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**Jennifer C. Sedlachek**  
Project Manager

**ExxonMobil**

June 22, 2016

**RECEIVED**

By Alameda County Environmental Health 9:40 am, Jun 23, 2016

Mr. Mark Detterman  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502-6577

**RE: Former Exxon RAS #79374/990 San Pablo Avenue, Albany, California.**

Dear Mr. Detterman:

Attached for your review and comment is a copy of the letter report entitled *Groundwater Monitoring Report, Second Quarter 2016*, dated June 22, 2016, for the above-referenced site. The report was prepared by Cardno of Petaluma, California, and details activities at the subject site.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

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

Sincerely,



Jennifer C. Sedlachek  
Project Manager

Attachment: Cardno's *Groundwater Monitoring Report, Second Quarter 2016*, dated June 22, 2016

cc: w/ attachment  
Ms. Muriel T. Blank, Trustee, The Blank Family Trust  
Reverend Deborah Blank, Trustee, The Blank Family Trust  
Ms. Marcia Blank Kelly, The Blank Family Trust

w/o attachment  
Mr. Scott Perkins, Cardno



## **RESULTS AND CONCLUSIONS**

### **Groundwater Flow Direction and Hydraulic Gradient**

Due to varying well construction, the wells are separated into shallow and deep water-bearing zones. Wells MW3A, MW4, MW5, and SVE1 through SVE7 are screened no deeper than 15 feet bgs and are referred to as the shallow water-bearing zone; wells MW1 through MW3 and MW6 have screened intervals that extend deeper than 15 feet bgs and are referred to as the deep water-bearing zone. The groundwater elevations in wells screened deeper than 15 feet are commonly irregular and do not agree with the distribution of petroleum hydrocarbon concentrations. Although the water-bearing zones are referred to as shallow and deep, they likely do not represent unique water-bearing zones.

During the quarter, the groundwater flow direction in the shallow water-bearing zone was towards the south-southwest under a hydraulic gradient of approximately 0.048. Due to varying well construction, the groundwater flow in the deep water-bearing zone was not calculated. Groundwater elevation maps for the shallow and deep water-bearing zones are included as Plates 3 and 4, respectively.

### **Non-Aqueous Phase Liquid**

During the fourth quarter 2012 sampling event, concentrations of TPHg (270,000 µg/L) were two orders of magnitude higher in well MW4 than previous concentrations, potentially indicative of the presence of NAPL. Although the TPHg concentrations increased, BTEX concentrations were consistent with previous data. NAPL has not been observed at the site. Concentrations of TPHg reported in well MW4 since second quarter 2013 have been consistent with historical results and the October 2012 TPHg results appear to have been anomalous.

### **Hydrocarbons in Groundwater**

Maximum petroleum hydrocarbon concentrations were reported in well MW3, located in the vicinity of the former USTs, and wells MW4 and MW5, located west of the former USTs. Petroleum hydrocarbon concentrations were consistent with recent results.

Per the Alameda County Health Care Services Agency (ACDEH) letter dated May 16, 2016 (Appendix E), Cardno had Eurofins Calscience, Inc. reanalyze the 2014 grab groundwater samples to include PCE and TCE. PCE and TCE were not reported in the samples, with the exception of the sample collected from boring B15, located in the parking lot across the street in front of the police station. Select HVOC results are shown on Plate 5.

Based on the results of the groundwater sampling to date, it appears that the existing well network and previous soil borings adequately define the area of dissolved-phase concentrations.

## **RECOMMENDATIONS AND WORK IN PROGRESS**

Cardno recommends continued semi-annual groundwater monitoring and sampling during the second and fourth quarters and conducting additional HIT events at the site. Cardno is in the process of preparing the vapor intrusion work plan requested in the ACDEH letter dated May 16, 2016, and is awaiting the issuance of a site-specific discharge permit to start performing HIT events (Appendix E).

## **LIMITATIONS**

For documents cited that were not generated by Cardno, the data taken from those documents is used "as is" and is assumed to be accurate. Cardno does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents.

This document and the work performed have been undertaken in good faith, with due diligence and with the expertise, experience, capability, and specialized knowledge necessary to perform the work in a good and

June 22, 2016  
 Cardno 2735C.Q162 Former Exxon Service Station 79374, Albany, California

workmanlike manner and within all accepted standards pertaining to providers of environmental services in California at the time of investigation. No soil engineering or geotechnical references are implied or should be inferred. The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

Please contact Mr. Scott Perkins, Cardno's project manager for this site, at [scott.perkins@cardno.com](mailto:scott.perkins@cardno.com) or at (707) 766-2000 with any questions regarding this report.

Sincerely,

SCANNED  
 Christine M. Capwell  
 IMAGE

SCANNED  
 David R. Daniels  
 IMAGE



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 Senior Technical Editor  
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Enclosures:

References  
 Acronym List

Plate 1	Site Vicinity Map
Plate 2	Select Analytical Results
Plate 3	Groundwater Elevation Map, Shallow Water-Bearing Zone
Plate 4	Groundwater Elevation Map, Deep Water-Bearing Zone
Plate 5	Select Analytical Results – HVOCs
Table 1A	Cumulative Groundwater Monitoring and Sampling Data
Table 1B	Additional Cumulative Groundwater Monitoring and Sampling Data
Table 2	Well Construction Details
Appendix A	Protocols
Appendix B	Field Data Sheets
Appendix C	Laboratory Analytical Reports
Appendix D	Waste Disposal Documentation
Appendix E	Correspondence

cc: Mr. Mark Detterman, Alameda County Health Care Services Agency, Environmental Health Services, 1131 Harbor Bay Parkway, Suite 250, Alameda, California, 94502-6577

Ms. Muriel T. Blank, Trustee, The Blank Family Trusts, 1164 Solano Avenue, #406, Albany, California, 94706

Reverend Deborah Blank, Trustee, The Blank Family Trust, 1563 Solano Avenue, #344, Berkeley, California, 94707

Ms. Marcia Blank, Trustee, The Blank Family Trust, 641 SW Morningside Road, Topeka, Kansas, 66606

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Cardno 2735C.Q162 Former Exxon Service Station 79374, Albany, California

## **REFERENCES**

Cardno. December 17, 2015. *Groundwater Monitoring and Remediation Status Report, Fourth Quarter 2015, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California..*

June 22, 2016

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**ACRONYM LIST**

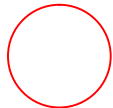
µg/L	Micrograms per liter	NEPA	National Environmental Policy Act
µs	Microsiemens	NGVD	National Geodetic Vertical Datum
1,2-DCA	1,2-dichloroethane	NPDES	National Pollutant Discharge Elimination System
acfm	Actual cubic feet per minute	O&M	Operations and Maintenance
AS	Air sparge	ORP	Oxidation-reduction potential
bgs	Below ground surface	OSHA	Occupational Safety and Health Administration
BTEX	Benzene, toluene, ethylbenzene, and total xylenes	OVA	Organic vapor analyzer
CEQA	California Environmental Quality Act	P&ID	Process & Instrumentation Diagram
cfm	Cubic feet per minute	PAH	Polycyclic aromatic hydrocarbon
COC	Chain of Custody	PCB	Polychlorinated biphenyl
CPT	Cone Penetration (Penetrometer) Test	PCE	Tetrachloroethene or perchloroethylene
DIPE	Di-isopropyl ether	PID	Photo-ionization detector
DO	Dissolved oxygen	PLC	Programmable logic control
DOT	Department of Transportation	POTW	Publicly owned treatment works
DPE	Dual-phase extraction	ppmv	Parts per million by volume
DTW	Depth to water	PQL	Practical quantitation limit
EDB	1,2-dibromoethane	psi	Pounds per square inch
EPA	Environmental Protection Agency	PVC	Polyvinyl chloride
ESL	Environmental screening level	QA/QC	Quality assurance/quality control
ETBE	Ethyl tertiary butyl ether	RBSL	Risk-based screening levels
FID	Flame-ionization detector	RCRA	Resource Conservation and Recovery Act
fpm	Feet per minute	RL	Reporting limit
GAC	Granular activated carbon	scfm	Standard cubic feet per minute
gpd	Gallons per day	SSTL	Site-specific target level
gpm	Gallons per minute	STLC	Soluble threshold limit concentration
GWPTS	Groundwater pump and treat system	SVE	Soil vapor extraction
HVOC	Halogenated volatile organic compound	SVOC	Semi-volatile organic compound
J	Estimated value between MDL and PQL (RL)	TAME	Tertiary amyl methyl ether
LEL	Lower explosive limit	TBA	Tertiary butyl alcohol
LPC	Liquid-phase carbon	TCE	Trichloroethene
LRP	Liquid-ring pump	TOC	Top of well casing elevation; datum is msl
LUFT	Leaking underground fuel tank	TOG	Total oil and grease
LUST	Leaking underground storage tank	TPHd	Total petroleum hydrocarbons as diesel
MCL	Maximum contaminant level	TPHg	Total petroleum hydrocarbons as gasoline
MDL	Method detection limit	TPHmo	Total petroleum hydrocarbons as motor oil
mg/kg	Milligrams per kilogram	TPHs	Total petroleum hydrocarbons as stoddard solvent
mg/L	Milligrams per liter	TRPH	Total recoverable petroleum hydrocarbons
mg/m <sup>3</sup>	Milligrams per cubic meter	UCL	Upper confidence level
MPE	Multi-phase extraction	USCS	Unified Soil Classification System
MRL	Method reporting limit	USGS	United States Geologic Survey
msl	Mean sea level	UST	Underground storage tank
MTBE	Methyl tertiary butyl ether	VCP	Voluntary Cleanup Program
MTCA	Model Toxics Control Act	VOC	Volatile organic compound
NAI	Natural attenuation indicators	VPC	Vapor-phase carbon
NAPL	Non-aqueous phase liquid		



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 www.delorme.com

FN 2735 TOPO

**EXPLANATION**



1/2-mile radius circle



**APPROXIMATE SCALE**



SOURCE:  
 Modified from a map  
 provided by  
 DeLorme 3-D TopoQuads



**SITE VICINITY MAP**

FORMER EXXON SERVICE STATION 79374  
 990 San Pablo Avenue  
 Albany, California

**PROJECT NO.**

2735

**PLATE**

1

Analyte Concentrations in ug/L  
 Sampled May 2, 2016

Total Petroleum Hydrocarbons  
 as gasoline  
 Benzene  
 Methyl Tertiary Butyl Ether

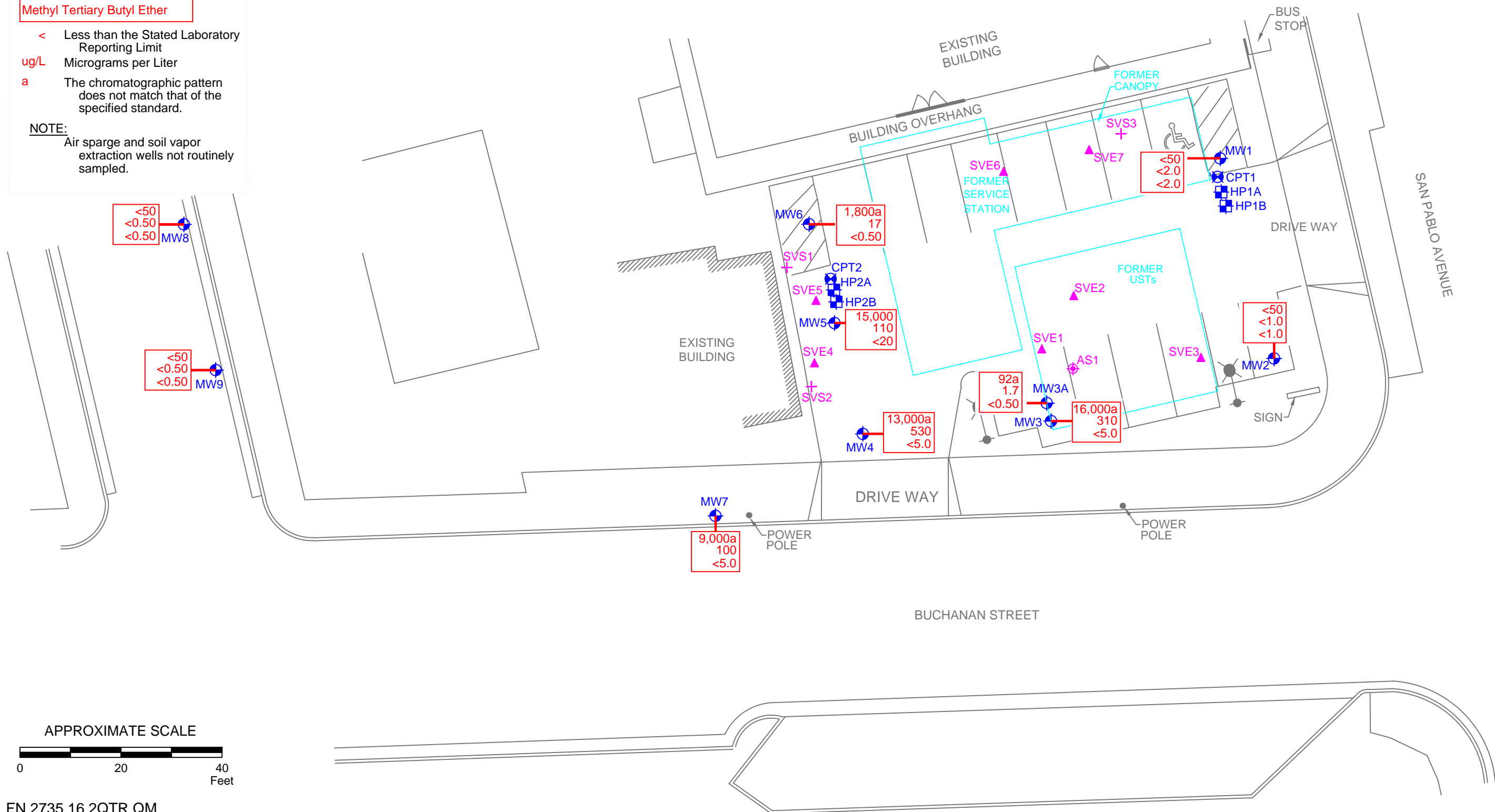
< Less than the Stated Laboratory  
 Reporting Limit

ug/L Micrograms per Liter

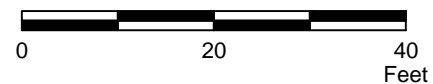
a The chromatographic pattern  
 does not match that of the  
 specified standard.

**NOTE:**

Air sparge and soil vapor  
 extraction wells not routinely  
 sampled.



APPROXIMATE SCALE



FN 2735 16 2QTR QM

**SELECT ANALYTICAL RESULTS  
 May 2, 2016**

FORMER EXXON SERVICE STATION 79374  
 990 San Pablo Avenue  
 Albany, California

**EXPLANATION**

- MW9 Groundwater Monitoring Well
- HP2B Hydropunch Boring
- CPT2 Cone Penetration Test Boring
- AS1 Air Sparge Well
- SVE7 Soil Vapor Extraction Well
- SVS3 Soil Vapor Sampling Well

**PROJECT NO.**

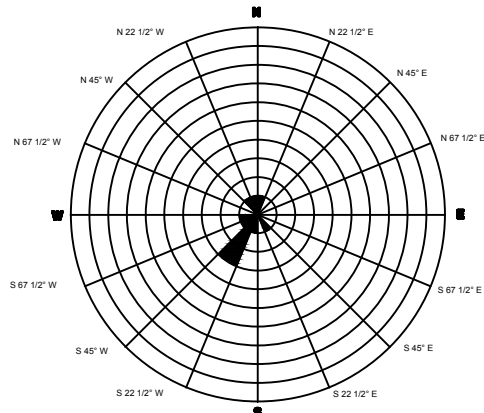
2735

**PLATE**

2

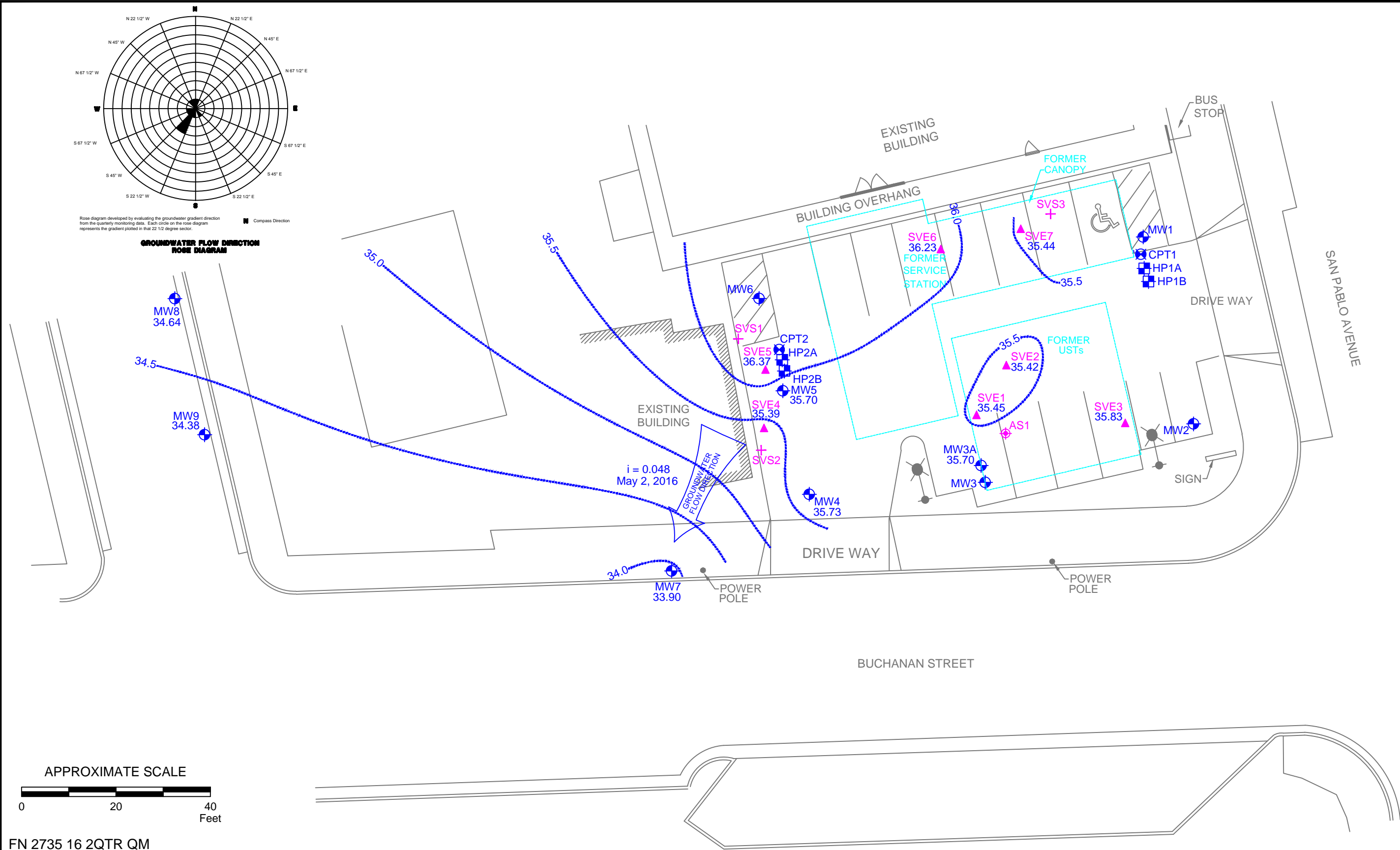




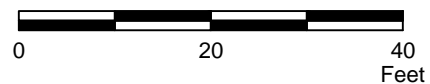


Rose diagram developed by evaluating the groundwater gradient direction from the quarterly monitoring data. Each circle on the rose diagram represents the gradient plotted in that 22.5 degree sector.

**GROUNDWATER FLOW DIRECTION ROSE DIAGRAM**



APPROXIMATE SCALE



FN 2735 16 2QTR QM



**GROUNDWATER ELEVATION MAP  
SHALLOW WATER-BEARING ZONE  
May 2, 2016**

FORMER EXXON SERVICE STATION 79374  
990 San Pablo Avenue  
Albany, California

**EXPLANATION**

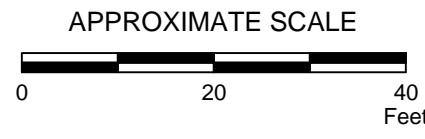
- MW9 Groundwater Monitoring Well
- 34.38 Groundwater elevation in feet; datum is NAVD88
- $i = 0.048$  Interpreted Hydraulic Gradient
- CPT2 Cone Penetration Test Boring
- HP2B Hydropunch Boring
- 36.0 Line of Equal Groundwater Elevation; datum is NAVD88
- AS1 Air Sparge Well
- SVE7 Soil Vapor Extraction Well
- SVS3 Soil Vapor Sampling Well

**PROJECT NO.**

2735

**PLATE**

3



FN 2735 16 2QTR QM



**GROUNDWATER ELEVATION MAP  
DEEP WATER-BEARING ZONE  
May 2, 2016**  
FORMER EXXON SERVICE STATION 79374  
990 San Pablo Avenue  
Albany, California

EXPLANATION			
MW6	Groundwater Monitoring Well	CPT2	Cone Penetration Test Boring
36.05	Groundwater elevation in feet; datum is NAVD88	HP2B	Hydropunch Boring
		AS1	Air Sparge Well
		SVE7	Soil Vapor Extraction Well
		SVS3	Soil Vapor Sampling Well

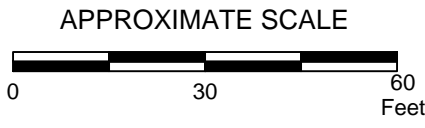
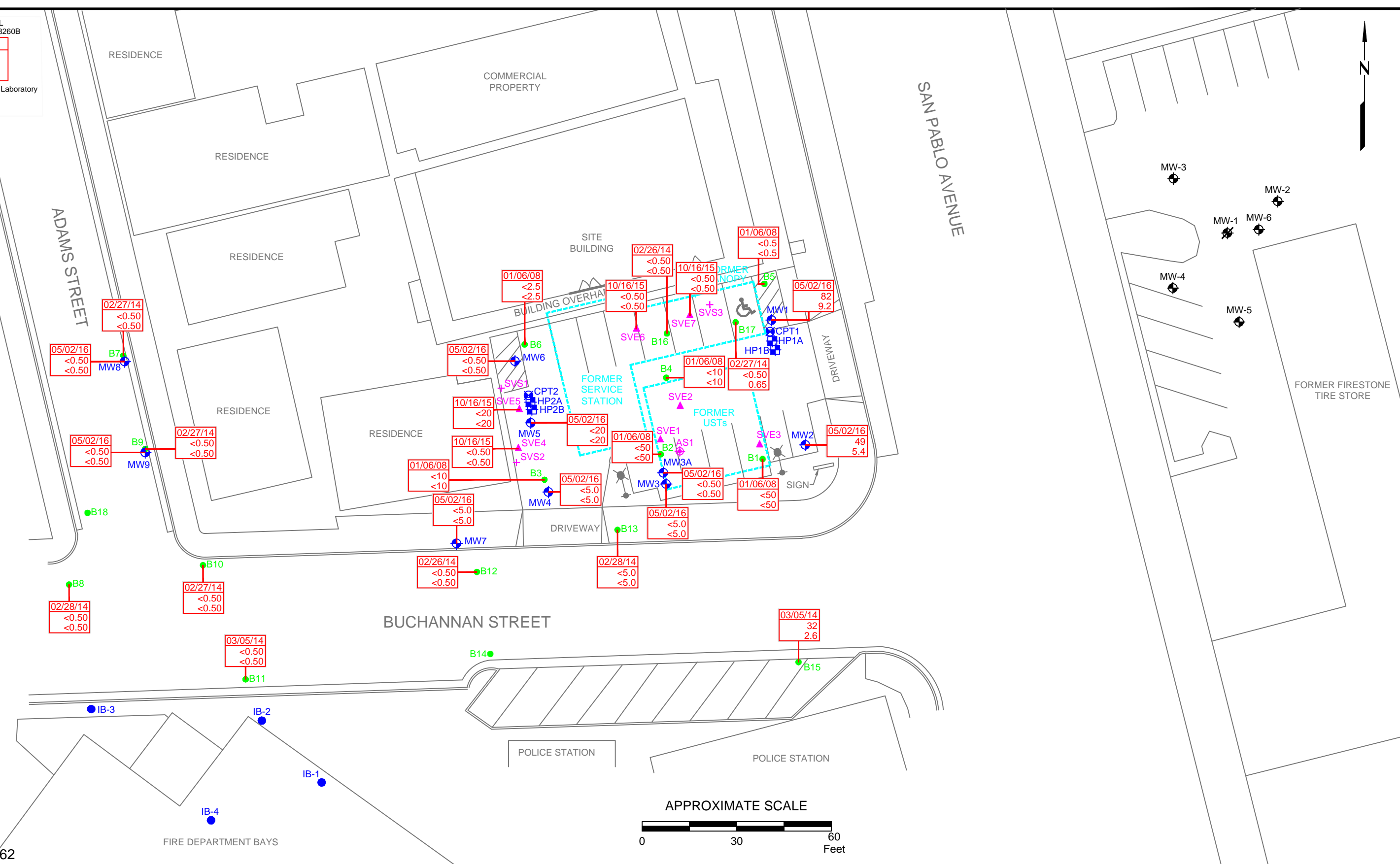
**PROJECT NO.**  
2735

**PLATE**  
4

Analyte Concentrations in ug/L  
 Analyzed using EPA Method 8260B

Sample date
Tetrachloroethene
Trichloroethene

< Less than the Stated Laboratory Reporting Limit  
 ug/L Micrograms per Liter



FN 27350005 Q162



### SELECT ANALYTICAL RESULTS - HVOCS

FORMER EXXON SERVICE STATION 79374  
 990 San Pablo Avenue  
 Albany, California

#### EXPLANATION

- MW9 Groundwater Monitoring Well
- MW-6 Groundwater Monitoring Well for Firestone
- MW-1 Destroyed Groundwater Monitoring Well for Firestone
- HP2B Hydropunch Boring
- CPT2 Cone Penetration Test Boring
- IB-4 Soil Boring by Other Consultant for City of Albany
- B18 Soil Boring
- AS1 Air Sparge Well
- SVE7 Soil Vapor Extraction Well
- SVS3 Soil Vapor Sampling Well

PROJECT NO.

