### ExxonMobil Environmental Services Company

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



March 19, 2013

Mr. Jerry T. Wickham Alameda County Health Care Services Agency Department of Environmental Health 1131 Harbor Bay Parkway, Room 250 Alameda, California 94502-6577 RECEIVED

By Alameda County Environmental Health at 11:26 am, Mar 25, 2013

RE: Former Exxon RAS #73399/2991 Hopyard Road, Pleasanton, California.

Dear Mr. Wickham:

Attached for your review and comment is a copy of the letter report entitled *Remediation Status Report, First Quarter* 2013, dated March 19, 2013, for the above-referenced site. The report was prepared by Cardno ERI 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 ERI's Remediation Status Report, First Quarter 2013, dated March 19, 2013

cc:

w/ attachment

Ms. Cherie McCaulou, California Regional Water Quality Control Board, San Francisco Bay Region

Ms. Coleen Winey, Zone 7 Water Agency

w/o attachment

Ms. Rebekah A. Westrup, Cardno ERI



Cardno ERI License A/C10/C36-611383

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March 19, 2013 Cardno ERI 2776C.R05

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

**SUBJECT** 

Remediation Status Report, First Quarter 2013

Former Exxon Service Station 73399 2991 Hopyard Road, Pleasanton, California

Alameda County File No. R0362

### INTRODUCTION

At the request of ExxonMobil Environmental Services (EMES), on behalf of Exxon Mobil Corporation, Cardno ERI operated a GWPTS at the subject site during first quarter 2013. On February 12, 2013, Cardno ERI shut down the GWPTS. Relevant plates, tables, and appendices are included at the end of this report. Currently, a Valero-branded service station and an auto repair shop are operated at the site.

### **REMEDIAL OPERATIONS**

### **Groundwater Pump and Treat System**

A GWPTS was installed in March 2001. When the GWPTS operated, groundwater was pumped through two sediment filter housings and two 1,000-pound GAC vessels prior to being discharged to the sanitary sewer system under permit with the Dublin San Ramon Services District. The GWPTS used wells MW9A and VR2 during first quarter 2013. Pumping wells OW1 and OW2 were shut down in October 2004. Pumping well VR1 was shut down in May 2012. On February 12, 2013, during routine operations and maintenance activities, a pin-hole leak was discovered in the bag filter housing F-1. After compliance sampling, the system was shut down. Analytical data from the February 12, 2013 sampling event revealed levels of MTBE in the W-OUT-WC1 (after first carbon vessel) of 1.0  $\mu$ g/L and in the W-DSCHG (effluent) of 0.66  $\mu$ g/L. This indicates breakthrough of MTBE through the first carbon vessel. In the Semi-Annual Groundwater Monitoring and Remediation Status Report, Fourth Quarter 2012, dated February 12, 2012, Cardno ERI recommended shutting down the system due to low influent concentrations. Cardno ERI does not recommend repairing the GWPTS at this time. The GWPTS will remain shut down to evaluate the site under non-pumping conditions.

**GWPTS** start-up date:

March 2001

**GWPTS** discharge permit:

Dublin San Ramon Service District Permit No. 10026

Australia • Belgium • Canada • Columbia • Ecuador • Germany • Indonesia • Italy • Kenya • New Zealand • Papua New Guinea • Peru • Tanzania • United Arab Emirates • United Kingdom • United States • Operations in 85 countries

March 19, 2013
Cardno ERI 2776C.R05 Former Exxon Service Station 73399, Pleasanton, California

**GWPTS** reporting period:

12/07/12 - 02/12/13

**GWPTS** modifications during reporting period:

On 12/11/12, the lead carbon was replaced with a fresh carbon vessel. The lead vessel replaced the final vessel, which was taken

offline.

**GWPTS** status during reporting period:

Active through 02/12/13

Wells used for extraction:

MW9A and VR2

Laboratory:

Calscience Environmental Laboratories, Inc.

Garden Grove, California

Effluent analyses performed:

EPA Method 8015B

TPHg, TPHd

EPA Method 8260B

BTEX, MTBE

Discharge permit non-compliance events and exceptions:

None

**GWPTS** performance:

Period	Volume of Groundwater Treated (gallons)	Mass of TPHg Removed (pounds)	Mass of Benzene Removed (pounds)	Mass of MTBE Removed (pounds)
12/07/12 - 02/12/13	714,630	0.2982	0.003	0.016
To Date:	13,196,160	<12.5527	<0.2428	<12.9486

### **LIMITATIONS**

For any documents cited that were not generated by Cardno ERI, the data taken from those documents is used "as is" and is assumed to be accurate. Cardno ERI 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 was prepared in accordance with generally accepted standards of environmental, geological, and engineering practices 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.

March 19, 2013

Cardno ERI 2776C.R05 Former Exxon Service Station 73399, Pleasanton, California

Please contact Ms. Rebekah A. Westrup, Cardno ERI's project manager for this site, at rebekah.westrup@cardno.com or at (707) 766-2000 with any questions regarding this report.

Sincerely,

Lisa M. Corderman O&M Administrator for Cardno ERI 707 766 2000

Email: lisa.corderman@cardno.com

David R. Daniels P.G. 8737

for Cardno ERI 707 766 2000

Email: david.daniels@cardno.com

Enclosures:

Acronym List

Plate 1

Site Vicinity Map

Table 1

Operation and Performance Data for Groundwater Pump and Treat System

Appendix A

Laboratory Analytical Reports and Chain-of-Custody Records

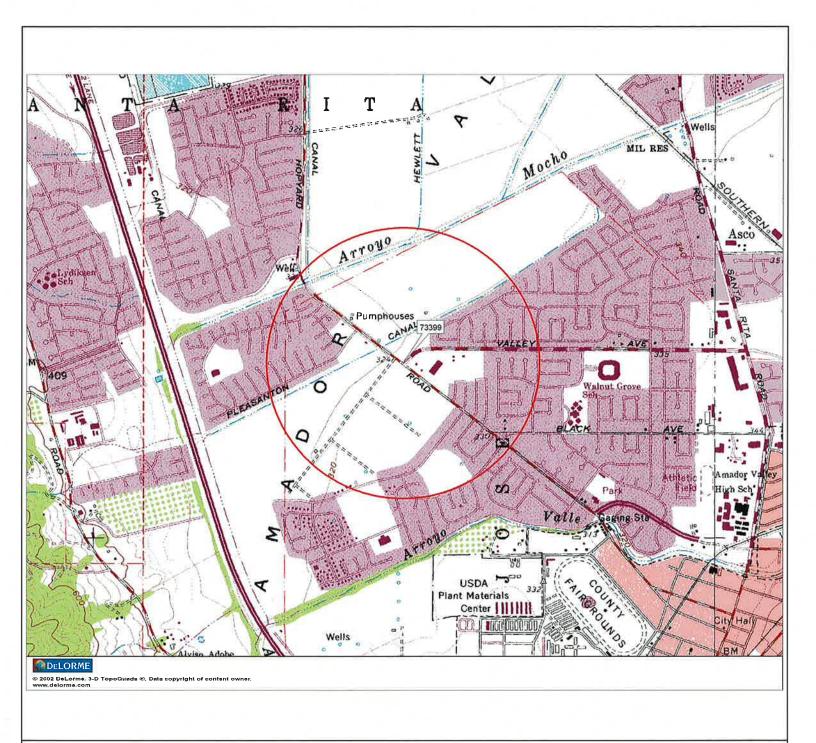
cc: Mr. Jerry T. Wickham, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Alameda, California, 94502-6577

Ms. Cherie McCaulou, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California, 94612

Mr. Matthew Katen, Zone 7 Water Agency, 100 North Canyons Parkway, Livermore, California, 94551

