ExxonMobil Environmental Services Company 4096 Piedmont Avenue #194 Oakland, California 94611 510 547 8196 Telephone 510 547 8706 Facsimile Jennifer C. Sedlachek Project Manager

Ex_conMobil

August 26, 2016

RECEIVED

By Alameda County Environmental Health 3:45 pm, Aug 26, 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 Monitoring Report, Third Quarter 2016*, dated August 26, 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,

Nomifer C. Sedlachek Project Manager

Attachment: Cardno's *Groundwater and Soil Vapor Monitoring Report, Third Quarter 2016*, dated August 26, 2016

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

> w/o attachment Mr. Scott Perkins, Cardno



August 26, 2016 Cardno 2783C.Q163

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

601 N. McDowell Boulevard Petaluma, CA 94954 USA

 Phone:
 +1 800 382 9105

 Fax:
 +1 707 789 0414

 Contractor:
 #997036

www.cardno.com

SUBJECTGroundwater and Soil Vapor Monitoring Report, Third Quarter 2016Former Mobil Service Station 991056301 San Pablo Avenue, Oakland, California

INTRODUCTION

At the request of ExxonMobil Environmental Services (EMES), on behalf of ExxonMobil Oil Corporation, Cardno performed third 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:		07/12/16
Wells gauged and sampled:		MW2, MW3, MW5 through MW8
Presence of NAPL:		Sheen observed in wells MW5 and MW8
Groundwater flow direction:		West
Laboratory:		Eurofins Calscience, Inc., Garden Grove, California
Analyses performed:	EPA Method 8015B EPA Method 8260B	TPHd, TPHg BTEX, MTBE, TAME, TBA, DIPE, EDB, 1,2-DCA, ETBE
Waste disposal:	79 gallons purge and California, on 07/22/16	d decon water delivered to Instrat, Inc. of Rio Vista,
SOIL VAPOR MONITORING A	ND SAMPLING SUMM	IARY

Screening and sampling date:07/12/16Wells monitored:VW1 through VW5

RESULTS

Dissolved-phase concentrations show overall stable or decreasing trends, with the exception of concentrations in well MW8, which increased to the highest concentrations reported to date in first quarter 2016. During third quarter 2016, sheen was observed for the first time in the well and concentrations were consistent with those reported during first quarter 2016.

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). Concentrations in well VW4 were greater than 2,000 ppm.

RECOMMENDATIONS

Soil vapor monitoring wells have been monitored since 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.

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.

August 26, 2016 Cardno 2783C.Q163 Former Mobil Service Station 99105, Oakland, California

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,

ERI. Carvell IMAGE

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

Plate 1	Site Vicinity Map
Plate 2	Select Analytical Results
Plate 3	Groundwater Elevation Map
Table 1A	Cumulative Groundwater Monitoring and Sampling Data
Table 1B	Additional Cumulative Groundwater Monitoring and Sampling Data

- Table 2 Well Construction Details
- Table 3 Cumulative PID Readings, Vapor Wells

- Appendix A **Groundwater Sampling Protocol**
- Appendix B **Field Data Sheets**
- Appendix C Laboratory Analytical Report
- Waste Disposal Documentation Appendix D
- Ms. Karel Detterman, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, cc: 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

August 26, 2016 Cardno 2783C.Q163 Former Mobil Service Station 99105, Oakland, California

REFERENCES

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

5

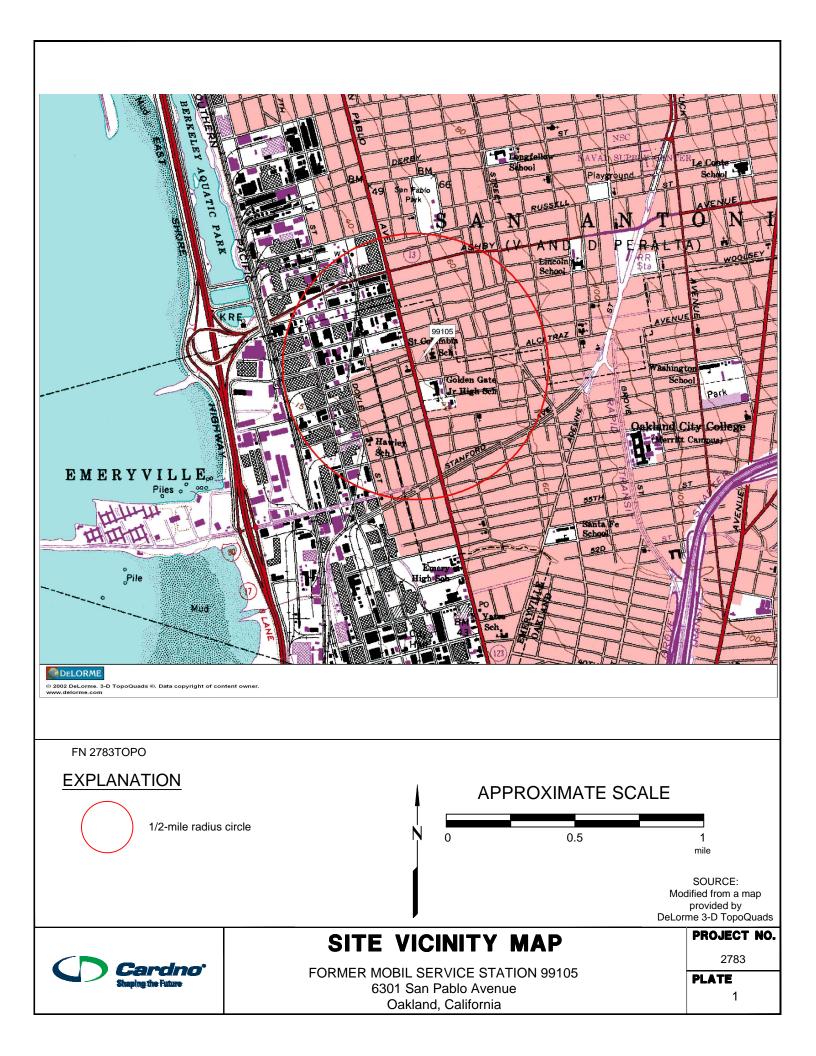
August 26, 2016 Cardno 2783C.Q163 Former Mobil Service Station 99105, Oakland, California