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PLATE

5

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
<b>Monitoring Well Samples</b>															
MW1	11/04/10	---	Well installed.												
MW1	12/01/10	---	41.45	Well surveyed.											
MW1	12/16/10	---	41.45	9.18	32.27	No	---	<250	71a	54	<0.50	1.4	0.65	0.58	1.6
MW1	01/31/11	---	41.45	8.78	32.67	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	04/07/11	---	41.45	8.45	33.00	No	---	<250	65a	160a	<0.50	2.9	0.92	<0.50	1.7
MW1	07/18/11	---	41.45	9.49	31.96	No	---	<250	<50	63a	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	10/13/11	---	41.45	9.86	31.59	No	---	<250	54	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	04/06/12	---	41.45	8.11	33.34	No	---	<250	130	130	<0.50	2.1	<0.50	<0.50	<0.50
MW1	10/19/12	---	41.45	10.42	31.03	No	---	<250	<50	<50	<0.50	0.51	2.2	<0.50	0.65
MW1	06/11/13	---	41.45	10.48	30.97	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	12/19/13	---	41.45	10.67	30.78	No	---	<250	<50	<50	<0.50	<0.50	1.3	<0.50	0.53
MW1	04/03/14	---	44.19	Elevation converted to NAVD88.											
MW1	04/30/14	---	44.19	9.49	34.70	No	---	---	---	---	---	---	---	---	---
MW1	05/01/14	---	44.19	---	---	---	---	<240	<48	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	10/28/14	---	44.19	10.85	33.34	No	---	<250	61a	59	<0.50	1.2	<0.50	0.64	<0.50
MW1	06/02/15	---	44.19	10.35	33.84	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	11/18/15	---	44.19	10.72	33.47	No	---	---	---	---	---	---	---	---	---
MW1	11/19/15	---	44.19	---	---	---	---	<240	<47	<50	<0.50	<0.50	<0.50	<0.50	<0.50
<b>MW1</b>	<b>05/02/16</b>	---	<b>44.19</b>	<b>11.14</b>	<b>33.05</b>	<b>No</b>	---	<b>320a</b>	<b>210a</b>	<b>&lt;50</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>
MW2	11/04/10	---	Well installed.												
MW2	12/01/10	---	41.25	Well surveyed.											
MW2	12/16/10	---	41.25	8.11	33.14	No	---	<250	110a	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/31/11	---	41.25	9.29	31.96	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	04/07/11	---	41.25	8.21	33.04	No	---	<250	<50	<50	0.51	<0.50	<0.50	<0.50	<0.50
MW2	07/18/11	---	41.25	9.52	31.73	No	---	<250	<50	54a	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	10/13/11	---	41.25	9.56	31.69	No	---	<250	98	75a	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	04/06/12	---	41.25	8.68	32.57	No	---	<250	60	68	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	10/19/12	---	41.25	11.03	30.22	No	---	<250	<50	59a	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	06/11/13	---	41.25	10.67	30.58	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	12/19/13	---	41.25	10.77	30.48	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	04/03/14	---	43.99	Elevation converted to NAVD88.											
MW2	04/30/14	---	43.99	9.63	34.36	No	---	---	---	---	---	---	---	---	---
MW2	05/01/14	---	43.99	---	---	---	---	<240	<48	53a	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	10/28/14	---	43.99	11.03	32.96	No	---	<250	78a	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	06/02/15	---	43.99	10.50	33.49	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	11/18/15	---	43.99	10.87	33.12	No	---	---	---	---	---	---	---	---	---
MW2	11/19/15	---	43.99	---	---	---	---	<240	60a	<50	<0.50	<0.50	<0.50	<0.50	<0.50
<b>MW2</b>	<b>05/02/16</b>	---	<b>43.99</b>	<b>10.02</b>	<b>33.97</b>	<b>No</b>	---	<b>290a</b>	<b>180a</b>	<b>&lt;50</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>
MW3	11/08/10	---	Well installed.												

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	
MW3	12/01/10	---	40.42	Well surveyed.												
MW3	12/16/10	---	40.42	8.18	32.24	No	---	<250	2,900a	19,000	<12	350	130	940	290	
MW3	01/31/11	---	40.42	7.64	32.78	No	---	390	2,800a	17,000a	<12	540	140	700	270	
MW3	04/07/11	---	40.42	5.88	34.54	No	---	<250	2,700a	14,000	<10	600	150	780	230	
MW3	07/18/11	---	40.42	8.31	32.11	No	---	<250	1,700a	19,000	<10	650	140	660	220	
MW3	10/13/11	---	40.42	8.76	31.66	No	---	<250	1,900a	16,000	<10	520	150	900	270	
MW3	04/06/12	---	40.42	8.13	32.29	No	---	<250	3,200a	18,000	<20	300	120	1,100	180	
MW3	10/19/12	---	40.42	9.37	31.05	No	---	<250	1,700a	11,000a	<10	380	120	740	150	
MW3	06/11/13	---	40.42	9.48	30.94	No	---	<250	2,700a	17,000	<10	270	110	990	140	
MW3	12/19/13	---	40.42	10.00	30.42	No	---	---	---	---	---	---	---	---	---	
MW3	12/20/13	---	40.42	---	---	---	---	<250	2,000a	16,000	<10	310	120	710	120	
MW3	04/03/14	---	43.16	Elevation converted to NAVD88.												
MW3	04/30/14	---	43.16	9.17	33.99	No	---	---	---	---	---	---	---	---	---	
MW3	05/01/14	---	43.16	---	---	---	---	<240	3,100a	18,000	<10	230	110	1,100	170	
MW3	10/28/14	---	43.16	10.10	33.06	No	---	<250	4,800a	17,000	<20	330	120	1,200	150	
MW3	06/02/15	---	43.16	9.30	33.86	No	---	<250	3,900a	18,000a	<20	290	110	850	140	
MW3	11/18/15	---	43.16	10.06	33.10	No	---	---	---	---	---	---	---	---	---	
MW3	11/19/15	---	43.16	---	---	---	---	<240	3,000a	1,500a	<5.0	290	110	340	100	
<b>MW3</b>	<b>05/02/16</b>	---	<b>43.16</b>	<b>7.09</b>	<b>36.07</b>	<b>No</b>	---	<b>350a</b>	<b>3,400a</b>	<b>16,000a</b>	<b>&lt;5.0</b>	<b>310</b>	<b>110</b>	<b>1,000</b>	<b>150</b>	
MW3A	01/18/12	---	Well installed.													
MW3A	02/06/12	---	40.68	Well surveyed.												
MW3A	04/06/12	---	40.68	6.02	34.66	No	---	<250	170a	1,300	<2.0	41	7.5	140	38	
MW3A	10/19/12	---	40.68	10.44	30.24	No	---	<250	860a	4,400a	<5.0	390	59	410	82	
MW3A	06/11/13	---	40.68	9.75	30.93	No	---	<250	160a	1,100	<2.0	99	14	110	3.6	
MW3A	12/19/13	---	40.68	10.05	30.63	No	---	<250	270a	1,800	<2.0	150	18	65	4.7	
MW3A	04/03/14	---	43.42	Elevation converted to NAVD88.												
MW3A	04/30/14	---	43.42	7.55	35.87	No	---	---	---	---	---	---	---	---	---	
MW3A	05/01/14	---	43.42	---	---	---	---	<240	<48	130a	<0.50	7.0	1.2	7.4	1.3	
MW3A	10/28/14	---	43.42	10.33	33.09	No	---	<250	330a	1,600	<0.50	150	17	26	4.0	
MW3A	06/02/15	---	43.42	9.48	33.94	No	---	<250	89a	170a	<0.50	14	0.95	6.7	1.8	
MW3A	11/18/15	---	43.42	10.15	33.27	No	---	---	---	---	---	---	---	---	---	
MW3A	11/19/15	---	43.42	---	---	---	---	<240	240a	660a	<2.0	86	7.2	3.8	3.6	
<b>MW3A</b>	<b>05/02/16</b>	---	<b>43.42</b>	<b>7.72</b>	<b>35.70</b>	<b>No</b>	---	<b>270a</b>	<b>200a</b>	<b>92a</b>	<b>&lt;0.50</b>	<b>1.7</b>	<b>&lt;0.50</b>	<b>1.5</b>	<b>&lt;0.50</b>	
MW4	11/05/10	---	Well installed.													
MW4	12/01/10	---	39.30	Well surveyed.												
MW4	12/16/10	---	39.30	6.10	33.20	No	---	<250	2,000a	9,900	<5.0	440	40	170	380	
MW4	01/31/11	---	39.30	6.84	32.46	No	---	260	3,900a	13,000	<10	500	59	320	740	
MW4	04/07/11	---	39.30	5.29	34.01	No	---	<250	1,900a	9,600	<10	530	59	250	340	
MW4	07/18/11	---	39.30	7.36	31.94	No	---	<250	2,800a	14,000	<10	570	66	320	510	
MW4	10/13/11	---	39.30	7.83	31.47	No	---	320	7,200a	14,000	<10	350	43	340	690	
MW4	04/06/12	---	39.30	6.21	33.09	No	---	<250	1,800a	9,100a	<10	380	40	220	410	

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW4	10/19/12	---	39.30	10.64	28.66	No	---	1,400a	20,000a	270,000	<10	440	88	2,100	3,800
MW4	03/06/13	---	39.30	8.02	31.28	No	---	---	---	---	---	---	---	---	---
MW4	06/11/13	---	39.30	9.05	30.25	No	---	<250	3,400a	16,000	<10	430	48	520	820
MW4	12/19/13	---	39.30	8.95	30.35	No	---	---	---	---	---	---	---	---	---
MW4	12/20/13	---	39.30	---	---	---	---	<250	2,800a	13,000	<10	590	41	430	530
MW4	03/05/14	---	39.30	---	---	No	---	---	---	---	---	---	---	---	---
MW4	04/03/14	---	42.04	Elevation converted to NAVD88.											
MW4	04/30/14	---	42.04	6.25	35.79	No	---	---	---	---	---	---	---	---	---
MW4	05/01/14	---	42.04	---	---	---	---	<240	3,000a	13,000	<10	520	46	310	340
MW4	10/28/14	---	42.04	10.20	31.84	No	---	<250	7,400a	15,000	<10	590	42	360	230
MW4	06/02/15	---	42.04	9.60	32.44	Sheen	---	<250	5,100a	22,000	<10	490	36	280	170
MW4	11/18/15	---	42.04	8.58	33.46	No	---	---	---	---	---	---	---	---	---
MW4	11/19/15	---	42.04	---	---	---	---	930a	7,600a	1,800a	<5.0	290	21	180	140
<b>MW4</b>	<b>05/02/16</b>	---	<b>42.04</b>	<b>6.31</b>	<b>35.73</b>	<b>No</b>	---	<b>1,900a</b>	<b>14,000a</b>	<b>13,000a</b>	<b>&lt;5.0</b>	<b>530</b>	<b>40</b>	<b>250</b>	<b>220</b>
MW5	11/11/10	---	Well installed.												
MW5	12/01/10	---	40.38	Well surveyed.											
MW5	12/16/10	---	40.38	7.69	32.69	No	---	<250	1,100a	6,200	<2.5	150	96	270	980
MW5	01/31/11	---	40.38	8.00	32.38	No	---	270	4,600a	15,000	<10	520	310	1,100	2,500
MW5	04/07/11	---	40.38	6.73	33.65	No	---	<250	610a	2,500	<2.5	61	32	180	390
MW5	07/18/11	---	40.38	7.63	32.75	No	---	<250	2,000a	11,000	<2.5	340	160	990	1,800
MW5	10/13/11	---	40.38	9.31	31.07	No	---	660	7,600a	23,000	<20	390	160	1,200	3,100
MW5	04/06/12	---	40.38	6.77	33.61	No	---	<250	880a	6,000a	<5.0	62	17	360	680
MW5	10/19/12	---	40.38	10.64	29.74	No	---	280a	2,100a	15,000	<20	580	63	950	1,400
MW5	06/11/13	---	40.38	10.06	30.32	No	---	<250	2,700a	13,000	<20	540	36	930	1,200
MW5	12/19/13	---	40.38	9.85	30.53	No	---	---	---	---	---	---	---	---	---
MW5	12/20/13	---	40.38	---	---	---	---	<250	2,100a	21,000	<20	370	36	1,500	1,400
MW5	04/03/14	---	43.12	Elevation converted to NAVD88.											
MW5	04/30/14	---	43.12	7.51	35.61	No	---	---	---	---	---	---	---	---	---
MW5	05/01/14	---	43.12	---	---	---	---	<240	2,000a	10,000	<10	170	10	600	510
MW5	10/28/14	---	43.12	10.00	33.12	No	---	360a	6,200a	16,000	<10	550	17	890	360
MW5	06/02/15	---	43.12	9.68	33.44	Sheen	---	340a	4,400a	19,000	<20	340	<20	880	430
MW5	11/18/15	---	43.12	9.18	33.94	No	---	---	---	---	---	---	---	---	---
MW5	11/19/15	---	43.12	---	---	---	---	1,200a	8,300a	5,000	<20	230	<20	710	320
<b>MW5</b>	<b>05/02/16</b>	---	<b>43.12</b>	<b>7.42</b>	<b>35.70</b>	<b>No</b>	---	<b>360a</b>	<b>3,000a</b>	<b>15,000</b>	<b>&lt;20</b>	<b>110</b>	<b>&lt;20</b>	<b>470</b>	<b>200</b>
MW6	11/03/10	---	Well installed.												
MW6	12/01/10	---	41.06	Well surveyed.											
MW6	12/16/10	---	41.06	8.55	32.51	No	---	<250	110a	1,700	<0.50	2.8	1.2	61	46
MW6	01/31/11	---	41.06	8.52	32.54	No	---	<250	800a	2,000a	<1.0	6.0	<1.0	30	24
MW6	04/07/11	---	41.06	7.78	33.28	No	---	<250	660a	2,000	<0.50	10	1.0	20	19
MW6	07/18/11	---	41.06	9.27	31.79	No	---	<250	350a	1,000a	<0.50	2.5	<0.50	3.8	3.5
MW6	10/13/11	---	41.06	10.21	30.85	No	---	<250	370a	890a	<0.50	2.8	<0.50	7.9	5.5

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW6	04/06/12	---	41.06	7.19	33.87	No	---	<250	440a	1,400a	<0.50	2.4	<0.50	13	15
MW6	10/19/12	---	41.06	11.36	29.70	No	---	<250	99a	510a	<0.50	4.2	1.6	8.0	7.0
MW6	06/11/13	---	41.06	10.81	30.25	No	---	<250	150a	500	<0.50	<0.50	<0.50	2.4	1.1
MW6	12/19/13	---	41.06	10.78	30.28	No	---	<250	68a	440	<0.50	<0.50	<0.50	2.3	0.87
MW6	04/03/14	---	43.80	Elevation converted to NAVD88.											
MW6	04/30/14	---	43.80	8.23	35.57	No	---	---	---	---	---	---	---	---	---
MW6	05/01/14	---	43.80	---	---	---	---	<240	450a	1,500	<0.50	2.8	0.57	13	4.8
MW6	10/28/14	---	43.80	10.91	32.89	No	---	<250	94a	260	<0.50	0.60	<0.50	0.56	<0.50
MW6	06/02/15	---	43.80	10.40	33.40	No	---	<250	360a	1,000	<0.50	0.81	<0.50	2.0	1.1
MW6	11/18/15	---	43.80	10.06	33.74	No	---	---	---	---	---	---	---	---	---
MW6	11/19/15	---	43.80	---	---	---	---	<240	370a	530a	<0.50	1.1	<0.50	5.3	1.7
<b>MW6</b>	<b>05/02/16</b>	---	<b>43.80</b>	<b>7.75</b>	<b>36.05</b>	<b>No</b>	---	<b>&lt;230</b>	<b>790a</b>	<b>1,800a</b>	<b>&lt;0.50</b>	<b>17</b>	<b>0.91</b>	<b>10</b>	<b>4.7</b>
MW7	12/08/14	---	Well installed.												
MW7	12/23/14	---	41.21	Well surveyed.											
MW7	12/30/14	---	41.21	5.36	35.85	No	---	<250	2,900a	7,300a	<5.0	52	8.9	32	15
MW7	06/02/15	---	41.21	8.75	32.46	No	---	<250	2,700a	7,800a	<5.0	110	13	39	16
MW7	11/18/15	---	41.21	7.41	33.80	No	---	---	---	---	---	---	---	---	---
MW7	11/19/15	---	41.21	---	---	---	---	1,100a	3,700a	660a	<5.0	77	8.1	27	12
<b>MW7</b>	<b>05/02/16</b>	---	<b>41.21</b>	<b>7.31</b>	<b>33.90</b>	<b>No</b>	---	<b>1,700a</b>	<b>8,100a</b>	<b>9,000a</b>	<b>&lt;5.0</b>	<b>100</b>	<b>8.1</b>	<b>19</b>	<b>11</b>
MW8	12/08/14	---	Well installed.												
MW8	12/23/14	---	39.65	Well surveyed.											
MW8	12/30/14	---	39.65	3.20	36.45	No	---	<250	<49	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW8	06/02/15	---	39.65	6.33	33.32	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW8	11/18/15	---	39.65	5.24	34.41	No	---	<240	<47	<50	<0.50	<0.50	<0.50	<0.50	<0.50
<b>MW8</b>	<b>05/02/16</b>	---	<b>39.65</b>	<b>5.01</b>	<b>34.64</b>	<b>No</b>	---	<b>280a</b>	<b>180a</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
MW9	10/08/15	---	Well installed.												
MW9	10/16/15	---	39.50	6.45	33.05	No	---	<250	270a	360a	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	10/26/15	---	39.50	Well surveyed.											
MW9	11/18/15	---	39.50	5.50	34.00	No	---	<240	<47	81	<0.50	<0.50	<0.50	<0.50	<0.50
<b>MW9</b>	<b>05/02/16</b>	---	<b>39.50</b>	<b>5.12</b>	<b>34.38</b>	<b>No</b>	---	<b>&lt;230</b>	<b>150a</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
AS1	01/18/12	---	Well installed.												
AS1	10/19/12	---	---	10.32	---	No	---	---	---	---	---	---	---	---	---
AS1	06/11/13	---	---	9.82	---	No	---	---	---	---	---	---	---	---	---
AS1	12/19/13	---	---	10.12	---	No	---	---	---	---	---	---	---	---	---
AS1	04/30/14	---	---	7.95	---	No	---	---	---	---	---	---	---	---	---
AS1	10/28/14	---	---	10.35	---	No	---	---	---	---	---	---	---	---	---
AS1	06/02/15	---	---	9.50	---	No	---	---	---	---	---	---	---	---	---
AS1	11/18/15	---	---	10.26	---	No	---	---	---	---	---	---	---	---	---
<b>AS1</b>	<b>05/02/16</b>	---	---	<b>8.16</b>	---	<b>No</b>	---	---	---	---	---	---	---	---	---

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
SVE1	01/17/12	---	Well installed.												
SVE1	02/06/12	---	40.58	Well surveyed.											
SVE1	10/19/12	---	40.58	10.21	30.37	No	---	---	---	---	---	---	---	---	---
SVE1	06/11/13	---	40.58	9.63	30.95	No	---	---	---	---	---	---	---	---	---
SVE1	12/19/13	---	40.58	9.89	30.69	No	---	---	---	---	---	---	---	---	---
SVE1	04/03/14	---	43.32	Elevation converted to NAVD88.											
SVE1	04/30/14	---	43.32	7.70	35.62	No	---	---	---	---	---	---	---	---	---
SVE1	10/28/14	---	43.32	10.17	33.15	No	---	---	---	---	---	---	---	---	---
SVE1	06/02/15	---	43.32	9.35	33.97	No	---	---	---	---	---	---	---	---	---
SVE1	11/18/15	---	43.32	9.98	33.34	No	---	---	---	---	---	---	---	---	---
<b>SVE1</b>	<b>05/02/16</b>	---	<b>43.32</b>	<b>7.87</b>	<b>35.45</b>	<b>No</b>	---	---	---	---	---	---	---	---	---
SVE2	01/17/12	---	Well installed.												
SVE2	02/06/12	---	40.94	Well surveyed.											
SVE2	10/19/12	---	40.94	10.48	30.46	No	---	---	---	---	---	---	---	---	---
SVE2	06/11/13	---	40.94	9.94	31.00	No	---	---	---	---	---	---	---	---	---
SVE2	12/19/13	---	40.94	10.20	30.74	No	---	---	---	---	---	---	---	---	---
SVE2	04/03/14	---	43.68	Elevation converted to NAVD88.											
SVE2	04/30/14	---	43.68	8.09	35.59	No	---	---	---	---	---	---	---	---	---
SVE2	10/28/14	---	43.68	10.50	33.18	No	---	---	---	---	---	---	---	---	---
SVE2	06/02/15	---	43.68	9.69	33.99	No	---	---	---	---	---	---	---	---	---
SVE2	11/18/15	---	43.68	10.39	33.29	No	---	---	---	---	---	---	---	---	---
<b>SVE2</b>	<b>05/02/16</b>	---	<b>43.68</b>	<b>8.26</b>	<b>35.42</b>	<b>No</b>	---	---	---	---	---	---	---	---	---
SVE3	01/17/12	---	Well installed.												
SVE3	02/06/12	---	40.93	Well surveyed.											
SVE3	10/19/12	---	40.93	10.39	30.54	No	---	---	---	---	---	---	---	---	---
SVE3	06/11/13	---	40.93	9.65	31.28	No	---	---	---	---	---	---	---	---	---
SVE3	12/19/13	---	40.93	10.31	30.62	No	---	---	---	---	---	---	---	---	---
SVE3	04/03/14	---	43.67	Elevation converted to NAVD88.											
SVE3	04/30/14	---	43.67	7.79	35.88	No	---	---	---	---	---	---	---	---	---
SVE3	10/28/14	---	43.67	10.48	33.19	No	---	---	---	---	---	---	---	---	---
SVE3	06/02/15	---	43.67	9.40	34.27	No	---	---	---	---	---	---	---	---	---
SVE3	11/18/15	---	43.67	10.56	33.11	No	---	---	---	---	---	---	---	---	---
<b>SVE3</b>	<b>05/02/16</b>	---	<b>43.67</b>	<b>7.84</b>	<b>35.83</b>	<b>No</b>	---	---	---	---	---	---	---	---	---
SVE4	10/09/15	---	Well installed.												
SVE4	10/16/15	---	43.10	10.28	32.82	No	---	<250	840a	830a	<0.50	37	1.2	5.0	26
SVE4	10/26/15	---	43.10	Well surveyed.											
SVE4	11/18/15	---	43.10	8.87	34.23	No	---	---	---	---	---	---	---	---	---
<b>SVE4</b>	<b>05/02/16</b>	---	<b>43.10</b>	<b>7.71</b>	<b>35.39</b>	<b>No</b>	---	---	---	---	---	---	---	---	---
SVE5	10/09/15	---	Well installed.												
SVE5	10/16/15	---	43.70	10.55	33.15	No	---	<250	2,000a	1,700a	<20	29	25	130	2,300