### **ACRONYM LIST**

ug/l	Micrograms per liter	NEPA	National Environmental Policy Act
μg/L	Microsiemens	NGVD	National Geodetic Vertical Datum
μs 1,2-DCA	1,2-dichloroethane	NPDES	National Pollutant Discharge Elimination System
acfm	Actual cubic feet per minute	O&M	Operations and Maintenance
AS	•	ORP	Oxidation-reduction potential
	Air sparge Below ground surface	OSHA	Occupational Safety and Health Administration
bgs BTEX	Benzene, toluene, ethylbenzene, and total xylenes	OVA	Organic vapor analyzer
CEQA	California Environmental Quality Act	P&ID	Process & Instrumentation Diagram
cfm	Cubic feet per minute	PAH	Polycyclic aromatic hydrocarbon
COC	Chain of Custody	PCB	Polychlorinated biphenyl
CPT	Cone Penetration (Penetrometer) Test	PCE	Tetrachloroethene or perchloroethylene
DIPE	Di-isopropyl ether	PID	Photo-ionization detector
DO	Dissolved oxygen	PLC	Programmable logic control
DOT	Department of Transportation	POTW	Publicly owned treatment works
DPE	Dual-phase extraction	ppmv	Parts per million by volume
DTW	Depth to water	PQL	Practical quantitation limit
EDB	1,2-dibromoethane	psi	Pounds per square inch
EPA	Environmental Protection Agency	PVC	Polyvinyl chloride
ESL	Environmental screening level	QA/QC	Quality assurance/quality control
ETBE	Ethyl tertiary butyl ether	RBSL	Risk-based screening levels
FID	Flame-ionization detector	RCRA	Resource Conservation and Recovery Act
	Feet per minute	RL	Reporting limit
fpm GAC	Granular activated carbon	scfm	Standard cubic feet per minute
	Gallons per day	SSTL	Site-specific target level
gpd	Gallons per day  Gallons per minute	STLC	Soluble threshold limit concentration
gpm GWPTS	Groundwater pump and treat system	SVE	Soil vapor extraction
HVOC	Halogenated volatile organic compound	SVOC	Semivolatile organic compound
J	Estimated value between MDL and PQL (RL)	TAME	Tertiary amyl methyl ether
LEL	Lower explosive limit	TBA	Tertiary butyl alcohol
LPC	Liquid-phase carbon	TCE	Trichloroethene
LRP	Liquid-ring pump	TOC	Top of well casing elevation; datum is msl
LUFT	Leaking underground fuel tank	TOG	Total oil and grease
LUST	Leaking underground storage tank	TPHd	Total petroleum hydrocarbons as diesel
MCL	Maximum contaminant level	TPHg	Total petroleum hydrocarbons as gasoline
MDL	Method detection limit	TPHmo	Total petroleum hydrocarbons as motor oil
mg/kg	Milligrams per kilogram	TPHs	Total petroleum hydrocarbons as stoddard solvent
mg/L	Milligrams per liter	TRPH	Total recoverable petroleum hydrocarbons
mg/m <sup>3</sup>	Milligrams per cubic meter	UCL	Upper confidence level
MPE	Multi-phase extraction	USCS	Unified Soil Classification System
MRL	Method reporting limit	USGS	United States Geologic Survey
msl	Mean sea level	UST	Underground storage tank
MTBE	Methyl tertiary butyl ether	VCP	Voluntary Cleanup Program
MTCA	Model Toxics Control Act	VOC	Volatile organic compound
NAI	Natural attenuation indicators	VPC	Vapor-phase carbon
NAPL	Non-aqueous phase liquid	VI 0	topor pridoo odrbori
INALL	Mon-aqueous phase ilquiu		

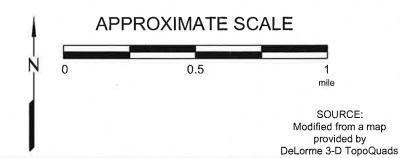


FN 2776TOPO

## **EXPLANATION**



1/2-mile radius circle





SITE VICINITY MAP

FORMER EXXON SERVICE STATION 73399 2991 Hopyard Road Pleasanton, California PROJECT NO. 2776

PLATE

1

#### TABLE 1 OPERATION AND PERFORMANCE DATA FOR GROUNDWATER PUMP AND TREAT SYSTEM

Former Exxon Service Station 73399 2991 Hopyard Road Pleasanton, California (Page 1 of 4)

	Effluent	Total	Average Flour	Total							Removal Calculations							
Date	Totalizer	Totalizer	Average Flow Rate	Flow Per				Laboratory Ar	iaiyucai Results				TE	PHg		zene	M	TBE
	Reading (gallons)	Reading (gallons)	(gpm)	Period (gallons)	Sample ID	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (μg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)
03/17/11	Cumulative tota	le reported by	ETIC Engineer	ing Inc				77 373-2 13										
03/1//11	1,933,870	9,728,040	3,6	30,530	influent	<50	160a	3.7	<2.5	0.28b	0_54b	170	0.0407	<9.1866	0.0009	<0.1767	0.0420	<9.3606
	1,000,070	0,120,010	787	00,000	Intermediate	<50	<50	<0.50	<0.50	< 0.50	<0.50	<0.50	111		0.0000	-0.1101	0,0420	40.0000
					Effluent	<50	<50	< 0.50	<0.50	<0.50	<0.50	<0.50						
03/25/11	Cumulative tota 1,970,740	ls reported by 9,764,910	ETIC Engineeri	ing, Inc 36,870														
03/28/11	Cumulative tota		ETIC Engineeri	ing, Inc.														
	1,989,320	9,783,490	4.3	18,580														
04/20/11																		
	2,113,610	9,907,780	2.5	124,290	W-HT	<50	170a	3.8	<0.50	<0.50	0.56	220	0.2474	<9.4341	0.0056	<0.1823	0.2924	<9.6530
					W-OUT-WC1		-50	<0.50	<0.50	<0.50	<0.50	<0.50						
05/00/44	Contant social		1 4		W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0_50						
05/02/11	System running			64.750														
05/16/11	2,178,360 System rupping	9,972,530	3.7	64,750														
03/10/11	System running 2,251,670	10,045,840	3.6	73,310	W-HT	<50	170a	<4.0	<4.0	<4.0	<4.0	230	0.1958	<9.6299	<0.0045	<0.1868	0.2592	<9.9122
	2,231,070	10,040,040	0.0	70,010	W-OUT-WC1			< 0.50	<0,50	< 0.50	<0.50	<0.50	0,1330	10.0200	~0,004J	10,1000	0.2392	19,3122
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	< 0.50						
06/01/11	System running	on arrival and	departure.															
		10,128,490	3.6	82,650														
06/15/11	System down o	n arrival and r	unning on depa	rture														
	2,376,210	10,170,380	2.1	41,890	W-HT	<50	190a	<5.0	<5.0	<5.0	<5.0	250	0.1870	<9.8169	<0.0047	< 0.1915	0.2494	<10.1616
					W-OUT-WC1			<0.50	<0.50	<0.50	<0.50	0.50						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	< 0.50						
06/30/11	System down o																	
07/40/44	2,426,560	10,220,730	2,3	50,350														
07/13/11		10,266,350	2.4	45,620	W-HT	<50	130a	<4.0	<4.0	<4.0	<4.0	190	0.1281	<9.9450	<0.003e	<0.1951	0.4700	<10,3377
	2,472,100	10,200,330	2,4	45,620	W-OUT-WC1			< 0.50	<0.50	<0.50	<0.50	3.3	0,1201	-3.5450	<0.0036	<0.1951	0.1762	<10.5577
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
07/26/11	System running	on arrival and	d departure.															
		10,313,360	2.5	47,010														
08/08/11	System down o	n arrival and r	unning on depa	rture.														
	2,550,540	10,344,710	1.7	31,350	W-HT	<50	220a	<4.0	<4.0	<4.0	<4.0	280	0.1144	<10.0594	< 0.0026	<0.1977	0.1536	<10.4914
					W-OUT-WC1		***	<0.50	<0.50	<0.50	<0.50	3.8						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
08/22/11	System running			50.040														
00/06/11	2,601,380	10,395,550	2.5	50,840														
09/06/11	System running 2,651,970	10,446,140	2.3	50,590	W-HT	<50	130a	<4.0	<4.0	<4.0	<4.0	180	0.1481	<10,2075	<0.0034	<0.2011	0.1946	<10,6860
	2,031,970	10,440, 140	2.5	30,330	W-OUT-WC1		1302	<0.50	<0.50	< 0.50	<0.50	6,2	0-1401	<10.2075	<0.0034	<b>40.2011</b>	0.1946	<10.0000
					W-DSCHG	<50	<50	<0.50	<0.50	< 0.50	<0.50	<0.50						
09/19/11	System running	on arrival and	running on der	parture.	** 5001.0						4,5-5	-						
	2,710,850	10,505,020	3.1	58,880														
09/29/11	System running	on arrival and	running on dep	parture.														
	2,746,260	10,540,430	0.0	35,410														
10/12/11	,					-60	000		^	.=.								
	2,766,440	10,560,610	1:1	20,180	W-HT	<50	300a,c	3.1	<5.0	<5.0	<5.0	390	0.2053	<10.4129	<0.0034	<0.2045	0.2722	<10.9582
					W-OUT-WC1	<50	<50	<0.50 <0.50	<1.0 <1.0	<1.0 <1.0	<1.0	7.1						
10/26/11	System running	on arrival one	donarturo		W-DSCHG	~50	<50	~U.5U	<1.0	<t.u< td=""><td>&lt;1.0</td><td>&lt;1.0</td><td></td><td></td><td></td><td></td><td></td><td></td></t.u<>	<1.0	<1.0						
10/20/11	2,817,100		2.5	50,660														
11/07/11	System shut do			50,000														
11/09/11	System down o		-	rture.														
	2,829,380		0,6	12,280														
11/15/11																		