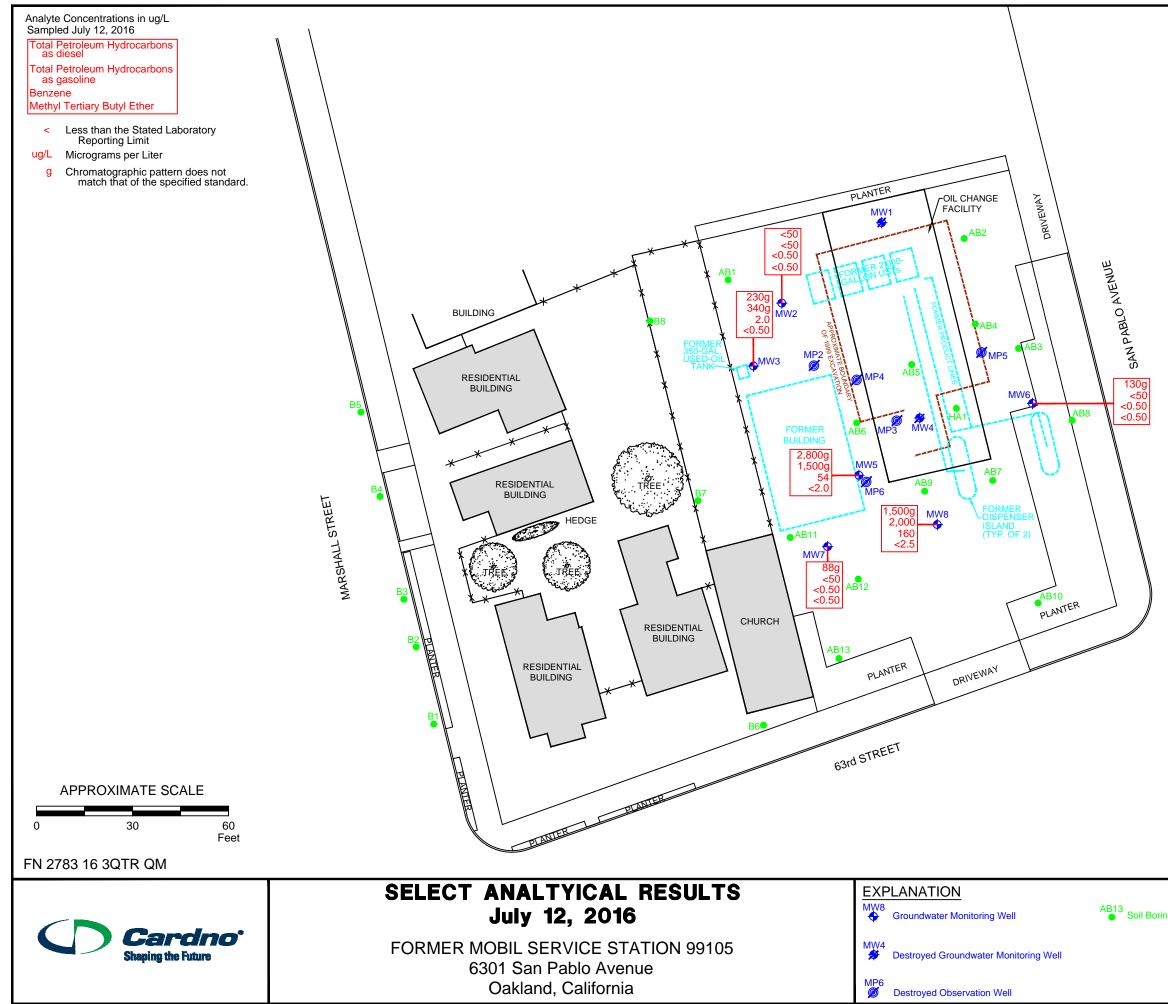
ACRONYM LIST

μg/L μs 1,2-DCA acfm AS bgs BTEX CEQA cfm COC CPT DIPE DO DOT DPE DTW EDB EPA ESL ETBE FID fpm	Micrograms per liter Microsiemens 1,2-dichloroethane Actual cubic feet per minute Air sparge Below ground surface Benzene, toluene, ethylbenzene, and total xylenes California Environmental Quality Act Cubic feet per minute Chain of Custody Cone Penetration (Penetrometer) Test Di-isopropyl ether Dissolved oxygen Department of Transportation Dual-phase extraction Depth to water 1,2-dibromoethane Environmental Protection Agency Environmental screening level Ethyl tertiary butyl ether Flame-ionization detector Feet per minute
GAC	Granular activated carbon
gpd gpm	Gallons per day Gallons per minute
GWPTS HVOC	Groundwater pump and treat system Halogenated volatile organic compound
J	Estimated value between MDL and PQL (RL)
LEL	Lower explosive limit
LPC	Liquid-phase carbon
LRP LUFT	Liquid-ring pump
LUST	Leaking underground fuel tank 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 msl	Method reporting limit Mean sea level
MTBE	Methyl tertiary butyl ether
MTCA	Model Toxics Control Act
NAI	Natural attenuation indicators
NAPL	Non-aqueous phase liquid

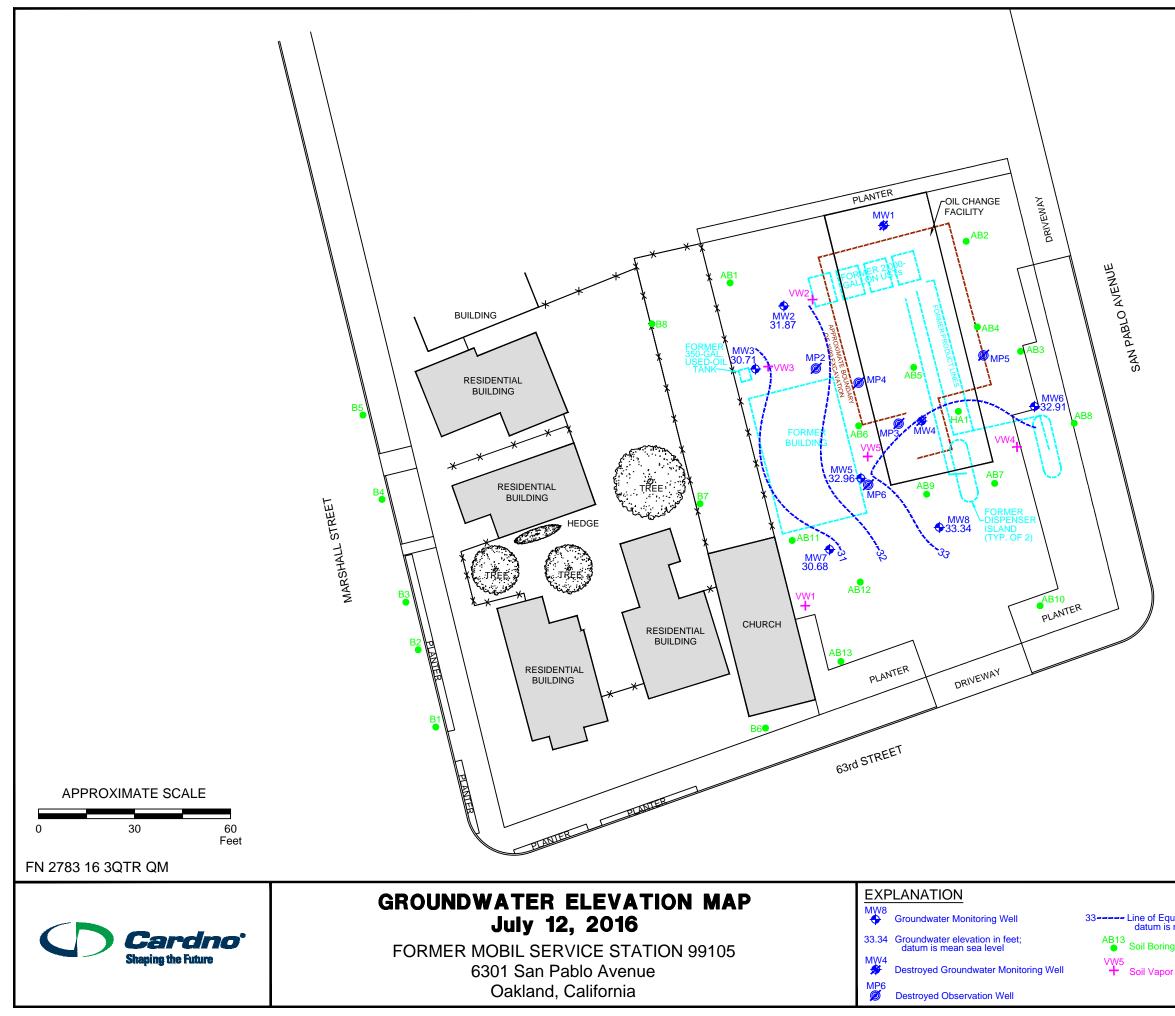
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
ORP	Oxidation-reduction potential
OSHA	Occupational Safety and Health Administration
OVA	Organic vapor analyzer
P&ID	Process & Instrumentation 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
TPHINO	
TRPH	Total petroleum hydrocarbons as stoddard solvent
UCL	Total recoverable petroleum hydrocarbons
	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





	PROJECT NO.
ng	2783
	PLATE
	2



	PROJECT NO.
qual Groundwater Elevation; s mean sea level	2783
ng or Sampling Well	PLATE
	3

Oakland, California (Page 1 of 7)

Well ID	Sampling Date		TOC Elev. (feet)	DTW (feet)	GW Elev. (feet)	NAPL (feet)	TPHd (µg/L)	TPHg (µg/L)	МТВЕ 8020/8021 (µg/L)	MTBE 8240/8260 (μg/L)	B (µg/L)	Т (µg/L)	E (µg/L)	X (µg/L)
	creening Levels	(Febru	ary 2016)				100		_	_				
ier 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	а	32.79	10.18	22.61	No	60e	ND	36		0.84	0.95	ND	1.6
MW1	10/09/97	а	32.79	10.46	22.33	No	56e	ND	ND		ND	ND	ND	ND
MW1	01/23/98	а	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	D	estroyed during	g constructior	n 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	а	32.80	10.53	22.27	No	150d	320	ND		28	1.2	10	ND
MW2	10/09/97	а	32.80	10.87	21.93	No	160b	460	2.6		43	2.8	2.0	2.6
MW2	01/23/98	а	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

Oakland, California (Page 2 of 7)

Well	Sampling	TOC Elev.	DTW	GW Elev.	NAPL	TPHd	TPHg	MTBE 8020/8021	MTBE 8240/8260	В	т	Е	Х
ID	Date	(feet)	(feet)	(feet)	(feet)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
ronmental So	creening Levels (F	ebruary 2016)											
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		led from 2004 to 20											
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 resurve			100			10100	10100		10100	10100
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	<50		<0.50	< 0.50	<0.50	<0.50	<0.50
MW2	01/25/13	42.24	5.62	36.62	No	<50 <50	<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	<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	<50 <50		<0.50	<0.50	<0.50 <0.50	<0.50	< 0.50
MW2	07/14/14	42.24	10.52	31.72	No	<30 <49	<50 <50		<0.50	<0.50	<0.50 <0.50	<0.50	0.52
MW2	07/14/14 08/18/14	42.24	10.52	31.72	No	<49 	<00 		<0.50	<0.50	<0.50	<0.50	0.52
MW2													
MW2	11/06/14	42.24											
	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
MW2	07/12/16	42.24	10.37	31.87	No	<50	<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		a 32.80	11.36	21.44	No	2,300b	9,800	ND		330	ND	530	530
MW3		a 32.80	11.52	21.28	No	2,600b	7,300	270	ND	300	ND	430	460
MW3		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	23.33	No	2,000	4,300 7,400	74	ND	250	12	400	370
MW3	10/20/98	32.80	11.57	22.13	No		6,700	ND	ND	200	18	350	350
MW3	01/27/99	32.80	9.11	23.69	No		3,100	13	ND 	200 74	4	350 94	39

Oakland, California (Page 3 of 7)

Well	Sampling	TOC Elev.	DTW	GW Elev.	NAPL	TPHd	TPHg	MTBE 8020/8021	MTBE 8240/8260	В	т	Е	х
ID	Date	(feet)	(feet)	(feet)	(feet)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
ironmental So	creening Levels (Fe	ebruary 2016)		. ,	. ,		,				,	,	
1						100	100	5	5	1	40	13	20
MW3	07/27/99	32.80	7.27	25.53	No		8,900	ND		170	21	360	440
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		led from 2004 to 2		02.00	NO		751	0.4		24.4	1.5	40.1	14.7
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 resurve		INO	33	2,500		<0.50	2.0	0.511	1.0	1.0
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	270g 	910g		<0.50	0.89	<0.93	<0.50	0.88
MW3	01/27/12	42.18	12.11	30.07	No	1,000g	910g 		<0.50	0.89	<0.50	<0.50	0.00
MW3	07/09/12	42.18	11.15	32.00	No	420g	350g		<0.50	7.9	<0.50	<0.50	<0.50
MW3	01/25/13	42.18	9.41	31.03	No	420g 120g	390g		<0.50	2.8	<0.50 <0.50	<0.50 <0.50	<0.50
MW3	08/23/13	42.18	9.41 11.67	32.77	No	310g	590g 640		<0.50 <0.50	2.0 1.1	<0.50 <0.50	<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	< 0.50
MW3	07/14/14	42.18	12.13	30.63	No	•	1,100g		<0.50	<0.50 1.8	<0.50 <0.50	<0.50 <0.50	0.53
MW3	08/18/14	42.18	11.55	30.83 30.35	No	320g	1,100g 		<0.50		<0.50	<0.50	0.55
MW3	11/06/14	42.18		30.35	NO 								
MW3	01/23/15	42.18	10.19	31.99	No				<0.50	5.6	 1.7	0.79	1.0
MW3	06/26/15	42.18				440g	750g 						
					 No	 120 m				2.0			
MW3	08/14/15	42.18	12.25	29.93	No	120g	710g		<0.50	-	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
MW3	07/12/16	42.18	11.47	30.71	No	230g	340g		<0.50	2.0	<0.50	<0.50	<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								

