ExxonMobil

February 2, 2017

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, Fourth Quarter 2016**
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, Fourth Quarter 2016* for the above-referenced site. The document, prepared by ETIC Engineering, Inc. of Pasadena, California, details the results of the December 2016 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,

JC Sedlachek

Jennifer C. Sedlachek
Project Manager

Attachment: ETIC's Fourth Quarter 2016 Groundwater Monitoring Report

c: w/ attachment:
Mr. Zack Spencer, FWS Highland LLC, 99 South Hill Drive, Brisbane, CA 94005
Mr. Shay Wideman, The Valero Companies, Environ. Liability Mgt., P.O. Box 696000, San Antonio, TX 78269

c: w/o attachment:
Ms. Kate Lamb, ETIC Engineering, Inc.

Report of Groundwater Monitoring

Fourth Quarter 2016

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

2/2/17

Kate Lamb
Senior Project Manager

Date

Ryan Haughy, P.G. #7851
Program Manager

PROFESSIONAL GEOLOGIST
RYAN R. HAUGHY
No. 7851
exp 7/31/17
STATE OF CALIFORNIA

2/2/17

Date

February 2017

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 16 June 2016, the date of the previous monitoring event, and 20 December 2016, 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.

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:	20 December 2016
Wells gauged and sampled:	MW4, MW5, MW6, MW7, MW8, and RW1
Wells gauged only:	None
Wells inaccessible:	MW9 due to a locked gate
Groundwater flow direction:	Southwest
Hydraulic gradient:	0.038
Well screens submerged:	MW4 and MW8
Well screens not submerged:	MW5, MW6, MW7, 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:	Arcadis, Seattle, Washington

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:

- 40.5 gallons of purge water was stored in a 55-gallon drum and was then delivered to Instrat, Inc. of Rio Vista, California on 20 December 2016.

ADDITIONAL ACTIVITIES PERFORMED

None.

WORK PROPOSED FOR NEXT QUARTER

In accordance with ACHCSA directives, groundwater monitoring will not be conducted in the first quarter of 2017. The next semiannual groundwater monitoring event will be conducted in the second quarter of 2017.

Attachments:

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

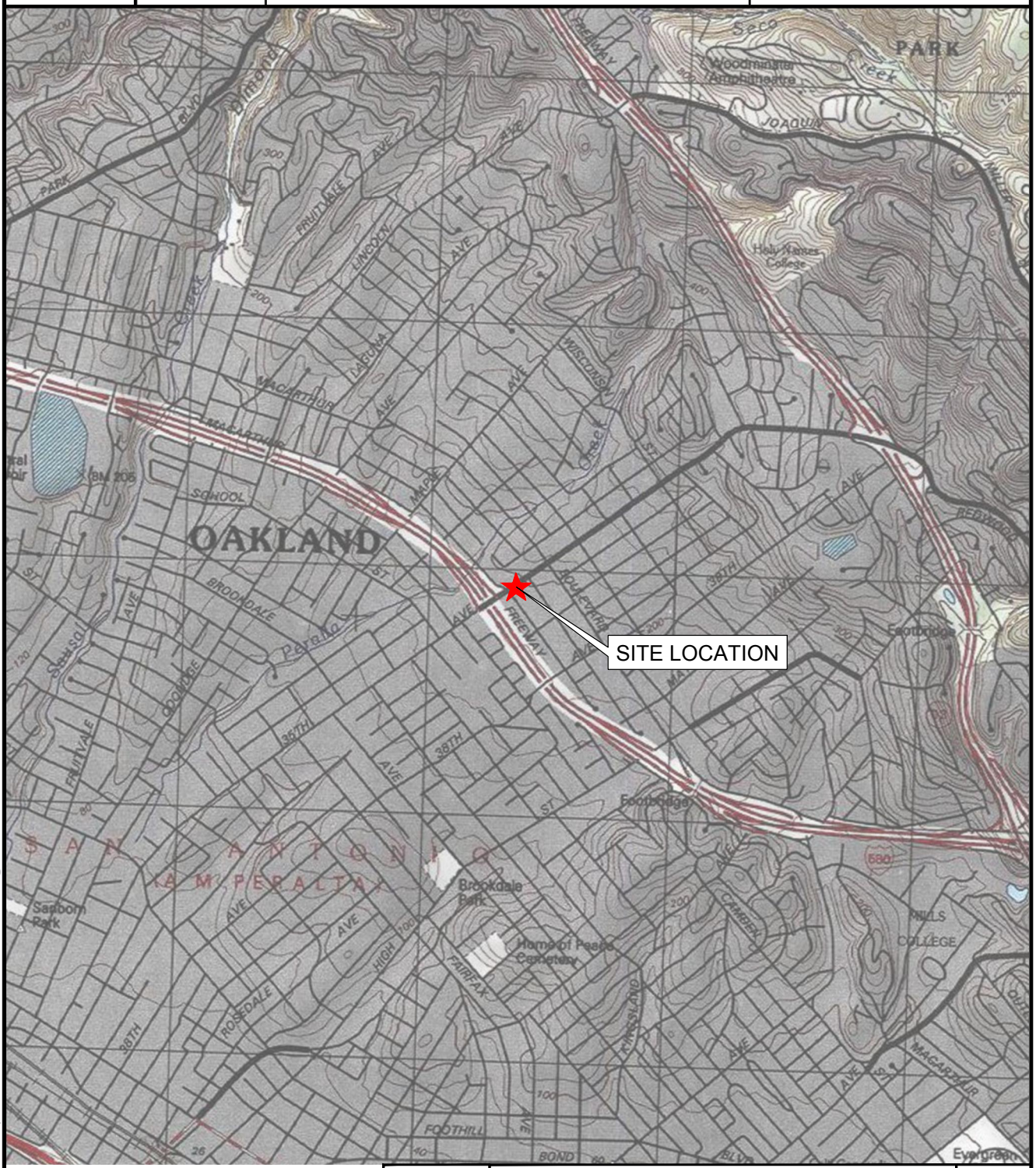
Table 1: Well Construction Details
Table 2: Current Groundwater Monitoring Data
Table 3: Historical Groundwater Monitoring Data
Table 4: Groundwater Analytical Results for Detected VOCs
Table 5: Natural Attenuation Parameter Analytical Results
Table 5: Groundwater Monitoring Plan

Appendix A: Field Protocols
Appendix B: Field Documents
Appendix C: Waste Manifest
Appendix D: Laboratory Analytical Reports and Chain-of-Custody Documentation
Appendix E: Groundwater Monitoring and Sampling Data for Unocal No. 6129

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:	Kate Lamb
Regulatory Oversight:	Keith Nowell Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577 (510) 567-6764

Figures



	16-070234-UP	EXXONMOBIL OIL CORPORATION
	OR: AF	SITE LOCATION AND TOPOGRAPHIC MAP FORMER EXXON SERVICE STATION 70234 3450 35th AVENUE
	DR: AJW	
	CK:	
	FR:	OAKLAND, CALIFORNIA

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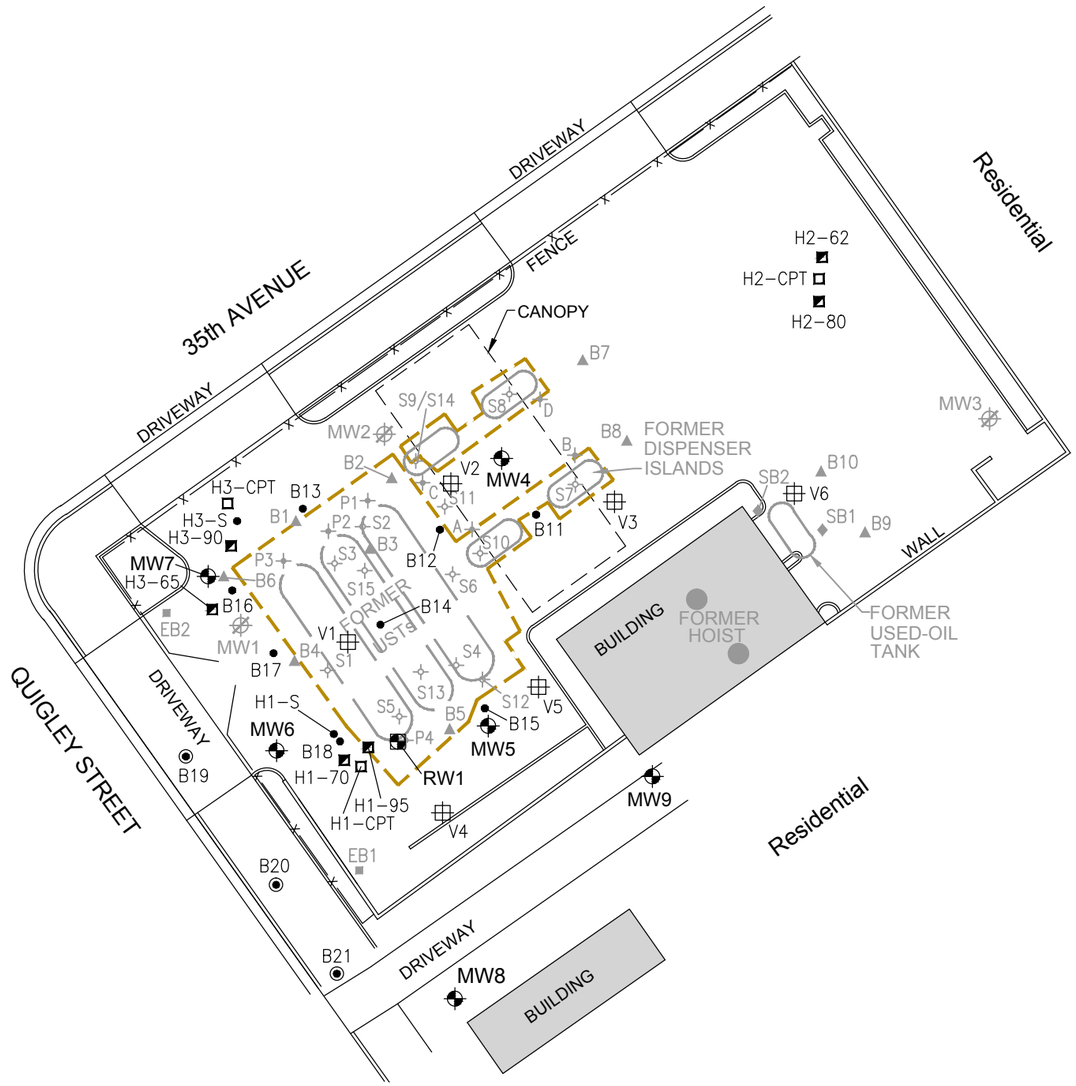
2285 MORELLO AVENUE
PLEASANT HILL, CA 94523
(925) 602-4710
eticeng.com