11/15/11 System down on arrival and running on departure. 2,829,610 10,623,780 0.0

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## TABLE 1 OPERATION AND PERFORMANCE DATA FOR GROUNDWATER PUMP AND TREAT SYSTEM

Former Exxon Service Station 73399 2991 Hopyard Road Pleasanton, California (Page 2 of 4)

	Effluent	Total	Avorage Ele	Total	Laboratory Analytical Results										Removal (	Calculations		
Date	Totalizer	Totalizer	Average Flow Rate	Flow Per				Laboratory Ar	rarytical Results	4	4		TF	PHg		zene	M	TBE
	Reading (gallons)	Reading (gallons)	(gpm)	Period (gallons)	Sample ID	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)
11/22/11	System down	an arrival and r	unning on depar	duro														
11/22/11	2,834,150	10,628,320	0,5	4,540	W-HT	<50	360a	<5.0	<5.0	<5.0	<5.0	400	0.1864	<10,5993	<0.0023	<0,2068	0.2231	<11.1814
				,	W-OUT-WC1			c	С	С	С	С			863		0,220	
					W-DSCHG	<50	С	c	С	С	С	С						
11/30/11	System runnin			22.200	MALLET	193	160a	5.6	<5.0	<5.0	<5.0	222	0.0700	<10 FE03	.0.0044	-0.0000		-14 0040
	2,866,430	10,660,600	2.8	32,280	W-HT W-OUT-WC1	=	1002	<0.50	<0.50	< 0.50	< 0.50	220 <0.50	0.0700	<10,6693	<0.0014	<0.2082	0,0835	<11,2648
					W-DSCHG		<50	<0.50	<0.50	<0.50	<0.50	<0.50						
12/08/11	System runnin	g on arrival and	departure.															
	2,900,540	10,694,710	3.0	34,110	W-HT	<50	160a	<4.0	<4.0	<4.0	<4.0	200	0.0455	<10,7149	<0.0014	<0.2096	0.0598	<11.3246
					W-OUT-WC1	-50	-E0	<0.50	<0.50	<0.50	<0.50	<0.50						
01/04/12	System runnin	a on arrival and	departure		W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<050						
01/04/12	3,013,770	10,807,940	2.9	113,230														
01/18/12	System runnin			,														
	3,072,650	10,866,820	2.9	58,880	W-HT	<50	200a	<4.0	<4.0	<4.0	<4.0	240	0,2585	<10.9733	<0.0057	< 0.2153	0,3159	<11,6405
					W-OUT-WC1			<0.50	< 0.50	<0.50	<0.50	5.2						
00/00/40	0			-4	W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0,50						
02/06/12	3,082,210	on arrival and r 10,876,380	unning on depai	nture 9,560														
02/15/12	System runnin			3,300														
	3,130,150	10,924,320	3.7	47,940	W-HT	<50	150a	<4.0	<4.0	<4.0	<4.0	190	0.0840	<11.0573	< 0.0019	< 0.2172	0.1031	<11,7437
					W-OUT-WC1			<0.50	<0.50	<0.50	<0.50	0.73						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
02/28/12	System runnin	-		70.400														
02/14/12	3,200,270	10,994,440	3.7	70,120														
03/14/12	System runnin 3,281,440	11,075,610	3,8	81,170	W-HT	<50	170a	<2.0	<2.0	<2.0	<2.0	250	0,2020	<11,2592	<0.0038	<0.2210	0.2777	<12,0214
	0,207,710	. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0,0	01,110	W-OUT-WC1	****		<0.50	<0.50	<0.50	<0.50	19	0,2020	1112002	40.0000	-0.22 TO	0,2111	112.02.14
					W-DSCHG	<50	<50	<0.50	< 0.50	<0.50	<0.50	<0.50						
03/30/12	System runnin																	
0.1/1.1/10		11,178,440	4.5	102,830														
04/11/12	System runnin	g on arrival and 11,227,880	departure 2.9	49,440	W-HT	<50	150a	<4.0	<4.0	<4.0	<4.0	170	0.2022	<11,4625	40.0000	-0.0040	0.0000	-10 0000
	3,433,710	11,221,000	2.9	49,440	W-OUT-WC1		150a	<0.50	<0.50	<0.50	<0.50	170 54	0.2033	<11,4025	<0.0038	<0.2248	0.2668	<12,2882
					W-DSCHG	<50	<50	<0.50	< 0.50	<0.50	<0.50	<0.50						
04/24/12	System runnin	g on arrival and	d departure															
		11,241,940	80	14,060														
05/10/12	System runnin																	
	3,535,800	11,329,970	3.8	88,030	W-HT	<50	140a	<4.0	<4.0	<4.0	<4.0	190	0.1235	<11.5860	<0.0034	<0.2282	0.1533	<12.4415
					W-OUT-WC1 W-DSCHG	<50	<50	<1.0 <0.50	<1.0 <0.50	<1.0 <0.50	<1.0 <0.50	41 <0.50						
05/15/12	System runnin	on arrival and	d departure		W-D3011G	-00	-00	-0.00	40.00	-0.00	40.50	40,50						
		11,356,110	3,6	26,140														
05/23/12	System runnin	g on arrival and	d departure.															
	3,613,330	11,407,500	4.5	51,390														
06/07/12	System runnin	_		04.600														
06/12/12	3,695,020 System runnin	11,489,190 n on arrival and	3.8 departure. Car	81,690	t nerformed													
00,12/12		11,514,570	3.5	25,380	. portorniou													
06/20/12	System runnin																	
		11,564,610	4.3	50,040	W-HT	<50	110a	<2.5	<2.5	<2.5	<2.5	140	0.2447	<11.8307	<0.0064	<0.2346	0.3230	<12,7645
					W-OUT-WC1	450	-50	<0.50	< 0.50	< 0.50	< 0.50	<0.50						
07/05/40	System runnin	a on arrival co-	1 departure		W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
07/05/12		11,660,460	0.0	95,850														
07/17/12	System down																	
		11,729,630	4.0	69,170	W-HT	<50	<50	<0.50	<0.50	<0.50	< 0.50	32	<0.1101	<11.9409	<0.0021	< 0.2367	0.1184	<12.8829
					W-OUT-WC1	***	***	<0.50	<0.50	<0.50	<0.50	<0.50						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	< 0.50	<0.50						

## TABLE 1 OPERATION AND PERFORMANCE DATA FOR GROUNDWATER PUMP AND TREAT SYSTEM

Former Exxon Service Station 73399
2991 Hopyard Road
Pleasanton, California
(Page 3 of 4)