Oakland, California (Page 4 of 7)

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
	creening Levels (F	ebruary 2016)											
r 1						100	100	5	5	1	40	13	20
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	1,40
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 duri	ng constructio	n activities.									
MW5	10/25/00	39.18	10.92	28.26	No		2,500	<20		79	3.8	66	<2
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	10
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.
MW5	04/10/02	41.59	7.20	34.39	No		2,140	<2.50		275	8.00	183	24.
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.
MW5	01/20/03	41.59	6.45	35.14	No		7,660	59	<0.50	421	10.0	743	96.
MW5	04/28/03	41.59	6.68	34.91	No		7,510	47	<0.50	403	5.5	524	50.
MW5	07/15/03	41.59	8.68	32.91	No		6,080	52.9	<2.5	406	19.8	412	34.
MW5	10/08/03	41.59	10.56	31.03	No		2,460	54.3	<0.5	160	12.8	173	31.
MW5	01/15/04	41.59	6.56	35.03	No		4,630	37.4	<0.5	181	6.0	312	38.
MW5	Well not samp	oled from 2004 to 2	2010.										
MW5	09/17/10	41.59	9.99	31.60	No	5,700	6,600		<5.0	19	<5.0	16	1.4
MW5	12/15/10	41.86	Well resurve	yed.									
MW5	09/14/11	41.86	7.33	34.53	No	1,600g	7,200		<2.0	23	<2.0	8.6	<2.
MW5	01/18/12	41.86	9.46	32.40	No		3,600g		<1.0	14	<1.0	7.6	<1.
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.
MW5	01/25/13	41.86	6.01	35.85	Sheen	22,000g	4,900g		<2.0	46	<2.0	4.5	<2.
MW5	08/23/13	41.86	9.12	32.74	No	34,000g	17,000		<2.0	17	<2.0	6.3	<2.
MW5	01/10/14	41.86	10.30	31.56	No	36,000g	62,000		<2.0	4.7	<2.0	3.5	<2.
MW5	07/14/14	41.86	8.70	33.16	No	88,000g	90,000g		<5.0	100	<5.0	12	<5
MW5	08/18/14	41.86	9.40	32.46	No								

Oakland, California (Page 5 of 7)

Well	Sampling	TOC Elev.	DTW	GW Elev.	NAPL	TPHd	TPHg	MTBE 8020/8021	MTBE 8240/8260	В	т	Е	х
ID	Date	(feet)	(feet)	(feet)	(feet)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L
	creening Levels (F	(,	(/		()	(1.2.7)	(1.2.7	(13)		(1.2.7	(1.2.7	(1-3-7	(1-5-
1	- · ·					100	100	5	5	1	40	13	20
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											
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
MW5	07/12/16	41.86	8.90	32.96	Sheen	2,800g	1,500g		<2.0	54	<2.0	12	6.0
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	<0.5
MW6	08/22/14	42.00	11.20	30.80	No	1,000g	1,500g		<0.50	<0.50	<0.50	<0.50	<0.5
MW6	11/06/14	42.00	10.77	31.23	No	640g	840g		0.80	<0.50	<0.50	<0.50	<0.5
MW6	01/23/15	42.00	7.38	34.62	No	170g	120g		<0.50	<0.50	<0.50	<0.50	<0.5
MW6	06/26/15	42.00	9.11	32.89	No	160g	170g		<0.50	<0.50	<0.50	<0.50	<0.5
MW6	08/14/15	42.00	9.89	32.11	No	91g	120g		<0.50	<0.50	<0.50	<0.50	<0.5
MW6	03/25/16	42.00	6.06	35.94	No	82g	<50		<0.50	<0.50	<0.50	<0.50	<0.5
MW6	07/12/16	42.00	9.09	32.91	No	130g	<50		<0.50	<0.50	<0.50	<0.50	<0.5
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	<0.5
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	<0.5
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	<0.5
MW7	08/14/15	41.34	11.41	29.93	No	<47	58g		<0.50	<0.50	<0.50	<0.50	<0.5
MW7	03/25/16	41.34	9.72	31.62	No	55g	<50		<0.50	<0.50	<0.50	<0.50	<0.5
MW7	07/12/16	41.34	10.66	30.68	No	88g	<50		<0.50	<0.50	<0.50	<0.50	<0.5
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
MW8	07/12/16	41.30	7.96	33.34	Sheen	1,500g	2,000		<2.5	160	<2.5	84	11

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

(Page 6 of 7)

NA7 11	0 "		5714			TOUL	T D11	MTBE	MTBE		-	_	
Well	Sampling	TOC Elev.	DTW	GW Elev.	NAPL	TPHd	TPHg	8020/8021	8240/8260	B	T	E	X
ID	Date	(feet)	(feet)	(feet)	(feet)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Environmental So	reening Levels (F	ebruary 2016)				100	100	-	r	4	40	40	20
Tier 1						100	100	5	5	1	40	13	20
Grab Groundwate	er Samples												
Former Gasoline T	ank Cavity												
TW1	01/04/96		6.00		No	700	ND			ND	ND	ND	ND
Used-Oil Tank Cav	/ity												
WW1	01/04/96		3.00		No		ND			ND	ND	ND	ND
AB1	03/05/98		4.5		No		1,600	ND		31	5.3	79	130
AB2	03/05/98		4.0 8.0		No		ND	ND		ND	2.9	0.9	5.7
AB2 AB3	03/05/98		5.5		No		6,800	230		680	100	1 ,500	2,300
AB3 AB4	03/05/98		4.0		No		8,500 8,500	ND		240	ND	260	2,300 720
AB4 AB6	03/05/98		4.0 4.5		No		8,500 12,000	ND		240 350	ND	200 310	100
AB0 AB9	03/05/98		4.5 6.0		No		1,000	ND		57	12	44	93
AB9 AB10	03/05/98		2.0		No		200	ND		3.0	12	44 3.2	93 2.8
AB10 AB11	03/05/98		2.0 8.5		No		200 ND	ND		ND	ND	S.Z ND	2.0 ND
AB11 AB12	03/05/98		6.0		No		8,800	37		660	50	630	940
					No		8,800 210	ND		11	0.8	10	
AB13	03/05/98		8.0		INO		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

(Page 7 of 7)

Notes:	Adapted from	m 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.
а	=	Well sampled using no-purge method.
b	=	Diesel and unidentified hydrocarbons <c15.< td=""></c15.<>
С	=	Diesel and unidentified hydrocarbons <c15>C25.</c15>
d	=	Diesel and unidentified hydrocarbons >C20.
е	=	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.

Oakland, California

(Page 1 of 4)

Well	Sampling	DIPE	ETBE	TAME	TBA	1,2-DCA	EDB	Ethanol
ID	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
vironmental Scree	ning Levels (February 201	6)						
er 1					12	0.50	0.05	
MW1	03/14/96 - 01/2	27/99 Not analyzed for the	ese analytes					
MW1	Apr-99	Destroyed during co						
MW2	03/14/96 - 01/ [,]	15/04 Not analyzed for the	ese 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	
MW2	07/12/16	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
MW3	03/14/96 - 01/ ⁻	15/04 Not analyzed for the	ese 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	

Oakland, California

(Page 2 of 4)

Well	Sampling	DIPE	ETBE	TAME	TBA	1,2-DCA	EDB	Ethanol
ID	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
onmental Screer	ing Levels (February 2016)							
					12	0.50	0.05	
MW3	07/12/16	<0.50	<0.50	<0.50	5.5	1.1	<0.50	
MW4	03/14/96 - 01/27/99	Not analyzed for thes	e analytes					
MW4	Apr-99	Destroyed during cor	struction activities.					
MW5	10/25/00 - 01/15/04	Not analyzed for thes	e 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	
MW5	07/12/16	<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	
MW6	07/12/16	<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	

Oakland, California (Page 3 of 4)

Well	Sampling	DIPE	ETBE	TAME	TBA	1,2-DCA	EDB	Ethano
ID	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
vironmental Screen	ing Levels (February 2016)							
er 1					12	0.50	0.05	
MW7	03/25/16	<0.50	<0.50	<0.50	9.5	1.9	<0.50	
MW7	07/12/16	<0.50	<0.50	<0.50	10	2.0	<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	
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	
MW8	07/12/16	<2.5	<2.5	<2.5	29	<2.5	<2.5	
ab Groundwater Sa	mples							
t analyzed for these a	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 (Page 4 of 4)

Notes:	Ada	pted 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.
а	=	Well sampled using no-purge method.
b	=	Diesel and unidentified hydrocarbons <c15.< td=""></c15.<>
С	=	Diesel and unidentified hydrocarbons <c15>C25.</c15>
d	=	Diesel and unidentified hydrocarbons >C20.
е	=	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 2WELL CONSTRUCTION DETAILSFormer Mobil Service Station 991056301 San Pablo AvenueOakland, California(Page 1 of 1)

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

(Page 1 of 1)

Sample	VW1	VW2	VW3	VW4	VW5
Date	(ppm)	(ppm)	(ppm)	(ppm)	(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
07/12/16	7.5	1.1	46.2	2,244	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

SV assesement FIELD WORK REQUEST

Site #:99105Address:6301 San Pablo Ave.CityOakland

Cardno ERI Project #: Date: Project Manager:

2783 3rd Quarter 2016 Scott Perkins

WORK REQUESTED

PID Following VW wells (use compressor and tedlar bags) Previous results in ppm are listed below for your Info.