FIGURE: 1



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

01/30/2017, 16:27, G:\Graphics\16\070234\QMR-4Q16.dwg, Tab: F2

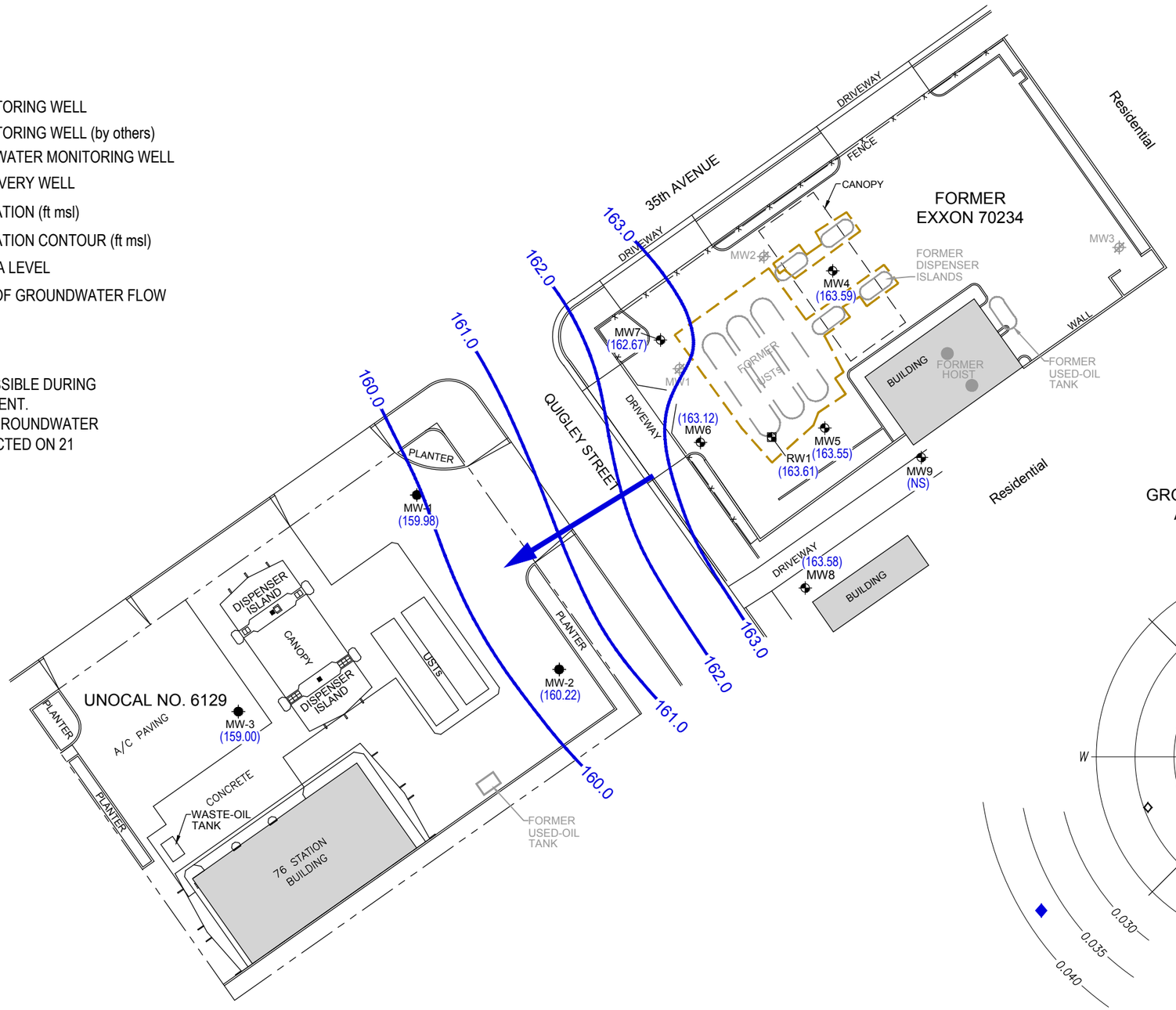
ETIC ENGINEERING 2285 MORELLO AVENUE PLEASANT HILL, CA 94523 (925) 602-4710 eticeng.com	16-070234-UP OR: AF DR: AJW CK: FR:	EXXONMOBIL OIL CORPORATION SITE MAP FORMER EXXON SERVICE STATION 70234 3450 35th AVENUE OAKLAND, CALIFORNIA

FIGURE: 2

LEGEND:

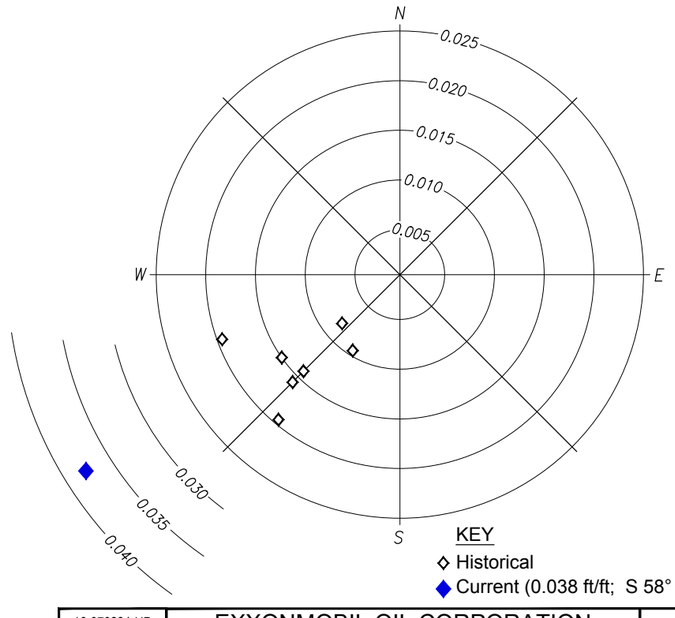
- EXCAVATED AREA
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (by others)
- DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY WELL
- (163.59) GROUNDWATER ELEVATION (ft msl)
- 164.0 GROUNDWATER ELEVATION CONTOUR (ft msl)
- ft msl FEET ABOVE MEAN SEA LEVEL
- GENERAL DIRECTION OF GROUNDWATER FLOW
- NS NOT SAMPLED

NOTES:
1. MW9 WAS INACCESSIBLE DURING THIS SAMPLING EVENT.
2. UNOCAL No. 6129 GROUNDWATER SAMPLING CONDUCTED ON 21 NOVEMBER 2016.



0 20 40
1″ = 40 FEET

GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT



KEY
- ◇ Historical
- ◆ Current (0.038 ft/ft; S 58° W)

16-070234-UP	EXXONMOBIL OIL CORPORATION	
OR: AF	GROUNDWATER ELEVATION CONTOUR MAP 20 DECEMBER 2016	
DR: AJW	FORMER EXXON SERVICE STATION 70234 3450 35th AVENUE	FIGURE: 3
CK:	OAKLAND, CALIFORNIA	
FR:		

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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

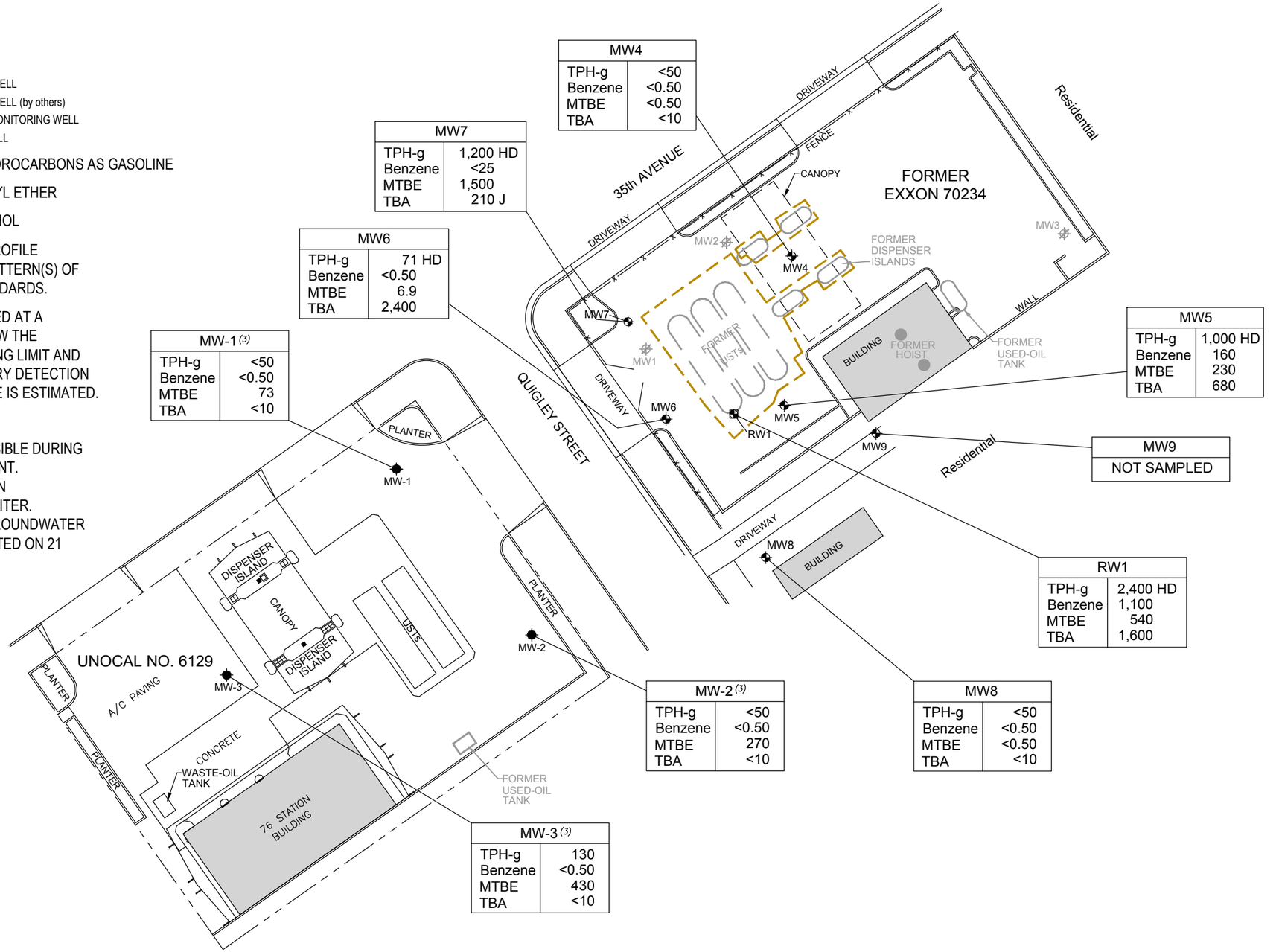
TBA TERTIARY BUTYL ALCOHOL

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

J ANALYTE WAS DETECTED AT A CONCENTRATION BELOW THE LABORATORY REPORTING LIMIT AND ABOVE THE LABORATORY DETECTION LIMIT. REPORTED VALUE IS ESTIMATED.

NOTES:

1. MW9 WAS INACCESSIBLE DURING THIS SAMPLING EVENT.
2. CONCENTRATIONS IN MICROGRAMS PER LITER.
3. UNOCAL No. 6129 GROUNDWATER SAMPLING CONDUCTED ON 21 NOVEMBER 2016.