	Effluent	Total	Average Flow	Total	Laboratory Analytical Results									Removal Calculations				
Date	Totalizer	Totalizer	Rate	Flow Per										'Hg		zene		ГВЕ
	Reading (gallons)	Reading (gallons)	(gpm)	Period (gallons)	Sample ID	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)	Per Period (pounds)	Cumulative (pounds)
08/02/12			I departure		1 10 1	(pg/c)	159/-1	T CHR -1	(199-1	(PB/-)	1 198/-7	1 (58,57	(positos)	(Dodinos)	(positos)	(positos)	(podilos)	(posites)
	4,042,780	11,836,950	4.7	107,320														
08/16/12	•	on arrival and r 11,862,250	unning on depar 1,3	rture 25,300	W-HT	<50	<50	<0.50	<0.50	<0.50	< 0.50	11	<0.0553	<11.9962	<0.0006	<0.2372	0.0238	<12,9067
	4,000,000	11,002,200	1,5	23,300	W-OUT-WC1			<0.50	< 0.50	<0.50	<0.50	<0.50	-0.0000	-11,0002	<b>~0.0000</b>	10,2012	0.0230	112,3001
					W-DSCHG	<50	<50c	<0.50c	<0.50c	<0.50c	<0.50c	<0.50c						
08/29/12	System down	on arrival and r	unning on depar	rture.														
	4,105,440	11,899,610	2.00	37,360														
09/10/12	System down	on arrival and r	unning on depar	rture.														
		11,900,870	0.07	1,260														
09/17/12	System runnin																	
	4,143,740	11,937,910	3.67	37,040	W-HT	<50	<50	<0.50	<0.50	<0.50	<0.50	2.0	<0.0316	<12.0278	<0.0003	<0.2375	0.0041	<12.9108
					W-OUT-WC1			<0.50	<0.50	<0.50	<0.50	< 0.50						
00/05/40	0				W-D\$CHG	<50	<50	<0.50	< 0.50	<0.50	<0.50	<0.50						
09/25/12	System runnin 4,185,960	g on arrival and 11,980,130	departure. 3,66	42,220														
10/04/12			ತ್ಮಿಠಠ unning on depai															
10/04/12	4,218,500	12,012,670	2,51	32,540														
10/18/12				32,340														
10/10/12	4.292.500	12,086,670	3.67	74,000	W-HT	<50	<50	<0.50	<0.50	<0.50	<0.50	11	< 0.0621	<12.0898	<0.0006	<0.2382	0.0081	<12.9189
	,,	,,			W-OUT-WC1			< 0.50	<0.50	<0.50	<0.50	< 0.50						
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0,50	<0.50						
11/01/12	System runnin	g on arrival and	d departure.															
	4,367,360	12,161,530	3.71	74,860														
11/13/12	System runnin	g on arrival and	departure.															
	4,514,360	12,308,530	8,51	147,000	W-HT	<50	<50	<0.50	<0.50	<0.50	<0.50	1.7	<0.0926	<12,1824	<0.0009	<0.2391	0.0118	<12.9306
					W-OUT-WC1			<0.50	<0.50	<0.50	<0.50	1.8						
					W-DSCHG	<50	<50	< 0.50	<0.50	< 0.50	< 0.50	<0.50						
11/19/12	•		unning on depar															
44/00/40	4,570,020	12,364,190	6,44	55,660														
11/29/12			unning on depai 7.81															
12/07/12	4,682,440 System down	12,476,610		112,420														
12/07/12	4,687,360	12,481,530	0.43	4,920	W-HT	<50	<50	<0.50	<0.50	<0.50	<0.50	1.1	<0.0722	<12.2545	<0.0007	<0.2398	0.0020	<12.9326
	4,007,000	12,401,550	0.43	4,320	W-OUT-WC1			<0.50	<0.50	<0.50	<0.50	0.95	-010122	12,2010	10.0007	-0.2000	0.0020	12.3020
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
12/11/12	System runnin	g on arrival and	d departure, Car	bon changeou														
	4,734,740	12,528,910	8.23	47,380														
12/19/12	System runnin	g on arrival and	d departure.															
	4,809,720	12,603,890	6.51	74,980														
01/02/13	•		unning on depai															
	4,887,820	12,681,990	3.87	78,100	W-HT	<50	<50	<0.50	<0.50	<0.50	<0.50	1.8	<0.0836	<12.3382	<0.0008	<0,2406	0.0024	<12.9351
					W-OUT-WC1		-50	<0.50	<0.50	<0.50	<0.50	<0.50						
04/48/40	Contant availa		4 4		W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50						
01/18/13	System runnin 5,087,790	g on arrival and 12,881,960	departure. 8,68	199,970														
01/29/13				155,510														
01/23/13	5,228,170	13,022,340	8.86	140,380														
02/12/13			d shut down on															
	5,401,990	13,196,160	8.62	173,820	W-HT	<50	<50	< 0.50	<0.50	<0.50	<0.50	4.5	< 0.2145	<12.5527	<0.0021	<0.2428	0.0135	<12.9486
					W-OUT-WC1			<0.50	<0.50	<0.50	<0.50	1.0			1/67 17		00, 1==	
					W-DSCHG	<50	<50	<0.50	<0.50	<0.50	<0.50	0.66						

#### TABLE 1

#### OPERATION AND PERFORMANCE DATA FOR GROUNDWATER PUMP AND TREAT SYSTEM

Former Exxon Service Station 73399 2991 Hopyard Road Pleasanton, California (Page 4 of 4)

Notes:	If value is be	elow laboratory detection limit, then detection limit is used for removal calculations.
W-INF-HT	·#:	Water influent.
W-OUT-WC1		Water intermediate after first carbon vessel.
W-DSCHG	=	Water effluent.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using modified EPA Method 8015B.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using modified EPA Method 8015B.
BTEX	#	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B.
gpm	=	Gallons per minute.
µg/L	=	Micrograms per liter.
<	=	Less than the stated laboratory reporting limit.
_	=	Not sampled/Not analyzed/Not measured/Not calculated/Not applicable.
а	355	Does not match the typical chromatographic pattern.
b		Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
С		Sample container contained headspace greater than 6 millimeters in diameter.

## **APPENDIX A**

# LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY RECORDS





## **CALSCIENCE**

**WORK ORDER NUMBER: 13-01-0143** 

## The difference is service





SOIL : WATER : MARINE CHEMISTRY

**Analytical Report For** 

Client: Cardno ERI

Client Project Name: ExxonMobil 73399/022776C

Attention: Rebekah Westrup

601 North McDowell Blvd. Petaluma, CA 94954-2312

Cecile & ex Soia

Approved for release on 01/14/2013 by: Cecile deGuia

**Project Manager** 



ResultLink >

Email your PM >

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## **Contents**

Client Project Name: ExxonMobil 73399/022776C

Work Order Number: 13-01-0143

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	1.3 EPA 8260B Volatile Organics (Aqueous)	5
_		
2	Quality Control Sample Data	6
	2.1 MS/MSD and/or Duplicate	6
	2.2 LCS/LCSD	8
3	Glossary of Terms and Qualifiers	11
4	Chain of Custody/Sample Receipt Form	12





Cardno ERI

601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received:

Work Order No:

Preparation:

Method:

01/04/13

13-01-0143

**EPA 3510C** 

EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch IE
	13-01-0143-1-E	01/02/13 15:30	Aqueous	GC 48	01/07/13	01/08/13 14:06	130107B09
Result	RL	<u>DF</u>	Qual	Units			
ND	50	1	SG,U	ug/L			
REC (%)	Control Limits		Qual				
103	68-140						
	13-01-0143-3-E	01/02/13 16:00	Aqueous	GC 48	01/07/13	01/08/13 14:21	130107B09
Result	RI	DE	Qual	Units			
ND	50	1	SG,U	ug/L			
REC (%)	Control Limits		Qual				
102	68-140						
	099-15-304-208	N/A	Aqueous	GC 48	01/07/13	01/08/13 12:45	130107B09
Result	RL	DF	Qual	Units			
ND	50	1	U	ug/L			
REC (%)	Control Limits		Qual				
119	69 140						
	REC (%) 103  Result ND REC (%) 102  Result ND REC (%)	Number   13-01-0143-1-E     Result   RL   ND   50     Section   Section	Number   Collected   13-01-0143-1-E   01/02/13   15:30     Result	Number   Collected   Matrix	Number   Collected   Matrix   Instrument	Number   Collected   Matrix   Instrument   Prepared	Number   Collected   Matrix   Instrument   Prepared   Analyzed