Point	6/26/2015	8/14/2015	3/25/2016	12/07/2016
VW1	Wet	Wet	18.3	7,5
VW2	0.7	6.2	Wet	1.1
VW3	79.5	16.6	69.3	46.2
VW4	2319	2740	1447	2244
VW5	Wet	Wet	Wet	wet

Daily Field Report Cardno **Shaping the Future** Project ID #: Former Gran # 99105 Cardno Job # 2783 Subject: Monitoring and Simpling Date: 7/12/16 Equipment Used: DTW TVE, YSI, Hand for 15 Sheet: 1 of 1 Name(s): 55 AB Time Arrived On Site: 0445 Time Departed Site: Total Travel: 1.75 1145 Pasite et 0445. Held health and sately meeting and Reviewed GASP. Reviewed 55A's and Smargarer procedures. Signed in. 0445-0500 opened all wells and set ap deem / Track. Trained AB 0500- 0530 on clearing procedures. Dru on all wills. 0530-0600 Parged WUSS MWZ, MWZ, MW3, MW6, MW5, MW8, Payed all wells first in order to move treat before start 0600 - 0745 of business, Schold WUSS MWZ, MW7, MW7, MWG, MW5, MW8. * Slow rulege on site 0745-1015 Cleared the track and all equipment. Prepetred for AID on SUS wells 1015-1045, PID SUS wells and record tondings in log. 1045- 1130. Clarch and inspected site. Closed all purets. 1130-1645 off site at 1145. Total water: Decon water: 25 gullons Para water: 54 gallons Tatul: 79 gallors for event.

1 1 1

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

WELL WELL ODOR? TOTAL Pre-Purge CASE So to to to the DIAMETER SHEEN? DEPTH DTW	COMMENTS
inches inches	

WAT	ECS	SAMP	PLING	S SIT	E SI	[ATU	S			Ę	J						Date: 7/12/16 Inspected by: 55 AB
Cardno	Job N	o.: <u>2</u>	783	<u> </u>	Sta	tion No.	9915	5	-	S	ite A	Addre	ess: _	6	301 5	n lablo	Auc,
WellID	Well	Head Selens Rubbe	arket well	oching och	or cas	Mell-seal H	ead water	Nell Tabe	Well	Cover	ncelo	sate	Drums Drums	um	antents Building	ng tilon ondright site and N/R/ok	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/o	ok		s/w/	'e	g/v/o	N/R/ok	No Lacks on site
MWL	AN	OK	OK	IN	OK	OK	N	NA	OK	NA	ě.	0	NP		NA	oK	
MW7	oK			N		σK	Y		ot	1		_					
MWS	NA		OK	N	ok	οK	N	oK	ok								
MNG	oK	N	ok	ろ	oK		N	ok	oK								
MWS MWB	oK		oK	μ	oK		と	OK	٥K								
MWS	ak	ok	sk	N	ok	9K	Z	oK	oK	V		W.	V		V	V	
											_			4			
										_	_			+			
					<u> </u>						_			4			
				-						_	-			+			
											+			+			
											+			+			
					<u> </u>				_		+	_	<u> </u>	+			
											+	_		4			
											+		<u> </u>	+			
											+	_		+	_		
											+	_		+	_		
											-			+			
											+	_		+			
											+			+			
	-										+			╉			
										_	+	_		+			
											+			+			
	-										-+	_		+			
											+	-		+			
N = Not re	epairable	e in time :	available	-see cor	nments		Y = `	Yes.				s = S	L Soil	_		a = Gr	affiti on walls.
R = Repa	-			500 001	ono.		N =						Nater.			-	grants (or evidence of).
ok = No a													Empty				pen (not secured).

(AR				
							-	AMPLING	FIELD	LOG		2-12·10			-		
Client Name	e: Exx	ion /	M05:1		Cardno	Job #:	278	33			Date:	Hits	Page	of			
Location:											Date: 7776 Page of						
											Case Volume = (TD - DTW) x F where F =						
Field Crew:	_AB	, 50			Analysis	u				-			eter well casing				
														mter well casing mter well casing			
											1.437		iter wen casing				
		Case	Purge		~		Post-Purge	80%						Comment	s		
Well ID	Time	Volume	Volume	Temp	Cond	pH	DTW	Recharge	BB	40mil	Amber	DO	ORP	Well Box Con	dition		
A112 3	6:03	5.35	6				12.49	Ma			-			1			
MW2	6605	5.00	6	19.36	1167	63	Sample Da		12/16				_	MANG III			
			12	11.90	70+				w2	1				DRY CO 11 6	AL.		
	-		18				Sample Na Sample Tir	-	10		_						
MW7	0620	0,62	17		I		12.94		10					DAY ON /	GAL		
	0622		1	18,70	417	6.42	Sample Da		12/16					Ditt D /	GAL		
	-	1	2	1017	1.	0.1-	Sample Na		N7					0	_		
	-		3				Sample Tir										
Mw3	0632	4.37	5				13,73							DAY B 9	GAL.		
	0634		5	18.15	893	661	Sample Da		11211	6	· · · · ·			POT B /	01101		
	1	1	10				Sample Na		W3								
	-		15				Sample Tir										
MNG	0647	3,50	4				13.60	NO						DRY (D)	11 GAC		
C	648		4	16.53	1021	7.19	Sample Da	ate: 7/1	2/16								
	0651		6	18.28	1048	6.90	Sample Na		~ 6					1			
	-		12	-	-	-	Sample Tir	(····································	30								
MWS	0706	3.50	4		1.4.		12.35										
	0709		Н	18.70	810	6.20		ite: 7/2									
	0711		8	20,19	699	6.80	Sample Na		WS		_	_					
11. 1	0713	~1/~ A	12	19.67	608	6.67	Sample Tir	ne: 09	40		X						
Mwd	0730	473		101.12	1010	1 1 01			210					DRY Q 10 G	AL.		
	0733		5	21.1+	962	6,71	Sample Da	ate: 7/1	416						_		
	0736		10	20.62	7+0	6.05	Sample Na	me: MC	20								
			1-2				Sample Tir						-				
				1	1		Sample Da					_					
		1	—				Sample Da										
			<u> </u>			<u> </u>	Sample Na Sample Tir										
							Sample III	ne.									

APPENDIX C

LABORATORY ANALYTICAL REPORT

WORK ORDER NUMBER: 16-07-0900

Calscience



🔅 eurofins



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

Center L. in Dung

Approved for release on 07/27/2016 by: Cecile deGuia Project Manager



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.

7440 Lincoln Way, Garden Grove, CA 92841-1432 * TEL: (714) 895-5494 * FAX: (714) 894-7501 * www.calscience.com

🛟 eurofins

Calscience

Contents

	ect Name: er Number:	ExxonMobil 99105/022783C 16-07-0900	
1	Work Ord	der Narrative	3
2	Sample S	Summary	4
3	3.1 EPA 3.2 EPA	Imple Data	5 5 7 9
4	4.1 MS/	Control Sample Data	16 16 18
5	Sample A	Analysis Summary	21
6	Glossary	of Terms and Qualifiers	22
7	Chain-of-	Custody/Sample Receipt Form	23

Work Order: 16-07-0900

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/14/16. They were assigned to Work Order 16-07-0900.

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.



Client:	Cardno	Work Order:	16-07-0900
	601 North McDowell Blvd.	Project Name:	ExxonMobil 99105/022783C
	Petaluma, CA 94954-2312	PO Number:	022783C
		Date/Time Received:	07/14/16 11:00
		Number of Containers:	50
Attn	Scott Perkins		

Attn: Scott Perkins

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW2	16-07-0900-1	07/12/16 08:10	8	Aqueous
MW3	16-07-0900-2	07/12/16 09:00	8	Aqueous
MW5	16-07-0900-3	07/12/16 09:40	8	Aqueous
MW6	16-07-0900-4	07/12/16 09:30	8	Aqueous
MW7	16-07-0900-5	07/12/16 08:30	8	Aqueous
MW8	16-07-0900-6	07/12/16 10:00	8	Aqueous
QCBB	16-07-0900-7	07/12/16 07:30	2	Aqueous



