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jennifer.c.sedlachek@exxonmobil.com

Jennifer C. Sedlachek  
Project Manager

**RECEIVED**

*By dehloptoxic at 1:06 pm, Jan 04, 2007*

**ExxonMobil**  
*Refining & Supply*

January 3, 2007

Mr. Steven Plunkett  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, California 94502

Subject: Former Mobil Station 04-334, 2492 Castro Valley Boulevard, Castro Valley, California

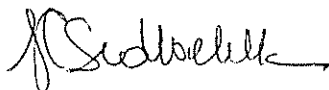
Dear Mr. Plunkett:

Attached for your review and comment is a copy of the *Report of Groundwater Monitoring, Fourth Quarter 2006* for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the November 2006 sampling event.

Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached report is true and correct.

If you have any questions or comments, please contact me at 510.547.8196.

Sincerely,

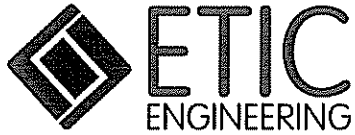


Jennifer C. Sedlachek  
Project Manager

Attachment: ETIC Groundwater Monitoring Report dated January 2007

c: w/ attachment:  
Ms Paula Floeck – Jiffy Lube International  
Mr Dan McQuillen – Jiffy Lube Remediation Coordinator  
Mr William Slautterback – Cal Lube Real Estate Limited Partnership  
Mr. William Peterson – Owner of Castro Valley Lumber Company

c: w/o attachment:  
Ms Christa Marting – ETIC Engineering, Inc.



**Report of Groundwater Monitoring  
Fourth Quarter 2006**

**Former Mobil Station 04-334  
2492 Castro Valley Boulevard  
Castro Valley, California**

Prepared for

ExxonMobil Oil Corporation  
4096 Piedmont Avenue #194  
Oakland, California 94611

Prepared by

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

Yuko Mamiya  
Staff Geologist

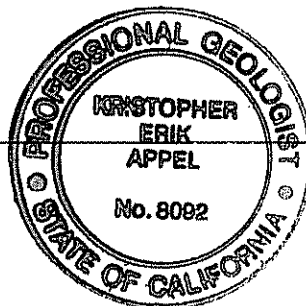
1/2/07

Date

K. Erik Appel, P.G. #8092  
Senior Project Geologist

1/2/07

Date



January 2007

## SITE CONTACTS

Station Number: Former Mobil Station 04-334

Station Address: 2492 Castro Valley Boulevard  
Castro Valley, California

ExxonMobil Project Manager: Jennifer C. Sedlachek  
ExxonMobil Refining and Supply Company  
4096 Piedmont Avenue #194  
Oakland, California 94611  
(510) 547-8196

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

ETIC Project Manager: K. Erik Appel

Regulatory Oversight: Steven Plunkett  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, California 94502  
(510) 567-6700

## INTRODUCTION

At the request of ExxonMobil Oil Corporation, ETIC Engineering, Inc. has prepared this report of groundwater monitoring for former Mobil Station 04-334. 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 4 August 2006, the date of the last monitoring event, through 6 November 2006, 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 Mobil Station 04-334
<b>Site address:</b>	2492 Castro Valley Boulevard, Castro Valley, California
<b>Current property owner:</b>	Cal Lube Real Estate Limited Partnership I
<b>Current site use:</b>	Jiffy Lube Oil Change facility
<b>Current phase of project:</b>	Groundwater monitoring
<b>Tanks at site:</b>	Four former underground storage tanks removed 1983
<b>Number of wells:</b>	4 (3 onsite, 1 offsite)

## GROUNDWATER MONITORING SUMMARY

<b>Gauging and sampling date:</b>	6 November 2006
<b>Wells gauged and sampled:</b>	MW1-MW4
<b>Wells gauged only:</b>	None
<b>Groundwater flow direction:</b>	South-southwest
<b>Groundwater gradient:</b>	0.024
<b>Well screens submerged:</b>	MW3
<b>Well screens not submerged:</b>	MW1, MW2, MW4
<b>Liquid-phase hydrocarbons:</b>	Not observed or detected
<b>Laboratory:</b>	TestAmerica, Inc., Nashville, Tennessee

### Analyses performed:

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

## **ADDITIONAL ACTIVITIES PERFORMED**

No additional activities were performed.

## **WORK PROPOSED FOR NEXT QUARTER**

A work plan for a subsurface investigation will be submitted under separate cover. 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

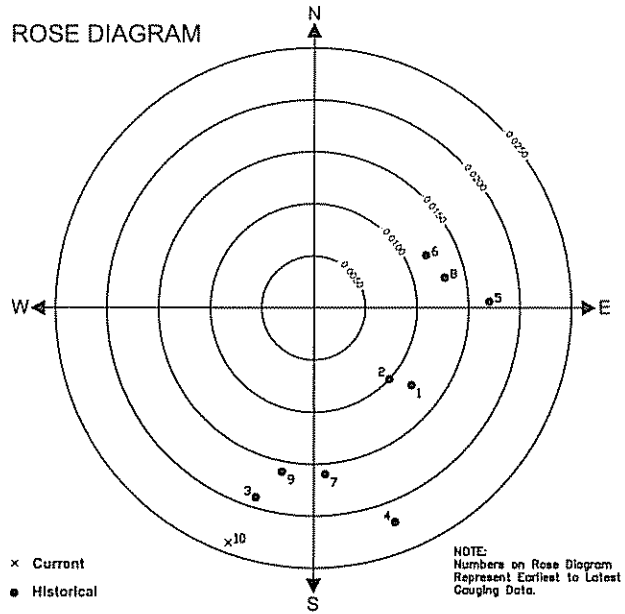
## Figures

Benzene	<0.50
Toluene	<0.50
Ethylbenzene	<0.50
Xylenes	<0.50
TPH-g	<50.0
TPH-d	<47.2
MTBE (8260)	0.880

Benzene	60.0
Toluene	1.04
Ethylbenzene	47.3
Xylenes	3.09
TPH-g	561
TPH-d	106
MTBE (8260)	<0.500

Benzene	<0.50
Toluene	<0.50
Ethylbenzene	<0.50
Xylenes	<0.50
TPH-g	<50.0
TPH-d	<47.2
MTBE (8260)	<0.500

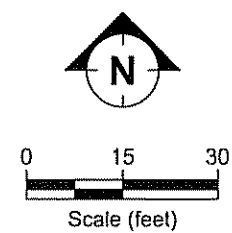
Benzene	<0.50
Toluene	<0.50
Ethylbenzene	<0.50
Xylenes	<0.50
TPH-g	<50.0
TPH-d	<46.9
MTBE (8260)	<0.500



GW  
Groundwater Flow Direction  
Gradient = 0.024

- LEGEND:**
- ⊕ Groundwater Monitoring Well
  - ⊕ Former Thrifty Oil Station Groundwater Monitoring Well
  - Soil Boring
  - (166.66) Groundwater Elevation (feet)
  - TPH-g Total Petroleum Hydrocarbons as gasoline
  - TPH-d Total Petroleum Hydrocarbons as diesel
  - MTBE Methyl Tertiary Butyl Ether
  - \* Not Used in Contouring