Cardno ERI

601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received:

Work Order No:

Preparation:

Method:

01/04/13

13-01-0143 EPA 5030C

EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
13-01-0143-1-D	01/02/13 15:30	Aqueous	GC 4	01/05/13	01/05/13 13:36	130105B01
<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
50	1	U	ug/L			
6) Control Limits		Qual				
38-134						
13-01-0143-3-D	01/02/13 16:00	Aqueous	GC 4	01/05/13	01/05/13 14:07	130105B01
RL	DF	Qual	Units			
50	1	U	ug/L			
6) <u>Control Limits</u>		<u>Qual</u>				
38-134						
099-12-436-8,153	N/A	Aqueous	GC 4	01/05/13	01/05/13 10:00	130105B01
RL	DF	Qual	Units			
50	1	U	ug/L			
6) <u>Control Limits</u>		Qual				
38-134						
	Number  13-01-0143-1-D  RL 50  Control Limits 38-134  13-01-0143-3-D  RL 50  Control Limits 38-134  099-12-436-8,153  RL 50  Control Limits	Number Collected  13-01-0143-1-D 01/02/13  RL DF 50 1  Control Limits 38-134  13-01-0143-3-D 01/02/13 16:00  RL DF 50 1  Control Limits 38-134  099-12-436-8,153 N/A  RL DF 50 1  Control Limits 38-134	Number   Collected   Matrix	Number         Collected         Matrix         Instrument           13-01-0143-1-D         01/02/13         Aqueous         GC 4           RL 50         DF Qual Units ug/L         Units ug/L           6)         Control Limits 38-134         Qual 16:00         GC 4           RL 50         DF Qual Units ug/L         U ug/L           6)         Control Limits 38-134         Qual Units ug/L           6)         Control Limits 38-134         Qual Units Ug/L           6)         DF Qual Units Ug/L           50         1         U ug/L           6)         Control Limits Ug/L         Qual Units Ug/L           6)         Control Limits Qual         Qual	Number   Collected   Matrix   Instrument   Prepared	Number   Collected   Matrix   Instrument   Prepared   Analyzed







Cardno ERI

601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received:

Work Order No:

Preparation:

Method:

Units:

01/04/13

13-01-0143 EPA 5030C

EPA 8260B

'A 8260B ug/L

Project: ExxonMobil 73399/022776C

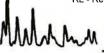
Page 1 of 1

Client Sample Number				ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch ID
W-DSCHG			13-01-0	0143-1-A	01/02/13 15:30	Aqueous	GC/MS L	01/07/13	01/07 19:		130107L01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	Parameter			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1	U	Xylenes (tota	I)		ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Buty	l Ether (MTB	E)	ND	0.50	1	Ų
Ethylbenzene	ND	0.50	1	U							
Surrogates:	<u>REC (%)</u>	Control Limits	Qua	<u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1,4-Bromofluorobenzene	100	68-120			Dibromofluor	omethane		102	80-127		
1,2-Dichloroethane-d4	104	80-128			Toluene-d8			102	80-120		
W-OUT-WC1			13-01-0	0143-2-B	01/02/13 15:45	Aqueous	GC/MS L	01/07/13	01/07 19:		130107L01
Parameter	Result	RL	<u>DF</u>	Qual	Parameter			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1	U	Xylenes (tota	1)		ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Buty	Ether (MTB	E)	ND	0.50	1	U
Ethylbenzene	ND	0.50	1 1	U							
Surrogates:	<u>REC (%)</u>	<u>Control</u> <u>Limits</u>	Qua	<u>al</u>	Surrogates:			REC (%)	Control Limits	9	<u>Qual</u>
1,4-Bromofluorobenzene	100	68-120			Dibromofluor	omethane		101	80-127		
1,2-Dichloroethane-d4	103	80-128			Toluene-d8			104	80-120		
W-HT			13-01-0	0143-3-A	01/02/13 16:00	Aqueous	GC/MS L	01/07/13	01/07 20:2		130107L01
Parameter	Result	RL	DE	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND.	0.50	1	U	Xylenes (tota	1)		ND	0.50	1	U
Toluene	ND	0.50	1	Ü	Methyl-t-Buty	,	E)	1.8	0.50	1	Ū
Ethylbenzene	ND	0.50	1	Ū			_,		0.00		
<u>Surrogates:</u>	REC (%)	Control Limits	Qua	<u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1,4-Bromofluorobenzene	98	68-120			Dibromofluor	omethane		103	80-127		
1,2-Dichloroethane-d4	103	80-128			Toluene-d8			105	80-120		
Method Blank			099-12	-880-1,024	N/A	Aqueous	GC/MS L	01/07/13	01/07 11:4		130107L01
Parameter	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1	U	Xylenes (tota	1)		ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Buty	•	E)	ND	0.50	1	υ
Ethylbenzene	ND	0.50	1	U							
Surrogates:	<u>REC (%)</u>	Control Limits	Qua	<u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1,4-Bromofluorobenzene	99	68-120			Dibromofluor	omethane		101	80-127		
1,2-Dichloroethane-d4	100	80-128			Toluene-d8			101	80-120		



DF - Dilution Factor ,

Qual - Qualifiers





## **Quality Control - Spike/Spike Duplicate**



Cardno ERI 601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received: Work Order No: Preparation: Method: 01/04/13 13-01-0143 EPA 5030C EPA 8015B (M)

Quality Control Sample ID			Matrix	li	nstrument		Date epared	Date Analyzed		/ISD Batch lumber
13-01-0144-1		Aqueou	ıs G	iC 4	01/	05/13	01/05/13	130105801		
<u>Parameter</u>	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1894	95	1841	92	68-122	3	0-18	





## **Quality Control - Spike/Spike Duplicate**



Cardno ERI 601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received: Work Order No: Preparation: Method: 01/04/13 13-01-0143 EPA 5030C EPA 8260B

Quality Control Sample ID					nstrument	Date Prepared		Date Analyzed	MS/MSD Batch Number	
12-12-1788-1			Aqueou	ıs G	C/MS L	01/0	07/13	01/07/13	130107\$01	
<u>Parameter</u>	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	9.413	94	9.820	98	76-124	4	0-20	
Toluene	ND	10.00	10.55	105	10.89	109	80-120	3	0-20	
Ethylbenzene	ND	10.00	10.14	101	10.88	109	78-126	7	0-20	
Xylenes (total)	ND	30.00	30.97	103	32.72	109	70-130	5	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	10.94	109	11.15	111	67-121	2	0-49	







Cardno ERI 601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received: Work Order No: Preparation: Method: N/A 13-01-0143 EPA 3510C EPA 8015B (M)

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	i	LCS/LCSD Batch Number	
099-15-304-208	Aqueous		GC 48	01/	07/13	01/08/13		130107B09	
<u>Parameter</u>	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	2259	113	1982	99	75-117	13	0-13	







Cardno ERI 601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received: Work Order No: Preparation: Method: N/A 13-01-0143 EPA 5030C EPA 8015B (M)

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	d	LCS/LCSD Batch Number	
099-12-436-8,153	Aqueous		GC 4	01/	05/13	01/05/13		130105B01	
<u>Parameter</u>	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	1953	98	1894	95	78-120	3	0-10	







Cardno ERI 601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received: Work Order No: Preparation: Method: N/A 13-01-0143 EPA 5030C EPA 8260B

Quality Control Sample ID	Matrix		Instrument	24	ate pared	Date Analyze	d	LCS/LCSD Batch Number	
099-12-880-1,024	Aqueous		GC/MS L	01/	07/13	01/07/13		130107L01	
<u>Parameter</u>	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	9.631	96	9.997	100	80-120	4	0-20	
Toluene	10.00	10.42	104	10.46	105	80-120	0	0-20	
Ethylbenzene	10.00	10.77	108	10.67	107	80-120	1	0-20	
Xylenes (total)	30.00	32.94	110	32.05	107	75-125	3	0-25	
Methyl-t-Butyl Ether (MTBE)	10.00	10.04	100	9.085	91	69-123	10	0-20	





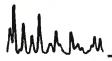
### **Glossary of Terms and Qualifiers**



Work Order Number: 13-01-0143

MPN - Most Probable Number

Qualifier	<u>Definition</u>
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
В	Analyte was present in the associated method blank.
ВА	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
ВВ	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.
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 a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
НО	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 and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
JL	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.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP LQ	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.
LR	LCS recovery above method control limits.
ND	LCS recovery below method control limits.
	Parameter not detected at the indicated reporting limit.
QO RU	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.  LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
U	Undetected at detection limit.
U	Onucleoled at detection little.
H	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.



