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**Gene N. Ortega**  
Territory Manager  
Global Remediation – U.S. Retail

*To SCM to identify potential receptors.*

**ExxonMobil**  
Refining & Supply

July 10, 2001

Ms. Eva Chu  
Alameda County Health Agency  
Division of Environmental Protection  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

**JUL 19 2001**

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

Dear Ms. Chu:

Attached for your review and comment is a copy of the *Report of Groundwater Monitoring, Second Quarter 2001* for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the May 2001 sampling event.

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

Sincerely,



Gene N. Ortega  
Territory Manager

Attachment: ETIC Groundwater Monitoring Report dated July 2001

- c: w/ attachment:  
Mr. Winson B. Low - Valero Energy Corporation
  
- c: w/o attachment:  
Ms. Christa Marting - ETIC Engineering, Inc.



JUL 19 2001

# Report of Groundwater Monitoring Second Quarter 2001

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

Prepared for

ExxonMobil Refining and Supply Company  
P.O. Box 4032  
2300 Clayton Road, Suite 1250  
Concord, California 94524-4032

Prepared by

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

*Ted Moise*

*July 10, 2001*

Ted Moise  
Project Manager

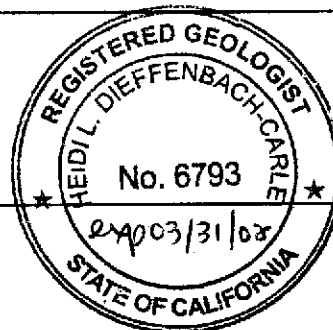
Date

*Heidi Dieffenbach-Carle*

*July 10, 2001*

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

Date



July 2001

## 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  
P.O. Box 4032  
2300 Clayton Road, Suite 1250  
Concord, California 94524-4032  
(925) 246-8747

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

ETIC Project Manager: Ted Moise

Regulatory Oversight: Eva Chu  
Alameda County Health Agency  
Division of Environmental Protection  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, California 94502  
(510) 567-6700

## 1. INTRODUCTION

Former Exxon Retail Site (RS) 7-0210 is an active Valero service station located at 7840 Amador Valley Boulevard in Dublin, California. Land use in the area is a mixture of residential and commercial. The immediate vicinity of the site is commercial, consisting of shopping malls and parking lots. A Unocal service station with underground storage tanks (USTs) is located on the southwestern corner of the intersection. The site is located on essentially flat terrain with topography in the area sloping gently to the southeast.

Former Exxon RS 7-0210 was owned and operated by Texaco until 1988, when it was purchased by Exxon. In February 1990, Exxon replaced product dispensers and installed a vapor recovery system. In October 1991, Exxon replaced three 8,000-gallon single-walled steel USTs with the existing three 12,000-gallon double-walled fiberglass-reinforced plastic tanks. The product piping was also upgraded to double-walled fiberglass-reinforced plastic. The locations of the present and former tanks are indicated in Figure 1.

Groundwater monitoring wells MW1-MW4 were installed in May 1992 and monitored for petroleum hydrocarbons and benzene, toluene, ethylbenzene, and total xylenes (BTEX) until June 1995. These monitoring wells were destroyed in April 1996 as authorized by the Alameda County Health Agency Department of Environmental Health and the Regional Water Quality Control Board in a March 1996 site closure letter to Exxon. The locations of these former wells are presented in Figure 1. Three onsite groundwater monitoring wells (MW5-MW7, Figure 1) were installed on 14 and 15 November 2000 based on the results of a baseline investigation conducted in 1999, prior to the property transfer from ExxonMobil to Valero in June 2000.

## 2. GROUNDWATER MONITORING

On 9 May 2001, groundwater in wells MW5-MW7 (Figure 1) was gauged. Groundwater samples were collected from the wells and the samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), BTEX, and methyl t-butyl ether (MTBE). Samples were also analyzed for the oxygenates diisopropyl ether (DIPE), t-butyl alcohol (TBA), tert-amyl methyl ether (TAME), and tert-butyl ethyl ether (ETBE), and for the additives 1,2-dibromoethane (EDB) and 1,2-dichloroethane (1,2-DCA).

Current groundwater monitoring data and calculated groundwater elevations are presented in boldface type in Table 1, along with previous data. Current groundwater elevations are also shown in Figure 1. The groundwater flow direction on 9 May was to the southeast, with a gradient of approximately 0.004. Liquid-phase hydrocarbons were not observed in any of the wells.

After the depths to water were measured, the wells were purged. Field parameters of pH, temperature, and electrical conductance of the purged water were measured for approximately every well casing volume removed during purging. Copies of the field documents are included as Appendix A. When the field parameters were stable (less than a 10 percent change from the previous reading for temperature and electrical conductance and not more than 0.1 pH units) and approximately 3 casing volumes were removed from each well, purging was stopped and samples were collected using factory-cleaned disposable bailers. The samples were poured into 40-ml glass VOA vials and stored in an ice-filled cooler. All samples were handled and transported under chain of custody.

