ExxonMobil
Environmental Services Company
4096 Piedmont Avenue #194
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Jennifer C. Sedlachek
Project Manager

RECEIVED
By Alameda County Environmental Health 3:04 pm, Apr 28, 2016

ExxonMobil

April 27, 2016

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

RE: Former Mobil RAS #99105/6301 San Pablo Avenue, Oakland, California.

Dear Ms. Detterman:

Attached for your review and comment is a copy of the letter report entitled ***Groundwater and Soil Vapor Sampling Reporting, First Quarter 2016***, dated April 27, 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 and Soil Vapor Sampling Reporting, First Quarter 2016***, dated April 27, 2016

cc: w/ attachment
Mr. Leroy Griffin, Oakland Fire Department
Messrs. On Dan and Nathan Lam

w/o attachment
Mr. Scott Perkins, Cardno

April 27, 2016
Cardno 2783C.Q161

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Ms. Jennifer C. Sedlachek
ExxonMobil Environmental Services Company
4096 Piedmont Avenue, #194
Oakland, California 94611

SUBJECT **Groundwater and Soil Vapor Monitoring Report, First Quarter 2016**
Former Mobil Service Station 99105
6301 San Pablo Avenue, Oakland, California

INTRODUCTION

At the request of ExxonMobil Environmental Services (EMES), on behalf of ExxonMobil Oil Corporation, Cardno performed first quarter 2016 groundwater and soil vapor monitoring and sampling activities at the subject site. Relevant plates, graphs, tables, and appendices are included at the end of this report. Currently, the site operates as an oil change facility.

GROUNDWATER MONITORING AND SAMPLING SUMMARY

Gauging and sampling date:		03/25/16
Wells gauged and sampled:		MW2, MW3, MW5 through MW8
Presence of NAPL:		None
Groundwater flow direction:		Southwest
Laboratory:		Eurofins Calscience, Inc., Garden Grove, California
Analyses performed:	EPA Method 8015B	TPHd, TPHg
	EPA Method 8260B	BTEX, MTBE, TAME, TBA, DIPE, EDB, 1,2-DCA, ETBE
Waste disposal:	108 gallons purge and decon water delivered to Instrat, Inc. of Rio Vista, California, on 04/25/16	

SOIL VAPOR MONITORING AND SAMPLING SUMMARY

Screening and sampling date:	03/25/16
Wells monitored:	VW1 through VW5

RESULTS

Dissolved-phase concentrations show overall stable or decreasing trends, with the exception of concentrations in well MW8. Concentrations in well MW8 have increased less than one order of magnitude to the highest concentrations to date of TPHd (1,200 µg/L), TPHg (4,000 µg/L), and benzene (160 µg/L). Dissolved-phase concentrations are limited in extent and adequately delineated:

- Toward the north by former well MW1.
- Toward the northwest by well MW2.
- Toward the west by borings B6 through B8 and AB11.
- Toward the east by well MW6.

PID measurements from the soil vapor samples have not shown a significant decrease since the feasibility study performed in 2014 (Cardno ERI, 2014).

CONCLUSIONS AND RECOMMENDATIONS

Soil vapor monitoring wells have been monitored for 1.5 years following the DPE feasibility study conducted in August 2014 (Cardno ERI, 2014). It does not appear that the DPE event caused a significant reduction in the soil vapor concentrations. Further review of the DPE feasibility data and the subsequent soil vapor data indicate that additional remediation by DPE is not likely to reduce the reported soil vapor concentrations. The vapor flow rate extracted from the subsurface (approximately 25 scfm) does not appear to be adequate to remove the residual concentrations from the underlying soil.

Cardno recommends installing and sampling shallow (approximately 2 feet bgs) soil vapor wells to further evaluate the potential for vapor intrusion at the site.

In Cardno's opinion, the soil vapor concentrations are the primary obstacle to closure and a site-specific risk evaluation is warranted given the current land use.

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 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 or at (707) 766-2000 with any questions regarding this report.

Sincerely,

Christine M. Capwell
Senior Technical Editor
for Cardno
707 766 2000
Email: christine.capwell@cardno.com

David R. Daniels
P.G. 8737
for Cardno
707 766 2000
Email: david.daniels@cardno.com

Enclosures:

References
Acronym List

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Appendix A	Groundwater Sampling Protocol
Appendix B	Field Data Sheets
Appendix C	Laboratory Analytical Report
Appendix D	Waste Disposal Documentation

cc: Ms. Karel Detterman, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, 2nd Floor, Alameda, California, 94502

Mr. Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa, Suite 3341, Oakland, California, 94612

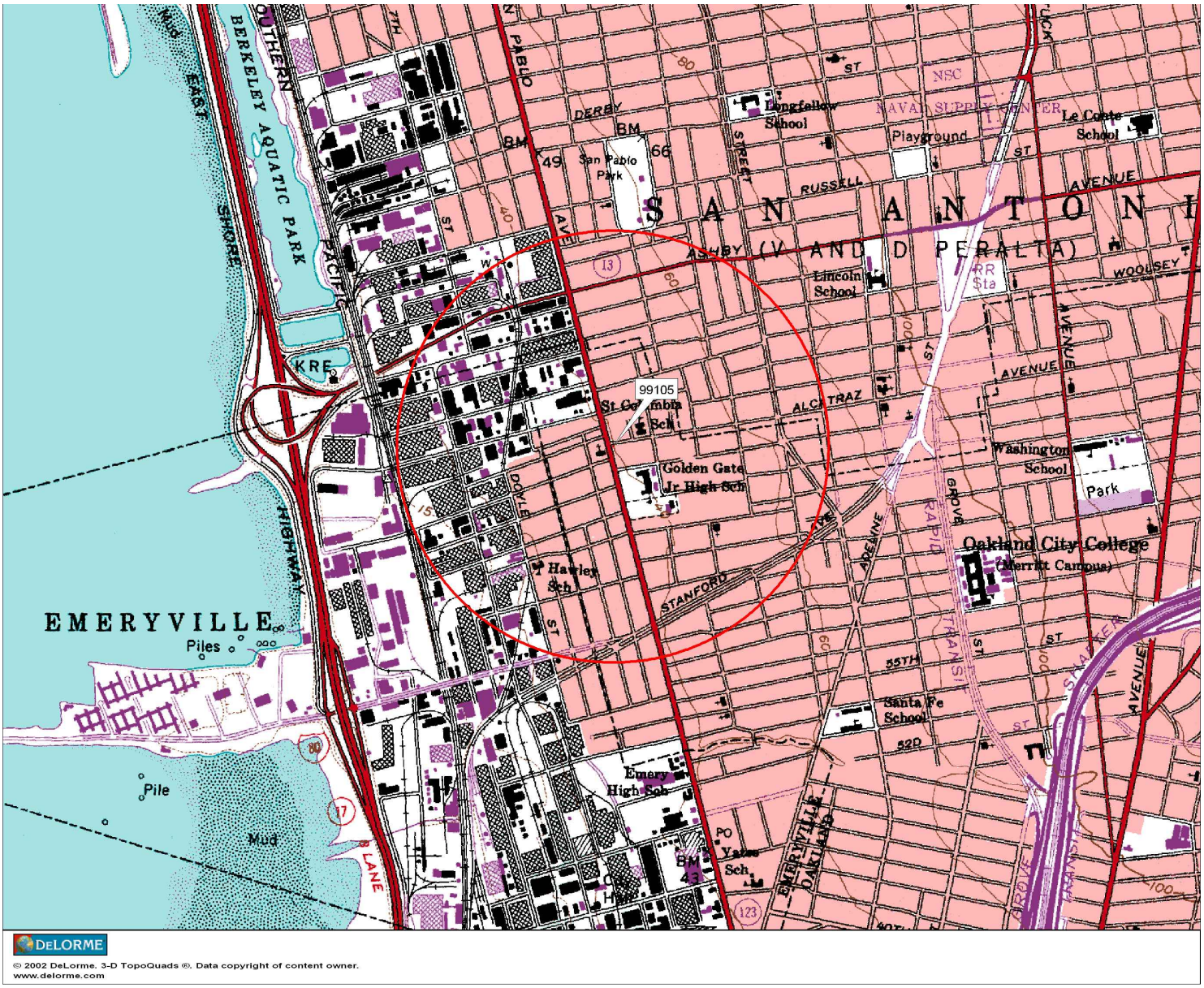
Messrs. On Dan and Nathan Lam, 200 El Dorado Terrace, San Francisco, California, 94112

REFERENCES

Cardno ERI. September 10, 2014. *Well Installation and Feasibility Study, Former Mobil Service Station 99105, 6301 San Pablo Avenue, Oakland, California.*