**TABLE 1A**  
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Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	
SVE5	10/26/15	---	43.70	Well surveyed.												
SVE5	11/18/15	---	43.70	9.07	34.63	No	---	---	---	---	---	---	---	---	---	---
<b>SVE5</b>	<b>05/02/16</b>	---	<b>43.70</b>	<b>7.33</b>	<b>36.37</b>	<b>No</b>	---	---	---	---	---	---	---	---	---	---
SVE6	10/09/15	---	Well installed.													
SVE6	10/16/15	---	44.37	10.87	33.50	No	---	<240	390a	490	<0.50	31	1.8	4.2	15	
SVE6	10/26/15	---	44.37	Well surveyed.												
SVE6	11/18/15	---	44.37	10.33	34.04	No	---	---	---	---	---	---	---	---	---	---
<b>SVE6</b>	<b>05/02/16</b>	---	<b>44.37</b>	<b>8.14</b>	<b>36.23</b>	<b>No</b>	---	---	---	---	---	---	---	---	---	---
SVE7	10/09/15	---	Well installed.													
SVE7	10/16/15	---	44.48	11.07	33.41	No	---	<240	240a	440a	<0.50	<0.50	<0.50	0.70	2.3	
SVE7	10/26/15	---	44.48	Well surveyed.												
SVE7	11/18/15	---	44.48	10.47	34.01	No	---	---	---	---	---	---	---	---	---	---
<b>SVE7</b>	<b>05/02/16</b>	---	<b>44.48</b>	<b>9.04</b>	<b>35.44</b>	<b>No</b>	---	---	---	---	---	---	---	---	---	---
<b>Grab Groundwater Samples</b>																
B-1W	01/06/08	---	---	---	---	---	26c,d	<5,000	99,000c,g,j	76,000c,f,k	<50	<50	93	3,100	9,600	
B-2W	01/06/08	---	---	---	---	---	---	310d	23,000c,d,g	77,000 c,d,e	<50	1,500	300	2,000	6,800	
B-3W	01/06/08	---	---	---	---	---	---	<250d	2,000d,g	6,200d,e	<10	170	32	740	250	
B-4W	01/06/08	---	---	---	---	---	---	<250d	3,100d,g	7,700d,e	<10	360	<10	240	20	
B-5W	01/06/08	---	---	---	---	---	---	<250d	120d,g	120d,i	<0.5	<0.5	<0.5	<0.5	<0.5	
B-6W	01/06/08	---	---	---	---	---	---	<250d	830d,g	1,700d,e	<2.5	5.2	<2.5	100	8.6	
DR-W	01/06/08	---	---	---	---	---	---	<250	96g	730f,k	<0.5	<0.5	<0.5	6.9	14	
W-27.5-HP1A	10/28/10	27.5	---	---	---	---	---	260	330a	63a	<0.50	<0.50	<0.50	<0.50	<0.50	
W-36-HP1A	10/28/10	36	---	---	---	---	---	<250	220a	<50	<0.50	<0.50	<0.50	<0.50	<0.50	
W-46.5-HP1A	10/28/10	46.5	---	---	---	---	---	<420	<83	<50	<0.50	<0.50	<0.50	<0.50	<0.50	
W-59-HP1B	10/27/10	59	---	---	---	---	---	<250	130	<50	<0.50	<0.50	<0.50	<0.50	<0.50	
W-27.5-HP2A	10/29/10	27.5	---	---	---	---	---	<250	100a	340	<0.50	1.7	2.1	20	46	
W-52-HP2A	10/29/10	52	---	---	---	---	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	
W-60.5-HP2B	10/27/10	60.5	---	---	---	---	---	<250	62	<50	<0.50	<0.50	<0.50	<0.50	<0.50	
W-10-SVE1-1	01/31/12	10	---	---	---	---	---	990a	1,900a	2,000	<2.0	87	2.1	13	23	
W-10-SVE1-2	01/31/12	10	---	---	---	---	---	890a	1,500a	1,400	<1.0	46	2.0	24	23	

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
W-5-B7	02/27/14	5	---	---	---	---	---	<310	<62	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-12-B8	02/28/14	12	---	---	---	---	---	<240	130a	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-5-B9	02/27/14	5	---	---	---	---	---	<310	370a	1,400a	<0.50	<0.50	<0.50	<0.50	<0.50
W-5.5-B10	02/27/14	5.5	---	---	---	---	---	<310	<62	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-14-B11	03/05/14	14	---	---	---	---	---	<310	<62	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-10-B12	02/26/14	10	---	---	---	---	---	<250	800a	5,900	<0.50	<0.50	<0.50	1.9	<0.50
W-10-B13	02/28/14	10	---	---	---	---	---	<250	1,500a	6,300	<5.0	12	8.8	290	22
B14	03/05/14 b	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-14-B15	03/05/14	14	---	---	---	---	---	<310	<62	<50	1.3	<0.50	<0.50	<0.50	<0.50
W-14-B16	02/26/14	14	---	---	---	---	---	<250	180a	170a	<0.50	1.1	<0.50	5.4	<0.50
W-10-B17	02/27/14	10	---	---	---	---	---	<270	<54	110a	<0.50	<0.50	<0.50	<0.50	<0.50

**TABLE 1A**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

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Notes:

TOC	=	Top of well casing elevation; datum is NAVD88, prior to April 2014, datum was mean sea level.
DTW	=	Depth to water.
GW Elev.	=	Groundwater elevation; datum is NAVD88, prior to April 2014, datum was mean sea level. If liquid-phase hydrocarbons present, elevation adjusted using TOC - [DTW - (PT x 0.76)].
NAPL	=	Non-aqueous phase liquid.
O&G	=	Oil and grease with silica gel clean-up analyzed using Standard Method 5520B/F.
TPHmo	=	Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015 (modified).
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015 (modified).
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015 (modified).
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
PCE	=	Tetrachloroethene analyzed using EPA Method 8260B.
TCE	=	Trichloroethene analyzed using EPA Method 8260B.
VOCs	=	Volatile organic compounds or halogenated volatile organic compounds analyzed using EPA Method 8260B.
µg/L	=	Micrograms per liter.
ND	=	Not detected at or above laboratory reporting limits.
---	=	Not measured/Not sampled/Not analyzed.
<	=	Less than the stated laboratory reporting limit.
a	=	The chromatographic pattern does not match that of the specified standard.
b	=	Groundwater did not enter boring; sample not collected.
c	=	Lighter than water immiscible sheen/product is present.
d	=	Liquid sample that contains greater than approximately 1 volume % sediment.
e	=	Unmodified or weakly modified gasoline is significant.
f	=	Heavier gasoline-range compounds are significant.
g	=	Gasoline-range compounds are significant.
h	=	Analyzed beyond the EPA-recommended hold time.
i	=	Strongly aged gasoline-range or diesel-range compounds are significant.
j	=	Diesel-range compounds are significant; no recognizable pattern.
k	=	No recognizable pattern.
l	=	Additional analyses: CAM 5 metals analyzed using EPA Method 6010B and semi-volatile organic compounds analyzed using EPA Method 8270C. Results were ND except for naphthalene (4,000 µg/L) and 2-methylnaphthalene (3,900 µg/L).
m	=	Additional analyses: CAM 5 metals analyzed using EPA Method 6010B. Results were ND except for dissolved chromium (54 µg/L).

**TABLE 1B**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	PCE (µg/L)	TCE (µg/L)	Naphthalene (µg/L)	Acetone (µg/L)	2-butanone (µg/L)	Bromobenzene (µg/L)	Bromodichloromethane (µg/L)	Bromomethane (µg/L)	n-Butylbenzene (µg/L)	secButylbenzene (µg/L)	
<b>Monitoring Well Samples</b>																			
MW1	11/04/10	---	Well installed.																
MW1	12/16/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	01/31/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	04/07/11	---	<0.50	<0.50	<0.50	10	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	07/18/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	10/13/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	04/06/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	10/19/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	06/11/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	12/19/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	05/01/14	---	<0.50	<0.50	<0.50	5.1	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW1	10/28/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	85h	9.8	<1.0	<10	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	
MW1	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	110	9.3	<1.0	<10	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	
MW1	11/19/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	92h	8.8	<1.0	<10	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	
<b>MW1</b>	<b>05/02/16</b>	---	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;20</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>82</b>	<b>9.2</b>	<b>&lt;4.0</b>	<b>&lt;40</b>	<b>&lt;20</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;4.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	
<b>MW2</b>																			
MW2	11/04/10	---	Well installed.																
MW2	12/16/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	01/31/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	04/07/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	07/18/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	10/13/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	04/06/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	10/19/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	06/11/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	12/19/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	05/01/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---
MW2	10/28/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	73h	8.9	<1.0	<10	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	
MW2	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	78	6.9	<1.0	<10	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	
MW2	11/19/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	79h	7.7	<1.0	<10	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	
<b>MW2</b>	<b>05/02/16</b>	---	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;10</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>49</b>	<b>5.4</b>	<b>&lt;2.0</b>	<b>&lt;20</b>	<b>&lt;10</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;2.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	
<b>MW3</b>																			
MW3	11/08/10	---	Well installed.																
MW3	12/16/10	---	<12	<12	<12	<120	<12	<12	---	---	---	---	---	---	---	---	---	---	---
MW3	01/31/11	---	<12	<12	<12	<120	<12	<12	---	---	---	---	---	---	---	---	---	---	---
MW3	04/07/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	---
MW3	07/18/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	---
MW3	10/13/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	---
MW3	04/06/12	---	<20	<20	<20	<200	<20	<20	---	---	---	---	---	---	---	---	---	---	---

**TABLE 1B**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	PCE (µg/L)	TCE (µg/L)	Naphthalene (µg/L)	Acetone (µg/L)	2-butanone (µg/L)	Bromobenzene (µg/L)	Bromodichloromethane (µg/L)	Bromomethane (µg/L)	n-Butylbenzene (µg/L)	secButylbenzene (µg/L)	
MW3	10/19/12	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW3	06/11/13	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW3	12/20/13	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW3	05/01/14	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW3	10/28/14	---	<20	<20	<20	<200	<20	<20	<20	<20	290	<400	<200	<20	<20	<40	30	<20	
MW3	06/02/15	---	<20	<20	<20	<200	<20	<20	<20	<20	240	<400	<200	<20	<20	<40	21	<20	
MW3	11/19/15	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0	<5.0	120	<100	<50	<5.0	<5.0	<10	22	14	
<b>MW3</b>	<b>05/02/16</b>	---	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>250</b>	<b>&lt;100</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;10</b>	<b>28</b>	<b>17</b>	
MW3A	01/18/12	---	Well installed.																
MW3A	04/06/12	---	<2.0	<2.0	<2.0	<20	<2.0	<2.0	---	---	---	---	---	---	---	---	---	---	
MW3A	10/19/12	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---	---	---	---	---	---	---	---	---	
MW3A	06/11/13	---	<2.0	<2.0	<2.0	<20	<2.0	<2.0	---	---	---	---	---	---	---	---	---	---	
MW3A	12/19/13	---	<2.0	<2.0	<2.0	<20	<2.0	<2.0	---	---	---	---	---	---	---	---	---	---	
MW3A	05/01/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW3A	10/28/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	4.6	<10	<5.0	<0.50	<0.50	<1.0	5.4	6.3	
MW3A	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	1.4	<10	<5.0	<0.50	<0.50	<1.0	1.1	2.5	
MW3A	11/19/15	---	<2.0	<2.0	<2.0	<20	<2.0	<2.0	<2.0	<2.0	6.5	<40	<20	<2.0	<2.0	<4.0	3.3	3.5	
<b>MW3A</b>	<b>05/02/16</b>	---	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;10</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
MW4	11/05/10	---	Well installed.																
MW4	12/16/10	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---	---	---	---	---	---	---	---	---	
MW4	01/31/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW4	04/07/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW4	07/18/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW4	10/13/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW4	04/06/12	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW4	10/19/12	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW4	06/11/13	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW4	12/20/13	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW4	05/01/14	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW4	10/28/14	---	<10	<10	<10	<100	<10	<10	<10	<10	270	<200	<100	<10	<10	<20	72	24	
MW4	06/02/15	---	<10	<10	<10	<100	<10	<10	<10	<10	170	<200	<100	<10	<10	<20	83	27	
MW4	11/19/15	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0	<5.0	150	<100	<50	<5.0	<5.0	<10	98	26	
<b>MW4</b>	<b>05/02/16</b>	---	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>160</b>	<b>&lt;100</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;10</b>	<b>88</b>	<b>25</b>	
MW5	11/11/10	---	Well installed.																
MW5	12/16/10	---	<2.5	<2.5	<2.5	<25	<2.5	<2.5	---	---	---	---	---	---	---	---	---	---	
MW5	01/31/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW5	04/07/11	---	<2.5	<2.5	<2.5	<25	<2.5	<2.5	---	---	---	---	---	---	---	---	---	---	
MW5	07/18/11	---	<2.5	<2.5	<2.5	<25	<2.5	<2.5	---	---	---	---	---	---	---	---	---	---	

**TABLE 1B**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	PCE (µg/L)	TCE (µg/L)	Naphthalene (µg/L)	Acetone (µg/L)	2-butane (µg/L)	Bromobenzene (µg/L)	Bromodichloromethane (µg/L)	Bromomethane (µg/L)	n-Butylbenzene (µg/L)	secButylbenzene (µg/L)	
MW5	10/13/11	---	<20	<20	<20	<200	<20	<20	---	---	---	---	---	---	---	---	---	---	
MW5	04/06/12	---	<0.50	<5.0	<5.0	<50	<5.0	<5.0	---	---	---	---	---	---	---	---	---	---	
MW5	10/19/12	---	<20	<20	<20	<200	<20	<20	---	---	---	---	---	---	---	---	---	---	
MW5	06/11/13	---	<20	<20	<20	<200	<20	<20	---	---	---	---	---	---	---	---	---	---	
MW5	12/20/13	---	<20	<20	<20	<200	<20	<20	---	---	---	---	---	---	---	---	---	---	
MW5	05/01/14	---	<10	<10	<10	<100	<10	<10	---	---	---	---	---	---	---	---	---	---	
MW5	10/28/14	---	<10	<10	<10	<100	<10	<10	<10	<10	250	<200	<100	<10	<10	<20	82	33	
MW5	06/02/15	---	<20	<20	<20	<200	<20	<20	<20	<20	210	<400	<200	<20	<20	<40	110	42	
MW5	11/19/15	---	<20	<20	<20	<200	<20	<20	<20	<20	210	<400	<200	<20	<20	<40	79	29	
<b>MW5</b>	<b>05/02/16</b>	---	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;200</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>150</b>	<b>&lt;400</b>	<b>&lt;200</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;40</b>	<b>300</b>	<b>98</b>	
MW6	11/03/10	---	Well installed.																
MW6	12/16/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW6	01/31/11	---	<1.0	<1.0	<1.0	<10	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---	
MW6	04/07/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW6	07/18/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW6	10/13/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW6	04/06/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW6	10/19/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW6	06/11/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW6	12/19/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW6	05/01/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW6	10/28/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	1.4	<10	<5.0	<0.50	<0.50	<1.0	<0.50	0.73	
MW6	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	3.3	<10	<5.0	<0.50	<0.50	<1.0	3.2	2.9	
MW6	11/19/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	10	16	6.5	<0.50	<0.50	<1.0	7.0	5.0	
<b>MW6</b>	<b>05/02/16</b>	---	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>5.5</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>22</b>	<b>&lt;10</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>13</b>	<b>7.8</b>	
MW7	12/08/14	---	Well installed.																
MW7	12/30/14	---	<5.0	<5.0	<5.0	<50	<5.0	13	---	---	---	---	---	---	---	---	---	---	
MW7	06/02/15	---	<5.0	<5.0	<5.0	<50	<5.0	19	<5.0	<5.0	150	<100	<50	<5.0	<5.0	<10	45	24	
MW7	11/19/15	---	<5.0	<5.0	<5.0	<50	<5.0	13	<5.0	<5.0	220	<100	<50	<5.0	<5.0	<10	36	18	
<b>MW7</b>	<b>05/02/16</b>	---	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>15</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>84</b>	<b>&lt;100</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;10</b>	<b>72</b>	<b>33</b>	
MW8	12/08/14	---	Well installed.																
MW8	12/30/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	
MW8	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<5.0	<0.50	0.85	<1.0	<0.50	<0.50	
MW8	11/18/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	
<b>MW8</b>	<b>05/02/16</b>	---	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;10</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
MW9	10/08/15	---	Well installed.																
MW9	10/16/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<5.0	<0.50	<0.50	<1.0	1.4	0.93	

**TABLE 1B**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	PCE (µg/L)	TCE (µg/L)	Naphthalene (µg/L)	Acetone (µg/L)	2-butanone (µg/L)	Bromobenzene (µg/L)	Bromodichloromethane (µg/L)	Bromomethane (µg/L)	n-Butylbenzene (µg/L)	secButylbenzene (µg/L)
MW9	11/18/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<5.0	<0.50	<0.50	<1.0	0.60	<0.50
<b>MW9</b>	<b>05/02/16</b>	---	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;10</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
AS1	01/18/12	---	Well installed.															
AS1	10/19/12 - Present		Not sampled.															
SVE1	01/17/12	---	Well installed.															
SVE1	10/19/12 - Present		Not sampled.															
SVE2	01/17/12	---	Well installed.															
SVE2	10/19/12 - Present		Not sampled.															
SVE3	01/17/12	---	Well installed.															
SVE3	10/19/12 - Present		Not sampled.															
SVE4	10/09/15	---	Well installed.															
SVE4	10/16/15	---	<0.50	<0.50	<0.50	5.4	<0.50	<0.50	<0.50	<0.50	15	<10	<5.0	<0.50	<0.50	<1.0	2.5	1.5
SVE4	11/18/15 - Present		Not sampled.															
SVE5	10/09/15	---	Well installed.															
SVE5	10/16/15	---	<20	<20	<20	<200	<20	<20	<20	<20	140	<400	<200	<20	<20	<40	24	<20
SVE5	11/18/15 - Present		Not sampled.															
SVE6	10/09/15	---	Well installed.															
SVE6	10/16/15	---	<0.50	<0.50	<0.50	5.7	<0.50	<0.50	<0.50	<0.50	1.9	<10	<5.0	<0.50	<0.50	<1.0	3.1	1.0
SVE6	11/18/15 - Present		Not sampled.															
SVE7	10/09/15	---	Well installed.															
SVE7	10/16/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<1.0	<10	<5.0	<0.50	<0.50	<1.0	0.97	1.7
SVE7	11/18/15 - Present		Not sampled.															
<b>Grab Groundwater Samples</b>																		
B-1W	01/06/08	I	<50	<50	<50	<200	<50	<50	<50	<50	1,500	<1,000	<200	<50	<50	<50	210	68
B-2W	01/06/08	---	<50	<50	<50	<200	<50	<50	<50	<50	610	<1,000	<200	<50	<50	<50	110	<50
B-3W	01/06/08	---	<10	<10	<10	<40	<10	<10	<10	<10	55	<200	<40	<10	<10	<10	25	11
B-4W	01/06/08	---	<10	<10	<10	<40	<10	<10	<10	<10	100	<200	<40	<10	<10	<10	46	19

**TABLE 1B**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	PCE (µg/L)	TCE (µg/L)	Naphthalene (µg/L)	Acetone (µg/L)	2-butanone (µg/L)	Bromobenzene (µg/L)	Bromodichloromethane (µg/L)	Bromomethane (µg/L)	n-Butylbenzene (µg/L)	secButylbenzene (µg/L)
B-5W	01/06/08	---	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	6.5	<10	<2.0	<0.5	<0.5	<0.5	2.6	<0.5
B-6W	01/06/08	---	<2.5	<2.5	<2.5	<10	<2.5	<2.5	<2.5	<2.5	38	<50	10	<2.5	<2.5	<2.5	14	5.6
DR-W	01/06/08 m		<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	7.0	<10	<2.0	<0.5	<0.5	<0.5	6.9	2.4
W-27.5-HP1A	10/28/10	27.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---
W-36-HP1A	10/28/10	36	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---
W-46.5-HP1A	10/28/10	46.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---
W-59-HP1B	10/27/10	59	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---
W-27.5-HP2A	10/29/10	27.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---
W-52-HP2A	10/29/10	52	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---
W-60.5-HP2B	10/27/10	60.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---
W-10-SVE1-1	01/31/12	10	<2.0	<2.0	<2.0	62	<2.0	<2.0	---	---	---	---	---	---	---	---	---	---
W-10-SVE1-2	01/31/12	10	<1.0	<1.0	<1.0	57	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---
W-5-B7	02/27/14	5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
W-12-B8	02/28/14	12	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
W-5-B9	02/27/14	5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
W-5.5-B10	02/27/14	5.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
W-14-B11	03/05/14	14	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
W-10-B12	02/26/14	10	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
W-10-B13	02/28/14	10	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0	<5.0	---	---	---	---	---	---	---	---
B14	03/05/14 b		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-14-B15	03/05/14	14	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	32	2.6	---	---	---	---	---	---	---	---
W-14-B16	02/26/14	14	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---
W-10-B17	02/27/14	10	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	0.65	---	---	---	---	---	---	---	---



**TABLE 1B**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

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Notes:

TOC	=	Top of well casing elevation; datum is NAVD88, prior to April 2014, datum was mean sea level.
DTW	=	Depth to water.
GW Elev.	=	Groundwater elevation; datum is NAVD88, prior to April 2014, datum was mean sea level. If liquid-phase hydrocarbons present, elevation adjusted using TOC - [DTW - (PT x 0.76)].
NAPL	=	Non-aqueous phase liquid.
O&G	=	Oil and grease with silica gel clean-up analyzed using Standard Method 5520B/F.
TPHmo	=	Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015 (modified).
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015 (modified).
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015 (modified).
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
PCE	=	Tetrachloroethene analyzed using EPA Method 8260B.
TCE	=	Trichloroethene analyzed using EPA Method 8260B.
VOCs	=	Volatile organic compounds or halogenated volatile organic compounds analyzed using EPA Method 8260B.
µg/L	=	Micrograms per liter.
ND	=	Not detected at or above laboratory reporting limits.
---	=	Not measured/Not sampled/Not analyzed.
<	=	Less than the stated laboratory reporting limit.
a	=	The chromatographic pattern does not match that of the specified standard.
b	=	Groundwater did not enter boring; sample not collected.
c	=	Lighter than water immiscible sheen/product is present.
d	=	Liquid sample that contains greater than approximately 1 volume % sediment.
e	=	Unmodified or weakly modified gasoline is significant.
f	=	Heavier gasoline-range compounds are significant.
g	=	Gasoline-range compounds are significant.
h	=	Analyzed beyond the EPA-recommended hold time.
i	=	Strongly aged gasoline-range or diesel-range compounds are significant.
j	=	Diesel-range compounds are significant; no recognizable pattern.
k	=	No recognizable pattern.
l	=	Additional analyses: CAM 5 metals analyzed using EPA Method 6010B and semi-volatile organic compounds analyzed using EPA Method 8270C. Results were ND except for naphthalene (4,000 µg/L) and 2-methylnaphthalene (3,900 µg/L).
m	=	Additional analyses: CAM 5 metals analyzed using EPA Method 6010B. Results were ND except for dissolved chromium (54 µg/L).

**TABLE 1C**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	Carbon Disulfide (µg/L)	Chloro-benzene (µg/L)	Chloro-ethane (µg/L)	Chloro-form (µg/L)	4-Chloro-toluene (µg/L)	cis-1,2-dichloro-ethene (µg/L)	1,2-dibromo-3-chloro-propane (µg/L)	1,2-Dichloro-benzene (µg/L)	t-1,2-Dichloro-ethene (µg/L)	Iso-propyl-benzene (µg/L)	n-propyl-benzene (µg/L)	p-iso-propyl-toluene (µg/L)	Styrene (µg/L)	1,2,4-trimethyl-benzene (µg/L)	1,3,5-trimethyl-benzene (µg/L)	tert-butyl-benzene (µg/L)	Additional VOCs (µg/L)	
<b>Monitoring Well Samples</b>																				
MW1	11/04/10	---	Well installed.																	
MW1	12/16/10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	01/31/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	04/07/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	07/18/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	10/13/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	04/06/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	10/19/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	06/11/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	12/19/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	05/01/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW1	10/28/14	---	<1.0	<0.50	<0.50	<0.50	<0.50	18	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.67	<0.50	<0.50	<0.50	ND
MW1	06/02/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	19	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	ND
MW1	11/19/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	20	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	ND
<b>MW1</b>	<b>05/02/16</b>	---	<b>&lt;4.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>8.8</b>	<b>&lt;20</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>&lt;2.0</b>	<b>ND</b>
<b>Monitoring Well Samples</b>																				
MW2	11/04/10	---	Well installed.																	
MW2	12/16/10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	01/31/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	04/07/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	07/18/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	10/13/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	04/06/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	10/19/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	06/11/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	12/19/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	05/01/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW2	10/28/14	---	<1.0	<0.50	<0.50	<0.50	<0.50	8.8	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	ND
MW2	06/02/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	8.4	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	ND
MW2	11/19/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	9.7	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	ND
<b>MW2</b>	<b>05/02/16</b>	---	<b>&lt;2.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>5.1</b>	<b>&lt;10</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>ND</b>
<b>Monitoring Well Samples</b>																				
MW3	11/08/10	---	Well installed.																	
MW3	12/16/10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	01/31/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	04/07/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	07/18/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	10/13/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	04/06/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**TABLE 1C**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	Carbon Disulfide (µg/L)	Chloro-benzene (µg/L)	Chloro-ethane (µg/L)	Chloro-form (µg/L)	4-Chloro-toluene (µg/L)	cis-1,2-dichloro-ethene (µg/L)	1,2-dibromo-3-chloro-propane (µg/L)	1,2-Dichloro-benzene (µg/L)	t-1,2-Dichloro-ethene (µg/L)	Iso-propyl-benzene (µg/L)	n-propyl-benzene (µg/L)	p-iso-propyl-toluene (µg/L)	Styrene (µg/L)	1,2,4-trimethyl-benzene (µg/L)	1,3,5-trimethyl-benzene (µg/L)	tert-butyl-benzene (µg/L)	Additional VOCs (µg/L)
MW3	10/19/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	06/11/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	12/20/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	05/01/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3	10/28/14	---	<40	<20	<20	<20	<20	<20	<200	<20	<20	110	210	<20	<20	<20	36	<20	ND
MW3	06/02/15	---	<40	<20	<20	<20	<20	<20	<200	<20	<20	90	130	<20	<20	<20	40	<20	ND
MW3	11/19/15	---	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<50	<5.0	<5.0	95	140	16	<5.0	9.5	24	9.6	ND
<b>MW3</b>	<b>05/02/16</b>	---	<b>&lt;10</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>110</b>	<b>180</b>	<b>21</b>	<b>&lt;5.0</b>	<b>21</b>	<b>52</b>	<b>11</b>	<b>ND</b>
MW3A	01/18/12	---	Well installed.																
MW3A	04/06/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3A	10/19/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3A	06/11/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3A	12/19/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3A	05/01/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW3A	10/28/14	---	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	20	28	2.0	<0.50	4.6	1.6	2.9	ND
MW3A	06/02/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	2.4	3.3	<0.50	<0.50	2.5	0.61	0.89	ND
MW3A	11/19/15	---	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0	11	13	<2.0	<2.0	3.2	<2.0	2.3	ND
<b>MW3A</b>	<b>05/02/16</b>	---	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>0.75</b>	<b>1.3</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>ND</b>
MW4	11/05/10	---	Well installed.																
MW4	12/16/10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	01/31/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	04/07/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	07/18/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	10/13/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	04/06/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	10/19/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	06/11/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	12/20/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	05/01/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW4	10/28/14	---	<20	<10	<10	<10	<10	<10	<100	<10	<10	75	190	<10	<10	350	160	<10	ND
MW4	06/02/15	---	<20	<10	<10	<10	<10	<10	<100	<10	<10	70	170	<10	<10	320	130	10	ND
MW4	11/19/15	---	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<50	<5.0	<5.0	56	140	12	<5.0	340	140	9.9	ND
<b>MW4</b>	<b>05/02/16</b>	---	<b>&lt;10</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>74</b>	<b>180</b>	<b>11</b>	<b>&lt;5.0</b>	<b>340</b>	<b>140</b>	<b>8.8</b>	<b>ND</b>
MW5	11/11/10	---	Well installed.																
MW5	12/16/10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW5	01/31/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW5	04/07/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW5	07/18/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**TABLE 1C**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	Carbon Disulfide (µg/L)	Chloro-benzene (µg/L)	Chloro-ethane (µg/L)	Chloro-form (µg/L)	4-Chloro-toluene (µg/L)	cis-1,2-dichloro-ethene (µg/L)	1,2-dibromo-3-chloro-propane (µg/L)	1,2-Dichloro-benzene (µg/L)	t-1,2-Dichloro-ethene (µg/L)	Iso-propyl-benzene (µg/L)	n-propyl-benzene (µg/L)	p-iso-propyl-toluene (µg/L)	Styrene (µg/L)	1,2,4-trimethyl-benzene (µg/L)	1,3,5-trimethyl-benzene (µg/L)	tert-butyl-benzene (µg/L)	Additional VOCs (µg/L)
MW5	10/13/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW5	04/06/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW5	10/19/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW5	06/11/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW5	12/20/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW5	05/01/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW5	10/28/14	---	<20	<10	<10	<10	<10	<10	<100	<10	<10	120	380	14	<10	730	130	<10	ND
MW5	06/02/15	---	<40	<20	<20	<20	<20	<20	<200	<20	<20	120	390	<20	<20	820	150	<20	ND
MW5	11/19/15	---	<40	<20	<20	<20	<20	<20	<200	<20	<20	98	280	<20	<20	620	130	<20	ND
<b>MW5</b>	<b>05/02/16</b>	---	<b>&lt;40</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;200</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>110</b>	<b>420</b>	<b>45</b>	<b>&lt;20</b>	<b>780</b>	<b>160</b>	<b>&lt;20</b>	<b>ND</b>
MW6	11/03/10	---	Well installed.																
MW6	12/16/10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	01/31/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	04/07/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	07/18/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	10/13/11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	04/06/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	10/19/12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	06/11/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	12/19/13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	05/01/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW6	10/28/14	---	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	0.84	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	ND
MW6	06/02/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	4.6	11	<0.50	<0.50	<0.50	<0.50	<0.50	ND
MW6	11/19/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	12	29	<0.50	<0.50	0.60	<0.50	<0.50	ND
<b>MW6</b>	<b>05/02/16</b>	---	<b>&lt;1.0</b>	<b>0.65</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>	<b>0.50</b>	<b>&lt;0.50</b>	<b>20</b>	<b>51</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>0.92</b>	<b>0.73</b>	<b>&lt;0.50</b>	<b>ND</b>
MW7	12/08/14	---	Well installed.																
MW7	12/30/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW7	06/02/15	---	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<50	<5.0	<5.0	110	270	<5.0	<5.0	<5.0	<5.0	<5.0	ND
MW7	11/19/15	---	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<50	<5.0	<5.0	86	220	<5.0	<5.0	<5.0	<5.0	<5.0	ND
<b>MW7</b>	<b>05/02/16</b>	---	<b>&lt;10</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>77</b>	<b>220</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>5.3</b>	<b>ND</b>
MW8	12/08/14	---	Well installed.																
MW8	12/30/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW8	06/02/15	---	<1.0	<0.50	<0.50	23	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	ND
MW8	11/18/15	---	<1.0	<0.50	<0.50	3.2	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	ND
<b>MW8</b>	<b>05/02/16</b>	---	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>2.1</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>ND</b>
MW9	10/08/15	---	Well installed.																
MW9	10/16/15	---	<1.0	<0.50	<0.50	4.1	<0.50	<0.50	<5.0	<0.50	<0.50	1.6	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	ND
MW9	11/18/15	---	<1.0	<0.50	<0.50	3.0	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	ND

**TABLE 1C**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	Carbon Disulfide (µg/L)	Chloro-benzene (µg/L)	Chloro-ethane (µg/L)	Chloro-form (µg/L)	4-Chloro-toluene (µg/L)	cis-1,2-dichloro-ethene (µg/L)	1,2-dibromo-3-chloro-propane (µg/L)	1,2-Dichloro-benzene (µg/L)	t-1,2-Dichloro-ethene (µg/L)	Iso-propyl-benzene (µg/L)	n-propyl-benzene (µg/L)	p-iso-propyl-toluene (µg/L)	Styrene (µg/L)	1,2,4-trimethyl-benzene (µg/L)	1,3,5-trimethyl-benzene (µg/L)	tert-butyl-benzene (µg/L)	Additional VOCs (µg/L)	
<b>MW9</b>	<b>05/02/16</b>	---	<1.0	<0.50	<0.50	0.82	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	ND
AS1	01/18/12	---	Well installed.																	
AS1	10/19/12	- Present	Not sampled.																	
SVE1	01/17/12	---	Well installed.																	
SVE1	10/19/12	- Present	Not sampled.																	
SVE2	01/17/12	---	Well installed.																	
SVE2	10/19/12	- Present	Not sampled.																	
SVE3	01/17/12	---	Well installed.																	
SVE3	10/19/12	- Present	Not sampled.																	
SVE4	10/09/15	---	Well installed.																	
SVE4	10/16/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	0.68	<0.50	4.3	2.8	0.59	<0.50	7.2	11	0.75	ND	
SVE4	11/18/15	- Present	Not sampled.																	
SVE5	10/09/15	---	Well installed.																	
SVE5	10/16/15	---	<40	<20	<20	<20	<20	<20	<200	<20	<20	28	<20	<20	<20	520	210	<20	ND	
SVE5	11/18/15	- Present	Not sampled.																	
SVE6	10/09/15	---	Well installed.																	
SVE6	10/16/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	1.3	0.80	0.99	<0.50	1.8	14	<0.50	ND	
SVE6	11/18/15	- Present	Not sampled.																	
SVE7	10/09/15	---	Well installed.																	
SVE7	10/16/15	---	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	2.2	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	ND	
SVE7	11/18/15	- Present	Not sampled.																	
<b>Grab Groundwater Samples</b>																				
B-1W	01/06/08	I	---	<50	<50	<50	<50	<50	<20	<50	---	370	1,100	---	<50	3,800	1,300	---	ND	
B-2W	01/06/08	---	<50	<50	<50	<50	<50	<50	32	<50	---	140	440	---	<50	2,400	730	---	ND	
B-3W	01/06/08	---	<10	<10	<10	<10	<10	<10	<4.0	<10	---	74	190	---	<10	290	49	---	ND	
B-4W	01/06/08	---	<10	<10	<10	<10	<10	<10	<4.0	<10	---	48	160	---	<10	16	<10	---	ND	
B-5W	01/06/08	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	---	<0.5	0.83	---	<0.5	4.8	1.2	---	ND	
B-6W	01/06/08	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<1.0	<2.5	---	17	60	---	<2.5	32	5.8	---	ND	

**TABLE 1C**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Sampling Date	Depth (feet)	Carbon Disulfide (µg/L)	Chloro-benzene (µg/L)	Chloro-ethane (µg/L)	Chloro-form (µg/L)	4-Chloro-toluene (µg/L)	cis-1,2-dichloro-ethene (µg/L)	1,2-dibromo-3-chloro-propane (µg/L)	1,2-Dichloro-benzene (µg/L)	t-1,2-Dichloro-ethene (µg/L)	Iso-propyl-benzene (µg/L)	n-propyl-benzene (µg/L)	p-iso-propyl-toluene (µg/L)	Styrene (µg/L)	1,2,4-trimethyl-benzene (µg/L)	1,3,5-trimethyl-benzene (µg/L)	tert-butyl-benzene (µg/L)	Additional VOCs (µg/L)
DR-W	01/06/08 m	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	---	2.5	11	---	<0.5	17	5.5	---	ND
W-27.5-HP1A	10/28/10	27.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-36-HP1A	10/28/10	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-46.5-HP1A	10/28/10	46.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-59-HP1B	10/27/10	59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-27.5-HP2A	10/29/10	27.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-52-HP2A	10/29/10	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-60.5-HP2B	10/27/10	60.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-10-SVE1-1	01/31/12	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-10-SVE1-2	01/31/12	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-5-B7	02/27/14	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-12-B8	02/28/14	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-5-B9	02/27/14	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-5.5-B10	02/27/14	5.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-14-B11	03/05/14	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-10-B12	02/26/14	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-10-B13	02/28/14	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B14	03/05/14 b	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-14-B15	03/05/14	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-14-B16	02/26/14	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-10-B17	02/27/14	10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**TABLE 1C**  
**ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA - VOCs**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

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Notes:

TOC	=	Top of well casing elevation; datum is NAVD88, prior to April 2014, datum was mean sea level.
DTW	=	Depth to water.
GW Elev.	=	Groundwater elevation; datum is NAVD88, prior to April 2014, datum was mean sea level. If liquid-phase hydrocarbons present, elevation adjusted using TOC - [DTW - (PT x 0.76)].
NAPL	=	Non-aqueous phase liquid.
O&G	=	Oil and grease with silica gel clean-up analyzed using Standard Method 5520B/F.
TPHmo	=	Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015 (modified).
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015 (modified).
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015 (modified).
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
PCE	=	Tetrachloroethene analyzed using EPA Method 8260B.
TCE	=	Trichloroethene analyzed using EPA Method 8260B.
VOCs	=	Volatile organic compounds or halogenated volatile organic compounds analyzed using EPA Method 8260B.
µg/L	=	Micrograms per liter.
ND	=	Not detected at or above laboratory reporting limits.
---	=	Not measured/Not sampled/Not analyzed.
<	=	Less than the stated laboratory reporting limit.
a	=	The chromatographic pattern does not match that of the specified standard.
b	=	Groundwater did not enter boring; sample not collected.
c	=	Lighter than water immiscible sheen/product is present.
d	=	Liquid sample that contains greater than approximately 1 volume % sediment.
e	=	Unmodified or weakly modified gasoline is significant.
f	=	Heavier gasoline-range compounds are significant.
g	=	Gasoline-range compounds are significant.
h	=	Analyzed beyond the EPA-recommended hold time.
i	=	Strongly aged gasoline-range or diesel-range compounds are significant.
j	=	Diesel-range compounds are significant; no recognizable pattern.
k	=	No recognizable pattern.
l	=	Additional analyses: CAM 5 metals analyzed using EPA Method 6010B and semi-volatile organic compounds analyzed using EPA Method 8270C. Results were ND except for naphthalene (4,000 µg/L) and 2-methylnaphthalene (3,900 µg/L).
m	=	Additional analyses: CAM 5 metals analyzed using EPA Method 6010B. Results were ND except for dissolved chromium (54 µg/L).

**TABLE 2**  
**WELL CONSTRUCTION DETAILS**  
Former Exxon Service Station 79374  
990 San Pablo Avenue  
Albany, California

Well ID	Well Installation Date	TOC Elevation (feet)	Borehole Diameter (inches)	Total Depth of Boring (feet bgs)	Well Depth (feet bgs)	Casing Diameter (inches)	Well Casing Material	Screened Interval (feet bgs)	Slot Size (inches)	Filter Pack Interval (feet bgs)	Filter Pack Material
MW1	11/04/10	44.19	8	17	17	2	Schedule 40 PVC	12-17	0.020	10-17	#3 Sand
MW2	11/04/10	43.99	8	17	17	4	Schedule 40 PVC	12-17	0.020	10-17	#3 Sand
MW3	11/08/10	43.16	8	17	17	4	Schedule 40 PVC	11-16	0.020	9-16	#3 Sand
MW3A	01/18/12	43.42	10	15.5	15.5	4	Schedule 40 PVC	5-15	0.020	4.5-15.5	#2/12 Sand
MW4	11/05/10	42.04	8	17	13	2	Schedule 40 PVC	8-13	0.020	6-13	#3 Sand
MW5	11/05/10	43.12	8	17	14	2	Schedule 40 PVC	9-14	0.020	7-14	#3 Sand
MW6	11/03/10	43.80	10	20	20	2	Schedule 40 PVC	15-20	0.020	13-20	#3 Sand
MW7	12/08/14	41.21	10	15	15	2	Schedule 40 PVC	5-15	0.020	4-15	#3 Sand
MW8	12/08/14	39.65	10	15	15	2	Schedule 40 PVC	5-15	0.020	4-15	#3 Sand
MW9	10/08/15	39.50	10	16	15	2	Schedule 40 PVC	5-15	0.020	4-15	#3 Sand
AS1	01/18/12	---	8	15.5	15.5	1	Schedule 80 PVC	10.25-13.5	#60 mesh	10.5-15.5	#2/12 Sand
SVE1	01/17/12	43.32	10	15.5	15.5	4	Schedule 40 PVC	5-15	0.020	4.5-15.5	#2/12 Sand
SVE2	01/17/12	43.68	10	15	15	4	Schedule 40 PVC	5-15	0.020	4.5-15	#2/12 Sand
SVE3	01/17/12	43.67	10	15	15	4	Schedule 40 PVC	5-15	0.020	4.5-15.5	#2/12 Sand
SVE4	10/09/15	43.10	12	16	15	4	Schedule 40 PVC	5-15	0.020	4-15	#3 Sand
SVE5	10/09/15	43.70	12	16	15	4	Schedule 40 PVC	5-15	0.020	4-15	#3 Sand
SVE6	10/09/15	44.37	12	16	15	4	Schedule 40 PVC	5-15	0.020	4-15	#3 Sand
SVE7	10/09/15	44.48	12	16	15	4	Schedule 40 PVC	5-15	0.020	4-15	#3 Sand
SVS1	02/25/14	---	4	5.6	5.6	0.25	PVC	5.4-5.6	0.010	4.6-5.6	#3 Sand
SVS2	02/25/14	---	4	5.6	5.6	0.25	PVC	5.4-5.6	0.010	4.6-5.6	#3 Sand
SVS3	02/25/14	---	4	5.6	5.6	0.25	PVC	5.4-5.6	0.010	4.6-5.6	#3 Sand

Notes:

- TOC = Top of well casing elevation; datum is NAVD88.
- PVC = Polyvinyl chloride.
- feet bgs = Feet below ground surface.



**APPENDIX A**  
**PROTOCOLS**

## GROUNDWATER SAMPLING PROTOCOL

The static water level and separate-phase product level, if present, in each well that contained water and/or separate-phase product are measured with a ORS Interface Probe, which is accurate to the nearest 0.01 foot. To calculate groundwater elevations and evaluate groundwater gradient, depth to water (DTW) levels are subtracted from top of casing elevations.

Groundwater samples collected for subjective evaluation are collected by gently lowering approximately half the length of a clean Teflon® or polypropylene bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples are checked for measurable free-phase hydrocarbons or sheen. If appropriate, free-phase hydrocarbons are removed from the well.

Before water samples are collected from the groundwater monitoring wells, the wells are purged until a minimum of three well casing volumes is purged and stabilization of the temperature, pH, and conductivity is obtained. Water samples from the wells that do not obtain stability of the temperature, pH, and conductivity are considered to be "grab samples." The quantity of water purged from each well is calculated as follows:

1 well casing volume =  $\pi r^2 h (7.48)$  where:

r	=	radius of the well casing in feet
h	=	column of water in the well in feet (depth to bottom - depth to water)
7.48	=	conversion constant from cubic feet to gallons
$\pi$	=	ratio of the circumference of a circle to its diameter

Gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

The wells are purged using a submersible pump. Prior to use at the site and between wells the pump is cleaned.

Five gallons of water are placed in three 15-gallon tubs. Liquinox detergent is added to the first tub of water. The pump and tubing are submerged in the first tub and the water is pumped through the pump. The process is repeated in the second and third tub.

After purging, each well is allowed to recharge to at least 80% of the initial water level. Water samples from wells that do not recover at least 80% (due to slow recharging of the well) between purging and sampling are considered to be "grab samples." Water samples are collected with a new, disposable Teflon® or polypropylene bailer. The groundwater is carefully poured into selected sample containers (40-milliliter [ml] glass vials, 1,000-ml glass amber bottles, etc.), which are filled so as to produce a positive meniscus.

Depending on the required analysis, each sample container is preserved with hydrochloric acid, nitric acid, etc., or it is preservative free. The type of preservative used for each sample is specified on the Chain-of-Custody record.

Each vial and glass amber bottle is sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace, which would allow volatilization to occur. The samples are promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain-of-Custody record, to a California state-certified laboratory.

Water generated during purging and cleaning is contained and transported off site for treatment and disposal.

**APPENDIX B**  
**FIELD DATA SHEETS**



# Daily Field Report

Project ID #: Former Exxon # 79374 ERI Job # 2735  
Subject: M/S Date: 5/2/66  
Equipment Used: DTW Tank, Gw Pump, And Exis Sheet: 1 of 1  
Name(s): Sean J, Nate C  
Time Arrived On Site: 0600 Time Departed Site: 1400 Total Travel: 1.0

0600 - Arrived on site and opened General work permit. Reviewed HASP and Emergency procedures. Review applicable TJA and signed in on Safety Agreement.

0630-0745 - opened all wells and allowed them to equalize. After 30 min measured DTW on all wells.

0750-1330 - Purged and sampled wells MW2, MW1, MW3A, MW8, MW5, MW9, MW6, MW7, MW4, and MW3.  
\* Wells MW1 and MW5 were hard bailed due to small cex volumes.

- Numerous wells went dry due to slow recharge on site. waited for 80% recharge on numerous wells and was not successful.

\* Recap - Trained Nate C. on ERI'S/Exxon Gw sampling procedures.

off site at 1400

Total water for event:

Decon water: 48 gallons  
Purge water: 63 gallons

Total water - 111 gallons.

## Cardno ERI Groundwater M+S Depth To Water

Case Volume=  $H(r^2 \times 0.163)$

H=Height of Water Column in Feet  
r=Radius of well casing in inches

Common conversion factors:  
2"=0.163, 4"=0.652, 6"=1.457

Project: 79374      Location: 990 Syc. Pk. 10 Ave      Date: 5/2/16      Name: Sean R. Johnson

WELL ID	WELL DIAMETER inches	ODOR? SHEEN?	TOTAL DEPTH feet	Pre-Purge DTW feet	Case volume Gal.	80% r/chrg. DTW feet	COMMENTS
AS1	1		—	8.16	—	—	
SUE1	4		—	7.87	—	—	
SUE2	4		—	8.26	—	—	
SUE3	4		—	7.84	—	—	
MW1	2		16.61	11.14	0.89	12.23	
MW2	4		16.89	10.02	4.48	11.39	
MW8	2		14.46	5.01	1.54	7.42	
MW3A	4		14.98	7.72	4.73	9.17	
MW9	2		14.37	5.12	1.50	6.97	
MW6	2		19.26	7.75	1.88	10.05	
MW7	2		14.44	7.31	1.16	8.74	
MW5	2	sheen	13.40	7.42	0.97	8.62	
MW3	4		15.20	7.09	5.28	8.71	
MW4	2		13.10	6.31	1.11	7.67	
SUE4	4		—	7.71	—	—	
SUE5	4		—	7.33	—	—	
SUE6	4		—	8.14	—	—	
SUE7	4		—	9.04	—	—	

### GROUNDWATER SAMPLING FIELD LOG

Client Name: Exxon Mobil  
 Location: 990 San Pablo Ave  
 Field Crew: SJ, NC

Cardno ERI Job #: 2735  
 Field Cleaning Performed: —  
 Analysis: —

Date: 5/2/16 Page 1 of 2  
 Case Volume = (TD - DTW) x F where F =  
 0.163 for 2" inside-diameter well casing  
 0.652 for 4" inside-diameter well casing  
 1.457 for 6" inside-diameter well casing

Well ID	Time	Case Volume	Purge Volume	Temp	Cond	pH	Post-Purge DTW	80% Recharge	BB	40mil	Amber	DO	ORP	Comments Well Box Condition
---------	------	-------------	--------------	------	------	----	----------------	--------------	----	-------	-------	----	-----	-----------------------------

MW2	0757	4.46	5				11.26	Yes							
	0800		5	19.4	282	5.91	Sample Date: 5/02/16								DRY @ 9 gal
	0803		10	—	—	—	Sample Name: MW2								
	—		15	—	—	—	Sample Time: 0845								
MW1	0815	0.89	1				12.10	Yes							
	0821		1	19.8	272	6.81	Sample Date: 5/2/16								Hard Bailed DRY at 2 gallons
	—		2	—	—	—	Sample Name: MW1								
	—		3	—	—	—	Sample Time: 0850								
MW3A	0850	4.73	5				13.91	NO							
	0854		5	19.6	190.4	7.55	Sample Date: 5/2/16								*wait for recharge
	0857		10	19.9	180.2	7.15	Sample Name: MW3A								
	—		15	—	—	—	Sample Time: 1200								
MW8	0925	1.54	2				5.65	Yes							
	0927		2	18.8	156.7	7.21	Sample Date: 5/2/16								
	0929		4	18.8	143.9	7.18	Sample Name: MW8								
	0931		6	19.0	141.1	7.15	Sample Time: 0940								
MW5	0926	0.97	1				8.60	Yes						Hard Bailed	
	0930		1	19.8	167.4	7.34	Sample Date: 5/2/16								
	0936		2	19.6	165.4	7.05	Sample Name: MW5								
	0943		3	19.5	175.9	6.90	Sample Time: 0950								
MW9	1000	1.50	2				6.04	Yes							
	1002		2	18.4	171.6	7.18	Sample Date: 5/2/16								
	1004		4	18.6	175.3	7.06	Sample Name: MW9								
	1007		6	18.3	186.6	7.03	Sample Time: 1020								
MW6	1106	1.88	2				15.34	NO						*wait for recharge	
	1107		2	19.6	228	7.37	Sample Date: 5/2/16								
	1109		4	19.8	229	7.18	Sample Name: MW6								
			6	20.1	231	6.97	Sample Time: 1240								

### GROUNDWATER SAMPLING FIELD LOG

Client Name: Exxon Mobil  
 Location: 990 San Pablo Ave  
 Field Crew: SJ, NC

Cardno ERI Job #: 2735  
 Field Cleaning Performed: —  
 Analysis: —

Date: 5/2/16 Page 2 of 2  
 Case Volume = (TD - DTW) x F where F =  
 0.163 for 2" inside-diameter well casing  
 0.652 for 4" inside-diameter well casing  
 1.457 for 6" inside-diameter well casing

Well ID	Time	Case Volume	Purge Volume	Temp	Cond	pH	Post-Purge DTW	80% Recharge	BB	40mil	Amber	DO	ORP	Comments Well Box Condition
---------	------	-------------	--------------	------	------	----	----------------	--------------	----	-------	-------	----	-----	-----------------------------

MW3	1139	5.28	6				14.20	NO						
	1143		6	20.4	249	7.16	Sample Date: 5/2/16			DKY at 7 gallons				
	—		12	—	—	—	Sample Name: MW3							
	—		18	—	—	—	Sample Time: 1300							
MW7	1130	1.16	2				10.38	NO						* Waited for recharge
	1135		2	19.6	224	7.56	Sample Date: 5/2/16			recharge				
	1140		4	19.4	218	7.31	Sample Name: MW7							
	1145		6	19.7	223	7.21	Sample Time: 1230							
MW4	1210	1.11	2				9.01	NO						* Waited for recharge
	1215		2	21.1	279	7.71	Sample Date: 5/2/16			recharge				
	1220		4	20.8	275	7.36	Sample Name: MW4							
	1225		6	20.8	279	7.20	Sample Time: 1315							
							Sample Date:							
							Sample Name:							
							Sample Time:							
							Sample Date:							
							Sample Name:							
							Sample Time:							
							Sample Date:							
							Sample Name:							
							Sample Time:							

# WATER SAMPLING SITE STATUS

Date: 5/2/16

Inspected by: SS, NC

Cardno ERI Job No.: 2735 Station No.: 79374

Site Address: 990 San Pablo Ave, Albany, CA

Well ID	Well Head Screws	Rubber Gasket	Well Cap Locking	Lock on Well Cap	Concrete Well Seal	Well Head PVC	Water in Well Vault	Well Cover	Fence/Gate Condition	# Drums	Drum Contents	Building Condition	Site Appearance	Comments / Well Covers
	N/R/ok	N/R/ok	N/R/ok	N/R/ok	N/R/ok	N/R/ok	Y / N	N/R/ok	N/R/ok	N/R/ok		s/w/e	g/v/o	N/R/ok
MW2	OK	OK	OK	OK	OK	OK	N	OK	OK	NA	NA	NA	NA	OK
MW1	OK	OK	OK	OK	OK	OK	Y	OK	OK					
MW3A	OK	OK	N	N	OK	OK	N	OK	OK					
MW8	OK	OK	OK	OK	OK	OK	N	OK	OK					
MW9	OK	OK	OK	OK	OK	N	N	OK	OK					PVC cap at angle
MW5	OK	OK	OK	OK	OK	OK	N	OK	OK					
MW6	OK	OK	OK	OK	OK	OK	N	OK	OK					
MW3	OK	OK	OK	N	OK	OK	N	OK	OK					
MW7	OK	OK	OK	OK	OK	OK	N	OK	OK					
MW4	OK	OK	OK	OK	OK	OK	N	OK	OK					
SUE1	OK	N	OK	OK	OK	OK	N	OK	OK					* Gaskets loose / Expanded / Don't fit in well
SUE2														
SUE3														
SUE4														
SUE5														
SUE6														
SUE7														
AS1	OK	OK	N	N	OK	OK	N	OK	OK	v	v	v	v	No locking well cap - only fitting

N = Not repairable in time available-see comments.  
 R = Repaired-see comments  
 ok = No action needed.

Y = Yes.  
 N = No.

s = Soil.  
 w = Water.  
 e = Empty.

g = Graffiti on walls.  
 v = Vagrants (or evidence of).  
 o = Open (not secured).



**APPENDIX C**  
**LABORATORY ANALYTICAL REPORTS**



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**WORK ORDER NUMBER: 16-05-0215**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** ExxonMobil 79374/022735C

**Attention:** Scott Perkins  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

*Cecile de Guia*

Approved for release on 05/18/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶



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

# Contents

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 Work Order Number: 16-05-0215

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 05/04/16. They were assigned to Work Order 16-05-0215.

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  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

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

**Subcontractor Information:**

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

**Additional Comments:**

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

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



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## Sample Summary

Client: Cardno	Work Order:	16-05-0215
601 North McDowell Blvd.	Project Name:	ExxonMobil 79374/022735C
Petaluma, CA 94954-2312	PO Number:	022735C
	Date/Time Received:	05/04/16 10:10
	Number of Containers:	102

Attn: Scott Perkins

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
QCBB	16-05-0215-1	05/02/16 06:00	2	Aqueous
MW1	16-05-0215-2	05/02/16 08:50	10	Aqueous
MW2	16-05-0215-3	05/02/16 08:45	10	Aqueous
MW3	16-05-0215-4	05/02/16 13:00	10	Aqueous
MW3A	16-05-0215-5	05/02/16 12:00	10	Aqueous
MW4	16-05-0215-6	05/02/16 13:15	10	Aqueous
MW5	16-05-0215-7	05/02/16 09:50	10	Aqueous
MW6	16-05-0215-8	05/02/16 12:40	10	Aqueous
MW7	16-05-0215-9	05/02/16 12:30	10	Aqueous
MW8	16-05-0215-10	05/02/16 09:40	10	Aqueous
MW9	16-05-0215-11	05/02/16 10:20	10	Aqueous


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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW1</b>	<b>16-05-0215-2-J</b>	<b>05/02/16 08:50</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 17:50</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		320		230		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		84		68-140			
<b>MW2</b>	<b>16-05-0215-3-J</b>	<b>05/02/16 08:45</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 18:08</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		290		230		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		88		68-140			
<b>MW3</b>	<b>16-05-0215-4-J</b>	<b>05/02/16 13:00</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 18:26</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		350		230		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		89		68-140			
<b>MW3A</b>	<b>16-05-0215-5-J</b>	<b>05/02/16 12:00</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 18:43</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		270		230		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		75		68-140			
<b>MW4</b>	<b>16-05-0215-6-J</b>	<b>05/02/16 13:15</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 19:01</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		1900		1100		5.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		122		68-140			

Return to Contents

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW5</b>	<b>16-05-0215-7-J</b>	<b>05/02/16 09:50</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 19:19</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		360		230		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		121		68-140			
<b>MW6</b>	<b>16-05-0215-8-J</b>	<b>05/02/16 12:40</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 19:37</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		230		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		120		68-140			
<b>MW7</b>	<b>16-05-0215-9-J</b>	<b>05/02/16 12:30</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 19:54</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		1700		230		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		110		68-140			
<b>MW8</b>	<b>16-05-0215-10-J</b>	<b>05/02/16 09:40</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 20:12</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		280		230		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		108		68-140			
<b>MW9</b>	<b>16-05-0215-11-J</b>	<b>05/02/16 10:20</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 20:30</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		230		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		108		68-140			

Return to Contents

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



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## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
	Units:	ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-15-278-1202</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 16:06</b>	<b>160505B09</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		250		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		71		68-140			

  
Return to Contents

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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW1</b>	<b>16-05-0215-2-J</b>	<b>05/02/16 08:50</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 17:50</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		210		45		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		84		68-140			
<b>MW2</b>	<b>16-05-0215-3-J</b>	<b>05/02/16 08:45</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 18:08</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		180		45		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		88		68-140			
<b>MW3</b>	<b>16-05-0215-4-J</b>	<b>05/02/16 13:00</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 18:26</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		3400		45		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		89		68-140			
<b>MW3A</b>	<b>16-05-0215-5-J</b>	<b>05/02/16 12:00</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 18:43</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		200		45		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		75		68-140			
<b>MW4</b>	<b>16-05-0215-6-J</b>	<b>05/02/16 13:15</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 19:01</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		14000		230		5.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		122		68-140			

Return to Contents

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



Calscience

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW5</b>	<b>16-05-0215-7-J</b>	<b>05/02/16 09:50</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 19:19</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		3000		45		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		121		68-140			
<b>MW6</b>	<b>16-05-0215-8-J</b>	<b>05/02/16 12:40</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 19:37</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		790		45		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		120		68-140			
<b>MW7</b>	<b>16-05-0215-9-J</b>	<b>05/02/16 12:30</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/11/16 08:49</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		8100		230		5.00	HD,SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		96		68-140			
<b>MW8</b>	<b>16-05-0215-10-J</b>	<b>05/02/16 09:40</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 20:12</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		180		45		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		108		68-140			
<b>MW9</b>	<b>16-05-0215-11-J</b>	<b>05/02/16 10:20</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 20:30</b>	<b>160505B08</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		150		45		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		108		68-140			

Return to Contents

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



Calscience

### Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-15-304-1409</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 46</b>	<b>05/05/16</b>	<b>05/06/16 16:06</b>	<b>160505B08</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	50	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
n-Octacosane	71	68-140		

Return to Contents

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



Calscience

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW1</b>	<b>16-05-0215-2-F</b>	<b>05/02/16 08:50</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 15:31</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		59		38-134			
<b>MW2</b>	<b>16-05-0215-3-F</b>	<b>05/02/16 08:45</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 17:07</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		56		38-134			
<b>MW3</b>	<b>16-05-0215-4-F</b>	<b>05/02/16 13:00</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 19:45</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		16000		100		2.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		224		38-134		AZ	
<b>MW3A</b>	<b>16-05-0215-5-F</b>	<b>05/02/16 12:00</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 18:42</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		92		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		61		38-134			
<b>MW4</b>	<b>16-05-0215-6-F</b>	<b>05/02/16 13:15</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 20:17</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		13000		100		2.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		161		38-134		AZ	

Return to Contents

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



Calscience

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW5</b>	<b>16-05-0215-7-G</b>	<b>05/02/16 09:50</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/11/16</b>	<b>05/11/16 18:57</b>	<b>160511L030</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		15000		1000		20.0	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		72		38-134			
<b>MW6</b>	<b>16-05-0215-8-F</b>	<b>05/02/16 12:40</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 19:14</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		1800		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		93		38-134			
<b>MW7</b>	<b>16-05-0215-9-F</b>	<b>05/02/16 12:30</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 21:21</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		9000		100		2.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		146		38-134		AZ	
<b>MW8</b>	<b>16-05-0215-10-F</b>	<b>05/02/16 09:40</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 17:38</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		61		38-134			
<b>MW9</b>	<b>16-05-0215-11-F</b>	<b>05/02/16 10:20</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 18:10</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		55		38-134			

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-436-10803</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 13:41</b>	<b>160510L055</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	62	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-436-10807</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/11/16</b>	<b>05/11/16 13:08</b>	<b>160511L030</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline	ND	50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	59	38-134	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW1	16-05-0215-2-A	05/02/16 08:50	Aqueous	GC/MS FFF	05/10/16	05/10/16 18:49	160510L026

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	2.0	4.00	
Toluene	ND	2.0	4.00	
Ethylbenzene	ND	2.0	4.00	
o-Xylene	ND	2.0	4.00	
p/m-Xylene	ND	2.0	4.00	
Xylenes (total)	ND	2.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	4.00	
Tert-Butyl Alcohol (TBA)	ND	20	4.00	
Diisopropyl Ether (DIPE)	ND	2.0	4.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	4.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	4.00	
1,1,1,2-Tetrachloroethane	ND	2.0	4.00	
1,1,1-Trichloroethane	ND	2.0	4.00	
1,1,2,2-Tetrachloroethane	ND	2.0	4.00	
1,1,2-Trichloroethane	ND	2.0	4.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	4.00	
1,1-Dichloroethane	ND	2.0	4.00	
1,1-Dichloroethene	ND	2.0	4.00	
1,1-Dichloropropene	ND	2.0	4.00	
1,2,3-Trichlorobenzene	ND	2.0	4.00	
1,2,3-Trichloropropane	ND	4.0	4.00	
1,2,4-Trichlorobenzene	ND	2.0	4.00	
1,2,4-Trimethylbenzene	ND	2.0	4.00	
1,3,5-Trimethylbenzene	ND	2.0	4.00	
c-1,2-Dichloroethene	8.8	2.0	4.00	
1,2-Dibromo-3-Chloropropane	ND	20	4.00	
1,2-Dibromoethane	ND	2.0	4.00	
1,2-Dichlorobenzene	ND	2.0	4.00	
1,2-Dichloroethane	ND	2.0	4.00	
1,2-Dichloropropane	ND	2.0	4.00	
t-1,2-Dichloroethene	ND	2.0	4.00	
c-1,3-Dichloropropene	ND	2.0	4.00	
1,3-Dichlorobenzene	ND	2.0	4.00	
1,3-Dichloropropane	ND	4.0	4.00	
t-1,3-Dichloropropene	ND	2.0	4.00	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	2.0	4.00	
2,2-Dichloropropane	ND	4.0	4.00	
2-Chlorotoluene	ND	2.0	4.00	
4-Chlorotoluene	ND	2.0	4.00	
4-Methyl-2-Pentanone	ND	20	4.00	
Acetone	ND	40	4.00	
Bromobenzene	ND	2.0	4.00	
Bromochloromethane	ND	4.0	4.00	
Bromoform	ND	2.0	4.00	
Bromomethane	ND	4.0	4.00	
Carbon Disulfide	ND	4.0	4.00	
Carbon Tetrachloride	ND	2.0	4.00	
Chlorobenzene	ND	2.0	4.00	
Dibromochloromethane	ND	2.0	4.00	
Chloroethane	ND	2.0	4.00	
Chloroform	ND	2.0	4.00	
Chloromethane	ND	2.0	4.00	
Dibromomethane	ND	2.0	4.00	
Bromodichloromethane	ND	2.0	4.00	
Dichlorodifluoromethane	ND	4.0	4.00	
Hexachloro-1,3-Butadiene	ND	8.0	4.00	
Isopropylbenzene	ND	2.0	4.00	
2-Butanone	ND	20	4.00	
Methylene Chloride	ND	4.0	4.00	
2-Hexanone	ND	40	4.00	
Naphthalene	ND	4.0	4.00	
n-Butylbenzene	ND	2.0	4.00	
n-Propylbenzene	ND	2.0	4.00	
p-Isopropyltoluene	ND	2.0	4.00	
sec-Butylbenzene	ND	2.0	4.00	
Styrene	ND	2.0	4.00	
tert-Butylbenzene	ND	2.0	4.00	
Tetrachloroethene	82	2.0	4.00	
Trichloroethene	9.2	2.0	4.00	
Trichlorofluoromethane	ND	2.0	4.00	
Vinyl Chloride	ND	2.0	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	68-120	

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





Calscience

## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 3 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	96	80-128	
Toluene-d8	99	80-120	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW2	16-05-0215-3-B	05/02/16 08:45	Aqueous	GC/MS FFF	05/11/16	05/11/16 13:11	160511L036

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.0	2.00	
Toluene	ND	1.0	2.00	
Ethylbenzene	ND	1.0	2.00	
o-Xylene	ND	1.0	2.00	
p/m-Xylene	ND	1.0	2.00	
Xylenes (total)	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	2.00	
Tert-Butyl Alcohol (TBA)	ND	10	2.00	
Diisopropyl Ether (DIPE)	ND	1.0	2.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	2.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	2.00	
1,1,1,2-Tetrachloroethane	ND	1.0	2.00	
1,1,1-Trichloroethane	ND	1.0	2.00	
1,1,2,2-Tetrachloroethane	ND	1.0	2.00	
1,1,2-Trichloroethane	ND	1.0	2.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.0	2.00	
1,1-Dichloroethane	ND	1.0	2.00	
1,1-Dichloroethene	ND	1.0	2.00	
1,1-Dichloropropene	ND	1.0	2.00	
1,2,3-Trichlorobenzene	ND	1.0	2.00	
1,2,3-Trichloropropane	ND	2.0	2.00	
1,2,4-Trichlorobenzene	ND	1.0	2.00	
1,2,4-Trimethylbenzene	ND	1.0	2.00	
1,3,5-Trimethylbenzene	ND	1.0	2.00	
c-1,2-Dichloroethene	5.1	1.0	2.00	
1,2-Dibromo-3-Chloropropane	ND	10	2.00	
1,2-Dibromoethane	ND	1.0	2.00	
1,2-Dichlorobenzene	ND	1.0	2.00	
1,2-Dichloroethane	ND	1.0	2.00	
1,2-Dichloropropane	ND	1.0	2.00	
t-1,2-Dichloroethene	ND	1.0	2.00	
c-1,3-Dichloropropene	ND	1.0	2.00	
1,3-Dichlorobenzene	ND	1.0	2.00	
1,3-Dichloropropane	ND	2.0	2.00	
t-1,3-Dichloropropene	ND	1.0	2.00	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	1.0	2.00	
2,2-Dichloropropane	ND	2.0	2.00	
2-Chlorotoluene	ND	1.0	2.00	
4-Chlorotoluene	ND	1.0	2.00	
4-Methyl-2-Pentanone	ND	10	2.00	
Acetone	ND	20	2.00	
Bromobenzene	ND	1.0	2.00	
Bromochloromethane	ND	2.0	2.00	
Bromoform	ND	1.0	2.00	
Bromomethane	ND	2.0	2.00	
Carbon Disulfide	ND	2.0	2.00	
Carbon Tetrachloride	ND	1.0	2.00	
Chlorobenzene	ND	1.0	2.00	
Dibromochloromethane	ND	1.0	2.00	
Chloroethane	ND	1.0	2.00	
Chloroform	ND	1.0	2.00	
Chloromethane	ND	1.0	2.00	
Dibromomethane	ND	1.0	2.00	
Bromodichloromethane	ND	1.0	2.00	
Dichlorodifluoromethane	ND	2.0	2.00	
Hexachloro-1,3-Butadiene	ND	4.0	2.00	
Isopropylbenzene	ND	1.0	2.00	
2-Butanone	ND	10	2.00	
Methylene Chloride	ND	2.0	2.00	
2-Hexanone	ND	20	2.00	
Naphthalene	ND	2.0	2.00	
n-Butylbenzene	ND	1.0	2.00	
n-Propylbenzene	ND	1.0	2.00	
p-Isopropyltoluene	ND	1.0	2.00	
sec-Butylbenzene	ND	1.0	2.00	
Styrene	ND	1.0	2.00	
tert-Butylbenzene	ND	1.0	2.00	
Tetrachloroethene	49	1.0	2.00	
Trichloroethene	5.4	1.0	2.00	
Trichlorofluoromethane	ND	1.0	2.00	
Vinyl Chloride	ND	1.0	2.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	68-120	

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



Calscience

## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 6 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW3	16-05-0215-4-A	05/02/16 13:00	Aqueous	GC/MS FFF	05/10/16	05/10/16 20:54	160510L026

Parameter	Result	RL	DF	Qualifiers
Benzene	310	5.0	10.0	
Toluene	110	5.0	10.0	
o-Xylene	25	5.0	10.0	
p/m-Xylene	120	5.0	10.0	
Xylenes (total)	150	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	10.0	
Tert-Butyl Alcohol (TBA)	ND	50	10.0	
Diisopropyl Ether (DIPE)	ND	5.0	10.0	
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	10.0	
Tert-Amyl-Methyl Ether (TAME)	ND	5.0	10.0	
1,1,1,2-Tetrachloroethane	ND	5.0	10.0	
1,1,1-Trichloroethane	ND	5.0	10.0	
1,1,1,2-Tetrachloroethane	ND	5.0	10.0	
1,1,2-Trichloroethane	ND	5.0	10.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5.0	10.0	
1,1-Dichloroethane	ND	5.0	10.0	
1,1-Dichloroethene	ND	5.0	10.0	
1,1-Dichloropropene	ND	5.0	10.0	
1,2,3-Trichlorobenzene	ND	5.0	10.0	
1,2,3-Trichloropropane	ND	10	10.0	
1,2,4-Trichlorobenzene	ND	5.0	10.0	
1,2,4-Trimethylbenzene	21	5.0	10.0	
1,3,5-Trimethylbenzene	52	5.0	10.0	
c-1,2-Dichloroethene	ND	5.0	10.0	
1,2-Dibromo-3-Chloropropane	ND	50	10.0	
1,2-Dibromoethane	ND	5.0	10.0	
1,2-Dichlorobenzene	ND	5.0	10.0	
1,2-Dichloroethane	ND	5.0	10.0	
1,2-Dichloropropane	ND	5.0	10.0	
t-1,2-Dichloroethene	ND	5.0	10.0	
c-1,3-Dichloropropene	ND	5.0	10.0	
1,3-Dichlorobenzene	ND	5.0	10.0	
1,3-Dichloropropane	ND	10	10.0	
t-1,3-Dichloropropene	ND	5.0	10.0	
1,4-Dichlorobenzene	ND	5.0	10.0	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	10	10.0	
2-Chlorotoluene	ND	5.0	10.0	
4-Chlorotoluene	ND	5.0	10.0	
4-Methyl-2-Pentanone	ND	50	10.0	
Acetone	ND	100	10.0	
Bromobenzene	ND	5.0	10.0	
Bromochloromethane	ND	10	10.0	
Bromoform	ND	5.0	10.0	
Bromomethane	ND	10	10.0	
Carbon Disulfide	ND	10	10.0	
Carbon Tetrachloride	ND	5.0	10.0	
Chlorobenzene	ND	5.0	10.0	
Dibromochloromethane	ND	5.0	10.0	
Chloroethane	ND	5.0	10.0	
Chloroform	ND	5.0	10.0	
Chloromethane	ND	5.0	10.0	
Dibromomethane	ND	5.0	10.0	
Bromodichloromethane	ND	5.0	10.0	
Dichlorodifluoromethane	ND	10	10.0	
Hexachloro-1,3-Butadiene	ND	20	10.0	
Isopropylbenzene	110	5.0	10.0	
2-Butanone	ND	50	10.0	
Methylene Chloride	ND	10	10.0	
2-Hexanone	ND	100	10.0	
Naphthalene	250	10	10.0	
n-Butylbenzene	28	5.0	10.0	
n-Propylbenzene	180	5.0	10.0	
p-Isopropyltoluene	21	5.0	10.0	
sec-Butylbenzene	17	5.0	10.0	
Styrene	ND	5.0	10.0	
tert-Butylbenzene	11	5.0	10.0	
Tetrachloroethene	ND	5.0	10.0	
Trichloroethene	ND	5.0	10.0	
Trichlorofluoromethane	ND	5.0	10.0	
Vinyl Chloride	ND	5.0	10.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	100	68-120		
Dibromofluoromethane	101	80-127		

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

## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 9 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	100	80-128	
Toluene-d8	104	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW3</b>	<b>16-05-0215-4-B</b>	<b>05/02/16 13:00</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>05/11/16</b>	<b>05/11/16 13:41</b>	<b>160511L036</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Ethylbenzene	1000	25	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	68-120	
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	100	80-128	
Toluene-d8	99	80-120	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW3A	16-05-0215-5-B	05/02/16 12:00	Aqueous	GC/MS FFF	05/11/16	05/11/16 14:11	160511L036

Parameter	Result	RL	DF	Qualifiers
Benzene	1.7	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	1.5	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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



## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	0.75	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	1.3	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	68-120	

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



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## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 12 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	98	80-120	


  
Return to Contents

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW4	16-05-0215-6-A	05/02/16 13:15	Aqueous	GC/MS FFF	05/10/16	05/10/16 21:54	160510L026

Parameter	Result	RL	DF	Qualifiers
Toluene	40	5.0	10.0	
Ethylbenzene	250	5.0	10.0	
o-Xylene	48	5.0	10.0	
p/m-Xylene	170	5.0	10.0	
Xylenes (total)	220	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	10.0	
Tert-Butyl Alcohol (TBA)	ND	50	10.0	
Diisopropyl Ether (DIPE)	ND	5.0	10.0	
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	10.0	
Tert-Amyl-Methyl Ether (TAME)	ND	5.0	10.0	
1,1,1,2-Tetrachloroethane	ND	5.0	10.0	
1,1,1-Trichloroethane	ND	5.0	10.0	
1,1,1,2-Tetrachloroethane	ND	5.0	10.0	
1,1,2-Trichloroethane	ND	5.0	10.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5.0	10.0	
1,1-Dichloroethane	ND	5.0	10.0	
1,1-Dichloroethene	ND	5.0	10.0	
1,1-Dichloropropene	ND	5.0	10.0	
1,2,3-Trichlorobenzene	ND	5.0	10.0	
1,2,3-Trichloropropane	ND	10	10.0	
1,2,4-Trichlorobenzene	ND	5.0	10.0	
1,2,4-Trimethylbenzene	340	5.0	10.0	
1,3,5-Trimethylbenzene	140	5.0	10.0	
c-1,2-Dichloroethene	ND	5.0	10.0	
1,2-Dibromo-3-Chloropropane	ND	50	10.0	
1,2-Dibromoethane	ND	5.0	10.0	
1,2-Dichlorobenzene	ND	5.0	10.0	
1,2-Dichloroethane	ND	5.0	10.0	
1,2-Dichloropropane	ND	5.0	10.0	
t-1,2-Dichloroethene	ND	5.0	10.0	
c-1,3-Dichloropropene	ND	5.0	10.0	
1,3-Dichlorobenzene	ND	5.0	10.0	
1,3-Dichloropropane	ND	10	10.0	
t-1,3-Dichloropropene	ND	5.0	10.0	
1,4-Dichlorobenzene	ND	5.0	10.0	

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

## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	10	10.0	
2-Chlorotoluene	ND	5.0	10.0	
4-Chlorotoluene	ND	5.0	10.0	
4-Methyl-2-Pentanone	ND	50	10.0	
Acetone	ND	100	10.0	
Bromobenzene	ND	5.0	10.0	
Bromochloromethane	ND	10	10.0	
Bromoform	ND	5.0	10.0	
Bromomethane	ND	10	10.0	
Carbon Disulfide	ND	10	10.0	
Carbon Tetrachloride	ND	5.0	10.0	
Chlorobenzene	ND	5.0	10.0	
Dibromochloromethane	ND	5.0	10.0	
Chloroethane	ND	5.0	10.0	
Chloroform	ND	5.0	10.0	
Chloromethane	ND	5.0	10.0	
Dibromomethane	ND	5.0	10.0	
Bromodichloromethane	ND	5.0	10.0	
Dichlorodifluoromethane	ND	10	10.0	
Hexachloro-1,3-Butadiene	ND	20	10.0	
Isopropylbenzene	74	5.0	10.0	
2-Butanone	ND	50	10.0	
Methylene Chloride	ND	10	10.0	
2-Hexanone	ND	100	10.0	
Naphthalene	160	10	10.0	
n-Butylbenzene	88	5.0	10.0	
n-Propylbenzene	180	5.0	10.0	
p-Isopropyltoluene	11	5.0	10.0	
sec-Butylbenzene	25	5.0	10.0	
Styrene	ND	5.0	10.0	
tert-Butylbenzene	8.8	5.0	10.0	
Tetrachloroethene	ND	5.0	10.0	
Trichloroethene	ND	5.0	10.0	
Trichlorofluoromethane	ND	5.0	10.0	
Vinyl Chloride	ND	5.0	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	68-120	
Dibromofluoromethane	101	80-127	

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

## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 15 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	100	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW4</b>	<b>16-05-0215-6-B</b>	<b>05/02/16 13:15</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>05/11/16</b>	<b>05/11/16 14:41</b>	<b>160511L036</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Benzene	530	12	25.0	

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

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	16-05-0215-7-A	05/02/16 09:50	Aqueous	GC/MS FFF	05/10/16	05/10/16 22:24	160510L026

Parameter	Result	RL	DF	Qualifiers
Benzene	110	20	40.0	
Toluene	ND	20	40.0	
Ethylbenzene	470	20	40.0	
o-Xylene	ND	20	40.0	
p/m-Xylene	200	20	40.0	
Xylenes (total)	200	20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	20	40.0	
Tert-Butyl Alcohol (TBA)	ND	200	40.0	
Diisopropyl Ether (DIPE)	ND	20	40.0	
Ethyl-t-Butyl Ether (ETBE)	ND	20	40.0	
Tert-Amyl-Methyl Ether (TAME)	ND	20	40.0	
1,1,1,2-Tetrachloroethane	ND	20	40.0	
1,1,1-Trichloroethane	ND	20	40.0	
1,1,2,2-Tetrachloroethane	ND	20	40.0	
1,1,2-Trichloroethane	ND	20	40.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	20	40.0	
1,1-Dichloroethane	ND	20	40.0	
1,1-Dichloroethene	ND	20	40.0	
1,1-Dichloropropene	ND	20	40.0	
1,2,3-Trichlorobenzene	ND	20	40.0	
1,2,3-Trichloropropane	ND	40	40.0	
1,2,4-Trichlorobenzene	ND	20	40.0	
1,2,4-Trimethylbenzene	780	20	40.0	
1,3,5-Trimethylbenzene	160	20	40.0	
c-1,2-Dichloroethene	ND	20	40.0	
1,2-Dibromo-3-Chloropropane	ND	200	40.0	
1,2-Dibromoethane	ND	20	40.0	
1,2-Dichlorobenzene	ND	20	40.0	
1,2-Dichloroethane	ND	20	40.0	
1,2-Dichloropropane	ND	20	40.0	
t-1,2-Dichloroethene	ND	20	40.0	
c-1,3-Dichloropropene	ND	20	40.0	
1,3-Dichlorobenzene	ND	20	40.0	
1,3-Dichloropropane	ND	40	40.0	
t-1,3-Dichloropropene	ND	20	40.0	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	20	40.0	
2,2-Dichloropropane	ND	40	40.0	
2-Chlorotoluene	ND	20	40.0	
4-Chlorotoluene	ND	20	40.0	
4-Methyl-2-Pentanone	ND	200	40.0	
Acetone	ND	400	40.0	
Bromobenzene	ND	20	40.0	
Bromochloromethane	ND	40	40.0	
Bromoform	ND	20	40.0	
Bromomethane	ND	40	40.0	
Carbon Disulfide	ND	40	40.0	
Carbon Tetrachloride	ND	20	40.0	
Chlorobenzene	ND	20	40.0	
Dibromochloromethane	ND	20	40.0	
Chloroethane	ND	20	40.0	
Chloroform	ND	20	40.0	
Chloromethane	ND	20	40.0	
Dibromomethane	ND	20	40.0	
Bromodichloromethane	ND	20	40.0	
Dichlorodifluoromethane	ND	40	40.0	
Hexachloro-1,3-Butadiene	ND	80	40.0	
Isopropylbenzene	110	20	40.0	
2-Butanone	ND	200	40.0	
Methylene Chloride	ND	40	40.0	
2-Hexanone	ND	400	40.0	
Naphthalene	150	40	40.0	
n-Butylbenzene	300	20	40.0	
n-Propylbenzene	420	20	40.0	
p-Isopropyltoluene	45	20	40.0	
sec-Butylbenzene	98	20	40.0	
Styrene	ND	20	40.0	
tert-Butylbenzene	ND	20	40.0	
Tetrachloroethene	ND	20	40.0	
Trichloroethene	ND	20	40.0	
Trichlorofluoromethane	ND	20	40.0	
Vinyl Chloride	ND	20	40.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	68-120	

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



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## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 18 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	99	80-120	

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



## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	16-05-0215-8-A	05/02/16 12:40	Aqueous	GC/MS FFF	05/10/16	05/10/16 23:05	160510L026

Parameter	Result	RL	DF	Qualifiers
Benzene	17	0.50	1.00	
Toluene	0.91	0.50	1.00	
Ethylbenzene	10	0.50	1.00	
o-Xylene	0.58	0.50	1.00	
p/m-Xylene	4.1	0.50	1.00	
Xylenes (total)	4.7	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	5.5	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	0.92	0.50	1.00	
1,3,5-Trimethylbenzene	0.73	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	0.50	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	0.65	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	20	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	22	1.0	1.00	
n-Butylbenzene	13	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	7.8	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	102	68-120	
Dibromofluoromethane	99	80-127	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	95	80-128	
Toluene-d8	99	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW6</b>	<b>16-05-0215-8-B</b>	<b>05/02/16 12:40</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>05/11/16</b>	<b>05/11/16 15:11</b>	<b>160511L036</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
n-Propylbenzene	51	2.5	5.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	100	80-128	
Toluene-d8	99	80-120	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	16-05-0215-9-A	05/02/16 12:30	Aqueous	GC/MS FFF	05/10/16	05/10/16 23:35	160510L026

Parameter	Result	RL	DF	Qualifiers
Benzene	100	5.0	10.0	
Toluene	8.1	5.0	10.0	
Ethylbenzene	19	5.0	10.0	
o-Xylene	ND	5.0	10.0	
p/m-Xylene	11	5.0	10.0	
Xylenes (total)	11	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	10.0	
Tert-Butyl Alcohol (TBA)	ND	50	10.0	
Diisopropyl Ether (DIPE)	15	5.0	10.0	
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	10.0	
Tert-Amyl-Methyl Ether (TAME)	ND	5.0	10.0	
1,1,1,2-Tetrachloroethane	ND	5.0	10.0	
1,1,1-Trichloroethane	ND	5.0	10.0	
1,1,2,2-Tetrachloroethane	ND	5.0	10.0	
1,1,2-Trichloroethane	ND	5.0	10.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5.0	10.0	
1,1-Dichloroethane	ND	5.0	10.0	
1,1-Dichloroethene	ND	5.0	10.0	
1,1-Dichloropropene	ND	5.0	10.0	
1,2,3-Trichlorobenzene	ND	5.0	10.0	
1,2,3-Trichloropropane	ND	10	10.0	
1,2,4-Trichlorobenzene	ND	5.0	10.0	
1,2,4-Trimethylbenzene	ND	5.0	10.0	
1,3,5-Trimethylbenzene	ND	5.0	10.0	
c-1,2-Dichloroethene	ND	5.0	10.0	
1,2-Dibromo-3-Chloropropane	ND	50	10.0	
1,2-Dibromoethane	ND	5.0	10.0	
1,2-Dichlorobenzene	ND	5.0	10.0	
1,2-Dichloroethane	ND	5.0	10.0	
1,2-Dichloropropane	ND	5.0	10.0	
t-1,2-Dichloroethene	ND	5.0	10.0	
c-1,3-Dichloropropene	ND	5.0	10.0	
1,3-Dichlorobenzene	ND	5.0	10.0	
1,3-Dichloropropane	ND	10	10.0	
t-1,3-Dichloropropene	ND	5.0	10.0	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	5.0	10.0	
2,2-Dichloropropane	ND	10	10.0	
2-Chlorotoluene	ND	5.0	10.0	
4-Chlorotoluene	ND	5.0	10.0	
4-Methyl-2-Pentanone	ND	50	10.0	
Acetone	ND	100	10.0	
Bromobenzene	ND	5.0	10.0	
Bromochloromethane	ND	10	10.0	
Bromoform	ND	5.0	10.0	
Bromomethane	ND	10	10.0	
Carbon Disulfide	ND	10	10.0	
Carbon Tetrachloride	ND	5.0	10.0	
Chlorobenzene	ND	5.0	10.0	
Dibromochloromethane	ND	5.0	10.0	
Chloroethane	ND	5.0	10.0	
Chloroform	ND	5.0	10.0	
Chloromethane	ND	5.0	10.0	
Dibromomethane	ND	5.0	10.0	
Bromodichloromethane	ND	5.0	10.0	
Dichlorodifluoromethane	ND	10	10.0	
Hexachloro-1,3-Butadiene	ND	20	10.0	
Isopropylbenzene	77	5.0	10.0	
2-Butanone	ND	50	10.0	
Methylene Chloride	ND	10	10.0	
2-Hexanone	ND	100	10.0	
Naphthalene	84	10	10.0	
n-Butylbenzene	72	5.0	10.0	
n-Propylbenzene	220	5.0	10.0	
p-Isopropyltoluene	ND	5.0	10.0	
sec-Butylbenzene	33	5.0	10.0	
Styrene	ND	5.0	10.0	
tert-Butylbenzene	5.3	5.0	10.0	
Tetrachloroethene	ND	5.0	10.0	
Trichloroethene	ND	5.0	10.0	
Trichlorofluoromethane	ND	5.0	10.0	
Vinyl Chloride	ND	5.0	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	68-120	

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



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## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 24 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	100	80-120	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	16-05-0215-10-A	05/02/16 09:40	Aqueous	GC/MS FFF	05/10/16	05/11/16 00:06	160510L026

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	2.1	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	68-120	

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





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## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 27 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	100	80-120	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	16-05-0215-11-A	05/02/16 10:20	Aqueous	GC/MS FFF	05/10/16	05/11/16 00:36	160510L026

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	0.82	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	68-120	

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



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## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 30 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	98	80-120	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-1458	N/A	Aqueous	GC/MS FFF	05/10/16	05/10/16 18:09	160510L026

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	68-120	

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



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## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 33 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	97	80-128	
Toluene-d8	99	80-120	


  
Return to Contents

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-1459	N/A	Aqueous	GC/MS FFF	05/11/16	05/11/16 10:33	160511L036

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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





Calscience

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	ND	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	ND	0.50	1.00	
n-Propylbenzene	ND	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	ND	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	68-120	

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



Calscience

## Analytical Report

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 36 of 36

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	95	80-128	
Toluene-d8	99	80-120	

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



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: ExxonMobil 79374/022735C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
MW1	Sample	Aqueous	GC 56	05/10/16	05/10/16 15:31	160510S027				
MW1	Matrix Spike	Aqueous	GC 56	05/10/16	05/10/16 16:03	160510S027				
MW1	Matrix Spike Duplicate	Aqueous	GC 56	05/10/16	05/10/16 16:35	160510S027				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1853	93	1836	92	68-122	1	0-18	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-05-0466-1	Sample	Aqueous	GC 56	05/11/16	05/11/16 14:43	160511S015
16-05-0466-1	Matrix Spike	Aqueous	GC 56	05/11/16	05/11/16 15:15	160511S015
16-05-0466-1	Matrix Spike Duplicate	Aqueous	GC 56	05/11/16	05/11/16 15:46	160511S015

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1955	98	1912	96	68-122	2	0-18	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 79374/022735C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
<b>MW1</b>	<b>Sample</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>05/10/16</b>	<b>05/10/16 18:49</b>	<b>160510S032</b>
<b>MW1</b>	<b>Matrix Spike</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>05/10/16</b>	<b>05/10/16 19:24</b>	<b>160510S032</b>
<b>MW1</b>	<b>Matrix Spike Duplicate</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>05/10/16</b>	<b>05/10/16 19:54</b>	<b>160510S032</b>

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	40.00	45.46	114	44.78	112	75-125	2	0-20	
Toluene	ND	40.00	45.29	113	44.80	112	75-125	1	0-20	
Ethylbenzene	ND	40.00	45.96	115	44.79	112	75-125	3	0-20	
o-Xylene	ND	40.00	44.92	112	44.39	111	75-127	1	0-20	
p/m-Xylene	ND	80.00	91.68	115	89.95	112	75-125	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	40.00	38.86	97	40.60	101	71-131	4	0-20	
Tert-Butyl Alcohol (TBA)	ND	200.0	211.0	106	196.4	98	20-180	7	0-40	
Diisopropyl Ether (DIPE)	ND	40.00	42.43	106	43.12	108	64-136	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	40.00	39.85	100	41.31	103	73-133	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	40.00	38.55	96	40.43	101	75-125	5	0-20	
1,1-Dichloroethene	ND	40.00	47.17	118	45.15	113	66-126	4	0-20	
1,2-Dibromoethane	ND	40.00	40.22	101	41.59	104	75-126	3	0-20	
1,2-Dichlorobenzene	ND	40.00	42.80	107	43.01	108	75-125	0	0-20	
1,2-Dichloroethane	ND	40.00	41.05	103	41.70	104	75-127	2	0-20	
Carbon Tetrachloride	ND	40.00	45.97	115	44.59	111	69-135	3	0-20	
Chlorobenzene	ND	40.00	44.07	110	43.92	110	75-125	0	0-20	
Trichloroethene	9.231	40.00	54.38	113	53.50	111	75-125	2	0-20	
Vinyl Chloride	ND	40.00	50.84	127	48.05	120	52-142	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 79374/022735C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-05-0577-6	Sample	Aqueous	GC/MS FFF	05/11/16	05/11/16 11:11	160511S012
16-05-0577-6	Matrix Spike	Aqueous	GC/MS FFF	05/11/16	05/11/16 11:41	160511S012
16-05-0577-6	Matrix Spike Duplicate	Aqueous	GC/MS FFF	05/11/16	05/11/16 12:11	160511S012

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.97	110	11.05	110	75-125	1	0-20	
Toluene	ND	10.00	11.09	111	11.14	111	75-125	0	0-20	
Ethylbenzene	ND	10.00	11.11	111	11.17	112	75-125	1	0-20	
o-Xylene	ND	10.00	10.96	110	11.02	110	75-127	1	0-20	
p/m-Xylene	ND	20.00	22.17	111	22.36	112	75-125	1	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	10.15	102	10.52	105	71-131	4	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	67.70	135	64.42	129	20-180	5	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	10.59	106	10.78	108	64-136	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	10.05	101	10.35	103	73-133	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.871	99	10.12	101	75-125	3	0-20	
1,1-Dichloroethene	ND	10.00	11.31	113	11.27	113	66-126	0	0-20	
1,2-Dibromoethane	ND	10.00	10.34	103	10.64	106	75-126	3	0-20	
1,2-Dichlorobenzene	ND	10.00	10.69	107	10.82	108	75-125	1	0-20	
1,2-Dichloroethane	ND	10.00	10.43	104	10.66	107	75-127	2	0-20	
Carbon Tetrachloride	ND	10.00	10.36	104	10.45	105	69-135	1	0-20	
Chlorobenzene	ND	10.00	10.80	108	10.86	109	75-125	0	0-20	
Trichloroethene	ND	10.00	11.40	114	11.46	115	75-125	1	0-20	
Vinyl Chloride	ND	10.00	11.79	118	11.61	116	52-142	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-278-1202	LCS	Aqueous	GC 46	05/05/16	05/06/16 16:58	160505B09			
099-15-278-1202	LCSD	Aqueous	GC 46	05/05/16	05/06/16 17:15	160505B09			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	2000	2303	115	2335	117	75-117	1	0-13	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 3510C  
Method: EPA 8015B (M)

Project: ExxonMobil 79374/022735C

Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-304-1409	LCS	Aqueous	GC 46	05/05/16	05/06/16 16:23	160505B08			
099-15-304-1409	LCSD	Aqueous	GC 46	05/05/16	05/06/16 16:41	160505B08			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	2170	109	1899	95	75-117	13	0-13	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - LCS

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-12-436-10803</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 56</b>	<b>05/10/16</b>	<b>05/10/16 11:34</b>	<b>160510L055</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	1882	94	78-120	


  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 05/04/16  
Work Order: 16-05-0215  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: ExxonMobil 79374/022735C

Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-436-10807	LCS	Aqueous	GC 56	05/11/16	05/11/16 12:04	160511L030
099-12-436-10807	LCSD	Aqueous	GC 56	05/11/16	05/11/16 12:36	160511L030

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	1949	97	2049	102	78-120	5	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: ExxonMobil 79374/022735C		Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-880-1458</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>05/10/16</b>	<b>05/10/16 17:31</b>	<b>160510L026</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	10.04	100	80-120	73-127	
Toluene		10.00	10.13	101	80-120	73-127	
Ethylbenzene		10.00	10.03	100	80-120	73-127	
o-Xylene		10.00	10.01	100	80-120	73-127	
p/m-Xylene		20.00	20.05	100	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	10.12	101	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	51.93	104	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	10.27	103	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	10.05	100	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	9.965	100	80-120	73-127	
1,1-Dichloroethene		10.00	9.921	99	77-120	70-127	
1,2-Dibromoethane		10.00	10.34	103	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.10	101	80-120	73-127	
1,2-Dichloroethane		10.00	10.01	100	80-122	73-129	
Carbon Tetrachloride		10.00	9.893	99	80-129	72-137	
Chlorobenzene		10.00	9.948	99	80-120	73-127	
Trichloroethene		10.00	10.13	101	80-120	73-127	
Vinyl Chloride		10.00	9.692	97	63-135	51-147	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	05/04/16
601 North McDowell Blvd.	Work Order:	16-05-0215
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: ExxonMobil 79374/022735C		Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-880-1459</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>05/11/16</b>	<b>05/11/16 09:48</b>	<b>160511L036</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	9.942	99	80-120	73-127	
Toluene		10.00	10.03	100	80-120	73-127	
Ethylbenzene		10.00	10.13	101	80-120	73-127	
o-Xylene		10.00	10.06	101	80-120	73-127	
p/m-Xylene		20.00	20.26	101	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.317	93	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	47.91	96	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	9.823	98	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	9.371	94	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	9.138	91	80-120	73-127	
1,1-Dichloroethene		10.00	9.727	97	77-120	70-127	
1,2-Dibromoethane		10.00	9.581	96	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.938	99	80-120	73-127	
1,2-Dichloroethane		10.00	9.642	96	80-122	73-129	
Carbon Tetrachloride		10.00	9.196	92	80-129	72-137	
Chlorobenzene		10.00	9.903	99	80-120	73-127	
Trichloroethene		10.00	10.12	101	80-120	73-127	
Vinyl Chloride		10.00	10.42	104	63-135	51-147	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Sample Analysis Summary Report

Work Order: 16-05-0215

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3510C	682	GC 46	1
EPA 8015B (M)	EPA 5030C	933	GC 56	2
EPA 8260B	EPA 5030C	849	GC/MS FFF	2

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 16-05-0215

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
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  $\leq 15$  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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0215

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

Tracking #: 531796957

**NPS**



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#H  
CONCORD, CA 94520

Tracking #: 531796958

**NPS**



**Ship To**

CEL  
SAMPLE RECEIVING  
7440 LINCOLN WAY  
GARDEN GROVE, CA 92841

**ORC**  
**GARDEN GROVE**

**A**

**D92845A**



51383645

COD: \$0.00

Weight: 0 lb(s)

Reference:

CARDNO ERI, NCAL BLANKS

**Delivery Instructions:**

**Signature Type:** REQUIRED

Print Date: 5/3/2016 1:57 PM

Package 2 of 2

DELIVERY INSTRUCTIONS:



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 2

CLIENT: Cardno EPI

DATE: 05/04/2016

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

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.0 °C (w/ CF): 2.0 °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: 836

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 836

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 836

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A

COC document(s) received complete .....  Yes  No  N/A

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 .....  Yes  No  N/A

Sample container label(s) consistent with COC .....  Yes  No  N/A

Sample container(s) intact and in good condition .....  Yes  No  N/A

Proper containers for analyses requested .....  Yes  No  N/A

Sufficient volume/mass for analyses requested .....  Yes  No  N/A

Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....  Yes  No  N/A

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 .....  Yes  No  N/A

CONTAINER TYPE: 8 (Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAh  VOAna2  100PJ  100PJna2  125AGB  125AGBh  125AGBp  125PB

125PBzanna  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna2  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

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 = HNO3, na = NaOH, na2 = Na2S2O3, p = H3PO4, Labeled/Checked by: 836

s = H2SO4, u = ultra-pure, zanna = Zn(CH3CO2)2 + NaOH Reviewed by: 778

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 2

CLIENT: Cardno EPI

DATE: 05/04/2016

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

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2-2 °C (w/ CF): 2-2 °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: 836

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A

COC document(s) received complete .....  Yes  No  N/A

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 .....  Yes  No  N/A

Sample container label(s) consistent with COC .....  Yes  No  N/A

Sample container(s) intact and in good condition .....  Yes  No  N/A

Proper containers for analyses requested .....  Yes  No  N/A

Sufficient volume/mass for analyses requested .....  Yes  No  N/A

Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....  Yes  No  N/A

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 .....  Yes  No  N/A

CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB

125PB<sub>z<sub>na</sub></sub>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sub>n</sub>  500AGB  500AGJ  500AGJ<sub>s</sub>

500PB  1AGB  1AGB<sub>na2</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

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<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 836

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, z<sub>na</sub> = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

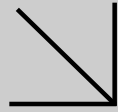
Reviewed by: 718



Environmental  
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Supplemental Report 1

The original report has been revised/corrected.



**WORK ORDER NUMBER: 14-02-2001**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** ExxonMobil 79374/022735C

**Attention:** Rebekah Westrup  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

*Cecile de Guia*

Approved for release on 05/18/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

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Work Order Number: 14-02-2001

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**Work Order Narrative**

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Work Order: 14-02-2001

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 02/28/14. They were assigned to Work Order 14-02-2001.

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  $\leq 15$  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 the report has been amended to include Tetrachloroethene and Trichloroethene with the EPA 8260B target compound list. This additional request was received via email on March 16, 2016.



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## Sample Summary

Client: Cardno	Work Order:	14-02-2001
601 North McDowell Blvd.	Project Name:	ExxonMobil 79374/022735C
Petaluma, CA 94954-2312	PO Number:	022735C
	Date/Time Received:	02/28/14 10:30
	Number of Containers:	40

Attn: Rebekah Westrup

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
W-5-B7	14-02-2001-1	02/27/14 11:02	8	Aqueous
W-5-B9	14-02-2001-2	02/27/14 12:20	8	Aqueous
W-5.5-B10	14-02-2001-3	02/27/14 09:30	8	Aqueous
W-10-B12	14-02-2001-4	02/26/14 15:30	8	Aqueous
W-14-B16	14-02-2001-5	02/26/14 10:00	8	Aqueous



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-5-B7</b>	<b>14-02-2001-1-H</b>	<b>02/27/14 11:02</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/04/14 23:39</b>	<b>140204B13</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		310		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		82		68-140			
<b>W-5-B9</b>	<b>14-02-2001-2-H</b>	<b>02/27/14 12:20</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/04/14 23:55</b>	<b>140204B13</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		310		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		85		68-140			
<b>W-5.5-B10</b>	<b>14-02-2001-3-H</b>	<b>02/27/14 09:30</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/05/14 00:12</b>	<b>140204B13</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		310		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		90		68-140			
<b>W-10-B12</b>	<b>14-02-2001-4-H</b>	<b>02/26/14 15:30</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/05/14 00:29</b>	<b>140204B13</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		250		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		86		68-140			
<b>W-14-B16</b>	<b>14-02-2001-5-H</b>	<b>02/26/14 10:00</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/05/14 00:46</b>	<b>140204B13</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		250		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		87		68-140			

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

## Analytical Report

Cardno	Date Received:	02/28/14
601 North McDowell Blvd.	Work Order:	14-02-2001
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-15-278-543</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/04/14 22:13</b>	<b>140204B13</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		250		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		88		68-140			





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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-5-B7</b>	<b>14-02-2001-1-H</b>	<b>02/27/14 11:02</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/04/14 23:39</b>	<b>140204B12</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		62		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		82		68-140			
<b>W-5-B9</b>	<b>14-02-2001-2-H</b>	<b>02/27/14 12:20</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/04/14 23:55</b>	<b>140204B12</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		370		62		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		85		68-140			
<b>W-5.5-B10</b>	<b>14-02-2001-3-H</b>	<b>02/27/14 09:30</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/05/14 00:12</b>	<b>140204B12</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		62		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		90		68-140			
<b>W-10-B12</b>	<b>14-02-2001-4-H</b>	<b>02/26/14 15:30</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/05/14 00:29</b>	<b>140204B12</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		800		50		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		86		68-140			
<b>W-14-B16</b>	<b>14-02-2001-5-H</b>	<b>02/26/14 10:00</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/05/14 00:46</b>	<b>140204B12</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		180		50		1.00	SG,HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		87		68-140			

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



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### Analytical Report

Cardno	Date Received:	02/28/14
601 North McDowell Blvd.	Work Order:	14-02-2001
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
	Units:	ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-15-304-624</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 47</b>	<b>03/04/14</b>	<b>03/04/14 22:13</b>	<b>140204B12</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	50	1.00	
 <u>Surrogate</u>	 <u>Rec. (%)</u>	 <u>Control Limits</u>	 <u>Qualifiers</u>	
n-Octacosane	88	68-140		

Return to Contents

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-5-B7</b>	<b>14-02-2001-1-D</b>	<b>02/27/14 11:02</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/04/14</b>	<b>03/05/14 08:26</b>	<b>140304B03</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		80		38-134			
<b>W-5-B9</b>	<b>14-02-2001-2-D</b>	<b>02/27/14 12:20</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/04/14</b>	<b>03/05/14 09:02</b>	<b>140304B03</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		1400		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		96		38-134			
<b>W-5.5-B10</b>	<b>14-02-2001-3-D</b>	<b>02/27/14 09:30</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/04/14</b>	<b>03/05/14 10:49</b>	<b>140304B03</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		79		38-134			
<b>W-10-B12</b>	<b>14-02-2001-4-D</b>	<b>02/26/14 15:30</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/04/14</b>	<b>03/05/14 11:25</b>	<b>140304B03</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		5900		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		182		38-134		AZ	
<b>W-14-B16</b>	<b>14-02-2001-5-D</b>	<b>02/26/14 10:00</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/04/14</b>	<b>03/05/14 10:13</b>	<b>140304B03</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		170		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		81		38-134			

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



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## Analytical Report

Cardno	Date Received:	02/28/14
601 North McDowell Blvd.	Work Order:	14-02-2001
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-436-9185</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/04/14</b>	<b>03/05/14 01:17</b>	<b>140304B03</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		78		38-134			

  
Return to Contents

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-5-B7	14-02-2001-1-a	02/27/14 11:02	Aqueous	GC/MS L	03/04/14	03/04/14 13:18	140304L02

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	115	80-128	
Toluene-d8	100	80-120	


  
Return to Contents

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-5-B9	14-02-2001-2-a	02/27/14 12:20	Aqueous	GC/MS L	03/04/14	03/04/14 16:28	140304L02

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	91	80-127	
1,2-Dichloroethane-d4	93	80-128	
Toluene-d8	105	80-120	

Return to Contents

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-5.5-B10	14-02-2001-3-a	02/27/14 09:30	Aqueous	GC/MS L	03/04/14	03/04/14 13:45	140304L02

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	68-120	
Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	108	80-128	
Toluene-d8	98	80-120	

Return to Contents

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-10-B12	14-02-2001-4-a	02/26/14 15:30	Aqueous	GC/MS L	03/04/14	03/04/14 14:39	140304L02

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	1.9	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	98	80-128	
Toluene-d8	107	80-120	

Return to Contents

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





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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-14-B16	14-02-2001-5-a	02/26/14 10:00	Aqueous	GC/MS L	03/04/14	03/04/14 12:52	140304L02

Parameter	Result	RL	DF	Qualifiers
Benzene	1.1	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	5.4	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	107	80-120	

Return to Contents

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



Calscience

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 6 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-1444	N/A	Aqueous	GC/MS L	03/04/14	03/04/14 12:25	140304L02

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	68-120	
Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	105	80-128	
Toluene-d8	99	80-120	

Return to Contents

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



Calscience

**Quality Control - Spike/Spike Duplicate**

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: ExxonMobil 79374/022735C

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-02-2105-1	Sample	Aqueous	GC 1	03/04/14	03/05/14 02:29	140304S03
14-02-2105-1	Matrix Spike	Aqueous	GC 1	03/04/14	03/05/14 03:04	140304S03
14-02-2105-1	Matrix Spike Duplicate	Aqueous	GC 1	03/04/14	03/05/14 03:40	140304S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1583	79	1559	78	68-122	2	0-18	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 79374/022735C

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
W-14-B16	Sample	Aqueous	GC/MS L	03/04/14	03/04/14 12:52	140304S01				
W-14-B16	Matrix Spike	Aqueous	GC/MS L	03/04/14	03/04/14 15:06	140304S01				
W-14-B16	Matrix Spike Duplicate	Aqueous	GC/MS L	03/04/14	03/04/14 15:34	140304S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	1.061	10.00	10.85	98	11.08	100	76-124	2	0-20	
Toluene	ND	10.00	9.943	99	10.48	105	80-120	5	0-20	
Ethylbenzene	5.423	10.00	14.75	93	19.04	136	78-126	25	0-20	HX,BA
o-Xylene	ND	10.00	10.33	103	10.19	102	70-130	1	0-30	
p/m-Xylene	ND	20.00	20.49	102	20.36	102	70-130	1	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.041	90	9.731	97	67-121	7	0-49	
Tert-Butyl Alcohol (TBA)	ND	50.00	62.42	125	61.78	124	36-162	1	0-30	
Diisopropyl Ether (DIPE)	ND	10.00	8.026	80	9.023	90	60-138	12	0-45	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	8.615	86	9.549	95	69-123	10	0-30	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.582	96	9.319	93	65-120	3	0-20	
1,2-Dibromoethane	ND	10.00	10.17	102	9.948	99	80-120	2	0-20	
1,2-Dichloroethane	ND	10.00	9.623	96	9.288	93	80-120	4	0-20	
Trichloroethene	ND	10.00	9.605	96	9.752	98	77-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Cardno	Date Received:	02/28/14
601 North McDowell Blvd.	Work Order:	14-02-2001
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-278-543	LCS	Aqueous	GC 47	03/04/14	03/04/14 23:04	140204B13			
099-15-278-543	LCSD	Aqueous	GC 47	03/04/14	03/04/14 23:22	140204B13			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	2000	1922	96	1970	98	75-117	2	0-13	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Cardno	Date Received:	02/28/14
601 North McDowell Blvd.	Work Order:	14-02-2001
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-304-624	LCS	Aqueous	GC 47	03/04/14	03/04/14 22:30	140204B12
099-15-304-624	LCSD	Aqueous	GC 47	03/04/14	03/04/14 22:47	140204B12

Parameter	Spike Added	<u>LCS</u> Conc.	<u>LCS</u> %Rec.	<u>LCSD</u> Conc.	<u>LCSD</u> %Rec.	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Diesel	2000	2023	101	2075	104	75-117	3	0-13	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	02/28/14
601 North McDowell Blvd.	Work Order:	14-02-2001
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-12-436-9185</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/04/14</b>	<b>03/05/14 01:53</b>	<b>140304B03</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	1731	87	78-120	


  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 02/28/14  
Work Order: 14-02-2001  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 79374/022735C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-880-1444</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>03/04/14</b>	<b>03/04/14 11:21</b>	<b>140304L02</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	10.33	103	80-120	73-127	
Toluene		10.00	10.25	103	80-120	73-127	
Ethylbenzene		10.00	10.78	108	80-120	73-127	
o-Xylene		10.00	10.72	107	75-125	67-133	
p/m-Xylene		20.00	21.37	107	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		10.00	9.528	95	69-123	60-132	
Tert-Butyl Alcohol (TBA)		50.00	51.10	102	63-123	53-133	
Diisopropyl Ether (DIPE)		10.00	9.236	92	59-137	46-150	
Ethyl-t-Butyl Ether (ETBE)		10.00	9.273	93	69-123	60-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	9.083	91	70-120	62-128	
1,2-Dibromoethane		10.00	9.763	98	79-121	72-128	
1,2-Dichloroethane		10.00	10.29	103	80-120	73-127	
Trichloroethene		10.00	10.25	102	79-127	71-135	

Total number of LCS compounds: 13

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Sample Analysis Summary Report

Work Order: 14-02-2001

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3510C	682	GC 47	1
EPA 8015B (M)	EPA 5030C	902	GC 1	2
EPA 8260B	EPA 5030C	316	GC/MS L	2

## Glossary of Terms and Qualifiers

Work Order: 14-02-2001

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
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  $\leq 15$  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.



2000

	<p align="center"><b>&lt; WebShip &gt; &gt; &gt; &gt;</b></p> <p align="center">800-322-5555 www.gso.com</p>	
<p><b>Ship From:</b> ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520</p>	<p><b>Tracking #:</b> 524028042</p> 	<p align="center"><b>NPS</b></p>
<p><b>Ship To:</b> SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841</p>	<p align="center"><b>ORC</b></p> <p align="center"><b>A</b></p> <p align="center"><b>GARDEN GROVE</b></p>	
<p><b>COD:</b> \$0.00</p>	<p align="center"><b>D92843A</b></p>	
<p><b>Reference:</b> CARDNO ERI</p>		
<p><b>Delivery Instructions:</b></p> <p><b>Signature Type:</b> SIGNATURE REQUIRED</p>	<p align="center">21718323</p> <p align="right">Print Date : 02/27/14 16:30 PM</p>	

**Package 1 of 1**

Print All

**LABEL INSTRUCTIONS:**

- Do not copy or reprint this label for additional shipments - each package must have a unique barcode.
- STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
- STEP 2 - Fold this page in half.
- STEP 3 - Securely attach this label to your package, do not cover the barcode.
- STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

**ADDITIONAL OPTIONS:**

**TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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WORK ORDER #: **14-02-2001**

**SAMPLE RECEIPT FORM**

Cooler 1 of 1

CLIENT: Cardno EPI

DATE: 02/28/14

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.5 °C - 0.3 °C (CF) = 1.2 °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.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:  Air  Filter

Checked by: 846

**CUSTODY SEALS INTACT:**

Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A Checked by: 846

Sample  \_\_\_\_\_  No (Not Intact)  Not Present Checked by: 847

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels. <input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  EnCores®  TerraCores®  \_\_\_\_\_

**Aqueous:**  VOA  VOA<sup>6</sup>h  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs

500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  1PBna  500PB

250PB  250PBn  125PB  125PBz<sup>2</sup>na  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

**Air:**  Tedlar®  Canister **Other:**  \_\_\_\_\_ **Trip Blank Lot#:** \_\_\_\_\_ **Labeled/Checked by:** 847

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** 681

Preservative: h: HCL n: HNO<sub>3</sub> na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> u: Ultra-pure z<sup>2</sup>na: ZnAc<sub>2</sub>+NaOH f: Filtered **Scanned by:** 681

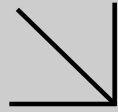
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Calscience

Supplemental Report 1

The original report has been revised/corrected.



**WORK ORDER NUMBER: 14-03-0145**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** ExxonMobil 79374/022735C

**Attention:** Rebekah Westrup  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

*Cecile de Guia*

Approved for release on 05/18/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶



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



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Work Order Number: 14-03-0145

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**Work Order Narrative**

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Work Order: 14-03-0145

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 03/04/14. They were assigned to Work Order 14-03-0145.

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  $\leq 15$  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 the report has been amended to include Tetrachloroethene and Trichloroethene with the EPA 8260B target compound list. This additional request was received via email on March 16, 2016.





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**Sample Summary**

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Client: Cardno	Work Order:	14-03-0145
601 North McDowell Blvd.	Project Name:	ExxonMobil 79374/022735C
Petaluma, CA 94954-2312	PO Number:	022735C
	Date/Time Received:	03/04/14 10:30
	Number of Containers:	24

Attn: Rebekah Westrup

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Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
W-12-B8	14-03-0145-1	02/28/14 13:30	8	Aqueous
W-10-B13	14-03-0145-2	02/28/14 09:45	8	Aqueous
W-10-B17	14-03-0145-3	02/27/14 13:30	8	Aqueous

  
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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-12-B8</b>	<b>14-03-0145-1-H</b>	<b>02/28/14 13:30</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/05/14</b>	<b>03/06/14 14:20</b>	<b>140305B11</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		240		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		76		68-140			
<b>W-10-B13</b>	<b>14-03-0145-2-H</b>	<b>02/28/14 09:45</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/05/14</b>	<b>03/06/14 14:36</b>	<b>140305B11</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		250		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		86		68-140			
<b>W-10-B17</b>	<b>14-03-0145-3-H</b>	<b>02/27/14 13:30</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/05/14</b>	<b>03/06/14 14:51</b>	<b>140305B11</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		270		0.996	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		68		68-140			
<b>Method Blank</b>	<b>099-15-278-547</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/05/14</b>	<b>03/06/14 13:01</b>	<b>140305B11</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		250		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		90		68-140			

Return to Contents

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-12-B8</b>	<b>14-03-0145-1-H</b>	<b>02/28/14 13:30</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/05/14</b>	<b>03/06/14 14:20</b>	<b>140305B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		130		49		1.00	HD,SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		76		68-140			
<b>W-10-B13</b>	<b>14-03-0145-2-H</b>	<b>02/28/14 09:45</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/05/14</b>	<b>03/06/14 14:36</b>	<b>140305B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		1500		50		1.00	HD,SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		86		68-140			
<b>W-10-B17</b>	<b>14-03-0145-3-H</b>	<b>02/27/14 13:30</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/05/14</b>	<b>03/06/14 14:51</b>	<b>140305B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		54		0.996	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		68		68-140			
<b>Method Blank</b>	<b>099-15-304-629</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/05/14</b>	<b>03/06/14 13:01</b>	<b>140305B10</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		90		68-140			

Return to Contents

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



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### Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-12-B8</b>	<b>14-03-0145-1-D</b>	<b>02/28/14 13:30</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/06/14</b>	<b>03/07/14 04:03</b>	<b>140306B02</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		75		38-134			
<b>W-10-B13</b>	<b>14-03-0145-2-D</b>	<b>02/28/14 09:45</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/06/14</b>	<b>03/07/14 06:26</b>	<b>140306B02</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		6300		100		2.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		129		38-134			
<b>W-10-B17</b>	<b>14-03-0145-3-D</b>	<b>02/27/14 13:30</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/06/14</b>	<b>03/07/14 04:39</b>	<b>140306B02</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		110		50		1.00	HD
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		78		38-134			
<b>Method Blank</b>	<b>099-12-436-9192</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/06/14</b>	<b>03/06/14 17:54</b>	<b>140306B02</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		78		38-134			

Return to Contents

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-12-B8	14-03-0145-1-a	02/28/14 13:30	Aqueous	GC/MS L	03/05/14	03/05/14 16:20	140305L04

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	68-120	
Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	110	80-128	
Toluene-d8	99	80-120	

Return to Contents

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-10-B13	14-03-0145-2-a	02/28/14 09:45	Aqueous	GC/MS L	03/05/14	03/05/14 16:47	140305L04

Parameter	Result	RL	DF	Qualifiers
Benzene	12	5.0	10.0	
Toluene	8.8	5.0	10.0	
Ethylbenzene	290	5.0	10.0	
o-Xylene	ND	5.0	10.0	
p/m-Xylene	22	5.0	10.0	
Xylenes (total)	22	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	10.0	
Tert-Butyl Alcohol (TBA)	ND	5.0	10.0	
Diisopropyl Ether (DIPE)	ND	5.0	10.0	
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	10.0	
Tert-Amyl-Methyl Ether (TAME)	ND	5.0	10.0	
1,2-Dibromoethane	ND	5.0	10.0	
1,2-Dichloroethane	ND	5.0	10.0	
Tetrachloroethene	ND	5.0	10.0	
Trichloroethene	ND	5.0	10.0	

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

Return to Contents

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-10-B17	14-03-0145-3-a	02/27/14 13:30	Aqueous	GC/MS L	03/05/14	03/05/14 17:15	140305L04

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	0.65	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	90	80-127	
1,2-Dichloroethane-d4	110	80-128	
Toluene-d8	97	80-120	

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



Calscience

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-1445	N/A	Aqueous	GC/MS L	03/05/14	03/05/14 11:22	140305L04

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	68-120	
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	95	80-120	

Return to Contents

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





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## Quality Control - Spike/Spike Duplicate

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: ExxonMobil 79374/022735C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-03-0306-9	Sample	Aqueous	GC 1	03/06/14	03/06/14 19:06	140306S01
14-03-0306-9	Matrix Spike	Aqueous	GC 1	03/06/14	03/06/14 19:42	140306S01
14-03-0306-9	Matrix Spike Duplicate	Aqueous	GC 1	03/06/14	03/06/14 20:17	140306S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1478	74	1521	76	68-122	3	0-18	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 79374/022735C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-03-0227-1	Sample	Aqueous	GC/MS L	03/05/14	03/05/14 11:48	140305S01
14-03-0227-1	Matrix Spike	Aqueous	GC/MS L	03/05/14	03/05/14 13:37	140305S01
14-03-0227-1	Matrix Spike Duplicate	Aqueous	GC/MS L	03/05/14	03/05/14 14:04	140305S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	9.786	98	9.797	98	80-120	0	0-20	
Toluene	ND	10.00	11.01	110	9.753	98	75-120	12	0-20	
Ethylbenzene	ND	10.00	10.65	106	10.35	103	75-125	3	0-20	
o-Xylene	ND	10.00	10.65	106	10.26	103	80-120	4	0-20	
p/m-Xylene	ND	20.00	21.15	106	20.57	103	75-130	3	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.727	97	8.249	82	65-125	16	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	78.28	157	52.15	104	46-154	40	0-35	HX,BA
Diisopropyl Ether (DIPE)	ND	10.00	9.109	91	7.441	74	81-123	20	0-20	HX
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.405	94	7.799	78	74-122	19	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.361	94	9.268	93	76-124	1	0-20	
1,2-Dibromoethane	ND	10.00	10.33	103	10.21	102	80-120	1	0-20	
1,2-Dichloroethane	ND	10.00	10.77	108	10.32	103	70-130	4	0-20	
Tetrachloroethene	2.344	10.00	10.45	81	10.05	77	45-150	4	0-20	
Trichloroethene	97.76	10.00	115.1	174	108.5	107	70-125	6	0-20	HX

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Cardno	Date Received:	03/04/14
601 North McDowell Blvd.	Work Order:	14-03-0145
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-278-547	LCS	Aqueous	GC 48	03/05/14	03/06/14 13:48	140305B11
099-15-278-547	LCSD	Aqueous	GC 48	03/05/14	03/06/14 14:04	140305B11

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	2000	2196	110	2241	112	75-117	2	0-13	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS/LCSD

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/04/14  
Work Order: 14-03-0145  
Preparation: EPA 3510C  
Method: EPA 8015B (M)

Project: ExxonMobil 79374/022735C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-304-629	LCS	Aqueous	GC 48	03/05/14	03/06/14 13:17	140305B10			
099-15-304-629	LCSD	Aqueous	GC 48	03/05/14	03/06/14 13:32	140305B10			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	1745	87	1786	89	75-117	2	0-13	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	03/04/14
601 North McDowell Blvd.	Work Order:	14-03-0145
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-12-436-9192</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 1</b>	<b>03/06/14</b>	<b>03/06/14 18:30</b>	<b>140306B02</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	1653	83	78-120	

  
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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

Cardno	Date Received:	03/04/14
601 North McDowell Blvd.	Work Order:	14-03-0145
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: ExxonMobil 79374/022735C		Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-880-1445</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>03/05/14</b>	<b>03/05/14 10:16</b>	<b>140305L04</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	9.926	99	80-120	73-127	
Toluene		10.00	9.841	98	80-120	73-127	
Ethylbenzene		10.00	10.46	105	80-120	73-127	
o-Xylene		10.00	10.30	103	75-125	67-133	
p/m-Xylene		20.00	20.82	104	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		10.00	8.681	87	69-123	60-132	
Tert-Butyl Alcohol (TBA)		50.00	48.28	97	63-123	53-133	
Diisopropyl Ether (DIPE)		10.00	8.023	80	59-137	46-150	
Ethyl-t-Butyl Ether (ETBE)		10.00	8.392	84	69-123	60-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	9.420	94	70-120	62-128	
1,2-Dibromoethane		10.00	10.20	102	79-121	72-128	
1,2-Dichloroethane		10.00	9.429	94	80-120	73-127	
Trichloroethene		10.00	9.886	99	79-127	71-135	

Total number of LCS compounds: 13  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Sample Analysis Summary Report

Work Order: 14-03-0145

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3510C	847	GC 48	1
EPA 8015B (M)	EPA 5030C	902	GC 1	2
EPA 8260B	EPA 5030C	316	GC/MS L	2

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 14-03-0145

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
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 stdns.
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  $\leq 15$  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.



## Sandy Tat

---

**From:** Rebekah Westrup [rebekah.westrup@cardno.com]  
**Sent:** Thursday, March 06, 2014 9:35 AM  
**To:** Sandy Tat  
**Subject:** RE: ExxonMobil 79374/022735C (14-03-0145)  
**Attachments:** 14-03-0145.pdf

Oops, sorry about that

### Rebekah A. Westrup

SR STAFF GEOLOGIST  
CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-338-8555  
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA  
Email [rebekah.westrup@cardno.com](mailto:rebekah.westrup@cardno.com) Web [www.cardno.com](http://www.cardno.com) [www.cardnoeri.com](http://www.cardnoeri.com)

---

**From:** Sandy Tat [<mailto:stat@calscience.com>]  
**Sent:** Wednesday, March 05, 2014 10:10 AM  
**To:** Rebekah Westrup  
**Subject:** ExxonMobil 79374/022735C (14-03-0145)  
**Importance:** High

Hi Rebekah,

Please fill in the depth for sample (B13).

Thanks!

Sandy Tat  
Project Manager Assistant



7440 Lincoln Way  
Garden Grove, CA 92841-1427  
(714) 895-5494  
[www.calscience.com](http://www.calscience.com)



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		<p align="center"><b>&lt; WebShip &gt; &gt; &gt; &gt;</b></p> <p align="center">800-322-5555 www.gso.com</p>		
<b>Ship From:</b> ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520		<b>Tracking #:</b> 524049655 		<b>NPS</b>
<b>Ship To:</b> SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841		<b>ORC</b> <b>GARDEN GROVE</b>	<b>A</b>	
<b>COD:</b> \$0.00		<b>D92843A</b> 		
<b>Reference:</b> CARDNO ERI		21810969		
<b>Delivery Instructions:</b>				
<b>Signature Type:</b> SIGNATURE REQUIRED				Print Date : 03/03/14 16:09 PM

**Package 1 of 1**

<input type="button" value="Send Label To Printer"/>	<input checked="" type="checkbox"/> Print All	<input type="button" value="Edit Shipment"/>	<input type="button" value="Finish"/>
--	---	--	---------------------------------------

**LABEL INSTRUCTIONS:**

- Do not copy or reprint this label for additional shipments - each package must have a unique barcode.
- STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
- STEP 2 - Fold this page in half.
- STEP 3 - Securely attach this label to your package, do not cover the barcode.
- STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

**ADDITIONAL OPTIONS:**

<input type="button" value="Send Label Via Email"/>	<input type="button" value="Create Return Label"/>
---	--

**TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.



# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Cardno ERI

DATE: 03/4/14

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.1 °C - 0.3 °C (CF) = 1.8 °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.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:     Air     Filter    Checked by: 15

**CUSTODY SEALS INTACT:**

Cooler     \_\_\_\_\_     No (Not Intact)     Not Present     N/A    Checked by: 15

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Checked by: 896

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....			
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

**Solid:**     4ozCGJ     8ozCGJ     16ozCGJ     Sleeve (\_\_\_\_)     EnCores®     TerraCores®     \_\_\_\_\_

**Aqueous:**     VOA     VOAn<sup>6</sup>     VOAn<sub>2</sub>     125AGB     125AGBh     125AGBp     1AGB     1AGBna<sub>2</sub>     1AGBs

500AGB     500AGJ<sup>2</sup>     500AGJs     250AGB     250CGB     250CGBs     1PB     1PBna     500PB

250PB     250PBn     125PB     125PBz<sub>2</sub>na     100PJ     100PJna<sub>2</sub>     \_\_\_\_\_     \_\_\_\_\_     \_\_\_\_\_

**Air:**     Tedlar®     Canister    **Other:**     \_\_\_\_\_    **Trip Blank Lot#:** \_\_\_\_\_    **Labeled/Checked by:** 896

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope    **Reviewed by:** 15

Preservative: h: HCL n: HNO<sub>3</sub> na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> u: Ultra-pure z<sub>2</sub>na: ZnAc<sub>2</sub>+NaOH f: Filtered    **Scanned by:** 15



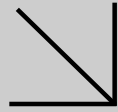




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Supplemental Report 1

The original report has been revised/corrected.



**WORK ORDER NUMBER: 14-03-0505**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** ExxonMobil 79374/022735C

**Attention:** Rebekah Westrup  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

*Cecile de Guia*

Approved for release on 05/18/2016 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶



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

# Contents

Client Project Name: ExxonMobil 79374/022735C

Work Order Number: 14-03-0505

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 03/07/14. They were assigned to Work Order 14-03-0505.

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  $\leq 15$  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 the report has been amended to include Tetrachloroethene and Trichloroethene with the EPA 8260B target compound list. This additional request was received via email on March 16, 2016.



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## Sample Summary

Client: Cardno	Work Order: 14-03-0505
601 North McDowell Blvd.	Project Name: ExxonMobil 79374/022735C
Petaluma, CA 94954-2312	PO Number: 022735C
	Date/Time Received: 03/07/14 09:30
	Number of Containers: 16

Attn: Rebekah Westrup

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
W-14-B11	14-03-0505-1	03/05/14 14:00	8	Aqueous
W-14-B15	14-03-0505-2	03/05/14 11:45	8	Aqueous


  
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## Analytical Report

Cardno	Date Received:	03/07/14
601 North McDowell Blvd.	Work Order:	14-03-0505
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
	Units:	ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-14-B11</b>	<b>14-03-0505-1-G</b>	<b>03/05/14 14:00</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/10/14</b>	<b>03/11/14 20:41</b>	<b>140310B13</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		310		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		74		68-140			
<b>W-14-B15</b>	<b>14-03-0505-2-G</b>	<b>03/05/14 11:45</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/10/14</b>	<b>03/11/14 20:57</b>	<b>140310B13</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		310		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		69		68-140			
<b>Method Blank</b>	<b>099-15-278-549</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/10/14</b>	<b>03/11/14 17:33</b>	<b>140310B13</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Motor Oil		ND		250		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		70		68-140			

Return to Contents

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



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## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/07/14  
Work Order: 14-03-0505  
Preparation: EPA 3510C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-14-B11</b>	<b>14-03-0505-1-G</b>	<b>03/05/14 14:00</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/10/14</b>	<b>03/11/14 20:41</b>	<b>140310B12A</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		62		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		74		68-140			
<b>W-14-B15</b>	<b>14-03-0505-2-G</b>	<b>03/05/14 11:45</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/10/14</b>	<b>03/11/14 20:57</b>	<b>140310B12A</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		62		1.00	SG
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		69		68-140			
<b>Method Blank</b>	<b>099-15-304-633</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 48</b>	<b>03/10/14</b>	<b>03/11/14 17:33</b>	<b>140310B12A</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
n-Octacosane		70		68-140			

Return to Contents

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



Calscience

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/07/14  
Work Order: 14-03-0505  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: ExxonMobil 79374/022735C

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>W-14-B11</b>	<b>14-03-0505-1-E</b>	<b>03/05/14 14:00</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>03/07/14</b>	<b>03/07/14 20:39</b>	<b>140307B01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		89		38-134			
<b>W-14-B15</b>	<b>14-03-0505-2-E</b>	<b>03/05/14 11:45</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>03/07/14</b>	<b>03/07/14 21:12</b>	<b>140307B01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		86		38-134			
<b>Method Blank</b>	<b>099-12-436-9195</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>03/07/14</b>	<b>03/07/14 16:13</b>	<b>140307B01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		50		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		82		38-134			

Return to Contents

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



Calscience

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/07/14  
Work Order: 14-03-0505  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-14-B11	14-03-0505-1-a	03/05/14 14:00	Aqueous	GC/MS L	03/07/14	03/07/14 20:50	140307L04

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	68-120	
Dibromofluoromethane	85	80-127	
1,2-Dichloroethane-d4	87	80-128	
Toluene-d8	95	80-120	

Return to Contents

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



Calscience

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/07/14  
Work Order: 14-03-0505  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
W-14-B15	14-03-0505-2-a	03/05/14 11:45	Aqueous	GC/MS L	03/07/14	03/07/14 21:17	140307L04

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	1.3	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	32	0.50	1.00	
Trichloroethene	2.6	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	68-120	
Dibromofluoromethane	85	80-127	
1,2-Dichloroethane-d4	90	80-128	
Toluene-d8	95	80-120	

Return to Contents

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

## Analytical Report

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/07/14  
Work Order: 14-03-0505  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: ExxonMobil 79374/022735C

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-880-1446	N/A	Aqueous	GC/MS L	03/07/14	03/07/14 11:20	140307L04

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	ND	0.50	1.00	
o-Xylene	ND	0.50	1.00	
p/m-Xylene	ND	0.50	1.00	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	68-120	
Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	117	80-128	
Toluene-d8	99	80-120	


  
Return to Contents

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





Calscience

## Quality Control - Spike/Spike Duplicate

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/07/14  
Work Order: 14-03-0505  
Preparation: EPA 5030C  
Method: EPA 8015B (M)

Project: ExxonMobil 79374/022735C

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-03-0504-1	Sample	Aqueous	GC 22	03/07/14	03/07/14 17:20	140307S01
14-03-0504-1	Matrix Spike	Aqueous	GC 22	03/07/14	03/07/14 17:53	140307S01
14-03-0504-1	Matrix Spike Duplicate	Aqueous	GC 22	03/07/14	03/07/14 18:26	140307S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1847	92	1835	92	68-122	1	0-18	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/07/14  
Work Order: 14-03-0505  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 79374/022735C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-03-0461-1	Sample	Aqueous	GC/MS L	03/07/14	03/07/14 11:47	140307S01
14-03-0461-1	Matrix Spike	Aqueous	GC/MS L	03/07/14	03/07/14 13:35	140307S01
14-03-0461-1	Matrix Spike Duplicate	Aqueous	GC/MS L	03/07/14	03/07/14 14:02	140307S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	10.05	101	10.02	100	76-124	0	0-20	
Toluene	ND	10.00	10.11	101	9.921	99	80-120	2	0-20	
Ethylbenzene	ND	10.00	10.69	107	10.56	106	78-126	1	0-20	
o-Xylene	ND	10.00	10.61	106	10.54	105	70-130	1	0-30	
p/m-Xylene	ND	20.00	21.06	105	20.89	104	70-130	1	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	8.178	82	8.355	84	67-121	2	0-49	
Tert-Butyl Alcohol (TBA)	ND	50.00	60.66	121	53.53	107	36-162	12	0-30	
Diisopropyl Ether (DIPE)	ND	10.00	8.601	86	8.887	89	60-138	3	0-45	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	8.488	85	8.701	87	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.748	97	9.697	97	65-120	1	0-20	
1,2-Dibromoethane	ND	10.00	9.907	99	10.02	100	80-120	1	0-20	
1,2-Dichloroethane	ND	10.00	9.784	98	9.812	98	80-120	0	0-20	
Trichloroethene	ND	10.00	9.983	100	9.661	97	77-120	3	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Cardno	Date Received:	03/07/14
601 North McDowell Blvd.	Work Order:	14-03-0505
Petaluma, CA 94954-2312	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-278-549	LCS	Aqueous	GC 48	03/10/14	03/11/14 18:20	140310B13			
099-15-278-549	LCSD	Aqueous	GC 48	03/10/14	03/11/14 18:36	140310B13			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	2000	1905	95	1931	97	75-117	1	0-13	

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/07/14  
Work Order: 14-03-0505  
Preparation: EPA 3510C  
Method: EPA 8015B (M)

Project: ExxonMobil 79374/022735C

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-304-633	LCS	Aqueous	GC 48	03/10/14	03/11/14 17:49	140310B12A			
099-15-304-633	LCSD	Aqueous	GC 48	03/10/14	03/11/14 18:04	140310B12A			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	1706	85	1721	86	75-117	1	0-13	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno	Date Received:	03/07/14
601 North McDowell Blvd.	Work Order:	14-03-0505
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C		Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-12-436-9195</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>03/07/14</b>	<b>03/07/14 16:47</b>	<b>140307B01</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	1739	87	78-120	


  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Cardno  
601 North McDowell Blvd.  
Petaluma, CA 94954-2312

Date Received: 03/07/14  
Work Order: 14-03-0505  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil 79374/022735C

Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-880-1446</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>03/07/14</b>	<b>03/07/14 10:17</b>	<b>140307L04</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	10.05	100	80-120	73-127	
Toluene		10.00	10.38	104	80-120	73-127	
Ethylbenzene		10.00	11.22	112	80-120	73-127	
o-Xylene		10.00	11.03	110	75-125	67-133	
p/m-Xylene		20.00	22.33	112	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)		10.00	8.981	90	69-123	60-132	
Tert-Butyl Alcohol (TBA)		50.00	52.48	105	63-123	53-133	
Diisopropyl Ether (DIPE)		10.00	10.05	100	59-137	46-150	
Ethyl-t-Butyl Ether (ETBE)		10.00	9.071	91	69-123	60-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	8.996	90	70-120	62-128	
1,2-Dibromoethane		10.00	9.898	99	79-121	72-128	
1,2-Dichloroethane		10.00	11.38	114	80-120	73-127	
Trichloroethene		10.00	10.57	106	79-127	71-135	

Total number of LCS compounds: 13

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

## Sample Analysis Summary Report

Work Order: 14-03-0505

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3510C	847	GC 48	1
EPA 8015B (M)	EPA 5030C	834	GC 22	2
EPA 8260B	EPA 5030C	316	GC/MS L	2

## Glossary of Terms and Qualifiers

Work Order: 14-03-0505

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
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 stdns.
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  $\leq 15$  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.





0505



WebShip >>>>  
800-322-5555 www.gso.com

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

Tracking #: 524084969



NPS

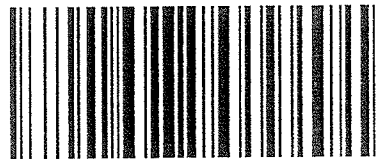
Ship To:  
SAMPLE RECEIVING  
CEL  
7440 LINCOLN WAY  
GARDEN GROVE, CA 92841

ORC  
GARDEN GROVE

A

COD:  
\$0.00

D92843A



21965034

Reference:  
CARDNC ERI

Delivery Instructions:

Signature Type:  
SIGNATURE REQUIRED

Print Date : 03/06/14 15:33 PM

Package 1 of 1

Send Label To Printer  Print All Edit Shipment Finish

LABEL INSTRUCTIONS:

- Do not copy or reprint this label for additional shipments - each package must have a unique barcode.
- STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
- STEP 2 - Fold this page in half.
- STEP 3 - Securely attach this label to your package, do not cover the barcode.
- STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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**SAMPLE RECEIPT FORM**

Cooler 1 of 1

CLIENT: Cardno ERI

DATE: 03/07/14

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.9 °C - 0.3 °C (CF) = 1.6 °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.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:  Air  Filter

Checked by: 836

**CUSTODY SEALS INTACT:**

Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A Checked by: 836

Sample  \_\_\_\_\_  No (Not Intact)  Not Present Checked by: 603

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  EnCores®  TerraCores®  \_\_\_\_\_

**Aqueous:**  VOA  VOA<sup>h</sup>  VOA<sub>na2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs

500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  1PBna  500PB

250PB  250PBn  125PB  125PBz<sub>nna</sub>  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

**Air:**  Tedlar®  Canister **Other:**  \_\_\_\_\_ **Trip Blank Lot#:** \_\_\_\_\_ **Labeled/Checked by:** 603

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** 778

Preservative: h: HCL n: HNO<sub>3</sub> na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> u: Ultra-pure z<sub>nna</sub>: ZnAc<sub>2</sub>+NaOH f: Filtered **Scanned by:** 603

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**APPENDIX D**  
**WASTE DISPOSAL DOCUMENTATION**

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.	Manifest Document No. <b>273505027016</b>	2. Page 1 of 1
3. Generator's Name and Mailing address <b>ExxonMobil Environmental Services/ c/o Cardno</b> 601 N. McDowell Blvd, Petaluma, CA 94954		4. Generator's Phone: (707) 766 2000		
5. Transporter 1 Company Name		6. US EPA ID Number	A. State Transporter's ID <b>707-766-2000</b>	
7. Transporter 2 Company Name		8. US EPA ID Number	B. Transporter 1 Phone	
9. Designated Facility Name and Site Address <b>INSTRAT INC.</b> 1105 C. AIRPORT ROAD RIO VISTA, CA 94571		10. US EPA ID Number	C. State Transporter's ID	
			D. Transporter 2 Phone	
			E. State Facility's ID	
			F. Facility's Phone <b>530-753-1829</b>	
11. WASTE DESCRIPTION		12. Containers	13. Total Quantity	14. Unit Wt./Vol.
a. <b>NON-HAZARDOUS PURGE WATER</b>		No. <b>01</b> Type <b>Tanker</b>	<b>111</b>	<b>GAL</b>
b.				
c.				
d.				
G. Additional Descriptions for Materials Listed Above		H. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information				
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.				
Printed/Typed Name <b>David Davids</b>		Signature <i>[Signature]</i>	Date Month <b>5</b> Day <b>9</b> Year <b>16</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials		Date		
Printed/Typed Name <b>CARL MIKLECH</b>		Signature <i>[Signature]</i>	Month <b>5</b> Day <b>10</b> Year <b>16</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials		Date		
Printed/Typed Name		Signature	Month Day Year	
19. Discrepancy Indication Space				
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.				
Printed/Typed Name <b>MICHAEL WHITEHEAD</b>		Signature <i>[Signature]</i>	Date Month <b>5</b> Day <b>10</b> Year <b>16</b>	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY



**APPENDIX E**  
**CORRESPONDENCE**



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

May 16, 2016

Ms. Jennifer Sedlachek  
ExxonMobil  
4096 Piedmont Ave., #194  
Oakland, CA 94611  
(Sent via E-mail to:  
[jennifer.c.sedlachek@exxonmobil.com](mailto:jennifer.c.sedlachek@exxonmobil.com))

Ms. Muriel Blank  
Blank Family Trust  
1164 Solano Ave., #406  
Albany, CA 94706

Subject: Request for Interim Vapor Intrusion Evaluation; Fuel Leak Case No. RO0002974 and GeoTracker Global ID T0619716673, Exxon, 990 San Pablo Ave., Albany, CA 94706

Dear Ms. Sedlachek and Ms. Blank:

Alameda County Department of Environmental Health (ACDEH) staff has reviewed the case file for the above referenced site including the *Response to Request for Work Plan and Remedial Progress Report*, dated March 24, 2016. The response was prepared and submitted on your behalf by Cardno. Thank you for submitting the reasoning and thoughts. They are appreciated, and help to move the site forward towards a common understanding of how to the site forward.

Based on a review and analysis of the correspondence and site data, ACDEH has modified its previous request, but also communicates reasoning behind previous requests. As with the previous letter, the order of the topics follows the previous letter. ACDEH requests that you address the following technical comments and send us the documents requested below.

#### **TECHNICAL COMMENTS**

- 1. Secondary Source Has Been Removed to the Extent Practicable** – ACDEH is in general agreement that the proposed corrective actions will reduce the currently undefined magnitude of secondary source contaminate concentrations in the former underground storage tank (UST) hold, and that documenting the satisfactory removal of that secondary source can await completion of corrective actions.
- 2. LTCP Media Specific Criteria for Groundwater** – ACDEH is in agreement that it is premature to initiate additional plume delineation to the west (wells MW8 and MW9), and is also in agreement that the subject site is not the source of Halogenated Volatile Organic Compounds (HVOCs) documented at the former Firestone facility at 969 San Pablo Avenue (RO0000119 and T0600101674), nor does it appear that Firestone is the source of HVOCs at the subject site. The HVOCs at each location appear to be sufficiently different, and can be distinguished as different, thereby indicating the likelihood of separate sources.

Please be aware that ACDEH remains sufficiently concerned in regards to the undefined southern extent of HVOCs. ACDEH acknowledges that it appears that the City of Albany Fire Department and Police Station have imposed restrictive limitations on the ability to determine the extent of contamination towards the south of the subject site and the presence of an adequate level of protection to occupants of those buildings. This was not previously known or understood. ACDEH appreciates the appropriateness and cost-effectiveness of the offer to reanalyze groundwater laboratory analytical data from soil bores B8, B10 through B13, and B15 for tetrachloroethene (PCE) and trichloroethene (TCE) as a first step towards resolving the concern. Please be cognizant that if reanalysis is inconclusive, it may be appropriate to request and schedule a meeting of all parties in order to determine solutions and appropriate next steps.

- 3. Vapor Intrusion** – First, thank you for clarifying that the grade difference between the subject site and the neighboring downgradient offsite residential house is de minimus and not several feet as at appears on the Goggle Earth Street View. ACDEH also appreciates the appropriate use of a pathway endorsed by the Department of Substances Control (DTSC; essentially proceeding to corrective actions); however, is concerned with potential exposures to undetermined receptors during the interim period between discovery of the potential concern and implementation or completion of the corrective actions. The moderately extended time period proposed for remediation (differing from the Low Threat Closure Policy expectation that the removal of the secondary (residual) mass will be completed in one year or less) also factors into this concern.

A consequence of the proposed corrective action time period is the request for an interim evaluation of the site commercial building and the adjacent residential house for the potential of vapor intrusion. This includes the nature of the construction and layout of the building and house, identification of occupants, ages, and other critical risk factors, potential indoor air or sub-slab vapor sampling, and the determination of any appropriate and applicable short-term mitigation measures. Therefore, ACDEH requests a preliminary evaluation of the site building and adjacent house, and occupants, and the submittal of a vapor intrusion work plan, as necessary, by the date identified below.

- 4. HIT System Reporting and BAAQMD Site Specific Permit** – To accommodate the anticipated extended BAAQMD permit application process, ACDEH has extended the submittal timelines listed below. Should additional extensions be required, please notify the undersigned with the reason for the extension in order for the site to remain in compliance with state regulations.
- 5. Groundwater Monitoring and Analytical Data** – Thank you for including additional analytes in the data tables. The time invested is anticipated to expedite the review and understanding of the site and submittals.

#### **TECHNICAL REPORT REQUEST**

Please upload technical reports to the ACDEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below, according to the following schedule:

- **July 15, 2016** – Second Quarter 2016 Semi-Annual Groundwater Monitoring;  
File to be named: RO2974\_GWM\_REM\_R\_yyyy-mm-dd
- **July 29, 2016** – Vapor Intrusion Evaluation; Work Plan  
File to be named: RO2974\_WP\_R\_yyyy-mm-dd
- **September 23, 2016** – Remedial Progress Report  
File to be named: RO2974\_REM\_R\_yyyy-mm-dd
- **60 Days After Work Plan Approval** – Site Investigation Report  
File to be named: RO2974\_SWI\_R\_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>. If your email address is not listed on the first page of this letter, or in the list of cc's listed below, ACDEH is requesting your email address to help expedite communications and to help lower overall costs.



Ms. Sedlachek and Mrs. Blank  
RO0002974  
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ACDEH appreciates work progress at the site and your cooperation. Should you have additional questions, please contact me at (510) 567--6876 or send me an electronic mail message at [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org).

Sincerely,



Digitally signed by Mark Detterman  
DN: cn=Mark Detterman, o=ACEH,  
ou=ACEH,  
email=mark.detterman@acgov.org, c=US  
Date: 2016.05.16 14:01:41 -07'00'

Mark E. Detterman, PG, CEG  
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations and  
Electronic Report Upload (ftp) Instructions

cc: Scott Perkins, Cardno, 601 North McDowell Blvd., Petaluma, CA 94954  
(Sent via E-mail to: [scott.perkins@cardno.com](mailto:scott.perkins@cardno.com))

David Daniels, Cardno, 601 North McDowell Blvd., Petaluma, CA 94954  
(Sent via E-mail to: [david.daniels@cardno.com](mailto:david.daniels@cardno.com))

Mrs. Marcia B. Kelly, 641 SW Morningside Rd., Topeka, KS 66615  
(Sent via E-mail to: [marciabkelly@earthlink.net](mailto:marciabkelly@earthlink.net))

Rev. Deborah Blank, 1563 Solano Ave. #344, Berkeley, CA 94707  
(Sent via E-mail to: [miracoli@earthlink.net](mailto:miracoli@earthlink.net))

Dilan Roe, ACDEH, (sent via electronic mail to [dilan.roe@acgov.org](mailto:dilan.roe@acgov.org))  
Mark Detterman, ACDEH, (sent via electronic mail to [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org))  
Electronic File, GeoTracker

## Attachment 1

### Responsible Party(ies) Legal Requirements / Obligations

#### REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

#### ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)).

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

#### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

#### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

#### AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>REVISION DATE:</b> May 15, 2014
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

## REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

## Submission Instructions

- 1) Obtain User Name and Password
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org)
  - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.