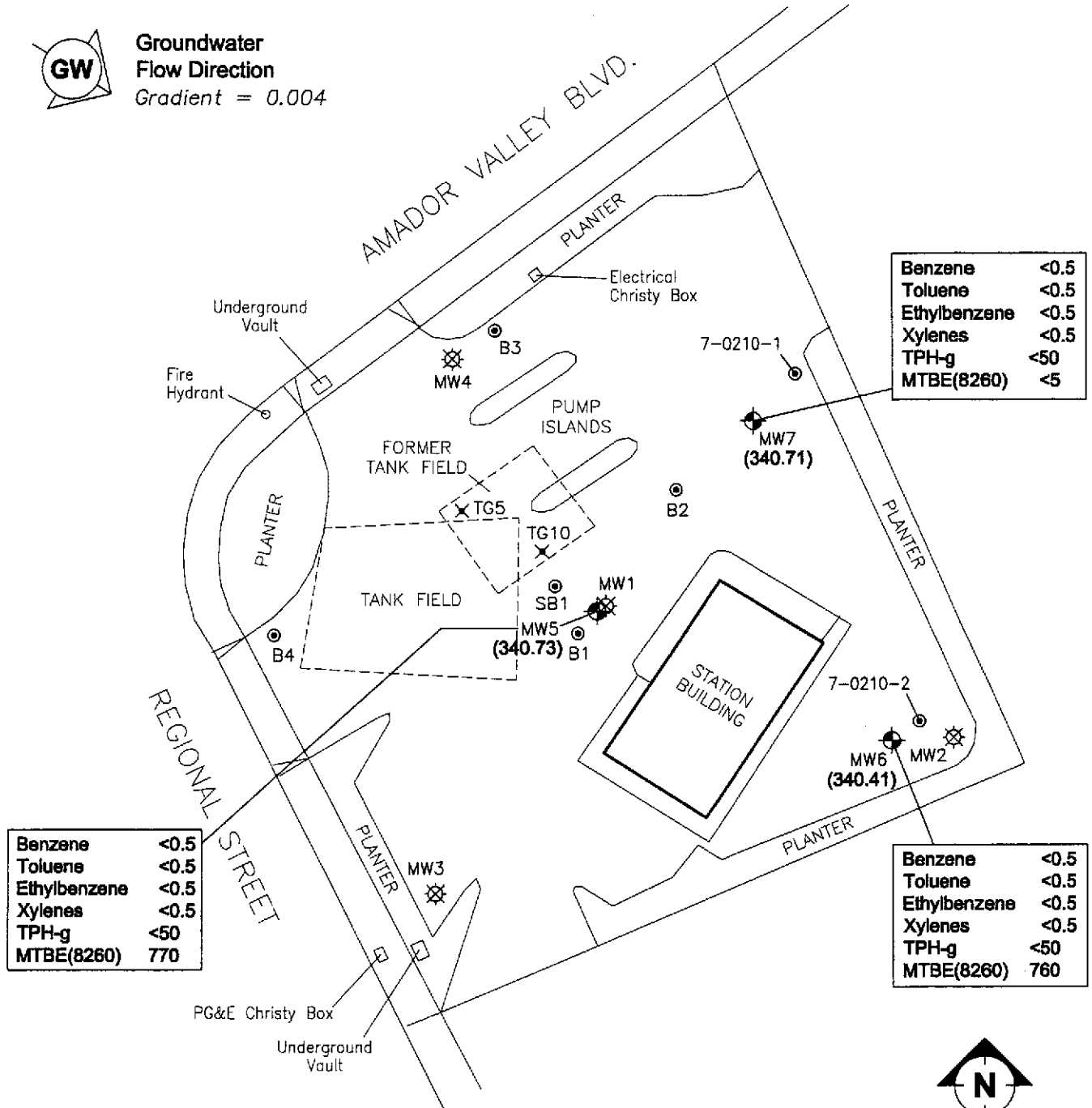
The samples were submitted to SPL, Inc. in Houston, Texas, and analyzed for TPH-g by Cal EPA-modified EPA Method 8015, for BTEX by EPA Method 8021B, and for MTBE, DIPE, TBA, TAME, ETBE, EDB, and 1,2-DCA by EPA Method 8260B. The results for these analyses are presented in boldface type, along with previous analytical data, in Table 1, and are shown in Figure 1. The laboratory analytical report and chain-of-custody documentation are included in Appendix B.

### **3. WORK PROPOSED FOR NEXT QUARTER**

Groundwater in wells MW5-MW7 will be gauged and sampled in August 2001. The groundwater samples will be analyzed for TPH-g, BTEX, and MTBE.



**Groundwater  
Flow Direction**  
Gradient = 0.004



Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<0.5
TPH-g	<50
MTBE(8260)	770

Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<0.5
TPH-g	<50
MTBE(8260)	760

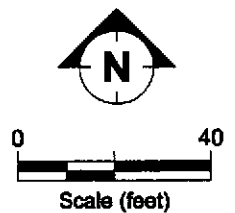
**LEGEND**

- GROUNDWATER MONITORING WELL LOCATION
- SOIL BORING / GROUNDWATER SAMPLING LOCATION
- CONFIRMATION SOIL SAMPLE
- DESTROYED GROUNDWATER MONITORING WELL

**NOTE:**

B1-B4 SAMPLED 12/98.  
7-0210-1 AND 7-0210-2 SAMPLED 4/20/00

(340.73) GROUNDWATER ELEVATION (FEET MSL)  
TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
MTBE METHYL T-BUTYL ETHER  
CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L).