Cardno			Date Recei	ved:			07/14/16	
601 North McDowell Blvd.			Work Order:				16-07-0900	
Petaluma, CA 94954-2312		Preparation	ו:			EPA 3510C		
		Method:			E	EPA 8015B (M)		
			Units:				ug/Ĺ	
Project: ExxonMobil 99105/0227	783C					Pa	age 1 of 2	
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
MW2	16-07-0900-1-G	07/12/16 08:10	Aqueous	GC 49	07/18/16	07/19/16 08:32	160718B11S	
Parameter		Result	RL	-	DF	Qu	alifiers	
TPH as Diesel		ND	50		1.00	SG		
Surrogate		Rec. (%)	Cc	ontrol Limits	Qualifiers			
n-Octacosane		<u>75</u>		-140	ddamers			
MW3	16-07-0900-2-G	07/12/16 09:00	Aqueous	GC 49	07/18/16	07/19/16 08:49	160718B11S	
Parameter		Result	RL	-	DF	Qu	alifiers	
TPH as Diesel		230	50		1.00	HD	,SG	
Surrogate		Rec. (%)	Co	ontrol Limits	Qualifiers			
n-Octacosane		76		-140				
MW5	16-07-0900-3-G	07/12/16 09:40	Aqueous	GC 49	07/18/16	07/19/16 09:06	160718B11S	
Parameter		Result	RL		DF	Qu	alifiers	
TPH as Diesel		2800	50		1.00	HD	,SG	
Surrogate		Rec. (%)	Co	ontrol Limits	Qualifiers			
n-Octacosane		73		-140				
MW6	16-07-0900-4-G	07/12/16	Aqueous	GC 49	07/18/16	07/19/16	160718B11S	
		09:30				09:23		
Parameter		<u>Result</u>	<u>RL</u>		<u>DF</u>		alifiers	
TPH as Diesel		130	50		1.00	HD	,SG	
Surrogate		<u>Rec. (%)</u>	<u>Cc</u>	ontrol Limits	<u>Qualifiers</u>			
n-Octacosane		79	68	-140				
MW7	16-07-0900-5-G	07/12/16 08:30	Aqueous	GC 49	07/18/16	07/19/16 09:40	160718B11S	
Parameter		Result	RL	-	DE	Qu	alifiers	
TPH as Diesel		88	50		1.00	HD	,SG	
Surrogate		<u>Rec. (%)</u>	0	ontrol Limits	Qualifiers			
n-Octacosane		<u>Rec. (%)</u> 81		-140	Qualmers			
		01	00	1-10				

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



Cardno			Date Recei	ved:			07/14/16
601 North McDowell Blvd.			Work Orde	r:			16-07-0900
Petaluma, CA 94954-2312			Preparatior	ו:			EPA 3510C
			Method:			E	PA 8015B (M)
			Units:				ug/L
Project: ExxonMobil 99105/02278	33C					Pa	ige 2 of 2
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	16-07-0900-6-G	07/12/16 10:00	Aqueous	GC 49	07/18/16	07/19/16 09:57	160718B11S
Parameter		Result	RL		DF	Qua	alifiers
TPH as Diesel		1500	50		1.00	HD,	SG
<u>Surrogate</u>		<u>Rec. (%)</u>	Co	ontrol Limits	<u>Qualifiers</u>		
n-Octacosane		76	68	-140			
Method Blank	099-15-304-1464	N/A	Aqueous	GC 49	07/18/16	07/19/16 06:32	160718B11S
Parameter		Result	RL	•	DF	Qua	alifiers
TPH as Diesel		ND	50		1.00		
Surrogate		<u>Rec. (%)</u>	<u>Co</u>	ontrol Limits	<u>Qualifiers</u>		
n-Octacosane		89	68	-140			



Cardno			Date Recei				07/14/16
601 North McDowell Blvd.		Work Order:					16-07-0900
Petaluma, CA 94954-2312			Preparation	1:			EPA 5030C
			Method:			E	PA 8015B (M)
			Units:				ug/L
Project: ExxonMobil 99105/022	783C					Pa	age 1 of 2
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW2	16-07-0900-1-F	07/12/16 08:10	Aqueous	GC 1	07/22/16	07/23/16 07:22	160721L054
Parameter		Result	RL		DF	Qua	alifiers
TPH as Gasoline		ND	50		1.00		
Surrogate		<u>Rec. (%)</u>	<u>Co</u>	ntrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		56	38-	-134			
MW3	16-07-0900-2-F	07/12/16 09:00	Aqueous	GC 1	07/22/16	07/23/16 07:57	160721L054
Parameter		Result	RL		DE	Qua	alifiers
TPH as Gasoline		340	50		1.00	HD	
Surrogate		<u>Rec. (%)</u>	<u>Co</u>	ntrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		64	38-	-134			
MW5	16-07-0900-3-F	07/12/16 09:40	Aqueous	GC 1	07/22/16	07/23/16 15:05	160721L054
Parameter		Result	RL		DF	Qua	alifiers
TPH as Gasoline		1500	25	C	5.00	HD	
Surrogate		Rec. (%)	Co	ntrol Limits	Qualifiers		
1,4-Bromofluorobenzene		60	38-	-134			
MW6	16-07-0900-4-F	07/12/16 09:30	Aqueous	GC 1	07/22/16	07/23/16 08:33	160721L054
Parameter		Result	<u>RL</u>		DE		alifiers
TPH as Gasoline		ND	50		1.00		
Surrogate		<u>Rec. (%)</u>	Co	ntrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		56	38-	-134			
MW7	16-07-0900-5-F	07/12/16 08:30	Aqueous	GC 1	07/22/16	07/23/16 11:31	160721L054

054 м 08:30 11:31 <u>RL</u> <u>DF</u> **Qualifiers** Parameter <u>Result</u> **TPH** as Gasoline ND 50 1.00 Surrogate Rec. (%) Control Limits **Qualifiers** 1,4-Bromofluorobenzene 55 38-134



Cardno			Date Rece	ived:			07/14/16
601 North McDowell Blvd.			Work Orde	er:			16-07-0900
Petaluma, CA 94954-2312			Preparatio	n:			EPA 5030C
			Method:			E	PA 8015B (M)
			Units:				ug/L
Project: ExxonMobil 99105/022783	с					Pa	ige 2 of 2
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	16-07-0900-6-F	07/12/16 10:00	Aqueous	GC 1	07/22/16	07/23/16 14:30	160721L054
Parameter		Result	<u>R</u>	L	DF	Qua	alifiers
TPH as Gasoline		2000	50)	1.00		
Surrogate		<u>Rec. (%)</u>	<u>C</u>	ontrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		132	38	3-134			
Method Blank	099-12-436-10952	N/A	Aqueous	GC 1	07/22/16	07/23/16 01:24	160721L054
Parameter		Result	<u>R</u>	L	DF	Qua	alifiers
TPH as Gasoline		ND	50)	1.00		
Surrogate		<u>Rec. (%)</u>	<u>C</u>	ontrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		51	38	3-134			

Return to Contents



Calscience

Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 99105/022783C		Page 1 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW2	16-07-0900-1-A	07/12/16 08:10	Aqueous	GC/MS T	07/15/16	07/15/16 19:16	160715L048
Parameter		Result	RL		DF	Qua	lifiers
Benzene		ND	0.5	50	1.00		
Toluene		ND	0.5	50	1.00		
Ethylbenzene		ND	0.5	50	1.00		
o-Xylene		ND	0.5	50	1.00		
p/m-Xylene		ND	0.5	50	1.00		
Xylenes (total)		ND	0.5	50	1.00		
Methyl-t-Butyl Ether (MTBE)		ND	0.5	50	1.00		
Tert-Butyl Alcohol (TBA)		ND	5.0)	1.00		
Diisopropyl Ether (DIPE)		ND	0.5	50	1.00		
Ethyl-t-Butyl Ether (ETBE)		ND	0.5	50	1.00		
Tert-Amyl-Methyl Ether (TAME)		ND	0.5	50	1.00		
1,2-Dibromoethane		ND	0.5	50	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
Surrogate		<u>Rec. (%)</u>	<u>Cc</u>	ontrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		91	68	-120			
Dibromofluoromethane		118	80	-127			
1,2-Dichloroethane-d4		119	80	-128			
Toluene-d8		102	80	-120			



Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 99105/022783C		Page 2 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW3	16-07-0900-2-A	07/12/16 09:00	Aqueous	GC/MS T	07/15/16	07/15/16 19:44	160715L048
Parameter		<u>Result</u>	<u>RL</u>		DF	Qua	lifiers
Benzene		2.0	0.5	0	1.00		
Toluene		ND	0.5	0	1.00		
Ethylbenzene		ND	0.5	0	1.00		
o-Xylene		ND	0.5	0	1.00		
p/m-Xylene		ND	0.5	0	1.00		
Xylenes (total)		ND	0.5	0	1.00		
Methyl-t-Butyl Ether (MTBE)		ND	0.5	0	1.00		
Tert-Butyl Alcohol (TBA)		5.5	5.0		1.00		
Diisopropyl Ether (DIPE)		ND	0.5	0	1.00		
Ethyl-t-Butyl Ether (ETBE)		ND	0.5	0	1.00		
Tert-Amyl-Methyl Ether (TAME)		ND	0.5	0	1.00		
1,2-Dibromoethane		ND	0.5	0	1.00		
1,2-Dichloroethane		1.1	0.5	0	1.00		
Surrogate		<u>Rec. (%)</u>	Cor	ntrol Limits	Qualifiers		
1,4-Bromofluorobenzene		102	68-	120			
Dibromofluoromethane		116	80-	127			
1,2-Dichloroethane-d4		118	80-	128			
Toluene-d8		106	80-	120			



Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 99105/022783C		Page 3 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW5	16-07-0900-3-A	07/12/16 09:40	Aqueous	GC/MS T	07/15/16	07/15/16 20:13	160715L048
Parameter		<u>Result</u>	<u>RL</u>		DF	Qua	lifiers
Benzene		54	2.0		4.00		
Toluene		ND	2.0		4.00		
Ethylbenzene		12	2.0		4.00		
o-Xylene		ND	2.0		4.00		
p/m-Xylene		6.0	2.0		4.00		
Xylenes (total)		6.0	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		<u>Rec. (%)</u>	Cor	ntrol Limits	Qualifiers		
1,4-Bromofluorobenzene		104	68-	120			
Dibromofluoromethane		105	80-	·127			
1,2-Dichloroethane-d4		105	80-	128			
Toluene-d8		112	80-	120			