Note: Concentrations In Micrograms Per Liter (ug/L)



FILENAME: 402006.DWG 12/05/2006



SITE PLAN SHOWING GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS  
FORMER MOBIL STATION 04-334  
2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA  
6 NOVEMBER 2006

FIGURE:  
**1**

## **Tables**



TABLE 1 WELL CONSTRUCTION DETAILS, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, 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 06/24/04	173.23	PVC	20	20	8.25	2	5 - 20	0.010	4.5 - 20	#2/12 Sand
MW2	a 06/25/04	173.63	PVC	20	20	8.25	2	5 - 20	0.010	4.5 - 20	#2/12 Sand
MW3	a 06/25/04	171.91	PVC	20	20	8.25	2	5 - 20	0.010	4.5 - 20	#2/12 Sand
MW4	a 06/24/04	170.48	PVC	15	14	8.25	2	4 - 14	0.010	3.5 - 15	#2/12 Sand

a Well surveyed on 12 July 2004 by Morrow Surveying.

PVC Polyvinyl chloride.

TOC Top of casing.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

Well ID	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentration (µg/L)						
					Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	MTBE
MW1	a 08/13/04	173.23	7.32	165.91	<0.5	0.7	<0.5	1.0	<50	71	1.20 <sup>b</sup>
MW1	11/09/04	173.23	6.96	166.27	<0.5	0.9	<0.5	0.9	<50	63	1.50 <sup>b</sup>
MW1	02/16/05	173.23	6.10	167.13	<0.5	1.0	<0.5	1.5	<50	78	1.30 <sup>b</sup>
MW1	05/16/05	173.23	5.81	167.42	<0.5	<0.5	<0.5	<0.5	<50	<50	1.40 <sup>b</sup>
MW1	08/17/05	173.23	6.70	166.53	<0.5	<0.5	<0.5	<0.5	<50	<50	1.19 <sup>b</sup>
MW1	11/15/05	173.23	7.55	165.68	<0.5	<0.5	<0.5	<0.5	<50	<50	1.13 <sup>b</sup>
MW1	02/06/06	173.23	6.40	166.83	<0.5	<0.5	<0.5	<0.5	<50	160	<0.5 <sup>b</sup>
MW1	05/03/06	173.23	6.95	166.28	<1.00	<1.00	<1.00	<3.00	<50.0	78	<0.50 <sup>b</sup>
MW1	08/04/06	173.23	7.71	165.52	<0.50	<0.50	<0.50	<0.50	<50.0	167	<0.500 <sup>b</sup>
<b>MW1</b>	<b>11/06/06</b>	<b>173.23</b>	<b>7.57</b>	<b>165.66</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;50.0</b>	<b>&lt;47.2</b>	<b>0.880<sup>b</sup></b>
MW2	a 08/13/04	173.63	6.96	166.67	<0.5	0.8	<0.5	1.0	<50	57	<0.5 <sup>b</sup>
MW2	11/09/04	173.63	6.44	167.19	<0.5	1.1	<0.5	1.2	<50	<50	<0.5 <sup>b</sup>
MW2	02/16/05	173.63	5.21	168.42	<0.5	0.9	<0.5	1.4	<50	55	<0.5 <sup>b</sup>
MW2	05/16/05	173.63	5.86	167.77	<0.5	<0.5	<0.5	<0.5	<50	<50	<0.5 <sup>b</sup>
MW2	08/17/05	173.63	5.72	167.91	<0.5	<0.5	<0.5	<0.5	<50	<50	<0.5 <sup>b</sup>
MW2	11/15/05	173.63	7.65	165.98	<0.5	<0.5	<0.5	<0.5	<50	<50	<0.5 <sup>b</sup>
MW2	02/06/06	173.63	6.24	167.39	<0.5	<0.5	<0.5	<0.5	<50	<50	<0.5 <sup>b</sup>
MW2	05/03/06	173.63	6.53	167.10	<1.00	<1.00	<1.00	<3.00	<50.0	<50	<0.50 <sup>b</sup>
MW2	08/04/06	173.63	7.65	165.98	<0.50	<0.50	<0.50	<0.50	<50.0	<47.2	<0.500 <sup>b</sup>
<b>MW2</b>	<b>11/06/06</b>	<b>173.63</b>	<b>6.98</b>	<b>166.65</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;50.0</b>	<b>&lt;46.9</b>	<b>&lt;0.500<sup>b</sup></b>
MW3	a 08/13/04	171.91	5.36	166.55	100	2.0	187	59.6	1,440	352	<0.5 <sup>b</sup>
MW3	11/09/04	171.91	4.80	167.11	188	3.6	242	20.0	1,690	461	<0.5 <sup>b</sup>
MW3	02/16/05	171.91	3.10	168.81	66.2	1.4	61.1	12.6	575	269	<0.5 <sup>b</sup>
MW3	05/16/05	171.91	3.86	168.05	74.2	1.4	61.0	9.0	592	92	<0.5 <sup>b</sup>
MW3	08/17/05	171.91	4.75	167.16	231 <sup>c</sup>	2.35	102	11.4	1,130	416	<0.5 <sup>b</sup>
MW3	11/15/05	171.91	6.56	165.35	57.4	0.95	62.4	10.5	452	193	<0.5 <sup>b</sup>

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

Well ID	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentration (µg/L)						
					Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH-g	TPH-d	MTBE
MW3	02/06/06	171.91	4.00	167.91	69	<5.0	64	10	830	165	<0.5 <sup>b</sup>
MW3	05/03/06	171.91	5.44	166.47	52.1	<1.00	37.0	4.81	605	140	<0.50 <sup>b</sup>
MW3	08/04/06	171.91	5.25	166.66	15.2	<0.50	5.34	1.25	262	108	<0.500 <sup>b</sup>
<b>MW3</b>	<b>11/06/06</b>	<b>171.91</b>	<b>4.11</b>	<b>167.80</b>	<b>60.0</b>	<b>1.04</b>	<b>47.3</b>	<b>3.09</b>	<b>561</b>	<b>106</b>	<b>&lt;0.500<sup>b</sup></b>
MW4	a 08/13/04	170.48	6.10	164.38	<0.5	0.8	<0.5	1.1	<50	72	2.80 <sup>b</sup>
MW4	11/09/04	170.48	5.54	164.94	<0.5	2.3	0.7	1.5	<50	<50	2.10 <sup>b</sup>
MW4	02/16/05	170.48	5.11	165.37	<0.5	1.1	<0.5	1.7	<50	<50	<0.5 <sup>b</sup>
MW4	05/16/05	170.48	5.44	165.04	<0.5	<0.5	<0.5	<0.5	<50	<50	<0.5 <sup>b</sup>
MW4	08/17/05	170.48	5.71	164.77	<0.5	<0.5	<0.5	<0.5	<50	<50	1.03 <sup>b</sup>
MW4	11/15/05	170.48	5.80	164.68	<0.5	<0.5	<0.5	<0.5	<50	<50	0.730 <sup>b</sup>
MW4	02/06/06	170.48	5.10	165.38	<0.5	<0.5	<0.5	<0.5	<50	85.2	<0.5 <sup>b</sup>
MW4	05/03/06	170.48	5.54	164.94	<1.00	<1.00	<1.00	<3.00	<50.0	<47	<0.50 <sup>b</sup>
MW4	08/04/06	170.48	5.75	164.73	<0.50	<0.50	<0.50	<0.50	<50.0	52.7	<0.500 <sup>b</sup>
<b>MW4</b>	<b>11/06/06</b>	<b>170.48</b>	<b>5.95</b>	<b>164.53</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;50.0</b>	<b>&lt;47.2</b>	<b>&lt;0.500<sup>b</sup></b>

a Top-of-casing elevation surveyed by Morrow Surveying on 12 July 2004.

b Analyzed by EPA Method 8260.

c Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to holding time requirements.