MAP ADAPTED FROM EA ENGINEERING, SCIENCE, AND TECHNOLOGY DRAWING,  
AND SITE SURVEY PERFORMED BY MILANI & ASSOCIATES, DECEMBER 2000.

FILENAME: 202001.DWG 06/20/01

**ETIC**  
Engineering, Inc.

**SITE PLAN SHOWING GROUNDWATER ELEVATIONS  
AND ANALYTICAL RESULTS**  
FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BLVD., DUBLIN, CA.  
9 MAY 2001

FIGURE:  
**1**

TABLE 1 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CA

Well No.	Date	Casing Elevation (feet msl)	Depth to Water (feet)	Groundwater Elevation (feet msl)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (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	
	02/10/93	96.32	12.22	84.10	0.00	3.1	<0.5	1.8	0.6	2,600	NA	
	05/20/93	96.32	10.74	85.58	0.00	1.9	<0.5	1.8	<1.0	1,000	NA	
	06/23/93	96.32	11.74	84.58	0.00	1.0	<0.5	1.2	<0.5	1,300	NA	
	08/23/93	96.32	12.72	83.60	0.00	<0.5	<0.5	<0.5	0.8	80	NA	
	10/25/93	96.32	13.99	82.33	0.00	<0.5	<0.5	0.8	1.3	140	NA	
	02/16/94	96.32	14.90	81.42	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	04/16/94	96.32	14.49	81.83	0.00	<0.5 <sup>b</sup>	<0.5	<0.5	<0.5	190	NA	
	07/26/94	96.32	15.11	81.21	0.00	<0.5 <sup>b</sup>	<0.5	<0.5	<0.5	130	NA	
	10/05/94	96.32	15.69	80.63	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	01/04/95	96.32	14.66	81.66	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
06/12/95	96.32	10.08	86.24	0.00	<0.5	<0.5	<0.5	<0.5	<50	230		
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	
	02/10/93	95.91	12.34	83.57	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	05/20/93	95.91	10.73	85.18	0.00	<0.5	<0.5	<0.5	<1.0	320	NA	
	06/23/93	95.91	11.74	84.17	0.00	<0.5	<0.5	<0.5	<0.5	130	NA	
	08/23/93	95.91	12.60	83.31	0.00	<0.5	<0.5	<0.5	1.1	140	NA	
	10/25/93	95.91	13.86	82.05	0.00	<0.5	<0.5	0.5	2.4	75	NA	
	02/16/94	95.91	14.73	81.18	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	04/16/94	95.91	14.33	81.58	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	07/26/94	95.91	14.96	80.95	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	10/05/94	95.91	15.49	80.42	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	

TABLE 1 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CA

Well No.	Date	Casing Elevation (feet msl)	Depth to Water (feet)	Groundwater Elevation (feet msl)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (µg/L)	MTBE (µg/L)	Other Oxygenates and Additives (µg/L)
MW2	01/04/95	95.91	14.44	81.47	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	06/12/95	95.91	10.10	85.81	0.00	<0.5	<0.5	<0.5	<0.5	<50	59	
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	
	02/10/93	97.95	13.77	84.18	0.00	<0.5	<0.5	<0.5	0.7	<50	NA	
	05/20/93	97.95	12.32	85.63	0.00	<0.5	<0.5	<0.5	<1.0	<50	NA	
	06/23/93	97.95	13.34	84.61	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	08/23/93	97.95	14.30	83.65	0.00	2.3	1.2	1.4	4.1	<50	NA	
	10/25/93	97.95	15.62	82.33	0.00	NS	NS	NS	NS	NS	NS	
	02/16/94	97.95	16.48	81.47	0.00	NS	NS	NS	NS	NS	NS	
	04/16/94	97.95	16.61	81.34	0.00	NS	NS	NS	NS	NS	NS	
	07/26/94	97.95	16.72	81.23	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	10/05/94	97.95	17.33	80.62	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	01/04/95	97.95	16.29	81.66	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
06/12/95	97.95	11.67	86.28	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.5		
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	
	02/10/93	96.69	12.30	84.39	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	05/20/93	96.69	10.75	85.94	0.00	1.4	1.0	<0.5	1.8	<50	NA	
	06/23/93	96.69	11.78	84.91	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	08/23/93	96.69	12.82	83.87	0.00	<0.5	<0.5	<0.5	0.8	<50	NA	
	10/25/93	96.69	14.10	82.59	0.00	NS	NS	NS	NS	NS	NS	