Calscience

Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 99105/022783C		Page 4 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW6	16-07-0900-4-A	07/12/16 09:30	Aqueous	GC/MS T	07/15/16	07/15/16 20:42	160715L048
Parameter		<u>Result</u>	<u>RL</u>		DF	Qua	alifiers
Benzene		ND	0.5	0	1.00		
Toluene		ND	0.5	0	1.00		
Ethylbenzene		ND	0.5	0	1.00		
o-Xylene		ND	0.5	0	1.00		
p/m-Xylene		ND	0.5	0	1.00		
Xylenes (total)		ND	0.5	0	1.00		
Methyl-t-Butyl Ether (MTBE)		ND	0.5	0	1.00		
Tert-Butyl Alcohol (TBA)		ND	5.0		1.00		
Diisopropyl Ether (DIPE)		ND	0.5	0	1.00		
Ethyl-t-Butyl Ether (ETBE)		ND	0.5	0	1.00		
Tert-Amyl-Methyl Ether (TAME)		ND	0.5	0	1.00		
1,2-Dibromoethane		ND	0.5	0	1.00		
1,2-Dichloroethane		ND	0.5	0	1.00		
Surrogate		<u>Rec. (%)</u>	Cor	ntrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		96	68-	120			
Dibromofluoromethane		109	80-	·127			
1,2-Dichloroethane-d4		110	80-	128			
Toluene-d8		101	80-	120			



Calscience

Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 99105/022783C		Page 5 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	16-07-0900-5-A	07/12/16 08:30	Aqueous	GC/MS T	07/15/16	07/15/16 21:11	160715L048
Parameter		<u>Result</u>	RI	=	DF	Qua	lifiers
Benzene		ND	0.	50	1.00		
Toluene		ND	0.	50	1.00		
Ethylbenzene		ND	0.5	50	1.00		
o-Xylene		ND	0.	50	1.00		
p/m-Xylene		ND	0.5	50	1.00		
Xylenes (total)		ND	0.5	50	1.00		
Methyl-t-Butyl Ether (MTBE)		ND	0.	50	1.00		
Tert-Butyl Alcohol (TBA)		10	5.0	0	1.00		
Diisopropyl Ether (DIPE)		ND	0.5	50	1.00		
Ethyl-t-Butyl Ether (ETBE)		ND	0.	50	1.00		
Tert-Amyl-Methyl Ether (TAME)		ND	0.5	50	1.00		
1,2-Dibromoethane		ND	0.5	50	1.00		
1,2-Dichloroethane		2.0	0.	50	1.00		
Surrogate		<u>Rec. (%)</u>	<u>Co</u>	ontrol Limits	Qualifiers		
1,4-Bromofluorobenzene		97	68	8-120			
Dibromofluoromethane		110	80)-127			
1,2-Dichloroethane-d4		107	80)-128			
Toluene-d8		100	80)-120			



Calscience

Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 99105/022783C		Page 6 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	16-07-0900-6-A	07/12/16 10:00	Aqueous	GC/MS T	07/15/16	07/15/16 21:40	160715L048
Parameter		<u>Result</u>	<u>RL</u>		DF	Qua	lifiers
Benzene		160	2.5		5.00		
Toluene		ND	2.5		5.00		
Ethylbenzene		84	2.5		5.00		
o-Xylene		ND	2.5		5.00		
p/m-Xylene		11	2.5		5.00		
Xylenes (total)		11	2.5		1.00		
Methyl-t-Butyl Ether (MTBE)		ND	2.5		5.00		
Tert-Butyl Alcohol (TBA)		29	25		5.00		
Diisopropyl Ether (DIPE)		ND	2.5		5.00		
Ethyl-t-Butyl Ether (ETBE)		ND	2.5		5.00		
Tert-Amyl-Methyl Ether (TAME)		ND	2.5		5.00		
1,2-Dibromoethane		ND	2.5		5.00		
1,2-Dichloroethane		ND	2.5		5.00		
Surrogate		<u>Rec. (%)</u>	Con	ntrol Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene		99	68-7	120			
Dibromofluoromethane		107	80-1	127			
1,2-Dichloroethane-d4		103	80-2	128			
Toluene-d8		103	80-1	120			

QC Batch ID

160715L048

Qualifiers

Date/Time Analyzed

07/15/16 11:54



Tert-Amyl-Methyl Ether (TAME)

Cal	SCI	en	CP
Jui	301		

Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 99105/022783C		Page 7 of 7

Lab Sample Number Date/Time Collected Date Prepared **Client Sample Number** Matrix Instrument Method Blank 099-12-884-1334 GC/MS T 07/15/16 N/A Aqueous Parameter Result <u>RL</u> <u>DF</u> ND 0.50 1.00 Benzene ND Toluene 0.50 1.00 Ethylbenzene ND 1.00 0.50 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

1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	93	68-120		
Dibromofluoromethane	116	80-127		
1,2-Dichloroethane-d4	117	80-128		
Toluene-d8	101	80-120		

ND

0.50

1.00

Return to Contents

🛟 eurofins

Quality Control - Spike/Spike Duplicate

Cardno				Date	Received:					07/14/16
601 North McDowell Blvd.				Worl	c Order:				16	6-07-0900
Petaluma, CA 94954-2312				Prep	aration:				EF	PA 5030C
				Meth	iod:				EPA 8	015B (M)
Project: ExxonMobil 99105/0)22783C								Page 1	of 2
Quality Control Sample ID	Туре		Matrix	In	strument	Date Prepared	Date Anal	yzed	MS/MSD Bat	ch Number
16-07-0976-1	Sample		Aqueous	s G	C 1	07/22/16	07/23/16	02:00	160721S025	
16-07-0976-1	Matrix Spike		Aqueous	s G	C 1	07/22/16	07/23/16	02:36	160721S025	
16-07-0976-1	Matrix Spike	Duplicate	Aqueous	s G	C 1	07/22/16	07/23/16	03:12	160721S025	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	<u>MS</u> Conc.	<u>MS</u> <u>%Rec.</u>	<u>MSD</u> Conc.	<u>MSD</u> %Rec.	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
TPH as Gasoline	ND	2000	1991	100	1953	98	68-122	2	0-18	

RPD: Relative Percent Difference. CL: Control Limits

🛟 eurofins

Condes	Data Dassivad	07/14/16
Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: ExxonMobil 99105/022783C		Page 2 of 2

Quality Control Sample ID	Туре		Matrix	Ir	strument	Date Preparec	Date Ana	lyzed	MS/MSD Ba	tch Number
16-07-0926-4	Sample		Aqueou	ıs G	C/MS T	07/15/16	07/15/16	14:55	160715S016	3
16-07-0926-4	Matrix Spike		Aqueou	ıs G	C/MS T	07/15/16	07/15/16	15:24	160715S016	5
16-07-0926-4	Matrix Spike	Duplicate	Aqueou	ıs G	C/MS T	07/15/16	07/15/16	15:53	160715S016	6
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	<u>MS</u> Conc.	<u>MS</u> %Rec.	<u>MSD</u> Conc.	<u>MSD</u> %Rec.	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	ND	10.00	10.57	106	10.74	107	75-125	2	0-20	
Toluene	ND	10.00	10.70	107	10.89	109	75-125	2	0-20	
Ethylbenzene	ND	10.00	10.48	105	10.75	108	75-125	3	0-20	
o-Xylene	ND	10.00	10.61	106	10.91	109	75-127	3	0-20	
p/m-Xylene	ND	20.00	21.04	105	21.52	108	75-125	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	11.48	115	11.57	116	71-131	1	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	51.13	102	51.16	102	20-180	0	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	12.21	122	12.47	125	64-136	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	11.50	115	11.75	117	73-133	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	10.46	105	10.69	107	75-125	2	0-20	
1,2-Dibromoethane	ND	10.00	10.40	104	10.90	109	75-126	5	0-20	
1,2-Dichloroethane	ND	10.00	10.74	107	10.79	108	75-127	0	0-20	

RPD CL

0-13

<u>Qualifiers</u>

🔅 eurofins

Parameter

TPH as Diesel

Cardno			Date Receiv	/ed:		07/14/16
601 North McDowell Blvd.			Work Order	:		16-07-0900
Petaluma, CA 94954-2312	2		Preparation	:		EPA 3510C
			Method:			EPA 8015B (M)
Project: ExxonMobil 9910	5/022783C					Page 1 of 3
Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-304-1464	LCS	Aqueous	GC 49	07/18/16	07/19/16 06:49	160718B11S
099-15-304-1464	LCSD	Aqueous	GC 49	07/18/16	07/19/16 07:06	160718B11S

<u>LCSD</u> <u>%Rec.</u>

104

LCSD Conc.

2073

<u>%Rec. CL</u> <u>RPD</u>

1

75-117

<u>LCS</u> <u>%Rec.</u>

102

Spike Added LCS Conc.

2049

2000

0

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

🛟 eurofins	
	Calscience

Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: ExxonMobil 99105/022783C		Page 2 of 3

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	d Date Analyzed L	CS Batch Number
099-12-436-10952	LCS	Aqueous	GC 1	07/22/16	07/23/16 00:49 1	60721L054
Parameter		Spike Added	Conc. Recov	rered LCS %F	<u>Rec. %Rec. 0</u>	<u>CL</u> <u>Qualifiers</u>
TPH as Gasoline		2000	1947	97	78-120	

RPD: Relative Percent Difference. CL: Control Limits

🛟 eurofins

Cardno	Date Received:	07/14/16
601 North McDowell Blvd.	Work Order:	16-07-0900
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: ExxonMobil 99105/022783C		Page 3 of 3

Quality Control Sample ID	Туре	Matrix	. In	strument	Date Prepared	Date Analyzed	LCS Batch Nu	mber
099-12-884-1334	LCS	Aque	ous G	C/MS T	07/15/16	07/15/16 10:40	160715L048	
Parameter		Spike Added	Conc. Red	covered LC	<u>S %Rec.</u> %	Rec. CL M	IE CL	<u>Qualifiers</u>
Benzene		10.00	10.37	10	4 80	-120 73	3-127	
Toluene		10.00	10.52	10	5 80	-120 73	3-127	
Ethylbenzene		10.00	10.31	10	3 80	-120 73	3-127	
o-Xylene		10.00	10.39	10	4 80	-120 73	3-127	
p/m-Xylene		20.00	20.72	10	4 80	-120 73	3-127	
Methyl-t-Butyl Ether (MTBE)		10.00	10.76	10	8 75	-123 67	7-131	
Tert-Butyl Alcohol (TBA)		50.00	50.77	10	2 80	-120 73	3-127	
Diisopropyl Ether (DIPE)		10.00	11.79	11	8 73	-121 65	5-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	11.12	11	1 76	-124 68	8-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	10.16	10	2 80	-120 7:	3-127	
1,2-Dibromoethane		10.00	10.05	10	0 80	-120 73	3-127	
1,2-Dichloroethane		10.00	9.847	98	80	-122 73	3-129	

Total number of LCS compounds: 12

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Page 1 of 1

Return to Contents



Calscience

Work Order: 16-07-0900

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8015B (M)	EPA 3510C	682	GC 49	1
EPA 8015B (M)	EPA 5030C	902	GC 1	2
EPA 8260B	EPA 5030C	823	GC/MS T	2

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: 16-07-0900

Page 1 of 1

<u>Qualifiers</u>	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.
В	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

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.