16-070234-UP	EXXONMOBIL OIL CORPORATION
	GROUNDWATER ANALYTICAL DATA
OR: AF	20 DECEMBER 2016
DR: AJW	FORMER EXXON SERVICE STATION 70234
CK:	3450 35th AVENUE
FR:	OAKLAND, CALIFORNIA
	FIGURE: 4

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Tables

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	12/20/16	a	197.62	34.03	163.59	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW5	SCREEN INTERVAL (feet bgs) 30-40											
MW5	12/20/16	a	196.35	32.80	163.55	0.00	1,000 HD	160	<5.0	<5.0	<5.0	230
MW6	SCREEN INTERVAL (feet bgs) 29-39											
MW6	12/20/16	a	192.41	29.29	163.12	0.00	71 HD	<0.50	<0.50	<0.50	<0.50	6.9
MW7	SCREEN INTERVAL (feet bgs) 30-40											
MW7	12/20/16	a	194.34	31.67	162.67	0.00	1,200 HD	<25	<25	<25	<25	1,500
MW8	SCREEN INTERVAL (feet bgs) 30-40											
MW8	12/20/16	a	192.96	29.38	163.58	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	SCREEN INTERVAL (feet bgs) 30-40											
MW9	12/20/16	b	195.16	--	--	--	--	--	--	--	--	--
RW1	SCREEN INTERVAL (feet bgs) 29-39.5											
RW1	12/20/16	a	195.15	31.54	163.61	0.00	2,400 HD	1,100	<20	18 J	<20	540

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.
JA	Analyte positively identified but quantitation is an estimate.

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)

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	---
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	---

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	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	---	---
MW4	12/16/15	a	197.62	37.31	160.31	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	06/15/16	a	197.62	34.13	163.49	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	**12/20/16**	**a**	**197.62**	**34.03**	**163.59**	**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	---	---
MW5	10/31/12		196.35	33.94	162.41	0.00	2,200b	220	72	8.7	47	2,700	---	---

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	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	---	---
MW5	12/16/15	a	196.35	36.34	160.01	0.00	760	150	2.0 J	1.8 J	4.6	94	---	---
MW5	06/15/16	a	196.35	33.63	162.72	0.00	840 HD	150	1.4 J	1.8 J	4.1	300	---	---
MW5	**12/20/16**	**a**	**196.35**	**32.8**	**163.55**	**0.00**	**1,000 HD**	**160**	**<5.0**	**<5.0**	**<5.0**	**230**	---	---
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	---	---
MW6	12/16/15	a	192.41	32.76	159.65	0.00	62 HD	<2.5	<2.5	<2.5	<2.5	36	---	---
MW6	06/15/16	a	192.41	30.01	162.40	0.00	120 HD	<0.50	<0.50	<0.50	<0.50	13	---	---
MW6	**12/20/16**	**a**	**192.41**	**29.29**	**163.12**	**0.00**	**71 HD**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**7**	---	---
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	---	---	---	---	---	---	---	---

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	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	---	---
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	---	---
MW7	12/16/15	a	194.34	34.62	159.72	0.00	110 HD	<4.0	<4.0	<4.0	<4.0	220	---	---
MW7	06/15/16	a	194.34	31.96	162.38	0.00	740 HD	<4.0	<4.0	<4.0	<4.0	1,200	---	---
MW7	**12/20/16**	**a**	**194.34**	**31.67**	**162.67**	**0.00**	**1,200 HD**	**<25**	**<25**	**<25**	**<25**	**1,500**	**---**	**---**
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	---	---
MW8	12/16/15	a	192.96	33.41	159.55	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	06/15/16	a	192.96	30.68	162.28	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	**12/20/16**	**a**	**192.96**	**29.38**	**163.58**	**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	---	---

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)
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	---	---
MW9	12/16/15	a	195.16	34.84	160.32	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	06/15/16	a	195.16	31.98	163.18	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	**12/20/16**	**b**	**195.16**	Well inaccessible.										
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	---	---
RW1	12/16/15	a	195.15	35.22	159.93	0.00	310 HD	150	<5.0	<5.0	<5.0	110	---	---
RW1	06/15/16	a	195.15	32.4	162.75	0.00	1300	850	3.6 J	17	5.5	450	---	---
RW1	**12/20/16**	**a**	**195.15**	**31.54**	**163.61**	**0.00**	**2,400 HD**	**1,100**	**<20**	**18 J**	**<20**	**540**	---	---
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	---	---

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)

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.
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	b	---	---	---	---	---	---	---	---	---
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	---	---
MW4	12/16/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	06/15/16		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	**12/20/16**		--	**<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	b	---	---	---	---	---	---	---	---	---
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	---	---
MW5	12/16/15		---	<2.5	<2.5	<2.5	790	<2.5	<2.5	---	---
MW5	06/15/16		---	<2.5	<2.5	<2.5	720	<2.5	<2.5	---	---
MW5	**12/20/16**		---	**<5.0**	**4.7 J**	**<5.0**	**680**	**<5.0**	**<5.0**	---	---
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	b	---	---	---	---	---	---	---	---	---
MW6	11/23/11		---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	05/24/12		---	<100	<100	<100	2,700	<100	<100	---	---

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)
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	---	---
MW6	12/16/15		---	<2.5	<2.5	<2.5	530	<2.5	<2.5	---	---
MW6	06/15/16		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW6	**12/20/16**		---	**<0.50**	**<0.50**	**<0.50**	**2,400**	**<0.50**	**<0.50**	---	---
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	b	---	---	---	---	---	---	---	---	---
MW7	11/23/11		---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/24/12	b	---	---	---	---	---	---	---	---	---
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	---	---
MW7	12/16/15		---	<4.0	<4.0	<4.0	<80	<4.0	<4.0	---	---
MW7	06/15/16		---	<4.0	<4.0	<4.0	380	<4.0	<4.0	---	---
MW7	**12/20/16**		---	**<25**	**<25**	**<25**	**210 J**	**<25**	**<25**	---	---
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	---	---
MW8	12/16/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	06/15/16		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	**12/20/16**		---	**<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	---	---

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)
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	b	---	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	---	---
MW9	12/16/15		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	06/15/16		---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW9	**12/20/16**	**b**	---	**Well inaccessible.**							
RW1	05/24/12		---	<50	<50	<50	1,900	<50	<50	---	---
RW1	10/31/12	b	---	---	---	---	---	---	---	---	---
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	---	---
RW1	12/16/15		---	<5.0	<5.0	<5.0	1,300	<5.0	<5.0	---	---
RW1	06/15/16		---	<5.0	<5.0	<5.0	1,300	<5.0	<5.0	---	---
RW1	**12/20/16**		**---**	**<20**	**32**	**<20**	**1,600**	**<20**	**<20**	**---**	**---**
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.
b 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

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)

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)	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
MW4	12/16/15	a	169	<0.100	65	2.5	0.358 J	18.4	7.18	540.2	365.7	--	--
MW4	06/15/16	a	170	<0.100	63	2.2	0.0470 J	18.8	6.97	545.9	371.6	--	--
MW4	12/20/16	a	175	<0.100	63	2.5	0.0650 J	18.2	7.05	534.7	366.4	--	--
MW5	05/13/15	a	324	2.15	32	0.76	28.1	17.8	7.03	870.1	593.8	--	3.98
MW5	12/16/15	a	352	2.69	28	0.36	25.0	17.5	6.66	839.2	584.1	--	--
MW5	06/15/16	a	356	1.97	30	0.59	28.1	18.5	6.45	861.8	599.3	--	--
MW5	12/20/16	a	382	2.14	26	0.22	37.7	18.2	6.58	877.6	589.7	--	--
MW6	05/13/15	a	427	<0.100	42	0.35	5.09	18.0	7.00	945.4	660.1	--	4.32
MW6	12/16/15	a	484	<0.100	43	0.14	2.71	18.4	6.89	963.5	669.3	--	--
MW6	06/15/16	a	471	<0.100	38	0.26	7.05	19.4	6.65	972.4	681.4	--	--
MW6	12/20/16	a	501	<0.100	35	0.31	10.2	18.5	6.90	1010	709.2	--	--
MW7	05/13/15	a	254	<0.100	61	1.6	1.67	18.5	7.16	719.1	510.2	--	4.34
MW7	12/16/15	a	222	<0.100	64	1.8	8.51	19.4	6.72	637.0	437.9	--	--
MW7	06/15/16	a	270	<0.100	58	1.3	7.54	19.8	6.71	726.0	499.3	--	--
MW7	12/20/16	a	276	<0.100	63	1.5	3.72	19.5	6.74	727.0	500.4	--	--
MW8	05/13/15	a	208	<0.100	42	7.3	0.983 J	17.7	7.16	595.3	410.1	--	5.07
MW8	12/16/15	a	229	<0.100	42	8.3	0.182	17.5	7.09	769.7	533.4	--	--
MW8	06/15/16	a	198	<0.100	38	7.5	0.152 J	18.0	6.74	573.2	396.4	--	--
MW8	12/20/16	a	214	<0.100	45	9.2	0.0710 J	17.7	7.16	614.4	425.5	--	--
MW9	05/13/15	a	252	<0.100	41	6.0	0.0530	17.9	7.09	835.3	582.4	--	4.79
MW9	12/16/15	a	258	<0.100	39	5.6	0.0510	17.4	6.89	876.9	605.8	--	--
MW9	06/15/16	a	257	<0.100	39	6.3	0.0610 J	18.5	7.02	824.2	572.3	--	--
MW9	12/20/16	b	--	--	--	--	--	--	--	--	--	--	--
RW1	05/13/15	a	359	<0.100	43	0.77	1.85	18.4	7.05	849.1	590.7	--	4.11
RW1	12/16/15	a	301	<0.100	40	0.85	1.62	17.4	6.98	819.0	569.2	--	--
RW1	06/15/16	a	379	<0.100	37	0.64	3.26	18.6	6.92	873.4	608.0	--	--

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)	Methane (µg/L)	Temperature (Celsius)	pH	EC (µS/cm)	Total Dissolved Solids (mg/L)	ORP (mV)	DO (mg/L)
RW1	12/20/16	a	372	<0.100	38	0.67	6.73	18.0	7.02	895.9	625.1	--	--

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.	b	Well inaccessible.
<0.100	Concentration not detected above reporting limit (e.g. Reporting limit is 0.100 µg/L).		