TABLE 1 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CA

Well No.	Date	Casing Elevation (feet msl)	Depth to Water (feet)	Groundwater Elevation (feet msl)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-g (µg/L)	MTBE (µg/L)	Other Oxygenates and Additives (µg/L)
MW4	02/16/94	96.69	15.02	81.67	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	04/16/94	96.69	14.61	82.08	0.00	NS	NS	NS	NS	NS	NS	
	07/26/94	96.69	15.23	81.46	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	10/05/94	96.69	15.85	80.84	0.00	<0.5	12	<0.5	<0.5	<50	NA	
	01/04/95	96.69	14.84	81.85	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA	
	06/12/95	96.69	10.07	86.62	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.5	
Well destroyed April 1996.												
MW5	11/17/00	352.93	13.51	339.42	0.00	<0.5	<0.5	<0.5	2.46	240	1,500	
	11/17/00	352.93									1,600 <sup>a</sup>	
	02/02/01	352.93	13.81	339.12	0.00	<0.5	<0.5	<0.5	<0.5	110	1,400	
	02/02/01	352.93									1,200 <sup>a</sup>	
	<b>05/09/01</b>	<b>352.93</b>	<b>12.20</b>	<b>340.73</b>	<b>0.00</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;50</b>	<b>770<sup>a</sup></b>	<b>ND<sup>c</sup></b>
MW6	11/17/00	352.66	13.47	339.19	0.00	<0.5	<0.5	<0.5	<0.5	<50	270	
	11/17/00	352.66									260 <sup>a</sup>	
	02/02/01	352.66	13.79	338.87	0.00	<0.5	<0.5	<0.5	<0.5	<50	160	
	02/02/01	352.66									130 <sup>a</sup>	
	<b>05/09/01</b>	<b>352.66</b>	<b>12.25</b>	<b>340.41</b>	<b>0.00</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;50</b>	<b>760<sup>a</sup></b>	<b>ND<sup>c</sup></b>
MW7	11/17/00	351.86	12.44	339.42	0.00	<0.5	<0.5	<0.5	<0.5	<50	<0.5	
	02/02/01	351.86	12.74	339.12	0.00	<0.5	<0.5	<0.5	<0.5	<50	<0.5	
	<b>05/09/01</b>	<b>351.86</b>	<b>11.15</b>	<b>340.71</b>	<b>0.00</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;50</b>	<b>&lt;5<sup>a</sup></b>	<b>ND<sup>c</sup></b>

TABLE 1 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-0210, 7840 AMADOR VALLEY BOULEVARD, DUBLIN, CA

Well No.	Date	Casing Elevation (feet msl)	Depth to Water (feet)	Groundwater Elevation (feet msl)	LPH Thickness (feet)	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	TPH-g ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	Other Oxygenates and Additives ( $\mu\text{g/L}$ )
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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.

LPH Liquid-phase hydrocarbons.

TPH-g Total Petroleum Hydrocarbons as gasoline.

MTBE Methyl tertiary butyl ether.

NA Not analyzed for this constituent.

ND Not detected.

NS Not sampled.

feet msl Feet relative to mean sea level.

$\mu\text{g/L}$  Micrograms per liter.

**Appendix A**  
**Field Documents**



## GROUNDWATER PURGE AND SAMPLE

Project Name: Exxon 7-0210 Well No: MW5 Date: 5/9/2001  
 Project No: UP0210.1 Personnel: JAKE H.

### 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)
	<u>24.10</u> = <u>12.20</u> = <u>11.90</u> × <u>1</u> <u>2</u> <u>4</u> <u>6</u> 0.04 0.16 0.64 1.44								<u>1904</u> = <u>5.712</u>

### PURGING DATA

Purge Method: Submersible Pump Purge Depth: Screen Purge Rate: (gpm)

Time	1110	1113	1120			
Volume Purge (gal)	<u>2</u>	<u>4</u>	<u>6</u>			
Temperature (C)	<u>20.5</u>	<u>20.4</u>	<del>21.6</del>			
pH	<u>6.85</u>	<u>6.83</u>	<del>6.81</del> → <u>6.86</u>			
Spec. Cond. (umhos)	<u>1289</u>	<u>1257</u>	<u>1257</u>			
Turbidity/Color	/					
Odor (Y/N)	N →					
Casing Volumes	<u>Sixty</u> →					
Dewatered (Y/N)	N →					

Comments/Observations:

### SAMPLING DATA

Time Sampled: 1120 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>MW5</u>	<u>6</u>	<u>Voa</u>	<u>HCL</u>	<u>40 ml</u>	/	<u>TPH-g, BTEX, MTBE</u>
					/	
					/	

Total Purge Volume: 6 (gallons) Disposal:

Weather Conditions: Sunny

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

Comments:



## GROUNDWATER PURGE AND SAMPLE

Project Name: <i>Exxon 7-0210</i>	Well No: <i>MW6</i>	Date: <i>5/9/2001</i>
Project No: <i>UP0210.1</i>	Personnel: <i>JAKE H.</i>	

### 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)
	$24.45 - 12.25 = 12.2$	<i>24.45</i>	<i>12.25</i>	<i>12.2</i>	<i>1</i>	<i>2</i>	<i>4</i>	<i>6</i>	<i>1.952</i>
				<small>0.04</small>	<small>0.16</small>	<small>0.64</small>	<small>1.44</small>		

### PURGING DATA

Purge Method: *Submersible Pump*      Purge Depth:      Screen      Purge Rate:      (gpm)

Time	Volume Purge (gal)	Temperature (C)	pH	Spec. Cond. (umhos)	Turbidity/Color	Odor (Y/N)	Casing Volumes	Dewatered (Y/N)
<i>1135</i>	<i>2</i>	<i>22.4</i>	<i>6.91</i>	<i>1195</i>	/	<i>N</i>	<i>Silty</i>	<i>N</i>
<i>1138</i>	<i>4</i>	<i>21.8</i>	<i>6.97</i>	<i>1186</i>	/	<i>N</i>	/	<i>N</i>
<i>1141</i>	<i>6</i>	<i>21.5</i>	<i>7.15</i>	<i>1199</i>	/	<i>N</i>	/	<i>N</i>