ACRONYM LIST

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



FN 2783TOPO

EXPLANATION

1/2-mile radius circle

N

APPROXIMATE SCALE

0 0.5 1 mile

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

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SITE VICINITY MAP

FORMER MOBIL SERVICE STATION 99105
6301 San Pablo Avenue
Oakland, California

PROJECT NO.
2783

PLATE
1

Analyte Concentrations in ug/L
Sampled March 25, 2016

Total Petroleum Hydrocarbons as diesel

Total Petroleum Hydrocarbons as gasoline

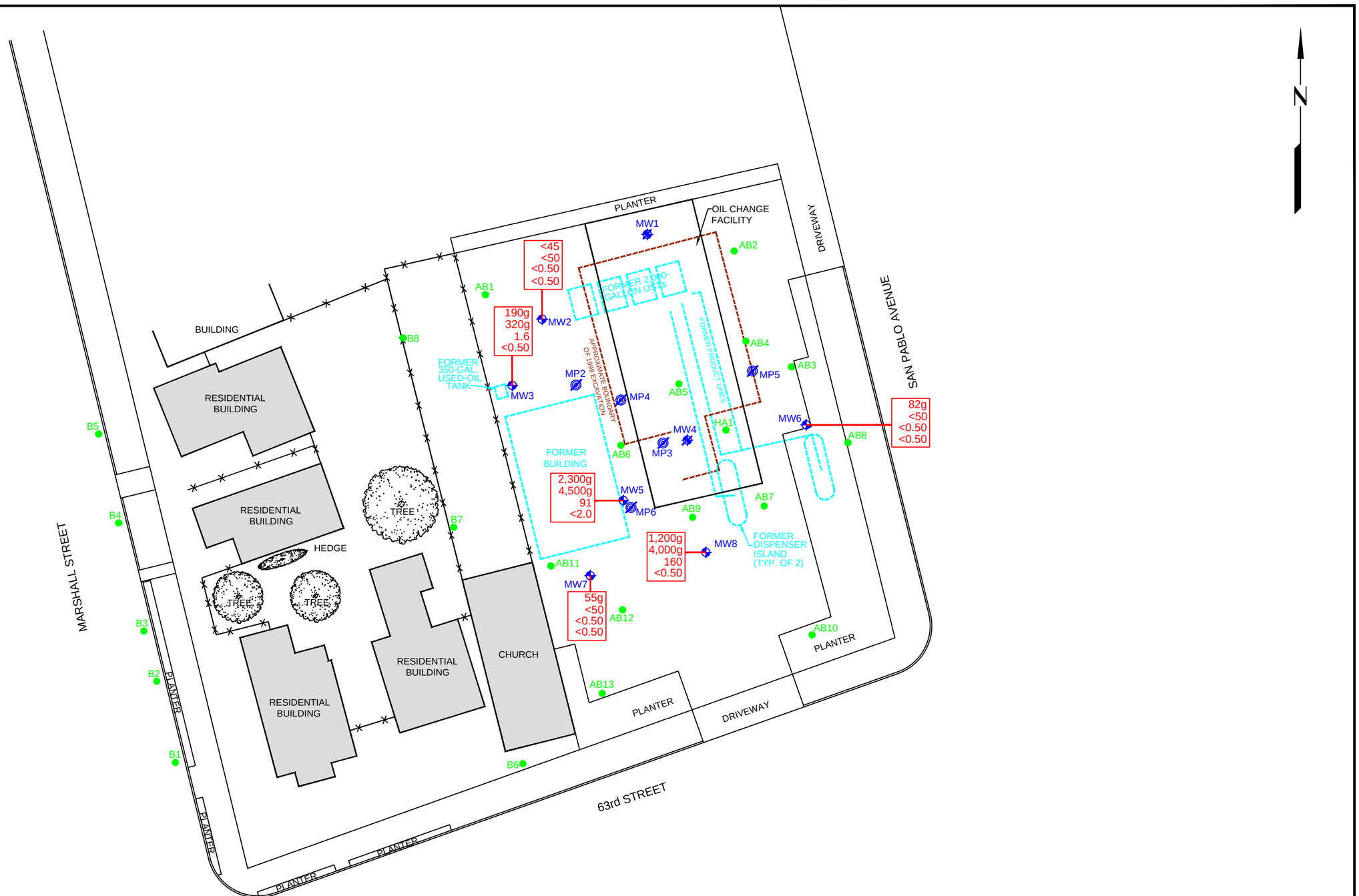
Benzene

Methyl Tertiary Butyl Ether

< Less than the Stated Laboratory Reporting Limit

ug/L Micrograms per Liter

g Chromatographic pattern does not match that of the specified standard.



APPROXIMATE SCALE

0 30 60 Feet

FN 2783 16 1QTR QM

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SELECT ANALTYICAL RESULTS
March 25, 2016

FORMER MOBIL SERVICE STATION 99105
6301 San Pablo Avenue
Oakland, California

EXPLANATION

MW8 Groundwater Monitoring Well

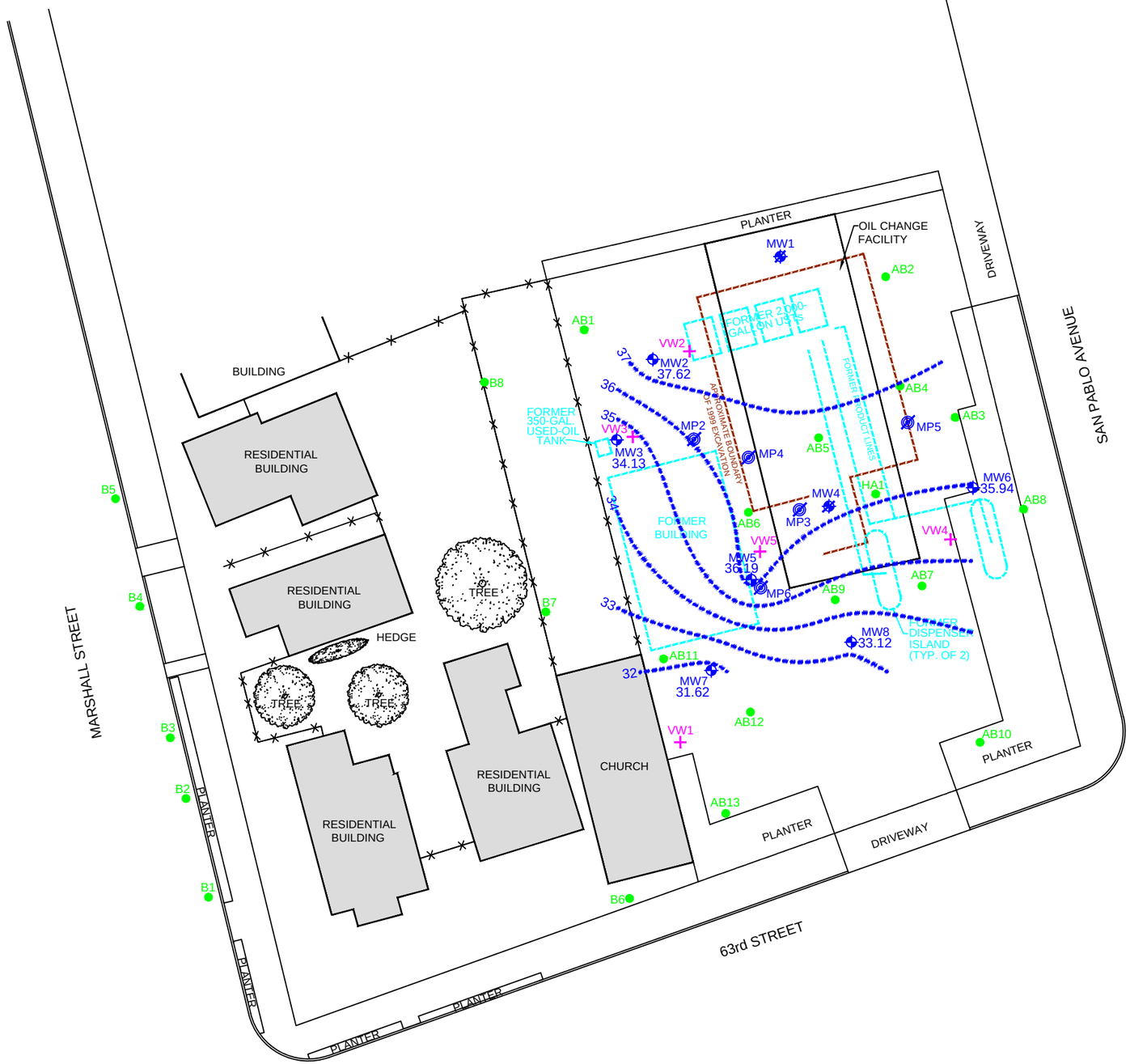
AB13 Soil Boring

MW4 Destroyed Groundwater Monitoring Well

MP6 Destroyed Observation Well

PROJECT NO.
2783

PLATE
2



APPROXIMATE SCALE

0 30 60 Feet

FN 2783 16 1QTR QM

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GROUNDWATER ELEVATION MAP
February 25, 2016

FORMER MOBIL SERVICE STATION 99105
6301 San Pablo Avenue
Oakland, California

EXPLANATION

- MW8 — Groundwater Monitoring Well
- 33.12 — Groundwater elevation in feet; datum is mean sea level
- MW4 — Destroyed Groundwater Monitoring Well
- MP6 — Destroyed Observation Well
- AB13 — Soil Boring
- 37 — Line of Equal Groundwater Elevation; datum is mean sea level
- VW5 — Soil Vapor Sampling Well