Jonathan Diaz

From:Azat Magdanov <azat.magdanov@cardno.com>Sent:Friday, July 15, 2016 8:30 AMTo:Jonathan DiazCc:David Daniels; Scott Perkins; Cecile L de GuiaSubject:RE: ExxonMobil 99105/022783C / ECI 16-07-0900Attachments:2783COC.pdf

Hi, Jonathan,

- 1. COC is correct MW6 was sampled at 09:30 (error in label).
- 2. COC with corrected containers count is attached.

Best regards,

Azat Magdanov

SR. STAFF SCIENTIST | MONITORING AND SAMPLING MANAGER ENGINEERING & ENVIRONMENTAL SERVICES DIVISION CARDNO

Mobile +1 707 304 2306 Address 601 North McDowell Boulevard, Petaluma, California 94954 Email <u>azat.magdanov@cardno.com</u> Web <u>www.cardno.com</u>

This email and its attachments may contain confidential and/or privileged information for the sole use of the intended recipient(s). All electronically supplied data must be checked against an applicable hardcopy version which shall be the only document which Cardno warrants accuracy. If you are not the intended recipient, any use, distribution or copying of the information contained in this email and its attachments is strictly prohibited. If you have received this email in error, please email the sender by replying to this message and immediately delete and destroy any copies of this email and any attachments. The views or opinions expressed are the author's own and may not reflect the views or opinions of Cardno.

From: David Daniels
Sent: Thursday, July 14, 2016 7:22 PM
To: Azat Magdanov azat.magdanov@cardno.com
Subject: Fwd: ExxonMobil 99105/022783C / ECI 16-07-0900

See below

Sent from my iPhone

Begin forwarded message:

From: Jonathan Diaz <JonathanDiaz@eurofinsUS.com>
Date: July 14, 2016 at 6:12:18 PM PDT
To: "Scott Perkins (scott.perkins@cardno.com)" <scott.perkins@cardno.com>
Cc: "David Daniels (david.daniels@cardno.com)" <david.daniels@cardno.com>, Cecile L de Guia
<CecileLdeGuia@eurofinsUS.com>
Subject: ExxonMobil 99105/022783C / ECI 16-07-0900

Hello,

We received sample -4 (MW6) w/ a collection time per label of 9:20 instead of 9:30.

For samples -1 thru -6 we received 8 containers instead of 10:

- 6-Vials w/HCL
- 2-500 amber glass jars.

Please advise.

Thanks, Jonathan

(714) 895-5494

Notify us <u>here</u> to report this email as spam.

Eurofins				Linco		-										714-8			•				ExonMobil											
Calscience Ir	IC.	G	ard	en Gr	ove,	CA	92	:84	1					ax:	/14	1-894-	.750	1										·07-						
Con	sultant Name	Car	dno EF	21														_ A	cco	unt	#: <u>N</u>	A				Р	O#:		Direc	ct Bi	ll Ca	rdno	ERI	
Consul	tant Address	601	N Mcl	Dowell	ar Youl I to be an er ar an a			1										Ir	voi	ce T	o: <u>D</u>	irect	Bill Ca	ardno	ER			ore the story rout for the second						
Consultant (City/State/Zip	Peta	aluma,	CA 94954																	_	cott F		5										
ExxonMobi	I Project Mgr	Jen	nifer \$	Bedlachek													_	-			e: _0	2 278												
	t Project Mgr	_													_	Exx	onM							991				Major P	roject	(AFI	E #):			
Consultant Teleph				-				_ Fa	ax No	.: <u>(</u>	707) 789	-04 ⁻	14							_	301 S			Ave									
	Name (Print)		320	SA C	Jo	ns	°1											-			_	aklar			-									
Samp	ler Signature	·		N F	-				_	_		Dros	en/s	ative			Over	Mai		geno	y: <u>A</u>	lame	la Co	unty		Analy		al Health D	epartn	nent				
Sample ID MW2 MW3 MW5 MW6 MW7 MW8 QCBB	emery tripological and the second sec	7/7/	1/16	08/0 0990 0990 0930 0730 0730	8 8 8	Qab	Composite	Field Fittered	Methanol	6	+	H ₂ SO ₄ Plastic	H ₂ SO ₄ Glass	X X X X X X X X X X X X X X X X X X X	Other	2A 2A 2A 2A 2A 2A 2A 2A	X X X X X Groundwater	Wastewater Drinking Water	Studge	Soil	Air Air Anna Air Airtean	(sharik). memer	x x x x x x x x x x x x x x x x x x x		x x x x	x x x x x x x				Ethanol	RUSH TAT (Pre-Schedul			Due Date of Report
														_																			+	_
Comments/Special Instructions: GLOBAL ID # T0600101855 Relinquished by Relinquished by:	OXY's repo	ort M1	Iean-u	p for TPH ate 3//6 ate		ne 22	Rec 70	eived		i Y						7/12	all Al		@er			Sa VC <u>C De</u> evel 2 evel 3 evel 4	mper mple ICs F iveral	ature Conf ree c bles (Upc aine f He pleas	n Re rs In adsp ac cir	act? acei cle o	?		, , ,	Y Y	N N		
To Omally to	\$-50	Ż	13	18	1230	>		-		H	2	W	N			7/1/	7//	6	//	00								fic instruction						

 \mathbf{r}

Return to Contents

Ca	Consul Consultant C ExxonMobi	sultant Name tant Address City/State/Zip			ove, (CA	92	84 ⁻	1			F	ax:	714	4-894-	-750)1									χonΝ			7 11	
	Consul Consultant C ExxonMobi Consultant	tant Address Sity/State/Zip		81																									_	
	Consul Consultant C ExxonMobi Consultant	tant Address Sity/State/Zip		1																			1)-	07-09)(
	Consultant C ExxonMobi Consultant	City/State/Zip	: 601 N McE														_ A	cco	unt #	: <u>NA</u>				PO)#:	Direc	t Bil	l Car	dno E	ERI
	ExxonMobi Consultan	-		Dowell						9997ad 74ad							In	voic	е То	: Dire	ect Bill Car	dno E	RI						~	
	Consultant		: Petaluma,	CA 94954													F	Repo	rt To	: <u>Scc</u>	ott Perkins									
		I Project Mg	r: <u>Jennifer S</u>	edlachek													Proj	ect N	lame	: 02	2783 C									
	Consultant Teleph	t Project Mg	r: Scott Perl	<u>kins</u>											Exx	tonN	lobil	Site	#:		9	910	5			Major Project	(AFE	E #):		
		one Numbe		-				Fa	x No.:	: (70)7) 78	9-04	14				Site	Add	Iress	: <u>630</u>	1 San Pat	olo Av	/e							
	Sampler	Name (Print): <u> </u>	<u>NR</u>	Joh	<u>n ŝp</u>	<u>n</u>										•		•	-	kland, CA					· · · · · · · · · · · · · · · · · · ·				
	Samp	ler Signature):	XP.											(Over			ency	: Ala	meda Cou	nty E				Health Departm	ent			
		T	1		ē						Pre	serv:	ative				Mat			12	r		An	alyzi	e Fo T	r: I I	╋	= 1	1	Т
Samp	ale ID	Field Point Name	Date Sampled	Time Sampled	No. of Containers Shippe	Grab	Composite	Field Filtered	Methanol Sodium Bisulfate	ΗĞ	NaOH H ₂ SO4 Plastic	H ₂ SO4 Glass	HNO ₃ Ice	Other	None	Groundwater	Wastewater Drinking Water	Sludge	Soil Air	Other (specify): Distilled Wat	TPHd 8015B*	TDHA 8015B	BTEX 8260B	Wethanol by 8015	8260 see list		Ethanol	RUSH TAT (Pre-Schedul	o-day I.A.I Standard 10-dav TAT	Due Date of Report
MW2		MW2	7/12/4	0810	8V/2A	x		İ		2⊗		┢╹	T _x	Ħ	2A	x					x		(x		x					
2 MW3		MW3	7/12/16	a900	8V/2A		 	 		82		\dagger			2A	x	+				x		(x	+	x		╈		x	
3 MW5		MW5	21/2/16	0940	8V/2A					8V		tt	x		2A	x	\uparrow		1		x		(x	1	x		1		x	
4 MW6		MW6	7/12/16	0930	8V/2A					8		11	x		2A	x	╈				x		< x		x				×	
S MW7		MW7	HIVIK	0830	8V/2A					20		Tt	×	Π	2A	x				1	x		(x	-	x		T		T _x	
C MW8		MW8	7/12/16	1000	8V/2A					8V		Π	x	Π	2A	x				1	x	<u> </u>	< x		x					
7 QCB		QCBB	7/12/16	0730	2V					2			x	IT			T	\square					10	L	D					
			1				Í							Π				Π		1				Τ	Τ		Τ			
								 						Π				Π	T	Τ				1	Γ		Τ			
	· · · · · · · · · · · · · · · · · · ·							1		Τ		П						Π		Τ										T
							1		Π	Τ		Π		Π				Π		Τ				T						
	nents/Special Instructions: BAL ID # T0600101855		Onlv inclu ort MTBE, D -gel clean-u		TAME, E			, 1,2	DCA				P	LEAS	SE E-MA				ES TO	,	boratory C Temperat Sample C VOCs Fre	ture L Contai	lpon ners	Rec Inta	ct?		,	Y	N	
Relinq	uished by	~	7/1	ate 3/16	120	ି ବ	10	eived I hC	ÌN,	/	lly		•C/		7/12	Date 3//	8	k	rime どこ		: Deliverabl /el 2 /el 3					<u>e)</u>				
Reling	auished by: I ally to	650		ate	Tim 130	e ?	Rece	eived	by (La	b pe	rsørne V W		r		7/1	Date	16	///	rime 01)	Site	vel 4 e Specific - oject Manag					n pre-schedule w	Cal	scien	ce	