Comments/Observations:

### SAMPLING DATA

Time Sampled: *1142*      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
<i>MW6</i>	<i>6</i>	<i>Voa</i>	<i>HCL</i>	<i>40 ml</i>	/	<i>TPH-g, BTEX, MTBE</i>
					/	
					/	

Total Purge Volume: *6* (gallons)      Disposal:

Weather Conditions: *Sunny*

Condition of Well Box and Casing at Time of Sampling: *good*

Well Head Conditions Requiring Correction: *done*

Problems Encountered During Purging and Sampling: *None*

Comments:

**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 7-0210 Well No: MW 7 Date: 5/9/2001  
 Project No: UP0210.1 Personnel: JAKE H.

**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)
		<u>23.00</u>	<u>11.15</u>	<u>12.45</u>	<u>1</u>	<u>2</u>	<u>4</u>	<u>6</u>	<u>1.992</u>
				0.04	0.16	0.64	1.44		

**PURGING DATA**

Purge Method: Submersible Pump Purge Depth: Screen Purge Rate: (gpm)

Time	1203	1207	1210			
Volume Purge (gal)	<u>2</u>	<u>4</u>	<u>6</u>			
Temperature (C)	<u>23.0</u>	<u>21.4</u>	<u>21.5</u>			
pH	<u>7.21</u>	<u>7.01</u>	<u>7.09</u>			
Spec. Cond. (umhos)	<u>1259</u>	<u>1228</u>	<u>1271</u>			
Turbidity/Color	/					
Odor (Y/N)	<u>N</u>	<u>N</u>	<u>N</u>			
Casing Volumes	<u>Silty</u> →					
Dewatered (Y/N)	<u>N</u>	<u>N</u>	<u>N</u>			

Comments/Observations:  
 \_\_\_\_\_  
 \_\_\_\_\_

**SAMPLING DATA**

Time Sampled: 1213 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>MW 7</u>	<u>6</u>	<u>Voa</u>	<u>HCL</u>	<u>40 ml</u>	/	<u>TPH-g, BTEX, MTBE</u>
					/	
					/	

Total Purge Volume: 6 (gallons) Disposal: \_\_\_\_\_

Weather Conditions: Sunny

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

Well Head Conditions Requiring Correction: 1 HOUR

Problems Encountered During Purging and Sampling: No

Comments:  
 \_\_\_\_\_

**Appendix B**

**Laboratory Analytical Reports**





HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

EXXON Company U.S.A.

Certificate of Analysis Number:  
**01050388**

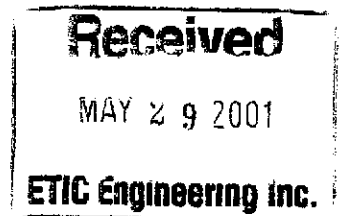
<b>Report To:</b>  ETIC Engineering, Inc. John Ortega 2285 Morello Avenue  Pleasant Hill California 94523- ph: (925) 602-4710      fax: (925) 602-4720	<b>Project Name:</b> UP0210.1 <b>Site:</b> 7-0210 <b>Site Address:</b> 7840 Amador Valley Blvd. Dublin CA <b>PO Number:</b> EWR#21012153 <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 5/23/01
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This Report Contains A Total Of 14 Pages

Excluding This Page

And

Chain Of Custody



5/23/01

Date



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Case Narrative for:  
**EXXON Company U.S.A.**

Certificate of Analysis Number:  
**01050388**

<b>Report To:</b>  ETIC Engineering, Inc. John Ortega 2285 Morello Avenue  Pleasant Hill California 94523- ph: (925) 602-4710      fax: (925) 602-4720	<b>Project Name:</b> UP0210.1 <b>Site:</b> 7-0210 <b>Site Address:</b> 7840 Amador Valley Blvd. Dublin CA <b>PO Number:</b> EWR#21012153 <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 5/23/01
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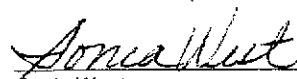
Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like " matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

  
Sonia West  
Senior Project Manager



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

EXXON Company U.S.A.

Certificate of Analysis Number:  
01050388

**Report To:** ETIC Engineering, Inc.  
 John Ortega  
 2285 Morello Avenue

Pleasant Hill  
 California  
 94523-

ph: (925) 602-4710 fax: (925) 602-4720

**Fax To:** ETIC Engineering, Inc.  
 John Ortega fax : (925) 602-4720

**Project Name:** UP0210.1

**Site:** 7-0210

**Site Address:** 7840 Amador Valley Blvd.

Dublin CA

**PO Number:** EWR#21012153

**State:** California

**State Cert. No.:** 1903

**Date Reported:** 5/23/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-5	01050388-01	Water	5/10/01 11:20:00 AM	5/12/01 10:00:00 AM		<input type="checkbox"/>
MW-6	01050388-02	Water	5/10/01 11:42:00 AM	5/12/01 10:00:00 AM		<input type="checkbox"/>
MW-7	01050388-03	Water	5/10/01 12:13:00 PM	5/12/01 10:00:00 AM		<input type="checkbox"/>