PROJECT NO. 2783

PLATE 3

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Sampling Date		TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (February 2016)														
Tier 1			---	---	---	---	100	100	5	5	1	40	13	20
MW1	03/14/96		32.79	4.50	28.29	No	**450**	**610**	---	---	0.75	0.54	1.5	**59**
MW1	05/21/96		32.79	5.64	27.15	No	ND	ND	---	---	ND	ND	ND	ND
MW1	08/13/96		32.79	9.76	23.03	No	ND	ND	---	---	ND	ND	ND	ND
MW1	11/08/96		32.79	10.24	22.55	No	ND	ND	ND	---	ND	0.92	ND	2.1
MW1	01/31/97		32.79	3.83	28.96	No	ND	ND	2.6	ND	ND	0.85	ND	ND
MW1	04/22/97		32.79	9.14	23.65	No	ND	ND	ND	---	ND	ND	ND	ND
MW1	07/29/97	a	32.79	10.18	22.61	No	60e	ND	**36**	---	0.84	0.95	ND	1.6
MW1	10/09/97	a	32.79	10.46	22.33	No	56e	ND	ND	---	ND	ND	ND	ND
MW1	01/23/98	a	32.79	3.95	28.84	No	33	ND	ND	---	ND	ND	ND	ND
MW1	04/22/98		32.79	5.33	27.46	No	ND	ND	ND	---	ND	ND	ND	ND
MW1	07/21/98		32.79	9.17	23.62	No	---	ND	ND	---	ND	ND	ND	ND
MW1	10/20/98		32.79	10.41	22.38	No	---	ND	ND	---	ND	ND	ND	ND
MW1	01/27/99		32.79	5.51	27.28	No	---	ND	ND	---	ND	ND	ND	ND
MW1	Apr-99		Destroyed during construction activities.											
MW2	03/14/96		32.80	4.51	28.29	No	**250**	**560**	---	---	**2.0**	0.96	4.3	11
MW2	05/21/96		32.80	5.65	27.15	No	**560**	**730**	---	---	**5.1**	1.4	6.7	5.9
MW2	08/13/96		32.80	10.14	22.66	No	**380b**	**490**	---	---	**25**	3.5	7.2	13
MW2	11/08/96		32.80	10.70	22.10	No	**160d**	**520**	**6.1**	---	**80**	2.7	14	**66**
MW2	01/31/97		32.80	3.84	28.96	No	**130b**	74	ND	---	ND	ND	ND	ND
MW2	04/22/97		32.80	9.61	23.19	No	**430**	**260**	ND	---	**2.7**	ND	2.5	ND
MW2	07/29/97	a	32.80	10.53	22.27	No	**150d**	**320**	ND	---	**28**	1.2	10	ND
MW2	10/09/97	a	32.80	10.87	21.93	No	**160b**	**460**	2.6	---	**43**	2.8	2.0	2.6
MW2	01/23/98	a	32.80	3.75	29.05	No	54	ND	ND	---	ND	ND	ND	ND
MW2	04/22/98		32.80	5.36	27.44	No	**540**	**180**	ND	---	**1.2**	0.3	0.4	ND
MW2	07/21/98		32.80	9.55	23.25	No	---	80	ND	---	**8.9**	2.1	0.6	2.5
MW2	10/20/98		32.80	10.75	22.05	No	---	50	ND	---	0.8	0.7	ND	0.8
MW2	01/27/99		32.80	5.53	27.27	No	---	ND	ND	---	0.6	ND	ND	ND
MW2	07/27/99		32.80	6.20	26.60	No	---	ND	ND	---	ND	0.6	ND	ND
MW2	12/08/99		32.80	9.98	22.82	No	---	ND	ND	---	**1.2**	0.43	ND	ND
MW2	10/25/00		39.34	11.30	28.04	No	---	<20	<0.30	---	**2.0**	0.59	0.46	1.3
MW2	01/15/01		39.34	9.41	29.93	No	---	<20	<0.30	---	<0.20	0.46	<0.20	<0.60
MW2	04/10/01		39.34	6.16	33.18	No	---	23	<1.0	---	0.28	<0.20	<0.20	<0.60
MW2	07/24/01		39.34	10.70	28.64	No	---	<50	<0.30	---	<0.20	0.93	<0.20	0.82
MW2	11/27/01		39.34	10.15	29.19	No	---	<50	<0.30	---	**1.2**	0.22	<0.20	<0.60
MW2	01/18/02		41.99	5.46	36.53	No	---	<50.0	1.40	---	<0.50	<0.50	<0.50	<0.50
MW2	04/10/02		41.99	6.48	35.51	No	---	<50.0	1.80	---	<0.50	<0.50	<0.50	<0.50
MW2	07/12/02		41.99	10.45	31.54	No	---	<50.0	<0.50	---	<0.50	<0.50	<0.50	<0.50

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Sampling Date		TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (February 2016)														
Tier 1			---	---	---	---	100	100	5	5	1	40	13	20
MW2	10/14/02		41.99	11.46	30.53	No	---	<50.0	<0.5	---	<0.5	4.1	0.6	4.0
MW2	01/20/03		41.99	5.39	36.60	No	---	<50.0	0.6	---	<0.50	<0.50	<0.50	<0.50
MW2	04/28/03		41.99	5.87	36.12	No	---	<50.0	<0.50	---	<0.50	<0.50	<0.50	<0.50
MW2	07/15/03		41.99	10.31	31.68	No	---	<50	<0.5	---	<0.5	<0.5	<0.5	<0.5
MW2	10/08/03		41.99	11.20	30.79	No	---	<50	<0.5	---	<0.5	<0.5	<0.5	<0.5
MW2	01/15/04		41.99	5.36	36.63	No	---	63.3	1.0	---	0.70	<0.5	<0.5	<0.5
MW2	Well not sampled from 2004 to 2010.													
MW2	09/17/10		41.99	10.72	31.27	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	12/15/10		42.24	Well resurveyed.										
MW2	09/14/11		42.24	10.02	32.22	No	**110g**	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/18/12		42.24	11.24	31.00	No	---	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/27/12		42.24	9.65	32.59	No	<50	---	---	---	---	---	---	---
MW2	07/09/12		42.24	10.07	32.17	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/25/13		42.24	5.62	36.62	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	08/23/13		42.24	10.76	31.48	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/10/14		42.24	11.42	30.82	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	07/14/14		42.24	10.52	31.72	No	<49	<50	---	<0.50	<0.50	<0.50	<0.50	0.52
MW2	08/18/14		42.24	11.06	31.18	No	---	---	---	---	---	---	---	---
MW2	11/06/14		42.24	---	---	---	---	---	---	---	---	---	---	---
MW2	01/23/15		42.24	6.10	36.14	No	<50	62g	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	06/26/15		42.24	---	---	---	---	---	---	---	---	---	---	---
MW2	08/14/15		42.24	11.45	30.79	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	03/25/16		42.24	4.62	37.62	No	<45	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW3	03/14/96		32.80	9.55	23.25	No	**1,200**	**4,200**	---	---	**220**	30	**140**	**520**
MW3	05/21/96		32.80	10.16	22.64	No	**2,800**	**8,500**	---	---	**710**	**110**	**440**	**1,700**
MW3	08/13/96		32.80	11.18	21.62	No	**2,300c**	**5,000**	---	---	**430**	ND	**200**	**360**
MW3	11/08/96		32.80	11.51	21.29	No	**2,900b**	**8,400**	**73**	ND	**890**	**82**	**790**	**1,700**
MW3	01/31/97		32.80	7.90	24.90	No	**7,500b**	**16,000**	ND	---	**660**	**85**	**960**	**1,800**
MW3	04/22/97		32.80	10.64	22.16	No	**2,700**	**8,000**	**200**	ND	**340**	33	**400**	**490**
MW3	07/29/97	a	32.80	11.36	21.44	No	**2,300b**	**9,800**	ND	---	**330**	ND	**530**	**530**
MW3	10/09/97	a	32.80	11.52	21.28	No	**2,600b**	**7,300**	**270**	ND	**300**	ND	**430**	**460**
MW3	01/23/98	a	32.80	7.50	25.30	No	**2,300**	**6,100**	ND	---	**190**	23	**330**	**320**
MW3	04/22/98		32.80	6.81	25.99	No	**2,600**	**4,900**	ND	ND	**140**	12	**250**	**230**
MW3	07/21/98		32.80	10.65	22.15	No	---	**7,400**	**74**	ND	**250**	16	**400**	**370**
MW3	10/20/98		32.80	11.57	21.23	No	---	**6,700**	ND	ND	**200**	18	**350**	**350**
MW3	01/27/99		32.80	9.11	23.69	No	---	**3,100**	**13**	---	**74**	4	**94**	**39**
MW3	07/27/99		32.80	7.27	25.53	No	---	**8,900**	ND	---	**170**	21	**360**	**440**

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (February 2016)													
Tier 1		---	---	---	---	100	100	5	5	1	40	13	20
MW3	12/08/99	32.80	10.63	22.17	No	---	**4,800**	ND	---	**94**	13	**170**	**210**
MW3	10/25/00	39.27	12.08	27.19	No	---	**3,800**	**<50**	<5	**63**	2.9	**100**	**65**
MW3	01/15/01	39.27	10.29	28.98	No	---	**4,300**	<5.0	---	**76**	9.5	**47**	**76**
MW3	04/10/01	39.27	10.11	29.16	No	---	**2,700**	**<20**	---	**55**	4.4	**100**	**37**
MW3	07/24/01	39.27	11.57	27.70	No	---	**3,100**	<1.0	---	**110**	6.9	**110**	**81**
MW3	11/27/01	39.27	10.93	28.34	No	---	**2,400**	<0.30	---	**47**	8.9	**25**	**35**
MW3	01/18/02	41.71	9.47	32.24	No	---	**1,130**	**13.6**	---	**15.3**	2.30	**42.0**	**24.6**
MW3	04/10/02	41.71	10.14	31.57	No	---	**916**	**11.2**	---	**35.1**	3.00	**22.5**	13.8
MW3	07/12/02	41.71	11.34	30.37	No	---	**2,330**	**15.4**	---	**60.5**	2.90	**39.8**	**50.9**
MW3	10/14/02	41.71	12.10	29.61	No	---	**2,550**	<0.5	---	**36.9**	3.8	**20.3**	**48.0**
MW3	01/20/03	41.71	9.20	32.51	No	---	**1,750**	**10.7**	---	**20.4**	**304.0**	**60.7**	**22.0**
MW3	04/28/03	41.71	9.37	32.34	No	---	**2,730**	**11.2**	---	**10.0**	2.7	**42.7**	**20.1**
MW3	07/15/03	41.71	11.15	30.56	No	---	**1,790**	**5.6**	---	**68.8**	3.6	**39.0**	**44.7**
MW3	10/08/03	41.71	11.89	29.82	No	---	**1,320**	**7.1**	---	**35.1**	4.0	**23.6**	**31.8**
MW3	01/15/04	41.71	9.16	32.55	No	---	**791**	3.4	---	**24.4**	1.3	**40.1**	14.7
MW3	Well not sampled from 2004 to 2010.												
MW3	09/17/10	41.71	11.46	30.25	No	99	**2,500**	---	<0.50	**2.6**	0.31f	1.8	1.8
MW3	12/15/10	42.18	Well resurveyed.										
MW3	09/14/11	42.18	11.37	30.81	No	**270g**	**1,200**	---	<0.50	**18**	0.95	1.7	1.3
MW3	01/18/12	42.18	12.11	30.07	No	---	**910g**	---	<0.50	0.89	<0.50	<0.50	0.88
MW3	01/27/12	42.18	10.18	32.00	No	**1,000g**	---	---	---	---	---	---	---
MW3	07/09/12	42.18	11.15	31.03	No	**420g**	**350g**	---	<0.50	**7.9**	<0.50	<0.50	<0.50
MW3	01/25/13	42.18	9.41	32.77	No	**120g**	**390g**	---	<0.50	**2.8**	<0.50	<0.50	<0.50
MW3	08/23/13	42.18	11.67	30.51	No	**310g**	**640**	---	<0.50	**1.1**	<0.50	<0.50	<0.50
MW3	01/10/14	42.18	12.13	30.05	No	**160g**	**720g**	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW3	07/14/14	42.18	11.55	30.63	No	**320g**	**1,100g**	---	<0.50	**1.8**	<0.50	<0.50	0.53
MW3	08/18/14	42.18	11.83	30.35	No	---	---	---	---	---	---	---	---
MW3	11/06/14	42.18	---	---	---	---	---	---	---	---	---	---	---
MW3	01/23/15	42.18	10.19	31.99	No	**440g**	**750g**	---	<0.50	**5.6**	1.7	0.79	1.0
MW3	06/26/15	42.18	---	---	---	---	---	---	---	---	---	---	---
MW3	08/14/15	42.18	12.25	29.93	No	**120g**	**710g**	---	<0.50	**2.0**	0.50	<0.50	1.3
MW3	03/25/16	42.18	8.05	34.13	No	**190g**	**320g**	---	<0.50	**1.6**	<0.50	0.91	<0.50
MW4	03/14/96	31.50	4.92	26.58	No	**3,500**	**12,000**	---	---	**2,200**	**140**	**880**	**2,000**
MW4	05/21/96	31.50	8.60	22.90	No	**4,200**	**11,000**	---	---	**1,700**	ND	**930**	**470**
MW4	08/13/96	31.50	10.02	21.50	0.02	---	---	---	---	---	---	---	---
MW4	11/08/96	31.50	10.28	21.33	0.15	---	---	---	---	---	---	---	---
MW4	01/31/97	31.50	7.88	23.62	No	**8,200b**	**23,000**	ND	---	**980**	**68**	**1,100**	**1,400**

