ExxonMobil
Environmental Services
4096 Piedmont Avenue #194
Oakland, CA 94611
510 547.8196 Telephone

Jennifer Sedlachek
US Western Area Execution
Project Manager

ExxonMobil

August 19, 2015

Mr. Keith Nowell
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Report of Groundwater Monitoring, Second Quarter 2015**
Former Exxon RAS #70234
3450 35th Avenue, Oakland, California
ACHCSA File No. RO0002515

Dear Mr. Nowell:

Attached for your review and comment is a copy of the *Report of Groundwater Monitoring, Second Quarter 2015* for the above-referenced site. The document, prepared by ETIC Engineering, Inc. of Pasadena, California, details the results of the May 2015 sampling event.

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

If you have any questions or comments, please contact me at (510) 547-8196.

Sincerely,

Jennifer C. Sedlachek
Project Manager

Report of Groundwater Monitoring
Second Quarter 2015

Former Exxon Service Station 70234
3450 35th Avenue
Oakland, California

Prepared for

ExxonMobil Oil Corporation

Prepared by

ETIC Engineering, Inc.
898 North Fair Oaks Avenue, Suite A
Pasadena, California 91103
(626) 432-5999

Sean Bowen
Project Manager

8-19-15
Date

Ryan Haughy, P.G. #7851
Senior Project Manager

PROFESSIONAL GEOLOGIST
RYAN R. HAUGHY
No. 7851
STATE OF CALIFORNIA

8-19-15
Date

August 2015

SITE CONTACTS

Site Name:	Former Exxon Service Station 70234
Site Address:	3450 35th Avenue Oakland, California
ExxonMobil Project Manager:	Jennifer C. Sedlachek ExxonMobil Environmental Services Company 4096 Piedmont Avenue #194 Oakland, California 94611 (510) 547-8196
Consultant to ExxonMobil:	ETIC Engineering, Inc. 898 North Fair Oaks Avenue, Suite A Pasadena, California 91103 (626) 432-5999
ETIC Project Manager:	Sean Bowen
Regulatory Oversight:	Keith Nowell Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577 (510) 567-6764

INTRODUCTION

ETIC Engineering, Inc. (ETIC) has prepared this semiannual groundwater monitoring report for ExxonMobil Environmental Services Company on behalf of ExxonMobil Oil Corporation (ExxonMobil) for Former Exxon Service Station 70234. 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 conducted between 20 November 2014, the date of the previous monitoring event, and 13 May 2015, the date of the most 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, including groundwater data for Unocal No. 6129, located across Quigley Street southwest of site 70234.

On 11 June 2015, ETIC informed the agency that coordinated sampling did not occur during this reporting period. In an email dated 15 June 2015, the agency approved for the semiannual groundwater monitoring report to be submitted 30 days after the receipt of data for the UNOCAL station, which was received on 20 July 2015. In addition, the agency stated that there may be a disconnect in depth to water data due to passage of time, and to plot the groundwater elevation contours independently for each site. Based on the groundwater gradient and direction being similar to previous monitoring reports, the two sites were contoured together with a note that the Unocal site was sampled on a different date.

GENERAL SITE INFORMATION

Site name:	Former Exxon Service Station 70234
Site address:	3450 35th Avenue, Oakland, California
Current property owner:	Mr. Zack Spencer
Current site use:	Vacant
Current phase of project:	Groundwater monitoring
Number of groundwater monitoring wells:	7

GROUNDWATER MONITORING SUMMARY

Gauging and sampling date:	13 May 2015
Wells gauged and sampled:	MW4, MW5, MW6, MW7, MW8, MW9, and RW1
Wells gauged only:	None
Wells inaccessible:	None
Groundwater flow direction:	Southwest
Hydraulic gradient:	0.0158
Well screens submerged:	MW4
Well screens not submerged:	MW5, MW6, MW7, MW8, MW9, and RW1
Liquid-phase hydrocarbons:	Not observed or detected
Laboratory:	Eurofins Calscience Environmental Laboratories, Inc., Garden Grove, California

Concurrently sampled: Unocal No. 6129, 3420 35th Avenue
Unocal Data provided by: AECOM, Sacramento, California

Analyses performed:

- Total Petroleum Hydrocarbons as gasoline by EPA Method 8015B (M)
- Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B
- Methyl tertiary butyl ether, tertiary butyl alcohol, diisopropyl ether, ethyl tertiary butyl ether, tertiary amyl methyl ether, 1,2-dibromoethane, and 1,2-dichloroethane by EPA Method 8260B

Waste disposal:

- 43 gallons of purge water was stored in a 55-gallon drum and was then delivered to Instrat, Inc. of Rio Vista, California on 13 May 2015.

ADDITIONAL ACTIVITIES PERFORMED

In November 2014, ETIC oversaw the installation of one soil vapor monitoring well (V-6).

On 19 November 2014 and 18 and 20 February 2015, ETIC attempted to sample V6. A soil vapor sample was not collected due to presence of water during purging.

WORK PROPOSED FOR NEXT QUARTER

Submit report of the installation of V6 and attempted sampling efforts.

Submit Corrective Action Plan for Natural attenuation.

Submit Work plan for abandonment of onsite cathodic well.

In accordance with ACHCSA directives, groundwater monitoring will not be conducted in the third quarter of 2015. The next semiannual groundwater monitoring event will be conducted in the fourth quarter of 2015.

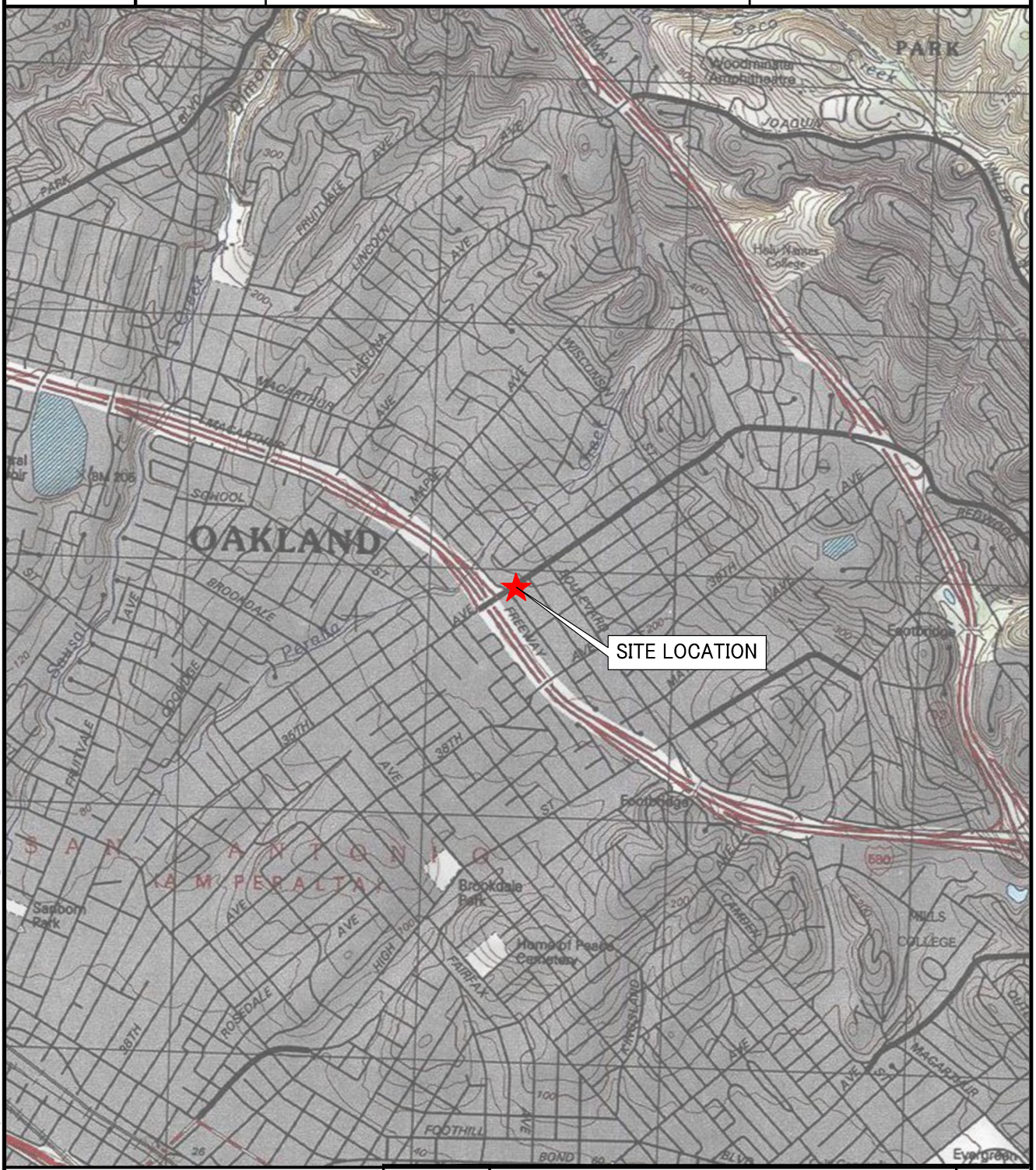
Attachments:

Figure 1: Site Location and Topographic Map
Figure 2: Site Map
Figure 3: Groundwater Elevation Contour Map
Figure 4: Groundwater Analytical Data

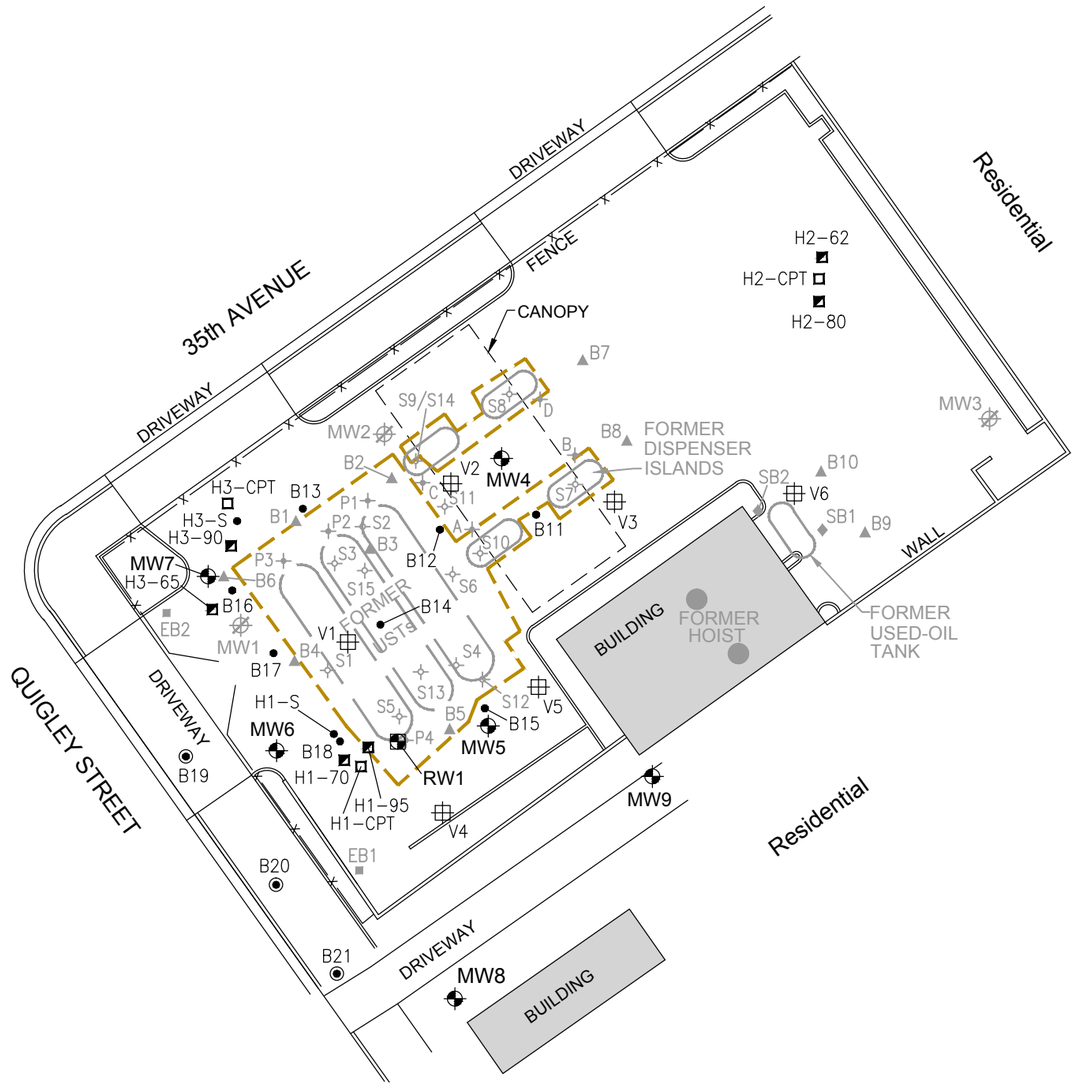
Table 1: Well Construction Details
Table 2: Current Groundwater Monitoring Data
Table 3: Historical Groundwater Monitoring Data
Table 4: Groundwater Analytical Results for Detected VOCs
Table 5: Groundwater Monitoring Plan

Appendix A: Field Protocols
Appendix B: Field Documents
Appendix C: Waste Manifests
Appendix D: Laboratory Analytical Reports and Chain-of-Custody Documentation
Appendix E: Groundwater Monitoring and Sampling Data for Unocal No. 6129
Appendix F: Email from 3rd Party Receiving Coordinated Groundwater Monitoring and Sampling Data for Unocal No. 6129