Return to Contents

Page 26 of 29

ķ7

7/13/2016

CERDEN STRIE OCERDICAL

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

800-322-5555 www.gso.com

Page 27 of 29

Tracking #: 532581138

NPS







D92845A



54112040

Print Date: 7/13/2016 4:34 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.

🔹 eurofins		WORK ORDER	NUMBER:	16-0	Page 28 7 - ()	9 ¹ 290
Calscience	SAMPLE RECEIPT			OOLER		
CLIENT: Cardno FR	<u> </u>		DA	TE: 07	1 14	/ 2016
TEMPERATURE: (Criteria: 0.0°C - Thermometer ID: SC1B (CF: 0.0°C □ Sample(s) outside temperatu □ Sample(s) outside temperatu □ Sample(s) received at ambient t Ambient Temperature: □ Air □ F	- 6.0°C, not frozen except sedir c); Temperature (w/o CF): <u>2</u> re criteria (PM/APM contacted to re criteria but received on ice/cf emperature; placed on ice for tr	2°C (w/ CF): _2 by:) hilled on same day o			□ Sam ed by: _	
CUSTODY SEAL: Cooler Present and Intac Sample(s) Present and Intac		□ Not Present □ Not Present	□ N/A □ N/A		ed by: ed by: [[
SAMPLE CONDITION:				Yes	No	N/A
Chain-of-Custody (COC) documen	t(s) received with samples			. 1		
COC document(s) received comple	ete			. 🗹		
🗆 Sampling date 🛛 Sampling	time 🛛 Matrix 🖾 Number of c	containers				
🗆 No analysis requested 🛛 No	ot relinquished 🛛 No relinquish	ned date 🛛 No relin	quished time	e /		
Sampler's name indicated on COC				. 🗹		
Sample container label(s) consiste	nt with COC	· · · · · · · · · · · · · · · · · · ·		. 🗆	Ø	
Sample container(s) intact and in g	ood condition			. 🗹		
Proper containers for analyses req	uested			. 🗹		
Sufficient volume/mass for analyse	s requested			. д		
Samples received within holding tir	ne			. 🛛		
Aqueous samples for certain an	alyses received within 15-minut	e holding time				
🗆 pH 🖾 Residual Chlorine 🗖	Dissolved Sulfide Dissolve	d Oxygen		. 🗆		
Proper preservation chemical(s) no	oted on COC and/or sample con	tainer		. F		
Unpreserved aqueous sample(s) received for certain analyses					
🗆 Volatile Organics 🛛 Total M	etals Dissolved Metals			/		
Container(s) for certain analysis fre	e of headspace			. 📈		
🛛 🖓 Volatile Organics 🛛 Dissolv	ed Gases (RSK-175) 🛛 Disso	ved Oxygen (SM 45	00)			
□ Carbon Dioxide (SM 4500)						
Tedlar™ bag(s) free of condensation	on			. 🗆		9
		(Trip Blan	k Lot Numb	er:)
Aqueous: □ VOA ☑ VOAh □ VC	Ana₂ □ 100PJ □ 100PJna₂	125AGB 125AG	GBh □ 125A	GBp □	125PB	
□ 125PB znna □ 250AGB □ 2500		/ 17/				
□ 500PB □ 1AGB □ 1AGBna₂ Ⅰ	⊐ 1AGBs □ 1PB □ 1PBna □	I O	D	0		
Solid: □ 4ozCGJ □ 8ozCGJ □ 1						
Air: □ Tedlar™ □ Canister □ So	bent Tube	_ Other Matrix (): C]	_ □ _	
Container: A = Amber, B = Bottle, C =						
Preservative: b = buffered, f = filtered,	h = HCl, n = HNO ₃ , na = NaOH, na	a₂ = Na ₂ S ₂ O ₃ , p = H ₃ P	O₄, Labele	d/Check	ed by: <u>I</u>	<u>917</u>
	e, znna = Zn(CH ₃ CO ₂) ₂ + NaOH			Review	ed by: <u>6</u>	<u>81.</u>

🔅 eurofins

- C.

Calscience

WORK ORDER NUMBER: 16-07- 0900

.

SAMPLE ANOMALY REPORT

232

DATE: 07 / 14 / 2016

SAMPLES, CONTAINERS, AND LABELS:	Comments
□ Sample(s) NOT RECEIVED but listed on COC	
□ Sample(s) received but NOT LISTED on COC	
Holding time expired (list client or ECI sample ID and analysis)	
Insufficient sample amount for requested analysis (list analysis)	
Improper container(s) used (list analysis)	
□ Improper preservative used (list analysis)	
□ No preservative noted on COC or label (list analysis and notify lab)	
Sample container(s) not labeled	
□ Client sample label(s) illegible (list container type and analysis)	
Client sample label(s) do not match COC (comment)	(-4) collection time per
□ Project information	aber 15 0920
□ Client sample ID	
Sampling date and/or time	(-1)thni (-6) received 8
☑ Number of container(s)	containers instead of 10.
□ Requested analysis	6 vials with HCL
□ Sample container(s) compromised (comment)	2× 500 mL amber glass Jar
Broken	<u> </u>
Water present in sample container	
□ Air sample container(s) compromised (comment)	
Flat	
□ Very low in volume	
Leaking (not transferred; duplicate bag submitted)	
□ Leaking (transferred into ECI Tedlar™ bags*)	
□ Leaking (transferred into client's Tedlar™ bags*)	
* Transferred at client's request.	
MISCELLANEOUS: (Describe)	Comments
HEADSPACE:	
(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)	(Containers with bubble for other analysis)
ECI ECI Total ECI ECI Total Sample ID Container ID Number** Sample ID Container ID Number**	ECI ECI Total Sample ID Container ID Number** Requested Analysis
Comments:	
	Reported by: 1017
** Record the total number of containers (i.e., vials or bottles) for the affected sample.	Reported by: <u>1017</u> Reviewed by: <u>681-</u>

2015-03-16 Revision

Return to Contents

APPENDIX D

WASTE DISPOSAL DOCUMENTATION

NON-HAZARDOUS WASTE MANIFEST

12		OUS WASTE N	IANIF	EST		
AND AND A CONTRACT AN	1, Generator's US EPA ID No.			Manifest Document No.	370160712	2 Page 1 of /
3. Generator's Name and Mailing ad ExxonMobil Environmental Servic 601 N. McDowell Blvd, Petaluma, CA 4. Generator's Phone: (707) 766 200	:es / c/o Cardno A 94954	00 k 1040 199105	Sou 6 CI	Pasta 1 4	9ve	
5. Transporter 1 Company Name	6,	US EPA ID Number		A, State Transpor	ter's ID 707 • r 🖘	2000
CARL	MO			B, Transporter 1 I		
7. Transporter 2 Company Name	8.	US EPA ID Number		C: State Transpor D. Transporter 2		
9. Designated Facility Name and Site Address	10.	US EPA ID Number		E. State Facility's		
INSTRATING. 1105 C. AIRPORT ROAD RIO VISTA, CA 94571				F. Facility's Phon	e 530-753-	1829
11. WASTE DESCRIPTION			12. Co	ntainers	13 Total	14.
The waste beschill How			No.	Туре	Total Quantity	Unit Wt./Vol
a. NON-HAZAR	DOUS PURGE WA	TER	-=(*	Troiter	79	dta.
b						
С.						
d.						
15. Special Handling Instructions and Addition	al Information					
16. GENERATOR'S CERTIFICATION: I here in proper condition for transport. The mate	by certify that the contents of this shipr rials described on this manifest are no	ment are fully and accurately descr t subject to federal hazardous was	ribed and are in ste regulations.	all respects		Date
Printed/Typed Name	R. Kaydonov	Signature	1-2-	Le-	> Mo. 0	
17. Transporter 1 Acknowledgement of Recei	pt of Materials					Date
Printed/Typed Name	1 A	Signature	and the		Мо	1 27 1
18. Transporter 2 Acknowledgement of Recei	pt of Materials	1000				Date
17. Transporter 1 Acknowledgement of Receip Printed/Typed Name 18. Transporter 2 Acknowledgement of Receip Printed/Typed Name	~	Signature			Мо	onth Day
19. Discrepancy Indication Space						
20. Facility Owner or Operator; Certification o	if receipt of the waste materials covere		d in item 19.			Date onth Day
Printed/Typed Name Achurch	le ¹	Signature	hwsC		Mc	7 72 1
14 © 2002 LABEL ASTER @ (800) 621-5808	www.labelmaster.com			TED WITH DY INK		Re

NON-HAZARDOUS WASTE

Rev. 3/95