J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

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: Exxon Mobil **Site Location:** Oakland, CA

Project Number: 16-070234-GP **Task Number:** 4.1, 4.2

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 0630
- Opened and gauged Wells MW4 thru MW8 and RW1 with WLM. could not access well MW6 due to a locked gate. Well not gauged or sampled.
- Purged and sampled wells MW4 thru MW8 and RW1 with disposable bailers. Well RW1 dewatered. Sampled well after recharging 80% +.
- Closed all wells.
- Drummed purge water ~40 gal.
- Drilled on Site 12:30
- Drilling completed 1x5 gal drum (~40 gal)
- Off Site 1300

Preparer Name: [signature] Date: 12/20/11

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

ETIC ENGINEERING

MONITORING WELL DATA FORM

Client: ExxonMobil	**Date:** 12/20/16
Project Number: UP70234, Activity 4	**Station Number:** 70234
Site Location: 3450 35th Avenue, Oakland, CA	**Sampler:** C. Mitchell

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MW4	34.03						44.91	2"
MW5	32.40						39.97	2"
MW6	29.29						38.42	2"
MW7	31.67						39.39	2"
MW8	29.38						39.85	2"
MW9	No	Access		to	well		39.52	2"
RW1	31.54						40.37	4"

G:\Projects\ExxonMobil\Sites\70234\Public\70234 GW\Field Folder_05_Well Monitoring Form

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW4 | Date: 12/20/16

Project No: 16-070234-UR | 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)
	44.91	34.03	10.88	3/4 (0.03) / 2 (0.16) / 4 (0.84) / 6 (1.44)	1.74	5.22

PURGING DATA

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

Time	05:51	06:56	09:02			
Volume Purge (gal)	2	4	6			
Temperature (C)	17.3	18.3	18.2			
pH	7.23	7.05	7.05			
Spec.Cond. (umhos)	540.3	546.0	534.7			
Turbidity/Color	light brn	light brn	light brn			
TDS (g / L)	370.1	373.7	366.4			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 0910 | 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: Cool & Cloudy/Dry

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW5 | Date: 12/20/16

Project No: 16-070234-UP | Personnel: C. McFarlane

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)
	39.97	−	32.50	=	~~7.47~~ 7.17	×	3/4	2	4	6	1.15	=	3.44
							0.03	0.16	0.64	1.44			

PURGING DATA

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

Time	10:56	11:01	11:05			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (C)	17.4	18.2	18.2			
pH	6.60	6.53	6.54			
Spec.Cond. (umhos)	896.9	884.3	877.6			
Turbidity/Color	very turbid brown	very turbid brown	very turbid brown			
TDS (g / L)	626.2	616.7	549.7			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	Y	Y	Y			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 1115 | Approximate Depth to Water During Sampling: 33 (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: Sunny / Cool / Wet

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW6 | Date: 12/20/16

Project No: 16-070234-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)
	38.42 (−)	29.29 (=)	9.13 (×)	3/4: 0.03 / 2: 0.16 / 4: 0.64 / 6: 1.44	1.46 (=)	4.38

PURGING DATA

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

Time	10:22	10:26	10:31			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (C)	17.4	16.6	16.5			
pH	6.91	6.81	6.90			
Spec.Cond. (umhos)	943.1	982.4	1010			
Turbidity/Color	1. Sht Brn	1. Sht Brn	1. Sht Brn			
TDS (g / L)	660.6	687.9	700.2			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 1040 | 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: Sunny / Cool / Dry

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW7 | Date: 12/20/16

Project No: 16-070234-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)
	39.34	31.67	7.72	3/4 (0.03) / 2 (0.16) / 4 (0.64) / 6 (1.44)	1.24	3.71

PURGING DATA

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

Time	09:32	09:36	09:43			
Volume Purge (gal)	1.5	3.0	4.5			
Temperature (C)	18.0	19.4	19.5			
pH	6.84	6.74	6.74			
Spec.Cond. (umhos)	706.3	730.7	727.0			
Turbidity/Color	11 FNU / Brn	11 FNU / Brn	11 FNU / Brn			
TDS (g / L)	488.6	503.0	500.4			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 0955 | 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: Sunny / cool / Dry

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: MW-6 | Date: 1/2/2016

Project No: 16-070234-UF | 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)
	39.65	−	24.38	=	10.47	X	3/4	2	4	6	1.68	=	5.03
							0.03	0.16	0.64	1.44			

PURGING DATA

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

Time	07:57	09:02	09:08			
Volume Purge (gal)	2	4	6			
Temperature (C)	17.3	17.6	17.7			
pH	7.70	7.27	7.16			
Spec.Cond. (umhos)	542.3	594.9	614.4			
Turbidity/Color	1.6 NTU / Brn	1.5 NTU / Brn	1.3 NTU / Brn			
TDS (g / L)	372.4	409.7	425.5			
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N	N			
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	N			

Comments/Observations:

SAMPLING DATA

Time Sampled: 08:25 | Approximate Depth to Water During Sampling: 24 (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: Clear / Cold / Dry

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: ExxonMobil | Well No: RW1 | Date: 12/20/16

Project No: 16-070734-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)
	40.37 −	31.54 =	8.83 X	3/4: 0.03 / 1: 0.04 / 2: 0.16 / 4: 0.64 / 6: 1.44	5.65 =	16.95

PURGING DATA

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

Time	11:37	11:45				
Volume Purge (gal)	6	12	15			
Temperature (C)	18.2	18.0				
pH	7.13	7.02				
Spec.Cond. (umhos)	884.1	895.9				
Turbidity/Color	very [illegible]	very [illegible]				
TDS (g / L)	614.0	625.1				
ORP	—	—	—			
DO (mg / L)	—	—	—			
Odor (Y/N)	N	N				
Casing Volumes	1	2	3			
Dewatered (Y/N)	N	N	Y			

Comments/Observations: Dewatered at ~15 gal

SAMPLING DATA

Time Sampled: 1245 | 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: 15 (gallons) | Disposal: | Onsite Drum(s) No.

Weather Conditions: Sunny / Dry

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

Well Head Conditions Requiring Correction: None

Problems Encountered During Purging and Sampling: None

Appendix C

Waste Manifest

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N/A
2. Page 1 of: 1
3. Emergency Response Phone: 800-675-1056
4. Waste Tracking Number: 9112430

5. Generator's Name and Mailing Address:
ExxonMobil Oil Corp (70234)
398 N. FAIR OAKS AVENUE SUITE A
PASADENA, CA 91103 USA
Generator's Phone: 626-502-4710

Generator's Site Address (if different than mailing address):
3450 35TH AVENUE
OAKLAND, CA USA

6. Transporter 1 Company Name: DILLARD ENVIRONMENTAL SERVICES #1715 — U.S. EPA ID Number: CAD982823433

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

8. Designated Facility Name and Site Address: Instrat, 1105 Airport Road, Rio Vista, CA 94571 USA — U.S. EPA ID Number:
Facility's Phone: 930-763-1630

9. Waste Shipping Name and Description	10. Containers No.	Type	11. Total Quantity	12. Unit Wt/Vol
1. NON HAZARDOUS WASTE LIQUID ~~(AUGER RINSEATE)~~ (purged Groundwater)	1	DM	40	G
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information:
DES JOB # 911-243
PURGED GROUNDWATER
~~AUGER RINSEATE WATER~~
1XSSDM

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 Day Year: 12 20 16

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

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: KEN WILSON — Signature: [signature] — Month Day Year: 12 20 16
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year:

17. Discrepancy
17a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

I J I

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Patrick McLaughlin — Signature: [signature] — Month Day Year: 12 28 16

169-BLC-O 6 11977 (Rev. 8/09)

DESIGNATED FACILITY TO GENERATOR

Appendix D

Laboratory Analytical Reports and Chain-of-Custody Documentation

eurofins | Calscience

WORK ORDER NUMBER: 16-12-2020

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ETIC Engineering, Inc.

Client Project Name: ExxonMobil 70234

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

Approved for release on 01/09/2017 by:
Cecile deGuia
Project Manager

ResultLink

Email your PM

eurofins | Calscience

Contents

Client Project Name: ExxonMobil 70234
Work Order Number: 16-12-2020

eurofins | Calscience

Work Order Narrative

Work Order: 16-12-2020 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/21/16. They were assigned to Work Order 16-12-2020.

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.

Please note that samples MW4 and MW8 were analyzed outside the recommended holding time for SM 3500-FeB Ferrous Iron. The samples were collected early morning of December 20, 2016 and were received the following day; December 21, 2016 at 09:06 AM. Sample MW8 was received after holding time expired. There was not enough time to analyze the other sample, MW4, within holding time. For short hold analysis, samples should be collected later in the day to give the laboratory time to process and analyze the samples within hold time.
Client was notified via email on December 22, 2016.

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eurofins | Calscience

Sample Summary

Client:	ETIC Engineering, Inc. 898 N. Fair Oaks Avenue, Suite A Pasadena, CA 91103-3065	Work Order:	16-12-2020
		Project Name:	ExxonMobil 70234
		PO Number:	4410385285
		Date/Time Received:	12/21/16 09:06
		Number of Containers:	66
Attn:	Kate Lamb		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW4	16-12-2020-1	12/20/16 09:10	11	Aqueous
MW5	16-12-2020-2	12/20/16 11:15	11	Aqueous
MW6	16-12-2020-3	12/20/16 10:40	11	Aqueous
MW7	16-12-2020-4	12/20/16 09:55	11	Aqueous
MW8	16-12-2020-5	12/20/16 08:25	11	Aqueous
RW1	16-12-2020-6	12/20/16 12:45	11	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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-1-G**	**12/20/16 09:10**	**Aqueous**	**GC 52**	**N/A**	**12/27/16 11:48**	**161227L02**

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	0.0650	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	**16-12-2020-2-G**	**12/20/16 11:15**	**Aqueous**	**GC 52**	**N/A**	**12/27/16 12:15**	**161227L02**

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	37.7	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	**16-12-2020-3-G**	**12/20/16 10:40**	**Aqueous**	**GC 52**	**N/A**	**12/27/16 12:40**	**161227L02**

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	10.2	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	**16-12-2020-4-G**	**12/20/16 09:55**	**Aqueous**	**GC 52**	**N/A**	**12/27/16 13:11**	**161227L02**

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	3.72	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	**16-12-2020-5-G**	**12/20/16 08:25**	**Aqueous**	**GC 52**	**N/A**	**12/27/16 13:35**	**161227L02**

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	0.0710	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
RW1	**16-12-2020-6-G**	**12/20/16 12:45**	**Aqueous**	**GC 52**	**N/A**	**12/27/16 14:00**	**161227L02**

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	6.73	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: 12/21/16
Work Order: 16-12-2020
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
Method Blank	**099-12-663-2651**	**N/A**	**Aqueous**	**GC 52**	**N/A**	**12/27/16 11:21**	**161227L02**

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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-1-I**	**12/20/16 09:10**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 18:35**	**161221L01**

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)	2.5	0.10	0.053	1.00	
Sulfate	63	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**16-12-2020-2-I**	**12/20/16 11:15**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 18:54**	**161221L01**

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)	0.22	0.10	0.053	1.00	
Sulfate	26	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**16-12-2020-3-I**	**12/20/16 10:40**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 19:13**	**161221L01**

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)	0.31	0.10	0.053	1.00	
Sulfate	35	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**16-12-2020-4-I**	**12/20/16 09:55**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 19:32**	**161221L01**

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)	1.5	0.10	0.053	1.00	
Sulfate	63	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**16-12-2020-5-I**	**12/20/16 08:25**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 21:17**	**161221L01**

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)	9.2	0.10	0.053	1.00	
Sulfate	45	1.0	0.27	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: 12/21/16
Work Order: 16-12-2020
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
RW1	**16-12-2020-6-I**	**12/20/16 12:45**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 21:36**	**161221L01**