*Sonia West*

5/23/01

Sonia West  
 Senior Project Manager

Date

Joel Grice  
 Laboratory Director

Ted Yen  
 Quality Assurance Officer



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Client Sample ID MW-5

Collected: 5/10/01 11:20:00 SPL Sample ID: 01050388-01

Site: 7-0210

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		05/18/01 23:01	DL	677907
Surr: 1,4-Difluorobenzene	104	% 62-144	1		05/18/01 23:01	DL	677907
Surr: 4-Bromofluorobenzene	103	% 44-153	1		05/18/01 23:01	DL	677907
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		05/18/01 23:01	DL	677850
Ethylbenzene	ND	0.5	1		05/18/01 23:01	DL	677850
Toluene	ND	0.5	1		05/18/01 23:01	DL	677850
m,p-Xylene	ND	0.5	1		05/18/01 23:01	DL	677850
o-Xylene	ND	0.5	1		05/18/01 23:01	DL	677850
Xylenes, Total	ND	0.5	1		05/18/01 23:01	DL	677850
Surr: 1,4-Difluorobenzene	95.8	% 72-137	1		05/18/01 23:01	DL	677850
Surr: 4-Bromofluorobenzene	91.3	% 48-156	1		05/18/01 23:01	DL	677850
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/L</b>		
1,2-Dibromoethane	ND	5	1		05/15/01 11:00	JC	672796
1,2-Dichloroethane	ND	5	1		05/15/01 11:00	JC	672796
Diisopropyl ether	ND	10	1		05/15/01 11:00	JC	672796
Methyl tert-butyl ether	770	50	10		05/17/01 10:53	JC	675318
t-Butyl alcohol	ND	500	1		05/15/01 11:00	JC	672796
tert-Amyl methyl ether	ND	10	1		05/15/01 11:00	JC	672796
tert-Butyl ethyl ether	ND	10	1		05/15/01 11:00	JC	672796
Surr: 1,2-Dichloroethane-d4	100	% 62-119	10		05/17/01 10:53	JC	675318
Surr: 1,2-Dichloroethane-d4	94.0	% 62-119	1		05/15/01 11:00	JC	672796
Surr: 4-Bromofluorobenzene	90.0	% 78-123	10		05/17/01 10:53	JC	675318
Surr: 4-Bromofluorobenzene	94.0	% 78-123	1		05/15/01 11:00	JC	672796
Surr: Toluene-d8	106	% 74-122	1		05/15/01 11:00	JC	672796
Surr: Toluene-d8	106	% 74-122	10		05/17/01 10:53	JC	675318

*Sonia West*

Sonia West  
 Project Manager

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated Value between MDL and PQL



Client Sample ID MW-6

Collected: 5/10/01 11:42:00 SPL Sample ID: 01050388-02

Site: 7-0210

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		05/18/01 23:25	DL	677908
Surr: 1,4-Difluorobenzene	104	% 62-144	1		05/18/01 23:25	DL	677908
Surr: 4-Bromofluorobenzene	99.3	% 44-153	1		05/18/01 23:25	DL	677908
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		05/18/01 23:25	DL	677851
Ethylbenzene	ND	0.5	1		05/18/01 23:25	DL	677851
Toluene	ND	0.5	1		05/18/01 23:25	DL	677851
m,p-Xylene	ND	0.5	1		05/18/01 23:25	DL	677851
o-Xylene	ND	0.5	1		05/18/01 23:25	DL	677851
Xylenes, Total	ND	0.5	1		05/18/01 23:25	DL	677851
Surr: 1,4-Difluorobenzene	91.7	% 72-137	1		05/18/01 23:25	DL	677851
Surr: 4-Bromofluorobenzene	86.4	% 48-156	1		05/18/01 23:25	DL	677851
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/L</b>		
1,2-Dibromoethane	ND	5	1		05/15/01 12:13	JC	672732
1,2-Dichloroethane	ND	5	1		05/15/01 12:13	JC	672732
Diisopropyl ether	ND	10	1		05/15/01 12:13	JC	672732
Methyl tert-butyl ether	760	50	10		05/17/01 11:17	JC	675319
t-Butyl alcohol	ND	500	1		05/15/01 12:13	JC	672732
tert-Amyl methyl ether	ND	10	1		05/15/01 12:13	JC	672732
tert-Butyl ethyl ether	ND	10	1		05/15/01 12:13	JC	672732
Surr: 1,2-Dichloroethane-d4	98.0	% 62-119	1		05/15/01 12:13	JC	672732
Surr: 1,2-Dichloroethane-d4	98.0	% 62-119	10		05/17/01 11:17	JC	675319
Surr: 4-Bromofluorobenzene	92.0	% 78-123	1		05/15/01 12:13	JC	672732
Surr: 4-Bromofluorobenzene	92.0	% 78-123	10		05/17/01 11:17	JC	675319
Surr: Toluene-d8	106	% 74-122	1		05/15/01 12:13	JC	672732
Surr: Toluene-d8	108	% 74-122	10		05/17/01 11:17	JC	675319