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (February 2016)													
Tier 1		---	---	---	---	100	100	5	5	1	40	13	20
MW4	04/22/97	31.50	7.40	24.10	No	**4,500**	**8,800**	ND	---	**950**	ND	**610**	**130**
MW4	07/29/97	31.50	9.85	21.74	0.12	---	---	---	---	---	---	---	---
MW4	10/09/97	31.50	10.35	21.38	0.30	---	---	---	---	---	---	---	---
MW4	01/23/98	31.50	4.68	27.51	0.92	---	---	---	---	---	---	---	---
MW4	04/22/98	31.50	6.39	25.22	0.14	---	---	---	---	---	---	---	---
MW4	07/21/98	31.50	7.10	24.55	0.20	---	---	---	---	---	---	---	---
MW4	10/20/98	31.50	9.03	22.60	0.17	---	---	---	---	---	---	---	---
MW4	01/27/99	31.50	5.37	26.18	0.07	---	---	---	---	---	---	---	---
MW4	Apr-99	Destroyed during construction activities.											
MW5	10/25/00	39.18	10.92	28.26	No	---	**2,500**	**<20**	---	**79**	3.8	**66**	<20
MW5	01/15/01	39.18	8.32	30.86	No	---	**3,900**	<5.0	---	**120**	7.9	**280**	**52**
MW5	04/10/01	39.18	7.21	31.97	No	---	**8,000**	**<50**	<5	**280**	4.4	**410**	**100**
MW5	07/24/01	39.18	9.54	29.64	No	---	**7,000**	<1.0	---	**360**	7.4	**380**	**67**
MW5	11/27/01	39.18	8.84	30.34	No	---	**5,000**	**8.9**	<2	**64**	11	**340**	**52**
MW5	01/18/02	41.59	6.52	35.07	No	---	**6,330**	**21.8**	---	**99.1**	2.30	**103**	19.6
MW5	04/10/02	41.59	7.20	34.39	No	---	**2,140**	<2.50	---	**275**	8.00	**183**	**24.5**
MW5	07/12/02	41.59	8.83	32.76	No	---	**3,940**	**20**	<0.50	**350**	<0.50	**268**	14
MW5	10/14/02	41.59	10.74	30.85	No	---	**4,040**	<2.5	---	**98.5**	9.0	**169**	**29.0**
MW5	01/20/03	41.59	6.45	35.14	No	---	**7,660**	**59**	<0.50	**421**	10.0	**743**	**96.0**
MW5	04/28/03	41.59	6.68	34.91	No	---	**7,510**	**47**	<0.50	**403**	5.5	**524**	**50.5**
MW5	07/15/03	41.59	8.68	32.91	No	---	**6,080**	**52.9**	<2.5	**406**	19.8	**412**	**34.7**
MW5	10/08/03	41.59	10.56	31.03	No	---	**2,460**	**54.3**	<0.5	**160**	12.8	**173**	**31.7**
MW5	01/15/04	41.59	6.56	35.03	No	---	**4,630**	**37.4**	<0.5	**181**	6.0	**312**	**38.5**
MW5	Well not sampled from 2004 to 2010.												
MW5	09/17/10	41.59	9.99	31.60	No	**5,700**	**6,600**	---	<5.0	**19**	<5.0	**16**	1.4f
MW5	12/15/10	41.86	Well resurveyed.										
MW5	09/14/11	41.86	7.33	34.53	No	**1,600g**	**7,200**	---	<2.0	**23**	<2.0	8.6	<2.0
MW5	01/18/12	41.86	9.46	32.40	No	---	**3,600g**	---	<1.0	**14**	<1.0	7.6	<1.0
MW5	01/27/12	41.86	8.81	33.05	No	**3,100g**	---	---	---	---	---	---	---
MW5	07/09/12	41.86	8.91	32.95	Sheen	**29,000g**	**9,300g**	---	<2.5	**21**	<2.5	6.9	<2.5
MW5	01/25/13	41.86	6.01	35.85	Sheen	**22,000g**	**4,900g**	---	<2.0	**46**	<2.0	4.5	<2.0
MW5	08/23/13	41.86	9.12	32.74	No	**34,000g**	**17,000**	---	<2.0	**17**	<2.0	6.3	<2.0
MW5	01/10/14	41.86	10.30	31.56	No	**36,000g**	**62,000**	---	<2.0	**4.7**	<2.0	3.5	<2.0
MW5	07/14/14	41.86	8.70	33.16	No	**88,000g**	**90,000g**	---	<5.0	**100**	<5.0	12	<5.0
MW5	08/18/14	41.86	9.40	32.46	No	---	---	---	---	---	---	---	---
MW5	08/22/14	41.86	9.60	32.26	No	**5,800g**	**5,100**	---	<5.0	**520**	<5.0	**320**	**81**
MW5	11/06/14	41.86	---	---	---	---	---	---	---	---	---	---	---

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (February 2016)													
Tier 1		---	---	---	---	100	100	5	5	1	40	13	20
MW5	01/23/15	41.86	7.30	34.56	No	**19,000g**	**3,300g**	---	<5.0	**130**	<5.0	**65**	**26**
MW5	06/26/15	41.86	---	---	---	---	---	---	---	---	---	---	---
MW5	08/14/15	41.86	9.87	31.99	Sheen	**4,900g**	**10,000g**	---	<2.0	**27**	<2.0	**24**	17
MW5	03/25/16	41.86	5.67	36.19	No	**2,300g**	**4,500g**	---	<2.0	**91**	<2.0	**23**	8.3
MW6	08/18/14	42.00	Well surveyed.										
MW6	08/18/14	42.00	13.12	28.88	No	**350g**	**410g**	---	0.60	<0.50	<0.50	<0.50	<0.50
MW6	08/22/14	42.00	11.20	30.80	No	**1,000g**	**1,500g**	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW6	11/06/14	42.00	10.77	31.23	No	**640g**	**840g**	---	0.80	<0.50	<0.50	<0.50	<0.50
MW6	01/23/15	42.00	7.38	34.62	No	**170g**	**120g**	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW6	06/26/15	42.00	9.11	32.89	No	**160g**	**170g**	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW6	08/14/15	42.00	9.89	32.11	No	91g	**120g**	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW6	03/25/16	42.00	6.06	35.94	No	82g	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW7	08/18/14	41.34	Well surveyed.										
MW7	08/18/14	41.34	13.81	27.53	No	<51	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW7	08/22/14	41.34	Dry	---	---	---	---	---	---	---	---	---	---
MW7	11/06/14	41.34	11.73	29.61	No	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW7	01/23/15	41.34	10.81	30.53	No	57g	**140**	---	<0.50	**4.2**	2.8	6.4	6.1
MW7	06/26/15	41.34	10.28	31.06	No	49g	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW7	08/14/15	41.34	11.41	29.93	No	<47	58g	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW7	03/25/16	41.34	9.72	31.62	No	55g	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
MW8	08/18/14	41.30	Well surveyed.										
MW8	08/18/14	41.30	12.18	29.12	No	**440g**	**1,600**	---	<0.50	**39**	<0.50	**19**	**44**
MW8	08/22/14	41.30	13.10	28.20	No	**350g**	**950g**	---	<0.50	**5.7**	<0.50	4.2	6.4
MW8	11/06/14	41.30	10.96	30.34	No	**260g**	**910g**	---	<0.50	**54**	<0.50	**25**	11
MW8	01/23/15	41.30	6.83	34.47	No	**440g**	**1,000g**	---	<0.50	**110**	1.8	**19**	10
MW8	06/26/15	41.30	8.46	32.84	No	**650g**	**1,100**	---	<2.0	**100**	<2.0	**24**	6.2
MW8	08/14/15	41.30	9.85	31.45	No	**770g**	**2,000g**	---	<0.50	**92**	1.2	**14**	13
MW8	03/25/16	41.30	8.18	33.12	No	**1,200g**	**4,000g**	---	<0.50	**160**	1.6	**130**	**37**
Grab Groundwater Samples													
Former Gasoline Tank Cavity													
TW1	01/04/96	---	6.00	---	No	**700**	ND	---	---	ND	ND	ND	ND
Used-Oil Tank Cavity													
WW1	01/04/96	---	3.00	---	No	---	ND	---	---	ND	ND	ND	ND