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)	0.67	0.10	0.053	1.00	
Sulfate	38	1.0	0.27	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-906-7195**	**N/A**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 10:08**	**161221L01**

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	0.053	1.00	
Sulfate	ND	1.0	0.27	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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-1-K**	**12/20/16 09:10**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKB1**

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
Alkalinity, Total (as CaCO3)	175	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**16-12-2020-2-K**	**12/20/16 11:15**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKB1**

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
Alkalinity, Total (as CaCO3)	382	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**16-12-2020-3-K**	**12/20/16 10:40**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKB1**

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
Alkalinity, Total (as CaCO3)	501	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**16-12-2020-4-K**	**12/20/16 09:55**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKB1**

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
Alkalinity, Total (as CaCO3)	276	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**16-12-2020-5-K**	**12/20/16 08:25**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKB1**

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
Alkalinity, Total (as CaCO3)	214	5.00	0.848	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**16-12-2020-6-K**	**12/20/16 12:45**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKB1**

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
Alkalinity, Total (as CaCO3)	372	5.00	0.848	1.00	

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

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Project: ExxonMobil 70234

Date Received: 12/21/16
Work Order: 16-12-2020
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
Method Blank	**099-15-859-1127**	**N/A**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKB1**

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
Alkalinity, Total (as CaCO3)	ND	1.0	0.85	1.00	

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

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Project: ExxonMobil 70234

Date Received: 12/21/16
Work Order: 16-12-2020
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
RW1	**16-12-2020-6-K**	**12/20/16 12:45**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222HCOB1**

Parameter	Result	RL	DF	Qualifiers
Bicarbonate (as CaCO3)	372	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	**099-15-861-829**	**N/A**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222HCOB1**

Parameter	Result	RL	DF	Qualifiers
Bicarbonate (as CaCO3)	ND	1.0	1.00	

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

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Pasadena, CA 91103-3065

Project: ExxonMobil 70234

Date Received: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-1-J**	**12/20/16 09:10**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FEL1**

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
Iron (II)	ND	0.100	0.0413	1.00	BU

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**16-12-2020-2-J**	**12/20/16 11:15**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FEL1**

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
Iron (II)	2.14	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**16-12-2020-3-J**	**12/20/16 10:40**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FEL1**

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
Iron (II)	ND	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**16-12-2020-4-J**	**12/20/16 09:55**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FEL1**

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
Iron (II)	ND	0.100	0.0413	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**16-12-2020-5-J**	**12/20/16 08:25**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FEL1**

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
Iron (II)	ND	0.100	0.0413	1.00	BV,BU

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**16-12-2020-6-J**	**12/20/16 12:45**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FEL1**

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
Iron (II)	ND	0.100	0.0413	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: 12/21/16
Work Order: 16-12-2020
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
Method Blank	**099-05-111-5545**	**N/A**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FEL1**

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
Iron (II)	ND	0.100	0.0413	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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-1-E**	**12/20/16 09:10**	**Aqueous**	**GC 25**	**12/29/16**	**12/30/16 04:27**	**161229L041**

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	82	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**16-12-2020-2-E**	**12/20/16 11:15**	**Aqueous**	**GC 25**	**12/29/16**	**12/30/16 07:14**	**161229L041**

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	1000	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	85	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**16-12-2020-3-E**	**12/20/16 10:40**	**Aqueous**	**GC 25**	**12/29/16**	**12/30/16 06:08**	**161229L041**

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	71	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	79	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**16-12-2020-4-E**	**12/20/16 09:55**	**Aqueous**	**GC 25**	**12/29/16**	**12/30/16 06:41**	**161229L041**

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	1200	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	81	38-134	

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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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-5-E**	**12/20/16 08:25**	**Aqueous**	**GC 25**	**12/29/16**	**12/30/16 05:01**	**161229L041**

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	81	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW1	**16-12-2020-6-E**	**12/20/16 12:45**	**Aqueous**	**GC 25**	**12/29/16**	**12/30/16 07:48**	**161229L041**

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	2400	50	48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	85	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-436-11225**	**N/A**	**Aqueous**	**GC 25**	**12/29/16**	**12/29/16 18:58**	**161229L041**

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	81	38-134	

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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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-1-A**	**12/20/16 09:10**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 18:13**	**161222L016**

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	86	68-120	
Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	92	80-128	
Toluene-d8	94	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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-2-A**	**12/20/16 11:15**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 18:50**	**161222L016**

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	160	5.0	3.2	10.0	
Ethylbenzene	ND	5.0	3.2	10.0	
Toluene	ND	5.0	2.6	10.0	
p/m-Xylene	ND	5.0	2.4	10.0	
o-Xylene	ND	5.0	3.9	10.0	
Xylenes (total)	ND	5.0	2.4	1.00	
Methyl-t-Butyl Ether (MTBE)	230	5.0	2.9	10.0	
Tert-Butyl Alcohol (TBA)	680	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	4.7	5.0	1.8	10.0	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	86	68-120	
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	98	80-128	
Toluene-d8	96	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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-3-A**	**12/20/16 10:40**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 19:26**	**161222L016**

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)	6.9	0.50	0.29	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	87	68-120	
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	98	80-128	
Toluene-d8	98	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**16-12-2020-3-B**	**12/20/16 10:40**	**Aqueous**	**GC/MS UU**	**12/23/16**	**12/23/16 14:40**	**161223L008**

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
Tert-Butyl Alcohol (TBA)	2400	200	82	20.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	85	68-120	
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	95	80-128	
Toluene-d8	96	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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-4-A**	**12/20/16 09:55**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 20:03**	**161222L016**

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	25	16	50.0	
Ethylbenzene	ND	25	16	50.0	
Toluene	ND	25	13	50.0	
p/m-Xylene	ND	25	12	50.0	
o-Xylene	ND	25	20	50.0	
Xylenes (total)	ND	25	12	1.00	
Methyl-t-Butyl Ether (MTBE)	1500	25	14	50.0	
Tert-Butyl Alcohol (TBA)	210	500	200	50.0	J
Diisopropyl Ether (DIPE)	ND	25	12	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	25	11	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	25	12	50.0	
1,2-Dibromoethane	ND	25	17	50.0	
1,2-Dichloroethane	ND	25	9.2	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	81	68-120	
Dibromofluoromethane	106	80-127	
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	92	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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-5-A**	**12/20/16 08:25**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 20:40**	**161222L016**

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	87	68-120	
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	97	80-128	
Toluene-d8	97	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: 12/21/16
Work Order: 16-12-2020
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	**16-12-2020-6-B**	**12/20/16 12:45**	**Aqueous**	**GC/MS UU**	**12/23/16**	**12/23/16 14:03**	**161223L008**

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	1100	20	13	40.0	
Ethylbenzene	18	20	13	40.0	J
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)	540	20	12	40.0	
Tert-Butyl Alcohol (TBA)	1600	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	32	20	7.4	40.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	83	68-120	
Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	97	80-128	
Toluene-d8	92	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: 12/21/16
Work Order: 16-12-2020
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	**099-10-025-4442**	**N/A**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 10:22**	**161222L016**

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	87	68-120	
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	90	80-128	
Toluene-d8	94	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: 12/21/16
Work Order: 16-12-2020
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	**099-10-025-4443**	**N/A**	**Aqueous**	**GC/MS UU**	**12/23/16**	**12/23/16 10:57**	**161223L008**

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	
o-Xylene	ND	0.50	0.39	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.1	1.00	
Xylenes (total)	ND	0.50	0.24	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.29	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	90	68-120	
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	93	80-128	
Toluene-d8	96	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: 12/21/16
Work Order: 16-12-2020
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 10**	**N/A**	**12/21/16 18:35**	**161221S01**
MW4	**Matrix Spike**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 19:50**	**161221S01**
MW4	**Matrix Spike Duplicate**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 20:09**	**161221S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate (as N)	2.525	5.000	5.472	59	5.532	60	80-120	1	0-20	HX
Sulfate	62.88	50.00	96.30	67	96.64	68	80-120	0	0-20	HX

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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: 12/21/16
Work Order: 16-12-2020
Preparation: N/A
Method: SM 3500-FeB

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW6	**Sample**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FES1**
MW6	**Matrix Spike**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FES1**
MW6	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FES1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Iron (II)	ND	1.000	1.120	112	1.056	106	70-130	6	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:	12/21/16
898 N. Fair Oaks Avenue, Suite A		Work Order:	16-12-2020
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
16-12-2647-1	**Sample**	**Aqueous**	**GC 25**	**12/29/16**	**12/29/16 19:32**	**161229S022**
16-12-2647-1	**Matrix Spike**	**Aqueous**	**GC 25**	**12/29/16**	**12/29/16 20:05**	**161229S022**
16-12-2647-1	**Matrix Spike Duplicate**	**Aqueous**	**GC 25**	**12/29/16**	**12/29/16 20:38**	**161229S022**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1813	91	1830	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: 12/21/16
Work Order: 16-12-2020
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-12-2152-2	**Sample**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 11:29**	**161222S007**
16-12-2152-2	**Matrix Spike**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 12:06**	**161222S007**
16-12-2152-2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 12:42**	**161222S007**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.58	106	10.78	108	75-125	2	0-20	
Ethylbenzene	ND	10.00	11.45	114	11.60	116	75-125	1	0-20	
Toluene	ND	10.00	10.89	109	10.99	110	75-125	1	0-20	
p/m-Xylene	ND	20.00	22.96	115	23.29	116	75-125	1	0-20	
o-Xylene	ND	10.00	11.38	114	11.70	117	75-127	3	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.607	96	9.832	98	71-131	2	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	56.58	113	66.14	132	20-180	16	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	8.653	87	9.964	100	64-136	14	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.916	99	10.48	105	73-133	6	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	10.63	106	11.33	113	75-125	6	0-20	
1,2-Dibromoethane	ND	10.00	11.08	111	11.59	116	75-126	5	0-20	
1,2-Dichloroethane	ND	10.00	10.28	103	10.68	107	75-127	4	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: 12/21/16
Work Order: 16-12-2020
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-12-2258-6	**Sample**	**Aqueous**	**GC/MS UU**	**12/23/16**	**12/23/16 11:36**	**161223S004**
16-12-2258-6	**Matrix Spike**	**Aqueous**	**GC/MS UU**	**12/23/16**	**12/23/16 12:13**	**161223S004**
16-12-2258-6	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS UU**	**12/23/16**	**12/23/16 12:50**	**161223S004**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.87	109	10.83	108	75-125	0	0-20	
1,2-Dibromoethane	ND	10.00	11.45	114	11.58	116	75-126	1	0-20	
1,2-Dichloroethane	ND	10.00	10.75	107	10.80	108	75-127	1	0-20	
Ethylbenzene	ND	10.00	11.76	118	11.80	118	75-125	0	0-20	
Toluene	ND	10.00	11.21	112	11.29	113	75-125	1	0-20	
p/m-Xylene	ND	20.00	23.50	118	23.60	118	75-125	0	0-20	
o-Xylene	ND	10.00	11.80	118	11.99	120	75-127	2	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	61.04	122	60.53	121	20-180	1	0-40	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.710	97	10.10	101	71-131	4	0-20	
Diisopropyl Ether (DIPE)	ND	10.00	9.647	96	9.737	97	64-136	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.842	98	9.955	100	73-133	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	10.79	108	10.99	110	75-125	2	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: 12/21/16
Work Order: 16-12-2020
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
RW1	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKD1**
RW1	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	372.0	368.0	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