*Sonia West*

Sonia West  
 Project Manager

**Qualifiers:** ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated Value between MDL and PQL



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Client Sample ID MW-7

Collected: 5/10/01 12:13:00 SPL Sample ID: 01050388-03

Site: 7-0210

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		05/18/01 23:49	DL	677909
Surr: 1,4-Difluorobenzene	105	% 62-144	1		05/18/01 23:49	DL	677909
Surr: 4-Bromofluorobenzene	98.7	% 44-153	1		05/18/01 23:49	DL	677909
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		05/18/01 23:49	DL	677852
Ethylbenzene	ND	0.5	1		05/18/01 23:49	DL	677852
Toluene	ND	0.5	1		05/18/01 23:49	DL	677852
m,p-Xylene	ND	0.5	1		05/18/01 23:49	DL	677852
o-Xylene	ND	0.5	1		05/18/01 23:49	DL	677852
Xylenes, Total	ND	0.5	1		05/18/01 23:49	DL	677852
Surr: 1,4-Difluorobenzene	92.1	% 72-137	1		05/18/01 23:49	DL	677852
Surr: 4-Bromofluorobenzene	88.7	% 48-156	1		05/18/01 23:49	DL	677852
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/L</b>		
1,2-Dibromoethane	ND	5	1		05/15/01 12:38	JC	672733
1,2-Dichloroethane	ND	5	1		05/15/01 12:38	JC	672733
Diisopropyl ether	ND	10	1		05/15/01 12:38	JC	672733
Methyl tert-butyl ether	ND	5	1		05/15/01 12:38	JC	672733
t-Butyl alcohol	ND	500	1		05/15/01 12:38	JC	672733
tert-Amyl methyl ether	ND	10	1		05/15/01 12:38	JC	672733
tert-Butyl ethyl ether	ND	10	1		05/15/01 12:38	JC	672733
Surr: 1,2-Dichloroethane-d4	96.0	% 62-119	1		05/15/01 12:38	JC	672733
Surr: 4-Bromofluorobenzene	92.0	% 78-123	1		05/15/01 12:38	JC	672733
Surr: Toluene-d8	104	% 74-122	1		05/15/01 12:38	JC	672733

*Sonia West*

Sonia West  
 Project Manager

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated Value between MDL and PQL

*Quality Control Documentation*



Quality Control Report

EXXON Company U.S.A.

UP0210.1

Analysis: Purgeable Aromatics  
Method: SW8021B

WorkOrder: 01050388  
Lab Batch ID: R35467

Method Blank

Samples in Analytical Batch:

RunID: VARE\_010518A-675753 Units: ug/L  
Analysis Date: 05/18/2001 12:03 Analyst: DL

Lab Sample ID	Client Sample ID
01050388-01A	MW-5
01050388-02A	MW-6
01050388-03A	MW-7

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes, Total	ND	0.50
Surr: 1,4-Difluorobenzene	90.6	72-137
Surr: 4-Bromofluorobenzene	91.8	48-156

Laboratory Control Sample (LCS)

RunID: VARE\_010518A-675752 Units: ug/L  
Analysis Date: 05/18/2001 11:40 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	51	102	70	130
Ethylbenzene	50	51	102	70	130
Methyl tert-butyl ether	50	56	112	70	130
Toluene	50	51	101	70	130
m,p-Xylene	100	100	100	70	130
o-Xylene	50	51	102	70	130
Xylenes, Total	150	151	101	70	130

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01050359-03  
RunID: VARE\_010518A-677835 Units: ug/L  
Analysis Date: 05/18/2001 14:05 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	21	103	20	20	102	0.245	21	32	164
Ethylbenzene	ND	20	21	103	20	21	104	0.696	19	52	142
Methyl tert-butyl ether	19	20	39	101	20	40	103	1.44	20	39	150

**Qualifiers:** ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.





Quality Control Report

EXXON Company U.S.A.

UP0210.1

Analysis: Purgeable Aromatics  
 Method: SW8021B

WorkOrder: 01050388  
 Lab Batch ID: R35467

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01050359-03  
 RunID: VARE\_010518A-677835 Units: ug/L  
 Analysis Date: 05/18/2001 14:05 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Toluene	ND	20	20	101	20	20	101	0.209	20	38	159
m,p-Xylene	ND	40	41	102	40	41	103	0.845	17	53	144
o-Xylene	ND	20	21	104	20	21	104	0.0522	18	53	143
Xylenes, Total	ND	60	62	103	60	62	103	0	18	53	144

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



Quality Control Report

EXXON Company U.S.A.

UP0210.1

Analysis: Gasoline Range Organics  
Method: CA\_GRO

WorkOrder: 01050388  
Lab Batch ID: R35584

Method Blank

Samples in Analytical Batch:

RunID: VARE\_010518B-677876 Units: mg/L  
Analysis Date: 05/18/2001 12:03 Analyst: DL

Lab Sample ID	Client Sample ID
01050388-01A	MW-5
01050388-02A	MW-6
01050388-03A	MW-7

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	103.3	62-144
Surr: 4-Bromofluorobenzene	102.7	44-163

Laboratory Control Sample (LCS)

RunID: VARE\_010518B-677874 Units: mg/L  
Analysis Date: 05/18/2001 11:16 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	1.1	110	70	130

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01050359-04  
RunID: VARE\_010518B-677879 Units: mg/L  
Analysis Date: 05/18/2001 14:54 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	0.9	0.9	95.7	0.9	0.91	96.2	0.463	36	36	160

**Qualifiers:** ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



Quality Control Report

EXXON Company U.S.A.