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Sampling Date	TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	MTBE 8020/8021 (µg/L)	MTBE 8240/8260 (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Environmental Screening Levels (February 2016)													
Tier 1		---	---	---	---	100	100	5	5	1	40	13	20
AB1	03/05/98	---	4.5	---	No	---	**1,600**	ND	---	**31**	5.3	**79**	**130**
AB2	03/05/98	---	8.0	---	No	---	ND	ND	---	ND	2.9	0.9	5.7
AB3	03/05/98	---	5.5	---	No	---	**6,800**	**230**	---	**680**	**100**	**1,500**	**2,300**
AB4	03/05/98	---	4.0	---	No	---	**8,500**	ND	---	**240**	ND	**260**	**720**
AB6	03/05/98	---	4.5	---	No	---	**12,000**	ND	---	**350**	ND	**310**	**100**
AB9	03/05/98	---	6.0	---	No	---	**1,000**	ND	---	**57**	12	**44**	**93**
AB10	03/05/98	---	2.0	---	No	---	**200**	ND	---	**3.0**	1.2	3.2	2.8
AB11	03/05/98	---	8.5	---	No	---	ND	ND	---	ND	ND	ND	ND
AB12	03/05/98	---	6.0	---	No	---	**8,800**	**37**	---	**660**	50	**630**	**940**
AB13	03/05/98	---	8.0	---	No	---	**210**	ND	---	**11**	0.8	10	15
HA1	01/25/00	---	---	---	---	---	**<500**	<5.0	---	<0.3	<0.3	<0.3	<0.6
B1	11/18/10	---	Dry	---	---	---	---	---	---	---	---	---	---
B2	11/19/10	---	Dry	---	---	---	---	---	---	---	---	---	---
B3	11/19/10	---	8.45	---	---	<50	<50	---	<0.50	<0.50	<0.50	0.053f	0.21f
B4	11/19/10	---	Dry	---	---	---	---	---	---	---	---	---	---
B5	11/18/10	---	8.95	---	---	<50	<50	---	<0.50	<0.50	<0.50	0.047f	0.21f
W-15-B6	06/19/12	---	15	---	---	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
W-15-B7	06/19/12	---	15	---	---	<50	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50
W-9.5-B8	06/19/12	---	9.5	---	---	**230g**	<50	---	<0.50	<0.50	<0.50	<0.50	<0.50

TABLE 1A
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Notes:	Adapted from ETIC's *Report of Groundwater Monitoring, Third Quarter 2010* .	
TOC Elev.	=	Top of casing elevation.
DTW	=	Depth to water.
GW Elev.	=	Groundwater elevation.
NAPL	=	Non-aqueous phase liquid.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.
MTBE 8020/8021	=	Methyl tertiary butyl ether analyzed using EPA Method 8020 or 8021B.
MTBE 8240/8260	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B or 8240.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method 8260B.
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.
Ethanol	=	Ethanol analyzed using EPA Method 8260B.
ND	=	Not detected at or above the laboratory reporting limit.
µg/L	=	Micrograms per liter.
<	=	Less than the stated laboratory reporting limit.
---	=	Not analyzed/Not applicable.
a	=	Well sampled using no-purge method.
b	=	Diesel and unidentified hydrocarbons <C15.
c	=	Diesel and unidentified hydrocarbons <C15>C25.
d	=	Diesel and unidentified hydrocarbons >C20.
e	=	Unidentified hydrocarbons >C18.
f	=	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit.
g	=	Chromatographic pattern does not match that of the specified standard.

TABLE 1B
ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Sampling Date		DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
Environmental Screening Levels (February 2016)									
Tier 1			---	---	---	12	0.50	0.05	---
MW1	03/14/96	- 01/27/99	Not analyzed for these analytes						
MW1	Apr-99		Destroyed during construction activities.						
MW2	03/14/96	- 01/15/04	Not analyzed for these analytes						
MW2	09/17/10		<0.50	<0.50	<0.50	<10	<0.50	**<0.50**	---
MW2	09/14/11		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	<50
MW2	01/18/12		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	<50
MW2	01/27/12		---	---	---	---	---	---	---
MW2	07/09/12		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW2	01/25/13		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW2	08/23/13		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW2	01/10/14		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW2	07/14/14		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW2	08/18/14		---	---	---	---	---	---	---
MW2	08/22/14		---	---	---	---	---	---	---
MW2	11/06/14		---	---	---	---	---	---	---
MW2	01/23/15		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW2	06/26/15		---	---	---	---	---	---	---
MW2	08/14/15		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW2	03/25/16		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW3	03/14/96	- 01/15/04	Not analyzed for these analytes						
MW3	09/17/10		0.17f	<0.50	<0.50	9.8f	**1.9**	**<0.50**	---
MW3	09/14/11		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	<50
MW3	01/18/12		<0.50	<0.50	<0.50	**23**	<0.50	**<0.50**	<50
MW3	01/27/12		---	---	---	---	---	---	---
MW3	07/09/12		<0.50	<0.50	<0.50	9.1	**1.1**	**<0.50**	---
MW3	01/25/13		<0.50	<0.50	<0.50	9.6	**1.1**	**<0.50**	---
MW3	08/23/13		<0.50	<0.50	<0.50	7.2	**0.90**	**<0.50**	---
MW3	01/10/14		<0.50	<0.50	<0.50	**12**	**1.1**	**<0.50**	---
MW3	07/14/14		<0.50	<0.50	<0.50	11	**1.1**	**<0.50**	---
MW3	08/18/14		---	---	---	---	---	---	---
MW3	08/22/14		---	---	---	---	---	---	---
MW3	11/06/14		---	---	---	---	---	---	---
MW3	01/23/15		<0.50	<0.50	<0.50	8.1	**0.70**	**<0.50**	---
MW3	06/26/15		---	---	---	---	---	---	---
MW3	08/14/15		<0.50	<0.50	<0.50	<5.0	**1.3**	**<0.50**	---
MW3	03/25/16		<0.50	<0.50	<0.50	<5.0	**1.0**	**<0.50**	---

TABLE 1B
ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Sampling Date		DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
Environmental Screening Levels (February 2016)									
Tier 1			---	---	---	12	0.50	0.05	---
MW4	03/14/96	- 01/27/99	Not analyzed for these analytes						
MW4	Apr-99		Destroyed during construction activities.						
MW5	10/25/00	- 01/15/04	Not analyzed for these analytes						
MW5	09/17/10		<5.0	<5.0	<5.0	**<100**	**<5.0**	**<5.0**	---
MW5	09/14/11		<2.0	<2.0	<2.0	**25**	**<2.0**	**<2.0**	<200
MW5	01/18/12		<1.0	<1.0	<1.0	**37**	**<1.0**	**<1.0**	<100
MW5	01/27/12		---	---	---	---	---	---	---
MW5	07/09/12		<2.5	<2.5	<2.5	**36**	**<2.5**	**<2.5**	---
MW5	01/25/13		<2.0	<2.0	<2.0	**45**	**<2.0**	**<2.0**	---
MW5	08/23/13		<2.0	<2.0	<2.0	**42**	**<2.0**	**<2.0**	---
MW5	01/10/14		<2.0	<2.0	<2.0	**36**	**<2.0**	**<2.0**	---
MW5	07/14/14		<5.0	<5.0	<5.0	**<50**	**<5.0**	**<5.0**	---
MW5	08/18/14		---	---	---	---	---	---	---
MW5	08/22/14		<5.0	<5.0	<5.0	**<50**	**<5.0**	**<5.0**	---
MW5	11/06/14		---	---	---	---	---	---	---
MW5	01/23/15		<5.0	<5.0	<5.0	**<50**	**<5.0**	**<5.0**	---
MW5	06/26/15		---	---	---	---	---	---	---
MW5	08/14/15		<2.0	<2.0	<2.0	**23**	**<2.0**	**<2.0**	---
MW5	03/25/16		<2.0	<2.0	<2.0	<20	**<2.0**	**<2.0**	---
MW6	08/18/14		<0.50	<0.50	<0.50	**14**	**1.1**	**<0.50**	---
MW6	08/22/14		<0.50	<0.50	<0.50	**12**	<0.50	**<0.50**	---
MW6	11/06/14		<0.50	<0.50	<0.50	**14**	**1.3**	**<0.50**	---
MW6	01/23/15		<0.50	<0.50	<0.50	6.7	<0.50	**<0.50**	---
MW6	06/26/15		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW6	08/14/15		<0.50	<0.50	<0.50	<5.0	**0.59**	**<0.50**	---
MW6	03/25/16		<0.50	<0.50	<0.50	<5.0	<0.50	**<0.50**	---
MW7	08/18/14		<0.50	<0.50	<0.50	**21**	**3.1**	**<0.50**	---
MW7	08/22/14		Dry	---	---	---	---	---	---
MW7	11/06/14		<0.50	<0.50	<0.50	**15**	**3.9**	**<0.50**	---
MW7	01/23/15		<0.50	<0.50	<0.50	**23**	**5.1**	**<0.50**	---
MW7	06/26/15		<0.50	<0.50	<0.50	11	**3.4**	**<0.50**	---
MW7	08/14/15		<0.50	<0.50	<0.50	6.6	**2.5**	**<0.50**	---
MW7	03/25/16		<0.50	<0.50	<0.50	9.5	**1.9**	**<0.50**	---
MW8	08/18/14		<0.50	<0.50	<0.50	**20**	**0.78**	**<0.50**	---
MW8	08/22/14		<0.50	<0.50	<0.50	**31**	<0.50	**<0.50**	---