ETIC Engineering, Inc.		Date Received:	12/21/16
898 N. Fair Oaks Avenue, Suite A		Work Order:	16-12-2020
Pasadena, CA 91103-3065		Preparation:	N/A
		Method:	SM 2320B
Project: ExxonMobil 70234			Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
RW1	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222HCOD1**
RW1	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	372.0	368.0	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: 12/21/16
Work Order: 16-12-2020
Preparation: N/A
Method: RSK-175M

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-663-2651	**LCS**	**Aqueous**	**GC 52**	**N/A**	**12/27/16 09:35**	**161227L02**
099-12-663-2651	**LCSD**	**Aqueous**	**GC 52**	**N/A**	**12/27/16 10:00**	**161227L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	102.0	100.3	98	100.3	98	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	12/21/16
898 N. Fair Oaks Avenue, Suite A		Work Order:	16-12-2020
Pasadena, CA 91103-3065		Preparation:	N/A
		Method:	EPA 300.0
Project: ExxonMobil 70234			Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-7195	**LCS**	**Aqueous**	**IC 10**	**N/A**	**12/21/16 10:27**	**161221L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Nitrate (as N)	5.000	4.934	99	90-110	
Sulfate	50.00	48.45	97	90-110	

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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: 12/21/16
Work Order: 16-12-2020
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-1127	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKB1**
099-15-859-1127	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**12/22/16 21:16**	**G1222ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	100.0	100	101.0	101	80-120	1	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: 12/21/16
Work Order: 16-12-2020
Preparation: N/A
Method: SM 3500-FeB

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-111-5545	**LCS**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FEL1**
099-05-111-5545	**LCSD**	**Aqueous**	**UV 8**	**12/21/16**	**12/21/16 09:23**	**G1221FEL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Iron (II)	1.000	0.9589	96	0.9921	99	80-120	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

ETIC Engineering, Inc.		Date Received:	12/21/16
898 N. Fair Oaks Avenue, Suite A		Work Order:	16-12-2020
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
099-12-436-11225	**LCS**	**Aqueous**	**GC 25**	**12/29/16**	**12/29/16 18:25**	**161229L041**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	1921	96	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:	12/21/16
898 N. Fair Oaks Avenue, Suite A		Work Order:	16-12-2020
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
099-10-025-4442	**LCS**	**Aqueous**	**GC/MS UU**	**12/22/16**	**12/22/16 09:43**	**161222L016**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	10.48	105	80-120	73-127	
Ethylbenzene	10.00	11.22	112	80-120	73-127	
Toluene	10.00	10.64	106	80-120	73-127	
p/m-Xylene	20.00	22.46	112	80-120	73-127	
o-Xylene	10.00	11.20	112	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	10.22	102	75-123	67-131	
Tert-Butyl Alcohol (TBA)	50.00	52.17	104	80-120	73-127	
Diisopropyl Ether (DIPE)	10.00	9.642	96	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	10.20	102	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	11.09	111	80-120	73-127	
1,2-Dibromoethane	10.00	11.16	112	80-120	73-127	
1,2-Dichloroethane	10.00	10.36	104	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:	12/21/16
898 N. Fair Oaks Avenue, Suite A		Work Order:	16-12-2020
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
099-10-025-4443	**LCS**	**Aqueous**	**GC/MS UU**	**12/23/16**	**12/23/16 10:17**	**161223L008**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	10.42	104	80-120	73-127	
1,2-Dibromoethane	10.00	11.16	112	80-120	73-127	
1,2-Dichloroethane	10.00	10.37	104	80-122	73-129	
Ethylbenzene	10.00	11.45	115	80-120	73-127	
Toluene	10.00	10.83	108	80-120	73-127	
p/m-Xylene	20.00	23.05	115	80-120	73-127	
o-Xylene	10.00	11.57	116	80-120	73-127	
Tert-Butyl Alcohol (TBA)	50.00	48.42	97	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	9.592	96	75-123	67-131	
Diisopropyl Ether (DIPE)	10.00	9.282	93	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	9.671	97	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	10.70	107	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

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-12-2020 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 300.0	N/A	1037	IC 10	1
EPA 8015B (M)	EPA 5030C	1063	GC 25	2
EPA 8260B	EPA 5030C	996	GC/MS UU	2
RSK-175M	N/A	929	GC 52	2
SM 2320B	N/A	1063	PH1/BUR03	1
SM 2320B	N/A	1068	PH1/BUR03	1
SM 3500-FeB	N/A	990	UV 8	1

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Glossary of Terms and Qualifiers

Work Order: 16-12-2020 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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Jonathan Diaz

From: Kate Lamb <klamb@eticeng.com>
Sent: Thursday, December 22, 2016 12:18 PM
To: Jonathan Diaz
Cc: Roslyn Woods
Subject: RE: ExxonMobil 70234 / ECI 16-12-2020
Attachments: 20161222122125625.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

See attached, thanks

Kate Lamb, CESSWI, QSP
Senior Project Manager
ETIC Engineering, Inc.
898 North Fair Oaks Ave.
Suite A
Pasadena, CA 91103
Tel: 626-432-5999 x2506
Fax: 626-432-5998
Mobile: 626-319-0393
klamb@eticeng.com
www.eticeng.com

From: Jonathan Diaz [mailto:JonathanDiaz@eurofinsUS.com]
Sent: Thursday, December 22, 2016 11:35 AM
To: Kate Lamb <klamb@eticeng.com>
Cc: Roslyn Woods <rwoods@eticeng.com>
Subject: ExxonMobil 70234 / ECI 16-12-2020

Kate,

We received 11 containers for all samples instead of 10 as marked on COC:

-8 VOAs w/HCL
-1-250 poly unpreserved
-1-125 poly unpreserved
-1-250 amber glass unpreserved

Please update COC.

Thanks,
Jonathan

(714) 895-5494

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

Site Name	
Retail Project (MRN)	
Major Project (AFE)	
Project Name	Former Retail Site 70234

CHAIN OF CUSTODY RECORD

DATE: 12/20/16
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: klamb@eticeng.com

GLOBAL ID W/ COELT LOG CODE: T06019757161
PROJECT CONTACT: Kate Lamb, ETIC Engineering, Inc.
SAMPLER(S): (SIGNATURE)

P.O. 4410385285
SHIP DATE: 16-12-2020
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: rwoods@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 SAMPLE NUMBER	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	12/20/16	0910	water	10	X	X		X	X	X	X	X								8 Voas, 1-250ml HDPE, 1-250ml Amber
2	MW5	MW5	12/20/16	1115	water	10	X	X		X	X	X	X	X								8 Voas, 1-250ml HDPE, 1-250ml Amber
3	MW6	MW6	12/20/16	1040	water	10	X	X		X	X	X	X	X								8 Voas, 1-250ml HDPE, 1-250ml Amber
4	MW7	MW7	12/20/16	0955	water	10	X	X		X	X	X	X	X								8 Voas, 1-250ml HDPE, 1-250ml Amber
5	MW8	MW8	12/20/16	0825	water	10	X	X		X	X	X	X	X								8 Voas, 1-250ml HDPE, 1-250ml Amber
	~~MW9~~	~~MW9~~			water	10	X	X		X	X	X	X	X								~~8 Voas, 1-250ml HDPE, 1-250ml Amber~~
6	RW1	RW1	12/20/16	1245	water	10	X	X		X	X	X	X	X								8 Voas, 1-250ml HDPE, 1-250ml Amber

1-125ML

Relinquished by: (Signature)	Received by: (Signature)	Date, & Time:
	ECI	12/20/16 1425
Relinquished by: (Signature) TLD GSO 12/20/16 1730	Received by: (Signature) ECI	Date, & Time: 12/21/16 0906
Relinquished by: (Signature)	Received by: (Signature)	Date, & Time:

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

CHAIN OF CUSTODY RECORD

DATE: 12/20/16
PAGE: 1 OF 1

Site Name	[redacted]
Retail Project (MRN)	
Major Project (AFE)	
Project Name	Former Retail Site 70234

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: klamb@eticeng.com

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

P.O. 4410385285
16-12-2020
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: rwoods@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	12/20/16	0910	water	10	X	X		X	X	X	X	X	8 Voas, 1-250ml HDPE, 1-250ml Amber
2	MW5	MW5	12/20/16	1115	water	10	X	X		X	X	X	X	X	8 Voas, 1-250ml HDPE, 1-250ml Amber
3	MW6	MW6	12/20/16	1040	water	10	X	X		X	X	X	X	X	8 Voas, 1-250ml HDPE, 1-250ml Amber
4	MW7	MW7	12/20/16	0955	water	10	X	X		X	X	X	X	X	8 Voas, 1-250ml HDPE, 1-250ml Amber
5	MW8	MW8	12/20/16	0825	water	10	X	X		X	X	X	X	X	8 Voas, 1-250ml HDPE, 1-250ml Amber
	~~MW9~~	~~MW9~~			~~water~~	~~10~~	~~X~~	~~X~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~8 Voas, 1-250ml HDPE, 1-250ml Amber~~
6	RW1	RW1	12/20/16	1245	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:
	ECI	12/20/16 1425
To GSO 12/20/16 1730	ECI	12/21/16 0906

GSO
GOLDEN STATE OVERNIGHT

800-322-5555 www.gso.com

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:
WEISS, AME, ETIC
Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 534427754

EPS

ORC
GARDEN GROVE

A

D92845A

60611507

Print Date: 12/20/2016 3:20 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: 16-12- 2020

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: ETIC

DATE: 12 / 21 / 2016

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

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 2.9 °C (w/ CF): 2.9 °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: 300

CUSTODY SEAL:

Cooler ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: 300

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1069

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	☑ VB 12/21/16	☑	☐
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			
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: g (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☑ 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, Labeled/Checked by: 1069

s = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH Reviewed by: 300 / 896

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eurofins | Calscience

WORK ORDER NUMBER: 16-12- 2020

SAMPLE ANOMALY REPORT

DATE: 12 / 21 / 2016

SAMPLES, CONTAINERS, AND LABELS:

Comments

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☑ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☑ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

(-1) to (-6) Received 11 containers instead of 10, see container type.