TPH-g Total Petroleum Hydrocarbons as gasoline.

TPH-d Total Petroleum Hydrocarbons as diesel.

MTBE Methyl tertiary butyl ether.

µg/L Micrograms per liter.

mg/L Milligrams per liter

Note Depth-to-water-level measurements in feet from top-of-casing.

TABLE 3 GROUNDWATER MONITORING PLAN,  
 FORMER MOBIL STATION 04-334, 2492 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency	
		BTEX, TPH-g, and TPH-d	MTBE
MW1	Q	Q	Q
MW2	Q	Q	Q
MW3	Q	Q	Q
MW4	Q	Q	Q

Q = Quarterly

BTEX = Benzene, toluene, ethylbenzene, total xylenes.

MTBE = Methyl tertiary butyl ether.

TPH-g = Total Petroleum Hydrocarbons as gasoline.

TPH-d = Total Petroleum Hydrocarbons as diesel.

**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 from the well and, if the well does not recover, the well is considered “functionally 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 04-334 Well No: MW1 Date: 11-06-06  
 Project No: UP04-334.1 Personnel: JUAN A. \*

**GAUGING DATA**  
 Water Level Measuring Method: WLM / IP 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)
	19.89	- 7.57	= 12.32	X 1	1.97	= 5.91
				0.04 0.16 0.64 1.44		

**PURGING DATA**  
 Purge Method: WATERBA / BAILER / SUB Purge Rate: GPM

Time	1327	1330	1333			
Volume Purge (gal)	2	4	6			
Temperature (C)	23.0	22.8	22.9			
pH	7.03	7.09	7.23			
Spec. Cond. (umhos)	690	698	694			
Turbidity/Color	CLEAR / N/C	CLEAR / N/C	CLEAR / N/C			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

**SAMPLING DATA**  
 Time Sampled: 1340 Approximate Depth to Water During Sampling: 80 (feet)  
 Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW1	6	Voa	HCL	40 ml	/	TPH-g, BTEX, MTBE
MW1	2	AMBERS	HCL	1L	/	TPH-D
					/	

Total Purge Volume: 6 (gallons) Disposal: SYSTEM

Weather Conditions: c.k BOLTS (Y) / N  
 Condition of Well Box and Casing at Time of Sampling: c.k CAP & LOCK (Y) / N  
 Well Head Conditions Requiring Correction: NONE GROUT (Y) / N  
 Problems Encountered During Purging and Sampling: NONE WELL BOX. (Y) / N  
 Comments: SECURED (Y) / N

**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 04-334 Well No: MW2 Date: 11-06-06  
 Project No: UP04-334.1 Personnel: AHMAD A

**GAUGING DATA**  
 Water Level Measuring Method: WLM / IP 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)
	20.20	5.98	13.22	1.2	2.11	6.34
				0.04 0.16 0.64 1.44		

**PURGING DATA**  
 Purge Method: WATERRA / BAILER / SUB Purge Rate: GPM

Time	Volume Purge (gal)	Temperature (C)	pH	Spec. Cond. (umhos)	Turbidity/Color	Odor (Y/N)	Casing Volumes	Dewatered (Y/N)
1402	2.5	22.9	6.97	679	CLEAR N/C	N	1	N
1405	5.0	23.0	6.98	684	CLEAR N/C	N	2	N
1408	7.5	23.1	7.00	710	CLEAR N/C	N	3	N

Comments/Observations:

**SAMPLING DATA**  
 Time Sampled: 1415 Approximate Depth to Water During Sampling: 7.0 (feet)  
 Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW2	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
MW2	2	AMBERS	HCL	1L		TPH-D

Total Purge Volume: 7.5 (gallons) Disposal: SYSTEM

Weather Conditions: O.K BOLTS (Y) / N  
 Condition of Well Box and Casing at Time of Sampling: O.K CAP & LOCK (Y) / N  
 Well Head Conditions Requiring Correction: NONE GROUT (Y) / N  
 Problems Encountered During Purging and Sampling: NONE WELL BOX. (Y) / N  
 Comments: SECURED (Y) / N

**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 04-334 Well No: MW3 Date: 11-06-06  
 Project No: UP04-334.1 Personnel: AMMAA-A

**GAUGING DATA**  
 Water Level Measuring Method: WLM / IP 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)
	19.93	- 4.11	= 15.82	X 1	2	4	6	253	= 759
				0.04	0.16	0.64	1.44		

**PURGING DATA**  
 Purge Method: WATERRA / BAILER / SUB Purge Rate: GPM

Time	1440	1443	1446			
Volume Purge (gal)	275	525	8			
Temperature (C)	22.7	21.9	21.7			
pH	6.87	6.91	6.95			
Spec. Cond. (umhos)	863	859	855			
Turbidity/Color	CLEAR N/C	CLEAR N/C	CLEAR N/C			
Odor (Y/N)	Y	Y	Y			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

**SAMPLING DATA**  
 Time Sampled: 1450 Approximate Depth to Water During Sampling: 6.0 (feet)  
 Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW3	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
MW3	2	AMBERS	HCL	1L		TPH-D

Total Purge Volume: 8 (gallons) Disposal: SYSTEM

Weather Conditions: O.K BOLTS (Y) / N

Condition of Well Box and Casing at Time of Sampling: O.K CAP & LOCK (Y) / N

Well Head Conditions Requiring Correction: None GROUT (Y) / N

Problems Encountered During Purging and Sampling: None WELL BOX. (Y) / N

Comments: SECURED (Y) / N



Engineering, Inc.

**GROUNDWATER PURGE AND SAMPLE**

Project Name: Exxon 04-334 Well No: MW4 Date: 11-06-06  
 Project No: UP04-334.1 Personnel: AMMAD A

**GAUGING DATA**

Water Level Measuring Method: WLM / IP 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)
		14.44	5.95	8.49	X 1	2	4	6	1.35
				0.04	0.16	0.64	1.44		

**PURGING DATA**

Purge Method: WATERRA / BAILER / SUB Purge Rate: GPM

Time	1521	1523	1525			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (C)	22.1	21.6	21.4			
pH	7.13	7.11	7.14			
Spec. Cond. (umhos)	862	853	863			
Turbidity/Color	SILTY BRN	SILTY BRN	SILTY BRN			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

**SAMPLING DATA**

Time Sampled: 1530 Approximate Depth to Water During Sampling: 6 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW4	6	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
MW4	2	AMBERS	HCL	1L		TPH-D

Total Purge Volume: 4.5 (gallons) Disposal: SYSTEM

Weather Conditions: OK BOLTS  / N

Condition of Well Box and Casing at Time of Sampling: OK CAP & LOCK  / N

Well Head Conditions Requiring Correction: NO GROUT  / N

Problems Encountered During Purging and Sampling: NO WELL BOX.  / N

Comments: SECURED  / N

## **Appendix C**

### **Laboratory Analytical Reports**

November 21, 2006

Client: ETIC Engineering Pleasant Hill (10236)  
2285 Morello Avenue  
Pleasant Hill, CA 94523  
Attn: Erk Appel

Work Order: NPK1342  
Project Name: Exxon(06) 04-334 PO:4506876374  
Project Nbr: 04-334  
P/O Nbr: 4506876374  
Date Received: 11/09/06

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
MW1	NPK1342-01	11/06/06 13:40
MW2	NPK1342-02	11/06/06 14:15
MW3	NPK1342-03	11/06/06 14:50
MW4	NPK1342-04	11/06/06 15:30

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. 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.

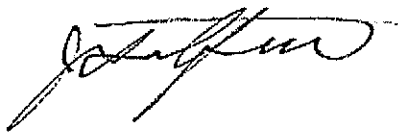
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California Certification Number: 01168CA

The Chain(s) of Custody, 4 pages, are included and are an integral part of this report

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:



Jim Hatfield  
Project Management

Client ETIC Engineering Pleasant Hill (10236)  
 2285 Morello Avenue  
 Pleasant Hill, CA 94523  
 Attn Erk Appel

Work Order: NPK1342  
 Project Name: Exxon(06) 04-334 PO:4506876374  
 Project Number: 04-334  
 Received: 11/09/06 07:50

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NPK1342-01 (MW1 - Ground Water) Sampled: 11/06/06 13:40</b>								
Volatile Organic Compounds by EPA Method 8021B								
Benzene	ND		ug/L	0.50	1	11/13/06 16:37	SW846 8021B	6112463
Ethylbenzene	ND		ug/L	0.50	1	11/13/06 16:37	SW846 8021B	6112463
Toluene	ND		ug/L	0.50	1	11/13/06 16:37	SW846 8021B	6112463
Xylenes, total	ND		ug/L	0.50	1	11/13/06 16:37	SW846 8021B	6112463
<i>Surr: a.a.a-Trifluorotoluene (57-145%)</i>	90 %					11/13/06 16:37	SW846 8021B	6112463
Selected Volatile Organic Compounds by EPA Method 8260B								
Methyl tert-Butyl Ether	0.880		ug/L	0.500	1	11/14/06 14:07	SW846 8260B	6113026
<i>Surr: 1,2-Dichloroethane-d4 (62-142%)</i>	88 %					11/14/06 14:07	SW846 8260B	6113026
<i>Surr: Dibromofluoromethane (78-123%)</i>	100 %					11/14/06 14:07	SW846 8260B	6113026
<i>Surr: Toluene-d8 (79-120%)</i>	93 %					11/14/06 14:07	SW846 8260B	6113026
<i>Surr: 4-Bromofluorobenzene (75-133%)</i>	100 %					11/14/06 14:07	SW846 8260B	6113026
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		ug/L	50.0	1	11/13/06 16:37	SW846 8015B	6112463
<i>Surr: a.a.a-Trifluorotoluene (63-134%)</i>	90 %					11/13/06 16:37	SW846 8015B	6112463
Extractable Petroleum Hydrocarbons with Silica Gel Treatment								
Diesel	ND		ug/L	47.2	1	11/16/06 21:37	SW846 8015B	6111998
<i>Surr: o-Terphenyl (33-147%)</i>	75 %					11/16/06 21:37	SW846 8015B	6111998
<b>Sample ID: NPK1342-02 (MW2 - Ground Water) Sampled: 11/06/06 14:15</b>								
Volatile Organic Compounds by EPA Method 8021B								
Benzene	ND		ug/L	0.50	1	11/13/06 19:00	SW846 8021B	6112561
Ethylbenzene	ND		ug/L	0.50	1	11/13/06 19:00	SW846 8021B	6112561
Toluene	ND		ug/L	0.50	1	11/13/06 19:00	SW846 8021B	6112561
Xylenes, total	ND		ug/L	0.50	1	11/13/06 19:00	SW846 8021B	6112561
<i>Surr: a.a.a-Trifluorotoluene (57-145%)</i>	87 %					11/13/06 19:00	SW846 8021B	6112561
Selected Volatile Organic Compounds by EPA Method 8260B								
Methyl tert-Butyl Ether	ND		ug/L	0.500	1	11/14/06 05:59	SW846 8260B	6112973
<i>Surr: 1,2-Dichloroethane-d4 (62-142%)</i>	80 %					11/14/06 05:59	SW846 8260B	6112973
<i>Surr: Dibromofluoromethane (78-123%)</i>	101 %					11/14/06 05:59	SW846 8260B	6112973
<i>Surr: Toluene-d8 (79-120%)</i>	93 %					11/14/06 05:59	SW846 8260B	6112973
<i>Surr: 4-Bromofluorobenzene (75-133%)</i>	99 %					11/14/06 05:59	SW846 8260B	6112973
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		ug/L	50.0	1	11/13/06 19:00	SW846 8015B	6112561
<i>Surr: a.a.a-Trifluorotoluene (63-134%)</i>	87 %					11/13/06 19:00	SW846 8015B	6112561
Extractable Petroleum Hydrocarbons with Silica Gel Treatment								
Diesel	ND		ug/L	46.9	1	11/16/06 22:34	SW846 8015B	6111998
<i>Surr: o-Terphenyl (33-147%)</i>	78 %					11/16/06 22:34	SW846 8015B	6111998

Client EITC Engineering Pleasant Hill (10236)  
 2285 Morello Avenue  
 Pleasant Hill, CA 94523  
 Attn Erk Appel

Work Order: NPK1342  
 Project Name: Exxon(06) 04-334 PO:4506876374  
 Project Number: 04-334  
 Received: 11/09/06 07:50

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NPK1342-03 (MW3 - Ground Water) Sampled: 11/06/06 14:50</b>								
Volatile Organic Compounds by EPA Method 8021B								
Benzene	60.0		ug/L	0.50	1	11/13/06 19:19	SW846 8021B	6112561
Ethylbenzene	47.3		ug/L	0.50	1	11/13/06 19:19	SW846 8021B	6112561
Toluene	1.04		ug/L	0.50	1	11/13/06 19:19	SW846 8021B	6112561
Xylenes, total	3.09		ug/L	0.50	1	11/13/06 19:19	SW846 8021B	6112561
Surr: a.a.a-Trifluorotoluene (57-145%)	89 %					11/13/06 19:19	SW846 8021B	6112561
Selected Volatile Organic Compounds by EPA Method 8260B								
Methyl tert-Butyl Ether	ND		ug/L	0.500	1	11/14/06 06:24	SW846 8260B	6112973
Surr: 1,2-Dichloroethane-d4 (62-142%)	82 %					11/14/06 06:24	SW846 8260B	6112973
Surr: Dibromofluoromethane (78-123%)	99 %					11/14/06 06:24	SW846 8260B	6112973
Surr: Toluene-d8 (79-120%)	93 %					11/14/06 06:24	SW846 8260B	6112973
Surr: 4-Bromofluorobenzene (75-133%)	99 %					11/14/06 06:24	SW846 8260B	6112973
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	561		ug/L	50.0	1	11/13/06 19:19	SW846 8015B	6112561
Surr: a.a.a-Trifluorotoluene (63-134%)	89 %					11/13/06 19:19	SW846 8015B	6112561
Extractable Petroleum Hydrocarbons with Silica Gel Treatment								
Diesel	106		ug/L	47.2	1	11/16/06 22:53	SW846 8015B	6111998
Surr: o-Terphenyl (33-147%)	84 %					11/16/06 22:53	SW846 8015B	6111998
<b>Sample ID: NPK1342-04 (MW4 - Ground Water) Sampled: 11/06/06 15:30</b>								
Volatile Organic Compounds by EPA Method 8021B								
Benzene	ND		ug/L	0.50	1	11/13/06 19:38	SW846 8021B	6112561
Ethylbenzene	ND		ug/L	0.50	1	11/13/06 19:38	SW846 8021B	6112561
Toluene	ND		ug/L	0.50	1	11/13/06 19:38	SW846 8021B	6112561
Xylenes, total	ND		ug/L	0.50	1	11/13/06 19:38	SW846 8021B	6112561
Surr: a.a.a-Trifluorotoluene (57-145%)	88 %					11/13/06 19:38	SW846 8021B	6112561
Selected Volatile Organic Compounds by EPA Method 8260B								
Methyl tert-Butyl Ether	ND		ug/L	0.500	1	11/14/06 06:49	SW846 8260B	6112973
Surr: 1,2-Dichloroethane-d4 (62-142%)	81 %					11/14/06 06:49	SW846 8260B	6112973
Surr: Dibromofluoromethane (78-123%)	99 %					11/14/06 06:49	SW846 8260B	6112973
Surr: Toluene-d8 (79-120%)	93 %					11/14/06 06:49	SW846 8260B	6112973
Surr: 4-Bromofluorobenzene (75-133%)	97 %					11/14/06 06:49	SW846 8260B	6112973
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		ug/L	50.0	1	11/13/06 19:38	SW846 8015B	6112561
Surr: a.a.a-Trifluorotoluene (63-134%)	88 %					11/13/06 19:38	SW846 8015B	6112561
Extractable Petroleum Hydrocarbons with Silica Gel Treatment								
Diesel	ND		ug/L	47.2	1	11/16/06 23:12	SW846 8015B	6111998
Surr: o-Terphenyl (33-147%)	83 %					11/16/06 23:12	SW846 8015B	6111998



Client ETIC Engineering Pleasant Hill (10236)  
 2285 Morello Avenue  
 Pleasant Hill, CA 94523  
 Attn Erk Appel

Work Order: NPK1342  
 Project Name: Exxon(06) 04-334 PO:4506876374  
 Project Number: 04-334  
 Received: 11/09/06 07:50

### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Extractable Petroleum Hydrocarbons with Silica Gel Treatment							
SW846 8015B	6111998	NPK1342-01	1060 00	1 00	11/13/06 09:20	CEC	EPA 3510C
SW846 8015B	6111998	NPK1342-02	1065 00	1 00	11/13/06 09:20	CEC	EPA 3510C
SW846 8015B	6111998	NPK1342-03	1060 00	1 00	11/13/06 09:20	CEC	EPA 3510C
SW846 8015B	6111998	NPK1342-04	1060 00	1 00	11/13/06 09:20	CEC	EPA 3510C

Client ETIC Engineering Pleasant Hill (10236)  
 2285 Morello Avenue  
 Pleasant Hill, CA 94523  
 Attn Erk Appel

Work Order: NPK1342  
 Project Name: Exxon(06) 04-334 PO:4506876374  
 Project Number: 04-334  
 Received: 11/09/06 07:50

**PROJECT QUALITY CONTROL DATA**  
**Blank**

Analyte	Blank Value	Q	Units	Q C Batch	Lab Number	Analyzed Date/Time
<b>Volatile Organic Compounds by EPA Method 8021B</b>						
<b>6112463-BLK1</b>						
Benzene	<0.37		ug/L	6112463	6112463-BLK1	11/13/06 08:19
Ethylbenzene	<0.21		ug/L	6112463	6112463-BLK1	11/13/06 08:19
Toluene	<0.41		ug/L	6112463	6112463-BLK1	11/13/06 08:19
Xylenes, total	<0.44		ug/L	6112463	6112463-BLK1	11/13/06 08:19
Surrogate a.a.a-Trifluorotoluene	66%			6112463	6112463-BLK1	11/13/06 08:19
<b>6112463-BLK2</b>						
Benzene	<0.37		ug/L	6112463	6112463-BLK2	11/13/06 08:34
Ethylbenzene	<0.21		ug/L	6112463	6112463-BLK2	11/13/06 08:34
Toluene	<0.41		ug/L	6112463	6112463-BLK2	11/13/06 08:34
Xylenes, total	<0.44		ug/L	6112463	6112463-BLK2	11/13/06 08:34
Surrogate a.a.a-Trifluorotoluene	91%			6112463	6112463-BLK2	11/13/06 08:34
<b>6112561-BLK1</b>						
Benzene	<0.37		ug/L	6112561	6112561-BLK1	11/13/06 15:49
Ethylbenzene	<0.21		ug/L	6112561	6112561-BLK1	11/13/06 15:49
Toluene	<0.41		ug/L	6112561	6112561-BLK1	11/13/06 15:49
Xylenes, total	<0.44		ug/L	6112561	6112561-BLK1	11/13/06 15:49
Surrogate a.a.a-Trifluorotoluene	90%			6112561	6112561-BLK1	11/13/06 15:49
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>						
<b>6112973-BLK1</b>						
Methyl tert-Butyl Ether	<0.190		ug/L	6112973	6112973-BLK1	11/14/06 00:08
Surrogate 1,2-Dichloroethane-d4	83%			6112973	6112973-BLK1	11/14/06 00:08
Surrogate Dibromofluoromethane	105%			6112973	6112973-BLK1	11/14/06 00:08
Surrogate Toluene-d8	92%			6112973	6112973-BLK1	11/14/06 00:08
Surrogate 4-Bromofluorobenzene	99%			6112973	6112973-BLK1	11/14/06 00:08
<b>6113026-BLK1</b>						
Methyl tert-Butyl Ether	<0.190		ug/L	6113026	6113026-BLK1	11/14/06 13:17
Surrogate 1,2-Dichloroethane-d4	90%			6113026	6113026-BLK1	11/14/06 13:17
Surrogate Dibromofluoromethane	102%			6113026	6113026-BLK1	11/14/06 13:17
Surrogate Toluene-d8	94%			6113026	6113026-BLK1	11/14/06 13:17
Surrogate 4-Bromofluorobenzene	104%			6113026	6113026-BLK1	11/14/06 13:17
<b>Purgeable Petroleum Hydrocarbons</b>						
<b>6112463-BLK1</b>						
GRO as Gasoline	<33.0		ug/L	6112463	6112463-BLK1	11/13/06 08:19
Surrogate a.a.a-Trifluorotoluene	66%			6112463	6112463-BLK1	11/13/06 08:19
<b>6112463-BLK2</b>						

Client ETIC Engineering Pleasant Hill (10236)  
 2285 Morello Avenue  
 Pleasant Hill, CA 94523  
 Attn Erk Appel

Work Order: NPK1342  
 Project Name: Exxon(06) 04-334 PO:4506876374  
 Project Number: 04-334  
 Received: 11/09/06 07:50

**PROJECT QUALITY CONTROL DATA**  
**Blank - Cont.**

Analyte	Blank Value	Q	Units	Q C Batch	Lab Number	Analyzed Date/Time
<b>Purgeable Petroleum Hydrocarbons</b>						
<b>6112463-BLK2</b>						
GRO as Gasoline	<33.0		ug/L	6112463	6112463-BLK2	11/13/06 08:34
Surrogate <i>a.a.a</i> -Trifluorotoluene	91%			6112463	6112463-BLK2	11/13/06 08:34
<b>6112561-BLK1</b>						
GRO as Gasoline	<33.0		ug/L	6112561	6112561-BLK1	11/13/06 15:49
Surrogate <i>a.a.a</i> -Trifluorotoluene	90%			6112561	6112561-BLK1	11/13/06 15:49
<b>Extractable Petroleum Hydrocarbons with Silica Gel Treatment</b>						
<b>6111998-BLK1</b>						
Diesel	<37.0		ug/L	6111998	6111998-BLK1	11/16/06 20:03
Surrogate <i>o</i> -Terphenyl	78%			6111998	6111998-BLK1	11/16/06 20:03

Client ETIC Engineering Pleasant Hill (10236)  
 2285 Morello Avenue  
 Pleasant Hill, CA 94523  
 Attn Erk Appel

Work Order: NPK1342  
 Project Name: Exxon(06) 04-334 PO:4506876374  
 Project Number: 04-334  
 Received: 11/09/06 07:50

**PROJECT QUALITY CONTROL DATA**  
**LCS**

Analyte	Known Val	Analyzed Val	Q	Units	% Rec	Target Range	Batch	Analyzed Date/Time
<b>Volatile Organic Compounds by EPA Method 8021B</b>								
<b>6112463-BS1</b>								
Benzene	100	86.2		ug/L	86%	72 - 132	6112463	11/14/06 10:14
Ethylbenzene	100	87.8		ug/L	88%	75 - 119	6112463	11/14/06 10:14
Toluene	100	86.8		ug/L	87%	71 - 121	6112463	11/14/06 10:14
Xylenes, total	200	175		ug/L	88%	73 - 122	6112463	11/14/06 10:14
Surrogate: <i>a.a.a-Trifluorotoluene</i>	30.0	28.9			96%	57 - 145	6112463	11/14/06 10:14
<b>6112561-BS1</b>								
Benzene	100	92.0		ug/L	92%	72 - 132	6112561	11/14/06 00:23
Ethylbenzene	100	93.9		ug/L	94%	75 - 119	6112561	11/14/06 00:23
Toluene	100	84.1		ug/L	84%	71 - 121	6112561	11/14/06 00:23
Xylenes, total	200	181		ug/L	90%	73 - 122	6112561	11/14/06 00:23
Surrogate: <i>a.a.a-Trifluorotoluene</i>	30.0	25.7			86%	57 - 145	6112561	11/14/06 00:23
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>								
<b>6112973-BS1</b>								
Methyl tert-Butyl Ether	50.0	45.0		ug/L	90%	66 - 129	6112973	11/13/06 23:18
Surrogate: <i>1,2-Dichloroethane-d4</i>	50.0	42.2			84%	62 - 142	6112973	11/13/06 23:18
Surrogate: <i>Dibromofluoromethane</i>	50.0	50.3			101%	78 - 123	6112973	11/13/06 23:18
Surrogate: <i>Toluene-d8</i>	50.0	47.5			95%	79 - 120	6112973	11/13/06 23:18
Surrogate: <i>4-Bromofluorobenzene</i>	50.0	49.9			100%	75 - 133	6112973	11/13/06 23:18
<b>6113026-BS1</b>								
Methyl tert-Butyl Ether	50.0	47.1		ug/L	94%	66 - 129	6113026	11/14/06 12:27
Surrogate: <i>1,2-Dichloroethane-d4</i>	50.0	43.6			87%	62 - 142	6113026	11/14/06 12:27
Surrogate: <i>Dibromofluoromethane</i>	50.0	48.1			96%	78 - 123	6113026	11/14/06 12:27
Surrogate: <i>Toluene-d8</i>	50.0	48.4			97%	79 - 120	6113026	11/14/06 12:27
Surrogate: <i>4-Bromofluorobenzene</i>	50.0	48.2			96%	75 - 133	6113026	11/14/06 12:27
<b>Purgeable Petroleum Hydrocarbons</b>								
<b>6112463-BS2</b>								
GRO as Gasoline	1000	1030		ug/L	103%	64 - 130	6112463	11/14/06 10:44
Surrogate: <i>a.a.a-Trifluorotoluene</i>	30.0	29.1			97%	63 - 134	6112463	11/14/06 10:44
<b>6112561-BS2</b>								
GRO as Gasoline	1000	1010		ug/L	101%	64 - 130	6112561	11/14/06 01:01
Surrogate: <i>a.a.a-Trifluorotoluene</i>	30.0	27.3			91%	63 - 134	6112561	11/14/06 01:01
<b>Extractable Petroleum Hydrocarbons with Silica Gel Treatment</b>								
<b>6111998-BS1</b>								
Diesel	1000	1020		ug/L	102%	38 - 123	6111998	11/16/06 20:21
Surrogate: <i>o-Terphenyl</i>	20.0	18.3			92%	33 - 147	6111998	11/16/06 20:21

Client ETIC Engineering Pleasant Hill (10236)  
2285 Morello Avenue  
Pleasant Hill, CA 94523  
Attn Erk Appel

Work Order: NPK1342  
Project Name: Exxon(06) 04-334 PO:4506876374  
Project Number: 04-334  
Received: 11/09/06 07:50

**PROJECT QUALITY CONTROL DATA**  
**LCS - Cont.**

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Analyte	Known Val	Analyzed Val	Q	Units	% Rec	Target Range	Batch	Analyzed Date/Time
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**Extractable Petroleum Hydrocarbons with Silica Gel Treatment**

Client ETIC Engineering Pleasant Hill (10236)  
 2285 Morello Avenue  
 Pleasant Hill, CA 94523  
 Attn Erk Appel

Work Order: NPK1342  
 Project Name: Exxon(06) 04-334 PO:4506876374  
 Project Number: 04-334  
 Received: 11/09/06 07:50

**PROJECT QUALITY CONTROL DATA**  
**LCS Dup**

Analyte	Orig Val	Duplicate	Q	Units	Spike Conc	% Rec	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
<b>Volatile Organic Compounds by EPA Method 8021B</b>												
<b>6112561-BSD1</b>												
Benzene		92.4		ug/L	100	92%	72 - 132	0.4	11	6112561		11/14/06 00:42
Ethylbenzene		97.3		ug/L	100	97%	75 - 119	4	18	6112561		11/14/06 00:42
Toluene		87.5		ug/L	100	88%	71 - 121	4	15	6112561		11/14/06 00:42
Xylenes, total		188		ug/L	200	94%	73 - 122	4	14	6112561		11/14/06 00:42
Surrogate: <i>a.a.a-Trifluorotoluene</i>		27.9		ug/L	30.0	93%	57 - 145			6112561		11/14/06 00:42
<b>Purgeable Petroleum Hydrocarbons</b>												
<b>6112561-BSD1</b>												
GRO as Gasoline		1820		ug/L	1100	165%	64 - 130		27	6112561		11/14/06 00:42
Surrogate <i>a.a.a-Trifluorotoluene</i>		27.9		ug/L	30.0	93%	63 - 134			6112561		11/14/06 00:42

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**PROJECT QUALITY CONTROL DATA**  
**Matrix Spike**

Analyte	Orig Val	MS Val	Q	Units	Spike Conc	% Rec	Target Range	Batch	Sample Spiked	Analyzed Date/Time
<b>Volatile Organic Compounds by EPA Method 8021B</b>										
<b>6112463-MS1</b>										
Benzene	0 0820	42 0		ug/L	50 0	84%	72 - 133	6112463	NPK0742-02	11/13/06 17:07
Ethylbenzene	0 0740	42 3		ug/L	50 0	84%	75 - 137	6112463	NPK0742-02	11/13/06 17:07
Toluene	0 0830	42 0		ug/L	50 0	84%	71 - 127	6112463	NPK0742-02	11/13/06 17:07
Xylenes, total	0 154	83 8		ug/L	100	84%	73 - 140	6112463	NPK0742-02	11/13/06 17:07
Surrogate: a,a,a-Trifluorotoluene		26 6		ug/L	30 0	89%	57 - 145	6112463	NPK0742-02	11/13/06 17:07
<b>6112561-MS1</b>										
Benzene	ND	49 2		ug/L	50 0	98%	72 - 133	6112561	NPK1828-02	11/13/06 23:45
Ethylbenzene	ND	47 7		ug/L	50 0	95%	75 - 137	6112561	NPK1828-02	11/13/06 23:45
Toluene	0 0880	45 0		ug/L	50 0	90%	71 - 127	6112561	NPK1828-02	11/13/06 23:45
Xylenes, total	ND	92 8		ug/L	100	93%	73 - 140	6112561	NPK1828-02	11/13/06 23:45
Surrogate: a,a,a-Trifluorotoluene		25 9		ug/L	30 0	86%	57 - 145	6112561	NPK1828-02	11/13/06 23:45
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>										
<b>6112973-MS1</b>										
Methyl tert-Butyl Ether	ND	46 8		ug/L	50 0	94%	54 - 143	6112973	NPK1342-04	11/14/06 09:29
Surrogate: 1,2-Dichloroethane-d4		43 1		ug/kg	50 0	86%	62 - 142	6112973	NPK1342-04	11/14/06 09:29
Surrogate: Dibromofluoromethane		51 1		ug/kg	50 0	102%	78 - 123	6112973	NPK1342-04	11/14/06 09:29
Surrogate: Toluene-d8		46 4		ug/kg	50 0	93%	79 - 120	6112973	NPK1342-04	11/14/06 09:29
Surrogate: 4-Bromofluorobenzene		48 2		ug/kg	50 0	96%	75 - 133	6112973	NPK1342-04	11/14/06 09:29
<b>6113026-MS1</b>										
Methyl tert-Butyl Ether	ND	48 2		ug/L	50 0	96%	54 - 143	6113026	NPK1607-01	11/14/06 22:29
Surrogate: 1,2-Dichloroethane-d4		43 8		ug/kg	50 0	88%	62 - 142	6113026	NPK1607-01	11/14/06 22:29
Surrogate: Dibromofluoromethane		50 4		ug/kg	50 0	101%	78 - 123	6113026	NPK1607-01	11/14/06 22:29
Surrogate: Toluene-d8		46 2		ug/kg	50 0	92%	79 - 120	6113026	NPK1607-01	11/14/06 22:29
Surrogate: 4-Bromofluorobenzene		47 6		ug/kg	50 0	95%	75 - 133	6113026	NPK1607-01	11/14/06 22:29
<b>Purgeable Petroleum Hydrocarbons</b>										
<b>6112463-MS2</b>										
GRO as Gasoline	10 0	844		ug/L	1000	83%	43 - 150	6112463	NPK1131-05	11/13/06 17:38
Surrogate: a,a,a-Trifluorotoluene		28 0		ug/L	30 0	93%	63 - 134	6112463	NPK1131-05	11/13/06 17:38

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 Received: 11/09/06 07:50

**PROJECT QUALITY CONTROL DATA**  
**Matrix Spike Dup**

Analyte	Orig. Val	Duplicate	Q	Units	Spike Conc	% Rec	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
<b>Volatile Organic Compounds by EPA Method 8021B</b>												
<b>6112561-MSD1</b>												
Benzene	ND	50.7		ug/L	50.0	101%	72 - 133	3	11	6112561	NPK1828-02	11/14/06 00:04
Ethylbenzene	ND	52.9		ug/L	50.0	106%	75 - 137	10	18	6112561	NPK1828-02	11/14/06 00:04
Toluene	0.0880	47.6		ug/L	50.0	95%	71 - 127	6	15	6112561	NPK1828-02	11/14/06 00:04
Xylenes, total	ND	101		ug/L	100	101%	73 - 140	8	14	6112561	NPK1828-02	11/14/06 00:04
Surrogate: a,a,a-Trifluorotoluene		27.2		ug/L	30.0	91%	57 - 145			6112561	NPK1828-02	11/14/06 00:04
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>												
<b>6112973-MSD1</b>												
Methyl tert-Butyl Ether	ND	49.7		ug/L	50.0	99%	54 - 143	6	27	6112973	NPK1342-04	11/14/06 09:54
Surrogate: 1,2-Dichloroethane-d4		39.6		ug/kg	50.0	79%	62 - 142			6112973	NPK1342-04	11/14/06 09:54
Surrogate: Dibromofluoromethane		48.6		ug/kg	50.0	97%	78 - 123			6112973	NPK1342-04	11/14/06 09:54
Surrogate: Toluene-d8		48.2		ug/kg	50.0	96%	79 - 120			6112973	NPK1342-04	11/14/06 09:54
Surrogate: 4-Bromofluorobenzene		50.0		ug/kg	50.0	100%	75 - 133			6112973	NPK1342-04	11/14/06 09:54
<b>6113026-MSD1</b>												
Methyl tert-Butyl Ether	ND	43.4		ug/L	50.0	87%	54 - 143	10	27	6113026	NPK1607-01	11/14/06 22:55
Surrogate: 1,2-Dichloroethane-d4		42.7		ug/kg	50.0	85%	62 - 142			6113026	NPK1607-01	11/14/06 22:55
Surrogate: Dibromofluoromethane		47.8		ug/kg	50.0	96%	78 - 123			6113026	NPK1607-01	11/14/06 22:55
Surrogate: Toluene-d8		46.0		ug/kg	50.0	92%	79 - 120			6113026	NPK1607-01	11/14/06 22:55
Surrogate: 4-Bromofluorobenzene		47.0		ug/kg	50.0	94%	75 - 133			6113026	NPK1607-01	11/14/06 22:55
<b>Purgeable Petroleum Hydrocarbons</b>												
<b>6112463-MSD2</b>												
GRO as Gasoline	10.0	755		ug/L	1000	74%	43 - 150	11	27	6112463	NPK1131-05	11/14/06 09:59
Surrogate: a,a,a-Trifluorotoluene		18.4	Z6	ug/L	30.0	61%	63 - 134			6112463	NPK1131-05	11/14/06 09:59



Client ETIC Engineering Pleasant Hill (10236)  
2285 Morello Avenue  
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Attn Erk Appel

Work Order: NPK1342  
Project Name: Exxon(06) 04-334 PO:4506876374  
Project Number: 04-334  
Received: 11/09/06 07:50

## CERTIFICATION SUMMARY

TestAmerica - Nashville, TN

Method	Matrix	AIHA	Nelac	California
NA	Water			
SW846 8015B	Water			
SW846 8015B	Water	N/A	X	X
SW846 8021B	Water	N/A	X	X
SW846 8260B	Water	N/A	X	X

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## NELAC CERTIFICATION SUMMARY

TestAmerica Analytical - Nashville does not hold NELAC certifications for the following analytes included in this report

<u>Method</u>	<u>Matrix</u>	<u>Analyte</u>
SW846 8015B	Water	Diesel

Client E11C Engineering Pleasant Hill (10236)  
2285 Morello Avenue  
Pleasant Hill, CA 94523  
Attn Erk Appel

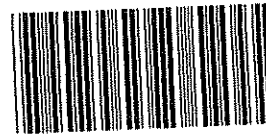
Work Order: NPK1342  
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## DATA QUALIFIERS AND DEFINITIONS

Z6 Surrogate recovery was below acceptance limits

## METHOD MODIFICATION NOTES



**Nashville Division**  
**COOLER RECEIPT FORM**

NPK1342

BC#

Cooler Received/Opened On 11/09/06 @ 07:50

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 2621

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

2. Temperature of representative sample or temperature blank when opened: 1.7 Degrees Celsius (indicate IR Gun ID#)

NA    A00466    A00750    A01124    100190    101282    10594    Raynger ST

3. Were custody seals on outside of cooler?..... YES...  NO... NA

a. If yes, how many and where: \_\_\_\_\_

4. Were the seals intact, signed, and dated correctly?..... YES... NO...  NA

5. Were custody papers inside cooler?.....  YES... NO... NA

I certify that I opened the cooler and answered questions 1-5 (initial)..... IR

6. Were custody seals on containers: YES  NO and intact YES NO  NA

were these signed, and dated correctly?..... YES... NO...  NA

7. What kind of packing material used?  Bubblewrap     Peanuts     Vermiculite     Foam Insert

Plastic bag     Paper     Other \_\_\_\_\_     None

8. Cooling process:  Ice     Ice-pack     Ice (direct contact)     Dry ice     Other     None

9. Did all containers arrive in good condition (unbroken)?..... YES... NO... NA

*1 VOA for many BIS*

10. Were all container labels complete (#, date, signed, pres., etc)?.....  YES... NO... NA

11. Did all container labels and tags agree with custody papers?.....  YES... NO... NA

12. a. Were VOA vials received?.....  YES... NO... NA

b. Was there any observable head space present in any VOA vial?..... YES...  NO... NA

I certify that I unloaded the cooler and answered questions 6-12 (initial)..... IR

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES... NO...  NA

b. Did the bottle labels indicate that the correct preservatives were used?.....  YES... NO... NA

If preservation in-house was needed, record standard ID of preservative used here \_\_\_\_\_

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

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (initial)..... IR

15. Were custody papers properly filled out (ink, signed, etc)?.....  YES... NO... NA

16. Did you sign the custody papers in the appropriate place?.....  YES... NO... NA

17. Were correct containers used for the analysis requested?.....  YES... NO... NA

18. Was sufficient amount of sample sent in each container?.....  YES... NO... NA

I certify that I entered this project into LIMS and answered questions 15-18 (initial)..... IR

I certify that I attached a label with the unique LIMS number to each container (initial)..... IR

19. Were there Non-Conformance issues at login YES  NO Was a PIPE generated YES NO # \_\_\_\_\_



# TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: ETC  
 REC. BY (PRINT) EU  
 WORKORDER: \_\_\_\_\_

DATE REC'D AT LAB: 11/7/06  
 TIME REC'D AT LAB: 1830  
 DATE LOGGED IN: \_\_\_\_\_

For Regulatory Purposes?  
 DRINKING WATER YES/NO  
 WASTE WATER YES/NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <input checked="" type="radio"/> Absent Intact / Broken								<div style="font-size: 2em; font-weight: bold;">C.O.C</div> <div style="font-size: 1.5em; font-weight: bold;">11/7/06 EU</div>
2. Chain-of-Custody Present / Absent*								
3. Traffic Reports or Packing List: Present / Absent								
4. Airbill: Airbill / Sticker Present / Absent								
5. Airbill #:								
6. Sample Labels: Present / Absent								
7. Sample IDs: Listed / Not Listed on Chain-of-Custody								
8. Sample Condition: Intact / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? Yes / No*								
10. Sample received within hold time? Yes / No*								
11. Adequate sample volume received? Yes / No*								
12. Proper preservatives used? Yes / No*								
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / No*								
14. Read Temp: <u>2.1°C</u> Corrected Temp: <u>5.1°C</u> Is corrected temp 4 +/-2°C? Yes / No**								

(Acceptance range for samples requiring thermal pres.)  
 \*\*Exception (if any): METALS / DFF ON ICE  
 or Problem COC

\*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

## Linda Pawlak

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**From:** Christina Woodcock  
**Sent:** Wednesday, November 08, 2006 8:24 AM  
**To:** Evangeline Blanco; Linda Pawlak; Pedro Hufano  
**Cc:** Jim Hatfield  
**Subject:** 04-334 11-6  
**Attachments:** 04-334 11-6.pdf

\*\*the sample date is wrong on the COC...it says "12-6-06"

Send to Nashville

Christina Woodcock  
Project Manager - Morgan Hill, CA Facility  
Direct line: 408.782.8154  
[cwoodcock@testamericainc.com](mailto:cwoodcock@testamericainc.com)