UP0210.1

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 01050388  
Lab Batch ID: R35306

Method Blank

Samples in Analytical Batch:

RunID: Q\_010514C-672700 Units: ug/L  
Analysis Date: 05/15/2001 3:16 Analyst: JC

Lab Sample ID	Client Sample ID
01050388-01B	MW-5
01050388-02B	MW-6
01050388-03B	MW-7

Analyte	Result	Rep Limit
1,2-Dibromoethane	ND	5.0
1,2-Dichloroethane	ND	5.0
Diisopropyl ether	ND	10
Methyl tert-butyl ether	ND	5.0
t-Butyl alcohol	ND	500
tert-Amyl methyl ether	ND	10
tert-Butyl ethyl ether	ND	10
Surr: 1,2-Dichloroethane-d4	98.0	62-119
Surr: 4-Bromofluorobenzene	90.0	78-123
Surr: Toluene-d8	108.0	74-122

Laboratory Control Sample (LCS)

RunID: Q\_010514C-672699 Units: ug/L  
Analysis Date: 05/15/2001 2:27 Analyst: JC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	48	96	61	145
Benzene	50	49	98	76	127
Chlorobenzene	50	48	96	75	130
Toluene	50	47	94	76	125
Trichloroethene	50	46	92	71	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01050354-16  
RunID: Q\_010514C-672729 Units: ug/L  
Analysis Date: 05/15/2001 11:25 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	ND	50	48	96	50	48	96	0	14	38	172
Benzene	5.0	50	54	98	50	54	98	0	11	66	134
Chlorobenzene	ND	50	51	102	50	50	100	2	13	67	115
Toluene	ND	50	52	96	50	51	94	2	13	59	125

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Quality Control Report

EXXON Company U.S.A.

UP0210.1

Analysis: Volatile Organics by Method 8260B  
 Method: SW8260B

WorkOrder: 01050388  
 Lab Batch ID: R35306

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01050354-16  
 RunID: Q\_010514C-672729 Units: ug/L  
 Analysis Date: 05/15/2001 11:25 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Trichloroethene	ND	50	49	98	50	48	96	2	14	61	134

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



Quality Control Report

EXXON Company U.S.A.

UP0210.1

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 01050388  
Lab Batch ID: R35447

Method Blank

Samples in Analytical Batch:

RunID: Q\_010516D-875302 Units: ug/L  
Analysis Date: 05/17/2001 7:09 Analyst: JC

Lab Sample ID	Client Sample ID
01050388-01B	MW-5
01050388-02B	MW-6

Analyte	Result	Rep Limit
Methyl tert-butyl ether	ND	5.0
Surr: 1,2-Dichloroethane-d4	98.0	62-119
Surr: 4-Bromofluorobenzene	92.0	78-123
Surr: Toluene-d8	106.0	74-122

Laboratory Control Sample (LCS)

RunID: Q\_010516D-875303 Units: ug/L  
Analysis Date: 05/17/2001 7:34 Analyst: JC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	44	88	61	145
Benzene	50	45	90	76	127
Chlorobenzene	50	46	92	75	130
Toluene	50	44	88	76	125
Trichloroethene	50	48	96	71	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01050502-04  
RunID: Q\_010516D-875324 Units: ug/L  
Analysis Date: 05/17/2001 13:19 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	38	100	140	102	100	120	82	22 *	14	38	172
Benzene	ND	100	100	100	100	98	98	2	11	66	134
Chlorobenzene	ND	100	100	96	100	96	92	4	13	67	115
Toluene	ND	100	98	98	100	90	90	9	13	59	125
Trichloroethene	25	100	120	95	100	120	95	0	14	61	134

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

*Sample Receipt Checklist  
And  
Chain of Custody*





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Sample Receipt Checklist

Workorder:	01050388	Received By:	NB
Date and Time Received:	5/12/01 10:00:00 AM	Carrier name:	FedEx
Temperature:	4	Chilled by:	Water Ice

- 1. Shipping container/cooler in good condition? Yes  No  Not Present
- 2. Custody seals intact on shipping container/cooler? Yes  No  Not Present
- 3. Custody seals intact on sample bottles? Yes  No  Not Present
- 4. Chain of custody present? Yes  No
- 5. Chain of custody signed when relinquished and received? Yes  No
- 6. Chain of custody agrees with sample labels? Yes  No
- 7. Samples in proper container/bottle? Yes  No
- 8. Sample containers intact? Yes  No
- 9. Sufficient sample volume for indicated test? Yes  No
- 10. All samples received within holding time? Yes  No
- 11. Container/Temp Blank temperature in compliance? Yes  No
- 12. Water - VOA vials have zero headspace? Yes  No  Not Applicable
- 13. Water - pH acceptable upon receipt? Yes  No  Not Applicable

SPL Representative:	<input type="text"/>	Contact Date & Time:	<input type="text"/>
Client Name Contacted:	<input type="text"/>		
Non Conformance Issues:	<input type="text"/>		
Client Instructions:	<input type="text"/>		