* Transferred at client's request.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: 1069

Reviewed by: SMG

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

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Appendix E

Groundwater Monitoring and Sampling Data for Unocal No. 6129

Table 2. Historical Groundwater Gauging and Analytical Results
First Quarter 1990 to Current
Union Oil Company of California
Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	EDB (µg/L)	EDC (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	Comments
MW-1	1/5/1990	24 - 44	190.79	32.80	157.99	<30	<0.30	<0.30	<0.30	<0.30	**--**	--	--	--	--	--	--	--	
MW-1	5/11/1990	24 - 44	190.79	31.80	158.99	<30	<0.30	**7.1**	<0.30	<0.30	**--**	--	--	--	--	--	--	--	
MW-1	8/9/1990	24 - 44	190.79	32.37	158.42	<30	<0.30	<0.30	<0.30	<0.30	**--**	--	--	--	--	--	--	--	
MW-1	11/14/1990	24 - 44	190.79	33.32	157.47	<30	<0.30	<0.30	<0.30	<0.30	**--**	--	--	--	--	--	--	--	
MW-1	2/12/1991	24 - 44	190.79	33.02	157.77	<30	**0.32**	<0.30	<0.30	<0.30	**--**	--	--	--	--	--	--	--	
MW-1	5/9/1991	24 - 44	190.79	30.95	159.84	<30	<0.30	<0.30	<0.30	<0.30	**--**	--	--	--	--	--	--	--	
MW-1	11/13/2003	24 - 44	190.79	--	--	**180**	<1.0	<1.0	<1.0	<2.0	**240**	<200	<4.0	<4.0	<4.0	<4.0	<4.0	<1,000	
MW-1	8/27/2004	24 - 44	190.79	30.65	160.14	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<1.0	<0.50	<50	
MW-1	11/23/2004	24 - 44	190.79	29.35	161.44	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<1.0	<0.50	<50	
MW-1	2/9/2005	24 - 44	190.79	26.89	163.90	<50	<0.50	<0.50	<0.50	<1.0	**9.3**	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	
MW-1	5/17/2005	24 - 44	190.79	26.56	164.23	<50	<0.50	<0.50	<0.50	<1.0	**1.9**	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	
MW-1	7/27/2005	24 - 44	190.79	27.33	163.46	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<50	
MW-1	12/6/2005	24 - 44	190.79	29.59	161.20	<50	<0.50	**0.93**	<0.50	**1.80**	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	2/21/2006	24 - 44	190.79	28.27	162.52	<50	<0.50	<0.50	<0.50	<1.0	**2.6**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	6/8/2006	24 - 44	190.79	26.07	164.72	<50	<0.50	<0.50	<0.50	<1.0	**11**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	9/15/2006	24 - 44	190.79	28.86	161.93	<50	<0.50	<0.50	<0.50	<0.50	**1.4**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	12/14/2006	24 - 44	190.79	29.49	161.30	<50	<0.50	<0.50	<0.50	<0.50	**3.5**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	3/28/2007	24 - 44	190.79	27.24	163.55	<50	<0.50	<0.50	<0.50	<0.50	**0.64**	**<10**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	6/25/2007	24 - 44	190.79	28.30	162.49	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	9/22/2007	24 - 44	190.79	30.61	160.18	<50	<0.50	<0.50	<0.50	<0.50	**4.1**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	12/14/2007	24 - 44	190.79	30.30	160.49	<50	<0.50	<0.50	<0.50	<1.0	**0.65**	**<10**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	3/17/2008	24 - 44	190.79	27.22	163.57	<50	<0.50	<0.50	<0.50	<1.0	**14**	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-1	6/20/2008	24 - 44	190.79	30.10	160.69	<50	<0.50	<0.50	<0.50	<1.0	**11**	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-1	9/11/2008	24 - 44	190.79	31.04	159.75	<51	<0.50	<0.50	<0.50	<1.0	**1.3**	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-1	11/25/2008	24 - 44	190.79	30.88	159.91	<50	<0.50	<0.50	<0.50	<1.0	**5.8**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	3/9/2009	24 - 44	190.79	27.50	163.29	<50	<0.50	<0.50	<0.50	<1.0	**25**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	5/28/2009	24 - 44	190.79	28.25	162.54	<50	<0.50	<0.50	<0.50	<1.0	**17**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	12/11/2009	24 - 44	190.79	30.60	160.19	<50	<0.50	<0.50	<0.50	<1.0	**18**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	5/7/2010	24 - 44	190.79	26.06	164.73	**67**	<0.50	<0.50	<0.50	<1.0	**64**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	11/1/2010	24 - 44	190.79	30.18	160.61	<50	<0.50	<0.50	<0.50	<1.0	**92**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	5/27/2011	24 - 44	190.79	26.87	163.92	**110**	<0.50	<0.50	<0.50	<1.0	**220**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	11/23/2011	24 - 44	190.79	29.14	161.65	**1,101**	<0.50	<0.50	<0.50	<1.0	**150**	**41**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	5/24/2012	24 - 44	190.79	26.58	164.21	**140**	<0.50	<0.50	<0.50	<1.0	**190**	**66**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	10/23/2012	24 - 44	190.79	30.51	160.28	**130**	<0.50	<0.50	<0.50	<1.0	**140**	**47**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	5/2/2013	24 - 44	190.79	28.30	162.49	**150**	<0.50	<0.50	<0.50	<1.0	**270**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	11/13/2013	24 - 44	190.79	31.65	159.14	**240**	<0.50	<0.50	<0.50	<1.0	**270**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	5/12/2014	24 - 44	190.79	28.95	161.84	**98**	<0.50	<0.50	<0.50	<1.0	**170**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	11/19/2014	24 - 44	190.79	31.50	159.29	**130**	<0.50	<0.50	<0.50	<1.0	**180**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	6/17/2015	24 - 44	190.79	29.27	161.52	**52**	<0.50	<0.50	<0.50	<1.0	**100**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	12/15/2015	24 - 44	190.79	31.76	159.03	**60**	<0.50	<0.50	<0.50	<1.0	**48**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	6/15/2016	24 - 44	190.79	29.64	161.15	**89**	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-1	11/21/2016	24 - 44	190.79	30.81	159.98	<50	<0.50	<0.50	<0.50	<1.0	**73**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-2	1/5/1990	24 - 44	190.80	33.02	157.78	<30	<0.30	<0.30	<0.30	<0.30	**--**	**--**	--	--	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
First Quarter 1990 to Current
Union Oil Company of California
Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	EDB (µg/L)	EDC (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	Comments
MW-2	5/11/1990	24 - 44	190.80	31.98	158.82	<30	<0.30	<0.30	<0.30	<0.30	**--**	**--**	--	--	--	--	--	--	
MW-2	8/9/1990	24 - 44	190.80	32.45	158.35	<30	<0.30	<0.30	<0.30	<0.30	**--**	**--**	--	--	--	--	--	--	
MW-2	11/14/1990	24 - 44	190.80	33.47	157.33	<30	<0.30	<0.30	<0.30	<0.30	**--**	**--**	--	--	--	--	--	--	
MW-2	2/12/1991	24 - 44	190.80	33.15	157.65	<30	<0.30	**0.42**	<0.30	**0.51**	**--**	**--**	--	--	--	--	--	--	
MW-2	5/9/1991	24 - 44	190.80	30.88	159.92	<30	<0.30	<>0.30	<0.30	<0.30	**--**	**--**	--	--	--	--	--	--	
MW-2	11/13/2003	24 - 44	190.80	--	--	<2,000	<20	<20	<20	<40	**2,100**	<4,000	<80	<80	<80	<80	<80	<20,000	
MW-2	8/27/2004	24 - 44	190.80	30.28	160.52	**950**	<5.0	<5.0	<5.0	<10	**1,400**	<5.0	<5.0	<5.0	<5.0	**24**	<5.0	<500	
MW-2	11/23/2004	24 - 44	190.80	28.75	162.05	**53**	<0.50	<0.50	<0.50	<1.0	**4**	<5.0	<0.50	<0.50	<0.50	**18**	<0.50	<50	
MW-2	2/9/2005	24 - 44	190.80	26.08	164.72	<500	<0.50	<0.50	<0.50	<1.0	**400**	<5.0	<5.0	<5.0	<5.0	**19**	<5.0	<500	
MW-2	5/17/2005	24 - 44	190.80	24.53	166.27	<50	<0.50	<0.50	<0.50	<1.0	**330**	<5.0	<0.50	<0.50	<0.50	**12**	<0.50	<50	
MW-2	7/27/2005	24 - 44	190.80	27.51	163.29	<500	<5.0	<5.0	<5.0	<10	**580**	**140**	<5.0	<5.0	<5.0	**16**	<5.0	<500	
MW-2	12/6/2005	24 - 44	190.80	29.13	161.67	**340**	<0.50	<0.50	<0.50	<1.0	**780**	**61**	<0.50	<0.50	<0.50	**15**	<0.50	<250	
MW-2	2/21/2006	24 - 44	190.80	29.23	161.57	**190**	<0.50	<0.50	<0.50	<1.0	**340**	<10	<0.50	<0.50	<0.50	**18**	<0.50	<250	
MW-2	6/8/2006	24 - 44	190.80	25.76	165.04	<500	<5.0	<5.0	<5.0	<10	**440**	<100	<5.0	<5.0	<5.0	**14**	<5.0	<2,500	
MW-2	9/15/2006	24 - 44	190.80	29.17	161.63	<500	<5.0	<5.0	<5.0	<5.0	**570**	<100	<5.0	<5.0	<5.0	**17**	<5.0	<2,500	
MW-2	12/14/2006	24 - 44	190.80	29.11	161.69	**520**	<0.50	<0.50	<0.50	<0.50	**770**	**27**	<0.50	<0.50	<0.50	**20**	<0.50	<250	
MW-2	3/28/2007	24 - 44	190.80	26.68	164.12	**290**	<0.50	<0.50	<0.50	<0.50	**460**	**260**	<0.50	<0.50	<0.50	**23**	<0.50	<250	
MW-2	6/25/2007	24 - 44	190.80	25.91	164.89	<50	<0.50	<0.50	<0.50	<0.50	**1.2**	<10	<0.50	<0.50	<0.50	**23**	<0.50	<250	
MW-2	9/22/2007	24 - 44	190.80	30.18	160.62	**400**	<0.50	<0.50	<0.50	<0.50	**530**	<10	<0.50	<0.50	<0.50	**35**	<0.50	<250	
MW-2	12/14/2007	24 - 44	190.80	29.96	160.84	**400**	<0.50	<0.50	<0.50	<1.0	**930**	**48**	<0.50	<0.50	<0.50	**24**	<0.50	<250	
MW-2	3/17/2008	24 - 44	190.80	26.74	164.06	**570**	<5.0	<5.0	<5.0	<10	**630**	<100	<5.0	<5.0	<5.0	**18**	<5.0	<2,500	
MW-2	6/20/2008	24 - 44	190.80	29.78	161.02	**580**	<0.50	<0.50	<0.50	<1.0	**1,200**	<10	<0.50	<0.50	<0.50	**16**	<0.50	<250	
MW-2	9/11/2008	24 - 44	190.80	30.62	160.18	**220**	<0.50	<0.50	<0.50	<1.0	**29**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-2	11/25/2008	24 - 44	190.80	30.48	160.32	**500**	<0.50	<0.50	<0.50	<1.0	**1,500**	<10	<0.50	<0.50	<0.50	**19**	<0.50	<250	
MW-2	3/9/2009	24 - 44	190.80	25.75	165.05	**910**	<5.0	<5.0	<5.0	<10	**1,400**	<100	<5.0	<5.0	<5.0	**15**	<5.0	<2,500	
MW-2	5/28/2009	24 - 44	190.80	27.71	163.09	**460**	<0.50	<0.50	<0.50	<1.0	**740**	<10	<0.50	<0.50	<0.50	**20**	<0.50	<250	
MW-2	12/11/2009	24 - 44	190.80	29.80	161.00	**640**	<5.0	<5.0	<5.0	<10	**1,300**	<100	<5.0	<5.0	<5.0	**19**	<5.0	<2,500	
MW-2	5/7/2010	24 - 44	190.80	25.11	165.69	**600**	<1.0	<1.0	<1.0	<2.0	**940**	<20	<1.0	<1.0	<1.0	**14**	<1.0	<500	
MW-2	11/1/2010	24 - 44	190.80	29.90	160.90	**140**	<0.50	<0.50	<0.50	<1.0	**730**	<10	<0.50	<0.50	<0.50	**28**	<0.50	<250	
MW-2	5/27/2011	24 - 44	190.80	26.44	164.36	**560**	<0.50	<0.50	<0.50	<1.0	**1,100**	**210**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-2	11/23/2011	24 - 44	190.80	28.53	162.27	**830**	<0.50	<0.50	<0.50	<1.0	**1,500**	**400**	<0.50	<0.50	<0.50	**9**	<0.50	<250	
MW-2	5/24/2012	24 - 44	190.80	25.97	164.83	**1,000**	<0.50	<0.50	<0.50	<1.0	**1,200**	**430**	<0.50	<0.50	<0.50	**8.8**	<0.50	<250	
MW-2	10/23/2012	24 - 44	190.80	30.14	160.66	**750**	<0.50	<0.50	<0.50	<1.0	**1,300**	**420**	<0.50	<0.50	<0.50	**14**	<0.50	<250	
MW-2	5/2/2013	24 - 44	190.80	27.14	163.66	**290**	<0.50	<0.50	<0.50	<1.0	**460**	<10	<0.50	<0.50	**6.2**	<0.50	<0.50	<250	
MW-2	11/13/2013	24 - 44	190.80	31.37	159.43	**1,200**	<0.50	<0.50	<0.50	<1.0	**1,300**	<10	<0.50	<0.50	**17**	<0.50	<0.50	<250	
MW-2	5/12/2014	24 - 44	190.80	28.49	162.31	**260**	<0.50	<0.50	<0.50	<1.0	**510**	**44**	<0.50	<0.50	**12**	<0.50	<0.50	<250	
MW-2	11/19/2014	24 - 44	190.80	31.46	159.34	**430**	<0.50	<0.50	<0.50	<1.0	**980**	<10	<0.50	<0.50	**31**	<0.50	<0.50	<250	
MW-2	6/17/2015	24 - 44	190.80	29.70	161.10	<50	<0.50	<0.50	<0.50	<1.0	**25**	<10	<0.50	<0.50	**3.1**	<0.50	<0.50	<250	
MW-2	12/15/2015	24 - 44	190.80	31.71	159.09	**680**	<0.50	<0.50	<0.50	<1.0	**1,300**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-2	6/15/2016	24 - 44	190.80	29.35	161.45	<50	<0.50	<0.50	<0.50	<1.0	**<0.50**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-2	11/21/2016	24 - 44	190.80	30.58	160.22	**140**	<0.50	<0.50	<0.50	<1.0	**270**	<10	<0.50	<0.50	**17**	<0.50	<0.50	<250	
MW-3	1/5/1990	23-43	188.58	31.88	156.70	<30	<0.30	<0.30	<0.30	<0.30	**--**	--	--	**--**	--	--	--	--	
MW-3	5/11/1990	23-43	188.58	31.25	157.33	<30	<0.30	<0.30	<0.30	<0.30	**--**	**--**	--	**--**	--	--	--	--	
MW-3	8/9/1990	23-43	188.58	31.53	157.05	<30	<0.30	<0.30	<0.30	<0.30	**--**	**--**	--	**--**	--	--	--	--	