Calscience

7440 Lincoln Way

Environmental Garden Grove, CA 92841

Laboratories, Inc.

Phone: 714-895-5494

Fax: 714-894-7501

# ExonMobil 13-01-0143

Consultant Name:	Cardno ERI														Ac	coun	t#:_1	NA				PC	)#:				_		
Consultant Address:	601 North McI	Dowell Blvd													Inv	oice	To:	Cardno	ERI										
Consultant City/State/Zip:	Petaluma, Cal	ifornia 94954													Re	port	To:	Rebeka	ah We	stru	p								
ExxonMobil Project Mgr:	Jennifer C. S	edlachek												_ P	rojec	t Nai	ne: [	22776	C (JA	N)							_		
Consultant Project Mgr:	Rebekah Wes	trup										_	Ex	xonN	lidol	Site	#:	73399	)				4	Major Pr	roject (A	FE#	):		
Consultant Telephone Number:	(707) 766-200	0				Fa	x No	.: <u>(7</u>	07)	789-04	114			_ s	Site A	ddre	ss:	2991 H	lopyar	d Ro	oad								
Sampler Name (Print):	14	ermi	in										Sit	e Cit	ty, St	ate, 2	Zip:	Pleasa	nton,	Calif	omia	1							
Sampler Signature		Nem											0	vers	ight .	Agen	cy:	Dublin	San F	Ramo	on Se	ervices	s Distri	ct					
	1								ΡίĠ	FO (7)	(ŸŒ				Mi	(f)			NS AL	100		Analy	ze Fo	r:	1.20	89			
Field Point Name	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Метһапоі	Sodium Bisulfate HCI (Blue Label)	NaOH ( Orange Label)	H <sub>2</sub> SO <sub>4</sub> Plastic (Yellow Label) H <sub>2</sub> SO <sub>4</sub> Glass (Yellow Label)	HNO <sub>3</sub> (Red Label)	Other	None (Black Label)	Wastewater	Drinking Water	Skrdge	Air	Other (specify):	8015B TPHd**	8015B TPHg	BTEX/MTBE 8260					olibed TAT (9% schedule	Sdav TAT	Standard 10-day TAT	Due Date of Report
W-DSCHG WEFF	1/2/12	1530	(2) 500ml Amber	x			П		П		٦,	,		x	П	T	П		x	T	$\top$		П			Т	Т	Tx	
W-DSCHG WEFF		1530	(4) 40ml VOAs	x			П	$\exists_{x}$		П	٦,	,	1	x	П	Т	П	┰	$\neg$	хĪ	x		П			T	Т	Τx	
W-DSCHG WEIT	11413	103	(7,401111 70710				H					T	$\Box$		$\Box$		$\Box$			7	$\neg$		$\Box$			T			
W-OUT-WC1 WC1	1/2/13	1545	(4) 40ml VOAs	х				×	I		7	<u>,                                     </u>	1	x	H	-	H	1	1	1	x		H			1	Ŧ	X	
W-HT WHT	1/2/13	1600	(2) 500ml Amber	х			H	İ	İ		,	,		x					x	1						1	T	x	
W-HT WHT	1/2/13	1600	(4) 40ml VOAs	х			Н	x	$\downarrow$	Ш	}	4		×	$\sqcup$	+	$\mathbb{H}$	-	-	x	x		$\mathbb{H}$			4	+	↓×	_
Comments/Special Instructions: ***TPHo GLOBAL ID # (T0600100537) Relinquished by:	to include sili	ca gel cleanu	Time		Rece	ived	by:		.//	2. /	- Constant	(NC	DRCAL	LABS	ØER	FILES I-US C	OM) ne	Sa	mpera mple OCs Fi liverat	ature Contree o	Upo taine of He	n Rec rs Inta adspa	ict? ice?			Y		N N	
Relinquished by:	1/3/	ate 13	1055 Time 1730	- 1	Rece	ived	by (L	ab pe	erso	ky ( Mel): . G			1/2	Date	' I	Tin 10	ne	Level 3 Level 4 Site Sp	ecific					ore-sched	lule w/ Te	stAm	erica		

< WebShip >> \$6036365681£666000663

Ship From: ALAN KEMP CAL SCIENCE- CONCORD

5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520

Ship To:

SAMPLE RECEIVING

CEL

7440 LINCOLN WAY GARDEN GROVE, CA 92841

COD: \$0.00

Reference:

CARDNO ERI, PHILLIPS 66, CRA

Delivery Instructions:

Signature Type: SIGNATURE REQUIRED

520791235 Tracking #: 

GARDEN GROVE

D92841A



Print Date: 01/03/13 15:10 PM Package 1 of 1

NPS

Send Label To Printer

Print All

**Edit Shipment** 

Finish

800-322-5555 www.gso.com

### LABEL INSTRUCTIONS:

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

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

### **ADDITIONAL OPTIONS:**

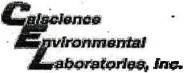
Send Label Via Email

Create Return Label

#### TERMS AND CONDITIONS:

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





WORK ORDER #: 13-01- [ ] [ ] [ ] [ ]

### RECEIPT FORM Cooler / of / DATE: 01/04/13 CLIENT: CARDNO TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C - 6.0 °C, not frozen except sediment/tissue) Temperature $\underline{/} \cdot \underline{9} \circ C \cdot 0.2 \circ C \text{ (CF)} = \underline{/} \cdot \underline{7} \circ C$ **☑** Blank ☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_ ☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling. $\square$ Received at ambient temperature, placed on ice for transport by Courier. Ambient Temperature: Air ☐ Filter Initial: **CUSTODY SEALS INTACT:** Initial: $\mathcal{I}^{\mathcal{J}}$ Cooler □ No (Not Intact) □ Not Present □ N/A ☑ Not Present □ Sample ☐ No (Not Intact) Initial: PC

SAMPLE CONDITION: Yes,	No	N/A
Chain-Of-Custody (COC) document(s) received with samples		
COC document(s) received complete	×	
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.		
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.		
Sampler's name indicated on COC		
Sample container label(s) consistent with COC		
Sample container(s) intact and good condition		
Proper containers and sufficient volume for analyses requested		
Analyses received within holding time		
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours □		Z
Proper preservation noted on COC or sample container		
☐ Unpreserved vials received for Volatiles analysis		
Volatile analysis container(s) free of headspace		
Tedlar bag(s) free of condensation		<b>P</b>
Solid:   40zCGJ   80zCGJ   160zCGJ   Sleeve ()   EnCores®   Terra	aCores® □	
Water: □VOA ☑VOAh □VOAna₂ □125AGB □125AGBh □125AGBp □1AGB	□1AGBna₂ □	1AGBs
□500AGB ☑500AGJ □500AGJs □250AGB □250CGB □250CGBs □1PB	□1PBna □	500PB
□250PB □250PBn □125PB □125PBznna □100PJ □100PJna₂ □ □ □		
Air: ☐Tedlar® ☐Canister Other: ☐ Trip Blank Lot#: Labeled.  Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope  Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 u: Ultra-pure znna: ZnAc2+NaOH f: Filtered	Reviewed by:	JYL,





## **CALSCIENCE**

**WORK ORDER NUMBER: 13-02-0734** 

## The difference is service





AIR SOIL WATER MARINE CHEMISTRY

**Analytical Report For** 

Client: Cardno ERI

Client Project Name: ExxonMobil 73399/022776C

Attention: Rebekah Westrup

601 North McDowell Blvd. Petaluma, CA 94954-2312

Cecile & e Sain

Approved for release on 02/22/2013 by: Cecile deGuia

Project Manager



ResultLink )
Email your PM )

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



## **Contents**

Client Project Name: ExxonMobil 73399/022776C

Work Order Number: 13-02-0734

1	Client Sample Data	3 3 4 5
2	Quality Control Sample Data	6 6 8
3	Glossary of Terms and Qualifiers	11
4	Chain of Custody/Sample Receipt Form	12





Cardno ERI

601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received:

Work Order No:

Preparation:

Method:

02/13/13

13-02-0734

**EPA 3510C** 

EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch II
W-DSCHG		13-02-0734-1-E	02/12/13 10:30	Aqueous	GC 46	02/15/13	02/15/13 22:14	130215B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
TPH as Diesel	ND	50	1	SG,U	ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
n-Octacosane	134	68-140						
W-HT		13-02-0734-3-E	02/12/13 11:00	Aqueous	GC 46	02/15/13	02/15/13 22:30	130215B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
TPH as Diesel	ND	50	1	SG,U	ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
n-Octacosane	132	68-140						
Method Blank		099-15-304-252	N/A	Aqueous	GC 46	02/15/13	02/15/13 21:25	130215B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	Units			
TPH as Diesel	ND	50	1	U	ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
n-Octacosane	131	68-140						







Cardno ERI

601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received:

Work Order No:

Preparation: Method:

02/13/13 13-02-0734 **EPA 5030C** 

EPA 8015B (M)

Project: ExxonMobil 73399/022776C

Page 1 of 1

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch II
W-DSCHG		13-02-0734-1-C	02/12/13 10:30	Aqueous	GC 25	02/13/13	02/14/13 00:17	130213B01
Parameter	Result	RL	<u>DF</u>	Qual	Units			
TPH as Gasoline	ND	50	1	U	ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	61	38-134						
W-HT		13-02-0734-3-C	02/12/13 11:00	Aqueous	GC 25	02/13/13	02/14/13 00:50	130213B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
TPH as Gasoline	ND	50	1	U	ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	64	38-134						
Method Blank		099-12-436-8,283	N/A	Aqueous	GC 25	02/13/13	02/13/13 10:53	130213B01
Parameter	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	50	1	υ	ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	62	38-134						14









Cardno ERI

601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received:

Work Order No:

Preparation: Method:

Units:

02/13/13

13-02-0734

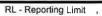
EPA 5030C EPA 8260B

ug/L

Project: ExxonMobil 73399/022776C

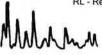
Page 1 of 1

Client Sample Number				ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch ID
W-DSCHG			13-02-	0734-1-A	02/12/13 10:30	Aqueous	GC/MS L	02/13/13	02/14 03:		130213L02
Parameter	Result	<u>RL</u>	<u>DF</u>	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)	)		ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl	Ether (MTB	E)	0.66	0.50	1	
Ethylbenzene	ND	0.50	1	U			<u> </u>				
Surrogates:	REC (%)	Control Limits	Qua	<u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	Qual
1,4-Bromofluorobenzene	89	68-120			Dibromofluoro	methane		102	80-127		
1,2-Dichloroethane-d4	104	80-128			Toluene-d8			98	80-120		
W-OUT-WC1			13-02-	0734-2-A	02/12/13 10:45	Aqueous	GC/MS L	02/13/13	02/14 04:		130213L02
Parameter	Result	RL	<u>DE</u>	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND	0.50	1	U	Xylenes (total)			ND	0.50	1	U
Toluene	ND	0.50	1	Ü	Methyl-t-Butyl		E)	1.0	0.50	1	O
Ethylbenzene	ND	0.50	1	U	Welliyi-t-Dutyi	Eulei (MID	L)	1.0	0.30		
•	REC (%)	Control	' Qu		Surrogates:			REC (%)	Control	(	Qual
Surrogates:	KEC (70)	Limits	Qui	<u>aı</u>	ourrogates.			1120 1707	Limits	-	<u>kuui</u>
1,4-Bromofluorobenzene	85	68-120			Dibromofluoro	methane		105	80-127		
1.2-Dichloroethane-d4	106	80-128			Toluene-d8	methane		98	80-120		
W-HT			13-02-	0734-3-A	02/12/13 11:00	Aqueous	GC/MS L	02/13/13	02/14 04:		130213L02
<u>Parameter</u>	Result	<u>RL</u>	<u>DE</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1	U	Xylenes (total)	)		ND	0.50	1	U
Toluene	ND	0.50	1	U	Methyl-t-Butyl	Ether (MTB	E)	4.5	0.50	1	
Ethylbenzene	ND	0.50	1	U							
Surrogates:	REC (%)	Control Limits	Qu	<u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
1,4-Bromofluorobenzene	88	68-120			Dibromofluoro	methane		105	80-127		
1,2-Dichloroethane-d4	106	80-128			Toluene-d8			103	80-120		
Method Blank			099-12	2-880-1,037	N/A	Aqueous	GC/MS L	02/13/13	02/14 00:		130213L02
Parameter	Result	RL	DE	Qual	Parameter			Result	RL	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1	U	Xylenes (total)	<b>\</b>		ND	0.50	1	
Toluene	ND	0.50	1	Ŭ	Methyl-t-Butyl		E)	ND	0.50	1	Ü
Ethylbenzene	ND	0.50	1	Ü			-,				_
,	REC (%)	Control	, Qu		Surrogates:			REC (%)	Control	<u>C</u>	<u>Qual</u>
<u>Surrogates:</u>	1120 (70)	Limits							<u>Limits</u>		
Surrogates:  1,4-Bromofluorobenzene	87	<u>Limits</u> 68-120			Dibromofluoro	methane		108	<u>Limits</u> 80-127		



DF - Dilution Factor

Qual - Qualifiers





## **Quality Control - Spike/Spike Duplicate**



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

Date Received: Work Order No: Preparation: Method: 02/13/13 13-02-0734 EPA 5030C EPA 8015B (M)

Quality Control Sample ID			Matrix	lı	nstrument	_	Date epared	Date Analyzed		/ISD Batch lumber
13-02-0671-2			Aqueou	ıs G	GC 25	02/	13/13	02/13/13	130	213\$01
Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	109.4	2000	2010	95	1968	93	68-122	2	0-18	



## **Quality Control - Spike/Spike Duplicate**



Cardno ERI 601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received: Work Order No: Preparation: Method:

02/13/13 13-02-0734 EPA 5030C **EPA 8260B** 

Quality Control Sample ID			Matrix	li	nstrument		Date epared	Date Analyzed	MS/MSD Batch Number		
13-02-0673-23			Aqueou	ıs G	C/MS L	02/	13/13	02/14/13	130	213S02	
<u>Parameter</u>	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers	
Benzene	ND	10.00	10.46	105	10.49	105	76-124	0	0-20		
Toluene	ND	10.00	10.23	102	10.18	102	80-120	0	0-20		
Ethylbenzene	ND	10.00	10.14	101	10.38	104	78-126	2	0-20		
Xylenes (total)	ND	30.00	32.19	107	32.45	108	70-130	1	0-30		
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.750	98	9.620	96	67-121	1	0-49		







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

Date Received: Work Order No: Preparation: Method:

N/A 13-02-0734 **EPA 3510C** EPA 8015B (M)

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	d	LCS/LCSD Batch Number	
099-15-304-252	Aqueous		GC 46	02/	15/13	02/15/13		130215B01	
<u>Parameter</u>	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	1955	98	1815	91	75-117	7	0-13	





Cardno ERI 601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received: Work Order No: Preparation: Method: N/A 13-02-0734 EPA 5030C EPA 8015B (M)

Quality Control Sample ID	Matrix		Instrument		ate pared	Date Analyzed	i	LCS/LCSD Batch Number	
099-12-436-8,283	Aqueous		GC 25	02/	13/13	02/13/13		130213B01	
<u>Parameter</u>	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2000	1990	100	1976	99	78-120	1	0-10	





Cardno ERI 601 North McDowell Blvd. Petaluma, CA 94954-2312 Date Received: Work Order No: Preparation: Method: N/A 13-02-0734 EPA 5030C EPA 8260B

Quality Control Sample ID	Matrix	li li	nstrument		ate pared	Date Analyzed	d	LCS/LCSD Batch Number	
099-12-880-1,037	Aqueous	(	GC/MS L	02/	13/13	02/13/13		130213L02	
<u>Parameter</u>	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	10.31	103	10.06	101	80-120	2	0-20	
Toluene	10.00	10.19	102	9.843	98	80-120	3	0-20	
Ethylbenzene	10.00	10.20	102	9.928	99	80-120	3	0-20	
Xylenes (total)	30.00	31.87	106	31.11	104	75-125	2	0-25	
Methyl-t-Butyl Ether (MTBE)	10.00	10.04	100	9,751	98	69-123	3	0-20	





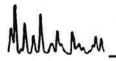
## **Glossary of Terms and Qualifiers**



Work Order Number: 13-02-0734

Qualifier	<u>Definition</u>										
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.										
В	Analyte was present in the associated method blank.										
ВА	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.										
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.										
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 a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.										
HD	Chromat, profile inconsistent with pattern(s) of ref. fuel stnds.										
НО	High concentration matrix spike recovery out of limits										
HT	Analytical value calculated using results from associated tests.										
НХ	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.										
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.										
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/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.										
SG	A silica gel cleanup procedure was performed.										
SN	See applicable analysis comment.										
U	Undetected at detection limit.										
	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.										

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.



Calscience Environmental

7440 Lincoln Way

Garden Grove, CA 92841

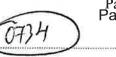
Laboratories, Inc.

Phone: 714-895-5494

Fax: 714-894-7501

# **E**XonMobil 13-02-0734

Consu	iltant Name:	e: Cardno ERI Account #: NA PO#:																														
Consulta	nt Address:	:: 601 North McDowell Blvd Invoice To:									o: <u>C</u>	Cardno ERI																				
Consultant Ci	ty/State/Zip:											o: F	Rebekah Westrup																			
ExxonMobil I	Project Mgr:	Jennifer C. Se	Jennifer C. Sedlachek Project Name									ю: <u>О</u>	e: 022776C (FEB)																			
Consultant I	Project Mgr:	Rebekah Wes	trup					ExxonMobil Site #: 73399 Major Project (AFE #):																								
Consultant Telepho	ne Number:	(707) 766-200					Fa	k No	o.: <u>(</u> 7	(70	789-	)414				Sit	te Ad	ldres	s: 2	991	Нору	ard F	Road									
Sampler N	Name (Print):	Vow	Bern	nu										_ :	Site	City	, Sta	te, Z	ip: F	leas	antor	, Ca	iforn	ia								
Sample	r Signature:	Dell	own	-											Ove	ersig	ht A	geno	cy: _	Dublir	n San	Ran	on S	Servi	es D	District						
		1								Pre	serv	ative	×,	NOW.	300	Cole	Mat	rix		<b>强</b> 9	38	9.20	<b>7</b>	An	alyze	For:	n. S. A.		L			
Sample ID	Field Point Name	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Methanol	Sodium Bisulfate HCI (Blue Label)	NaOH ( Orange Label)	H <sub>2</sub> SO <sub>2</sub> Plastic (Yellow Label)	HNO, (Red Label)	lce	None (Black Label)	Groundwater	Wastewater	Drinking Water Studge	Soil	Air	Other (specify):	8015B TPHd**	8015B TPHg	BTEX/MTBE 8260			o.			RUSH TAT (Pre-Schedule	5-day TAT	Standard 10-day TAT	Due Date of Report
W-DSCHG	WEFF	2/12/13	1030	(2) 500ml Amber	x			П		Т		- 1	х		х				П	T	Х								Γ		х	
W-DSCHG		2/12/13	1434	(4) 40ml VOAs	х			П	٦,	7	H	1	x	$\top$	x		$\top$		П	T		х	х						Г		x	
W-DSCHG	VVCFF	PITPITS	10	(4) 401111 10713	Ĥ	14		П	+	+	Ħ	Ħ	Ť	十	П	П	7	Т	П	┪	7				$\exists$			$\neg$	Т		П	
W-OUT-WC1	WC1	2/12/13	Was	(4) 40ml VOAs	х			H	,	4			x	Ŧ	х		1	8	H	1			х		1	Ŧ			F	F	х	
W-HT	WHT	2/12/13	M **	(2) 500ml Amber	х				1				х	#	х		1	L		#	х								L		х	
W-HT	WHT	2/12/13	14 20	(4) 40ml VOAs	x		_	L	1	<	Ц	$\bot$	X	1	х	Ц	_	┡	Н	4		Х	Х		-	+		+	╀	⊢	Х	_
Comments/Special Instructions GLOBAL ID # (T0600100537)	 s: ** TPHd	to include silie	ca gel clean	up. 1900 700 750				L		L,		PL			ALLA	ABSE	PDF F	us.co	TO (MC	S - V	rator emper emplos	eratu: le Co Free	re Up ntain of H	oon F iers li leads	tecei ntact pace	?			Y Y		N N	
Relinquished by:		Date Time Receive					eived	d by: Date Time					QC Deliverables (please circle one) Level 2																			
J. Bermon		2/12	13	1430		(			/	×	/	62		2	10	13	1	43	<u>M</u>	Level	3				y.							
Relinquished by:	58	Date Time Received by (Lab personnel):    Date   Time   Level 4							∍ w/ Test	Amer	ica																					





## **〈WebShip〉〉〉〉〉**

800-322-5555 www.gso.com

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

CONCORD, CA 94520

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

COD: \$0,00

Reference: CARDNO ERI, TERRA PACIFIC GROUP

Delivery Instructions:

Signature Type: SIGNATURE REQUIRED

521078787 Tracking #: 

GARDEN GROVE

D92841A



Print Date: 02/12/13 13:45 PM Package 1 of 1

Send Label To Printer

☑ Print All

Edit Shipment

Finish

### LABEL INSTRUCTIONS:

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

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

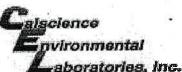
### ADDITIONAL OPTIONS:

Send Label Via Email

Create Return Label

### TERMS AND CONDITIONS:

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



WORK ORDER #: 13-02- ☑ 🗗 🖸 💆

SAMPLE RECEIPT FORM	Cooler of
	02/13/13
TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except so	ediment/tissue)
Temperature 2 • Z °C - 0.2 °C (CF) = 2 • 0 °C Blank	☐ Sample
☐ Sample(s) outside temperature criteria (PM/APM contacted by:).	
☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of samp	oling.
☐ Received at ambient temperature, placed on ice for transport by Courier.	1.0
Ambient Temperature: ☐ Air ☐ Filter	Initial:
CUSTODY SEALS INTACT:	
Cooler □ □ No (Not Intact) □ Not Present □ N/A	initial: 20
□ Sample □ □ No (Not Intact) □ Not Present	Initial:
SAMPLE CONDITION: Yes	No N/A
Chain-Of-Custody (COC) document(s) received with samples	
COC document(s) received complete	
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.	
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.	7 Y
Sampler's name indicated on COC	
Sample container label(s) consistent with COC	
Sample container(s) intact and good condition	
Proper containers and sufficient volume for analyses requested	
Analyses received within holding time	
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	
Proper preservation noted on COC or sample container	
☐ Unpreserved vials received for Volatiles analysis	-12 df
Volatile analysis container(s) free of headspace	
Tedlar bag(s) free of condensation	
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCores® □Ten	raCores® □
Water: □VOA ☑VOAn □VOAna₂ □125AGB □125AGBh □125AGBp □1AGB	□1AGBna₂ □1AGBs
□500AGB Ø500AGJ □500AGJs □250AGB □250CGB □250CGBs □1PB	□1PBna □500PB
□250PB □250PBn □125PB □125PBznna □100PJ □100PJna₂ □□	<u> </u>
Air: ☐Tedlar® ☐Canister Other: ☐ Trip Blank Lot#: Labele Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s: H <sub>2</sub> SO <sub>4</sub> u: Ultra-pure znna: ZnAc <sub>2</sub> +NaOH f: Filtered	Reviewed by: