLIN, CA.  
28 JANUARY 2004

FIGURE:

**1**



TABLE 1 WELL CONSTRUCTION DETAILS, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

Well Number	Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material	
MW1	a	04/14/92	96.32	PVC	26.5	24.75	10.25	4	11-24	0.010	10-25	--
MW2	a	05/13/92	95.91	PVC	26	25	10.25	4	10-25	0.010	9.5-26	--
MW3	a	05/14/92	97.95	PVC	28	27.75	10.25	4	12.5-27.5	0.010	11-28	--
MW4	a	05/14/92	96.69	PVC	26.5	25	10.25	4	12-25	0.010	11-26	--
MW5	b	11/15/00	352.95	PVC	25	25	8.25	2	10-25	0.020	7-25	#3 sand
MW6	b	11/14/00	352.69	PVC	27	25	8.25	2	10-25	0.020	8-27	#3 sand
MW7	b	11/14/00	351.87	PVC	26	25	8.25	2	10-25	0.020	7-25	#3 sand

a Well was destroyed April 1996.  
 b Elevation is based on the Alameda Benchmark AM-STW. Elevation = 344.17 feet.  
 PVC Polyvinyl chloride.  
 TOC Top of casing.  
 -- Information not available.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (µg/L)	TPH-d (µg/L)	MTBE (µg/L)	Other Oxygenates and Additives (µg/L)
MW1	05/21/92	96.32	14.45	81.87	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW1	02/10/93	96.32	12.22	84.10	0.00	3.1	<0.5	1.8	0.6	2,600		NA	
MW1	05/20/93	96.32	10.74	85.58	0.00	1.9	<0.5	1.8	<1.0	1,000		NA	
MW1	06/23/93	96.32	11.74	84.58	0.00	1.0	<0.5	1.2	<0.5	1,300		NA	
MW1	08/23/93	96.32	12.72	83.60	0.00	<0.5	<0.5	<0.5	0.8	80		NA	
MW1	10/25/93	96.32	13.99	82.33	0.00	<0.5	<0.5	0.8	1.3	140		NA	
MW1	02/16/94	96.32	14.90	81.42	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW1	04/16/94	96.32	14.49	81.83	0.00	<0.5 <sup>b</sup>	<0.5	<0.5	<0.5	190		NA	
MW1	07/26/94	96.32	15.11	81.21	0.00	<0.5 <sup>b</sup>	<0.5	<0.5	<0.5	130		NA	
MW1	10/05/94	96.32	15.69	80.63	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW1	01/04/95	96.32	14.66	81.66	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW1	06/12/95	96.32	10.08	86.24	0.00	<0.5	<0.5	<0.5	<0.5	<50		230	
MW1			Well destroyed April 1996.										
MW2	05/21/92	95.91	14.30	81.61	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW2	02/10/93	95.91	12.34	83.57	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW2	05/20/93	95.91	10.73	85.18	0.00	<0.5	<0.5	<0.5	<1.0	320		NA	
MW2	06/23/93	95.91	11.74	84.17	0.00	<0.5	<0.5	<0.5	<0.5	130		NA	
MW2	08/23/93	95.91	12.60	83.31	0.00	<0.5	<0.5	<0.5	1.1	140		NA	
MW2	10/25/93	95.91	13.86	82.05	0.00	<0.5	<0.5	0.5	2.4	75		NA	
MW2	02/16/94	95.91	14.73	81.18	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW2	04/16/94	95.91	14.33	81.58	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW2	07/26/94	95.91	14.96	80.95	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW2	10/05/94	95.91	15.49	80.42	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW2	01/04/95	95.91	14.44	81.47	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW2	06/12/95	95.91	10.10	85.81	0.00	<0.5	<0.5	<0.5	<0.5	<50		59	



TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (µg/L)	TPH-d (µg/L)	MTBE (µg/L)	Other Oxygenates and Additives (µg/L)
MW2	Well destroyed April 1996.												
MW3	05/21/92	97.95	16.05	81.90	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW3	02/10/93	97.95	13.77	84.18	0.00	<0.5	<0.5	<0.5	0.7	<50		NA	
MW3	05/20/93	97.95	12.32	85.63	0.00	<0.5	<0.5	<0.5	<1.0	<50		NA	
MW3	06/23/93	97.95	13.34	84.61	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW3	08/23/93	97.95	14.30	83.65	0.00	2.3	1.2	1.4	4.1	<50		NA	
MW3	10/25/93	97.95	15.62	82.33	0.00	NS	NS	NS	NS	NS		NS	
MW3	02/16/94	97.95	16.48	81.47	0.00	NS	NS	NS	NS	NS		NS	
MW3	04/16/94	97.95	16.61	81.34	0.00	NS	NS	NS	NS	NS		NS	
MW3	07/26/94	97.95	16.72	81.23	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW3	10/05/94	97.95	17.33	80.62	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW3	01/04/95	97.95	16.29	81.66	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW3	06/12/95	97.95	11.67	86.28	0.00	<0.5	<0.5	<0.5	<0.5	<50		<2.5	
MW3	Well destroyed April 1996.												
MW4	05/21/92	96.69	14.59	82.10	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW4	02/10/93	96.69	12.30	84.39	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW4	05/20/93	96.69	10.75	85.94	0.00	1.4	1.0	<0.5	1.8	<50		NA	
MW4	06/23/93	96.69	11.78	84.91	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW4	08/23/93	96.69	12.82	83.87	0.00	<0.5	<0.5	<0.5	0.8	<50		NA	
MW4	10/25/93	96.69	14.10	82.59	0.00	NS	NS	NS	NS	NS		NS	
MW4	02/16/94	96.69	15.02	81.67	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW4	04/16/94	96.69	14.61	82.08	0.00	NS	NS	NS	NS	NS		NS	
MW4	07/26/94	96.69	15.23	81.46	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA	
MW4	10/05/94	96.69	15.85	80.84	0.00	<0.5	12	<0.5	<0.5	<50		NA	

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (µg/L)	TPH-d (µg/L)	MTBE (µg/L)	Other Oxygenates and Additives (µg/L)	
MW4	01/04/95	96.69	14.84	81.85	0.00	<0.5	<0.5	<0.5	<0.5	<50		NA		
MW4	06/12/95	96.69	10.07	86.62	0.00	<0.5	<0.5	<0.5	<0.5	<50		<2.5		
MW4		Well destroyed April 1996.												
MW5	06/15/00	STATION OPERATIONS TRANSFERRED TO VALERO ENERGY CORPORATION												
MW5	11/17/00	352.93	13.51	339.42	0.00	<0.5	<0.5	<0.5	2.46	240		1,500		
MW5	11/17/00	352.93										1,600 <sup>a</sup>		
MW5	02/02/01	352.93	13.81	339.12	0.00	<0.5	<0.5	<0.5	<0.5	110		1,400		
MW5	02/02/01	352.93										1,200 <sup>a</sup>		
MW5	05/09/01	352.93	12.20	340.73	0.00	<0.5	<0.5	<0.5	<0.5	<50		770 <sup>a</sup>	ND <sup>c</sup>	
MW5	09/12/01	352.93	13.84	339.09	0.00	<0.5	<0.5	<0.5	<0.5	100		760	NA	
MW5	09/12/01	352.93										800 <sup>a</sup>		
MW5	11/05/01	352.95	14.14	338.81	0.00	<0.5	<0.5	<0.5	0.61	70	86	510	NA	
MW5	11/05/01	352.95										420 <sup>a</sup>		
MW5	02/04/02	352.95	11.85	341.10	0.00	<0.5	<0.5	<0.5	<0.5	381	d	<50	630	NA
MW5	02/04/02	352.95										525 <sup>a</sup>		
MW5	04/26/02	352.95	11.75	341.20	0.00	<0.5	<0.5	<0.5	<0.5	322	d	<50	378	NA
MW5	04/26/02	352.95										312 <sup>a</sup>		
MW5	07/30/02	352.95	12.87	340.08	0.00	<0.5	<0.5	<0.5	<0.5	97.8	d	<50	126	NA
MW5	07/30/02	352.95										132 <sup>a</sup>		
MW5	11/05/02	352.95	14.13	338.82	0.00	<0.5	<0.5	<0.5	<0.5	74.2	d	<50	80.0	NA
MW5	11/05/02	352.95										96.4 <sup>a</sup>		
MW5	01/24/03	352.95	11.23	341.72	0.00	<0.5	<0.5	<0.5	<0.5	542	d	70	678	NA
MW5	01/24/03	352.95										509 <sup>a</sup>		
MW5	04/24/03	352.95	10.79	342.16	0.00	<0.5	<0.5	<0.5	<0.5	384	d	<50	522	NA
MW5	04/24/03	352.95										498 <sup>a</sup>		

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (µg/L)	TPH-d (µg/L)	MTBE (µg/L)	Other Oxygenates and Additives (µg/L)	
MW5	08/05/03	352.95	12.24	340.71	0.00	<0.5	1.6	<0.5	1.3	282	d	<50	560	NA
MW5	08/05/03	352.95											428 <sup>a</sup>	
MW5	10/17/03	352.95	13.64	339.31	0.00	<0.5	1.6	<0.5	0.9	229	d	<50	284	NA
MW5	10/17/03	352.95											272 <sup>a</sup>	
MW5	01/28/04	352.95	12.41	340.54	0.00	<0.5	0.9	<0.5	1.1	283	d	NA <sup>c</sup>	485	NA
MW5	01/28/04	352.95											453 <sup>a</sup>	
MW6	06/15/00	STATION OPERATIONS TRANSFERRED TO VALERO ENERGY CORPORATION												
MW6	11/17/00	352.66	13.47	339.19	0.00	<0.5	<0.5	<0.5	<0.5	<50			270	
MW6	11/17/00	352.66											260 <sup>a</sup>	
MW6	02/02/01	352.66	13.79	338.87	0.00	<0.5	<0.5	<0.5	<0.5	<50			160	
MW6	02/02/01	352.66											130 <sup>a</sup>	
MW6	05/09/01	352.66	12.25	340.41	0.00	<0.5	<0.5	<0.5	<0.5	<50			760 <sup>a</sup>	ND <sup>c</sup>
MW6	09/12/01	352.66	13.83	338.83	0.00	<0.5	<0.5	<0.5	<0.5	<50			680	NA
MW6	09/12/01	352.66											740 <sup>a</sup>	
MW6	11/05/01	352.69	14.11	338.58	0.00	<0.5	<0.5	<0.5	<0.5	<50	<50		390	NA
MW6	11/05/01	352.69											320 <sup>a</sup>	
MW6	02/27/02	352.69	11.77	340.92	0.00	<5.0	<5.0	8.00	<5.0	1,380	d	NA	1,310	ND <sup>c</sup>
MW6	02/27/02	352.69											1,410 <sup>a</sup>	
MW6	04/26/02	352.69	11.75	340.94	0.00	<0.5	<0.5	<0.5	<0.5	422	d	<50	482	NA
MW6	04/26/02	352.69											430 <sup>a</sup>	
MW6	07/30/02	352.69	12.88	339.81	0.00	<2.5	<2.5	<2.5	<2.5	144	d	<50	166	NA
MW6	07/30/02	352.69											185 <sup>a</sup>	
MW6	11/05/02	352.69	14.12	338.57	0.00	<0.5	<0.5	<0.5	<0.5	99.7	d	<50	114	NA
MW6	11/05/02	352.69											118 <sup>a</sup>	
MW6	01/24/03	352.69	11.32	341.37	0.00	<0.5	<0.5	<0.5	<0.5	342	d	84	388	NA

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (µg/L)	TPH-d (µg/L)	MTBE (µg/L)	Other Oxygenates and Additives (µg/L)	
MW6	01/24/03	352.69										293 <sup>a</sup>		
MW6	04/24/03	352.69	10.84	341.85	0.00	<0.5	<0.5	<0.5	<0.5	370	d	<50	509	NA
MW6	04/24/03	352.69										491 <sup>a</sup>		
MW6	08/05/03	352.69	12.25	340.44	0.00	<0.5	<0.5	<0.5	<0.5	967	d	<50	1,240	NA
MW6	08/05/03	352.69										1,010 <sup>a</sup>		
MW6	10/17/03	352.69	13.63	339.06	0.00	<0.5	1.2	<0.5	0.5	476	d	<50	528	NA
MW6	10/17/03	352.69										535 <sup>a</sup>		
<b>MW6</b>	<b>01/28/04</b>	<b>352.69</b>	<b>12.40</b>	<b>340.29</b>	<b>0.00</b>	<b>&lt;0.5</b>	<b>0.8</b>	<b>&lt;0.5</b>	<b>0.9</b>	<b>154</b>	<b>d</b>	<b>&lt;50</b>	<b>283</b>	<b>NA</b>
<b>MW6</b>	<b>01/28/04</b>	<b>352.69</b>										<b>244<sup>a</sup></b>		
MW7	06/15/00	STATION OPERATIONS TRANSFERRED TO VALERO ENERGY CORPORATION												
MW7	11/17/00	351.86	12.44	339.42	0.00	<0.5	<0.5	<0.5	<0.5	<50		<50		
MW7	02/02/01	351.86	12.74	339.12	0.00	<0.5	<0.5	<0.5	<0.5	<50		<50		
MW7	05/09/01	351.86	11.15	340.71	0.00	<0.5	<0.5	<0.5	<0.5	<50		<5 <sup>a</sup>	ND <sup>c</sup>	
MW7	09/12/01	351.86	12.74	339.12	0.00	<0.5	<0.5	<0.5	<0.5	<50		<0.5	NA	
MW7	11/05/01	351.87	13.07	338.80	0.00	<0.5	<0.5	<0.5	<0.5	<50		50	<0.5	NA
MW7	02/04/02	351.87	10.79	341.08	0.00	<0.5	<0.5	<0.5	<0.5	<50	d	<50	5.80	NA
MW7	02/04/02	351.87										1.4 <sup>a</sup>		
MW7	04/26/02	351.87	10.65	341.22	0.00	<0.5	<0.5	<0.5	<0.5	<50	d	<50	1.6	NA
MW7	07/30/02	351.87	11.77	340.10	0.00	<0.5	<0.5	<0.5	<0.5	<50	d	<50	<0.5	NA
MW7	11/05/02	351.87	13.04	338.83	0.00	<0.5	<0.5	<0.5	<0.5	<50	d	<50	<0.5	NA
MW7	01/24/03	351.87	10.19	341.68	0.00	<0.5	<0.5	<0.5	<0.5	<50	d	106	<0.5	NA
MW7	04/24/03	351.87	9.76	342.11	0.00	<0.5	<0.5	<0.5	<0.5	<50	d	<50	<0.5	NA
MW7	08/05/03	351.87	11.18	340.69	0.00	<0.5	1.6	<0.5	<0.5	<50	d	<50	<0.5	NA
MW7	10/17/03	351.87	12.54	339.33	0.00	<0.5	1.7	<0.5	0.9	<50	d	<50	<0.5	NA
<b>MW7</b>	<b>01/28/04</b>	<b>351.87</b>	<b>11.33</b>	<b>340.54</b>	<b>0.00</b>	<b>&lt;0.5</b>	<b>1.0</b>	<b>&lt;0.5</b>	<b>0.9</b>	<b>&lt;50</b>	<b>d</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>NA</b>

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (µg/L)	TPH-d (µg/L)	MTBE (µg/L)	Other Oxygenates and Additives (µg/L)
-------------	------	-------------------------	-----------------------	------------------------------	----------------------	----------------	----------------	----------------------	----------------------	--------------	--------------	-------------	---------------------------------------

a Analysis by EPA Method 8260.

b A peak eluting earlier than benzene, suspected to be MTBE.

c Other oxygenates and additives include diisopropyl ether, t-butyl alcohol, tert-amyl methyl ether, tert-butyl ethyl ether, 1,2-dibromoethane, and 1,2-dichloroethane.

d TPH-g results beginning February 2002 include MTBE.

e Sample bottles broken in transit to laboratory.

LPH Liquid-phase hydrocarbons.

TPH-g Total Petroleum Hydrocarbons as gasoline.

TPH-d Total Petroleum Hydrocarbons as diesel.

MTBE Methyl tertiary butyl ether.

NA Not analyzed.

ND Not detected.

NS Not sampled.

µg/L Micrograms per liter.

TABLE 3 GROUNDWATER MONITORING PLAN,  
FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency		
		BTEX and TPH-g	TPH-d	MTBE
MW5	Q	Q	Q	Q
MW6	Q	Q	Q	Q
MW7	Q	Q	Q	Q

Q = Quarterly.

BTEX = Benzene, toluene, ethylbenzene, total xylenes.

TPH-g = Total Petroleum Hydrocarbons as gasoline.

TPH-d = Total Petroleum Hydrocarbons as diesel.

MTBE = Methyl tertiary butyl ether.

**Appendix A**  
**Field Protocols**

## **PROTOCOLS FOR QUARTERLY GROUNDWATER MONITORING**

### **GROUNDWATER GAUGING**

Wells are opened prior to gauging to allow the groundwater level in the wells to equilibrate with atmospheric pressure. The depth to groundwater and depth to liquid-phase hydrocarbons, if present, are then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements are made from a permanent reference point at the top of the well casing. If less than 1 foot of water is measured in a well, the water is bailed and, if the well does not recover, the well is considered "dry." Wells with a sheen or measurable liquid-phase hydrocarbons are generally not purged or sampled.

### **WELL PURGING**

After the wells are gauged, each well is purged of approximately 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters of pH, temperature, and electrical conductance are measured during purging to ensure that these parameters have stabilized before groundwater in a well is sampled. Groundwater in each well is purged using an inertial pump (WaTerra), an electric submersible pump, or a bailer. After the well is purged, the water level is checked to ensure that the well has recharged to at least 80 percent of its original water level.

### **GROUNDWATER SAMPLING**

After purging, groundwater in each well is sampled using dedicated tubing and an inertial pump (WaTerra) or a factory-cleaned disposable bailer. Samples from extraction wells are typically collected from sample ports associated with the groundwater remediation system. Samples collected for volatile organic analysis are placed in Teflon septum-sealed 40-milliliter glass vials. Samples collected for diesel analysis are placed in 1-liter amber glass bottles. Each sample bottle is labeled with the site name, well number, date, sampler's initials, and preservative. The samples are placed in a cooler with ice for delivery to a state-certified laboratory. The information for each sample is entered on a chain-of-custody form prior to transport to the laboratory.



**Appendix B**  
**Field Documents**





Engineering, Inc.

### GROUNDWATER PURGE AND SAMPLE

Project Name: Exxon 7-0210 Well No: MWS Date: 1-28-04  
 Project No: UP0210.1 Personnel: W

#### GAUGING DATA

Water Level Measuring Method: WLM

Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter	Casing Volume (gal)	Total Purge Volume (gal)
	24.02	12.41	11.61	1.85	1.85	555
				0.04 0.16 0.64 1.44		

#### PURGING DATA

Purge Method: Waterra Pump

Time	5:33	5:35	5:37			
Volume Purge (gal)	2	4	6			
Temperature (C)	20.8	21.4	21.4			
pH	6.57	6.52	6.55			
Spec. Cond. (umhos)	1360	1335	1330			
Turbidity/Color	slut / 52N	slut / 52N	slut / 52N			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

#### SAMPLING DATA

Time Sampled: 5:40 Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MWS	6	Voa	HCL	40 ml	/	TPH-g, BTEX, MTBE
MWS	2	Amber	None	1 L	/	TPH-d
					/	

Total Purge Volume: 6 (gallons) Disposal: ROMIC

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 7-0210 Well No: MW6 Date: 1.28.04  
 Project No: UP0210.1 Personnel: (signature)

**GAUGING DATA**

Water Level Measuring Method: WLM Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter				Casing Volume (gal)	Total Purge Volume (gal)
	24.52	- 12.40	= 12.12	X 1	2	4	6	1.93	= 5.81
				0.04	0.16	0.64	1.44		

**PURGING DATA**

Purge Method: Waterra Pump

Time	Volume Purge (gal)	Temperature (C)	pH	Spec. Cond. (umhos)	Turbidity/Color	Odor (Y/N)	Dewatered (Y/N)
6:28	2	18.2	6.47	1313	5.0 NTU / 100 PCU	N	N
6:32	4	19.6	6.49	1328	5.0 NTU / 100 PCU	N	N
6:32	6	19.8	6.51	1330	5.0 NTU / 100 PCU	N	N

Comments/Observations:

**SAMPLING DATA**

Time Sampled: 6:35 Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
<u>MW6</u>	6	Voa	HCL	40 ml	/	TPH-g, BTEX, MTBE
<u>MW6</u>	2	Amber	None	1 L	/	TPH-d

Total Purge Volume: 6 (gallons) Disposal: ROMIC

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:



Engineering, Inc.

**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 7-0210 Well No: MW7 Date: 1.28.04  
 Project No: UP0210.1 Personnel: WJ

**GAUGING DATA**  
 Water Level Measuring Method: WLM Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)	Depth to Water (feet)	Water Column (feet)	Multiplier for Casing Diameter				Casing Volume (gal)	Total Purge Volume (gal)
		23.45	- 6.133	= 12.12	X 1	2	4	6	1.93
				0.04	0.16	0.64	1.44		

**PURGING DATA**  
 Purge Method: Waterra Pump

Time	6:02	6:04	6:06			
Volume Purge (gal)	2	4	6			
Temperature (C)	18.7	19.2	19.6			
pH	6.45	6.44	6.49			
Spec. Cond. (umhos)	1318	1314	1319			
Turbidity/Color	5.04 / 0.02	5.04 / 0.02	5.04 / 0.02			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

**SAMPLING DATA**  
 Time Sampled: 6:10 Approximate Depth to-Water During Sampling: (feet)  
 Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW7	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
MW7	2	Amber	None	1 L		TPH-d

Total Purge Volume: 6 (gallons) Disposal: ROMIC  
 Weather Conditions: OK  
 Condition of Well Box and Casing at Time of Sampling: OK  
 Well Head Conditions Requiring Correction: NONE  
 Problems Encountered During Purging and Sampling: None  
 Comments:

**Appendix C**

**Laboratory Analytical Reports**

2/ 6/04

CASE NARRATIVE

ETIC 3865  
DOUG FITZGERALD  
2285 MORELLO AVENUE  
PLEASANT HILL, CA 94523

RECEIVED  
FEB 11 2004  
ETIC ENGINEERING

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: EXXONMOBIL 7-0210  
Project Number: .  
Laboratory Project Number: 362481.

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. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Page 1

Sample Identification	Lab Number	Collection Date
MW5	04-A13075	1/28/04
MW6	04-A13076	1/28/04
MW7	04-A13077	1/28/04

Sample Identification	Lab Number	Collection Date
-----	-----	-----

These results relate only to the items tested.  
This report shall not be reproduced except in full and with  
permission of the laboratory.

Report Approved By: Glenn L. Norton Report Date: 2/ 4/04

Johnny A. Mitchell, Operations Manager	Gail A. Lage, QA/QC
Michael H. Dunn, M.S., Technical Director	Glenn L. Norton, QA/QC
Pamela A. Langford, Technical Serv	Kelly S. Comstock, QA/QC
Eric S. Smith, QA/QC	Roxanne L. Connor, QA/QC

Laboratory Certification Number: 01158CA

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RECEIVED

FEB 11 2004

ETIC ENGINEERING

ANALYTICAL REPORT

ETIC 3865  
 DOUG FITZGERALD  
 2285 MORELLO AVENUE  
 PLEASANT HILL, CA 94523

Lab Number: 04-A13075  
 Sample ID: MW5  
 Sample Type: Water  
 Site ID: 7-0210

Project:  
 Project Name: EXXONMOBIL 7-0210  
 Sampler: PATRICK P.

Date Collected: 1/28/04  
 Time Collected: 17:40  
 Date Received: 1/30/04  
 Time Received: 8:10  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	0.50	1.0	1/31/04	3:14	I. Ahmed	8021B	1065
Ethylbenzene	ND	ug/L	0.5	1.0	1/31/04	3:14	I. Ahmed	8021B	1065
Toluene	0.9	ug/L	0.5	1.0	1/31/04	3:14	I. Ahmed	8021B	1065
Xylenes (Total)	1.1	ug/L	0.5	1.0	1/31/04	3:14	I. Ahmed	8021B	1065
Methyl-t-butylether	485.	ug/L	2.5	5.0	1/31/04	12:57	I. Ahmed	8021B	2740
TPH (Gasoline Range)	283.	ug/L	50.0	1.0	1/31/04	3:14	I. Ahmed	8015B	1065
*VOLATILE ORGANICS*									
Methyl-t-butyl ether	453.	ug/L	2.50	5.0	2/ 5/04	16:11	B.Herford	8260B	7230

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	93.	70. - 124.
VOA Surr 1,2-DCA-d4	92.	71. - 128.
VOA Surr Toluene-d8	91.	77. - 119.
VOA Surr, 4-BFB	99.	79. - 123.
VOA Surr, DBFM	100.	78. - 124.

Sample report continued . . .

**ANALYTICAL REPORT**

Laboratory Number: 04-A13075  
Sample ID: MW5  
Project:  
Page 2

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.

## ANALYTICAL REPORT

ETIC 3865  
DOUG FITZGERALD  
2285 MORELLO AVENUE  
PLEASANT HILL, CA 94523

Lab Number: 04-A13076  
Sample ID: MW6  
Sample Type: Water  
Site ID: 7-0210

Project:  
Project Name: EXXONMOBIL 7-0210  
Sampler: PATRICK P.

Date Collected: 1/28/04  
Time Collected: 18:35  
Date Received: 1/30/04  
Time Received: 8:10  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	0.50	1.0	1/31/04	3:44	I. Ahmed	8021B	1065
Ethylbenzene	ND	ug/L	0.5	1.0	1/31/04	3:44	I. Ahmed	8021B	1065
Toluene	0.8	ug/L	0.5	1.0	1/31/04	3:44	I. Ahmed	8021B	1065
Xylenes (Total)	0.9	ug/L	0.5	1.0	1/31/04	3:44	I. Ahmed	8021B	1065
Methyl-t-butylether	283.	ug/L	1.0	2.0	1/31/04	13:28	I. Ahmed	8021B	2740
TPH (Gasoline Range)	154.	ug/L	50.0	1.0	1/31/04	3:44	I. Ahmed	8015B	1065
TPH (Diesel Range)	ND	ug/L	50.	1.0	2/ 3/04	23:03	L. Watson	8015B/3510	3833
*VOLATILE ORGANICS*									
Methyl-t-butyl ether	244.	ug/L	2.50	5.0	2/ 5/04	16:41	B. Herford	8260B	7230

Silica Gel Cleanup performed for TPH-DRO analysis.

### Sample Extraction Data

Parameter	Wt/Vol		Date	Time	Analyst	Method
	Extracted	Extract Vol				
EPH	1000 ml	1.00 ml	1/31/04		M. Ricke	3510

Surrogate	% Recovery	Target Range
-----	-----	-----

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A13076  
Sample ID: MW6  
Project:  
Page 2

---

Surrogate -----	% Recovery -----	Target Range -----
TPH Hi Surr., o-Terphenyl	80.	50. - 141.
BTEX/GRO Surr., a,a,a-TFT	93.	70. - 124.
VOA Surr 1,2-DCA-d4	91.	71. - 128.
VOA Surr Toluene-d8	89.	77. - 119.
VOA Surr, 4-BFB	96.	79. - 123.
VOA Surr, DBFM	99.	78. - 124.

### 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.

## ANALYTICAL REPORT

ETIC 3865  
DOUG FITZGERALD  
2285 MORELLO AVENUE  
PLEASANT HILL, CA 94523

Lab Number: 04-A13077  
Sample ID: MW7  
Sample Type: Water  
Site ID: 7-0210

Project:  
Project Name: EXXONMOBIL 7-0210  
Sampler: PATRICK P.

Date Collected: 1/28/04  
Time Collected: 16:10  
Date Received: 1/30/04  
Time Received: 8:10  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	0.50	1.0	1/31/04	9:54	I. Ahmed	8021B	1065
Ethylbenzene	ND	ug/L	0.5	1.0	1/31/04	9:54	I. Ahmed	8021B	1065
Toluene	1.0	ug/L	0.5	1.0	1/31/04	9:54	I. Ahmed	8021B	1065
Xylenes (Total)	0.9	ug/L	0.5	1.0	1/31/04	9:54	I. Ahmed	8021B	1065
Methyl-t-butylether	ND	ug/L	0.5	1.0	1/31/04	9:54	I. Ahmed	8021B	1065
TPH (Gasoline Range)	ND	ug/L	50.0	1.0	1/31/04	9:54	I. Ahmed	8015B	1065
TPH (Diesel Range)	ND	ug/L	50.	1.0	2/ 3/04	23:22	L. Watson	8015B/3510	3833

Silica Gel Cleanup performed for TPH-DRO analysis.

### Sample Extraction Data

Parameter	Wt/Vol		Date	Time	Analyst	Method
	Extracted	Extract Vol				
EPH	1000 ml	1.00 ml	1/31/04		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	82.	50. - 141.
BTEX/GRO Surr., a,a,a-TFT	92.	70. - 124.

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 04-A13077  
Sample ID: MW7  
Project:  
Page 2

### 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:  
 Project Name: EXXONMOBIL 7-0210  
 Page: 1  
 Laboratory Receipt Date: 1/30/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
<b>**UST ANALYSIS**</b>								
Benzene	mg/l	0.00380	0.0537	0.0500	100	53. - 159.	1065	04-A12537
Toluene	mg/l	0.0017	0.0508	0.0500	98	54. - 156.	1065	04-A12537
Ethylbenzene	mg/l	< 0.0005	0.0509	0.0500	102	50. - 159.	1065	04-A12537
Xylenes (Total)	mg/l	0.0019	0.0939	0.100	92	53. - 151.	1065	04-A12537
Methyl-t-butylether	mg/l	0.0035	0.0535	0.0500	100	36. - 158.	1065	04-A12537
TPH (Gasoline Range)	mg/l	0.545	0.913	1.00	37#	70. - 157.	1065	04-A12537
TPH (Diesel Range)	mg/l	< 0.050	0.790	1.00	79	10. - 143.	3833	BLANK
BTEX/GRO Surr., a,a,a-TFT	% Recovery				93	70 - 124	1065	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	0.0537	0.0527	1.88	21.	1065
Toluene	mg/l	0.0508	0.0491	3.40	25.	1065
Ethylbenzene	mg/l	0.0509	0.0480	5.86	25.	1065
Xylenes (Total)	mg/l	0.0939	0.0922	1.83	24.	1065
Methyl-t-butylether	mg/l	0.0535	0.0562	4.92	24.	1065
TPH (Gasoline Range)	mg/l	0.913	0.874	4.36	24.	1065
TPH (Diesel Range)	mg/l	0.790	0.706	11.23	57.	3833
BTEX/GRO Surr., a,a,a-TFT	% Recovery		94.			1065

Project QC continued . . .

**PROJECT QUALITY CONTROL DATA**

Project Number:  
 Project Name: **EXXONMOBIL 7-0210**  
 Page: 2  
 Laboratory Receipt Date: 1/30/04

VOA Surr 1,2-DCA-d4	% Rec	93.	7230
VOA Surr Toluene-d8	% Rec	91.	7230
VOA Surr, 4-BFB	% Rec	98.	7230
VOA Surr, DBFM	% Rec	104.	7230

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	0.100	0.0908	91	76 - 118	1065
Toluene	mg/l	0.100	0.0891	89	72 - 119	1065
Ethylbenzene	mg/l	0.100	0.0907	91	72 - 119	1065
Xylenes (Total)	mg/l	0.200	0.176	88	71 - 123	1065
Methyl-t-butylether	mg/l	0.100	0.0944	94	63 - 120	1065
Methyl-t-butylether	mg/l	0.100	0.0987	99	63 - 120	2740
TPH (Gasoline Range)	mg/l	1.00	0.913	91	72 - 122	1065
BTEX/GRO Surr., a,a,a-TFT	% Recovery			93	70 - 124	1065
BTEX/GRO Surr., a,a,a-TFT	% Recovery			94	70 - 124	2740
<b>**UST PARAMETERS**</b>						
TPH (Diesel Range)	mg/l	1.00	0.774	77	10 - 143	3833
<b>**VOA PARAMETERS**</b>						
Methyl-t-butyl ether	mg/l	0.0500	0.0494	99	70 - 130	7230
VOA Surr 1,2-DCA-d4	% Rec			90	71 - 128	7230
VOA Surr Toluene-d8	% Rec			93	77 - 119	7230
VOA Surr, 4-BFB	% Rec			94	79 - 123	7230
VOA Surr, DBFM	% Rec			102	78 - 124	7230

Project QC continued . . .



**PROJECT QUALITY CONTROL DATA**  
**Project Number:**  
**Project Name:** EXXONMOBIL 7-0210  
**Page:** 3  
**Laboratory Receipt Date:** 1/30/04

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
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Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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**\*\*UST PARAMETERS\*\***

Benzene	< 0.00050	mg/l	1065	1/30/04	17:02
Toluene	< 0.0005	mg/l	1065	1/30/04	17:02
Ethylbenzene	< 0.0005	mg/l	1065	1/30/04	17:02
Xylenes (Total)	< 0.0005	mg/l	1065	1/30/04	17:02
Methyl-t-butylether	< 0.0005	mg/l	1065	1/30/04	17:02
Methyl-t-butylether	< 0.0005	mg/l	2740	1/31/04	7:18
TPH (Gasoline Range)	< 0.0500	mg/l	1065	1/30/04	17:02
TPH (Diesel Range)	< 0.050	mg/l	3833	2/ 3/04	16:58
BTEX/GRO Surr., a,a,a-TFT	93.	% Recovery	1065	1/30/04	17:02
BTEX/GRO Surr., a,a,a-TFT	93.	% Recovery	2740	1/31/04	7:18

**\*\*VOA PARAMETERS\*\***

Methyl-t-butyl ether	< 0.00014	mg/l	7230	2/ 5/04	13:42
VOA Surr 1,2-DCA-d4	94.	% Rec	7230	2/ 5/04	13:42
VOA Surr Toluene-d8	94.	% Rec	7230	2/ 5/04	13:42
VOA Surr, 4-BFB	99.	% Rec	7230	2/ 5/04	13:42
VOA Surr, DBFM	103.	% Rec	7230	2/ 5/04	13:42

Project QC continued . . .

PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: EXXONMOBIL 7-0210

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Laboratory Receipt Date: 1/30/04

# = Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 362481



Nashville Division

COOLER RECEIPT FORM

BC#



Client: ETIC Eng

Cooler Received On: 1/30/04 And Opened On: 1/30/04 By: James Jacobs

(Signature) J Jacobs

1. Temperature of Cooler when opened -1.5 Degrees Celsius
2. Were custody seals on outside of cooler?..... YES...NO...NA
  - a. If yes, how many, what kind and where: 1 Tape Front
3. Were custody seals on containers and intact?..... NO...YES...NA
4. Were the seals intact, signed, and dated correctly?..... YES...NO...NA
5. Were custody papers inside cooler?..... YES...NO...NA
6. Were custody papers properly filled out (ink,signed,etc)?..... YES...NO...NA
7. Did you sign the custody papers in the appropriate place?..... YES...NO...NA
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Cooling process:  Ice Ice pack Ice(direct contact) Dry ice Other None
10. Did all containers arrive in good condition( unbroken)?.....YES.. NO...NA
11. Were all container labels complete (#,date,signed,pres,etc)?..... YES...NO...NA
12. Did all container labels and tags agree with custody papers?..... YES...NO...NA
13. Were correct containers used for the analysis requested?..... YES...NO...NA
14. a. Were VOA vials received?..... YES...NO...NA
  - b. Was there any observable head space present in any VOA vial?..... NO...YES...NA
15. Was sufficient amount of sample sent in each container?..... YES...NO...NA
16. Were correct preservatives used?..... YES...NO...NA  
If not, record standard ID of preservative used here \_\_\_\_\_

17. Was residual chlorine present?.....NO...YES.. NA

18. See attached for resolution of non-conformance:

*Both liters for MWS + 1 liter for MWD  
broke in shipment -> appear to have froze*

- Fed-Ex     UPS     Velocity     Airborne     Route     Off-street     Misc.

## Sample NonConformance/COC Revision Form

Initiated by: Jdjacobs Phone: 925-602-4710 NC Closed   
Client Name: ETIC Sample Range: 13075-13077 Date Closed 2/2/2004  
Client Contact: SDG: 362481  
Client Account: 3865 Analyst: 71  
Date Created: 1/30/2004 Supervisor: Paul Buckingham  
NC #: 13077 NC Type: NC Analytical 1  
Project Name: 7-0210 Terminal Manager: GENE ORTEGA  
Project Number:  
Project Origin CA  
Regulatory :

Process: Sample Containers Broken in Shipment  
Action: Client Notified

Corrected By: Leah Klingensmith  
Closed:  Lklingensmith

Comments: Comment added by: Jdjacobs on 2/2/2004 4:16:43 PM  
NC closed with out comments

\*\*\*\*\*  
Comment added by: Lklingensmith on 2/2/2004 4:14:36 PM  
From: Leah Klingensmith  
Sent: Friday, January 30, 2004 12:31 PM  
To: 'Ted Moise'; 'dfitzgerald@eticeng.com'  
Subject: 7-0210

Hi,  
The lab received the samples for the above site that were collected on the 28th. Unfortunately, both litres for MW5 and one litre for MW7 broke in shipment. The DRO analysis can not be preformed on MW5, but, can be on MW7. Please, let me know if you have any questions.  
Thanks!

\*\*\*\*\*  
Both liters for MW5 broke in shipment and 1 liter for MW7 broke in shipment.