TABLE 1B
ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Sampling Date	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
Environmental Screening Levels (February 2016)								
Tier 1		---	---	---	12	0.50	0.05	---
MW8	11/06/14	<0.50	<0.50	<0.50	**34**	**2.8**	**<0.50**	---
MW8	01/23/15	<0.50	<0.50	<0.50	**20**	<0.50	**<0.50**	---
MW8	06/26/15	<2.0	<2.0	<2.0	**20**	**<2.0**	**<2.0**	---
MW8	08/14/15	<0.50	<0.50	<0.50	**15**	<0.50	**<0.50**	---
MW8	03/25/16	<0.50	<0.50	<0.50	**17**	<0.50	**<0.50**	---
Grab Groundwater Samples								
Not analyzed for these analytes prior to 2010.								
B1	11/18/10	---	---	---	---	---	---	---
B3	11/19/10	---	---	---	---	**8.7**	---	---
B4	11/19/10	---	---	---	---	---	---	---
B5	11/18/10	---	---	---	---	0.099f	---	---
W-15-B6	06/19/12	<0.50	<0.50	<0.50	<5.0	---	---	---
W-15-B7	06/19/12	<0.50	<0.50	<0.50	<5.0	---	---	---
W-9.5-B8	06/19/12	<0.50	<0.50	<0.50	<5.0	---	---	---

TABLE 1B
ADDITIONAL CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Notes:		Adapted from ETIC's *Report of Groundwater Monitoring, Third Quarter 2010* .
TOC Elev.	=	Top of casing elevation.
DTW	=	Depth to water.
GW Elev.	=	Groundwater elevation.
NAPL	=	Non-aqueous phase liquid.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.
MTBE 8020/8021	=	Methyl tertiary butyl ether analyzed using EPA Method 8020 or 8021B.
MTBE 8240/8260	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B or 8240.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method 8260B.
EDB	=	1,2-dibromoethane analyzed using EPA Method 8260B.
Ethanol	=	Ethanol analyzed using EPA Method 8260B.
ND	=	Not detected at or above the laboratory reporting limit.
µg/L	=	Micrograms per liter.
<	=	Less than the stated laboratory reporting limit.
---	=	Not analyzed/Not applicable.
a	=	Well sampled using no-purge method.
b	=	Diesel and unidentified hydrocarbons <C15.
c	=	Diesel and unidentified hydrocarbons <C15>C25.
d	=	Diesel and unidentified hydrocarbons >C20.
e	=	Unidentified hydrocarbons >C18.
f	=	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit.
g	=	Chromatographic pattern does not match that of the specified standard.

TABLE 2
WELL CONSTRUCTION DETAILS
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Well ID	Well Installation Date	Well Destruction Date	TOC Elevation (feet)	Well Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
MW1	03/01/96	Apr-99	32.79	PVC	21.5	21.5	10	4	5-20	0.010	4.5-21.5	#12 Sand
MW2	03/01/96	---	42.24	PVC	21.5	21.5	10	4	5-20	0.010	4.5-21.5	#12 Sand
MW3	03/01/96	---	42.18	PVC	21.5	21.5	10	4	5-20	0.010	4.5-21.5	#12 Sand
MW4	03/01/96	Apr-99	31.50	PVC	26.5	25	10	4	5-25	0.010	4.5-21.5	#12 Sand
MW5	09/06/00	---	41.86	PVC	21.5	21.5	10	4	5-20	0.010	4-21.5	#2/12 Sand
MW6	08/11/14	---	42.00	PVC	18	15	12	4	5-15	0.020	4-15	#2/12 Sand
MW7	08/11/14	---	41.34	PVC	16	15	10	2	5-15	0.020	4-15	#2/12 Sand
MW8	08/15/14	---	41.30	PVC	16	15	12	4	5-15	0.020	4-15	#2/12 Sand
VW1	11/01/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW2	11/02/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW3	11/01/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW4	11/02/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
VW5	11/02/10	---	---	Stainless Steel	6	6	4	0.25	5.25-5.75	0.0057	5-6	#2/12 Sand
MP1	11/16/98	1998	---	PVC	23	23	1.5	1	4-23	0.020	2.5-23	#3 Sand
MP2	11/16/98	1998	---	PVC	20	20	1.5	1	5-20	0.020	4-20	#3 Sand
MP3	11/16/98	1998	---	PVC	18	18	1.5	1	3-18	0.020	2-18	#3 Sand
MP4	11/16/98	1998	---	PVC	18	18	1.5	1	3-18	0.020	2-18	#3 Sand
MP5	11/16/98	1998	---	PVC	18	18	1.5	1	3-18	0.020	2-18	#3 Sand
MP6	11/16/98	1998	---	PVC	17.5	17.5	1.5	1	3.5-17.5	0.020	2.5-17.5	#3 Sand
SVS1	06/18/12	---	38.78	PVC/Stainless Steel	5.5	5	3.25	0.25	4.75-5	0.010	4.5-5	#3 Sand
SVS2	06/18/12	---	41.05	PVC/Stainless Steel	5.5	5	3.25	0.25	4.75-5	0.010	4.5-5	#3 Sand
SVS3	06/18/12	---	42.64	PVC/Stainless Steel	5.5	5	3.25	0.25	4.75-5	0.010	4.5-5	#3 Sand

Notes:
TOC = Top of casing.
PVC = Polyvinyl chloride.
--- = Not applicable/Not available.

TABLE 3
CUMULATIVE PID READINGS, VAPOR WELLS
Former Mobil Service Station 99105
6301 San Pablo Avenue
Oakland, California

Sample Date	VW1 (ppm)	VW2 (ppm)	VW3 (ppm)	VW4 (ppm)	VW5 (ppm)
08/01/14	559	118	146	>7,000	500
08/18/14	317	1.9	85.8	1,780	395
08/22/14	62	0.4	122	>9,000	473
12/31/14	75.2	Wet	178.1	1,499	165.4
01/23/15	1.2	2.2	64	3,680	18
06/26/15	Wet	0.7	79.5	2,319	Wet
08/14/15	Wet	6.2	16.6	2,740	Wet
03/25/16	18.3	Wet	69.3	1,447	Wet

Notes:
ppm = Parts per million.

APPENDIX A

GROUNDWATER SAMPLING PROTOCOL

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
π	=	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

Cardno
Shaping the Future

Project ID #: 99105 — Cardno Job # 2783

Subject: Groundwater Monitoring — Date: 3-25-16

Equipment Used: Keptn Gauge, Pump, Water — Sheet: 1 of 1

Name(s): Alex Chavez

Time Arrived On Site: 0730 — Time Departed Site: 1030

0730 - arrive onsite - held safety meeting - reviewed JSA & hospital route - did ergonomic stretches - filled out Confined Work Permit
0745 - gauged wells (MW2, MW7, MW6, MW3, MW8, MW5)
0749 - purged MW2 - sampled @ 0822
0833 - purged MW7 - sampled @ 0838
0850 - purged MW6 - sampled @ 0903
0918 - purged MW3 - sampled @ 0918
0945 - purged MW8 - sampled @ 0949
0954 - purged MW5 - sampled @ 1012
~~0857 - take vapor reading from~~
0757 - tried to take vapor reading from VW2, but water was coming out of tube.
0807 - took vapor reading from VW3
0813 - tried to take vapor reading from VW5, but water was coming out of tube.
0822 - took vapor reading from VW1
0831 - took vapor reading from VW4
1015 - clean up
1030 - leave site and head to Petaluma office

Cardno ERI Groundwater M+S
Depth To Water

Case Volume= H(r^2x0.163)

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: 2783 | Location: 99105 | Date: 3-25-16 | Name: Alex Chavez

WELL ID	WELL DIAMETER inches	ODOR? SHEEN?	TOTAL DEPTH feet	Pre-Purge DTW feet	Case volume Gal.	80% r/chrg. DTW feet	COMMENTS
MW2	4	N	18.47	4.62	9.03	7.39	
MW3	4	N	18.21	8.05	6.62	10.08	
MW5	4	N	19.93	5.67	9.30	8.52	
MW6	4	N	14.46	6.06	5.48	7.74	
MW7	2	N	14.48	9.72	0.78	10.67	
MW8	4	N	14.23	8.18	3.96	9.39	

GROUNDWATER SAMPLING FIELD LOG

Client Name: 99 Ranch Market
Location: 630 San Pablo Ave.
Field Crew: Alex Chairez

Cardno ERI Job #: 2783
Field Cleaning Performed: _____
Analysis: _____

Date: 3-25-16 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-diamter well casing
1.457 for 6" inside-diamter 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	0404	9.03	27.09				5.24	7.39		4	2			
	0444		0	16.0	396	7.71	Sample Date: 3-25-16							
	0457		14	16.6	395	7.44	Sample Name: MW2							
	0511		28	16.7	392	7.36	Sample Time: 0522							
MW3	0420	6.62	19.86				11.25	10.08		4	2			pumped only 14 gallons
	0614		0	15.6	9134	7.54	Sample Date: 3-25-16							
	0627		10	16.8	1242	7.41	Sample Name: MW3							checked @ 0918 water level = 11.25 - got sample
	0634		20	16.3	944	7.27	Sample Time: 0918							
MW5	0431	9.30	27.90				10.52	8.52		4	2			checked @ 0955
	0704		0	17.1	1059	7.22	Sample Date: 3-25-16							water level = 10.52
	0715		14	17.7	1079	7.20	Sample Name: MW5							got sample
	0728		28	17.0	1066	7.11	Sample Time: 1012							
MW6	0414	5.48	16.44				13.19	7.74		4	2			pumped only 14 gallons
	0550		0	15.7	1435	7.45	Sample Date: 3-25-16							checked @ 0850
	0558		8	16.3	1416	7.41	Sample Name: MW6							water level = 13.14
	0606		17	15.2	1426	7.44	Sample Time: 0903							got sample
MW7	0409	0.78	2.34				12.35	10.67		4	2			checked @ 0830
	0533		0	15.6	1233	7.21	Sample Date: 3-25-16							water level = 12.35
	0535		1.5	17.2	1222	7.11	Sample Name: MW7							got sample
	0537		3	16.4	1229	7.13	Sample Time: 0538							
MW8	0425	3.95	11.85				11.18	9.39		4	2			pumped only 9 gallons
	0645		0	17.1	1172	7.31	Sample Date: 3-25-16							checked @ 0930
	0649		6	18.3	1169	7.21	Sample Name: MW8							water level = 11.18
	0653		12	18.0	1136	7.24	Sample Time: 0449							got sample
							Sample Date:							
							Sample Name:							
							Sample Time:							