Table 2. Historical Groundwater Gauging and Analytical Results
First Quarter 1990 to Current
Union Oil Company of California
Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	EDB (µg/L)	EDC (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	Comments
MW-3	11/14/1990	23-43	188.58	33.30	155.28	<30	<0.30	<0.30	<0.30	<0.30	**--**	**--**	--	**--**	--	--	--	--	
MW-3	2/12/1991	23-43	188.58	32.05	156.53	<30	<0.30	<0.30	<0.30	<0.30	**--**	**--**	--	**--**	--	--	--	--	
MW-3	5/9/1991	23-43	188.58	30.37	158.21	<30	<0.30	<0.30	<0.30	<0.30	**--**	--	--	**--**	--	--	--	--	
MW-3	11/13/2003	23-43	188.58	--	--	**2,600**	<20	<20	<20	<40	**3,700**	<4,000	<80	<80	<80	<80	<80	<20,000	
MW-3	8/27/2004	23-43	188.58	29.61	158.97	**1,700**	<10	<10	<10	<20	**2,600**	<100	<10	<10	<10	<20	<10	<1,000	
MW-3	11/23/2004	23-43	188.58	28.48	160.10	**1,500**	<10	<10	<10	<20	**1,800**	<100	<10	<10	<10	<20	<10	<1,000	
MW-3	2/9/2005	23-43	188.58	26.45	162.13	<1,000	<0.50	<0.50	<0.50	<1.0	**2,100**	**130**	<10	<10	<10	<10	<10	<1,000	
MW-3	5/17/2005	23-43	188.58	25.61	162.97	<1,000	<0.50	<0.50	<0.50	<1.0	**1,200**	<100	<10	<10	<10	<10	<10	<1,000	
MW-3	7/27/2005	23-43	188.58	27.35	161.23	<1,000	<10	<10	<10	<20	**1,400**	**360**	<10	<10	<10	<10	<10	<1,000	
MW-3	12/6/2005	23-43	188.58	28.78	159.80	**430**	<0.50	1.6	<0.50	3.6	**1,800**	**160**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	2/21/2006	23-43	188.58	28.91	159.67	**420**	<0.50	<0.50	<0.50	<1.0	**1,100**	**88**	<0.50	<0.50	<0.50	<0.50	0.58	<250	
MW-3	6/8/2006	23-43	188.58	25.97	162.61	<1,200	<12	<12	<12	<25	**1,000**	<250	<12	<12	<12	<12	<12	<6,200	
MW-3	9/15/2006	23-43	188.58	28.73	159.85	<1,200	<12	<12	<12	<12	**1,200**	<250	<12	<12	<12	<12	<12	<6,200	
MW-3	12/14/2006	23-43	188.58	28.62	159.96	<1,000	<10	<10	<10	<10	**1,300**	<200	<10	<10	<10	<10	<10	<5,000	
MW-3	3/28/2007	23-43	188.58	26.69	161.89	**500**	<1.0	<1.0	<1.0	<1.0	**860**	**500**	<1.0	<1.0	<1.0	<1.0	<1.0	<500	
MW-3	6/25/2007	23-43	188.58	26.74	161.84	**270**	<0.50	<0.50	<0.50	<0.50	**570**	**11**	<0.50	0.65	<0.50	<0.50	<0.50	<250	
MW-3	9/22/2007	23-43	188.58	29.57	159.01	**500**	<0.50	<0.50	<0.50	<0.50	**980**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	12/14/2007	23-43	188.58	29.30	159.28	**270**	<0.50	<0.50	<0.50	<1.0	**570**	**26**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	3/17/2008	23-43	188.58	26.82	161.76	**220**	<0.50	<0.50	<0.50	<1.0	**520**	<10	<0.50	0.65	<0.50	<0.50	<0.50	<250	
MW-3	6/20/2008	23-43	188.58	29.10	159.48	**490**	<0.50	<0.50	<0.50	<1.0	**1,300**	**49**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	9/11/2008	23-43	188.58	29.89	158.69	**630**	<5.0	<5.0	<5.0	<10	**1,200**	<100	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	
MW-3	11/25/2008	23-43	188.58	29.74	158.84	**380**	<0.50	<0.50	<0.50	<1.0	**870**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	3/9/2009	23-43	188.58	25.56	163.02	**310**	<0.50	<0.50	<0.50	<1.0	**720**	**15**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	5/28/2009	23-43	188.58	27.55	161.03	**410**	<0.50	<0.50	<0.50	<1.0	**750**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	12/11/2009	23-43	188.58	29.10	159.48	**220**	<0.50	<0.50	<0.50	<1.0	**620**	**63**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	5/7/2010	23-43	188.58	25.72	162.86	**360**	<0.50	<0.50	<0.50	<1.0	**660**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	11/1/2010	23-43	188.58	29.29	159.29	**120**	<0.50	<0.50	<0.50	<1.0	**490**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	5/27/2011	23-43	188.58	26.53	162.05	**340**	<0.50	<0.50	<0.50	<1.0	**890**	**73**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	5/24/2012	23-43	188.58	25.95	162.63	**660**	<0.50	<0.50	<0.50	<1.0	**1,100**	**300**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	10/23/2012	23-43	188.58	29.39	159.19	**480**	<0.50	<0.50	<0.50	<1.0	**500**	**160**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	5/2/2013	23-43	188.58	26.98	161.60	**130**	<0.50	<0.50	<0.50	<1.0	**220**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	11/13/2013	23-43	188.58	30.28	158.30	**110**	<0.50	<0.50	<0.50	<1.0	**100**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	5/12/2014	23-43	188.58	27.93	160.65	**98**	<0.50	<0.50	<0.50	<1.0	**160**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	11/19/2014	23-43	188.58	30.22	158.36	**180**	<0.50	<0.50	<0.50	<1.0	**250**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	6/17/2015	23-43	188.58	28.75	159.83	**220**	<0.50	<0.50	<0.50	<1.0	**570**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	12/15/2015	23-43	188.58	30.45	158.13	**220**	<0.50	<0.50	<0.50	<1.0	**240**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	6/15/2016	23-43	188.58	28.64	159.94	**550**	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	
MW-3	11/21/2016	23-43	188.58	29.58	159.00	**130**	<0.50	<0.50	<0.50	<1.0	**430**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	

Notes:
MW = Groundwater monitoring well
TOC = Top of casing
ft amsl = Feet above mean sea level
DTW = Depth to groundwater
ft bTOC = Feet below top of casing
PSH = Phase separate hydrocarbons
TPH-g = Total petroleum hydrocarbons, gasoline range by LUFT GC/MS according to Environmental Protection Agency (EPA) Method 8260B
Samples analyzed by EPA Method 8260B:
Benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX)
MTBE = Methyl tert-butyl ether
TBA = Tert-butanol or tertiary butyl alcohol
EDB = 1,2-Dibromoethane

Table 2. Historical Groundwater Gauging and Analytical Results
First Quarter 1990 to Current
Union Oil Company of California
Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	EDB (µg/L)	EDC (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	Comments

ft = Feet
-- = Not sampled/not measured
GW Elev = Groundwater elevation
µg/L = Micrograms per liter
Bold = Value exceeds laboratory reporting limits
<0.50 = Not detected at or above the stated limit
EDC = 1,2-Dichloroethane
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
TAME = Tert-amyl methyl ether
Ethanol
J = Estimated value (between laboratory reporting limit and method detection li Data QA/QC by: EK 12/22/16