Figures



	15-070234-UP	EXXONMOBIL OIL CORPORATION	
	OR: AF	SITE LOCATION AND TOPOGRAPHIC MAP FORMER EXXON SERVICE STATION 70234 3450 35th AVENUE	FIGURE: 1
ETIC ENGINEERING 2285 MORELLO AVENUE PLEASANT HILL, CA 94523 (925) 602-4710 eticeng.com	DR: AJW CK: FR:	OAKLAND, CALIFORNIA	



LEGEND:

- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- V1 SOIL VAPOR MONITORING WELL
- H3-CPT CONE PENETROMETER TESTING BORING
- H3-65 HYDROPUNCH GROUNDWATER SAMPLING LOCATION (WITH DEPTH BELOW GROUND SURFACE NOTED)
- H3-S SOIL BORING
- SOIL BORING (GTI, 1986)
- SOIL BORING (HLA, 1988)
- SOIL BORING (Alton, 1991)
- SOIL SAMPLE (Alton, 1991)
- SOIL SAMPLE (TRC, 2002)
- SOIL BORING (ERI, 2007)
- SOIL BORING (ERI, 2009)

N

0 15 30

1″ = 30 FEET

08/14/2015, 13:58, G:\Graphics\15\070234\QMR-2Q15.dwg, Tab: F2

15-070234-UP	EXXONMOBIL OIL CORPORATION	
OR: AF DR: AJW CK: FR:	SITE MAP FORMER EXXON SERVICE STATION 70234 3450 35th AVENUE OAKLAND, CALIFORNIA	FIGURE: 2

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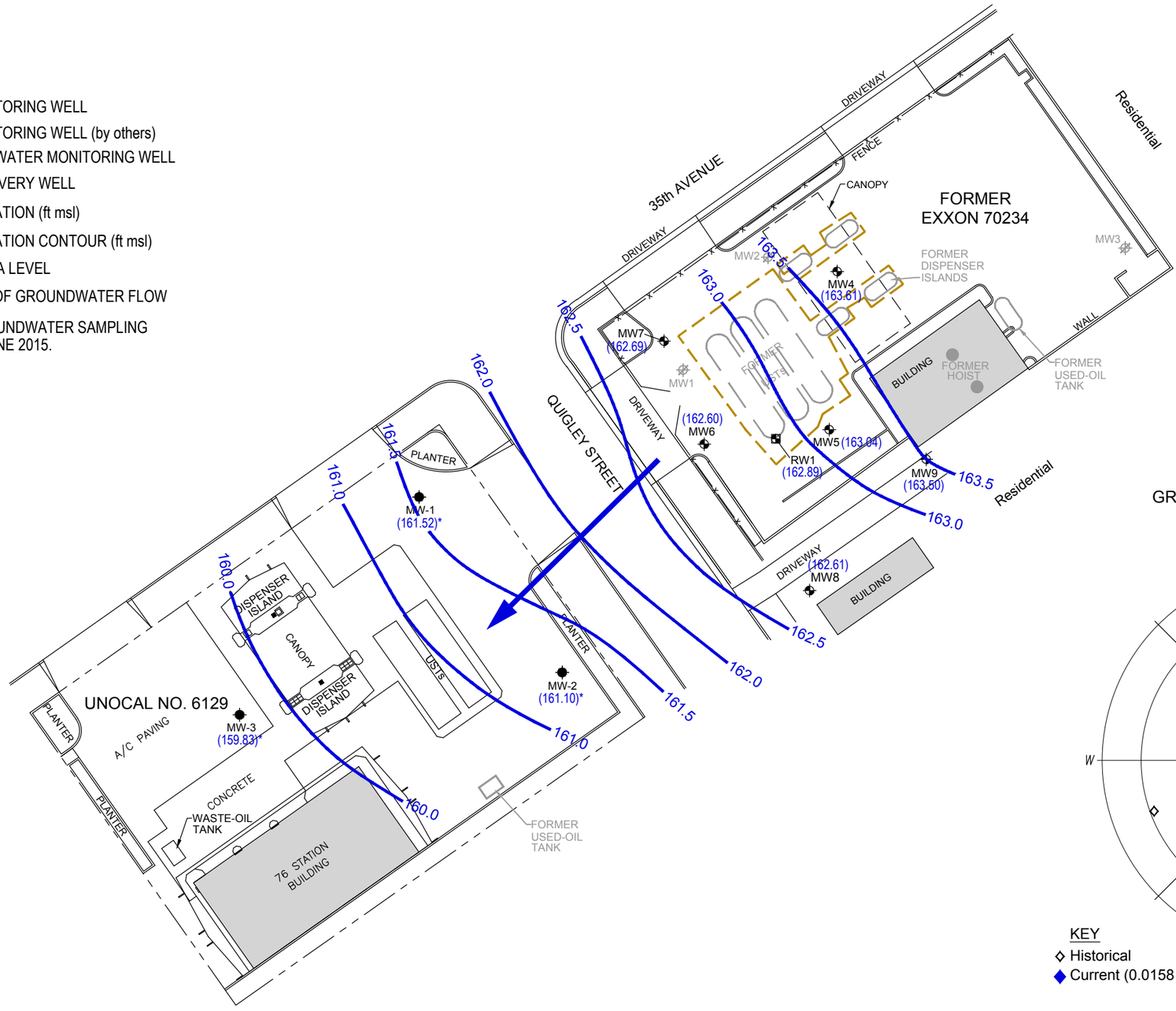
LEGEND:

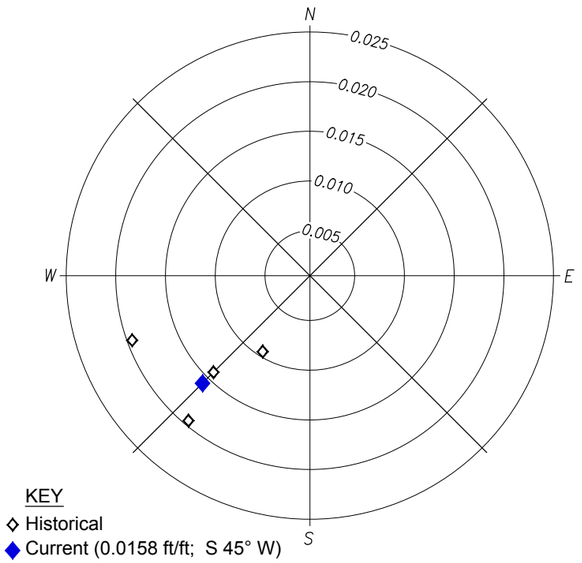
- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- (163.61) GROUNDWATER ELEVATION (ft msl)
- 163.5 GROUNDWATER ELEVATION CONTOUR (ft msl)
- ft msl FEET ABOVE MEAN SEA LEVEL
- GENERAL DIRECTION OF GROUNDWATER FLOW
- * UNOCAL No. 6129 GROUNDWATER SAMPLING CONDUCTED ON 17 JUNE 2015.



0 20 40

1″ = 40 FEET

GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT



KEY

- ◇ Historical
- ◆ Current (0.0158 ft/ft; S 45° W)

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15-070234-UP	EXXONMOBIL OIL CORPORATION
	GROUNDWATER ELEVATION CONTOUR MAP
OR: AF	13 MAY 2015
DR: AJW	FORMER EXXON SERVICE STATION 70234
CK:	3450 35th AVENUE
FR:	OAKLAND, CALIFORNIA

FIGURE: 3

LEGEND:

EXCAVATED AREA

GROUNDWATER MONITORING WELL

GROUNDWATER MONITORING WELL (by others)

DESTROYED GROUNDWATER MONITORING WELL

GROUNDWATER RECOVERY WELL

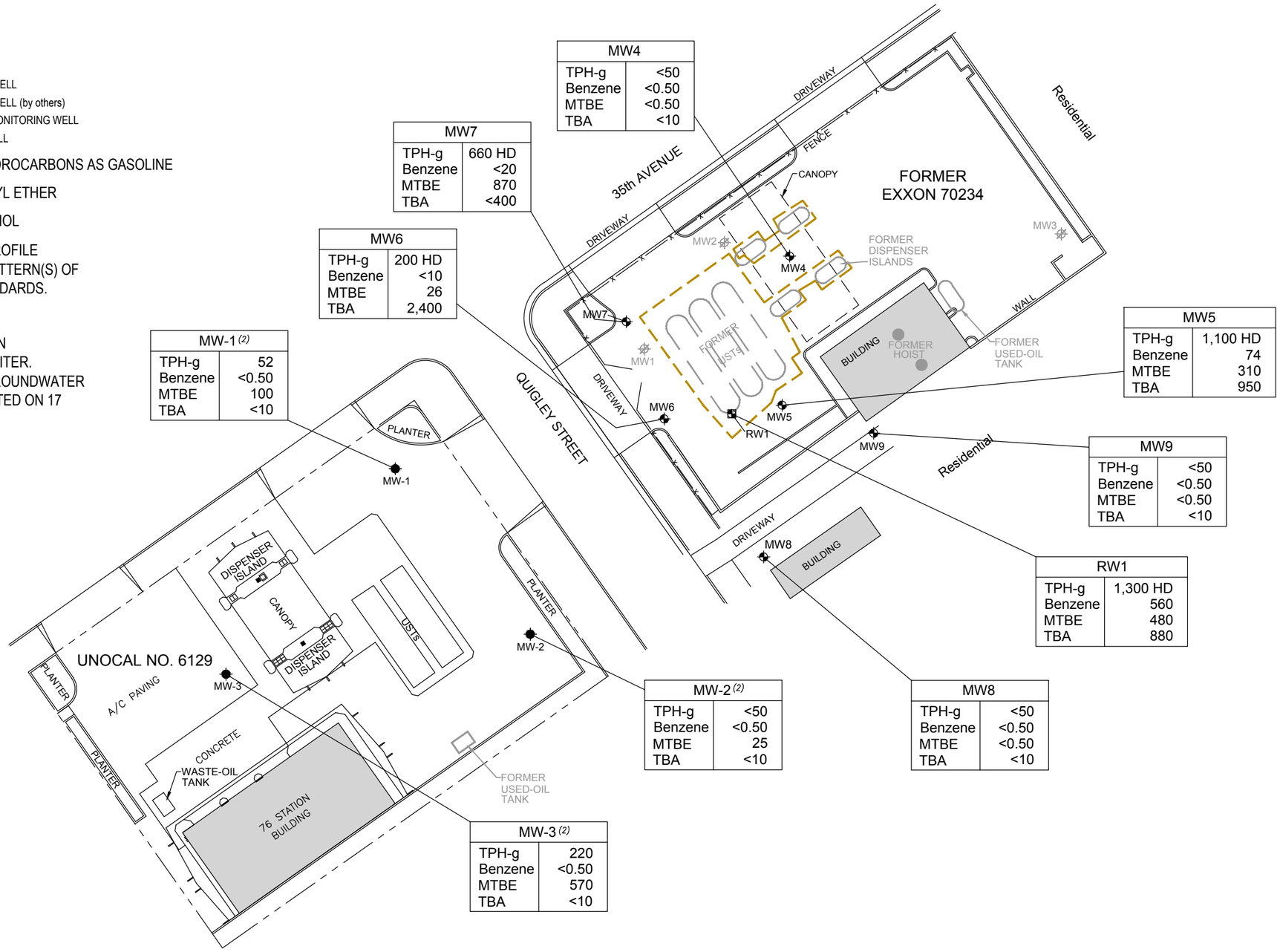
TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

MTBE METHYL TERTIARY BUTYL ETHER

TBA TERTIARY BUTYL ALCOHOL

HD CHROMATOGRAPHIC PROFILE INCONSISTENT WITH PATTERN(S) OF REFERENCE FUEL STANDARDS.

NOTE:
1. CONCENTRATIONS IN MICROGRAMS PER LITER.
2. UNOCAL No. 6129 GROUNDWATER SAMPLING CONDUCTED ON 17 JUNE 2015.



15-070234-UP	EXXONMOBIL OIL CORPORATION
	GROUNDWATER ANALYTICAL DATA
OR: AF	13 MAY 2015
DR: AJW	FORMER EXXON SERVICE STATION 70234
CK:	3450 35th AVENUE
FR:	OAKLAND, CALIFORNIA

FIGURE: 4

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Table

TABLE 1 WELL CONSTRUCTION DETAILS,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date Installed	Date Destroyed	Elevation TOC (feet)	Borehole Diameter (inches)	Total Depth of Boring (feet bgs)	Well Depth (feet bgs)	Casing Diameter (inches)	Casing Material	Screened Interval (feet bgs)	Slot Size (inches)	Filter Pack Interval (feet bgs)	Filter Pack Material
MW1	07/15/92	06/00	192.00	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW2	07/15/92	06/00	194.85	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW3	07/15/92	06/00	196.90	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW4	03/02/09	---	197.62	8	45	45	2	Sch. 40 PVC	35-45	0.020	33-45	#3 Sand
MW5	03/06/09	---	196.35	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW6	03/09/09	---	192.41	8	40	39	2	Sch. 40 PVC	29-39	0.020	27-39	#3 Sand
MW7	03/09/09	---	194.34	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW8	03/04/09	---	192.96	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW9	03/05/09	---	195.16	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
RW1	12/22/11	---	195.15	10	40	40	4	Stainless Steel	25-39.5	0.020	23-40	#2/12 Sand

TOC Top of well casing elevation; datum is mean sea level.
PVC Polyvinyl chloride.
feet bgs Feet below ground surface.
--- Not applicable.

Notes: Data prior to 2013 provided by Cardno ERI.

TABLE 2 CURRENT GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)
MW4	SCREEN INTERVAL (feet bgs) 35-45											
MW4	05/13/15	a	197.62	34.01	163.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW5	SCREEN INTERVAL (feet bgs) 30-40											
MW5	05/13/15	a	196.35	33.31	163.04	0.00	1,100 HD	74	<2.5	<2.5	2.7	310
MW6	SCREEN INTERVAL (feet bgs) 29-39											
MW6	05/13/15	a	192.41	29.81	162.60	0.00	200 HD	<10	<10	<10	<10	26
MW7	SCREEN INTERVAL (feet bgs) 30-40											
MW7	05/13/15	a	194.34	31.65	162.69	0.00	660 HD	<20	<20	<20	<20	870
MW8	SCREEN INTERVAL (feet bgs) 30-40											
MW8	05/13/15	a	192.96	30.35	162.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	SCREEN INTERVAL (feet bgs) 30-40											
MW9	05/13/15	a	195.16	31.66	163.50	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
RW1	SCREEN INTERVAL (feet bgs) 29-39.5											
RW1	05/13/15	a	195.15	32.26	162.89	0.00	1,300 HD	560	<5.0	8.1	2.4 JA	480

TOC	Top of casing.	bgs	Below ground surface.
LPH	Liquid-phase hydrocarbons.	µg/L	Micrograms per liter.
TPH-g	Total Petroleum Hydrocarbons as gasoline.	---	Not sampled or not analyzed.
MTBE	Methyl tertiary butyl ether.	NA	Not available.
NM	Not measured.	NC	Not calculated.

a	Well purged prior to sampling.
b	Well inaccessible.
HD	Chromat. profile inconsistent with the ref. fuel stnds.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

TABLE 2 CURRENT GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)

JA Analyte positively identified but quantitation is an estimate.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology. Data prior to 2013 provided by Cardno ERI.

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW1	SCREEN INTERVAL (feet bgs) 25-45												
MW1	07/15/92	---	Well installed.										
MW1	07/17/92	192.00	33.02	158.98	0.00	67	6.6	6.9	2.0	4.5	---	17	---
MW1	10/22/92	192.00	34.07	157.93	0.00	<50	2.9	<0.5	<0.5	<0.5	---	16	---
MW1	02/04/93	192.00	29.43	162.57	0.00	<50	0.8	<0.5	<0.5	<0.5	---	4	---
MW1	05/03/93	192.00	29.72	162.28	0.00	71	2.8	7.2	2.2	22	---	40	---
MW1	07/30/93	192.00	32.95	159.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	5	---
MW1	10/19/93	192.00	34.34	157.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW1	02/23/94	192.00	31.72	160.28	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	4	---
MW1	06/06/94	192.00	31.77	160.23	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW1	08/18/94	192.00	33.76	158.24	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	130	---
MW1	11/15/94	192.00	34.08	157.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW1	02/06/95	192.00	28.50	163.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	05/10/95	192.00	29.30	162.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	09/20/99	192.00	33.30	158.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<50
MW1	Well destroyed in June 2000.												
MW2	SCREEN INTERVAL (feet bgs) 25-45												
MW2	07/15/92	---	Well installed.										
MW2	07/17/92	194.85	34.65	160.20	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	10/22/92	194.85	35.64	159.21	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	--	---
MW2	02/04/93	194.85	31.13	163.72	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	05/03/93	194.85	31.08	163.77	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW2	07/30/93	194.85	34.34	160.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	14	---
MW2	10/19/93	194.85	36.00	158.85	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	02/23/94	194.85	33.92	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	06/06/94	194.85	33.50	161.35	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	08/18/94	194.85	35.38	159.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW2	11/15/94	194.85	35.93	158.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW2	02/06/95	194.85	30.38	164.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	05/10/95	194.85	30.77	164.08	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	09/20/99	194.85	35.15	159.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<0.5
MW2	Well destroyed in June 2000.												
MW3	SCREEN INTERVAL (feet bgs) 25-45												
MW3	07/15/92	---	Well installed.										
MW3	07/17/92	196.90	37.24	159.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	50	---
MW3	10/22/92	196.90	35.95	160.95	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	9	---
MW3	02/04/93	196.90	29.85	167.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	05/03/93	196.90	29.87	167.03	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW3	07/30/93	196.90	33.85	163.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	22	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW3	10/19/93		196.90	35.89	161.01	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW3	02/23/94		196.90	32.88	164.02	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	25	---
MW3	06/06/94		196.90	32.40	164.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	08/18/94		196.90	35.07	161.83	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW3	11/15/94		196.90	35.97	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW3	02/06/95		196.90	28.39	168.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	05/10/95		196.90	28.90	168.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	09/20/99		196.90	34.68	162.22	0.00	75.0	<0.5	11.5	1.8	18.0	1.87	<75	<0.5
MW3	Well destroyed in June 2000.													
MW4	SCREEN INTERVAL (feet bgs) 35-45													
MW4	03/02/09		---	Well installed.										
MW4	03/30/09		197.62	30.94	166.68	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	04/02/09		197.62	Well surveyed.										
MW4	05/28/09		197.62	32.00	165.62	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	08/31/09		197.62	35.43	162.19	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	12/11/09		197.62	35.01	162.61	0.00	<50	<0.50	0.83	<0.50	1.1	<0.50	---	---
MW4	05/07/10		197.62	29.11	168.51	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	11/01/10		197.62	34.95	162.67	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/27/11	a	197.62	30.65	166.97	0.00	---	---	---	---	---	---	---	---
MW4	11/23/11		197.62	33.49	164.13	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/24/12		197.62	30.02	167.60	0.00	58	0.84	4.4	0.64c	3.5	<0.50	---	---
MW4	10/31/12		197.62	35.14	162.48	0.00	110	5.3	45	4.2	21	<0.50	---	---
MW4	05/02/13	e	197.62	32.03	165.59	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	11/09/13		197.62	36.53	161.09	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	05/12/14	a	197.62	33.51	164.11	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	11/19/14	a	197.62	36.96	160.66	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	**05/13/15**	**a**	**197.62**	**34.01**	**163.61**	**0.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	---	---
MW5	SCREEN INTERVAL (feet bgs) 30-40													
MW5	03/06/09		---	Well installed.										
MW5	03/30/09		196.35	30.05	166.30	0.00	4,200	540	140	<12	310	1,900		
MW5	04/02/09		196.35	Well surveyed.									---	---
MW5	05/28/09		196.35	31.45	164.90	0.00	5,300	890	150	<25	140	3,600	---	---
MW5	08/31/09		196.35	34.70	161.65	0.00	5,800	550	<100	<100	<100	3,500	---	---
MW5	12/11/09		196.35	34.52	161.83	0.00	4,000b	230	<100	<100	<100	3,800	---	---
MW5	05/07/10		196.35	30.84	165.51	0.00	2,700b	73	5.3	3.6	6.5	1,700	---	---
MW5	11/01/10		196.35	33.93	162.42	0.00	2,400b	320	71	21	40	3,400	---	---
MW5	05/27/11	a	196.35	31.65	164.70	0.00	---	---	---	---	---	---	---	---
MW5	11/23/11		196.35	32.58	163.77	0.00	1,900b	72	2.7	3.1	8.1	3,200	---	---
MW5	05/24/12		196.35	30.26	166.09	0.00	2,900b	54	31	5.2	17	1,700	---	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW5	10/31/12		196.35	33.94	162.41	0.00	2,200b	220	72	8.7	47	2,700	---	---
MW5	05/02/13	c	196.35	31.33	165.02	0.00	2,200b	61	<0.50	3.8	7.9	1,300	---	---
MW5	11/09/13		196.35	35.69	160.66	0.00	1,300b	120	<5.0	<5.0	8.8	370	---	---
MW5	05/12/14	a	196.35	32.64	163.71	0.00	1,200	120	<5.0	<5.0	<5.0	490	---	---
MW5	11/19/14	a	196.35	36.05	160.30	0.00	1,400 HD	140	2.0 J	<2.5	4.7	120	---	---
MW5	**05/13/15**	**a**	**196.35**	**33.31**	**163.04**	**0.00**	**1,100 HD**	**74**	**<2.5**	**<2.5**	**2.7**	**310**	---	---
MW6	SCREEN INTERVAL (feet bgs) 29-39													
MW6	03/09/09		---	Well installed.										
MW6	03/30/09		192.41	26.94	165.47	0.00	2,800	0.91	<0.50	<0.50	<0.50	4,800	---	---
MW6	04/02/09		192.41	Well surveyed.									---	---
MW6	05/28/09		192.41	28.04	164.37	0.00	2,800	<100	<100	<100	<100	6,000	---	---
MW6	08/31/09		192.41	30.57	161.84	0.00	4,900	<100	<100	<100	<100	6,600	---	---
MW6	12/11/09		192.41	30.78	161.63	0.00	4,900b	<100	<100	<100	<100	6,200	---	---
MW6	05/07/10		192.41	25.42	166.99	0.00	2,900b	2.7	<0.50	0.74c	<1.0	3,700	---	---
MW6	11/01/10		192.41	30.68	161.73	0.00	850b	2.1	<0.50	<0.50	<1.0	6,100	---	---
MW6	05/27/11	a	192.41	27.07	165.34	0.00	---	---	---	---	---	---	---	---
MW6	11/23/11		192.41	29.25	163.16	0.00	1,600b	<0.50	<0.50	<0.50	<1.0	6,400	---	---
MW6	05/24/12		192.41	26.36	166.05	0.00	2,000b	1.3c	9.7	0.97c	5.5	3,400	---	---
MW6	10/31/12		192.41	30.74	161.67	0.00	1,400b	3.8	28	2.2	11	5,400	---	---
MW6	05/02/13		192.41	27.91	164.50	0.00	1,900b	<0.50	<0.50	<0.50	<0.50	2,600	---	---
MW6	11/09/13		192.41	32.15	160.26	0.00	3,600b	<40	<40	<40	<40	4,800	---	---
MW6	05/12/14	a	192.41	29.28	163.13	0.00	190 HD	<5.0	<5.0	<5.0	<5.0	280	---	---
MW6	11/19/14	a	192.41	32.49	159.92	0.00	420 HD	<10	<10	<10	<10	530	---	---
MW6	**05/13/15**	**a**	**192.41**	**29.81**	**162.60**	**0.00**	**200 HD**	**<10**	**<10**	**<10**	**<10**	**26**	---	---
MW7	SCREEN INTERVAL (feet bgs) 30-40													
MW7	03/09/09		---	Well installed.									---	---
MW7	03/30/09		194.34	29.15	165.19	0.00	55	<0.50	<0.50	<0.50	<0.50	66	---	---
MW7	04/02/09		194.34	Well surveyed.										
MW7	05/28/09		194.34	30.16	164.18	0.00	50	<1.0	<1.0	<1.0	<1.0	67	---	---
MW7	08/31/09		194.34	33.31	161.03	0.00	<50	<0.50	0.60	<0.50	<0.50	12	---	---
MW7	12/11/09		194.34	32.71	161.63	0.00	<50	0.78	1.7	0.62	2.4	31	---	---
MW7	05/07/10		194.34	27.54	166.80	0.00	510b	<0.50	<0.50	<0.50	<1.0	700	---	---
MW7	11/01/10		194.34	32.82	161.52	0.00	68b	<0.50	<0.50	<0.50	<1.0	140	---	---
MW7	05/27/11	a	194.34	28.85	165.49	0.00	---	---	---	---	---	---	---	---
MW7	11/23/11		194.34	31.39	162.95	0.00	190b	<0.50	<0.50	<0.50	<1.0	300	---	---
MW7	05/24/12	a	194.34	28.31	166.03	0.00	---	---	---	---	---	---	---	---
MW7	10/31/12		194.34	32.86	161.48	0.00	230b	2.9	21	1.8	9.2	290	---	---
MW7	05/02/13		194.34	29.93	164.41	0.00	570b	<0.50	<0.50	<0.50	<0.50	790	---	---
MW7	11/09/13		194.34	34.23	160.11	0.00	370b	<10	<10	<10	<10	460	---	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW7	05/12/14	a	194.34	31.33	163.01	0.00	310 HD	<10	<10	<10	<10	980	---	---
MW7	11/19/14	a	194.34	34.31	160.03	0.00	400 HD	<12	<12	<12	<12	660	---	---
MW7	**05/13/15**	**a**	**194.34**	**31.65**	**162.69**	**0.00**	**660 HD**	**<20**	**<20**	**<20**	**<20**	**870**	---	---
MW8	SCREEN INTERVAL (feet bgs) 30-40													
MW8	03/04/09		---	Well installed.										
MW8	03/30/09		192.96	27.35	165.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	04/02/09		192.96	Well surveyed.									---	---
MW8	05/28/09		192.96	28.72	164.24	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	08/31/09		192.96	31.93	161.03	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	12/11/09		192.96	31.24	161.72	0.00	<50	0.74	1.6	0.59	2.3	<0.50	---	---
MW8	05/07/10		192.96	25.68	167.28	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	11/01/10		192.96	31.18	161.78	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	05/27/11		192.96	27.55	165.41	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	11/23/11		192.96	29.74	163.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	05/24/12		192.96	26.93	166.03	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	10/31/12		192.96	31.35	161.61	0.00	75	2.5	19	1.7	8.7	<0.50	---	---
MW8	05/02/13		192.96	28.44	164.52	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	11/09/13		192.96	32.89	160.07	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	05/12/14	a	192.96	30.27	162.69	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	11/19/14	a	192.96	33.16	159.80	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	**05/13/15**	**a**	**192.96**	**30.35**	**162.61**	**0.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	---	---
MW9	SCREEN INTERVAL (feet bgs) 30-40													
MW9	03/05/09		---	Well installed.										
MW9	03/30/09		195.16	28.31	166.85	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	04/02/09		195.16	Well surveyed.									---	---
MW9	05/28/09		195.16	29.69	165.47	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	08/31/09		195.16	33.20	161.96	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	12/11/09		195.16	32.62	162.54	0.00	<50	0.73	1.7	0.54	2.2	<0.50	---	---
MW9	05/07/10		195.16	26.59	168.57	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	11/01/10		195.16	32.45	162.71	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	05/27/11		195.16	29.62	165.54	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	11/23/11		195.16	30.56	164.60	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	05/24/12		195.16	27.94	167.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	10/31/12		195.16	32.66	162.50	0.00	140	6.9	38	2.7	13	<0.50	---	---
MW9	05/02/13		195.16	29.58	165.58	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	11/09/13		195.16	Well inaccessible.										
MW9	05/12/14	b	195.16	Well inaccessible.										
MW9	11/19/14	a	195.16	34.60	160.56	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	**05/13/15**	**a**	**195.16**	**31.66**	**163.50**	**0.00**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	---	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
RW1	SCREEN INTERVAL (feet bgs) 29-39.5													
RW1	12/22/11		---	Well installed.										
RW1	12/30/11		195.15	Well surveyed.										
RW1	05/24/12		195.15	28.55	166.60	0.00	5,500b	920	5.9c	51	14	2,500	---	---
RW1	10/31/12	a	195.15	---	---	---	---	---	---	---	---	---	---	---
RW1	05/02/13	c	195.15	30.27	164.88	0.00	4,300b	1,200	<2.5	41	14	2,300	---	---
RW1	11/09/13		195.15	34.64	160.51	0.00	810b	210	<10	<10	<10	520	---	---
RW1	05/12/14	a	195.15	31.54	163.61	0.00	830 HD	450	<10	13	<10	490	---	---
RW1	11/19/14	a	195.15	34.94	160.21	0.00	910 HD	450	<10	<10	<10	590	---	---
RW1	**05/13/15**	**a**	**195.15**	**32.26**	**162.89**	**0.00**	**1,300 HD**	**560**	**<5.0**	**8.1**	**2.4 JA**	**480**	---	---
							Grab Groundwater Samples							
Pit Water	06/14/02		---	---	---	---	5,600	140	840	100	530	12,000	---	---
UST Pit	06/19/02		---	---	---	---	680	2.7	36	18	130	640	---	---
W-38-B11	11/14/07		---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
W-15-B12	11/13/07		---	---	---	---	8,400	67	<5.0	140	150	78	---	---
W-40-B13	11/12/07		---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	0.53	---	---
W-15-B14	11/13/07		---	---	---	---	2,500	1.7	3.0	26	13	16	---	---
W-38-B15	11/15/07		---	---	---	---	18,000	3,400	2,500	330	2,000	12,000	---	---
W-40-B16	11/15/07		---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	7.7	---	---
W-37-B17	11/13/07		---	---	---	---	630	1.8	<0.50	4.1	1.4	2,200	---	---
W-38-B18	11/12/07		---	---	---	---	4,300	52	<12	56	96	1,400	---	---
W-35-B19	03/03/09		---	---	---	---	4,400	<0.50	<0.50	<0.50	<1.0	7,100	---	---
W-35-B20	03/03/09		---	---	---	---	640	<0.50	<0.50	<0.50	<1.0	440	---	---
W-35-B21	03/03/09		---	---	---	---	<50	<0.50	<0.50	<0.50	<1.0	1.4	---	---

TOC	Top of casing.	bgs	Below ground surface.
LPH	Liquid-phase hydrocarbons.	µg/L	Micrograms per liter.
TPH-g	Total Petroleum Hydrocarbons as gasoline.	--	Not sampled or not analyzed.
MTBE	Methyl tertiary butyl ether.	NA	Not available.
NM	Not measured.	NC	Not calculated.

Total Pb	Total lead analyzed using EPA Method 6010.
Organic Pb	Organic lead analyzed using CA DHS LUFT method.
a	Well purged prior to sampling.

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)

b Well inaccessible.
c Well sampled the following day.
HD Chromat. profile inconsistent with the ref. fuel stnds.
J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA Analyte positively identified but quantitation is an estimate.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology. Data prior to 2013 provided by Cardno ERI.

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW1	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW1	Well destroyed in June 2000.										
MW2	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW2	Well destroyed in June 2000.										
MW3	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW3	Well destroyed in June 2000.										
MW4	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/28/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	12/11/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/07/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	11/01/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/27/11	d	---	---	---	---	---	---	---	---	---
MW4	11/23/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/24/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	10/31/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/03/13		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	11/09/13		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	05/12/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<1.0
MW4	11/19/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	**05/13/15**		**---**	**<0.50**	**<0.50**	**<0.50**	**<10**	**<0.50**	**<0.50**	**---**	**---**
MW5	03/30/09		---	<12	17	<12	450	<12	<12	---	---
MW5	05/28/09		---	<25	<25	<25	530	<25	<25	---	---
MW5	08/31/09		---	<100	<100	<100	<1,000	<100	<100	---	---
MW5	12/11/09		---	<100	<100	<100	2,000	<100	<100	---	---
MW5	05/07/10		---	<25	<25	<25	400	<25	<25	---	---
MW5	11/01/10		---	<50	<50	<50	1,500	<50	<50	---	---
MW5	05/27/11	d	---	---	---	---	---	---	---	---	---
MW5	11/23/11		---	<50	<50	<50	<500	<50	<50	---	---
MW5	05/24/12		---	<50	<50	<50	1,400	<50	<50	---	---
MW5	10/31/12		---	<50	<50	<50	730	<50	<50	---	---
MW5	05/03/13		---	<20	<20	<20	590	<20	<20	---	---
MW5	11/09/13		---	<5.0	<5.0	<5.0	1,100	<5.0	<5.0	---	---
MW5	05/12/14		---	<5.0	<5.0	<5.0	1,000	<5.0	<5.0	---	<10
MW5	11/19/14		---	<2.5	<2.5	<2.5	600	<2.5	<2.5	---	---
MW5	**05/13/15**		**---**	**<2.5**	**<2.5**	**<2.5**	**950**	**<2.5**	**<2.5**	**---**	**---**
MW6	03/30/09		---	<0.50	<0.50	1.3	410	<0.50	0.82	---	---
MW6	05/28/09		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	08/31/09		---	<100	<100	<100	1,100	<100	<100	---	---
MW6	12/11/09		---	<100	<100	<100	2,600	<100	<100	---	---
MW6	05/07/10		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	11/01/10		---	<50	<50	<50	2,400	<50	<50	---	---
MW6	05/27/11	d	---	---	---	---	---	---	---	---	---
MW6	11/23/11		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	05/24/12		---	<100	<100	<100	2,700	<100	<100	---	---
MW6	10/31/12		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	05/02/13		---	<40	<40	<40	570	<40	<40	---	---
MW6	11/09/13		---	<40	<40	<40	2,100	<40	<40	---	---
MW6	05/12/14		---	<5.0	<5.0	<5.0	1,700	<5.0	<5.0	---	<10
MW6	11/19/14		---	<10	<10	<10	2,100	<10	<10	---	---
MW6	**05/13/15**		**---**	**<10**	**<10**	**<10**	**2,400**	**<10**	**<10**	**---**	**---**

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date		Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW7	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW7	05/28/09		---	<1.0	<1.0	<1.0	<10	<1.0	<1.0	---	---
MW7	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW7	12/11/09		---	<0.50	<0.50	<0.50	12	<0.50	<0.50	---	---
MW7	05/07/10		---	<0.50	<0.50	<0.50	130	<0.50	<0.50	---	---
MW7	11/01/10		---	<2.5	<2.5	<2.5	27	<2.5	<2.5	---	---
MW7	05/27/11	d	---	---	---	---	---	---	---	---	---
MW7	11/23/11		---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/24/12	d	---	---	---	---	---	---	---	---	---
MW7	10/31/12		---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/02/13		---	<5.0	<5.0	<5.0	57	<5.0	<5.0	---	---
MW7	11/09/13		---	<10	<10	<10	<200	<10	<10	---	---
MW7	05/12/14		---	<10	<10	<10	<200	<10	<10	---	<20
MW7	11/19/14		---	<12	<12	<12	<250	<12	<12	---	---
MW7	**05/13/15**		**---**	**<20**	**<20**	**<20**	**<400**	**<20**	**<20**	**---**	**---**
MW8	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/28/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	12/11/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/07/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/01/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/27/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/23/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/24/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	10/31/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/02/13		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/09/13		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	05/12/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<1.0
MW8	11/19/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	**05/13/15**		**---**	**<0.50**	**<0.50**	**<0.50**	**<10**	**<0.50**	**<0.50**	**---**	**---**
MW9	03/30/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/28/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	08/31/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	12/11/09		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/07/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/01/10		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/27/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/23/11		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/24/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	10/31/12		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/02/13		---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/09/13	d	---	Well inaccessible.							
MW9	11/19/14		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	**05/13/15**		**---**	**<0.50**	**<0.50**	**<0.50**	**<10**	**<0.50**	**<0.50**	**---**	**---**
RW1	05/24/12		---	<50	<50	<50	1,900	<50	<50	---	---
RW1	10/31/12	d	---	---	---	---	---	---	---	---	---
RW1	05/03/13		---	<40	<40	<40	880	<40	<40	---	---
RW1	11/09/13		---	<10	<10	<10	1,100	<10	<10	---	---
RW1	05/12/14		---	<10	<10	<10	840	<10	<10	---	<20
RW1	11/19/14		---	<10	<10	<10	1,300	<10	<10	---	<20
RW1	**05/13/15**		**---**	**<5.0**	**<5.0**	**<5.0**	**880**	**<5.0**	**<5.0**	**---**	**---**

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
Grab Groundwater Samples										
Pit Water	06/14/02	11.5a	---	---	---	---	---	---	---	---
UST Pit	06/19/02	13.5a	---	---	---	---	---	---	---	---
W-38-B11	11/14/07	38	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---
W-15-B12	11/13/07	15	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<500	---
W-40-B13	11/12/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---
W-15-B14	11/13/07	15	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<100	---
W-38-B15	11/15/07	38	<25	<25	<25	1,900	<25	<25	<2,500	---
W-40-B16	11/15/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	85	---
W-37-B17	11/13/07	37	<0.50	<0.50	<0.50	58	<0.50	<0.50	<50	---
W-38-B18	11/12/07	38	<12	<12	<12	<250	<12	<12	<1,200	---
W-35-B19	03/03/09	35	<50	<50	<50	<500	<50	<50	<5,000	---
W-35-B20	03/03/09	35	<0.50	<0.50	<0.50	12	<0.50	<0.50	<50	---
W-35-B21	03/03/09	35	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50	---

EDB 1,2-Dibromoethane analyzed using EPA Method 8260B.
1,2-DCA 1,2-Dichloroethane analyzed using EPA Method 8260B.
TBA Tertiary butyl alcohol analyzed using EPA Method 8260B.
TAME Tertiary amyl methyl ether analyzed using EPA Method 8260B.
ETBE Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
DIPE Di-isopropyl ether analyzed using EPA Method 8260B.
Ethanol Ethanol analyzed using EPA Method 8260B.
µg/L Micrograms per liter.
--- Not sampled/Not analyzed/Not measured/Not applicable.
a Approximate depth to groundwater surface at time of sampling.
d Well inaccessible.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology, data prior to 2013 provided by Cardno ERI.

B Analyte was present in the associated method blank.
J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
QO Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.

TABLE 5 NATURAL ATTENUATION PARAMETER ANALYTICAL RESULTS,
FORMER MOBIL SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

			Laboratory Parameters						Field Parameters					
Well Number	Date		Alkalinity as CaCO3 (mg/L)	Ferrous Iron (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	DO (mg/L)	Methane (µg/L)	Temperature (Celsius)	pH	EC (µS/cm)	Total Dissolved Solids (mg/L)	ORP (mV)	DO (mg/L)
MW4	05/13/15	a	172	<0.100	68	2.4	--	0.173 J	18.1	7.12	584.1	645.6	--	5.11
MW5	05/13/15	a	324	2.15	32	0.76	--	28.1	17.8	7.03	870.1	593.8	--	3.98
MW6	05/13/15	a	427	<0.100	42	0.35	--	5.09	18.0	7.00	945.4	660.1	--	4.32
MW7	05/13/15	a	254	<0.100	61	1.6	--	1.67	18.5	7.16	719.1	510.2	--	4.34
MW8	05/13/15	a	208	<0.100	42	7.3	--	0.983 J	17.7	7.16	595.3	410.1	--	5.07
MW9	05/13/15	a	252	<0.100	41	6.0	--	0.0530	17.9	7.09	835.3	582.4	--	4.79
RW1	05/13/15	a	359	<0.100	43	0.77	--	1.85	18.4	7.05	849.1	590.7	--	4.11

DO	Dissolved oxygen.	mg/L	Milligrams per liter.
ORP	Oxidation/reduction potential.	mV	Millivolts.
EC	Conductivity.	--	Not sampled or not analyzed.
µS/cm	MicroSiemens per centimeter.	a	Well purged prior to sampling.
µg/L	Micrograms per liter.	<0.100	Concentration not detected above reporting limit (e.g. Reporting limit is 0.100 µg/L).

TABLE 6 GROUNDWATER MONITORING PLAN,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency			
		BTEX	TPH-g	MTBE	TBA
MW4	SA	SA	SA	SA	SA
MW5	SA	SA	SA	SA	SA
MW6	SA	SA	SA	SA	SA
MW7	SA	SA	SA	SA	SA
MW8	SA	SA	SA	SA	SA
MW9	SA	SA	SA	SA	SA
RW1	SA	SA	SA	SA	SA

Notes:

BTEX	Benzene, toluene, ethylbenzene, and xylenes.
TPH-g	Total Petroleum Hydrocarbons as gasoline.
MTBE	Methyl tertiary butyl ether.
TBA	Tertiary butyl alcohol.
SA	Semiannually (performed during the second and fourth quarters of each year).

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 foot 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, or if 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

ETIC ENGINEERING

FIELD SUMMARY REPORT

Client: ExxonMob.1 **Site Location:** _____

Project Number: 15-070234-UK **Task Number:** 4.1A 4.2D

On-Site Field Personnel: C. Mitchell

	Water	Soil	Empty		
Number of Waste Drums/ Containers on Site:	—	—	—	**Container Size/Number of Total Drums/Containers:**	

SUMMARY:

- On Site 06:30
- Opened and gauged wells MW4 thru MW9 and RW1 with ~~MW~~
- Purged and sampled wells MW4 thru MW9 with disposable bailers
- Purged Well RW1 with a disposable bailer. Well dewatered at ~ 14gal. the well was sampled after recharging 80% ±.
- Drummed purge water on site in a 55gal drum. Total volume 45gal.
- Closed all wells.
- Rolled on site 12:30
- Purge water removed from site
- Rolled off site 13:30

Preparer Name: ~~Christ Mitchell~~ Date: 5/13/15

Office Location: PH ☒ ~~MRTZ~~ ☐ PAS ☐ CM ☐ SD ☐

off Site 14:00

ETIC ENGINEERING

MONITORING WELL DATA FORM

Client: ExxonMobil

Date: 5/13/15

Project Number: UP70234, Activity 4

Station Number: 70234

Site Location: 3450 35th Avenue, Oakland, CA

Sampler: C Mitchell

MONITORING WELL NUMBER	DEPTH TO WATER (FEET)	DEPTH TO PRODUCT (FEET)	APPARENT PRODUCT THICKNESS (FEET)	AMOUNT OF PRODUCT REMOVED	SHEEN (Y/N)	MONITORING WELL INTEGRITY	DEPTH TO BOTTOM (FEET)	WELL CASING DIAMETER
MW4	34.01	—	—	—	N	OK	44.61	2"
MW5	33.31	—	—	—	N	OK	39.69	2"
MW6	29.91	—	—	—	N	OK	38.14	2"
MW7	31.65	—	—	—	N	OK	39.14	2"
MW8	30.35	—	—	—	N	OK	39.56	2"
MW9	31.66	—	—	—	N	OK	39.58	2"
RW1	32.26	—	—	—	N	OK	40.05	4"

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW4 | Date: 5/13/15

Project No: 15-07023+UP | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: W L M | Measuring Point Description: TOC North

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)
	44.61	−	34.01	=	10.6	X	3/4	2	4	6	1.70	=	5.10
							0.03	0.16	0.64	1.44			

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	07:23	07:30	07:36			
Volume Purge (gal)	2	4	6			
Temperature (C)	18.7	18.1	18.1			
pH	6.68	7.06	7.12			
Spec.Cond. (umhos)	647.2	592.3	554.1			
Turbidity/Color	light Brn	light Brn	light Brn			
TDS (g/L) HW	632.7	635.5	645.6			
ORP	—	—	—			
DO (mg / L)	5.55	4.92	5.11			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 1150 | Approximate Depth to Water During Sampling: 34 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 6 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions:

Condition of Well Box and Casing at Time of Sampling:

Well Head Conditions Requiring Correction:

Problems Encountered During Purging and Sampling:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW5 | Date: 5/13/15

Project No: 15-070234-4P | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WL M | Measuring Point Description: TOC North

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)
	39.69	−	33.31	=	6.38	X	3/4	2	4	6	1.02	=	3.06
							0.03	0.16	0.64	1.44			

PURGING DATA

Purge Method: bailer | Purge Depth: | Purge Rate: (gpm)

Time	11:27	11:28	11:36			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (C)	16.0	17.9	17.6			
pH	6.98	6.91	7.03			
Spec.Cond. (umhos)	863.5	872.2	870.1			
Turbidity/Color	light / brn	light / brn	light / brn			
TDS (g/L) mg/L	601.5	608.1	593.6			
ORP	—	—	—			
DO (mg/L)	3.82	3.89	3.98			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 1250 | Approximate Depth to Water During Sampling: 33.5 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 4.5 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions:

Condition of Well Box and Casing at Time of Sampling:

Well Head Conditions Requiring Correction:

Problems Encountered During Purging and Sampling:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil Well No: MW6 Date: 5/13/15

Project No: 15-070234-UF Personnel: C. McCabe II

GAUGING DATA

Water Level Measuring Method: WLM Measuring Point Description: TOC North

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)
	38.14 −	29.81 =	8.33 X	3/4: 0.03 / 2: 0.16 / 4: 0.64 / 6: 1.44	1.33 =	4.00

PURGING DATA

Purge Method: bailer Purge Depth: Purge Rate: (gpm)

Time	06:19	06:27	06:35			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (°C)	17.6	16.1	16.0			
pH	7.14	6.97	7.00			
Spec.Cond. (umhos)	902.7	936.4	945.4			
Turbidity/Color	1 NTU / brn	1 NTU / brn				
TDS (g/L) ppm	630.1	655.7	660.1			
ORP	—	—	—			
DO (mg/L)	4.28	4.26	4.32			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 1235 Approximate Depth to Water During Sampling: 30 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 4.5 (gallons) Disposal: Onsite Drum(s) No.

Weather Conditions:

Condition of Well Box and Casing at Time of Sampling:

Well Head Conditions Requiring Correction:

Problems Encountered During Purging and Sampling:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW7 | Date: 5/13/15

Project No: 15-070234-4V | Personnel: C. McFelue II

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)
	39.15 −	31.65 =	7.49 ×	3/4"	2"	4"	6"	1.20 =	3.60
				0.03	0.16	0.64	1.44		

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	07:50	07:55	08:02			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (C)	17.8	18.6	18.5			
pH	7.06	7.13	7.16			
Spec.Cond. (umhos)	657.5	715.0	719.1			
Turbidity/Color	light Brn	light Brn	light Brn			
TDS ~~(mg/L)~~ ppm	462.9	509.2	510.2			
ORP	—	—	—			
DO (mg / L)	4.14	4.44	4.34			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 1210 | Approximate Depth to Water During Sampling: 32 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 4.5 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions:

Condition of Well Box and Casing at Time of Sampling:

Well Head Conditions Requiring Correction:

Problems Encountered During Purging and Sampling:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW5 | Date: 5/13/15

Project No: 15-070234-UP | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)
	39.56	30.35	9.21	3/4: 0.03 / 2: 0.16 / 4: 0.64 / 6: 1.44	1.47	4.42

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	08:53	08:57	09:01			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (C)	17.3	17.6	17.7			
pH	7.24	7.15	7.16			
Spec.Cond. (umhos)	550.6	561.4	595.3			
Turbidity/Color	light Brn	light Brn	light Brn			
TDS (g/L) ~~mg/L~~	377.9	400.4	410.1			
ORP	—	—	—			
DO (mg / L)	5.09	5.02	5.07			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 1030 | Approximate Depth to Water During Sampling: 30.5 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 4.5 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions:

Condition of Well Box and Casing at Time of Sampling:

Well Head Conditions Requiring Correction:

Problems Encountered During Purging and Sampling:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW9 | Date: 5/13/15

Project No: 15-070234-4P | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)
	39.58 −	31.66 =	7.92 X	3/4: 0.03 / 2: 0.16 / 4: 0.64 / 6: 1.44	1.27	3.80

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	09:25	09:29	09:33			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (C)	18.0	17.9	17.9			
pH	7.22	7.10	7.09			
Spec.Cond. (umhos)	777.5	827.1	835.3			
Turbidity/Color	1.5 NTU	1.0 NTU	1.0 NTU			
TDS (g/L) mg/L	536.7	575.1	582.4			
ORP	—	—	—			
DO (mg / L)	4.76	4.73	4.79			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 1000 | Approximate Depth to Water During Sampling: 32 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 4.5 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions:

Condition of Well Box and Casing at Time of Sampling:

Well Head Conditions Requiring Correction:

Problems Encountered During Purging and Sampling:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: RW1 | Date: 5/13/15

Project No: 15-070234-VP | Personnel: C. Mitchell

GAUGING DATA

Water Level Measuring Method: WLM | Measuring Point Description: TOC North

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)
	40.06 −	32.26 =	7.82 ×	3/4: 0.03 / 2: 0.16 / 4: 0.64 / 6: 1.44	5.00 =	15.00

PURGING DATA

Purge Method: Bailer | Purge Depth: | Purge Rate: (gpm)

Time	10:54	11:00	11:05			
Volume Purge (gal)	5	10	15			
Temperature (C)	19.1	18.7	18.4			
pH	7.38	7.02	7.05			
Spec.Cond. (umhos)	827.1	854.2	849.1			
Turbidity/Color	light Brn	light Brn	light Brn			
TDS (~~g/L~~) ppm	573.1	593.3	590.7			
ORP	—	—	—			
DO (mg / L)	3.64	3.69	4.11			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	Y			

Comments/Observations: Dewatered @ ± 14 gal.

SAMPLING DATA

Time Sampled: 13:20 | Approximate Depth to Water During Sampling: 32.5 (feet)

Comments:

Sample Number	Number of Containers	Container Type	Preservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method

Total Purge Volume: 14 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions:

Condition of Well Box and Casing at Time of Sampling:

Well Head Conditions Requiring Correction:

Problems Encountered During Purging and Sampling: Well Dewatered

Appendix C

Waste Manifest

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N/A	1	800-675-1055	05132015CM

GENERATOR

5. Generator's Name and Mailing Address

Exxon Mobil Oil Corporation (70234) ATTN: DELILAH RIVERA
2555 W. 190TH Street, #1105
Torrance, CA 90504 USA
Generator's Phone: ~~310-212-2353-32~~

Generator's Site Address (if different than mailing address)
3450 35th Ave
Oakland, CA 94604 USA

6. Transporter 1 Company Name: DILLARD ENVIRONMENTAL SERVICES — U.S. EPA ID Number: CAD982523433

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
INSTRAT INC.
1105 AIRPORT DRIVE
RIO VISTA, CA 94571
Facility's Phone: 520-753-1829 — U.S. EPA ID Number:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	Non Hazardous Waste Liquid (Monitoring Well Purge Water)	1	DM	50	G
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information
DES JOB #911-233

ON BEHALF OF EXXONMOBIL OIL CORPORATION:

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: John Haberland — Signature: [signature] — Month 05 Day 13 Year 15

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: KEN WILSON — Signature: [signature] — Month 05 Day 13 Year 15

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

17b. Alternate Facility (or Generator) — Manifest Reference Number: — U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MICHAEL WHITEHEAD — Signature: [signature] — Month 5 Day 13 Year 15

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

Appendix D

Laboratory Analytical Reports and Chain-of-Custody Documentation

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WORK ORDER NUMBER: 15-05-1005

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ETIC Engineering, Inc.

Client Project Name: ExxonMobil 70234

Attention: Sean Bowen
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Approved for release on 05/28/2015 by:
Cecile deGuia
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Contents

Client Project Name: ExxonMobil 70234
Work Order Number: 15-05-1005

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Work Order Narrative

Work Order: 15-05-1005 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 05/14/15. They were assigned to Work Order 15-05-1005.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	ETIC Engineering, Inc. 898 N. Fair Oaks Avenue, Suite A Pasadena, CA 91103-3065	Work Order:	15-05-1005
		Project Name:	ExxonMobil 70234
		PO Number:	4410274216
		Date/Time Received:	05/14/15 08:32
		Number of Containers:	70
Attn:	Sean Bowen		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW4	15-05-1005-1	05/13/15 11:50	10	Aqueous
MW5	15-05-1005-2	05/13/15 12:50	10	Aqueous
MW6	15-05-1005-3	05/13/15 12:35	10	Aqueous
MW7	15-05-1005-4	05/13/15 12:10	10	Aqueous
MW8	15-05-1005-5	05/13/15 10:30	10	Aqueous
MW9	15-05-1005-6	05/13/15 10:00	10	Aqueous
RW1	15-05-1005-7	05/13/15 13:20	10	Aqueous

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: RSK-175M
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-05-1005-1-D**	**05/13/15 11:50**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 13:18**	**150526L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	0.173	1.00	0.0400	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-05-1005-2-D**	**05/13/15 12:50**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 13:43**	**150526L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	28.1	1.00	0.0400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-05-1005-3-D**	**05/13/15 12:35**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 14:14**	**150526L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	5.09	1.00	0.0400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-05-1005-4-D**	**05/13/15 12:10**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 14:39**	**150526L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	1.67	1.00	0.0400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-05-1005-5-D**	**05/13/15 10:30**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 15:04**	**150526L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	0.983	1.00	0.0400	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-05-1005-6-D**	**05/13/15 10:00**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 15:31**	**150526L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	0.0530	1.00	0.0400	1.00	J

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: RSK-175M
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-05-1005-7-D**	**05/13/15 13:20**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 15:57**	**150526L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	1.85	1.00	0.0400	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-663-2412**	**N/A**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 12:33**	**150526L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methane	ND	1.00	0.0400	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-05-1005-1-I**	**05/13/15 11:50**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 15:04**	**150514L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	2.4	0.10	0.025	1.00	
Sulfate	68	1.0	0.19	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-05-1005-2-I**	**05/13/15 12:50**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 15:21**	**150514L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	0.76	0.10	0.025	1.00	
Sulfate	32	1.0	0.19	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-05-1005-3-I**	**05/13/15 12:35**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 15:37**	**150514L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	0.35	0.10	0.025	1.00	
Sulfate	42	1.0	0.19	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-05-1005-4-I**	**05/13/15 12:10**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 15:53**	**150514L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	1.6	0.10	0.025	1.00	
Sulfate	61	1.0	0.19	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-05-1005-5-I**	**05/13/15 10:30**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 16:10**	**150514L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	7.3	0.10	0.025	1.00	
Sulfate	42	1.0	0.19	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-05-1005-6-I**	**05/13/15 10:00**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 16:26**	**150514L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	6.0	0.10	0.025	1.00	
Sulfate	41	1.0	0.19	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-05-1005-7-I**	**05/13/15 13:20**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 16:43**	**150514L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	0.77	0.10	0.025	1.00	
Sulfate	43	1.0	0.19	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-906-5755**	**N/A**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 11:07**	**150514L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate (as N)	ND	0.10	0.025	1.00	
Sulfate	ND	1.0	0.19	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: SM 2320B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-05-1005-1-I**	**05/13/15 11:50**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**

Parameter	Result	RL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	172	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-05-1005-2-I**	**05/13/15 12:50**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**

Parameter	Result	RL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	324	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-05-1005-3-I**	**05/13/15 12:35**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**

Parameter	Result	RL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	427	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-05-1005-4-I**	**05/13/15 12:10**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**

Parameter	Result	RL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	254	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-05-1005-5-I**	**05/13/15 10:30**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**

Parameter	Result	RL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	208	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-05-1005-6-I**	**05/13/15 10:00**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**

Parameter	Result	RL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	252	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-05-1005-7-I**	**05/13/15 13:20**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**

Parameter	Result	RL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	359	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-859-709**	**N/A**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**

Parameter	Result	RL	DF	Qualifiers
Alkalinity, Total (as CaCO3)	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: SM 3500-FeB
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-05-1005-1-J**	**05/13/15 11:50**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FEL1**

Parameter	Result	RL	DF	Qualifiers
Iron (II)	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-05-1005-2-J**	**05/13/15 12:50**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FEL1**

Parameter	Result	RL	DF	Qualifiers
Iron (II)	2.15	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-05-1005-3-J**	**05/13/15 12:35**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FEL1**

Parameter	Result	RL	DF	Qualifiers
Iron (II)	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-05-1005-4-J**	**05/13/15 12:10**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FEL1**

Parameter	Result	RL	DF	Qualifiers
Iron (II)	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-05-1005-5-J**	**05/13/15 10:30**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FEL1**

Parameter	Result	RL	DF	Qualifiers
Iron (II)	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-05-1005-6-J**	**05/13/15 10:00**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FEL1**

Parameter	Result	RL	DF	Qualifiers
Iron (II)	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-05-1005-7-J**	**05/13/15 13:20**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FEL1**

Parameter	Result	RL	DF	Qualifiers
Iron (II)	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-111-5060**	**N/A**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FEL1**

Parameter	Result	RL	DF	Qualifiers
Iron (II)	ND	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-05-1005-1-G**	**05/13/15 11:50**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 14:44**	**150519L037**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	50	48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	83	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-05-1005-2-G**	**05/13/15 12:50**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 16:26**	**150519L037**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	1100	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-05-1005-3-G**	**05/13/15 12:35**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 17:00**	**150519L037**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	200	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	83	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-05-1005-4-G**	**05/13/15 12:10**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 17:34**	**150519L037**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	660	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	80	38-134	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-05-1005-5-G**	**05/13/15 10:30**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 18:08**	**150519L037**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	50	48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	84	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-05-1005-6-G**	**05/13/15 10:00**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 18:41**	**150519L037**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	50	48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	86	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-05-1005-7-G**	**05/13/15 13:20**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 19:16**	**150519L037**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	1300	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	83	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-436-10121**	**N/A**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 13:38**	**150519L037**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	50	48	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	83	38-134	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	**15-05-1005-1-A**	**05/13/15 11:50**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 12:43**	**150523L025**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	95	80-127	
1,2-Dichloroethane-d4	96	80-128	
Toluene-d8	98	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-05-1005-2-A**	**05/13/15 12:50**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 14:41**	**150523L025**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	74	2.5	1.6	5.00	
Ethylbenzene	ND	2.5	1.6	5.00	
Toluene	ND	2.5	1.3	5.00	
p/m-Xylene	2.7	2.5	1.2	5.00	
o-Xylene	ND	2.5	2.0	5.00	
Xylenes (total)	2.7	2.5	1.2	1.00	
Tert-Butyl Alcohol (TBA)	950	50	20	5.00	
Diisopropyl Ether (DIPE)	ND	2.5	1.2	5.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.5	1.1	5.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.5	1.2	5.00	
1,2-Dibromoethane	ND	2.5	1.7	5.00	
1,2-Dichloroethane	ND	2.5	0.92	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	105	80-128	
Toluene-d8	99	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**15-05-1005-2-B**	**05/13/15 12:50**	**Aqueous**	**GC/MS T**	**05/24/15**	**05/24/15 17:10**	**150524L031**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	310	5.0	2.9	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**15-05-1005-3-A**	**05/13/15 12:35**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 17:40**	**150523L025**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	10	6.5	20.0	
Ethylbenzene	ND	10	6.3	20.0	
Toluene	ND	10	5.3	20.0	
p/m-Xylene	ND	10	4.7	20.0	
o-Xylene	ND	10	7.8	20.0	
Xylenes (total)	ND	10	4.7	1.00	
Methyl-t-Butyl Ether (MTBE)	26	10	5.8	20.0	
Tert-Butyl Alcohol (TBA)	2400	200	82	20.0	
Diisopropyl Ether (DIPE)	ND	10	4.7	20.0	
Ethyl-t-Butyl Ether (ETBE)	ND	10	4.3	20.0	
Tert-Amyl-Methyl Ether (TAME)	ND	10	4.7	20.0	
1,2-Dibromoethane	ND	10	6.7	20.0	
1,2-Dichloroethane	ND	10	3.7	20.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**15-05-1005-4-B**	**05/13/15 12:10**	**Aqueous**	**GC/MS T**	**05/24/15**	**05/24/15 17:40**	**150524L031**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	20	13	40.0	
Ethylbenzene	ND	20	13	40.0	
Toluene	ND	20	11	40.0	
p/m-Xylene	ND	20	9.4	40.0	
o-Xylene	ND	20	16	40.0	
Xylenes (total)	ND	20	9.4	1.00	
Methyl-t-Butyl Ether (MTBE)	870	20	12	40.0	
Tert-Butyl Alcohol (TBA)	ND	400	160	40.0	
Diisopropyl Ether (DIPE)	ND	20	9.4	40.0	
Ethyl-t-Butyl Ether (ETBE)	ND	20	8.6	40.0	
Tert-Amyl-Methyl Ether (TAME)	ND	20	9.4	40.0	
1,2-Dibromoethane	ND	20	13	40.0	
1,2-Dichloroethane	ND	20	7.4	40.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	109	80-128	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**15-05-1005-5-A**	**05/13/15 10:30**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 18:39**	**150523L025**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	110	80-128	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-05-1005-6-A**	**05/13/15 10:00**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 19:09**	**150523L025**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	108	80-128	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-05-1005-7-A**	**05/13/15 13:20**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 19:38**	**150523L025**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Ethylbenzene	8.1	5.0	3.2	10.0	
Toluene	ND	5.0	2.6	10.0	
p/m-Xylene	2.4	5.0	2.4	10.0	J
o-Xylene	ND	5.0	3.9	10.0	
Xylenes (total)	2.4	5.0	2.4	1.00	JA
Tert-Butyl Alcohol (TBA)	880	100	41	10.0	
Diisopropyl Ether (DIPE)	ND	5.0	2.4	10.0	
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	2.2	10.0	
Tert-Amyl-Methyl Ether (TAME)	ND	5.0	2.4	10.0	
1,2-Dibromoethane	ND	5.0	3.4	10.0	
1,2-Dichloroethane	ND	5.0	1.8	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	109	80-128	
Toluene-d8	100	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**15-05-1005-7-B**	**05/13/15 13:20**	**Aqueous**	**GC/MS T**	**05/24/15**	**05/24/15 18:10**	**150524L031**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	560	25	16	50.0	
Methyl-t-Butyl Ether (MTBE)	480	25	14	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	105	80-128	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-3548**	**N/A**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 12:05**	**150523L025**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	96	80-128	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 70234

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-3552**	**N/A**	**Aqueous**	**GC/MS T**	**05/24/15**	**05/24/15 12:26**	**150524L031**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.32	1.00	
1,2-Dibromoethane	ND	0.50	0.34	1.00	
1,2-Dichloroethane	ND	0.50	0.18	1.00	
Ethylbenzene	ND	0.50	0.32	1.00	
Toluene	ND	0.50	0.26	1.00	
p/m-Xylene	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	1.00	
o-Xylene	ND	0.50	0.39	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	0.24	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	0.22	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	0.24	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	95	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: EPA 300.0

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW4	**Sample**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 15:04**	**150514S01**
MW4	**Matrix Spike**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 16:59**	**150514S01**
MW4	**Matrix Spike Duplicate**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 17:15**	**150514S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate (as N)	2.434	500.0	498.9	99	498.6	99	80-120	0	0-20	
Sulfate	68.31	5000	4929	97	4911	97	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: SM 3500-FeB

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RW1	**Sample**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FES1**
RW1	**Matrix Spike**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FES1**
RW1	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FES1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Iron (II)	ND	1.000	0.9000	90	0.8900	89	70-130	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.		Date Received:	05/14/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-05-1005
Pasadena, CA 91103-3065		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 70234			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW4	**Sample**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 14:44**	**150519S020**
MW4	**Matrix Spike**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 15:20**	**150519S020**
MW4	**Matrix Spike Duplicate**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 15:53**	**150519S020**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1821	91	1832	92	68-122	1	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW4	**Sample**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 12:43**	**150523S001**
MW4	**Matrix Spike**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 13:12**	**150523S001**
MW4	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 13:42**	**150523S001**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	9.243	92	8.134	81	75-125	13	0-20	
Ethylbenzene	ND	10.00	9.182	92	7.980	80	75-125	14	0-20	
Toluene	ND	10.00	9.137	91	8.059	81	75-125	13	0-20	
p/m-Xylene	ND	20.00	17.98	90	15.56	78	75-125	14	0-20	
o-Xylene	ND	10.00	8.806	88	7.735	77	75-127	13	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	10.11	101	9.342	93	71-131	8	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	55.38	111	51.88	104	20-180	7	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	9.831	98	9.010	90	64-136	9	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	10.39	104	9.504	95	73-133	9	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	10.24	102	9.564	96	75-125	7	0-20	
1,2-Dibromoethane	ND	10.00	10.26	103	9.629	96	75-126	6	0-20	
1,2-Dichloroethane	ND	10.00	10.03	100	9.292	93	75-127	8	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-05-1101-1	**Sample**	**Aqueous**	**GC/MS T**	**05/24/15**	**05/24/15 14:07**	**150524S001**
15-05-1101-1	**Matrix Spike**	**Aqueous**	**GC/MS T**	**05/24/15**	**05/24/15 14:51**	**150524S001**
15-05-1101-1	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS T**	**05/24/15**	**05/24/15 15:20**	**150524S001**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	100.0	92.27	92	93.88	94	75-125	2	0-20	
1,2-Dibromoethane	ND	100.0	88.63	89	96.43	96	75-126	8	0-20	
1,2-Dichloroethane	ND	100.0	95.16	95	100.3	100	75-127	5	0-20	
Ethylbenzene	11.25	100.0	106.4	95	104.6	93	75-125	2	0-20	
Toluene	ND	100.0	94.46	94	96.02	96	75-125	2	0-20	
p/m-Xylene	6.071	200.0	195.7	95	191.2	93	75-125	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	100.0	86.21	86	92.49	92	71-131	7	0-20	
o-Xylene	ND	100.0	90.10	90	90.10	90	75-127	0	0-20	
Tert-Butyl Alcohol (TBA)	ND	500.0	432.3	86	471.9	94	20-180	9	0-40	
Diisopropyl Ether (DIPE)	ND	100.0	89.81	90	95.96	96	64-136	7	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	100.0	87.47	87	96.24	96	73-133	10	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	100.0	84.48	84	93.62	94	75-125	10	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MW4	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKD1**
MW4	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	172.0	173.0	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: RSK-175M

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-663-2412	**LCS**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 11:37**	**150526L01**
099-12-663-2412	**LCSD**	**Aqueous**	**GC 52**	**N/A**	**05/26/15 12:02**	**150526L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	102.0	96.95	95	96.90	95	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: EPA 300.0

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-906-5755	**LCS**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 11:23**	**150514L01**
099-12-906-5755	**LCSD**	**Aqueous**	**IC 7**	**N/A**	**05/14/15 11:40**	**150514L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate (as N)	5.000	5.027	101	5.026	101	90-110	0	0-15	
Sulfate	50.00	49.70	99	49.78	100	90-110	0	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

ETIC Engineering, Inc.
898 N. Fair Oaks Avenue, Suite A
Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 05/14/15
Work Order: 15-05-1005
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-709	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**
099-15-859-709	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**05/26/15 20:32**	**F0526ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	99.00	99	98.00	98	80-120	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	05/14/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-05-1005
Pasadena, CA 91103-3065		Preparation:	N/A
		Method:	SM 3500-FeB
Project: ExxonMobil 70234			Page 4 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-111-5060	**LCS**	**Aqueous**	**UV 9**	**05/14/15**	**05/14/15 09:29**	**F0514FEL1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Iron (II)	1.000	1.030	103	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	05/14/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-05-1005
Pasadena, CA 91103-3065		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 70234			Page 5 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-436-10121	**LCS**	**Aqueous**	**GC 25**	**05/19/15**	**05/19/15 14:11**	**150519L037**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	1839	92	78-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	05/14/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-05-1005
Pasadena, CA 91103-3065		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 70234			Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-10-025-3548	**LCS**	**Aqueous**	**GC/MS T**	**05/23/15**	**05/23/15 11:30**	**150523L025**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	8.855	89	80-120	73-127	
Ethylbenzene	10.00	9.044	90	80-120	73-127	
Toluene	10.00	8.858	89	80-120	73-127	
p/m-Xylene	20.00	18.11	91	80-120	73-127	
o-Xylene	10.00	8.995	90	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	8.424	84	75-123	67-131	
Tert-Butyl Alcohol (TBA)	50.00	41.62	83	80-120	73-127	
Diisopropyl Ether (DIPE)	10.00	8.525	85	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	8.360	84	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	8.513	85	80-120	73-127	
1,2-Dibromoethane	10.00	8.521	85	80-120	73-127	
1,2-Dichloroethane	10.00	8.578	86	80-122	73-129	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	05/14/15
898 N. Fair Oaks Avenue, Suite A		Work Order:	15-05-1005
Pasadena, CA 91103-3065		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 70234			Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-10-025-3552	**LCS**	**Aqueous**	**GC/MS T**	**05/24/15**	**05/24/15 11:46**	**150524L031**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	8.588	86	80-120	73-127	
1,2-Dibromoethane	10.00	8.628	86	80-120	73-127	
1,2-Dichloroethane	10.00	9.195	92	80-122	73-129	
Ethylbenzene	10.00	9.185	92	80-120	73-127	
Toluene	10.00	8.634	86	80-120	73-127	
p/m-Xylene	20.00	18.54	93	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	8.091	81	75-123	67-131	
o-Xylene	10.00	9.298	93	80-120	73-127	
Tert-Butyl Alcohol (TBA)	50.00	50.47	101	80-120	73-127	
Diisopropyl Ether (DIPE)	10.00	8.446	84	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	8.150	82	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	8.087	81	80-120	73-127	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 15-05-1005 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 300.0	N/A	921	IC 7	1
EPA 8015B (M)	EPA 5030C	797	GC 25	2
EPA 8260B	EPA 5030C	849	GC/MS T	2
EPA 8260B	EPA 5030C	975	GC/MS T	2
RSK-175M	N/A	884	GC 52	2
SM 2320B	N/A	688	PH1/BUR03	1
SM 3500-FeB	N/A	735	UV 9	1

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Glossary of Terms and Qualifiers

Work Order: 15-05-1005 Page 1 of 1

Qualifiers	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to suspected matrix interference.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

Site Name	
Provide MRN for retail or AFE for major projects	
Retail Project (MRN)	
Major Project (AFE)	
Project Name	Former Retail Site 70234

CHAIN OF CUSTODY RECORD

DATE: 5/13/15
PAGE: 1 OF 1

ExxonMobil PM: Jennifer Sedlachek

LABORATORY CLIENT: ExxonMobil C/O ETIC Engineering, Inc.
ADDRESS: 898 N. Fair Oaks Ave, #A
CITY: Pasadena, CA
TEL: 626-432-5999 x 2507 | FAX: 626-432-5998 | EMAIL: sbowen@eticeng.com

GLOBAL ID #/ COELT LOG CODE: T06019757161
PROJECT CONTACT: Sean Bowen, ETIC Engineering, Inc.
SAMPLER(S): (SIGNATURE)

P.O. 4410274216
LOG CODE: 15-05-1005
COOLER RECEIPT: Temp = °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☑ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS:
edf file required, Global ID #T06019757161

email report to eticlabreports@eticeng.com,aforman@eticeng.com
Fuel Oxygenates and Additives include: MTBE, TBA, ETBE, DIPE, TAME, 1,2-DCA and 1,2-DBA.
Set TBA detection limit at or below 12 ug/L.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH-g BY 8015B(M)	BTEX/5 Oxys, EDB, 1,2-DCA By 8260B		Alkalinity	Ferrous Iron	Nitrates	Sulfates	Methane							CONTAINER TYPE
1	MW4	MW4	5/13/15	1150	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
2	MW5	MW5		1250	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
3	MW6	MW6		1235	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
4	MW7	MW7		1210	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
5	MW8	MW8		1030	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
6	MW9	MW9		1000	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber
7	RW1	RW1		1320	water	10	X	X		X	X	X	X	X							8 Voas, 1-250ml HDPE, 1-250ml Amber

Relinquished by: (Signature)	Received by: (Signature)	Date, & Time: 5/13/15 14:45
Relinquished by: (Signature) TO GSO 5/13/15 1730	Received by: (Signature) FCI Wbath ECI	Date, & Time: 5/14/15 0832
Relinquished by: (Signature)	Received by: (Signature)	Date, & Time:

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GSO

800-322-5555 www.gso.com

1005

Ship From
CAL SCIENCE- CONCORD
ALAN KEMP
5063 COMMERCIAL CIRCLE
#H
CONCORD, CA 94520

Ship To
CEL
SAMPLE RECEIVING
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD: $0.00
Weight: 0 lb(s)
Reference:
ETIC
Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 527916433

EPS

ORC A
GARDEN GROVE

D92845A

37697381

Print Date: 5/13/2015 3:42 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

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WORK ORDER NUMBER: 15-05- 1005

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: EXXONMOBIL/ETIC

DATE: 05 / 14 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF:-0.3°C); Temperature (w/o CF): 2.4 °C (w/ CF): 2.1 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 426

CUSTODY SEAL:

Cooler ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: 426

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☑ Total Metals ☐ Dissolved Metals (CE 5/14/15)			
Container(s) for certain analysis free of headspace	☑	☐	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☑ 8 VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☑ 250AGB ☐ 250CGB ☐ 250CGB**s** ☑ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 826/965

Reviewed by: 15/681

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Appendix E

Groundwater Monitoring and Sampling Data for Unocal No. 6129

Table 1
Current Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-1	190.79	6/17/2015	29.27	161.52	0	52	<0.50	<0.50	<0.50	<1.0	
MW-2	190.80	6/17/2015	29.70	161.10	0	<50	<0.50	<0.50	<0.50	<1.0	
MW-3	188.58	6/17/2015	28.75	159.83	0	220 [1]	<0.50	<0.50	<0.50	<1.0	

NOTES:

* TOC and GWE are in feet above mean sea level.

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-g analyzed by Luft-GC/MS method

ID = Identification

TOC = Top of casing

ft = Feet

DTW = Depth to water

GWE = Groundwater elevation

µg/L = Micrograms per liter

LNAPL = Light Non-Aqueous Phase Liquid

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

TPH-g = Total Petroleum Hydrocarbons as Gasoline

TPH-g reported as TPPH (total purgeable petroleum hydrocarbons) by laboratory

[1] = TPH-g does not exhibit a "gasoline" pattern. TPH-g is entirely due to MTBE.

Table 2
Current Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	6/17/2015	100	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-2	6/17/2015	25	<10	<250	3.1	<0.50	<0.50	<0.50	<0.50
MW-3	6/17/2015	570 [1]	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

ID = Identification

µg/L = Micrograms per liter

MTBE = Methyl t-butyl ether

TBA = T-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Ethyl t-butyl ether

TAME = T-amyl methyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

[1] = Practical Quantitation Limits and Method Detection Limits are raised due to sample dilution

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-1	190.79	1/5/1990	32.80	157.99	--	<30	<0.30	<0.30	<0.30	<0.30	
screened	190.79	5/11/1990	31.80	158.99	--	<30	<0.30	7.1	<0.30	<0.30	
24 to 44' bgs	190.79	8/9/1990	32.37	158.42	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/14/1990	33.32	157.47	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	2/12/1991	33.02	157.77	--	<30	0.32	<0.30	<0.30	<0.30	
	190.79	5/9/1991	30.95	159.84	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/13/2003	--	--	--	180	<1.0	<1.0	<1.0	<2.0	
	190.79	8/27/2004	30.65	160.14	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2004	29.35	161.44	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	2/9/2005	26.89	163.90	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/17/2005	26.56	164.23	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	7/27/2005	27.33	163.46	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/6/2005	29.59	161.20	0	<50	<0.50	0.93	<0.50	1.80	
	190.79	2/21/2006	28.27	162.52	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/8/2006	26.07	164.72	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/15/2006	28.86	161.93	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2006	29.49	161.30	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	3/28/2007	27.24	163.55	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	6/25/2007	28.30	162.49	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	9/22/2007	30.61	160.18	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2007	30.30	160.49	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/17/2008	27.22	163.57	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/20/2008	30.10	160.69	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/11/2008	31.04	159.75	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/25/2008	30.88	159.91	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/9/2009	27.50	163.29	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/28/2009	28.25	162.54	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/11/2009	30.60	160.19	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/7/2010	26.06	164.73	0	67	<0.50	<0.50	<0.50	<1.0	
	190.79	11/1/2010	30.18	160.61	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/27/2011	26.87	163.92	0	110	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2011	29.14	161.65	0	1,101	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-1 cont.	190.79	5/24/2012	26.58	164.21	0	140	<0.50	<0.50	<0.50	<1.0	
	190.79	10/23/2012	30.51	160.28	0	130	<0.50	<0.50	<0.50	<1.0	
	190.79	5/2/2013	28.30	162.49	0	150 [1]	<0.50	<0.50	<0.50	<1.0	
	190.79	11/13/2013	31.65	159.14	0	240	<0.50	<0.50	<0.50	<1.0	
	190.79	5/12/2014	28.95	161.84	0	98 [1]	<0.50	<0.50	<0.50	<1.0	
	190.79	11/19/2014	31.50	159.29	0	130 [1]	<0.50	<0.50	<0.50	<1.0	
	190.79	**6/17/2015**	**29.27**	**161.52**	**0**	**52**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-2	190.80	1/5/1990	33.02	157.78	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
screened	190.80	5/11/1990	31.98	158.82	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
24 to 44' bgs	190.80	8/9/1990	32.45	158.35	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	11/14/1990	33.47	157.33	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	2/12/1991	33.15	157.65	--	<30	<>0.30	0.42	<0.30	0.51	
	190.80	5/9/1991	30.88	159.92	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	11/13/2003	--	--	--	<2,000	<20	<20	<20	<40	
	190.80	8/27/2004	30.28	160.52	0	950	<5.0	<5.0	<5.0	<10	
	190.80	11/23/2004	28.75	162.05	0	53	<0.50	<0.50	<0.50	<1.0	
	190.80	2/9/2005	26.08	164.72	0	<500	<0.50	<0.50	<0.50	<1.0	
	190.80	5/17/2005	24.53	166.27	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.80	7/27/2005	27.51	163.29	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	12/6/2005	29.13	161.67	0	340	<0.50	<0.50	<0.50	<1.0	
	190.80	2/21/2006	29.23	161.57	0	190	<0.50	<0.50	<0.50	<1.0	
	190.80	6/8/2006	25.76	165.04	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	9/15/2006	29.17	161.63	0	<500	<5.0	<5.0	<5.0	<5.0	
	190.80	12/14/2006	29.11	161.69	0	520	<0.50	<0.50	<0.50	<0.50	
	190.80	3/28/2007	26.68	164.12	0	290	<0.50	<0.50	<0.50	<0.50	
	190.80	6/25/2007	25.91	164.89	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.80	9/22/2007	30.18	160.62	0	400	<0.50	<0.50	<0.50	<0.50	
	190.80	12/14/2007	29.96	160.84	0	400	<0.50	<0.50	<0.50	<1.0	
	190.80	3/17/2008	26.74	164.06	0	570	<5.0	<5.0	<5.0	<10	
	190.80	6/20/2008	29.78	161.02	0	580	<0.50	<0.50	<0.50	<1.0	
	190.80	9/11/2008	30.62	160.18	0	220	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-2 cont.	190.80	11/25/2008	30.48	160.32	0	500	<0.50	<0.50	<0.50	<1.0	
	190.80	3/9/2009	25.75	165.05	0	910	<5.0	<5.0	<5.0	<10	
	190.80	5/28/2009	27.71	163.09	0	460	<0.50	<0.50	<0.50	<1.0	
	190.80	12/11/2009	29.80	161.00	0	640	<5.0	<5.0	<5.0	<10	
	190.80	5/7/2010	25.11	165.69	0	600	<1.0	<1.0	<1.0	<2.0	
	190.80	11/1/2010	29.90	160.90	0	140	<0.50	<0.50	<0.50	<1.0	
	190.80	5/27/2011	26.44	164.36	0	560	<0.50	<0.50	<0.50	<1.0	
	190.80	11/23/2011	28.53	162.27	0	830	<0.50	<0.50	<0.50	<1.0	
	190.80	5/24/2012	25.97	164.83	0	1,000	<0.50	<0.50	<0.50	<1.0	
	190.80	10/23/2012	30.14	160.66	0	750	<0.50	<0.50	<0.50	<1.0	
	190.80	5/2/2013	27.14	163.66	0	290 [1]	<0.50	<0.50	<0.50	<1.0	
	190.80	11/13/2013	31.37	159.43	0	1,200	<0.50	<0.50	<0.50	<1.0	
	190.80	5/12/2014	28.49	162.31	0	260	<0.50	<0.50	<0.50	<1.0	
	190.80	11/19/2014	31.46	159.34	0	430 [1]	<0.50	<0.50	<0.50	<1.0	
	190.80	**6/17/2015**	**29.70**	**161.10**	0	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-3	188.58	1/5/1990	31.88	156.70	--	<30	<0.30	<0.30	<0.30	<0.30	
screened	188.58	5/11/1990	31.25	157.33	--	<30	<0.30	<0.30	<0.30	<0.30	
23 to 43' bgs	188.58	8/9/1990	31.53	157.05	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/14/1990	33.30	155.28	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	2/12/1991	32.05	156.53	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	5/9/1991	30.37	158.21	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/13/2003	--	--	--	2,600	<20	<20	<20	<40	
	188.58	8/27/2004	29.61	158.97	0	1,700	<10	<10	<10	<20	
	188.58	11/23/2004	28.48	160.10	0	1,500	<10	<10	<10	<20	
	188.58	2/9/2005	26.45	162.13	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	5/17/2005	25.61	162.97	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	7/27/2005	27.35	161.23	0	<1,000	<10	<10	<10	<20	
	188.58	12/6/2005	28.78	159.80	0	430	<0.50	1.6	<0.50	3.6	
	188.58	2/21/2006	28.91	159.67	0	420	<0.50	<0.50	<0.50	<1.0	
	188.58	6/8/2006	25.97	162.61	0	<1,200	<12	<12	<12	<25	
	188.58	9/15/2006	28.73	159.85	0	<1,200	<12	<12	<12	<12	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
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WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-3 cont.	188.58	12/14/2006	28.62	159.96	0	<1,000	<10	<10	<10	<10	
	188.58	3/28/2007	26.69	161.89	0	500	<1.0	<1.0	<1.0	<1.0	
	188.58	6/25/2007	26.74	161.84	0	270	<0.50	<0.50	<0.50	<0.50	
	188.58	9/22/2007	29.57	159.01	0	500	<0.50	<0.50	<0.50	<0.50	
	188.58	12/14/2007	29.30	159.28	0	270	<0.50	<0.50	<0.50	<1.0	
	188.58	3/17/2008	26.82	161.76	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	6/20/2008	29.10	159.48	0	490	<0.50	<0.50	<0.50	<1.0	
	188.58	9/11/2008	29.89	158.69	0	630	<5.0	<5.0	<5.0	<10	
	188.58	11/25/2008	29.74	158.84	0	380	<0.50	<0.50	<0.50	<1.0	
	188.58	3/9/2009	25.56	163.02	0	310	<0.50	<0.50	<0.50	<1.0	
	188.58	5/28/2009	27.55	161.03	0	410	<0.50	<0.50	<0.50	<1.0	
	188.58	12/11/2009	29.10	159.48	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	5/7/2010	25.72	162.86	0	360	<0.50	<0.50	<0.50	<1.0	
	188.58	11/1/2010	29.29	159.29	0	120	<0.50	<0.50	<0.50	<1.0	
	188.58	5/27/2011	26.53	162.05	0	340	<0.50	<0.50	<0.50	<1.0	
	188.58	5/24/2012	25.95	162.63	0	660	<0.50	<0.50	<0.50	<1.0	
	188.58	10/23/2012	29.39	159.19	0	480	<0.50	<0.50	<0.50	<1.0	
	188.58	5/2/2013	26.98	161.60	0	130 [1]	<0.50	<0.50	<0.50	<1.0	
	188.58	11/13/2013	30.28	158.30	0	110	<0.50	<0.50	<0.50	<1.0	
	188.58	5/12/2014	27.93	160.65	0	98 [1]	<0.50	<0.50	<0.50	<1.0	
	188.58	11/19/2014	30.22	158.36	0	180 [1]	<0.50	<0.50	<0.50	<1.0	
	188.58	**6/17/2015**	**28.75**	**159.83**	**0**	**220 [1]**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
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WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS

NOTES:
* TOC and GWE are in feet above mean sea level.
<# = Analyte not detected at or above indicated laboratory practical quantitation limit
BTEX compounds analyzed by Environmental Protection Agency Method 8260B
TPH-g analyzed by Luft-GC/MS method

ID = Identification
TOC = Top of casing
ft = Feet
DTW = Depth to water
GWE = Groundwater elevation
-- = Not available/Not analyzed
µg/L = Micrograms per liter
LNAPL = Light Non-Aqueous Phase Liquid
bgs = below ground surface

B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
TPH-g = Total Petroleum Hydrocarbons as Gasoline
[1] = TPH-g does not exhibit a "gasoline" pattern. TPH-g is entirely due to MTBE.
TPH-g reported as TPPH (total purgeable petroleum hydrocarbons) on some laboratory reports

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	240	<200	<1,000	<4.0	<4.0	<4.0	<4.0	<4.0
	8/27/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	11/23/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	2/9/2005	9.3	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	5/17/2005	1.9	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	7/27/2005	<0.50	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/6/2005	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	2.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/8/2006	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/15/2006	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2006	3.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/28/2007	0.64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/25/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/22/2007	4.10	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	0.65	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	14	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/20/2008	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	5.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	25	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	17	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	18	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	92	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
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3420 35th Avenue
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WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1 cont.	5/27/2011	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/23/2011	150	41	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	190	66	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	140	47	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/12/2014	170 [1]	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/19/2014	180 [1]	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/17/2015	**100**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-2	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	2,100	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	1,400	<5.0	<500	<5.0	24	<5.0	<5.0	<5.0
	11/23/2004	4.2	<5.0	<50	<0.50	18	<0.50	<0.50	<0.50
	2/9/2005	400	<5.0	<500	<5.0	19	<5.0	<5.0	<5.0
	5/17/2005	330	<5.0	<50	<0.50	12	<0.50	<0.50	<0.50
	7/27/2005	580	140	<500	<5.0	16	<5.0	<5.0	<5.0
	12/6/2005	780	61	<250	<0.50	15	<0.50	<0.50	<0.50
	2/21/2006	340	<10	<250	<0.50	18	<0.50	<0.50	<0.50
	6/8/2006	440	<100	<2,500	<5.0	14	<5.0	<5.0	<5.0
	9/15/2006	570	<100	<2,500	<5.0	17	<5.0	<5.0	<5.0
	12/14/2006	770	27	<250	<0.50	20	<0.50	<0.50	<0.50
	3/28/2007	460	260	<250	<0.50	23	<0.50	<0.50	<0.50
	6/25/2007	1.2	<10	<250	<0.50	23	<0.50	<0.50	<0.50
	9/22/2007	530	<10	<250	<0.50	35	<0.50	<0.50	<0.50

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
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WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-2 cont.	12/14/2007	930	48	<250	<0.50	24	<0.50	<0.50	<0.50
	3/17/2008	630	<100	<2,500	<5.0	18	<5.0	<5.0	<5.0
	6/20/2008	1,200	<10	<250	<0.50	16	<0.50	<0.50	<0.50
	9/11/2008	29	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	1,500	<10	<250	<0.50	19	<0.50	<0.50	<0.50
	3/9/2009	1,400	<100	<2,500	<5.0	15	<5.0	<5.0	<5.0
	5/28/2009	740	<10	<250	<0.50	20	<0.50	<0.50	<0.50
	12/11/2009	1,300	<100	<2,500	<5.0	19	<5.0	<5.0	<5.0
	5/7/2010	940	<20	<500	<1.0	14	<1.0	<1.0	<1.0
	11/1/2010	730	<10	<250	<0.50	28	<0.50	<0.50	<0.50
	5/27/2011	1,100	210	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/23/2011	1,500	400	<250	<0.50	9.00	<0.50	<0.50	<0.50
	5/24/2012	1,200	430	<250	<0.50	8.8	<0.50	<0.50	<0.50
	10/23/2012	1,300	420	<250	<0.50	14	<0.50	<0.50	<0.50
	5/2/2013	460	<10	<250	6.2	<0.50	<0.50	<0.50	<0.50
	11/13/2013	1,300	<10	<250	17	<0.50	<0.50	<0.50	<0.50
	5/12/2014	510 [1]	44	<250	12	<0.50	<0.50	<0.50	<0.50
	11/19/2014	980 [1]	<10	<250	31	<0.50	<0.50	<0.50	<0.50
	6/17/2015	**25**	**<10**	**<250**	**3.1**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-3	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	3,700	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	2,600	<100	<1,000	<10	<20	<10	<10	<10
	11/23/2004	1,800	<100	<1,000	<10	<20	<10	<10	<10
	2/9/2005	2,100	130	<1,000	<10	<10	<10	<10	<10

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
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WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-3 cont.	5/17/2005	1,200	<100	<1,000	<10	<10	<10	<10	<10
	7/27/2005	1,400	360	<1,000	<10	<10	<10	<10	<10
	12/6/2005	1,800	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	1,100	88	<250	<0.50	<0.50	0.58	<0.50	<0.50
	6/8/2006	1,000	<250	<6,200	<12	<12	<12	<12	<12
	9/15/2006	1,200	<250	<6,200	<12	<12	<12	<12	<12
	12/14/2006	1,300	<200	<5,000	<10	<10	<10	<10	<10
	3/28/2007	860	500	<500	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2007	570	11	<250	<0.50	<0.50	<0.50	<0.50	0.65
	9/22/2007	980	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	570	26	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	520	<10	<250	<0.50	<0.50	<0.50	<0.50	0.65
	6/20/2008	1,300	49	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1,200	<100	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0
	11/25/2008	870	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	720	15	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	750	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	620	63	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	660	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	490	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/27/2011	890	73	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	1,100	300	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	500	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	100	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/12/2014	160 [1]	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/19/2014	250 [1]	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/17/2015	**570 [1]**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)

NOTES:

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

ID = Identification

-- = Not available/Not Analyzed

µg/L = Micrograms per liter

MTBE = Methyl t-butyl ether

TBA = T-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Ethyl t-butyl ether

TAME = T-amyl methyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

[1] = Practical Quantitation Limits and Method Detection Limits are raised due to sample dilution

Appendix F

Email from 3rd Party Receiving Coordinated Groundwater Monitoring and Sampling Data for Unocal No. 6129

Alexandra Forman

From: Harms, James <James.Harms@aecom.com>
Sent: Tuesday, July 21, 2015 4:37 PM
To: Alexandra Forman
Cc: Sean Bowen
Subject: RE: ETIC / Former Exxon 70234, Oakland CA Coordinating Sample Data
Attachments: Unocal 6129 1SA15 GW Tables.pdf

Alexandra,
Here are the data tables.

Thank you

Jim Harms
Environmental Scientist
Environment at AECOM
D +1 916.414.5863 M +1 916.919.9210
James.Harms@aecom.com

From: Alexandra Forman [mailto:aforman@eticeng.com]
Sent: Monday, July 20, 2015 10:26 AM
To: Harms, James
Cc: Sean Bowen
Subject: RE: ETIC / Former Exxon 70234, Oakland CA Coordinating Sample Data

Hi James –

The defined agency GW report due date is generally 45 days after the last date of sampling unless the agency indicates otherwise in specific correspondence with you.

Thanks.

Alexandra Forman
Project Geologist
aforman@eticeng.com
www.eticeng.com
ETIC Engineering, Inc.
898 North Fair Oaks Ave.
Suite A
Pasadena, CA 91103
Tel: 626-432-5999 x2510
Fax: 626-432-5998
Mobile: 626-720-1927

From: Harms, James [mailto:James.Harms@aecom.com]
Sent: Monday, July 20, 2015 10:21 AM
To: Alexandra Forman
Cc: Sean Bowen
Subject: RE: ETIC / Former Exxon 70234, Oakland CA Coordinating Sample Data

The tables were just QA'd, I'll send them over as soon as I can.

Do you know if there is a defined agency GW report due date, I've been unable to find it or get a response from ACEH about that, we typically use 30 days after the quarter end as our due date.

Thank you

Jim Harms
Environmental Scientist
Environment at AECOM
D +1 916.414.5863 M +1 916.919.9210
James.Harms@aecom.com

From: Alexandra Forman [mailto:aforman@eticeng.com]
Sent: Monday, July 20, 2015 10:16 AM
To: Harms, James
Cc: Sean Bowen
Subject: RE: ETIC / Former Exxon 70234, Oakland CA Coordinating Sample Data

Hi James,

Per my email last Tuesday, I'm writing to follow-up on the groundwater sampling you did on 6/17. Once the groundwater tables have been completed, please send over at your convenience.

Thanks.

Alexandra Forman
Project Geologist
aforman@eticeng.com
www.eticeng.com
ETIC Engineering, Inc.
898 North Fair Oaks Ave.
Suite A
Pasadena, CA 91103
Tel: 626-432-5999 x2510
Fax: 626-432-5998
Mobile: 626-720-1927

From: Alexandra Forman
Sent: Tuesday, July 14, 2015 11:32 AM
To: 'Harms, James'
Cc: Sean Bowen
Subject: RE: ETIC / Former Exxon 70234, Oakland CA Coordinating Sample Data

Hi James,

I'm just writing you to follow-up on the groundwater sampling you did on 6/17. Do you by chance have the tables ready yet?

Thanks.

Alexandra Forman
Project Geologist
aforman@eticeng.com
www.eticeng.com
ETIC Engineering, Inc.
898 North Fair Oaks Ave.
Suite A
Pasadena, CA 91103

Tel: 626-432-5999 x2510
Fax: 626-432-5998
Mobile: 626-720-1927

From: Harms, James [mailto:James.Harms@aecom.com]
Sent: Thursday, June 04, 2015 3:47 PM
To: Alexandra Forman
Subject: RE: ETIC / Former Exxon 70234, Oakland CA Coordinating Sample Data

Alexandra,
I don't know where the wires got crossed but Gettler Ryan is sampling the site on 6/17. I will get you the tables as soon as they are available.

Thank you

Jim Harms
Environmental Scientist
Environment at AECOM
D +1 916.414.5863 M +1 916.919.9210
James.Harms@aecom.com

From: Alexandra Forman [mailto:aforman@eticeng.com]
Sent: Thursday, June 04, 2015 9:49 AM
To: Harms, James
Subject: ETIC / Former Exxon 70234, Oakland CA Coordinating Sample Data

Hi James –

Attached are our 2Q15 coordinated sampling tables for 70234.

Please send your sample tables at your convenience.

Thanks.

Alexandra Forman
Project Geologist
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