GROUNDWATER SAMPLING FIELD LOG

Client Name: 99105 | Cardno ERI Job #: 2783 | Date: 3-25-16 | Page 2 of 2

Location: 6301 San Pablo Ave. | Field Cleaning Performed: | Case Volume = (TD - DTW) x F where F =

Field Crew: Alex Chairez | Analysis:

0.163 for 2" inside-diameter well casing
0.652 for 4" inside-diamter well casing
1.457 for 6" inside-diamter 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
VW1	0822													
							Sample Date: 3/25/2016							
							Sample Name:							Vapor Reading = 1813
							Sample Time:							
VW2	0757													water coming out
							Sample Date: 3/25/2016							of vapor port
							Sample Name:							
							Sample Time:							
VW3	0807													Vapor reading = 693
							Sample Date: 3/25/2016							
							Sample Name:							
							Sample Time:							
VW4	0831													Vapor reading = 1447
							Sample Date: 3/25/2016							
							Sample Name:							
							Sample Time:							
VW5	0813													water coming out
							Sample Date: 3/25/2016							of vapor port
							Sample Name:							
							Sample Time:							
							Sample Date:							
							Sample Name:							
							Sample Time:							
							Sample Date:							
							Sample Name:							
							Sample Time:							

WATER SAMPLING SITE STATUS

Date: 3-25-16

Inspected by: Alex Chavez

Cardno ERI Job No.: 2783 Station No.: 99105 Site Address: 6301 San Pablo Ave.

Well ID	Well Head Screws	Rubber Gasket	Well Cap Locking	Lock on Well Cap	Concrete Well Seal	Well Head PVC	Water in Well Vault	Tabs	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	NO	OK	OK	N	OK	NA	NA	NA	OK	OK	OK	
MW3	"	"	"	"	"	"	N	"	"	"	"	"	"	"	
MW5							N								
MW6							N								
MW7							Y								removed water
MW4							N								
VW1							N								
VW2							N								
VW3							N								
VW4							N								
VW5	↓	↓	↓	↓	↓	↓	N	↓	↓	↓	↓	↓	↓	↓	

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 REPORT

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WORK ORDER NUMBER: 16-03-2147

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno

Client Project Name: ExxonMobil 99105/022783C

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

Approved for release on 04/12/2016 by:
Cecile deGuia
Project Manager

ResultLink

Email your PM

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Client Project Name: ExxonMobil 99105/022783C
Work Order Number: 16-03-2147

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Work Order Narrative

Work Order: 16-03-2147 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 03/30/16. They were assigned to Work Order 16-03-2147.

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

Holding Times:

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

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

Quality Control:

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

Subcontractor Information:

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

Additional Comments:

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

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

EPA 8260B:
LCS Batch Number 160330L031: All target analytes were within acceptance criteria with the exception of Benzene. The LCS recovery for this analyte was below the lower control limit of 80%, but was above the NELAC-defined lower marginal exceedance (ME) limit of 73%. (ME = +/- 4 standard deviations.) Based upon the number of analytes spiked into the LCS, and per NELAC, the laboratory is allowed to report associated data when there is, in this case, one marginal exceedance in an LCS.

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Sample Summary

Client:	Cardno	Work Order:	16-03-2147
	601 North McDowell Blvd.	Project Name:	ExxonMobil 99105/022783C
	Petaluma, CA 94954-2312	PO Number:	022783C
		Date/Time Received:	03/30/16 10:30
		Number of Containers:	62
Attn:	Scott Perkins		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW2	16-03-2147-1	03/25/16 05:22	10	Aqueous
MW3	16-03-2147-2	03/25/16 09:18	10	Aqueous
MW5	16-03-2147-3	03/25/16 10:12	10	Aqueous
MW6	16-03-2147-4	03/25/16 09:03	10	Aqueous
MW7	16-03-2147-5	03/25/16 08:38	10	Aqueous
MW8	16-03-2147-6	03/25/16 09:49	10	Aqueous
QCBB	16-03-2147-7	03/25/16 03:56	2	Aqueous

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Analytical Report

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

Project: ExxonMobil 99105/022783C

Date Received: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW2	**16-03-2147-1-I**	**03/25/16 05:22**	**Aqueous**	**GC 45**	**03/31/16**	**04/01/16 14:41**	**160331B01S**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	45	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	79	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW3	**16-03-2147-2-I**	**03/25/16 09:18**	**Aqueous**	**GC 45**	**03/31/16**	**04/01/16 14:57**	**160331B01S**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	190	45	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**16-03-2147-3-I**	**03/25/16 10:12**	**Aqueous**	**GC 45**	**03/31/16**	**04/01/16 15:13**	**160331B01S**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	2300	45	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	68	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**16-03-2147-4-I**	**03/25/16 09:03**	**Aqueous**	**GC 45**	**03/31/16**	**04/01/16 16:18**	**160331B01S**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	82	45	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	69	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**16-03-2147-5-I**	**03/25/16 08:38**	**Aqueous**	**GC 45**	**03/31/16**	**04/01/16 16:34**	**160331B01S**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	55	45	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	70	68-140	

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

Project: ExxonMobil 99105/022783C

Date Received: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**16-03-2147-6-I**	**03/25/16 09:49**	**Aqueous**	**GC 45**	**03/31/16**	**04/01/16 16:50**	**160331B01S**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	1200	45	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	74	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-304-1368**	**N/A**	**Aqueous**	**GC 45**	**03/31/16**	**04/01/16 08:52**	**160331B01S**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	73	68-140	

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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

Project: ExxonMobil 99105/022783C

Date Received: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW2	**16-03-2147-1-H**	**03/25/16 05:22**	**Aqueous**	**GC 42**	**03/31/16**	**03/31/16 19:34**	**160331L051**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	67	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW3	**16-03-2147-2-H**	**03/25/16 09:18**	**Aqueous**	**GC 42**	**03/31/16**	**03/31/16 20:09**	**160331L051**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	320	50	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	82	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**16-03-2147-3-H**	**03/25/16 10:12**	**Aqueous**	**GC 42**	**03/31/16**	**04/01/16 03:10**	**160331L051**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	4500	250	5.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**16-03-2147-4-H**	**03/25/16 09:03**	**Aqueous**	**GC 42**	**03/31/16**	**03/31/16 20:44**	**160331L051**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	70	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**16-03-2147-5-H**	**03/25/16 08:38**	**Aqueous**	**GC 42**	**03/31/16**	**03/31/16 21:19**	**160331L051**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	70	38-134	

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

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Analytical Report

Cardno		Date Received:	03/30/16
601 North McDowell Blvd.		Work Order:	16-03-2147
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
		Units:	ug/L
Project: ExxonMobil 99105/022783C			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**16-03-2147-6-H**	**03/25/16 09:49**	**Aqueous**	**GC 42**	**03/31/16**	**04/01/16 01:25**	**160331L051**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	4000	50	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	185	38-134	AZ

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-436-10734**	**N/A**	**Aqueous**	**GC 42**	**03/31/16**	**03/31/16 14:54**	**160331L051**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	69	38-134	

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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: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 99105/022783C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW2	**16-03-2147-1-A**	**03/25/16 05:22**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 15:02**	**160330L031**

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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	87	68-120	
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	94	80-128	
Toluene-d8	93	80-120	

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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: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 99105/022783C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW3	**16-03-2147-2-A**	**03/25/16 09:18**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 17:33**	**160330L031**

Parameter	Result	RL	DF	Qualifiers
Benzene	1.6	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	0.91	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	1.0	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	68-120	
Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	96	80-120	

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

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Analytical Report

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

Date Received: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 99105/022783C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	**16-03-2147-3-A**	**03/25/16 10:12**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 15:32**	**160330L031**

Parameter	Result	RL	DF	Qualifiers
Benzene	91	2.0	4.00	
Toluene	ND	2.0	4.00	
Ethylbenzene	23	2.0	4.00	
o-Xylene	ND	2.0	4.00	
p/m-Xylene	8.3	2.0	4.00	
Xylenes (total)	8.3	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	
1,2-Dibromoethane	ND	2.0	4.00	
1,2-Dichloroethane	ND	2.0	4.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	68-120	
Dibromofluoromethane	106	80-127	
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	101	80-120	

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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: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 99105/022783C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	**16-03-2147-4-A**	**03/25/16 09:03**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 18:04**	**160330L031**

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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	68-120	
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	98	80-128	
Toluene-d8	96	80-120	

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

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Analytical Report

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

Date Received: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 99105/022783C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	**16-03-2147-5-A**	**03/25/16 08:38**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 18:34**	**160330L031**

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)	9.5	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	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	1.9	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	68-120	
Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	95	80-120	

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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: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 99105/022783C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**16-03-2147-6-A**	**03/25/16 09:49**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 19:04**	**160330L031**

Parameter	Result	RL	DF	Qualifiers
Toluene	1.6	0.50	1.00	
o-Xylene	0.97	0.50	1.00	
p/m-Xylene	36	0.50	1.00	
Xylenes (total)	37	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	17	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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	109	68-120	
Dibromofluoromethane	106	80-127	
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	117	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	**16-03-2147-6-B**	**03/25/16 09:49**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 19:34**	**160330L031**

Parameter	Result	RL	DF	Qualifiers
Benzene	160	10	20.0	
Ethylbenzene	130	10	20.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	68-120	
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	95	80-128	
Toluene-d8	95	80-120	

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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: 03/30/16
Work Order: 16-03-2147
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 99105/022783C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-884-1319**	**N/A**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 12:41**	**160330L031**

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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	86	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	92	80-128	
Toluene-d8	98	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		Date Received:	03/30/16
601 North McDowell Blvd.		Work Order:	16-03-2147
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 99105/022783C			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-03-2195-1	**Sample**	**Aqueous**	**GC 42**	**03/31/16**	**03/31/16 16:04**	**160331S027**
16-03-2195-1	**Matrix Spike**	**Aqueous**	**GC 42**	**03/31/16**	**03/31/16 16:39**	**160331S027**
16-03-2195-1	**Matrix Spike Duplicate**	**Aqueous**	**GC 42**	**03/31/16**	**03/31/16 17:14**	**160331S027**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1921	96	1947	97	68-122	1	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	03/30/16
601 North McDowell Blvd.		Work Order:	16-03-2147
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 99105/022783C			Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW2	**Sample**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 15:02**	**160330S013**
MW2	**Matrix Spike**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 16:02**	**160330S013**
MW2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 16:33**	**160330S013**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	8.615	86	8.732	87	75-125	1	0-20	
Toluene	ND	10.00	8.278	83	9.027	90	75-125	9	0-20	
Ethylbenzene	ND	10.00	9.843	98	9.808	98	75-125	0	0-20	
o-Xylene	ND	10.00	9.911	99	9.964	100	75-127	1	0-20	
p/m-Xylene	ND	20.00	19.69	98	19.84	99	75-125	1	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.705	97	10.09	101	71-131	4	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	55.20	110	51.23	102	20-180	7	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	9.423	94	9.797	98	64-136	4	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	8.436	84	8.775	88	73-133	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	8.696	87	9.053	91	75-125	4	0-20	
1,2-Dibromoethane	ND	10.00	9.974	100	10.14	101	75-126	2	0-20	
1,2-Dichloroethane	ND	10.00	9.109	91	9.267	93	75-127	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno		Date Received:	03/30/16
601 North McDowell Blvd.		Work Order:	16-03-2147
Petaluma, CA 94954-2312		Preparation:	EPA 3510C
		Method:	EPA 8015B (M)
Project: ExxonMobil 99105/022783C			Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-304-1368	**LCS**	**Aqueous**	**GC 45**	**03/31/16**	**04/01/16 09:09**	**160331B01S**
099-15-304-1368	**LCSD**	**Aqueous**	**GC 45**	**03/31/16**	**04/01/16 09:25**	**160331B01S**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	2323	116	2313	116	75-117	0	0-13	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	03/30/16
601 North McDowell Blvd.		Work Order:	16-03-2147
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 99105/022783C			Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-436-10734	**LCS**	**Aqueous**	**GC 42**	**03/31/16**	**03/31/16 14:19**	**160331L051**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	1963	98	78-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno		Date Received:	03/30/16
601 North McDowell Blvd.		Work Order:	16-03-2147
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 99105/022783C			Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-884-1319	**LCS**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 11:06**	**160330L031**
099-12-884-1319	**LCSD**	**Aqueous**	**GC/MS L**	**03/30/16**	**03/30/16 11:37**	**160330L031**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	10.00	7.932	79	8.769	88	80-120	73-127	10	0-22	LR,RU
Toluene	10.00	9.969	100	8.630	86	80-120	73-127	14	0-28	
Ethylbenzene	10.00	10.44	104	9.844	98	80-120	73-127	6	0-25	
o-Xylene	10.00	10.72	107	9.945	99	80-120	73-127	8	0-30	
p/m-Xylene	20.00	21.27	106	19.98	100	80-120	73-127	6	0-30	
Methyl-t-Butyl Ether (MTBE)	10.00	10.26	103	10.15	101	75-123	67-131	1	0-27	
Tert-Butyl Alcohol (TBA)	50.00	51.45	103	52.67	105	80-120	73-127	2	0-30	
Diisopropyl Ether (DIPE)	10.00	8.066	81	9.767	98	73-121	65-129	19	0-26	
Ethyl-t-Butyl Ether (ETBE)	10.00	7.967	80	8.730	87	76-124	68-132	9	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	8.344	83	9.640	96	80-120	73-127	14	0-24	
1,2-Dibromoethane	10.00	10.29	103	9.782	98	80-120	73-127	5	0-32	
1,2-Dichloroethane	10.00	8.793	88	10.07	101	80-122	73-129	14	0-23	

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

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-03-2147 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8015B (M)	EPA 3510C	682	GC 45	1
EPA 8015B (M)	EPA 5030C	1063	GC 42	2
EPA 8260B	EPA 5030C	316	GC/MS L	2

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Glossary of Terms and Qualifiers

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

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Eurofins Calscience Inc.
7440 Lincoln Way
Garden Grove, CA 92841
Phone: 714-895-5494
Fax: 714-894-7501

ExxonMobil

16-03-2147

Consultant Name: Cardno ERI
Consultant Address: 601 N McDowell
Consultant City/State/Zip: Petaluma, CA 94954
ExxonMobil Project Mgr: Jennifer Sedlachek
Consultant Project Mgr: Scott Perkins
Consultant Telephone Number: (707) 766-2000 Fax No.: (707) 789-0414
Sampler Name (Print): Alex Chairez
Sampler Signature:

Account #: NA PO#: Direct Bill Cardno ERI
Invoice To: Direct Bill Cardno ERI
Report To: Scott Perkins
Project Name: 02 2783 C
ExxonMobil Site #: 99105 Major Project (AFE #):
Site Address: 6301 San Pablo Ave
Site City, State, Zip: Oakland, CA
Oversight Agency: Alameda County Environmental Health Department

Sample ID		Field Point Name	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	HCl	NaOH	H_2SO_4 Plastic	H_2SO_4 Glass	HNO_3	Ice	Other	None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Air	Other (specify): Distilled Water	Analyze For: TPHd 8015B*		TPHg 8015B	BTEX 8260B	Methanol by 8015	8260 see list		Ethanol	RUSH TAT (Pre-Schedule)	5-day TAT	Standard 10-day TAT	Due Date of Report
MW2	1	MW2	3/25/16	0922	8V/2A	x					8V					x		2A	x							x		x	x		x					x	
MW3	2	MW3	3/25/16	0918	8V/2A	x					8V					x		2A	x							x		x	x		x					x	
MW5	3	MW5	3/25/16	1012	8V/2A	x					8V					x		2A	x							x		x	x		x					x	
MW6	4	MW6	3/25/16	0903	8V/2A	x					8V					x		2A	x							x		x	x		x					x	
MW7	5	MW7	3/25/16	0938	8V/2A	x					8V					x		2A	x							x		x	x		x					x	
MW8	6	MW8	3/25/16	0949	8V/2A	x					8V					x		2A	x							x		x	x		x					x	
QCBB	7	QCBB	3/25/16	0956	2V						2V					x												H	O	L	D						

Comments/Special Instructions:
Only include requested data in report
OXY's report MTBE, DIPE, TBA, TAME, EDB, ETBE, 1,2 DCA
*Use silica-gel clean-up for TPHd
PLEASE E-MAIL ALL PDF FILES TO norcallabs@eri-us.com
GLOBAL ID # T0600101855

Laboratory Comments:
Temperature Upon Receipt:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
QC Deliverables (please circle one)
Level 2
Level 3
Level 4
Site Specific - if yes, please attach pre-schedule w/ Calscience
Project Manager or attach specific instructions

Relinquished by:		Date	Time	Received by:	Date	Time
		3-25-16	1136	Fridge	3-25-16	1136
Relinquished by:		Date	Time	Received by (Lab personnel): ECI	Date	Time
		3/29/16	1200		3/29/16	1200

to GSO 3/29/16 1730 3/30/16 1030

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GSO
GOLDEN STATE OVERNIGHT

800-322-5555 www.gso.com

2147

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

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

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

Signature Type: REQUIRED

Tracking #: 531402824 **NPS**

ORC **A**

GARDEN GROVE

D92845A

49985966

Print Date: 3/29/2016 3:47 PM

LABEL INSTRUCTIONS:

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

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

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WORK ORDER NUMBER: 16-03- 2147

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno ERI

DATE: 03 / 30 / 2016

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

Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 1.6 °C (w/ CF): 1.9 °C; ☑ Blank ☐ Sample

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

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

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

Ambient Temperature: ☐ Air ☐ Filter Checked by: SB6

CUSTODY SEAL:

Cooler ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: SB6

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: SB6

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

CONTAINER TYPE: (Trip Blank Lot Number: _____)

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

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☑ 500AGJ (2) ☐ 500AGJ**s**

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

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

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

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

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

Labeled/Checked by: SB6

Reviewed by: JB

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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)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ER 12783032520 16

Manifest Document No.

2. Page 1 of 1

3. Generator's Name and Mailing address
ExxonMobil Environmental Services/ c/o Cardno
601 N. McDowell Blvd, CA 94954
4. Generator's Phone : (707) 766 2000

6301 San Pablo Ave,
Oakland, CA
EM(99105)

5. Transporter 1 Company Name: CARDNO

6. US EPA ID Number

A. State Transporter's ID 707-766-2000

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
INSTRAT INC.
1195 C. AIRPORT ROAD
RIO VISTA, CA 94571

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone 530-753-1829

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PURGE WATER	01	Tveiler	108	GAL
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: On behalf of ExxonMobil Azat A. Magdanov

Signature

Date: Month 03 Day 25 Year 2016

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Sean F. Johnson

Signature

Date: Month 4 Day 25 Year 16

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: 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: F. St. Frank McCaughl

Signature

Date: Month 4 Day 25 Year 16

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE