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Jennifer C. Sedlachek
Project Manager

ExxonMobil

November 12, 2015

RECEIVED
By Alameda County Environmental Health 2:16 pm, Nov 13, 2015

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

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

Dear Mr. Detterman:

Attached for your review and comment is a copy of the letter report entitled ***Data Gap Investigation, Well Installation, and Remedial Progress Report,*** dated November 12, 2015, for the above-referenced site. The report was prepared by Cardno of Petaluma, California, and details activities at the subject site.

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

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

Sincerely,

Jennifer C. Sedlachek
Project Manager

Attachment: Cardno's ***Data Gap Investigation, Well Installation, and Remedial Progress Report,*** dated November 12, 2015

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

w/o attachment
Mr. Scott Perkins, Cardno

Data Gap Investigation, Well Installation, and Remedial Progress Report

Former Exxon Service Station 79374
Alameda County RO 2974

Cardno 2735C.R12

November 12, 2015

Cardno
Shaping the Future

Data Gap Investigation, Well Installation, and Remedial Progress Report

Former Exxon Service Station 79374
990 San Pablo Avenue
Albany, California

Alameda County RO 2974

Cardno 2735C.R12

November 12, 2015

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1 Introduction

At the request of ExxonMobil Environmental Services (EMES), on behalf of Exxon Mobil Corporation, Cardno prepared this data gap investigation, well installation, and remedial progress report for the site. The work was conducted in accordance with the *Feasibility Study/Corrective Action Plan* (FS/CAP), dated February 4, 2015 (Cardno ERI, 2015b), which was approved by the Alameda County Department of Environmental Health (ACEH) in a letter dated August 26, 2015 (Appendix A). The work included the drilling of borings, the installation of wells, and initiating DPE high-intensity targeted (HIT) events at the site to progress the site towards closure.

2 Site Description

Former Exxon Service Station 79374 is located at 990 San Pablo Avenue, on the northwestern corner of the intersection of Buchanan Street and San Pablo Avenue, Albany, California (Plate 1). The site is a retail outlet for paint and painting products and is located in an area of mixed commercial and residential land use. The neighboring properties include another retail paint store, a restaurant, a beauty supply store, the City of Albany police department, the City of Albany Fire Department, and residential housing. A Generalized Site Plan is included as Plate 2. A tabular site conceptual model for the site detailing additional site information is included as Appendix B.

3 Geology and Hydrogeology

The site lies at an approximate elevation of 40 feet above msl, and the local topography slopes toward the southwest. The site is located along the eastern margin of the San Francisco Bay within the East Bay Plain (Hickenbottom and Muir, 1988). The surficial deposits in the site vicinity are mapped as Holocene alluvial fan and fluvial deposits (Graymer, 2000). The site is located approximately 1,630 feet north-northwest of Cordornices Creek and approximately 1½ miles southwest of the active northwest trending Hayward fault.

The East Bay Plain is regionally divided into two major groundwater basins: the San Pablo and the San Francisco Basin. These basins are tectonic depressions that are filled primarily with a sequence of coalescing alluvial fans. The San Francisco Basin is further divided into seven sub-areas. The site is located in the Berkeley Sub-Area, which is filled primarily by alluvial deposits that range from 10 to 300 feet thick with poorly defined aquitards (CRWQCB, 1999). Under natural conditions, the direction of groundwater flow in the East Bay Plain is east to west.

Soil boring logs indicate that the soil beneath the site consists predominantly of silt and clay with an apparently continuous coarse-grained unit 2 to 8 feet thick encountered between approximately 8 and 20 feet bgs (EC&A, 2008; Cardno ERI, 2011; Cardno ERI, 2012a). Fill material was encountered in the boring for well SVE3 (located in the former UST pit) to approximately 7 feet bgs. CPT soil borings indicate the presence of predominantly silt and clay between approximately 20 and 60 feet bgs, the maximum depth explored.

Historical groundwater elevation data indicate that DTW ranges from 5 to 11 feet bgs beneath the site with varying groundwater flow directions. The distribution of dissolved-phase hydrocarbons suggests that the dominant groundwater flow direction is west to southwest.

4 Previous Work

Cumulative groundwater monitoring and sampling data are summarized in Tables 1A and 1B. Well construction details are presented in Table 2. Cumulative soil analytical results are summarized in Tables 3A and 3B.

Additional site information is included in the FS/CAP, dated February 4, 2015 (Cardno ERI, 2015b).

4.1 Fueling System Activities

In 1983, one used-oil UST and four gasoline USTs were removed and the resulting tank cavity was backfilled with sand and compacted to 90% (City of Albany, 1983).

4.2 Site Assessment Activities

Six exploratory borings (B1 through B6) were advanced on site in 2008. Maximum residual concentrations of TPHg, TPHd, and benzene were reported in the soil samples collected at 10.5 feet bgs from borings B1 and B2, located near the former USTs. Maximum dissolved-phase TPHg, TPHd, and benzene concentrations were also reported in the samples collected from soil borings B1 and B2, and the laboratory reported an immiscible sheen in the samples (EC&A, 2008).

Monitoring wells MW1 through MW6 and borings CPT1/HP1 and CPT2/HP2 were installed on site in 2010. Maximum residual concentrations of TPHg and TPHd in soil were reported in samples collected at 10.5 feet bgs from borings MW3 and MW5, located west of the former USTs. Dissolved-phase hydrocarbons were adequately delineated vertically at the site with petroleum hydrocarbon concentrations below or near the laboratory reporting limits in groundwater samples collected deeper than 27.5 feet bgs (Cardno ERI, 2011).

In January 2012, Cardno ERI installed SVE wells SVE1 through SVE3, AS well AS1, and monitoring well MW3A to be used during feasibility testing (Cardno ERI, 2012a).

In February and March 2014, Cardno ERI installed soil vapor sampling (SVS) wells SVS1 through SVS3 at the site and advanced on-site and off-site borings B7 through B17 (Cardno ERI, 2014a).

In December 2014, Cardno ERI installed off-site monitoring wells MW7 and MW8 (Cardno ERI, 2015a).

4.3 Remediation Activities

According to City of Albany Building Permit 82-0708, the USTs were removed and the resulting excavation backfilled in 1983 (City of Albany, 1983). It is unknown if over-excavation was performed during UST removal.

Between January 31 and February 1, 2012, Cardno ERI conducted three four-hour feasibility tests: a DPE only test, a combined AS and DPE test, and an AS only test. Approximately 93 pounds of TPHg and 0.09 pound of benzene were removed during feasibility testing (Cardno ERI, 2012b).

Cardno ERI prepared a FS/CAP, dated February 4, 2015. Cardno ERI recommended conducting DPE HIT events at the site to remediate hydrocarbon concentrations in soil, soil vapor, and groundwater and installing four extraction wells along the north and west sides of the site and monitoring wells off site to the southwest (Cardno ERI, 2015b).

4.4 Groundwater Monitoring Activities

Groundwater monitoring began at the site in 2010 with the installation of wells MW1 through MW6. Maximum concentrations were reported in the UST cavity and southwest of the UST cavity in wells MW3, MW3A, MW4, and MW5. Concentrations of MTBE are typically not reported above the laboratory reporting limit.

4.5 Soil Vapor Monitoring Activities

Soil vapor monitoring began at the site in 2014 with the installation of wells SVS1 through SVS3 (Cardno ERI, 2014a). Reported vapor-phase TPHg concentrations are similar in each of the wells and exceed applicable screening levels by up to three orders of magnitude.

5 Soil Borings and Well Installation

In October 2015, Cardno began implementation of the work proposed in the FS/CAP. Field work was conducted in general accordance with the FS/CAP, standard field protocols (Appendix C), a site-specific health and safety plan, and applicable regulatory guidelines under the advisement of a professional geologist.

Due to the presence of several subsurface utilities, planned well MW9 was converted into a soil boring (B18). During clearance activities the drillers were able to clear a hole large enough for a boring but were unable to widen the cleared hole to accommodate the augers. Proposed well MW10 was subsequently renamed well MW9.

5.1 Pre-Drilling Activities

Prior to drilling activities, Cardno obtained well installation permits from the Alameda County Public Works Agency and an encroachment permit from the City of Albany (Appendix D). Cardno personnel visited the site to check for obstructions and to mark the proposed locations. Underground Service Alert was notified at least 48 hours prior to the onset of field activities.

5.2 Well Installation and Soil Boring Activities

From October 9 to 12, 2015, Cardno observed the drilling of soil boring B18 and the installation of wells MW9 and SVE4 through SVE7. Boring locations were manually excavated with hand tools to approximately 5.5 feet bgs in accordance with EMES' subsurface clearance protocol. The borings were subsequently drilled using a hollow-stem drill rig to approximately 16 feet bgs. The borings were sampled at a minimum of approximately 5-foot intervals to total depth for geologic logging purposes. Select soil samples were submitted for laboratory analysis.

Wells were constructed in borings MW9 and SVE4 through SVE7 using 2-inch diameter (MW9) and 4-inch diameter (SVE4 through SVE7), Schedule 40, PVC casing with a 10-foot screened interval from approximately 5 to 15 feet bgs. Well construction details are included in Table 2 and in the boring logs included in Appendix E.

5.3 Development and Sampling

On October 15, 2015, Cardno developed the newly-installed wells using a surge block and an electric pump in accordance with the protocols provided in Appendix C. On October 16, 2015, Cardno gauged and sampled the wells. Groundwater monitoring and sampling results are included in Tables 1A and 1B. Field data sheets are included in Appendix F.

5.4 Laboratory Analyses

Cardno submitted soil and groundwater samples for analysis to Eurofins Calscience, Inc., a California state-certified laboratory, under COC protocol. Laboratory analytical results and sampling methods are summarized in Tables 1A, 1B, 3A, and 3B. Laboratory analytical reports are included in Appendix G.

5.5 Site Survey

On October 26, 2015, Cardno observed Morrow Surveying survey the locations and elevations of the newly-installed wells. The survey report is included in Appendix H.

5.6 Waste Containment and Disposal

Soil and water generated during assessment activities were temporarily stored on site in 55-gallon drums. Waste disposal documentation will be included under separate cover.

6 Dual-Phase Extraction HIT Events

The first targeted HIT event began on October 20, 2015, and continued through October 30, 2015. Results of the DPE HIT event will be included in the fourth quarter 2015 groundwater monitoring and sampling report due to the ACEH on December 18, 2015.

7 Results and Conclusions

Sediments observed during this investigation consist largely of sands, clays, and silts to 16 feet bgs, the maximum depth explored. Groundwater was encountered at 8 feet bgs in boring MW9 and at 12 to 12.5 feet bgs in borings SVE4 through SVE7.

Residual petroleum hydrocarbons were below screening levels in boring B18, located west of the site. Concentrations of TPHd and TPHg were present from approximately 9 to 12 feet bgs in borings MW9 and SVE4 through SVE7, including the following ESL exceedances:

- SVE5, 11.5 feet bgs: TPHd (160 mg/kg), ethylbenzene (5.1 mg/kg), and total xylenes (7.0 mg/kg).
- SVE6, 12 feet bgs: TPHg: (520 mg/kg) ethylbenzene (17 mg/kg), and total xylenes (11 mg/kg).

Dissolved-phase TPHd, TPHg, and BTEX concentrations were reported in each of the newly-installed wells. Maximum TPHg concentrations were reported in well SVE5 (1,700 µg/L) and maximum benzene concentrations were reported in well SVE4 (37 µg/L).

8 Site Conceptual Model

Based on historical data and the results of the current investigation, Cardno updated the tabular site conceptual model for the site (Appendix B).

9 Recommendations

Cardno recommends the continued implementation of the work proposed in the FS/CAP and continued semi-annual groundwater monitoring and sampling at the site. Additionally, Cardno recommends adding well MW9 to the groundwater sampling schedule and evaluating the need for an additional downgradient well.

10 Contact Information

The responsible party contact is Ms. Jennifer C. Sedlachek, ExxonMobil Environmental Services Company, 4096 Piedmont Avenue #194, Oakland, California, 94611. The consultant contact is Mr. Scott Perkins, Cardno, 601 North McDowell Boulevard, Petaluma, California, 94954. The agency contact is Mr. Mark Detterman, Alameda County Health Care Services Agency, Environmental Health Services, 1131 Harbor Bay Parkway, Suite 250, Alameda, California, 94502-6577.

11 Document Distribution

Cardno recommends submitted a copy of this report to the following:

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

Ms. Muriel T. Blank, Trustee
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Albany, California 94706

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

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

12 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.

13 References

California Regional Water Quality Control Board San Francisco Bay Region Groundwater Committee (CRWQCB). June 1999. *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, CA.*

Cardno ERI. February 28, 2011. *Site Assessment Report, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California, Alameda County #RO00002974.*

Cardno ERI. April 12, 2012a. *Well Installation Report, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California, Alameda County #RO00002974.*

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Cardno ERI. May 2, 2014a. *Soil, Soil Vapor, and Groundwater Investigation Report and Site Conceptual Model, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California, Alameda County #RO00002974.*

Cardno ERI. January 22, 2015a. *Well Installation Report, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California, Alameda County #RO00002974.*

Cardno ERI. February 4, 2015b. *Feasibility Study/Corrective Action Plan, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California, Alameda County #RO00002974.*

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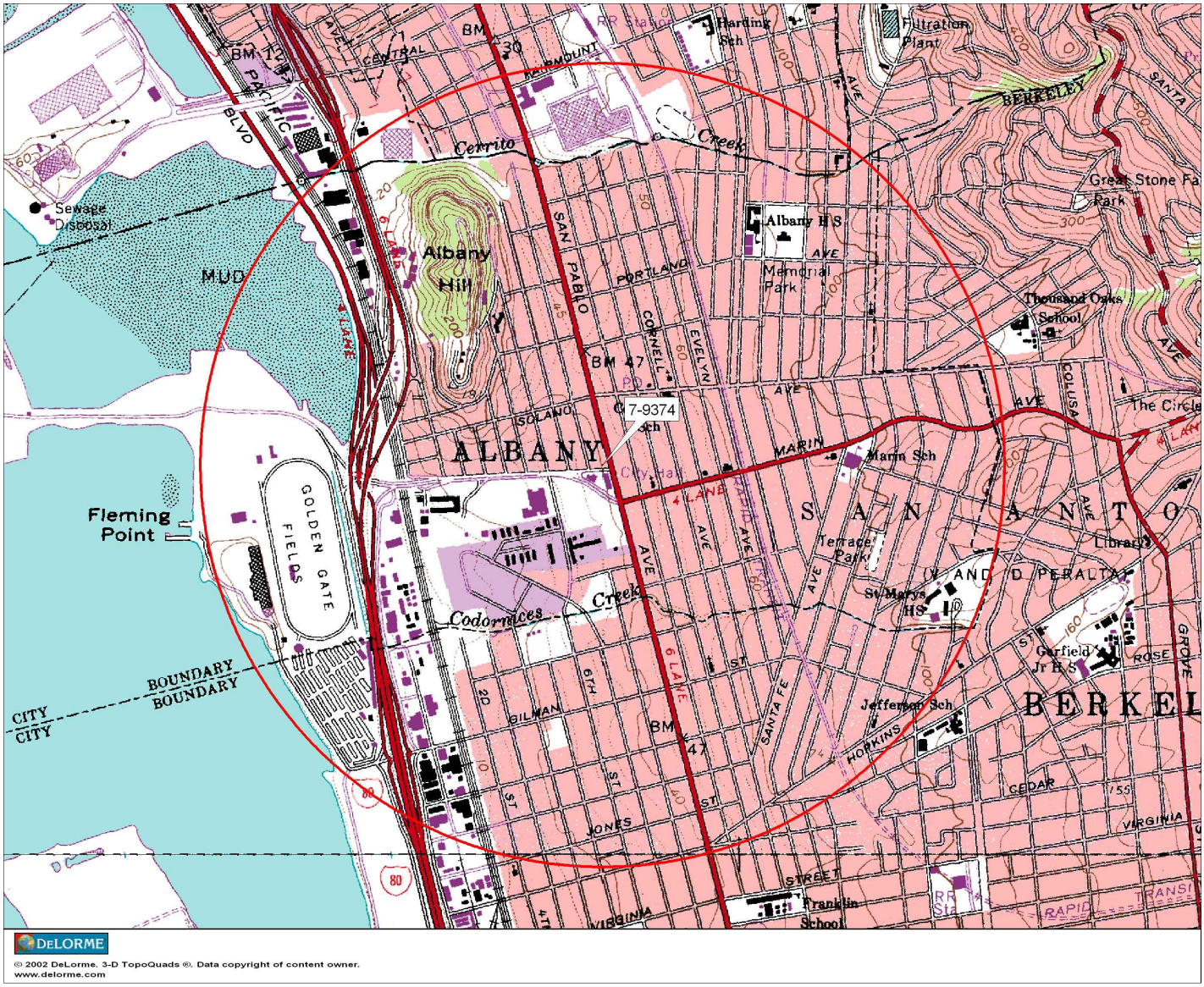
Edd Clark & Associates (EC&A). January 31, 2008. *Report of Phase II Environmental Assessment, 990 San Pablo Avenue, Albany, California 94706. EC&A Project No 0589,002.07.*

Graymer, R.W. 2000. *Geologic map and map database of the Oakland metropolitan area, Alameda, Contra Costa, and San Francisco Counties, California. USGS, Miscellaneous Field Studies MF-2342.*

Hickenbottom, Kelvin and Muir, Kenneth S. June 1988. *Geohydrogeology and Groundwater Quality Overview of the East Bay Plain Area, Alameda County, CA. Alameda County Flood Control and Water Conservation District. 83p.*

14 Acronym List

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



FN 2735 TOPO

EXPLANATION

1/2-mile radius circle

N

APPROXIMATE SCALE

0 0.5 1 mile

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

SITE VICINITY MAP

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

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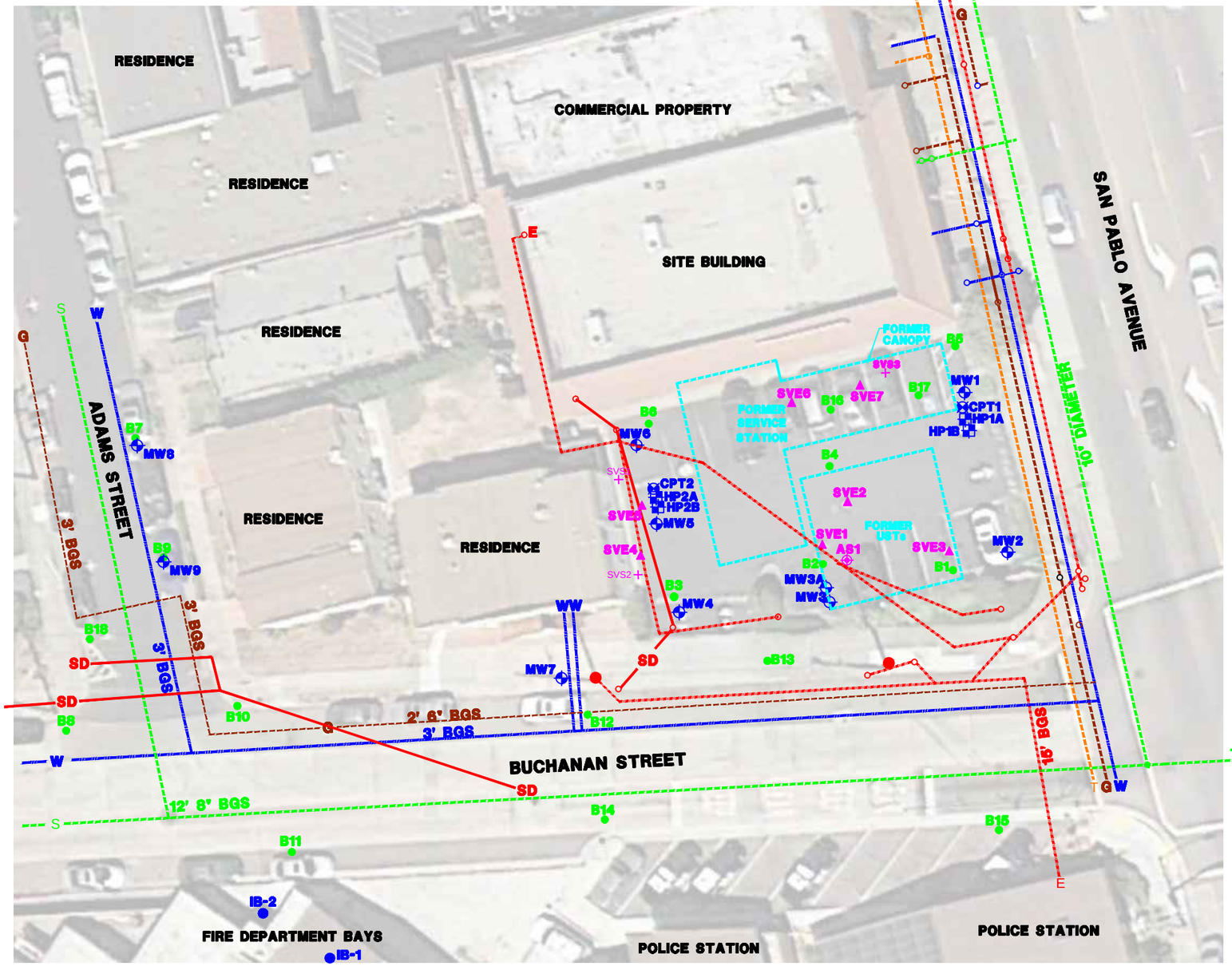
PROJECT NO. 2735

PLATE 1

UTILITIES LEGEND

- TELEPHONE
- ELECTRICAL
- WATER
- GAS
- SEWER
- STORM DRAIN
- POWER POLE



APPROXIMATE SCALE

0 30 60 Feet

FN 2735 GSP AERIAL _SP R12

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GENERALIZED SITE PLAN

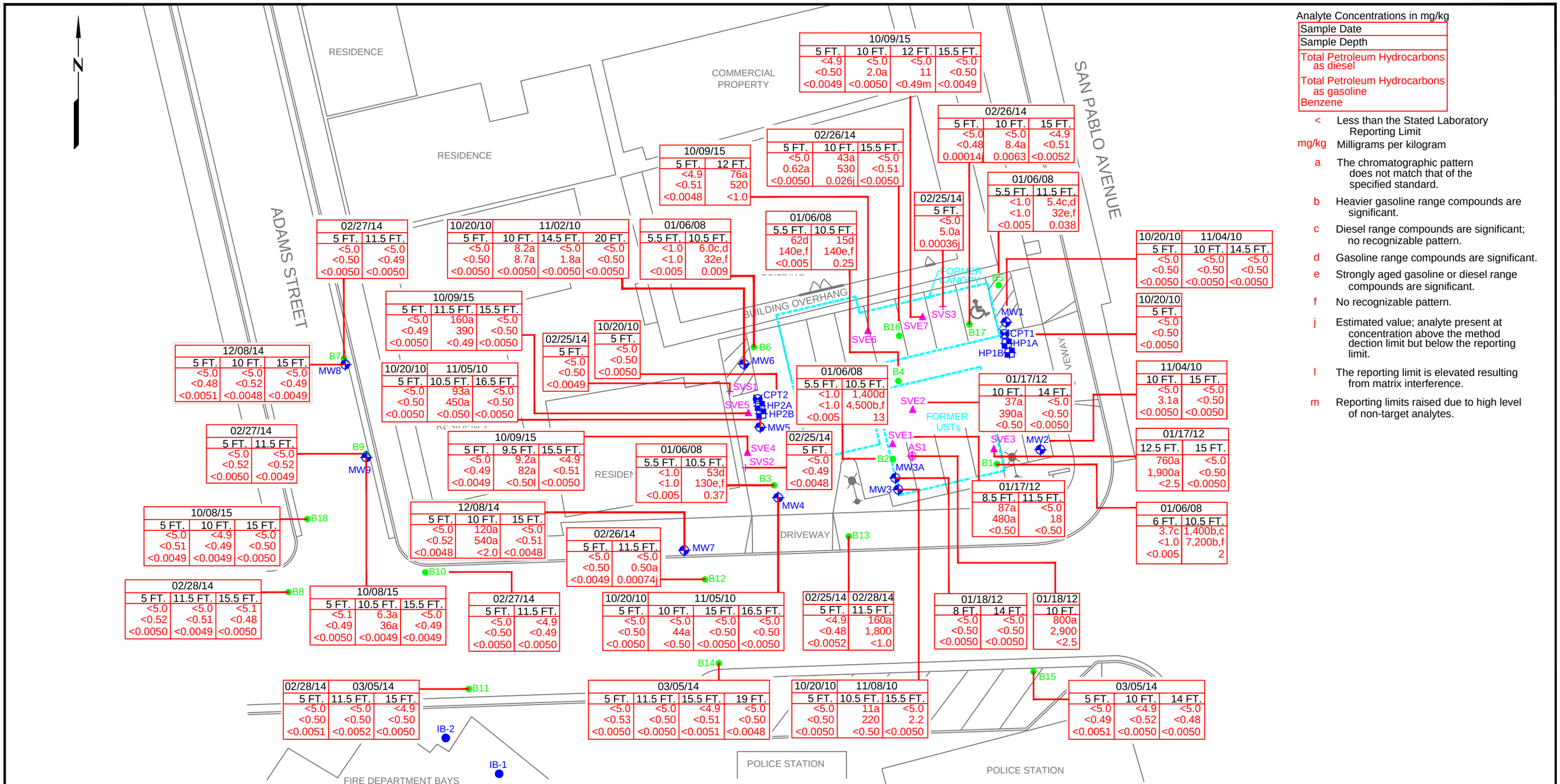
FORMER EXXON SERVICE STATION 79374
990 San Pablo Avenue
Albany, California

EXPLANATION

- MW9 Groundwater Monitoring Well
- B18 Soil Boring
- IB-2 Soil Boring by Other Consultant for City of Albany
- HP2B Hydropunch Boring
- CPT2 Cone Penetration Test Boring
- SVS3 Soil Vapor Sampling Well
- AS1 Air Sparge Well
- SVE7 Soil Vapor Extraction Well

PROJECT NO. 2735

PLATE 2



Analyte Concentrations in mg/kg

Sample Date
Sample Depth
Total Petroleum Hydrocarbons as diesel
Total Petroleum Hydrocarbons as gasoline
Benzene

- < Less than the Stated Laboratory Reporting Limit
- mg/kg Milligrams per kilogram
- a The chromatographic pattern does not match that of the specified standard.
- b Heavier gasoline range compounds are significant.
- c Diesel range compounds are significant; no recognizable pattern.
- d Gasoline range compounds are significant.
- e Strongly aged gasoline or diesel range compounds are significant.
- f No recognizable pattern.
- j Estimated value; analyte present at concentration above the method dection limit but below the reporting limit.
- l The reporting limit is elevated resulting from matrix interference.
- m Reporting limits raised due to high level of non-target analytes.

FN 27350004 R12

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SELECT SOIL ANALYTICAL RESULTS

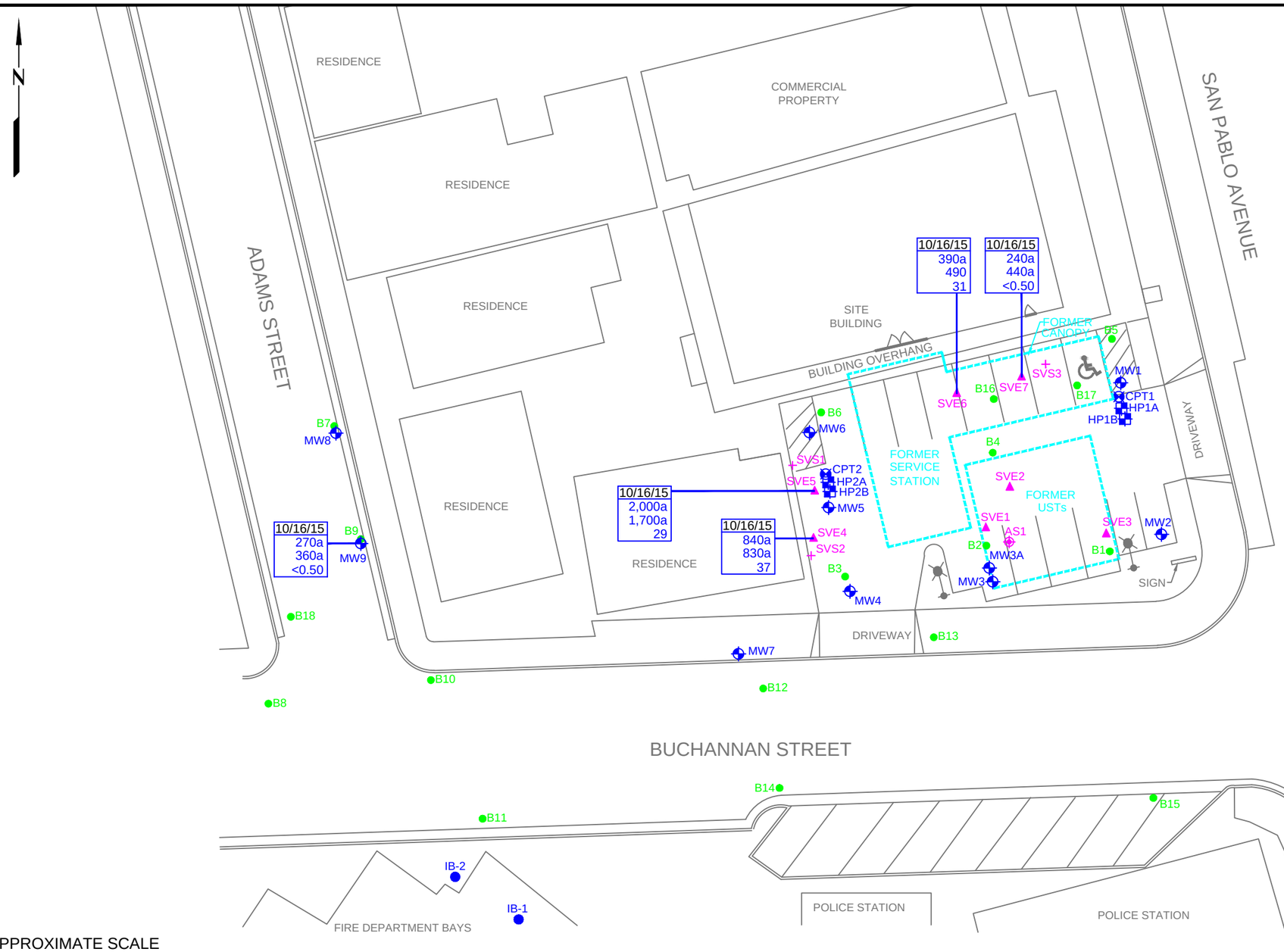
FORMER EXXON SERVICE STATION 79374
990 San Pablo Avenue
Albany, California

EXPLANATION

- MW9 Groundwater Monitoring Well
- B18 Soil Boring
- IB-2 Soil Boring by Other Consultant for City of Albany
- HP2B Hydropunch Boring
- CPT2 Cone Penetration Test Boring
- SVS3 Soil Vapor Sampling Well
- AS1 Air Sparge Well
- SVE7 Soil Vapor Extraction Well

PROJECT NO. 2735

PLATE 3



Analyte Concentrations in ug/L

Sample Date
Total Petroleum Hydrocarbons as diesel
Total Petroleum Hydrocarbons as gasoline
Benzene

< Less than the Stated Laboratory Reporting Limit

ug/L Micrograms per Liter

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

APPROXIMATE SCALE

0 30 60 Feet

FN 27350004 R12

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SELECT GROUNDWATER ANALYTICAL RESULTS

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

EXPLANATION

- MW9 Groundwater Monitoring Well
- B18 Soil Boring
- IB-2 Soil Boring by Other Consultant for City of Albany
- HP2B Hydropunch Boring
- CPT2 Cone Penetration Test Boring
- SVS3 Soil Vapor Sampling Well
- AS1 Air Sparge Well
- SVE7 Soil Vapor Extraction Well

PROJECT NO. 2735

PLATE 4

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

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
Monitoring Well Samples															
MW1	11/04/10	---	Well installed.												
MW1	12/01/10	---	41.45	Well surveyed.											
MW1	12/16/10	---	41.45	9.18	32.27	No	---	<250	71a	54	<0.50	1.4	0.65	0.58	1.6
MW1	01/31/11	---	41.45	8.78	32.67	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	04/07/11	---	41.45	8.45	33.00	No	---	<250	65a	160a	<0.50	2.9	0.92	<0.50	1.7
MW1	07/18/11	---	41.45	9.49	31.96	No	---	<250	<50	63a	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	10/13/11	---	41.45	9.86	31.59	No	---	<250	54	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	04/06/12	---	41.45	8.11	33.34	No	---	<250	130	130	<0.50	2.1	<0.50	<0.50	<0.50
MW1	10/19/12	---	41.45	10.42	31.03	No	---	<250	<50	<50	<0.50	0.51	2.2	<0.50	0.65
MW1	06/11/13	---	41.45	10.48	30.97	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	12/19/13	---	41.45	10.67	30.78	No	---	<250	<50	<50	<0.50	<0.50	1.3	<0.50	0.53
MW1	04/03/14	---	44.19	Elevation converted to NAVD88.											
MW1	04/30/14	---	44.19	9.49	34.70	No	---	---	---	---	---	---	---	---	---
MW1	05/01/14	---	44.19	---	---	---	---	<240	<48	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1	10/28/14	---	44.19	10.85	33.34	No	---	<250	61a	59	<0.50	1.2	<0.50	0.64	<0.50
MW1	06/02/15	---	44.19	10.35	33.84	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	11/04/10	---	Well installed.												
MW2	12/01/10	---	41.25	Well surveyed.											
MW2	12/16/10	---	41.25	8.11	33.14	No	---	<250	110a	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	01/31/11	---	41.25	9.29	31.96	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	04/07/11	---	41.25	8.21	33.04	No	---	<250	<50	<50	0.51	<0.50	<0.50	<0.50	<0.50
MW2	07/18/11	---	41.25	9.52	31.73	No	---	<250	<50	54a	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	10/13/11	---	41.25	9.56	31.69	No	---	<250	98	75a	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	04/06/12	---	41.25	8.68	32.57	No	---	<250	60	68	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	10/19/12	---	41.25	11.03	30.22	No	---	<250	<50	59a	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	06/11/13	---	41.25	10.67	30.58	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	12/19/13	---	41.25	10.77	30.48	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	04/03/14	---	43.99	Elevation converted to NAVD88.											
MW2	04/30/14	---	43.99	9.63	34.36	No	---	---	---	---	---	---	---	---	---
MW2	05/01/14	---	43.99	---	---	---	---	<240	<48	53a	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	10/28/14	---	43.99	11.03	32.96	No	---	<250	78a	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2	06/02/15	---	43.99	10.50	33.49	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW3	11/08/10	---	Well installed.												
MW3	12/01/10	---	40.42	Well surveyed.											
MW3	12/16/10	---	40.42	8.18	32.24	No	---	<250	2,900a	19,000	<12	350	130	940	290
MW3	01/31/11	---	40.42	7.64	32.78	No	---	390	2,800a	17,000a	<12	540	140	700	270
MW3	04/07/11	---	40.42	5.88	34.54	No	---	<250	2,700a	14,000	<10	600	150	780	230
MW3	07/18/11	---	40.42	8.31	32.11	No	---	<250	1,700a	19,000	<10	650	140	660	220
MW3	10/13/11	---	40.42	8.76	31.66	No	---	<250	1,900a	16,000	<10	520	150	900	270

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

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW3	04/06/12	---	40.42	8.13	32.29	No	---	<250	3,200a	18,000	<20	300	120	1,100	180
MW3	10/19/12	---	40.42	9.37	31.05	No	---	<250	1,700a	11,000a	<10	380	120	740	150
MW3	06/11/13	---	40.42	9.48	30.94	No	---	<250	2,700a	17,000	<10	270	110	990	140
MW3	12/19/13	---	40.42	10.00	30.42	No	---	---	---	---	---	---	---	---	---
MW3	12/20/13	---	40.42	---	---	---	---	<250	2,000a	16,000	<10	310	120	710	120
MW3	04/03/14	---	43.16	Elevation converted to NAVD88.											
MW3	04/30/14	---	43.16	9.17	33.99	No	---	---	---	---	---	---	---	---	---
MW3	05/01/14	---	43.16	---	---	---	---	<240	3,100a	18,000	<10	230	110	1,100	170
MW3	10/28/14	---	43.16	10.10	33.06	No	---	<250	4,800a	17,000	<20	330	120	1,200	150
MW3	06/02/15	---	43.16	9.30	33.86	No	---	<250	3,900a	18,000a	<20	290	110	850	140
MW3A	01/18/12	---	Well installed.												
MW3A	02/06/12	---	40.68	Well surveyed.											
MW3A	04/06/12	---	40.68	6.02	34.66	No	---	<250	170a	1,300	<2.0	41	7.5	140	38
MW3A	10/19/12	---	40.68	10.44	30.24	No	---	<250	860a	4,400a	<5.0	390	59	410	82
MW3A	06/11/13	---	40.68	9.75	30.93	No	---	<250	160a	1,100	<2.0	99	14	110	3.6
MW3A	12/19/13	---	40.68	10.05	30.63	No	---	<250	270a	1,800	<2.0	150	18	65	4.7
MW3A	04/03/14	---	43.42	Elevation converted to NAVD88.											
MW3A	04/30/14	---	43.42	7.55	35.87	No	---	---	---	---	---	---	---	---	---
MW3A	05/01/14	---	43.42	---	---	---	---	<240	<48	130a	<0.50	7.0	1.2	7.4	1.3
MW3A	10/28/14	---	43.42	10.33	33.09	No	---	<250	330a	1,600	<0.50	150	17	26	4.0
MW3A	06/02/15	---	43.42	9.48	33.94	No	---	<250	89a	170a	<0.50	14	0.95	6.7	1.8
MW4	11/05/10	---	Well installed.												
MW4	12/01/10	---	39.30	Well surveyed.											
MW4	12/16/10	---	39.30	6.10	33.20	No	---	<250	2,000a	9,900	<5.0	440	40	170	380
MW4	01/31/11	---	39.30	6.84	32.46	No	---	260	3,900a	13,000	<10	500	59	320	740
MW4	04/07/11	---	39.30	5.29	34.01	No	---	<250	1,900a	9,600	<10	530	59	250	340
MW4	07/18/11	---	39.30	7.36	31.94	No	---	<250	2,800a	14,000	<10	570	66	320	510
MW4	10/13/11	---	39.30	7.83	31.47	No	---	320	7,200a	14,000	<10	350	43	340	690
MW4	04/06/12	---	39.30	6.21	33.09	No	---	<250	1,800a	9,100a	<10	380	40	220	410
MW4	10/19/12	---	39.30	10.64	28.66	No	---	1,400a	20,000a	270,000	<10	440	88	2,100	3,800
MW4	03/06/13	---	39.30	8.02	31.28	No	---	---	---	---	---	---	---	---	---
MW4	06/11/13	---	39.30	9.05	30.25	No	---	<250	3,400a	16,000	<10	430	48	520	820
MW4	12/19/13	---	39.30	8.95	30.35	No	---	---	---	---	---	---	---	---	---
MW4	12/20/13	---	39.30	---	---	---	---	<250	2,800a	13,000	<10	590	41	430	530
MW4	03/05/14	---	39.30	---	---	No	---	---	---	---	---	---	---	---	---
MW4	04/03/14	---	42.04	Elevation converted to NAVD88.											
MW4	04/30/14	---	42.04	6.25	35.79	No	---	---	---	---	---	---	---	---	---
MW4	05/01/14	---	42.04	---	---	---	---	<240	3,000a	13,000	<10	520	46	310	340
MW4	10/28/14	---	42.04	10.20	31.84	No	---	<250	7,400a	15,000	<10	590	42	360	230
MW4	06/02/15	---	42.04	9.60	32.44	Sheen	---	<250	5,100a	22,000	<10	490	36	280	170
MW5	11/11/10	---	Well installed.												

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

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW5	12/01/10	---	40.38	Well surveyed.											
MW5	12/16/10	---	40.38	7.69	32.69	No	---	<250	1,100a	6,200	<2.5	150	96	270	980
MW5	01/31/11	---	40.38	8.00	32.38	No	---	270	4,600a	15,000	<10	520	310	1,100	2,500
MW5	04/07/11	---	40.38	6.73	33.65	No	---	<250	610a	2,500	<2.5	61	32	180	390
MW5	07/18/11	---	40.38	7.63	32.75	No	---	<250	2,000a	11,000	<2.5	340	160	990	1,800
MW5	10/13/11	---	40.38	9.31	31.07	No	---	660	7,600a	23,000	<20	390	160	1,200	3,100
MW5	04/06/12	---	40.38	6.77	33.61	No	---	<250	880a	6,000a	<5.0	62	17	360	680
MW5	10/19/12	---	40.38	10.64	29.74	No	---	280a	2,100a	15,000	<20	580	63	950	1,400
MW5	06/11/13	---	40.38	10.06	30.32	No	---	<250	2,700a	13,000	<20	540	36	930	1,200
MW5	12/19/13	---	40.38	9.85	30.53	No	---	---	---	---	---	---	---	---	---
MW5	12/20/13	---	40.38	---	---	---	---	<250	2,100a	21,000	<20	370	36	1,500	1,400
MW5	04/03/14	---	43.12	Elevation converted to NAVD88.											
MW5	04/30/14	---	43.12	7.51	35.61	No	---	---	---	---	---	---	---	---	---
MW5	05/01/14	---	43.12	---	---	---	---	<240	2,000a	10,000	<10	170	10	600	510
MW5	10/28/14	---	43.12	10.00	33.12	No	---	360a	6,200a	16,000	<10	550	17	890	360
MW5	06/02/15	---	43.12	9.68	33.44	Sheen	---	340a	4,400a	19,000	<20	340	<20	880	430
MW6	11/03/10	---	Well installed.												
MW6	12/01/10	---	41.06	Well surveyed.											
MW6	12/16/10	---	41.06	8.55	32.51	No	---	<250	110a	1,700	<0.50	2.8	1.2	61	46
MW6	01/31/11	---	41.06	8.52	32.54	No	---	<250	800a	2,000a	<1.0	6.0	<1.0	30	24
MW6	04/07/11	---	41.06	7.78	33.28	No	---	<250	660a	2,000	<0.50	10	1.0	20	19
MW6	07/18/11	---	41.06	9.27	31.79	No	---	<250	350a	1,000a	<0.50	2.5	<0.50	3.8	3.5
MW6	10/13/11	---	41.06	10.21	30.85	No	---	<250	370a	890a	<0.50	2.8	<0.50	7.9	5.5
MW6	04/06/12	---	41.06	7.19	33.87	No	---	<250	440a	1,400a	<0.50	2.4	<0.50	13	15
MW6	10/19/12	---	41.06	11.36	29.70	No	---	<250	99a	510a	<0.50	4.2	1.6	8.0	7.0
MW6	06/11/13	---	41.06	10.81	30.25	No	---	<250	150a	500	<0.50	<0.50	<0.50	2.4	1.1
MW6	12/19/13	---	41.06	10.78	30.28	No	---	<250	68a	440	<0.50	<0.50	<0.50	2.3	0.87
MW6	04/03/14	---	43.80	Elevation converted to NAVD88.											
MW6	04/30/14	---	43.80	8.23	35.57	No	---	---	---	---	---	---	---	---	---
MW6	05/01/14	---	43.80	---	---	---	---	<240	450a	1,500	<0.50	2.8	0.57	13	4.8
MW6	10/28/14	---	43.80	10.91	32.89	No	---	<250	94a	260	<0.50	0.60	<0.50	0.56	<0.50
MW6	06/02/15	---	43.80	10.40	33.40	No	---	<250	360a	1,000	<0.50	0.81	<0.50	2.0	1.1
MW7	12/08/14	---	Well installed.												
MW7	12/23/14	---	41.21	Well surveyed.											
MW7	12/30/14	---	41.21	5.36	35.85	No	---	<250	2,900a	7,300a	<5.0	52	8.9	32	15
MW7	06/02/15	---	41.21	8.75	32.46	No	---	<250	2,700a	7,800a	<5.0	110	13	39	16
MW8	12/08/14	---	Well installed.												
MW8	12/23/14	---	39.65	Well surveyed.											
MW8	12/30/14	---	39.65	3.20	36.45	No	---	<250	<49	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW8	06/02/15	---	39.65	6.33	33.32	No	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50

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

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW9	**10/08/15**	**---**	**Well installed.**												
MW9	**10/16/15**	**---**	**39.50**	**6.45**	**33.05**	**No**	**---**	**<250**	**270a**	**360a**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW9	**10/26/15**	**---**	**39.50**	**Well surveyed.**											
AS1	01/18/12	---	Well installed.												
AS1	10/19/12	---	---	10.32	---	No	---	---	---	---	---	---	---	---	---
AS1	06/11/13	---	---	9.82	---	No	---	---	---	---	---	---	---	---	---
AS1	12/19/13	---	---	10.12	---	No	---	---	---	---	---	---	---	---	---
AS1	04/30/14	---	---	7.95	---	No	---	---	---	---	---	---	---	---	---
AS1	10/28/14	---	---	10.35	---	No	---	---	---	---	---	---	---	---	---
AS1	06/02/15	---	---	9.50	---	No	---	---	---	---	---	---	---	---	---
SVE1	01/17/12	---	Well installed.												
SVE1	02/06/12	---	40.58	Well surveyed.											
SVE1	10/19/12	---	40.58	10.21	30.37	No	---	---	---	---	---	---	---	---	---
SVE1	06/11/13	---	40.58	9.63	30.95	No	---	---	---	---	---	---	---	---	---
SVE1	12/19/13	---	40.58	9.89	30.69	No	---	---	---	---	---	---	---	---	---
SVE1	04/03/14	---	43.32	Elevation converted to NAVD88.											
SVE1	04/30/14	---	43.32	7.70	35.62	No	---	---	---	---	---	---	---	---	---
SVE1	10/28/14	---	43.32	10.17	33.15	No	---	---	---	---	---	---	---	---	---
SVE1	06/02/15	---	43.32	9.35	33.97	No	---	---	---	---	---	---	---	---	---
SVE2	01/17/12	---	Well installed.												
SVE2	02/06/12	---	40.94	Well surveyed.											
SVE2	10/19/12	---	40.94	10.48	30.46	No	---	---	---	---	---	---	---	---	---
SVE2	06/11/13	---	40.94	9.94	31.00	No	---	---	---	---	---	---	---	---	---
SVE2	12/19/13	---	40.94	10.20	30.74	No	---	---	---	---	---	---	---	---	---
SVE2	04/03/14	---	43.68	Elevation converted to NAVD88.											
SVE2	04/30/14	---	43.68	8.09	35.59	No	---	---	---	---	---	---	---	---	---
SVE2	10/28/14	---	43.68	10.50	33.18	No	---	---	---	---	---	---	---	---	---
SVE2	06/02/15	---	43.68	9.69	33.99	No	---	---	---	---	---	---	---	---	---
SVE3	01/17/12	---	Well installed.												
SVE3	02/06/12	---	40.93	Well surveyed.											
SVE3	10/19/12	---	40.93	10.39	30.54	No	---	---	---	---	---	---	---	---	---
SVE3	06/11/13	---	40.93	9.65	31.28	No	---	---	---	---	---	---	---	---	---
SVE3	12/19/13	---	40.93	10.31	30.62	No	---	---	---	---	---	---	---	---	---
SVE3	04/03/14	---	43.67	Elevation converted to NAVD88.											
SVE3	04/30/14	---	43.67	7.79	35.88	No	---	---	---	---	---	---	---	---	---
SVE3	10/28/14	---	43.67	10.48	33.19	No	---	---	---	---	---	---	---	---	---
SVE3	06/02/15	---	43.67	9.40	34.27	No	---	---	---	---	---	---	---	---	---
SVE4	**10/09/15**	**---**	**Well installed.**												
SVE4	**10/16/15**	**---**	**43.10**	**10.28**	**32.82**	**No**	**---**	**<250**	**840a**	**830a**	**<0.50**	**37**	**1.2**	**5.0**	**26**
SVE4	**10/26/15**	**---**	**43.10**	**Well surveyed.**											

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

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
SVE5	**10/09/15**	**---**	**Well installed.**												
SVE5	**10/16/15**	**---**	**43.70**	**10.55**	**33.15**	**No**	**---**	**<250**	**2,000a**	**1,700a**	**<20**	**29**	**25**	**130**	**2,300**
SVE5	**10/26/15**	**---**	**43.70**	**Well surveyed.**											
SVE6	**10/09/15**	**---**	**Well installed.**												
SVE6	**10/16/15**	**---**	**44.37**	**10.87**	**33.50**	**No**	**---**	**<240**	**390a**	**490**	**<0.50**	**31**	**1.8**	**4.2**	**15**
SVE6	**10/26/15**	**---**	**44.37**	**Well surveyed.**											
SVE7	**10/09/15**	**---**	**Well installed.**												
SVE7	**10/16/15**	**---**	**44.48**	**11.07**	**33.41**	**No**	**---**	**<240**	**240a**	**440a**	**<0.50**	**<0.50**	**<0.50**	**0.70**	**2.3**
SVE7	**10/26/15**	**---**	**44.48**	**Well surveyed.**											
Grab Groundwater Samples															
B-1W	01/06/08	---	---	---	---	---	26r,s	<5,000	99,000o,n,r	76,000m,p,r	<50	<50	93	3,100	9,600
B-2W	01/06/08	---	---	---	---	---	---	310s	23,000o,r,s	77,000 l,r,s	<50	1,500	300	2,000	6,800
B-3W	01/06/08	---	---	---	---	---	---	<250s	2,000o,s	6,200 l,s	<10	170	32	740	250
B-4W	01/06/08	---	---	---	---	---	---	<250s	3,100o,s	7,700 l,s	<10	360	<10	240	20
B-5W	01/06/08	---	---	---	---	---	---	<250s	120o,s	120q,s	<0.5	<0.5	<0.5	<0.5	<0.5
B-6W	01/06/08	---	---	---	---	---	---	<250s	830o,s	1,700 l,s	<2.5	5.2	<2.5	100	8.6
DR-W	01/06/08	---	---	---	---	---	---	<250	96o	730m,p	<0.5	<0.5	<0.5	6.9	14
W-27.5-HP1A	10/28/10	27.5	---	---	---	---	---	260	330a	63a	<0.50	<0.50	<0.50	<0.50	<0.50
W-36-HP1A	10/28/10	36	---	---	---	---	---	<250	220a	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-46.5-HP1A	10/28/10	46.5	---	---	---	---	---	<420	<83	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-59-HP1B	10/27/10	59	---	---	---	---	---	<250	130	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-27.5-HP2A	10/29/10	27.5	---	---	---	---	---	<250	100a	340	<0.50	1.7	2.1	20	46
W-52-HP2A	10/29/10	52	---	---	---	---	---	<250	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-60.5-HP2B	10/27/10	60.5	---	---	---	---	---	<250	62	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-10-SVE1-1	01/31/12	10	---	---	---	---	---	990a	1,900a	2,000	<2.0	87	2.1	13	23
W-10-SVE1-2	01/31/12	10	---	---	---	---	---	890a	1,500a	1,400	<1.0	46	2.0	24	23
W-5-B7	02/27/14	5	---	---	---	---	---	<310	<62	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-12-B8	02/28/14	12	---	---	---	---	---	<240	130a	<50	<0.50	<0.50	<0.50	<0.50	<0.50

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

Well ID	Sampling Date	Depth (feet)	TOC Elev. (feet)	DTW (feet)	GW Elev.	NAPL (feet)	O&G (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
W-5-B9	02/27/14	5	---	---	---	---	---	<310	370a	1,400a	<0.50	<0.50	<0.50	<0.50	<0.50
W-5.5-B10	02/27/14	5.5	---	---	---	---	---	<310	<62	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-14-B11	03/05/14	14	---	---	---	---	---	<310	<62	<50	<0.50	<0.50	<0.50	<0.50	<0.50
W-10-B12	02/26/14	10	---	---	---	---	---	<250	800a	5,900	<2.0	<2.0	<2.0	7.5	<2.0
W-10-B13	02/28/14	10	---	---	---	---	---	<250	1,500a	6,300	<5.0	12	8.8	290	22
B14	03/05/14 t	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W-14-B15	03/05/14	14	---	---	---	---	---	<310	<62	<50	1.3	<0.50	<0.50	<0.50	<0.50
W-14-B16	02/26/14	14	---	---	---	---	---	<250	180a	170a	<0.50	1.1	<0.50	5.4	<0.50
W-10-B17	02/27/14	10	---	---	---	---	---	<270	<54	110a	<0.50	<0.50	<0.50	<0.50	<0.50

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

Notes:

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

Notes:

v = tert-butylbenzene.
w = cis-1,2-dichloroethene.
x = p-isopropyltoluene.
y = Chloroform.
z = Bromodichloromethane.
α = 1,2-Dichlorobenzene.

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

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	PCE (µg/L)	TCE (µg/L)	Add'l VOCs (µg/L)	Add'l SVOCs (µg/L)
Monitoring Well Samples												
MW1	11/04/10	---	Well installed.									
MW1	12/16/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW1	01/31/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW1	04/07/11	---	<0.50	<0.50	<0.50	10	<0.50	<0.50	---	---	---	---
MW1	07/18/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW1	10/13/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW1	04/06/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW1	10/19/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW1	06/11/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW1	12/19/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW1	05/01/14	---	<0.50	<0.50	<0.50	5.1	<0.50	<0.50	---	---	---	---
MW1	10/28/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	85u	9.8	0.67f, 18w	---
MW1	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	110	9.3	19w	---
MW2	11/04/10	---	Well installed.									
MW2	12/16/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	01/31/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	04/07/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	07/18/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	10/13/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	04/06/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	10/19/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	06/11/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	12/19/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	05/01/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW2	10/28/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	73u	8.9	8.8e	---
MW2	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	78	6.9	8.4w	---
MW3	11/08/10	---	Well installed.									
MW3	12/16/10	---	<12	<12	<12	<120	<12	<12	---	---	---	---
MW3	01/31/11	---	<12	<12	<12	<120	<12	<12	---	---	---	---
MW3	04/07/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW3	07/18/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW3	10/13/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW3	04/06/12	---	<20	<20	<20	<200	<20	<20	---	---	---	---
MW3	10/19/12	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW3	06/11/13	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW3	12/20/13	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW3	05/01/14	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW3	10/28/14	---	<20	<20	<20	<200	<20	<20	<20	<20	30b, 110d, 210e, 36g, 290h	---
MW3	06/02/15	---	<20	<20	<20	<200	<20	<20	<20	<20	21b, 90d, 130e, 40g, 240h	---
MW3A	01/18/12	---	Well installed.									

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

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	PCE (µg/L)	TCE (µg/L)	Add'l VOCs (µg/L)	Add'l SVOCs (µg/L)
MW3A	04/06/12	---	<2.0	<2.0	<2.0	<20	<2.0	<2.0	---	---	---	---
MW3A	10/19/12	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---	---	---
MW3A	06/11/13	---	<2.0	<2.0	<2.0	<20	<2.0	<2.0	---	---	---	---
MW3A	12/19/13	---	<2.0	<2.0	<2.0	<20	<2.0	<2.0	---	---	---	---
MW3A	05/01/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW3A	10/28/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	5.4b, 6.3c, 20d, 28e, 4.6f, 1.6g, 4.6h, 2.9v, 2.0x	---
MW3A	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	1.1b, 2.5c, 2.4d, 3.3e, 2.5f, 0.61g, 1.4h, 0.89v	---
MW4	11/05/10	---	Well installed.									
MW4	12/16/10	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---	---	---
MW4	01/31/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW4	04/07/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW4	07/18/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW4	10/13/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW4	04/06/12	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW4	10/19/12	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW4	06/11/13	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW4	12/20/13	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW4	05/01/14	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW4	10/28/14	---	<10	<10	<10	<100	<10	<10	<10	<10	72b, 24c, 75d, 190e, 350f, 160g, 270h	---
MW4	06/02/15	---	<10	<10	<10	<100	<10	<10	<10	<10	83b, 27c, 70d, 170e, 320f, 130g, 170h, 10v	---
MW5	11/11/10	---	Well installed.									
MW5	12/16/10	---	<2.5	<2.5	<2.5	<25	<2.5	<2.5	---	---	---	---
MW5	01/31/11	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW5	04/07/11	---	<2.5	<2.5	<2.5	<25	<2.5	<2.5	---	---	---	---
MW5	07/18/11	---	<2.5	<2.5	<2.5	<25	<2.5	<2.5	---	---	---	---
MW5	10/13/11	---	<20	<20	<20	<200	<20	<20	---	---	---	---
MW5	04/06/12	---	<0.50	<5.0	<5.0	<50	<5.0	<5.0	---	---	---	---
MW5	10/19/12	---	<20	<20	<20	<200	<20	<20	---	---	---	---
MW5	06/11/13	---	<20	<20	<20	<200	<20	<20	---	---	---	---
MW5	12/20/13	---	<20	<20	<20	<200	<20	<20	---	---	---	---
MW5	05/01/14	---	<10	<10	<10	<100	<10	<10	---	---	---	---
MW5	10/28/14	---	<10	<10	<10	<100	<10	<10	<10	<10	82b, 33c, 120d, 380e, 730f, 130g, 250h, 14x	---
MW5	06/02/15	---	<20	<20	<20	<200	<20	<20	<20	<20	110b, 42c, 120d, 390e, 820f, 150g, 210h	---
MW6	11/03/10	---	Well installed.									
MW6	12/16/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW6	01/31/11	---	<1.0	<1.0	<1.0	<10	<1.0	<1.0	---	---	---	---
MW6	04/07/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW6	07/18/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW6	10/13/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW6	04/06/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW6	10/19/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW6	06/11/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---

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

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	PCE (µg/L)	TCE (µg/L)	Add'l VOCs (µg/L)	Add'l SVOCs (µg/L)
MW6	12/19/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW6	05/01/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW6	10/28/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	0.73c, 0.84d, 1.9e, 1.4h	---
MW6	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	3.2b, 2.9c, 4.6d, 11e, 3.3h	---
MW7	12/08/14	---	Well installed.									
MW7	12/30/14	---	<5.0	<5.0	<5.0	<50	<5.0	13	---	---	---	---
MW7	06/02/15	---	<5.0	<5.0	<5.0	<50	<5.0	19	<5.0	<5.0	45b, 24c, 110d, 270e, 150h	---
MW8	12/08/14	---	Well installed.									
MW8	12/30/14	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
MW8	06/02/15	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	23y, 0.85z	---
MW9	**10/08/15**	**---**	**Well installed.**									
MW9	**10/16/15**	**---**	**<0.50**	**<0.50**	**<0.50**	**<5.0**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.4b, 0.93c, 1.6d, 1.9e, 4.1y**	**---**
AS1	01/18/12	---	Well installed.									
AS1	10/19/12 - Present	Not sampled.										
SVE1	01/17/12	---	Well installed.									
SVE1	10/19/12 - Present	Not sampled.										
SVE2	01/17/12	---	Well installed.									
SVE2	10/19/12 - Present	Not sampled.										
SVE3	01/17/12	---	Well installed.									
SVE3	10/19/12 - Present	Not sampled.										
SVE4	**10/09/15**	**---**	**Well installed.**									
SVE4	**10/16/15**	**---**	**<0.50**	**<0.50**	**<0.50**	**5.4**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2.5b, 1.5c, 4.3d, 2.8e, 7.2f, 11g, 15h, 0.75v, 0.59x, 0.68α**	**---**
SVE5	**10/09/15**	**---**	**Well installed.**									
SVE5	**10/16/15**	**---**	**<20**	**<20**	**<20**	**<200**	**<20**	**<20**	**<20**	**<20**	**24b, 28d, 520f, 210g, 140h**	**---**
SVE6	**10/09/15**	**---**	**Well installed.**									
SVE6	**10/16/15**	**---**	**<0.50**	**<0.50**	**<0.50**	**5.7**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**3.1b, 1.0c, 1.3d, 0.80e, 1.8f, 14g, 1.9h, 0.99x**	**---**
SVE7	**10/09/15**	**---**	**Well installed.**									
SVE7	**10/16/15**	**---**	**<0.50**	**<0.50**	**<0.50**	**<5.0**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.97b, 1.7c, 2.2d, 2.4e**	**---**
Grab Groundwater Samples												
B-1W	01/06/08	---	<50	<50	<50	<200	<50	<50	<50	<50	210b, 68c, 370d, 1,100e, 3,800f, 1,300g, 1,500h	4,000h, 3,900k
B-2W	01/06/08	---	<50	<50	<50	<200	<50	<50	<50	<50	110b, 140e, 440f, 2,400g, 730h, 610i, 32j	---
B-3W	01/06/08	---	<10	<10	<10	<40	<10	<10	<10	<10	25b, 11c, 74d, 190e, 290f, 49g, 55i	---
B-4W	01/06/08	---	<10	<10	<10	<40	<10	<10	<10	<10	46b, 19c, 48d, 160e, 16f, 100h	---
B-5W	01/06/08	---	ND	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	2.6b, 0.83e, 4.8f, 1.2g, 6.5h	---

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

Well ID	Sampling Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	PCE (µg/L)	TCE (µg/L)	Add'l VOCs (µg/L)	Add'l SVOCs (µg/L)
B-6W	01/06/08	---	<2.5	<2.5	<2.5	<10	<2.5	<2.5	<2.5	<2.5	14b, 5.6c, 17d, 60e, 32f, 5.8g, 38h, 10i	---
DR-W	01/06/08	---	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	6.9b, 2.4c, 2.5d, 11e, 17f, 5.5g, 7.0h	---
W-27.5-HP1A	10/28/10	27.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-36-HP1A	10/28/10	36	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-46.5-HP1A	10/28/10	46.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-59-HP1B	10/27/10	59	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-27.5-HP2A	10/29/10	27.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-52-HP2A	10/29/10	52	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-60.5-HP2B	10/27/10	60.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-10-SVE1-1	01/31/12	10	<2.0	<2.0	<2.0	62	<2.0	<2.0	---	---	---	---
W-10-SVE1-2	01/31/12	10	<1.0	<1.0	<1.0	57	<1.0	<1.0	---	---	---	---
W-5-B7	02/27/14	5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-12-B8	02/28/14	12	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-5-B9	02/27/14	5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-5.5-B10	02/27/14	5.5	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-14-B11	03/05/14	14	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-10-B12	02/26/14	10	<2.0	<2.0	<2.0	<20	<2.0	<2.0	---	---	---	---
W-10-B13	02/28/14	10	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---	---	---
B14	03/05/14 t		---	---	---	---	---	---	---	---	---	---
W-14-B15	03/05/14	14	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-14-B16	02/26/14	14	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---
W-10-B17	02/27/14	10	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	---	---

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

Notes:

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

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

Notes:

v = tert-butylbenzene.
w = cis-1,2-dichloroethene.
x = p-isopropyltoluene.
y = Chloroform.
z = Bromodichloromethane.
α = 1,2-Dichlorobenzene.

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

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

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

TABLE 3A
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Exxon Service Station 79374
990 San Pablo Boulevard
Albany, California

Sample ID	Sampling Date	Depth (feet bgs)	TPHmo (mg/kg)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	Naph-thalene (mg/kg)	VOCs (mg/kg)	Lead (mg/kg)
Environmental Screening Levels, Potential Drinking Water Source (December 2013)																			
Shallow (<10 feet bgs), Residential (Table A-1)			---	100	100	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	80
Shallow (<10 feet bgs), Commercial (Table A-2)			---	110	500	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	320
Deep (≥10 feet bgs), Residential (Table C-1)			---	110	500	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	80
Deep (≥10 feet bgs), Commercial (Table C-2)			---	110	770	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	320
Soil Borings																			
B-1	01/06/08	6.0	<5.0	3.7c	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---	---
B-1	01/06/08	10.5	<100	**1,400b,c**	**7,200b,f**	<5.0	**2**	**51**	**110**	**400**	---	---	---	---	---	---	---	---	---
B-2	01/06/08	5.5	<5.0	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---	---
B-2	01/06/08	10.5	<100	**1,400d**	**4,500b,f**	<5.0	**13**	**35**	**100**	**380**	---	---	---	---	---	---	---	---	---
B-3	01/06/08	5.5	<5.0	<1.0	<1.0	<0.50	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---	---
B-3	01/06/08	10.5	<5.0	53d	**130e,f**	<0.50	**0.37**	0.29	2.6	0.44	---	---	---	---	---	---	---	---	---
B-4	01/06/08	5.5	<5.0	62d	**140e,f**	<0.50	<0.005	1.0	0.066	0.094	---	---	---	---	---	---	---	---	---
B-4	01/06/08	10.5	<5.0	15d	**140e,f**	<0.50	**0.25**	1.5	1.3	0.11	---	---	---	---	---	---	---	---	---
B-5	01/06/08	5.5	<5.0	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---	---
B-5	01/06/08	11.5	<5.0	5.4c,d	32e,f	<0.25	0.038	0.24	0.051	0.035	---	---	---	---	---	---	---	---	---
B-6	01/06/08	5.5	<5.0	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---	---
B-6	01/06/08	10.5	<5.0	6.0c,d	32e,f	<0.05	0.009	0.41	<0.005	0.039	---	---	---	---	---	---	---	---	---
S-5-B7	02/27/14	5.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0099	<0.0099	<0.0099	<0.050	---	---
S-11.5-B7	02/27/14	11.5	<25	<5.0	<0.49	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-B8	02/28/14	5.0	<25	<5.0	<0.52	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.050	---	---
S-11.5-B8	02/28/14	11.5	<25	<5.0	<0.51	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0098	<0.0098	<0.0098	---	---	---
S-15.5-B8	02/28/14	15.5	<26	<5.1	<0.48	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-B9	02/27/14	5.0	<25	<5.0	<0.52	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.050	---	---
S-11.5-B9	02/27/14	11.5	<25	<5.0	<0.52	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0098	<0.0098	<0.0098	---	---	---
S-5-B10	02/27/14	5.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.050	---	---
S-11.5-B10	02/27/14	11.5	<24	<4.9	<0.49	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-B11	02/28/14	5.0	<25	<5.0	<0.50	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.051	<0.010	<0.010	<0.010	<0.051	---	---
S-11.5-B11	03/05/14	11.5	<25	<5.0	<0.50	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.052	<0.010	<0.010	<0.010	---	---	---
S-15-B11	03/05/14	15.0	<24	<4.9	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-B12	02/26/14	5.0	<25	<5.0	<0.50	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0098	<0.0098	<0.0098	<0.049	---	---
S-11.5-B12	02/26/14	11.5	<25	<5.0	0.50a	<0.0052	0.00074j	<0.0052	0.00026j	<0.0052	<0.0052	<0.0052	<0.052	<0.010	<0.010	<0.010	---	---	---
S-5-B13	02/25/14	5.0	<24	<4.9	<0.48	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.052	<0.010	<0.010	<0.010	<0.052	---	---
S-11.5-B13	02/28/14	11.5	<25	**160a**	**1,800**	<1.0	<1.0	<1.0	**16**	1.5	<1.0	<1.0	<10	<2.0	<2.0	<2.0	---	---	---

TABLE 3A
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Exxon Service Station 79374
990 San Pablo Boulevard
Albany, California

Sample ID	Sampling Date	Depth (feet bgs)	TPHmo (mg/kg)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	Naph-thalene (mg/kg)	VOCs (mg/kg)	Lead (mg/kg)
Environmental Screening Levels, Potential Drinking Water Source (December 2013)																			
Shallow (<10 feet bgs), Residential (Table A-1)			---	100	100	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	80
Shallow (<10 feet bgs), Commercial (Table A-2)			---	110	500	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	320
Deep (≥10 feet bgs), Residential (Table C-1)			---	110	500	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	80
Deep (≥10 feet bgs), Commercial (Table C-2)			---	110	770	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	320
S-5-B14	03/05/14	5.0	<25	<5.0	<0.53	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.050	---	---
S-11.5-B14	03/05/14	11.5	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-15.5-B14	03/05/14	15.5	<24	<4.9	<0.51	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.051	<0.010	<0.010	<0.010	---	---	---
S-19-B14	03/05/14	19.0	<25	<5.0	<0.50	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.048	<0.0096	<0.0096	<0.0096	---	---	---
S-5-B15	03/05/14	5.0	<25	<5.0	<0.49	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.051	<0.010	<0.010	<0.010	<0.051	---	---
S-10-B15	03/05/14	10.0	<24	<4.9	<0.52	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-14.0-B15	03/05/14	14.0	<25	<5.0	<0.48	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-B16	02/26/14	5.0	<25	<5.0	0.62a	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.030j	<0.0099	<0.0099	<0.0099	<0.050	---	---
S-10-B16	02/26/14	10.0	<24	43a	**530**	<0.49	0.026j	<0.49	0.10j	0.058j	<0.49	<0.49	<4.9	<0.97	<0.97	<0.97	0.84j	---	---
S-15.5-B16	02/26/14	15.5	<25	<5.0	<0.51	<0.0050	<0.0050	<0.0050	0.00021j	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-B17	02/26/14	5.0	<25	<5.0	<0.48	<0.0050	0.00014j	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.011j	<0.010	<0.010	<0.010	0.0021j	---	---
S-10-B17	02/26/14	10.0	<25	<5.0	8.4a	<0.0050	0.0063	<0.0050	<0.0050	0.00081j	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.050	---	---
S-15.5-B17	02/26/14	15.5	<24	<4.9	<0.51	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.052	<0.010	<0.010	<0.010	---	---	---
S-5-B18	10/08/15	5.0	---	<5.0	<0.51	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0099	<0.0099	<0.0099	---	---	---
S-10-B18	10/08/15	10.0	---	<4.9	<0.49	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0098	<0.0098	<0.0098	---	---	---
S-15-B18	10/08/15	15.0	---	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0099	<0.0099	<0.0099	---	---	---
Cone Penetration Test Borings																			
S-5-CPT1	10/20/10	5.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-CPT2	10/20/10	5.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
Monitoring Wells																			
S-5-MW1	10/20/10	5.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-10-MW1	11/04/10	10.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-14.5-MW1	11/04/10	14.5	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-10-MW2	11/04/10	10.0	<25	<5.0	3.1a	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-15-MW2	11/04/10	15.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-MW3	10/20/10	5.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-10.5-MW3	11/08/10	10.5	<25	11a	**220**	<0.50	<0.50	<0.50	2.0	1.1	<0.50	<0.50	<5.0	<1.0	<1.0	<1.0	---	---	---
S-15.5-MW3	11/08/10	15.5	<25	<5.0	2.2	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-8-MW3A	01/18/12	8.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-14.5-MW3A	01/18/12	14.5	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	0.015	0.0052	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-MW4	10/20/10	5.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-10-MW4	11/05/10	10.0	<25	<5.0	44a	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<1.0	<1.0	---	---	---

TABLE 3A
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Exxon Service Station 79374
990 San Pablo Boulevard
Albany, California

Sample ID	Sampling Date	Depth (feet bgs)	TPHmo (mg/kg)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	Naph-thalene (mg/kg)	VOCs (mg/kg)	Lead (mg/kg)
Environmental Screening Levels, Potential Drinking Water Source (December 2013)																			
Shallow (<10 feet bgs), Residential (Table A-1)			---	100	100	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	80
Shallow (<10 feet bgs), Commercial (Table A-2)			---	110	500	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	320
Deep (≥10 feet bgs), Residential (Table C-1)			---	110	500	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	80
Deep (≥10 feet bgs), Commercial (Table C-2)			---	110	770	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	320
S-15-MW4	11/05/10	15.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-16.5-MW4	11/05/10	16.5	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-MW5	10/20/10	5.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-10.5-MW5	11/05/10	10.5	29	93a	**450a**	<0.050	<0.050	1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<1.0	<1.0	---	---	---
S-16.5-MW5	11/05/10	16.5	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-MW6	10/20/10	5.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-10-MW6	11/02/10	10.0	<25	8.2a	8.7a	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-14.5-MW6	11/02/10	14.5	<25	<5.0	1.8a	<0.0050	<0.0050	<0.0050	<0.0093	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-20-MW6	11/02/10	20.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-MW7	12/08/14	5.0	---	<5.0	<0.52	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	---	---	<0.048	<0.0096	<0.0096	<0.0096	---	---	---
S-10-MW7	12/08/14	10.0	---	**120a**	**540a**	<2.0	<2.0	<2.0	<2.0	<2.0	---	---	<20	<4.0	<4.0	<4.0	---	---	---
S-15-MW7	12/08/14	15.0	---	<5.0	<0.51	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	---	---	<0.048	<0.0096	<0.0096	<0.0096	---	---	---
S-5-MW8	12/08/14	5.0	---	<5.0	<0.48	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	---	---	<0.051	<0.010	<0.010	<0.010	---	---	---
S-10-MW8	12/08/14	10.0	---	<5.0	<0.52	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	---	---	<0.048	<0.0096	<0.0096	<0.0096	---	---	---
S-15-MW8	12/08/14	15.0	---	<5.0	<0.49	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	---	---	<0.049	<0.0097	<0.0097	<0.0097	---	---	---
S-5-MW9	10/08/15	5.0	---	<5.1	<0.49	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-10.5-MW9	10/08/15	10.5	---	6.3a	36a	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0098	<0.0098	<0.0098	---	---	---
S-15.5-MW9	10/08/15	15.5	---	<5.0	<0.49	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0099	<0.0099	<0.0099	---	---	---
Remediation Wells																			
S-10-AS1	01/18/12	10.0	<25	**800a**	**2,900**	<2.5	<2.5	<2.5	**47**	<2.5	<2.5	<2.5	<25	<5.0	<5.0	<5.0	---	---	---
S-8.5-SVE1	01/17/12	8.5	<25	87a	**480a**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<1.0	<1.0	---	---	---
S-11.5-SVE1	01/17/12	11.5	<25	<5.0	18	<0.0050	<0.50	0.010	0.084	0.11	<0.0050	<0.0050	<0.50	<0.010	<0.010	<0.010	---	---	---
S-10-SVE2	01/17/12	10.0	53a	37a	**390a**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<1.0	<1.0	---	---	---
S-14-SVE2	01/17/12	14.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<0.010	<0.010	<0.010	---	---	---
S-12.5-SVE3	01/17/12	12.5	57a	**760a**	**1,900a**	<2.5	<2.5	<2.5	<2.5	<2.5	<0.50	<0.50	<5.0	<1.0	<1.0	<1.0	---	---	---
S-15-SVE3	01/17/12	15.0	<25	<5.0	<0.50	<0.0050	<0.0050	<0.0050	0.015	0.033	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-SVE4	10/09/15	5.0	---	<5.0	<0.49	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0099	<0.0099	<0.0099	---	---	---
S-9.5-SVE4	10/09/15	9.5	---	9.2a	82a	<0.50 I	<0.50 I	<0.50 I	<0.50 I	<0.50 I	<0.50 I	<0.50 I	<5.0 I	<1.0 I	<1.0 I	<1.0 I	---	---	---
S-15.5-SVE4	10/09/15	15.5	---	<4.9	<0.51	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---
S-5-SVE5	10/09/15	5.0	---	<5.0	<0.49	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0099	<0.0099	<0.0099	---	---	---
S-11.5-SVE5	10/09/15	11.5	---	**160a**	390	<0.49	<0.49	<0.49	**5.1**	**7.0**	<0.49	<0.49	<4.9	<0.98	<0.98	<0.98	---	---	---
S-15.5-SVE5	10/09/15	15.5	---	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	---

TABLE 3A
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Exxon Service Station 79374
990 San Pablo Boulevard
Albany, California

Sample ID	Sampling Date	Depth (feet bgs)	TPHmo (mg/kg)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	Naph-thalene (mg/kg)	VOCs (mg/kg)	Lead (mg/kg)
Environmental Screening Levels, Potential Drinking Water Source (December 2013)																			
Shallow (<10 feet bgs), Residential (Table A-1)			---	100	100	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	80
Shallow (<10 feet bgs), Commercial (Table A-2)			---	110	500	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	320
Deep (≥10 feet bgs), Residential (Table C-1)			---	110	500	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	80
Deep (≥10 feet bgs), Commercial (Table C-2)			---	110	770	0.023	0.044	2.9	3.3	2.3	0.00033	0.0045	0.075	---	---	---	1.2	---	320
S-5-SVE6	10/09/15	5.0	---	<4.9	<0.51	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.048	<0.0097	<0.0097	<0.0097	---	---	---
S-12-SVE6	10/09/15	12.0	---	76a	**520**	<1.0	<1.0	<1.0	**17**	**11**	<1.0	<1.0	<10	<2.0	<2.0	<2.0	---	---	---
S-5-SVE7	10/09/15	5.0	---	<4.9	<0.50	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0098	<0.0098	<0.0098	---	---	---
S-10-SVE7	10/09/15	10.0	---	<5.0	2.0a	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0099	<0.0099	<0.0099	---	---	---
S-12-SVE7	10/09/15	12.0	---	<5.0	11	<0.49m	<0.49m	<0.49m	<0.49m	<0.49m	<0.49m	<0.49m	<4.9m	<0.98m	<0.98m	<0.98m	---	---	---
S-15.5-SVE7	10/09/15	15.5	---	<5.0	<0.50	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0099	<0.0099	<0.0099	---	---	---
Soil Vapor Sampling Wells																			
S-5-SVS1	02/25/14	5.0	<25	<5.0	<0.50	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	<0.0099	<0.0099	<0.0099	<0.049	---	---
S-5-SVS2	02/25/14	5.0	<25	<5.0	<0.49	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.048	<0.0096	<0.0096	<0.0096	<0.048	---	---
S-5-SVS3	02/25/14	5.0	<25	<5.0	5.0a	<0.0050	0.00036j	<0.0050	0.0030j	0.00088j	<0.0050	<0.0050	0.016j	<0.010	<0.010	<0.010	0.0038j	---	---
Drum Samples																			
DR-1	01/06/08	---	<5.0	2.5c,d	4.9e,f	<0.050	<0.005	0.027	0.035	0.035	---	---	---	---	---	---	---	---	9.7
Soil Stockpile Samples																			
COMP(S-Profile-1-4)	11/08/10	---	<25	7.1a	14a	<0.0050	<0.0050	<0.0050	0.069	0.049	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	6.93
S-SP1 (1-4)	01/18/12	---	190a	39a	230	<0.0050	0.20	0.66	4.3	14	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	---	37.6
SP1	03/05/14	---	<24	<4.9	<0.49	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.050	ND	5.34
SP-1	10/08/15	---	---	<4.9	0.79a	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	---	<0.25k	5.74

TABLE 3A
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Exxon Service Station 79374
990 San Pablo Boulevard
Albany, California

Notes:

TPHmo	=	Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015B.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B; analyzed using EPA Method 8020 in 2008.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
EDB	=	1,2-Dibromoethane analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-Dicholorethane analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol 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.
Lead	=	Total lead analyzed using EPA Method 6010B.
VOCs	=	Volatile organic compounds analyzed using EPA Method 8260B.
SVOCs		Semi-volatile organic compounds analyzed using EPA Method 8270C.
HVOCs	=	Halogenated volatile organic compounds analyzed using EPA Method 8260B.
PAHs	=	Polyaromatic hydrocarbons analyzed using EPA Method 8310.
feet bgs	=	Feet below ground surface.
ND	=	Not detected.
---	=	Not analyzed/Not applicable
<	=	Less than the laboratory reporting limit.
a	=	The chromatographic pattern does not match that of the specified standard.
b	=	Heavier gasoline range compounds are significant.
c	=	Diesel range compounds are significant; no recognizable pattern.
d	=	Gasoline range compounds are significant.
e	=	Strongly aged gasoline or diesel range compounds are significant.
f	=	No recognizable pattern.
g	=	1-Methylnaphthalene.
h	=	2-Methylnaphthalene.
i	=	Phenanthrene.
j	=	Estimated value; analyte present at concentration above the method detection limit but below the reporting limit.
k	=	Ethanol.
l	=	The reporting limit is elevated resulting from matrix interference.
m	=	Reporting limits raised due to high level of non-target analytes.

TABLE 3B
ADDITIONAL CUMULATIVE SOIL ANALYTICAL RESULTS - HVOCs AND PAHs
Former Exxon Service Station 79374
990 San Pablo Boulevard
Albany, California

Sample ID	Sampling Date	Depth (feet bgs)	HVOCs: 1,2,4-trimethyl-benzene (mg/kg)	1,3,5-trimethyl-benzene (mg/kg)	Isopropyl-benzene (mg/kg)	Naph-thalene (mg/kg)	n-Butyl-benzene (mg/kg)	p-Isopropyl-toluene (mg/kg)	sec-Butyl-benzene (mg/kg)	t-Butyl-benzene (mg/kg)	HVOCs (mg/kg)	SVOCs (mg/kg)	PAHs: Naph-thalene (mg/kg)	Pyrene (mg/kg)	PAHs (mg/kg)
Environmental Screening Levels, Potential Drinking Water Source (December 2013)															
Shallow (<10 feet bgs), Residential (Table A-1)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Shallow (<10 feet bgs), Commercial (Table A-2)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Deep (≥10 feet bgs), Residential (Table C-1)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Deep (≥10 feet bgs), Commercial (Table C-2)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Soil Borings															
Not analyzed for these analytes prior to 2014.															
S-5-B7	02/27/14	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-11.5-B7	02/27/14	11.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B8	02/28/14	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-11.5-B8	02/28/14	11.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-15.5-B8	02/28/14	15.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B9	02/27/14	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-11.5-B9	02/27/14	11.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B10	02/27/14	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-11.5-B10	02/27/14	11.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B11	02/28/14	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-11.5-B11	03/05/14	11.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-15-B11	03/05/14	15.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B12	02/26/14	5.0	---	---	---	---	---	---	---	---	---	---	<15	<10	ND
S-11.5-B12	02/26/14	11.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B13	02/25/14	5.0	---	---	---	---	---	---	---	---	---	---	**16**	<10	ND
S-11.5-B13	02/28/14	11.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B14	03/05/14	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-11.5-B14	03/05/14	11.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-15.5-B14	03/05/14	15.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-19-B14	03/05/14	19.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B15	03/05/14	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-10-B15	03/05/14	10.0	---	---	---	---	---	---	---	---	---	---	---	---	---
S-14.0-B15	03/05/14	14.0	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 3B
ADDITIONAL CUMULATIVE SOIL ANALYTICAL RESULTS - HVOCs AND PAHs
Former Exxon Service Station 79374
990 San Pablo Boulevard
Albany, California

			HVOCs										PAHs		
Sample ID	Sampling Date	Depth (feet bgs)	1,2,4-trimethyl-benzene (mg/kg)	1,3,5-trimethyl-benzene (mg/kg)	Isopropyl-benzene (mg/kg)	Naph-thalene (mg/kg)	n-Butyl-benzene (mg/kg)	p-Isopropyl-toluene (mg/kg)	sec-Butyl-benzene (mg/kg)	t-Butyl-benzene (mg/kg)	HVOCs (mg/kg)	SVOCs (mg/kg)	Naph-thalene (mg/kg)	Pyrene (mg/kg)	PAHs (mg/kg)
Environmental Screening Levels, Potential Drinking Water Source (December 2013)															
Shallow (<10 feet bgs), Residential (Table A-1)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Shallow (<10 feet bgs), Commercial (Table A-2)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Deep (≥10 feet bgs), Residential (Table C-1)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Deep (≥10 feet bgs), Commercial (Table C-2)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
S-5-B16	02/26/14	5.0	---	---	---	---	---	---	---	---	---	---	<15	<10	ND
S-10-B16	02/26/14	10.0	---	---	---	---	---	---	---	---	---	---	<15	<10	ND
S-15.5-B16	02/26/14	15.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B17	02/26/14	5.0	---	---	---	---	---	---	---	---	---	---	<15	<10	ND
S-10-B17	02/26/14	10.0	---	---	---	---	---	---	---	---	---	---	<15	<10	ND
S-15.5-B17	02/26/14	15.5	---	---	---	---	---	---	---	---	---	---	---	---	---
S-5-B18	10/08/15	5.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-10-B18	10/08/15	10.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-15-B18	10/08/15	15.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
Cone Penetration Test Borings															
Not analyzed for these analytes.															
Monitoring Wells															
Not analyzed for these analytes prior to 2015.															
S-5-MW9	10/08/15	5.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-10.5-MW9	10/08/15	10.5	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-15.5-MW9	10/08/15	15.5	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
Remediation Wells															
Not analyzed for these analytes prior to 2015.															
S-5-SVE4	10/09/15	5.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-9.5-SVE4	10/09/15	9.5	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	0.060g, 0.14h
S-15.5-SVE4	10/09/15	15.5	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-5-SVE5	10/09/15	5.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-11.5-SVE5	10/09/15	11.5	---	---	---	---	---	---	---	---	---	---	**1.2**	<0.099	1.0g, 2.1h
S-15.5-SVE5	10/09/15	15.5	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-5-SVE6	10/09/15	5.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-12-SVE6	10/09/15	12.0	---	---	---	---	---	---	---	---	---	---	0.39	<0.020	0.38g, 0.81h, 0.024i

TABLE 3B
ADDITIONAL CUMULATIVE SOIL ANALYTICAL RESULTS - HVOCs AND PAHs
Former Exxon Service Station 79374
990 San Pablo Boulevard
Albany, California

Sample ID	Sampling Date	Depth (feet bgs)	HVOCs										PAHs		
			1,2,4-trimethyl-benzene (mg/kg)	1,3,5-trimethyl-benzene (mg/kg)	Isopropyl-benzene (mg/kg)	Naph-thalene (mg/kg)	n-Butyl-benzene (mg/kg)	p-Isopropyl-toluene (mg/kg)	sec-Butyl-benzene (mg/kg)	t-Butyl-benzene (mg/kg)	HVOCs (mg/kg)	SVOCs (mg/kg)	Naph-thalene (mg/kg)	Pyrene (mg/kg)	PAHs (mg/kg)
Environmental Screening Levels, Potential Drinking Water Source (December 2013)															
Shallow (<10 feet bgs), Residential (Table A-1)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Shallow (<10 feet bgs), Commercial (Table A-2)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Deep (≥10 feet bgs), Residential (Table C-1)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
Deep (≥10 feet bgs), Commercial (Table C-2)			---	---	---	1.2	---	---	---	---	---	---	1.2	85	---
S-5-SVE7	10/09/15	5.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-10-SVE7	10/09/15	10.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-12-SVE7	10/09/15	12.0	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
S-15.5-SVE7	10/09/15	15.5	---	---	---	---	---	---	---	---	---	---	<0.020	<0.020	ND
Soil Vapor Sampling Wells															
S-5-SVS1	02/25/14	5.0	---	---	---	---	---	---	---	---	---	---	<15	11	ND
S-5-SVS2	02/25/14	5.0	---	---	---	---	---	---	---	---	---	---	<15	<10	ND
S-5-SVS3	02/25/14	5.0	---	---	---	---	---	---	---	---	---	---	<15	<10	ND
Drum Samples															
Not analyzed for these analytes.															
Soil Stockpile Samples															
COMP(S-Profile-1-4)	11/08/10	---	0.0053	0.062	0.061	0.098	0.14	0.012	0.053	0.018	ND	---	---	---	---
S-SP1 (1-4)	01/18/12	---	8.3	2.2	0.12	<5.0	0.20	0.018	0.051	<0.0050	2.5j	---	---	---	---
SP1	03/05/14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SP-1	10/08/15	---	---	---	---	---	---	---	---	---	---	ND	---	---	---

TABLE 3B
ADDITIONAL CUMULATIVE SOIL ANALYTICAL RESULTS - HVOCs AND PAHs
Former Exxon Service Station 79374
990 San Pablo Boulevard
Albany, California

Notes:		
TPHmo	=	Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015B.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B; analyzed using EPA Method 8020 in 2008.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B.
EDB	=	1,2-Dibromoethane analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-Dicholorethane analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol 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.
Lead	=	Total lead analyzed using EPA Method 6010B.
VOCs	=	Volatile organic compounds analyzed using EPA Method 8260B.
SVOCs		Semi-volatile organic compounds analyzed using EPA Method 8270C.
HVOCs	=	Halogenated volatile organic compounds analyzed using EPA Method 8260B.
PAHs	=	Polyaromatic hydrocarbons analyzed using EPA Method 8310.
feet bgs	=	Feet below ground surface.
ND	=	Not detected.
---	=	Not analyzed/Not applicable
<	=	Less than the laboratory reporting limit.
a	=	The chromatographic pattern does not match that of the specified standard.
b	=	Heavier gasoline range compounds are significant.
c	=	Diesel range compounds are significant; no recognizable pattern.
d	=	Gasoline range compounds are significant.
e	=	Strongly aged gasoline or diesel range compounds are significant.
f	=	No recognizable pattern.
g	=	1-Methylnaphthalene.
h	=	2-Methylnaphthalene.
i	=	Phenanthrene.
j	=	Estimated value; analyte present at concentration above the method detection limit but below the reporting limit.
k	=	Ethanol.
l	=	The reporting limit is elevated resulting from matrix interference.
k	=	Reporting limits raised due to high level of non-target analytes.

APPENDIX

A

CORRESPONDENCE

Cardno
Shaping the Future

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

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

August 26, 2015

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

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

Subject: Corrective Action Plan Implementation Approval; Fuel Leak Case No. RO0002974 and GeoTracker Global ID T0619716673, Exxon, 990 San Pablo Ave., Albany, CA 94706

Dear Ms. Sedlachek and Ms. Blank:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the recent email from Mr. Scott Perkins of Cardno, dated August 21, 2015. This communication reports that no public comments were received by Cardno as a result of the public notice of proposed corrective actions. Additionally, ACEH has not received any public comments as a result of the notice.

Based on ACEH staff review, the corrective action plan is approved for implementation provided that the technical comments below are incorporated during the proposed work. We request that you address the following technical comments, perform the proposed work, and send us the report described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: mark.detterman@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **Corrective Action Plan Approval –** The referenced corrective action plan proposes a series of actions with which ACEH is in general agreement of undertaking; however, ACEH requests the following. Please submit reports as outlined below.
    a. **Remedial Progress Reporting –** Due to the planned corrective action time period of up to three years, monthly Remedial Progress Reports (RPR) are requested, by the dates identified below. These are intended to monitor site progress and DPE system effectiveness. These can be included in groundwater monitoring reports, when appropriate. Please copy ACEH on system discharge reports to the POTW and the BAAQMD.
2. **Groundwater Monitoring and Chlorinated Solvent Analytical Data –** In future groundwater monitoring reports please tabulate chlorinated solvents under separate column headers or as a separate table. The intent is to quickly discern contaminant trends. Please continue to analyze for chlorinated solvents at the site.

TECHNICAL REPORT REQUEST

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

- **November 13, 2015 –** Data Gap Investigation, Vapor Well Installation, and First Monthly DPE System Remedial Progress Report(s); File to be named: RO2974_SWI_REM_R_yyyy-mm-dd

- **December 18, 2015 –** Fourth Quarter 2015 Semi-Annual Groundwater Monitoring
  File to be named: RO2974_GWM_R_yyyy-mm-dd

- **December 18, 2015 –** Second Monthly Remedial Progress Report
  File to be named: RO2974_REM_R_yyyy-mm-dd

- **TBD –** Monthly DPE System Remedial Progress Reports
  File to be named: RO2974_REM_R_yyyy-mm-dd

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

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email, c=US
Date: 2015.08.26 15:34:02 -07'00'

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

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

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

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

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

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

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

APPENDIX

B

SITE CONCEPTUAL MODEL

Cardno
Shaping the Future

Element	Description	Data Gaps
Geology and Hydrogeology		
Regional Geology and Hydrogeology	The site lies at an approximate elevation of 40 feet above msl, and the local topography slopes toward the southwest. The site is located along the eastern margin of the San Francisco Bay within the East Bay Plain (Hickenbottom and Muir, 1988). The surficial deposits in the site vicinity are mapped as Holocene alluvial fan and fluvial deposits (Graymer, 2000). The active northwest trending Hayward fault is located approximately 1.5 miles northeast of the site. The East Bay Plain is regionally divided into two major groundwater basins: the San Pablo and the San Francisco Basin. These basins are tectonic depressions that are filled primarily with a sequence of coalescing alluvial fans. The San Francisco Basin is further divided into seven sub-areas. The site is located in the Berkeley Sub-Area, which is filled primarily by alluvial deposits that range from 10 to 300 feet thick with poorly defined aquitards (CRWQCB, 1999). Under natural conditions, the direction of groundwater flow in the East Bay Plain is east to west.	None
Site Geology, Hydrogeology, Hydraulic Flow, and Groundwater Gradient	Soil boring logs indicate that the soil beneath the site consists predominantly of silt and clay with an apparently continuous coarse-grained unit 2 to 8 feet thick encountered between approximately 8 and 20 feet bgs. Fill material was encountered in the boring for well SVE3 (located in the former UST pit) to approximately 7 feet bgs. CPT borings indicate the presence of predominantly silt and clay between approximately 20 and 60 feet bgs, the maximum depth explored. Coarse-grained layers up to 3 feet thick are interbedded with the silt and clay (EC&A, 2008; Cardno ERI, 2011; Cardno ERI, 2012). Historical groundwater elevation data indicate that DTW ranges from 5 to 11 feet bgs beneath the site with varying groundwater flow directions. The distribution of dissolved-phase hydrocarbons suggests that the dominant groundwater flow direction is west to southwest (Cardno ERI, 2014b). Due to varying well construction, Cardno ERI separated the wells into shallow and deep water-bearing zones. Wells MW3A, MW4, MW5, and SVE1 through SVE3 are screened no deeper than 15 feet bgs and are referred to as the shallow water-bearing zone; wells MW1 through MW3 and MW6 have screened intervals that extend deeper than 15 feet bgs and are referred to as the deep water-bearing zone. The groundwater elevations in wells screened deeper than 15 feet are commonly irregular and do not agree with the distribution of petroleum hydrocarbon concentrations. Although the water-bearing zones are referred to as shallow and deep, they likely do not represent unique water-bearing zones. During second quarter 2015, the groundwater flow direction in the shallow water-bearing zone was towards the southwest with a hydraulic gradient of approximately 0.038 (Cardno, 2015). Due to varying well construction, the groundwater flow in the deep water-bearing zone is not calculated (Cardno ERI, 2014b).	None
Facility History		
Facility Structures and Site Operations	In 1945, a service station owned by Signal Oil Company occupied the site. Humble Oil company acquired the site in 1967 from Standard Oil Company of California (Chevron), rebranding the site as an Enco station. The station was rebranded as an Exxon service station in 1975 (EDR, 2009a; EDR, 2009b). The service station was demolished in 1983. During demolition activities, one used-oil UST and four gasoline USTs were removed and the resulting tank cavity was backfilled with sand and compacted to 90% (City of Albany, 1983). Cardno ERI reviewed eight aerial photographs of the site and site vicinity dated from September 6, 1949, to June 21, 1983 (EDR, 2009b). Based on these photographs, the dispenser islands appeared to be located beneath the station canopy on the northern portion of the site and the former USTs appeared to be located on the southern portion of the site, east of the station's service bays. The location of the former used-oil UST is unknown. The approximate location of the former USTs are shown on Plate 2. A retail outlet for Benjamin Moore paints and painting products and associated asphalt parking currently occupy the site.	None

Element	Description	Data Gaps
Sensitive Receptors, Land Use, and Nearby Sites		
Surface Water Bodies	The site is located approximately 1,630 feet north-northwest of Cordornices Creek. No other surface water bodies have been located within a 300-meter radius of the site.	None
Nearby Wells	There are not public water supply, municipal, or domestic wells located within a ¼-mile radius of the site.	None
Public Use Areas	Two public use areas are present within a 100-meter radius of the site: the City of Albany Police, Fire, and City offices located across Buchanan Street at 1000 San Pablo Avenue and a physical therapy office located in the strip mall approximately 50 meters north of the site.	None
Residences	Sixteen residential buildings have been identified within a 300-meter radius of the site; five of those buildings are located within a 100-meter radius of the site.	None
Sub-Grade	Sub-grade structures have not been identified within a 100-meter radius of the site.	None
Utility Vaults	Twenty-three vaults have been identified on or immediately adjacent to the site. Vault uses include: water, telephone, gas meter, electric, sewer, traffic box, traffic signal, and anode.	None
Storm and Sanitary Sewers	Three storm drains are located on or adjacent to the site. The storm drains daylight along the curb and water flows west along Buchanan Street. The City of Albany Public Works Department confirmed that the storm drains discharge directly into the Bay. Two sanitary sewer cleanout vaults are located on site. The City of Albany Public Works Department confirmed that sewage is discharged at the East Bay Municipal Utilities District Treatment Plant, located 4.5 miles south of the site, at the entrance to the San Francisco Bay Bridge.	None
Other	Other site receptors have not been identified.	None
Nearby Sites	The surrounding areas consist of residential and commercial properties. The City of Albany Fire Department and Police Department are located south of the site on Buchanan Street. ACEH case number RO0000119, identified as Firestone #3655 in the GeoTracker™ database, is located across San Pablo Avenue to the east. A Shell Service Station and an Atlantic Richfield Company Service Station (Arco) are located approximately 350 and 500 feet away, respectively, south-southeast of the site.	None
Release Information		
Release History	The primary sources of petroleum hydrocarbons at the site are the former used-oil UST and the four former gasoline USTs. The USTs were removed in 1983 (City of Albany, 1983).	None
Extent and Distribution of Petroleum Hydrocarbon Concentrations	**Non-Aqueous Phase Liquid** An immiscible sheen was reported in groundwater samples collected from borings B1 and B2 (EC&A, 2008). Neither NAPL nor sheen have been observed in the groundwater monitoring wells at the site; however, during fourth quarter 2012, concentrations of TPHg (270,000 µg/L) reported in well MW4 were potentially indicative of the presence of NAPL. Although the TPHg concentrations increased, BTEX concentrations were consistent with previous data. Concentrations of TPHg reported since fourth quarter 2012 are not indicative of the presence of NAPL and second quarter 2015 (22,000 µg/L) data is consistent with historical results. The fourth quarter 2012 TPHd result for well MW4 appears to have been anomalous.	None

Element	Description	Data Gaps
	Hydrocarbons in Groundwater Current and historic maximum dissolved-phase petroleum hydrocarbon concentrations have been reported in well MW3, located in the vicinity of the former USTs, and wells MW4 and MW5, located west of the former USTs. Concentrations are delineated to the east of the site by wells MW1 and MW2 and to the south of the site by borings B11 and B15. Dissolved-phase hydrocarbons are adequately vertically delineated at the site with petroleum hydrocarbon concentrations below or near the laboratory reporting limits in groundwater samples collected deeper than 27.5 feet bgs (Cardno ERI, 2011). **Data Gap:** Dissolved-phase petroleum hydrocarbons require monitoring off site to the west and southwest near borings B9 and B12. **How to Address:** Cardno installed off-site wells MW7 through MW9 to monitor dissolved-phase petroleum hydrocarbons west and southwest of the site. Monitoring and sampling activities in these wells are ongoing. The need for installation of additional wells will be evaluated.	**Yes**
	Hydrocarbons in Soil Maximum residual petroleum hydrocarbon concentrations are present at approximately 10.5 feet bgs in the vicinity of the former USTs. With the exception of naphthalene by EPA Method 8310 in boring B13 (5 feet bgs) and TPHg in borings B4 (5 feet bgs) and SVE1 (8.5 feet bgs), residual petroleum hydrocarbon concentrations have been near or below reporting limits in the shallow soil samples collected at the site, including samples collected in the vicinity of the former UST and suspected dispenser island locations. Residual petroleum hydrocarbon concentrations are adequately delineated in both shallow (less than 10 feet bgs) and deep (greater than or equal to 10 feet bgs) soil to the northeast, the northwest, the west, the east, the southwest, and the south by borings B5 through B11, B14, B15, MW1, MW2, and CPT1. Residual TPHg (530 mg/kg) is present to the north at 10 feet bgs in boring B16, but is near or below reporting limits at 5 and 15.5 feet bgs (EC&A, 2008; Cardno ERI, 2011; Cardno ERI, 2014a).	None
	Hydrocarbons in Soil Vapor Maximum vapor-phase concentrations are present in well SVS3, located in the vicinity of the suspected locations of the former dispenser islands. Petroleum hydrocarbons exceed ESLs by up to three orders of magnitude in wells SVS1 through SVS3. **Data Gap:** Vapor-phase concentrations exceed applicable screening levels. **How to Address:** DPE high-intensity targeted (HIT) events are ongoing.	**Yes**
Exposure Routes and Potential Receptors		
Exposure Routes and Potential Receptors	Utility trench backfill material is not acting as a preferential pathway for petroleum hydrocarbon concentrations (Cardno ERI, 2014a). There are not public water supply, municipal, or domestic wells located within a quarter mile of the site. The nearest surface water body (Cordornices Creek) is located approximately 1,630 feet south-southeast of the site. Residual and dissolved-phase petroleum hydrocarbons are delineated south and east of the site and are not likely to migrate to Cordornices Creek. A construction worker excavating soil at the site is a potential receptor; however, since the site is paved, direct exposure (via ingestion or dermal contact) to chemicals of concern released during Exxon's operations is not likely. The potential exposure route of vapor inhalation may exist in the commercial/industrial setting for workers in the on-site retail outlet. Users of shallow and deep groundwater are potential receptors. **Data Gap:** See the groundwater and soil vapor data gaps in the Release Information section.	**Yes**

REFERENCES

California Regional Water Quality Control Board San Francisco Bay Region Groundwater Committee (CRWQCB). June 1999. *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, CA.*

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*C*ardno ERI. February 28, 2011. *Site Assessment Report, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California.*

Cardno ERI. April 12, 2012. *Well Installation Report, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California.*

Cardno ERI. July 7, 2014a. *Work Plan for Well Installation, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California.*

Cardno ERI. September 5, 2014b. *Response to Comments and Request for Extension, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California.*

City of Albany. March 28, 1983. *Building Permit 82-0708.*

Edd Clark & Associates (EC&A). January 31, 2008. *Report of Phase II Environmental Assessment, 990 San Pablo Avenue, Albany, California.*

Environmental Data Resources Inc. (EDR). December 1, 2009a. *The EDR-City Directory Abstract, 990 San Pablo Avenue, Albany, CA 94706. Inquiry Number:2648519.6.*

Environmental Data Resources Inc. (EDR). December 1, 2009b. *Certified Sanborn® Map Report, 990 San Pablo Avenue, Albany, CA 94706. Inquiry Number 2648519.36.*

Graymer, R.W. 2000. *Geological map and map database of the Oakland metropolitan area, Alameda, Contra Costa, and San Francisco Counties, California. USGS, Miscellaneous Field Studies MF-2342.*

Hickenbottom, Kelvin and Muir, Kenneth S. June 1988. *Geohydrogeology and Groundwater Quality Overview of the East Bay Plain Area, Alameda County, CA. Alameda County Flood Control and Water Conservation District. 83p.*

APPENDIX

C

FIELD PROTOCOLS

Cardno
Shaping the Future

Cardno
Soil Boring and Well Installation
Field Protocol

Preliminary Activities

Prior to the onset of field activities at the site, Cardno obtains the appropriate permit(s) from the governing agency(s). Advance notification is made as required by the agency(s) prior to the start of work. Cardno marks the borehole locations and contacts the local one call utility locating service at least 48 hours prior to the start of work to mark buried utilities. Borehole locations may also be checked for buried utilities by a private geophysical surveyor. Prior to drilling, the borehole location is cleared in accordance with the client's procedures. Fieldwork is conducted under the advisement of a registered professional geologist and in accordance with an updated site-specific safety plan prepared for the project, which is available at the job site during field activities.

Drilling and Soil Sampling Procedures

Cardno contracts a licensed driller to advance the boring and collect soil samples. The specific drilling method (e.g., hollow-stem auger, direct push method, or sonic drilling), sampling method [e.g., core barrel or California-modified split spoon sampler (CMSSS)] and sampling depths are documented on the boring log and may be specified in a work plan. Soil samples are typically collected at the capillary fringe and at 5-foot intervals to the total depth of the boring. To determine the depth of the capillary fringe prior to drilling, the static groundwater level is measured with a water level indicator in the closest monitoring well to the boring location, if available.

The borehole is advanced to just above the desired sampling depth. For CMSSSs, the sampler is placed inside the auger and driven to a depth of 18 inches past the bit of the auger. The sampler is driven into the soil with a standard 140-pound hammer repeatedly dropped from a height of 30 inches onto the sampler. The number of blows required to drive the sampler each 6-inch increment is recorded on the boring log. For core samplers (e.g., direct push), the core is driven 18 inches using the rig apparatus.

Soil samples are preserved in the metal or plastic sleeve used with the CMSSS or core sampler, in glass jars or other manner required by the local regulatory agency (e.g., Environmental Protection Agency Method 5035). Sleeves are removed from the sample barrel, and the lowermost sample sleeve is immediately sealed with Teflon™ tape, capped, labeled, placed in a cooler chilled to 4º Celsius and transported to a state-certified laboratory. The samples are transferred under chain-of-custody (COC) protocol.

Field Screening Procedures

Cardno places the soil from the middle of the sampling interval into a plastic re-sealable bag. The bag is placed away from direct sunlight for a period of time which allows volatilization of chemical constituents, after which the tip of a photo-ionization detector (PID) or similar device is inserted through the plastic bag to measure organic vapor concentrations in the headspace. The PID measurement is recorded on the boring log. At a minimum, the PID or other device is calibrated on a daily basis in accordance with manufacturer's specifications using a hexane or isobutylene standard. The calibration gas and concentration are recorded on a calibration log. Instruments such as the PID are useful for evaluating relative concentrations of volatilized hydrocarbons, but they do not measure the concentration of petroleum hydrocarbons in the soil matrix with the same precision as laboratory analysis. Cardno trained personnel describe the soil in the bag according to the Unified Soil Classification System and record the description on the boring log, which is included in the final report.

Air Monitoring Procedures

Cardno performs a field evaluation for volatile hydrocarbon concentrations in the breathing zone using a calibrated photo-ionization detector or lower explosive level meter.

Groundwater Sampling

A groundwater sample, if desired, is collected from the boring by using Hydropunch™ sampling technology or installing a well in the borehole. In the case of using Hydropunch™ technology, after collecting the capillary fringe soil sample, the boring is advanced to the top of the soil/groundwater interface and a sampling probe is pushed to approximately 2 feet below the top of the static water level. The probe is opened by partially withdrawing it and thereby exposing the screen. A new or decontaminated bailer is used to collect a water sample from the probe. The water sample is then emptied into laboratory-supplied containers constructed of the correct material and with the correct volume and preservative to comply with the proposed laboratory test. The container is slowly filled with the retrieved water sample until no headspace remains and then promptly sealed with a Teflon-lined cap, checked for the presence of bubbles, labeled, entered onto a COC record and placed in chilled storage at 4° Celsius. Laboratory-supplied trip blanks accompany the water samples as a quality assurance/quality control procedure. Equipment blanks may be collected as required. The samples are kept in chilled storage and transported under COC protocol to a client-approved, state-certified laboratory for analysis.

Backfilling of Soil Boring

If a well is not installed, the boring is backfilled from total depth to approximately 5 feet below ground surface (bgs) with either neat cement or bentonite grout using a tremie pipe and either the boring is backfilled from 5 feet bgs to approximately 1 foot bgs with hydrated bentonite chips or backfill is continued to just below grade with neat cement grout. The borehole is completed to surface grade with material that best matches existing surface conditions and meets local agency requirements. Site-specific backfilling details are shown on the respective boring log.

Well Construction

A well (if constructed) is completed using materials documented on the boring log or specified in a work plan. The well is constructed with slotted casing across the desired groundwater sampling depth(s) and completed with blank casing to within 6 inches of surface grade. No further construction is conducted on temporary wells. For permanent wells, the annular space of the well is backfilled with Monterey sand from the total depth to approximately 2 feet above the top of the screened casing. A hydrated granular bentonite seal is placed on top of the sand filter pack. Grout may be placed on top of the bentonite seal to the desired depth using a tremie pipe. The well may be completed to surface grade with a 1-foot thick concrete pad. A traffic-rated well vault and locking cap for the well casing may be installed to protect against surface-water infiltration and unauthorized entry. Site-specific well construction details including type of well, well depth, casing diameter, slot size, length of screen interval and sand size are documented on the boring log or specified in the work plan.

Well Development and Sampling

If a permanent groundwater monitoring well is installed, the grout is allowed to cure a minimum of 48 hours before development. Cardno personnel or a contracted driller use a submersible pump or surge block to develop the newly installed well. Prior to development, the pump is decontaminated by allowing it to run and re-circulate while immersed in a non-phosphate solution followed by successive immersions in potable water and de-ionized water baths. The well is developed until sufficient well casing volumes are removed so that turbidity is within allowable limits and pH, conductivity and temperature levels stabilize in the purge water. The volume of groundwater extracted is recorded on a log.

Following development, groundwater within the well is allowed to recharge until at least 80% of the drawdown is recovered. A new or decontaminated bailer is slowly lowered past the air/water interface in the well, and a water sample is collected and checked for the presence of non-aqueous phase liquid, sheen or emulsions. The water sample is then emptied into laboratory-supplied containers as discussed above.

Surveying

If required, wells are surveyed by a licensed land surveyor relative to an established benchmark of known elevation above mean sea level to an accuracy of +/- 0.01 foot. The casing is notched or marked on one side to identify a consistent surveying and measuring point.

Decontamination Procedures

Cardno or the contracted driller decontaminates soil and water sampling equipment between each sampling event with a non-phosphate solution, followed by a minimum of two tap water rinses. De-ionized water may be used for the final rinse. Downhole drilling equipment is steam-cleaned prior to drilling the borehole and at completion of the borehole.

Waste Treatment and Soil Disposal

Soil cuttings generated from the drilling or sampling are stored on site in labeled, Department of Transportation-approved, 55-gallon drums or other appropriate storage container. The soil is removed from the site and transported under manifest to a client- and regulatory-approved facility for recycling or disposal. Decontamination fluids and purge water from well development and sampling activities, if conducted, are stored on site in labeled, regulatory-approved storage containers. Fluids are subsequently transported under manifest to a client- and regulatory-approved facility for disposal or treated with a permitted mobile or fixed-base carbon treatment system.

APPENDIX

D

PERMITS

Cardno
Shaping the Future

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 09/01/2015 By jamesy

Permit Numbers: W2015-0820 to W2015-0822
Permits Valid from 09/21/2015 to 09/24/2015

Application Id:	1440712085185	**City of Project Site:** Albany
Site Location:	990 San Pablo Ave, Albany.	
	Installation of two monitoring wells in the City Right-of-Way and four remediation wells onsite	
Project Start Date:	09/21/2015	**Completion Date:** 09/24/2015
Assigned Inspector:	Contact Lindsay Furuyama at (925) 956-2311 or Lfuruyama@groundzonees.com	
Applicant:	Cardno - Nadya Vicente 601 North McDowell Blvd, Petaluma, CA 94954	**Phone:** 707-280-7487
Property Owner:	c/o Muriel T Blank, Trustee The Blank Family Trust 1164 Solano Ave, Albany, CA 91913	**Phone:** 510-527-4337
Client:	Ms. Jennifer Sedlachek ExxonMobil Corp. 4096 Piedmont Ave, Oakland, CA 94611	**Phone:** 510-547-8196
Contact:	Nadya Vicente	**Phone:** 707-280-7487 **Cell:** --

	Total Due:	$1059.00
Receipt Number: WR2015-0433	**Total Amount Paid:**	$1059.00
Payer Name : Scott Perkins	Paid By: MC	**PAID IN FULL**

Works Requesting Permits:

Remediation Well Construction-Vapor Remediation Well - 4 Wells
Driller: Gregg Drilling - Lic #: 485165 - Method: hstem **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2015-0820	09/01/2015	12/20/2015	SVE4	10.00 in.	4.00 in.	4.00 ft	15.00 ft
W2015-0820	09/01/2015	12/20/2015	SVE5	10.00 in.	4.00 in.	4.00 ft	15.00 ft
W2015-0820	09/01/2015	12/20/2015	SVE6	10.00 in.	4.00 in.	4.00 ft	15.00 ft
W2015-0820	09/01/2015	12/20/2015	SVE7	10.00 in.	4.00 in.	4.00 ft	15.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755

(Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.

5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).

7. Minimum surface seal thickness is two inches of cement grout placed by tremie.

8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

9. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

10. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

Well Construction-Monitoring-Monitoring - 2 Wells
Driller: Gregg Drilling - Lic #: 485165 - Method: hstem **Work Total: $794.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2015-0821	09/01/2015	12/20/2015	MW10	8.00 in.	2.00 in.	4.00 ft	15.00 ft
W2015-0822	09/01/2015	12/20/2015	MW9	8.00 in.	2.00 in.	4.00 ft	15.00 ft

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Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 09/01/2015 By jamesy

Permit Numbers: W2015-0820 to W2015-0822
Permits Valid from 10/08/2015 to 10/09/2015

Application Id:	1440712085185	**City of Project Site:**	Albany
Site Location:	990 San Pablo Ave, Albany.		
	Installation of two monitoring wells in the City Right-of-Way and four remediation wells onsite		
Project Start Date:	09/21/2015	**Completion Date:**	09/24/2015
Assigned Inspector:	Contact Balance Hydrologics, Inc at (510) 473-5663 or acwells@balancehydro.com		
Extension Start Date:	10/08/2015	**Extension End Date:**	10/09/2015
Extension Count:	1	**Extended By:**	jamesy

Applicant:	Cardno - Nadya Vicente 601 North McDowell Blvd, Petaluma, CA 94954	**Phone:** 707-280-7487
Property Owner:	c/o Muriel T Blank, Trustee The Blank Family Trust 1164 Solano Ave, Albany, CA 91913	**Phone:** 510-527-4337
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Driller: Gregg Drilling - Lic #: 485165 - Method: hstem **Work Total: $265.00**

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APPLICANT COPY

City of Albany

ENCROACHMENT PERMIT
PERMANENT OR TEMPORARY CONSTRUCTION WITHIN CITY RIGHT OF WAY

PERMIT NO. 15-228

LOCATION: Intersection Adams and Buchanan Street

NAME	ADDRESS	Phone No. Normal/Emergency	Business Lic. No. Workers Comp. No.
Applicant Cardno	601 N. McDowell Blvd, Petaluma, CA, 94954	(707) 766-2000	WC039901297
Owner:			
Engineer / Architect			
Contractor			

TYPE OF WORK

☐ Sidewalk ☐ Curb & Gutter ☐ Sewer ☐ Street Tree
☐ Utility Co. ☐ Permanent Structure ☒ Other: Install 2 groundwater monitoring wells for groundwater sampling

DESCRIPTION OF WORK

Install MW9 on Adams Street, approximately 35 feet North of Buchanan Street (right side)
Install MW10 approximately 15 feet North of Buchanan Street (left side)

REQUIRED CONDITIONS

1. All work shall be in accordance with the attached standard conditions.
2. No refund after 120 days or work begins, 70% of fee refundable within 120 days provided no work has begun.
3. Permanent structures require City Council approval (City Code 14-2).
4. CALL USA 1-800-227-2600 before excavating.
5. Call for Final Inspection and Sign-Off 48 hr. in advance at ☒ (510) 528-5760 ☐ (510) 524-9543.
6. Special Conditions may be imposed following City review and prior to issuance of this permit.

Applicant's Signature: David R. Daniels On behalf of Cardno Date: 7/28/15

STAFF USE ONLY

Permit Fee Computation	
Total construction cost subject to fee:	
New construction at 8% of construction cost	
In-Lieu slurry seal fee (when street is out)	
Minimum fee per schedule (if greater than % fee)	
Total Fee due (transfer to fee schedule from) (Utilities to be billed, copy of permit to Finance)	137.59

Special Conditions: See Engineer's Special Conditions

Issued by: Date: 8/14/2015

Permit Expiration Date: 2/14/2016 (not to exceed 180 days for date issued)

Final Sign Off by: Date:

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City of Albany

ENVIRONMENTAL PROTECTION STATEMENT OF RESPONSIBILITY FOR DISCHARGES & DAMAGE

I. PURPOSE

This statement is to provide notice to property owners, contractors, and others of the responsibility for compliance with Albany Municipal Code (AMC) as it relates to protection of public trees and waterways.

Public Trees: Damage to street trees or other trees located on public property is considered damage to public property. Damage to trees includes, but is not limited to cutting any amount of trees roots, ripping or tearing of branches, and peeling, tearing or scarring of tree bark. Damage may cause death and/or a dangerous condition by destabilizing the tree. Restoring a tree to its pre-damaged state can take years. Therefore, preventing damage to trees is a priority to the City of Albany.

Waterways: The City's storm water runoff system conveys rain water directly to the San Francisco Bay through a network of surface flows, underground pipes, and creek channels. Materials discharged to a sidewalk, street gutter, storm drain or creek can cause creeks and the Bay to become polluted. Any material other than rain water is considered an illicit discharge under the Federal Clean Water Act. Examples of illicit discharges include: concrete wash water, stucco wash water, paint wash water, chemicals, and runoff from stockpiled materials such as dirt aggregate, soil products, and other construction materials.

II. RESPONSIBILITY FOR DAMAGE TO PUBLIC TREES AND/OR ILLICIT DISCHARGES TO WATERWAYS

Public Trees: Pursuant to Albany Municipal Code Section 14-1.2., it is unlawful to cause damage to public property. When a public tree is damaged the cost of the damage and the value of the tree will be calculated by a certified arborist in accordance with International Society of Arboriculture Standards. Because valuable resources such as time, energy and money are invested in trees over many years, the calculated value of a tree can be high. The party damaging the tree is liable for all costs associated with the loss of the tree and the repair or replacement of the tree.

Waterways: Pursuant to Albany Municipal Code Section 15.4, it is unlawful to discharge materials (liquid or solid) to a sidewalk, street, gutter, storm drain or creek. An illicit discharge is defined as "any discharge to the City storm drain system that is not composed entirely of storm water...". The contractor and/or property owner is responsible for all fines and costs associated with the illicit discharge.

III. CERTIFICATION OF COMPLIANCE

I understand that as the applicant I am responsible for any damage to public trees and or all illicit discharges resulting from this project and that I am responsible for all fees and fines as a result or non-compliance.

Cardno

Property Owner or Permittee — Date

Cardno - David Daniels

Business Name & Contractor's Authorized Representative — Date 7/28/15

Location or Title of Project: 990 San Pablo Ave, Albany, CA (Former Exxon 79374)

For more information, contact the Community Development & Environmental Resources Department at (510) 528-5760

City of Albany

SPECIAL PROVISIONS FOR ENCROACHMENT PERMIT FOR PERMANENT IMPROVEMENT IN CITY RIGHT-OF-WAY

Permit # 15-228

Location: 990 San Pablo Ave, Albany, CA (Former Exxon 79374)

This APPLICATION MUST BE ACCOMPANIED by the DATA and PLANS indicated below:

- [x] Description of Job
- [x] APPROVED Construction Plans and/or Documents
- [ ] An Engineer's Estimate of the value of all public improvements and utility services within the public right-of-way
- [ ] A Soils Report prepared by a Registered Civil Engineer.
- [x] Others: Specify Workplan

ALL FEES SHALL BE PAID AND DEPOSITS MADE PRIOR TO THE ISSUANCE OF THIS PERMIT: except Utility Companies. Utility Companies will be invoiced.

STANDARDS/SPECIFICATION:
The following conditions and provisions of the Albany Municipal Code apply to this permit. All work shall be in accordance with City Standard Specifications and Drawings.

COMMENCEMENT OF WORK
The permittee shall begin the work or use authorized by a permit issued pursuant to this chapter within ninety (90) days from the date of issuance unless a different period is stated in the permit, or an extension of time is granted by the Director of Community Development & Environmental Resources. If the work or use is not begun accordingly the permit shall become void.

INSPECTION
In general, inspection producers and requirements shall be as established by the Director of Community Development & Environmental Resources. Unless specifically exempted by the City Code, no encroachment work shall take place without inspection by the Director of Community Development & Environmental Resources or his/her authorized agent. Inspections by the City must be requested at least TWENTY-FOUR (24) HOURS (excluding weekends) IN ADVANCE of the work to be performed. No work shall be performed on weekends without PRIOR AUTHORIZATION of the Director of Community Development & Environmental Resources.

DISPLAY OF PERMIT
The permittee shall keep a copy of this permit at the site of the work, or in the cab of a vehicle when movement on a public street is involved. The permit shall be shown to any authorized representative of the Director of Community Development & Environmental Resources or Law Enforcement Officer on demand.

ACCEPTANCE OF PERMIT BY APPLICANT
Acceptance by the applicant of the permit shall be conclusive evidence of the resonableness of the terms imposed and shall constitute a waiver of any right to legislative determination thereof.

NON-ASSIGNMENT OF PERMIT
Permits shall be issued only to the person making application and may not be assigned to another person by the permittee. If any permittee assigns his permit to another, the permit will be revoked.

CHANGES IN PERMIT AND WORK
No changes may be made in the location, dimensions, character, or duration of the encroachment or use as granted by the permit except upon written authorization of the Director of Community Development & Environmental Resources.

City of Albany

EXCAVATION OF PAVED STREETS

No excavations shall be permitted within the paved area of the public streets unless the applicant can prove to the satisfaction of the Director of Community Development & Environmental Resources that the following conditions exist:

1. Boring of the utility is not feasible; and
2. No reasonable alternative utility alignment is available outside the paved street area; and
3. The cut area and an adjacent area shall be resurfaced as approved by the Director of Community Development & Environmental Resources. The limits of resurfacing shall be as determined by the Director of community Development & Environmental Resources to insure the excavating area blends visually with the surrounding area. The applicant shall be responsible for the replacement of any and all obliterated or removed pavement markers or striping.

REVOCATION OF PERMIT

This encroachment permit may be revoked at any time at the option of the Director of Community Development & Environmental Resources, whenever:

1. It appears that continuing allowance of the permitted work, whether because of changed conditions or otherwise, interferes with full, adequate or safe public use of the right-of-way involved; or
2. The permittee fails to comply with or violates any city ordinance, city standard, safety regulations, or any condition of the issuance of the permit.

Upon revocation of the permit, the premittee shall immediately restore the public right-of-way to a condition as required by the Director of Community Development & Environmental Resources. If the restoration is not completed within the time specified by the Director of Community Development & Environmental Resources, the City may take any and all necessary action so required to restore the right-of-way. Any and all costs incurred by the City will be deducted from any deposits posted by the permittee and if necessary recovered by legal action.

HOURS OF WORK

No work shall commence prior to 8:00 AM and no work shall be conducted after 6:00 PM Monday through Saturday and before 10:00 AM or after 6:00 PM on Sunday and Holidays.

COMPLETION OF WORK

The permittee must complete the work or use authorized by a permit issued pursuant to this chapter within the time specified in the permit. If at any time the Director of Community Development & Environmental Resources finds that the delay in the prosecution or completion of the work or use authorized is due to lack of diligence on the part of the permittee, the permit may be revoked.

PERMITTEE LIABILITY

The permittee shall agree to hold the City, its officers, and employees harmless from any and all liability, claims, suits or actions for any and all damages alleged to have been suffered by any person or property by reason of the permittee's installation, operation, maintenance or removal of the encroachment.

BY MY SIGNATURE HEREUNDER, I state that I have read and understand the above conditions and agree to comply therewith. I hereby attest that I am either the owner of the property or duly authorized agent of the applicant.

APPLICANT'S SIGNATURE _____ Date: 7/28/15

NAME (print): David R. Daniels COMPANY: Cardno

City of Albany

Date: 8/14/15

Special Conditions

Encroachment Permit for

Cardno at the request of Exxon Mobil Environmental Services (EMES), to install 2 monitoring wells on Adams Street.

1. Working hours on the City of Albany shall be from 8:00AM to 6:00PM Monday through Saturday; and 10:00AM to 5:00PM Sunday and Holidays. No startup of heavy equipment is allowed prior to 8:00 AM. Written permission must be obtained from the City Engineer prior to any weekend and holiday work.
2. Applicant shall maintain access to private property and driveways, or provide alternate/temporary access, at all times.
3. Provide for traffic control and pedestrian safety and lane closures per the General Provisions of the City and Caltrans California MUTCD http://www.dot.ca.gov/hq/traffops/engineering/mutcd/ca_mutcd2014.htm.
4. **Contact Albany Police Dept. (510-525-7300), Albany Fire Dept. (510-528-5770), and Albany Building Division (510-528-5760) minimum of 48 hours before work begins.**
5. The driveway and access at the Fire Department and Police Department shall never be blocked at any time.
6. All exploratory holes (borings) under this permit are subject to the Alameda County Public Works Agency Guidelines, Policies & Procedures, the State Water Well Standards, and any instruction by the Health Department. Applicant is required to submit a copy of the Alameda County Permit before any drilling is done.
7. All drill cuttings and boring development water and soil shall be properly and legally handled and disposed of.
8. All soil boring must be completely filled with cement grout mixture. The top 6"of the borings shall be backfilled to match original surface material. The applicant shall be responsible for the replacement of any and all obliterated or removed pavement markings or striping.
9. Provide for traffic control and pedestrian safety and lane closures per the General Provisions of the City and Caltrans Standard Specifications.
10. No open excavations shall be left unsupervised. All excavations shall be back filled or covered at the end the working day.
11. Post for no parking in advance per City requirements. (Minimum of 48 hours)
12. Prior to drilling, notify USA to identify any potential drilling obstructions. At the end of exploratory work, all USA markings shall be removed.
13. Conform to the requirements of the City's monument preservation plan. Any survey monument encountered shall be referenced and preserved or restored per State law.
14. Do not drill within 5 feet of existing sanitary sewers main or laterals and other utilities.
15. Permitee shall be responsible for full compliance with the City's Storm Water program and the Alameda County NPDES permit requirements. For additional information, visit the Alameda Countywide Clean Water Program at http://www.cleanwaterprogram.org
16. **Contact the City's Inspector at 510-528-5760 to schedule inspection a minimum of 48 hours in advance of drilling.**

Office: 548 Cleveland Avenue, Albany, CA 94710 phone 510-524-3751
Mail: 1000 San Pablo Avenue, Albany, CA 94706 fax 510-558-3201

APPENDIX

E

BORING LOGS

Cardno
Shaping the Future

BORING LOG B18

(Page 1 of 1)

Project No.:	: Former Exxon Service Station 79374
Site:	: 990 San Pablo Avenue, Albany, California
Logged By:	: Nadya M. Vicente
Reviewed By:	: David R. Daniels, P.G 8737
Signature:	:

Dates Drilled:	: 10/08/2015
Drilling Co.:	: Gregg Drilling
Drilling Method:	: Direct-Push
Sampling Method:	: Direct-Push
Borehole Diameter:	: 2"
Casing Diameter:	: NA
Location N-S	: 37.8878594
Location E-W	: -122.2991943
Total Depth:	: 16' bgs
First GW Depth:	: Not Encountered

Sample Condition: No Recovery; Sampled Interval; Described Sample; Preserved Sample

Water Levels: NA; Not Encountered

Boring: B18

Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	USCS	DESCRIPTION (%clay, %silt, %sand, %gravel)
0						4" Asphalt. Borehole cleared to 5' bgs using hand tools.
					GW	BASEROCK GRAVEL (FILL)
					ML	SILT with Sand: dark yellow-brown, damp, low to medium plasticity, soft, fine-grained sand (5,80,15,0)
5		0.7			CL	CLAY with Sand: dark yellow-brown with dark brown inclusions, soft, moist, low plasticity, fine-to medium-grained sand (75,0,25,0)
		5.2			CL	CLAY with Sand: mottled light gray and dark orange-brown, moist, low plasticity, fine-to coarse-grained sand, gravel up to 1" diameter (55,0,20,15)
10		2.7			ML	SILT with Sand: dark orange-brown and light white gray, moist, high plasticity, fine-grained sand (0,85,15,0)
15		2.0				
20						Total Depth = 16' bgs No Free Groundwater Encountered.

Neat Cement Grout

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BORING LOG MW9

(Page 1 of 1)

Project No.	: Former Exxon Service Station 79374
Site:	: 990 San Pablo Ave, Albany, California
Logged By:	: Nadya M. Vicente
Reviewed By:	: David R. Daniels, P.G.8737
Signature	:

Date Drilled	: 10/08/2015
Drilling Co.	: Gregg Drilling
Drilling Method	: Hollow-Stem Auger
Sampling Method	: Direct Push
Borehole Diameter	: 10"
Casing Diameter	: 2"
Location (N-S)	: 37.8879136
Location (E-W)	: -122.2991332
Total Depth	: 16' bgs
GW encountered	: 8' bgs

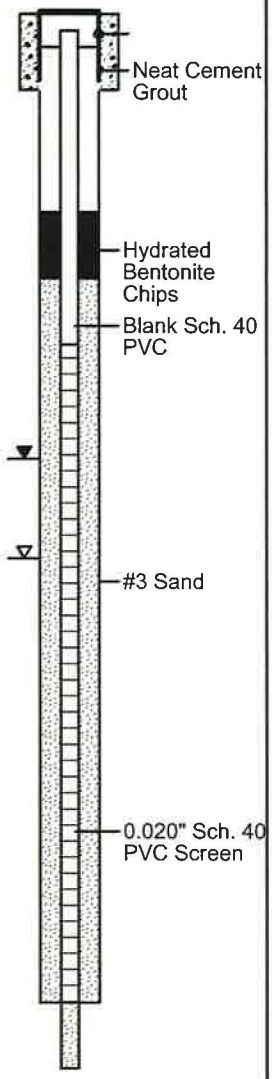
Sample Condition
- No Recovery
- Sampled Interval
- Described Sample
- Preserved Sample

Water Levels
- 6.48' bgs on 10/15/15
- 8' bgs

Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	ASTM	DESCRIPTION (%clay,%silt,%sand,%gravel)
0					GW	4" Asphalt. Borehole cleared to 8' bgs using hand tools. BASEROCK GRAVEL (FILL)
					ML	SILT with Sand: dark yellow-brown, damp, low to medium plasticity, soft, fine-grained sand (5,80,15,0)
5		0.0			CL	CLAY with Sand: dark yellow-brown with dark brown inclusions, soft, moist, low plasticity, fine-to medium-grained sand (75,0,25,0)
		15			SW	SAND with Gravel: dark brown, moist to wet, fine- to coarse-grained sand, well graded (0, 0,75,25)
					ML	SILT: dark orange-brown, moist, soft, medium to high plasticity, fine-grained sand (0,90,10,0)
10		328			SC	Clayey SAND: mottled dark gray and green, moist, fine-to medium-grained, poorly graded (45,0,55,0)
		43			ML	SILT with SAND: mottled red-brown and gray, moist, medium to high plasticity, fine-grained sand (0,80,20,0)
15		13				
20						

TD = 16 feet bgs
Free Groundwater Encountered at 8' bgs.

Boring: MW9



BORING LOG SVE4

(Page 1 of 1)

Project No.	: Former Exxon Service Station 79374
Site:	: 990 San Pablo Ave, Albany, California
Logged By:	: Nadya M. Vicente
Reviewed By:	: David R. Daniels, P.G.8737
Signature	:

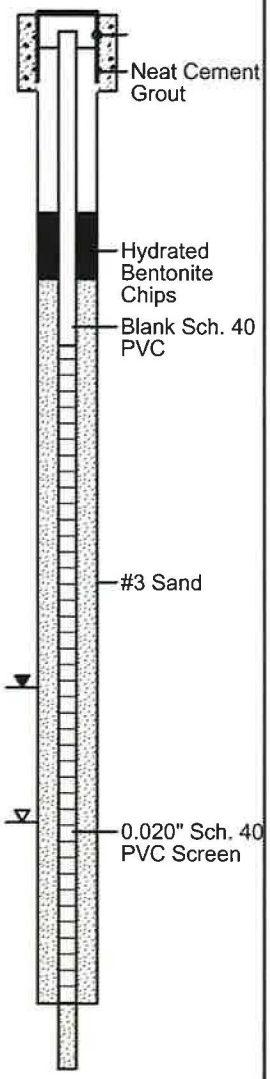
Date Drilled	: 10/09/2015
Drilling Co.	: Gregg Drilling
Drilling Method	: Hollow-Stem Auger
Sampling Method	: Direct Push
Borehole Diameter	: 12"
Casing Diameter	: 4"
Location (N-S)	: 37.8879226
Location (E-W)	: -122.2987229
Total Depth	: 16' bgs
GW encountered	: 12' bgs

Sample Condition
- No Recovery
- Sampled Interval
- Described Sample
- Preserved Sample

Water Levels
- 9.95' bgs on 10/15/15
- 12' bgs

Boring: SVE4
TOC Elevation: 43.1'

Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	ASTM	DESCRIPTION (%clay,%silt,%sand,%gravel)
0						6" Asphalt. Borehole cleared to 5' bgs using hand tools.
					GW	BASEROCK GRAVEL (FILL)
					ML	SILT: mottled green and gray, dry, low plasticity, fine-grained sand (0,90,10,0)
5		85			CL	Sandy CLAY: dark green, dry, low plasticity, fine-to medium-grained sand (55,0,45,0)
					SW	SAND with Gravel: dark brown, dry, fine-to coarse-grained, well graded, gravel up to 1" diameter (0,0,75,25)
		+3700			CL	Sandy CLAY: mottled dark green and gray, damp, low plasticity, fine-to medium-grained sand (65,0,35,0)
10		294			CL	Sandy CLAY: dark green-gray, moist, low plasticity, fine-to medium-grained sand (60,0,40,0)
15					ML	SILT with Sand: dark orange-brown, moist, low plasticity, fine- to medium-grained sand (0,75,25,0)
20						TD = 16 feet bgs Groundwater Encountered at 12' bgs.



BORING LOG SVE5

(Page 1 of 1)

Project No.	: Former Exxon Service Station 79374
Site:	: 990 San Pablo Ave, Albany, California
Logged By:	: Nadya M. Vicente
Reviewed By:	: David R. Daniels, P.G. 8737
Signature	:

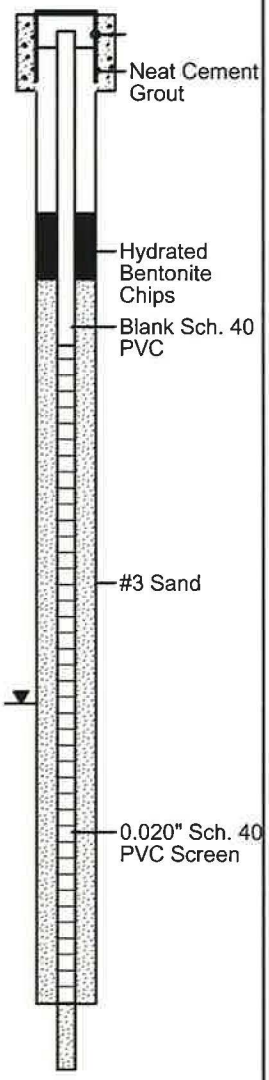
Date Drilled	: 10/09/2015
Drilling Co.	: Gregg Drilling
Drilling Method	: Hollow-Stem Auger
Sampling Method	: Direct Push
Borehole Diameter	: 12"
Casing Diameter	: 4"
Location (N-S)	: 37.8879566
Location (E-W)	: -122.2987228
Total Depth	: 16' bgs
GW encountered	: 12' bgs

Sample Condition
- No Recovery
- Sampled Interval
- Described Sample
- Preserved Sample

Water Levels
- 10.19' bgs on 10/15/15
- Not Encountered

Boring: SVE5
TOC Elevation: 43.07'

Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	ASTM	DESCRIPTION (%clay,%silt,%sand,%gravel)
0						6" Asphalt. Borehole cleared to 5' bgs using hand tools.
					GW	BASEROCK GRAVEL (FILL)
					ML	SILT: mottled green and gray, damp, low plasticity, fine-grained sand (0,90,10,0)
5		15			CL	Sandy CLAY: green-gray, dry, low plasticity, fine-to medium-grained sand (55,0,45,0)
						Minor gravel @ 7.5' bgs
		35			ML	SILT with Sand: mottled yellow-brown and gray, damp, medium plasticity, stiff, fine-grained sand (0,85,15,0)
10		187				CLAY with Sand: mottled green and brown, damp, low plasticity, fine-grained sand (50,35,15,0)
		+760			CL	
						Clayey SAND: mottled green and brown, dry, fine-to medium-grained, poorly graded, angular gravel up to 1" diameter (25,15,50,10)
15		100			SC	
20						TD = 16 feet bgs Free Groundwater Not Encountered



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BORING LOG SVE6

(Page 1 of 1)

Project No.	: Former Exxon Service Station 79374
Site:	: 990 San Pablo Ave, Albany, California
Logged By:	: Nadya M. Vicente
Reviewed By:	: David R. Daniels, P.G.8737
Signature	:

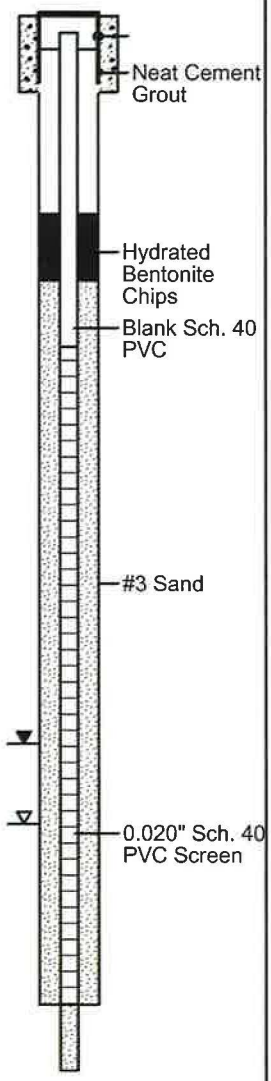
Date Drilled	: 10/12/2015
Drilling Co.	: Gregg Drilling
Drilling Method	: Hollow-Stem Auger
Sampling Method	: Direct Push
Borehole Diameter	: 12"
Casing Diameter	: 4"
Location (N-S)	: 37.8880287
Location (E-W)	: -122.2985959
Total Depth	: 16' bgs
GW encountered	: 12' bgs

Sample Condition: No Recovery; Sampled Interval; Described Sample; Preserved Sample

Water Levels: 10.78' bgs on 10/15/15; 12' bgs

Boring: SVE6
TOC Elevation: 44.37'

Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	ASTM	DESCRIPTION (%clay,%silt,%sand,%gravel)
0					GW	4" Asphalt. Borehole cleared to 5' bgs using hand tools. BASEROCK GRAVEL (FILL)
					ML	SILT: white gray, dry, flakey, non-plastic, fine-grained sand (0,90,10,0)
		12.4			ML	SILT: mottled dark brown and green, dry, medium plasticity, stiff (0,95,5,0)
5					ML	SILT with Sand: mottled yellow-brown and light green, damp, medium plasticity, stiff, fine-grained sand (0,75,25,0)
		30			SW	SAND with Gravel: dark green, dry, fine-to coarse-grained, well graded, angular gravel up to 1" diameter (0,0,75,25)
10		396			CL	Sandy CLAY: mottled light gray and minor yellow-brown, moist, low plasticity, fine-to medium-grained sand (60,0,40,0)
15					CL	Sandy CLAY: light yellow-brown, soft, moist, low plasticity, fine-to medium-grained sand (60,10,30,0)
20						TD = 16 feet bgs Groundwater Encountered at 12' feet bgs.



BORING LOG SVE7

(Page 1 of 1)

Project No.	: Former Exxon Service Station 79374
Site:	: 990 San Pablo Ave, Albany, California
Logged By:	: Nadya M. Vicente
Reviewed By:	: David R. Daniels, P.G.8737
Signature	:

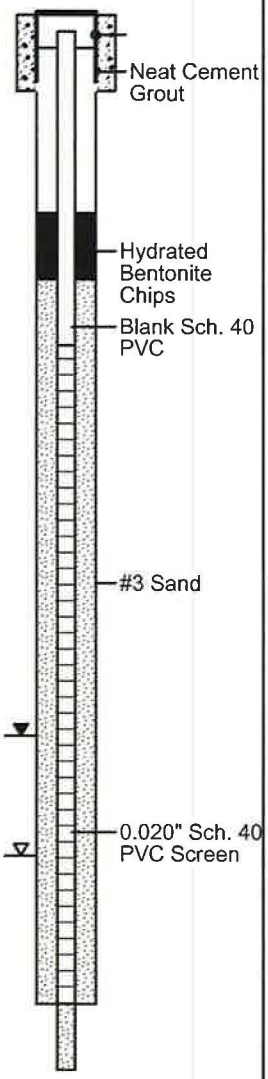
Date Drilled	: 10/12/2015
Drilling Co.	: Gregg Drilling
Drilling Method	: Hollow-Stem Auger
Sampling Method	: Direct Push
Borehole Diameter	: 12"
Casing Diameter	: 4"
Location (N-S)	: 37.8880414
Location (E-W)	: -122.2985373
Total Depth	: 16' bgs
GW encountered	: 12.5' bgs

Sample Condition
- No Recovery
- Sampled Interval
- Described Sample
- Preserved Sample

Water Levels
- 10.68' bgs on 10/15/15
- 12' bgs

Boring: SVE7
TOC Elevation: 44.48'

Depth (ft)	Blow Count	OVM/PID (ppmv)	Sample	Column	ASTM	DESCRIPTION (%clay,%silt,%sand,%gravel)
0					GW	4" Asphalt. Borehole cleared to 5' bgs using hand tools.
						BASEROCK GRAVEL (FILL)
						3" Asphalt
					ML	SILT: mottled yellow-brown and gray, dry, stiff, low to medium plasticity, fine-grained sand (0,85,15,0)
5		50				
		92			CL	CLAY with Sand: mottled yellow-brown and dark green, damp, low plasticity, fine-to medium-grained sand (65,10,25,0)
10		104			SW	SAND with Gravel: dark green, damp, fine-to coarse-grained, well graded, angular gravel up to 1.5" diameter (0,0,75,25)
		+3000			ML	SILT with Sand: mottled gray and yellow-brown, damp, soft, medium plasticity, fine-grained sand (0,85,15,0)
					CL	Sandy CLAY: mottled light gray and minor yellow-brown, stiff, moist, low plasticity, fine-to medium-grained sand (60,0,40,0)
15		5.2			CL	Sandy CLAY: light yellow-brown, soft, moist, low plasticity, fine-to medium-grained sand (60,10,30,0)
20						TD = 16 feet bgs Groundwater Encountered at 12.5' feet bgs.



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APPENDIX

F

FIELD DATA SHEETS

Cardno
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Cardno
Shaping the Future

Daily Field Report

Project ID #: 79374, Albany CA ERI Job # 2735
Subject: Well Development Date: 10-15-15
Equipment Used: Hand Tools & Instruments Sheet: 1 of 1
Name(s): Carl Mitchell
Time Arrived On Site: 715 Time Departed Site: 1515 Total Travel:

I arrived and held a safety mtg, reviewed the JSA and posted a general work permit.

I developed MW 9 as per SOP. The recharge rate was very slow - 33% recovered in 0.5 hours. It went dry @ 5 case volumes.

I went to SVE 7 and developed it as per the SOP
It went dry after 2 case volumes.
The recharge rate was very slow. 26% recovered in 1 hour 10 mins

I went to SVE 6 and developed it as per the SOP
It went dry after 2 case volumes
The recharge rate = 43% in one hour

I went to SVE 5 and developed it as per the SOP
It went dry after 2 case volumes
Recharge rate = 33% in one hour

I went to SVE 4 and developed it as per the SOP
It went dry after 2.5 case volumes
Recharge rate = 29% in one hour

I decon'd and organized all equipment for transport

≈ 50 gals (including decon water) generated today

I departed @ 1515

Cardno Job# 2735	Quarter 4	Year 2015	Surging	
Client/Site: Former Exxon 79374			Start 7 55	Stop 8 05
Location: 990 San Pablo Ave Albany CA			Start	Stop
Sample Tech.: Carl Mikuca			Start	Stop
DATE: 10-15-15			Start	Stop
Weather: Cool & Clear			Start	Stop

6.48

WELL ID MW9

TIME	PURGE VOLUME	Temp	COND	pH	Turbidity
hr:min	Gal	deg C F		unit	NTU
		1 deg	10%	0.1	Less Than 5
8 20	2.6	21.0	446	5.63	570
8 25	4.2	21.3	457	5.68	385
8 28	6.5	21.8	475	5.75	253

(DRY) (SCU)

Total Purge Volume	Gallons	6.5

CASING VOL. FACTOR		WELL INFORMATION	
diameter		TD:	14.50
2"-dia:		DTW_i :	6.48
4"-dia:		h:	8.02
6"-dia:		csg vol:	1.3

COMMENTS

9:02 DTW 11.81 TOO MUCH TIME RECORDED FOR RECHARGE.

Cardno Job# 2735	Quarter 4	Year 2015	Surging	
Client/Site: Former Exxon 79374			Start 950	Stop 1003
Location: 990 San Pablo Ave, Albany, CA			Start	Stop
Sample Tech.: Carl Mikkelsen			Start	Stop
DATE: 10-15-15			Start	Stop
Weather: Clear & sunny			Start	Stop
WELL ID SVE 7				

TIME	PURGE VOLUME	Temp	COND	pH	Turbidity	
hr:min	Gal	deg C F		unit	NTU	
		1 deg	10%	0.1	Less Than 5	
1005	2.7	23.9	810	6.35	1524	
1010	5.4	23.3	643	6.25	1142	DRY (2 CV)

Total Purge Volume	Gallons	5.4	
	CASING VOL. FACTOR	WELL INFORMATION	
	diameter	TD:	14.79
	2"-dia:	DTW_i:	10.68
	4"-dia:	h:	4.11
	6"-dia:	csg vol:	2.7 gal

COMMENTS

1044 - DTW @ 13.96 } - TOO MUCH TIME RECORD FOR RECHARGE
1129 - DTW @ 13.72 }

11.5 = 90%

Cardno Job# 2735	Quarter 4	Year 2015	Surging	
Client/Site: Former Exxon 79374			Start 1050	Stop 1105
Location: 990 San Pablo Ave, Albany CA			Start	Stop
Sample Tech.: Carl Mehnich			Start	Stop
DATE: 10-15-15			Start	Stop
Weather: Sunny mild			Start	Stop
WELL ID ~~MW~~ 6 SVE 6				

TIME	PURGE VOLUME	Temp	COND	pH	Turbidity	
hr:min	Gal	deg C F		unit	NTU	
		1 deg	10%	0.1	Less Than 5	
11 11	2.7	25.1	636	5.93	346	
11 19	2.7	24.3	628	5.79	66.3	DUP (2CV)
Total Purge Volume	Gallons	5.4				

	CASING VOL. FACTOR	WELL INFORMATION	
	diameter	TD:	14.95
	2"-dia:	DTW_i:	10.78
	4"-dia:	h:	4.17
	6"-dia:	csg vol:	2.7

COMMENTS

11 55 - 13.33 DTW
12 19 13.13 DTW
} TOO MUCH TIME NEEDED FOR RECHARGE.

11.62 = 80%

Cardno Job# 2735	Quarter 4	Year 2015	Surging	
Client/Site:	Former Exxon 79374		Start 1205	Stop 1252
Location:	990 San Pablo Ave, Albany CA		Start	Stop
Sample Tech.:	Chris Mellich		Start	Stop
DATE:	10-15-15		Start	Stop
Weather:	Sunny Mild		Start	Stop

WELL ID #SVE5

TIME	PURGE VOLUME	Temp	COND	pH	Turbidity
hr:min	Gal	deg C F		unit	NTU
		1 deg	10%	0.1	Less Than 5
1244	1.0	23.3	597	6.9	276
1249	2.9	23.5	652	7.03	43.1
1252	5.0	23.3	585	7.00	3.2

DRY (2 CV)

Total Purge Volume	Gallons	5.8	
	CASING VOL. FACTOR	WELL INFORMATION	
	diameter	TD:	14.63
	2"-dia:	DTW_i:	10.19
	4"-dia:	h:	4.44
	6"-dia:	csg vol:	2.9

COMMENTS

13:25 – 13.33 DTW
13:45 – 13.15 DTW
} TOO MUCH TIME NEEDED FOR RECHARGE

11.1 = 80%

Cardno Job# 2295	Quarter 4	Year 2015	Surging	
Client/Site: Former Exxon 7932			Start 1305	Stop 1320
Location: 990 San Pablo Ave., Albany, CA			Start	Stop
Sample Tech.: Carl Mercer			Start	Stop
DATE: 10-15-15			Start	Stop
Weather: ~~SVE 4~~ Sunny & Mild			Start	Stop

WELL ID SVE 4

TIME	PURGE VOLUME	Temp	COND	pH	Turbidity	
hr:min	Gal	deg C F		unit	NTU	
		1 deg	10%	0.1	Less Than 5	
1326	2.9	~~23.2~~	625	6.73	42.4	
1330	5.8	23.1	611	6.70	296	
1334	6.5	23.4	621	6.72	105	DAY (2.5 CV)

Total Purge Volume	Gallons	6.5	
	CASING VOL. FACTOR	WELL INFORMATION	
	diameter	TD:	14.48
	2"-dia:	DTW_i:	9.95
	4"-dia:	h:	4.53
	6"-dia:	csg vol:	2.9

COMMENTS

14:07 13.41 DTW
14:35 13.17 DTW } TOO MUCH TIME NEEDED FOR RECHARGE

10.9 = 80%

APPENDIX

G

LABORATORY ANALYTICAL REPORTS

Cardno
Shaping the Future

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WORK ORDER NUMBER: 15-10-1423

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno

Client Project Name: ExxonMobil 79374/022735C

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

Approved for release on 11/03/2015 by:
Cecile deGuia
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: ExxonMobil 79374/022735C
Work Order Number: 15-10-1423

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Work Order Narrative

Work Order: 15-10-1423 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/20/15. They were assigned to Work Order 15-10-1423.

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.

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Sample Summary

Client:	Cardno	Work Order:	15-10-1423
	601 North McDowell Blvd.	Project Name:	ExxonMobil 79374/022735C
	Petaluma, CA 94954-2312	PO Number:	022735C
		Date/Time Received:	10/20/15 11:00
		Number of Containers:	52
Attn:	Scott Perkins		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
QCBB	15-10-1423-1	10/16/15 12:50	2	Aqueous
MW9	15-10-1423-2	10/16/15 13:15	10	Aqueous
SVE4	15-10-1423-3	10/16/15 14:55	10	Aqueous
SVE5	15-10-1423-4	10/16/15 14:35	10	Aqueous
SVE6	15-10-1423-5	10/16/15 14:10	10	Aqueous
SVE7	15-10-1423-6	10/16/15 13:40	10	Aqueous

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-10-1423-2-J**	**10/16/15 13:15**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 18:38**	**151022B11**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	250	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	115	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE4	**15-10-1423-3-J**	**10/16/15 14:55**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 18:55**	**151022B11**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	250	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	125	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE5	**15-10-1423-4-J**	**10/16/15 14:35**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 19:13**	**151022B11**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	250	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	111	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE6	**15-10-1423-5-J**	**10/16/15 14:10**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 19:31**	**151022B11**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	240	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	117	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE7	**15-10-1423-6-J**	**10/16/15 13:40**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 19:48**	**151022B11**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	240	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	105	68-140	

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

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Analytical Report

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 3510C
		Method:	EPA 8015B (M)
		Units:	ug/L
Project: ExxonMobil 79374/022735C			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-278-1028**	**N/A**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 17:09**	**151022B11**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	250	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	105	68-140	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-10-1423-2-J**	**10/16/15 13:15**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 18:38**	**151022B10**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	270	49	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	115	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE4	**15-10-1423-3-J**	**10/16/15 14:55**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 18:55**	**151022B10**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	840	50	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	125	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE5	**15-10-1423-4-J**	**10/16/15 14:35**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 19:13**	**151022B10**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	2000	50	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	111	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE6	**15-10-1423-5-J**	**10/16/15 14:10**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 19:31**	**151022B10**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	390	47	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	117	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE7	**15-10-1423-6-J**	**10/16/15 13:40**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 19:48**	**151022B10**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	240	47	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	105	68-140	

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

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Analytical Report

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 3510C
		Method:	EPA 8015B (M)
		Units:	ug/L
Project: ExxonMobil 79374/022735C			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-304-1203**	**N/A**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 17:09**	**151022B10**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	105	68-140	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-10-1423-2-F**	**10/16/15 13:15**	**Aqueous**	**GC 1**	**10/29/15**	**10/30/15 01:30**	**151029L043**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	360	50	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	60	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE4	**15-10-1423-3-F**	**10/16/15 14:55**	**Aqueous**	**GC 1**	**10/29/15**	**10/30/15 03:16**	**151029L043**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	830	50	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	65	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE5	**15-10-1423-4-F**	**10/16/15 14:35**	**Aqueous**	**GC 1**	**10/29/15**	**10/30/15 06:14**	**151029L043**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	1700	100	2.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	65	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE6	**15-10-1423-5-F**	**10/16/15 14:10**	**Aqueous**	**GC 1**	**10/29/15**	**10/30/15 05:03**	**151029L043**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	490	50	1.00	

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE7	**15-10-1423-6-F**	**10/16/15 13:40**	**Aqueous**	**GC 1**	**10/29/15**	**10/30/15 05:38**	**151029L043**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	440	50	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	66	38-134	

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

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Analytical Report

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
		Units:	ug/L
Project: ExxonMobil 79374/022735C			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-436-10397**	**N/A**	**Aqueous**	**GC 1**	**10/29/15**	**10/29/15 20:10**	**151029L043**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	56	38-134	

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

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Analytical Report

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

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW9	**15-10-1423-2-A**	**10/16/15 13:15**	**Aqueous**	**GC/MS L**	**10/28/15**	**10/29/15 05:52**	**151028L067**

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

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

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Analytical Report

Cardno	Date Received:	10/20/15
601 North McDowell Blvd.	Work Order:	15-10-1423
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 2 of 21

Parameter	Result	RL	DF	Qualifiers
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	4.1	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	1.6	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	1.4	0.50	1.00	
n-Propylbenzene	1.9	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	0.93	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

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

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

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Analytical Report

Cardno	Date Received:	10/20/15
601 North McDowell Blvd.	Work Order:	15-10-1423
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 3 of 21

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	100	80-128	
Toluene-d8	102	80-120	

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

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Analytical Report

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

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE4	**15-10-1423-3-B**	**10/16/15 14:55**	**Aqueous**	**GC/MS L**	**10/29/15**	**10/29/15 19:44**	**151029L046**

Parameter	Result	RL	DF	Qualifiers
Toluene	1.2	0.50	1.00	
Ethylbenzene	5.0	0.50	1.00	
o-Xylene	6.8	0.50	1.00	
p/m-Xylene	20	0.50	1.00	
Xylenes (total)	26	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	5.4	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	7.2	0.50	1.00	
1,3,5-Trimethylbenzene	11	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	0.68	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	

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

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Analytical Report

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

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 79374/022735C

Parameter	Result	RL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	4.3	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	15	1.0	1.00	
n-Butylbenzene	2.5	0.50	1.00	
n-Propylbenzene	2.8	0.50	1.00	
p-Isopropyltoluene	0.59	0.50	1.00	
sec-Butylbenzene	1.5	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	0.75	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-120	
Dibromofluoromethane	97	80-127	

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

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Analytical Report

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ExxonMobil 79374/022735C			Page 6 of 21

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	97	80-128	
Toluene-d8	100	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE4	**15-10-1423-3-C**	**10/16/15 14:55**	**Aqueous**	**GC/MS L**	**10/30/15**	**10/30/15 11:21**	**151030L013**

Parameter	Result	RL	DF	Qualifiers
Benzene	37	1.0	2.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	96	80-128	
Toluene-d8	101	80-120	

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

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Analytical Report

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

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE5	**15-10-1423-4-A**	**10/16/15 14:35**	**Aqueous**	**GC/MS L**	**10/28/15**	**10/29/15 06:49**	**151028L067**

Parameter	Result	RL	DF	Qualifiers
Benzene	29	20	40.0	
Toluene	25	20	40.0	
Ethylbenzene	130	20	40.0	
o-Xylene	650	20	40.0	
p/m-Xylene	1600	20	40.0	
Xylenes (total)	2300	20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	20	40.0	
Tert-Butyl Alcohol (TBA)	ND	200	40.0	
Diisopropyl Ether (DIPE)	ND	20	40.0	
Ethyl-t-Butyl Ether (ETBE)	ND	20	40.0	
Tert-Amyl-Methyl Ether (TAME)	ND	20	40.0	
1,1,1,2-Tetrachloroethane	ND	20	40.0	
1,1,1-Trichloroethane	ND	20	40.0	
1,1,2,2-Tetrachloroethane	ND	20	40.0	
1,1,2-Trichloroethane	ND	20	40.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	20	40.0	
1,1-Dichloroethane	ND	20	40.0	
1,1-Dichloroethene	ND	20	40.0	
1,1-Dichloropropene	ND	20	40.0	
1,2,3-Trichlorobenzene	ND	20	40.0	
1,2,3-Trichloropropane	ND	40	40.0	
1,2,4-Trichlorobenzene	ND	20	40.0	
1,2,4-Trimethylbenzene	520	20	40.0	
1,3,5-Trimethylbenzene	210	20	40.0	
c-1,2-Dichloroethene	ND	20	40.0	
1,2-Dibromo-3-Chloropropane	ND	200	40.0	
1,2-Dibromoethane	ND	20	40.0	
1,2-Dichlorobenzene	ND	20	40.0	
1,2-Dichloroethane	ND	20	40.0	
1,2-Dichloropropane	ND	20	40.0	
t-1,2-Dichloroethene	ND	20	40.0	
c-1,3-Dichloropropene	ND	20	40.0	
1,3-Dichlorobenzene	ND	20	40.0	
1,3-Dichloropropane	ND	40	40.0	
t-1,3-Dichloropropene	ND	20	40.0	

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

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Analytical Report

Cardno	Date Received:	10/20/15
601 North McDowell Blvd.	Work Order:	15-10-1423
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 8 of 21

Parameter	Result	RL	DF	Qualifiers
1,4-Dichlorobenzene	ND	20	40.0	
2,2-Dichloropropane	ND	40	40.0	
2-Chlorotoluene	ND	20	40.0	
4-Chlorotoluene	ND	20	40.0	
4-Methyl-2-Pentanone	ND	200	40.0	
Acetone	ND	400	40.0	
Bromobenzene	ND	20	40.0	
Bromochloromethane	ND	40	40.0	
Bromoform	ND	20	40.0	
Bromomethane	ND	40	40.0	
Carbon Disulfide	ND	40	40.0	
Carbon Tetrachloride	ND	20	40.0	
Chlorobenzene	ND	20	40.0	
Dibromochloromethane	ND	20	40.0	
Chloroethane	ND	20	40.0	
Chloroform	ND	20	40.0	
Chloromethane	ND	20	40.0	
Dibromomethane	ND	20	40.0	
Bromodichloromethane	ND	20	40.0	
Dichlorodifluoromethane	ND	40	40.0	
Hexachloro-1,3-Butadiene	ND	80	40.0	
Isopropylbenzene	28	20	40.0	
2-Butanone	ND	200	40.0	
Methylene Chloride	ND	40	40.0	
2-Hexanone	ND	400	40.0	
Naphthalene	140	40	40.0	
n-Butylbenzene	24	20	40.0	
n-Propylbenzene	ND	20	40.0	
p-Isopropyltoluene	ND	20	40.0	
sec-Butylbenzene	ND	20	40.0	
Styrene	ND	20	40.0	
tert-Butylbenzene	ND	20	40.0	
Tetrachloroethene	ND	20	40.0	
Trichloroethene	ND	20	40.0	
Trichlorofluoromethane	ND	20	40.0	
Vinyl Chloride	ND	20	40.0	

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

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

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Analytical Report

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ExxonMobil 79374/022735C			Page 9 of 21

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

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

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Analytical Report

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

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE6	**15-10-1423-5-B**	**10/16/15 14:10**	**Aqueous**	**GC/MS L**	**10/29/15**	**10/29/15 20:13**	**151029L046**

Parameter	Result	RL	DF	Qualifiers
Benzene	31	0.50	1.00	
Toluene	1.8	0.50	1.00	
Ethylbenzene	4.2	0.50	1.00	
o-Xylene	6.4	0.50	1.00	
p/m-Xylene	8.2	0.50	1.00	
Xylenes (total)	15	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	5.7	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	1.8	0.50	1.00	
1,3,5-Trimethylbenzene	14	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

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Analytical Report

Cardno	Date Received:	10/20/15
601 North McDowell Blvd.	Work Order:	15-10-1423
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 11 of 21

Parameter	Result	RL	DF	Qualifiers
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	1.3	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	1.9	1.0	1.00	
n-Butylbenzene	3.1	0.50	1.00	
n-Propylbenzene	0.80	0.50	1.00	
p-Isopropyltoluene	0.99	0.50	1.00	
sec-Butylbenzene	1.0	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	68-120	

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

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Analytical Report

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ExxonMobil 79374/022735C			Page 12 of 21

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	94	80-128	
Toluene-d8	99	80-120	

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

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Analytical Report

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

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE7	**15-10-1423-6-A**	**10/16/15 13:40**	**Aqueous**	**GC/MS L**	**10/28/15**	**10/29/15 07:47**	**151028L067**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Ethylbenzene	0.70	0.50	1.00	
o-Xylene	1.0	0.50	1.00	
p/m-Xylene	1.3	0.50	1.00	
Xylenes (total)	2.3	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	1.00	
Tert-Butyl Alcohol (TBA)	ND	5.0	1.00	
Diisopropyl Ether (DIPE)	ND	0.50	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,1-Dichloropropene	ND	0.50	1.00	
1,2,3-Trichlorobenzene	ND	0.50	1.00	
1,2,3-Trichloropropane	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
1,2,4-Trimethylbenzene	ND	0.50	1.00	
1,3,5-Trimethylbenzene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	0.50	1.00	
t-1,2-Dichloroethene	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	

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

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Analytical Report

Cardno	Date Received:	10/20/15
601 North McDowell Blvd.	Work Order:	15-10-1423
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 14 of 21

Parameter	Result	RL	DF	Qualifiers
1,4-Dichlorobenzene	ND	0.50	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Chlorotoluene	ND	0.50	1.00	
4-Chlorotoluene	ND	0.50	1.00	
4-Methyl-2-Pentanone	ND	5.0	1.00	
Acetone	ND	10	1.00	
Bromobenzene	ND	0.50	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromoform	ND	0.50	1.00	
Bromomethane	ND	1.0	1.00	
Carbon Disulfide	ND	1.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	0.50	1.00	
Dibromochloromethane	ND	0.50	1.00	
Chloroethane	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Chloromethane	ND	0.50	1.00	
Dibromomethane	ND	0.50	1.00	
Bromodichloromethane	ND	0.50	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	1.00	
Isopropylbenzene	2.2	0.50	1.00	
2-Butanone	ND	5.0	1.00	
Methylene Chloride	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Naphthalene	ND	1.0	1.00	
n-Butylbenzene	0.97	0.50	1.00	
n-Propylbenzene	2.4	0.50	1.00	
p-Isopropyltoluene	ND	0.50	1.00	
sec-Butylbenzene	1.7	0.50	1.00	
Styrene	ND	0.50	1.00	
tert-Butylbenzene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	68-120	

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

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Analytical Report

Cardno	Date Received:	10/20/15
601 North McDowell Blvd.	Work Order:	15-10-1423
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 15 of 21

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	93	80-128	
Toluene-d8	98	80-120	

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

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Analytical Report

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

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-880-1399**	**N/A**	**Aqueous**	**GC/MS L**	**10/28/15**	**10/28/15 22:33**	**151028L067**

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

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

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Analytical Report

Cardno	Date Received:	10/20/15
601 North McDowell Blvd.	Work Order:	15-10-1423
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 17 of 21

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

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	68-120	

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

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Analytical Report

Cardno	Date Received:	10/20/15
601 North McDowell Blvd.	Work Order:	15-10-1423
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 18 of 21

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	96	80-120	

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

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Analytical Report

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

Date Received: 10/20/15
Work Order: 15-10-1423
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-880-1400**	**N/A**	**Aqueous**	**GC/MS L**	**10/29/15**	**10/29/15 12:17**	**151029L046**

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

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

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Analytical Report

Cardno	Date Received:	10/20/15
601 North McDowell Blvd.	Work Order:	15-10-1423
Petaluma, CA 94954-2312	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: ExxonMobil 79374/022735C		Page 20 of 21

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

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	68-120	

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

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Analytical Report

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ExxonMobil 79374/022735C			Page 21 of 21

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	91	80-128	
Toluene-d8	97	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-880-1401**	**N/A**	**Aqueous**	**GC/MS L**	**10/30/15**	**10/30/15 10:20**	**151030L013**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	68-120	
Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	100	80-128	
Toluene-d8	97	80-120	

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

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-1440-1	**Sample**	**Aqueous**	**GC 1**	**10/29/15**	**10/29/15 20:46**	**151029S025**
15-10-1440-1	**Matrix Spike**	**Aqueous**	**GC 1**	**10/29/15**	**10/29/15 21:21**	**151029S025**
15-10-1440-1	**Matrix Spike Duplicate**	**Aqueous**	**GC 1**	**10/29/15**	**10/29/15 21:57**	**151029S025**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1908	95	1913	96	68-122	0	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-1705-14	**Sample**	**Aqueous**	**GC/MS L**	**10/28/15**	**10/28/15 23:11**	**151028S024**
15-10-1705-14	**Matrix Spike**	**Aqueous**	**GC/MS L**	**10/28/15**	**10/28/15 23:40**	**151028S024**
15-10-1705-14	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS L**	**10/28/15**	**10/29/15 00:08**	**151028S024**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	11.06	111	10.91	109	75-125	1	0-20	
Toluene	ND	10.00	11.11	111	10.96	110	75-125	1	0-20	
Ethylbenzene	ND	10.00	11.15	112	11.02	110	75-125	1	0-20	
o-Xylene	ND	10.00	10.93	109	10.76	108	75-127	1	0-20	
p/m-Xylene	ND	20.00	22.45	112	22.03	110	75-125	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	8.970	90	9.905	99	71-131	10	0-20	
Tert-Butyl Alcohol (TBA)	23.41	50.00	74.84	103	74.36	102	20-180	1	0-40	
Diisopropyl Ether (DIPE)	2.226	10.00	12.25	100	12.16	99	64-136	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.606	96	9.619	96	73-133	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	10.03	100	9.844	98	75-125	2	0-20	
1,1-Dichloroethene	ND	10.00	11.89	119	11.59	116	66-126	2	0-20	
1,2-Dibromoethane	ND	10.00	10.02	100	9.912	99	75-126	1	0-20	
1,2-Dichlorobenzene	ND	10.00	10.26	103	10.44	104	75-125	2	0-20	
1,2-Dichloroethane	169.2	10.00	183.4	142	176.8	75	75-127	4	0-20	HX
Carbon Tetrachloride	ND	10.00	11.62	116	11.13	111	69-135	4	0-20	
Chlorobenzene	ND	10.00	10.48	105	10.42	104	75-125	1	0-20	
Trichloroethene	ND	10.00	10.90	109	10.80	108	75-125	1	0-20	
Vinyl Chloride	38.26	10.00	47.23	90	47.51	93	52-142	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-1810-10	**Sample**	**Aqueous**	**GC/MS L**	**10/29/15**	**10/29/15 13:30**	**151029S004**
15-10-1810-10	**Matrix Spike**	**Aqueous**	**GC/MS L**	**10/29/15**	**10/29/15 13:59**	**151029S004**
15-10-1810-10	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS L**	**10/29/15**	**10/29/15 14:28**	**151029S004**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	8.026	50.00	56.13	96	58.09	100	75-125	3	0-20	
Toluene	8.965	50.00	58.55	99	60.86	104	75-125	4	0-20	
Ethylbenzene	ND	50.00	50.63	101	53.07	106	75-125	5	0-20	
o-Xylene	ND	50.00	49.81	100	52.55	105	75-127	5	0-20	
p/m-Xylene	ND	100.0	101.8	102	107.3	107	75-125	5	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	44.28	89	49.98	100	71-131	12	0-20	
Tert-Butyl Alcohol (TBA)	74.34	250.0	320.0	98	318.2	98	20-180	1	0-40	
Diisopropyl Ether (DIPE)	ND	50.00	45.34	91	47.67	95	64-136	5	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	47.00	94	50.02	100	73-133	6	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	48.92	98	52.62	105	75-125	7	0-20	
1,1-Dichloroethene	20.68	50.00	67.28	93	67.73	94	66-126	1	0-20	
1,2-Dibromoethane	ND	50.00	47.54	95	50.64	101	75-126	6	0-20	
1,2-Dichlorobenzene	ND	50.00	50.22	100	53.17	106	75-125	6	0-20	
1,2-Dichloroethane	910.0	50.00	900.6	0	903.4	0	75-127	0	0-20	HX
Carbon Tetrachloride	ND	50.00	49.40	99	51.32	103	69-135	4	0-20	
Chlorobenzene	3.714	50.00	51.45	95	53.43	99	75-125	4	0-20	
Trichloroethene	19.89	50.00	67.56	95	69.51	99	75-125	3	0-20	
Vinyl Chloride	540.8	50.00	551.3	21	533.6	0	52-142	3	0-20	HX

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-1810-2	**Sample**	**Aqueous**	**GC/MS L**	**10/30/15**	**10/30/15 10:52**	**151030S005**
15-10-1810-2	**Matrix Spike**	**Aqueous**	**GC/MS L**	**10/30/15**	**10/30/15 11:49**	**151030S005**
15-10-1810-2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS L**	**10/30/15**	**10/30/15 12:18**	**151030S005**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	4.108	10.00	14.15	100	14.33	102	75-125	1	0-20	
Toluene	ND	10.00	10.09	101	10.51	105	75-125	4	0-20	
Ethylbenzene	ND	10.00	10.16	102	10.61	106	75-125	4	0-20	
o-Xylene	ND	10.00	9.998	100	10.28	103	75-127	3	0-20	
p/m-Xylene	ND	20.00	20.18	101	20.92	105	75-125	4	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	10.23	102	10.50	105	71-131	3	0-20	
Tert-Butyl Alcohol (TBA)	27.54	50.00	82.59	110	80.79	106	20-180	2	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	9.400	94	9.462	95	64-136	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.414	94	9.769	98	73-133	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.884	99	10.30	103	75-125	4	0-20	
1,1-Dichloroethene	2.961	10.00	12.37	94	12.52	96	66-126	1	0-20	
1,2-Dibromoethane	ND	10.00	9.529	95	10.07	101	75-126	5	0-20	
1,2-Dichlorobenzene	ND	10.00	9.845	98	10.31	103	75-125	5	0-20	
1,2-Dichloroethane	55.32	10.00	59.69	44	66.04	107	75-127	10	0-20	HX
Carbon Tetrachloride	ND	10.00	9.621	96	10.52	105	69-135	9	0-20	
Chlorobenzene	ND	10.00	9.872	99	10.31	103	75-125	4	0-20	
Trichloroethene	15.12	10.00	23.73	86	24.58	95	75-125	4	0-20	
Vinyl Chloride	216.1	10.00	167.0	0	204.1	0	52-142	20	0-20	HX

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 3510C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-278-1028	**LCS**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 18:02**	**151022B11**
099-15-278-1028	**LCSD**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 18:20**	**151022B11**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	2000	2341	117	2325	116	75-117	1	0-13	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 3510C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-304-1203	**LCS**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 17:27**	**151022B10**
099-15-304-1203	**LCSD**	**Aqueous**	**GC 46**	**10/22/15**	**10/26/15 17:44**	**151022B10**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	2120	106	2085	104	75-117	2	0-13	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-436-10397	**LCS**	**Aqueous**	**GC 1**	**10/29/15**	**10/29/15 19:35**	**151029L043**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	1917	96	78-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-880-1399	**LCS**	**Aqueous**	**GC/MS L**	**10/28/15**	**10/28/15 21:55**	**151028L067**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	10.64	106	80-120	73-127	
Toluene	10.00	10.65	106	80-120	73-127	
Ethylbenzene	10.00	10.94	109	80-120	73-127	
o-Xylene	10.00	10.80	108	80-120	73-127	
p/m-Xylene	20.00	21.84	109	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	8.363	84	75-123	67-131	
Tert-Butyl Alcohol (TBA)	50.00	50.59	101	80-120	73-127	
Diisopropyl Ether (DIPE)	10.00	9.559	96	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	9.206	92	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	9.249	92	80-120	73-127	
1,1-Dichloroethene	10.00	10.30	103	77-120	70-127	
1,2-Dibromoethane	10.00	9.435	94	80-120	73-127	
1,2-Dichlorobenzene	10.00	10.44	104	80-120	73-127	
1,2-Dichloroethane	10.00	10.12	101	80-122	73-129	
Carbon Tetrachloride	10.00	10.48	105	80-129	72-137	
Chlorobenzene	10.00	10.33	103	80-120	73-127	
Trichloroethene	10.00	10.19	102	80-120	73-127	
Vinyl Chloride	10.00	10.52	105	63-135	51-147	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-880-1400	**LCS**	**Aqueous**	**GC/MS L**	**10/29/15**	**10/29/15 09:44**	**151029L046**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	10.17	102	80-120	73-127	
Toluene	10.00	10.16	102	80-120	73-127	
Ethylbenzene	10.00	10.66	107	80-120	73-127	
o-Xylene	10.00	10.62	106	80-120	73-127	
p/m-Xylene	20.00	21.20	106	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	10.34	103	75-123	67-131	
Tert-Butyl Alcohol (TBA)	50.00	50.12	100	80-120	73-127	
Diisopropyl Ether (DIPE)	10.00	9.586	96	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	9.712	97	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	9.900	99	80-120	73-127	
1,1-Dichloroethene	10.00	9.225	92	77-120	70-127	
1,2-Dibromoethane	10.00	9.776	98	80-120	73-127	
1,2-Dichlorobenzene	10.00	10.34	103	80-120	73-127	
1,2-Dichloroethane	10.00	9.689	97	80-122	73-129	
Carbon Tetrachloride	10.00	9.901	99	80-129	72-137	
Chlorobenzene	10.00	10.09	101	80-120	73-127	
Trichloroethene	10.00	9.852	99	80-120	73-127	
Vinyl Chloride	10.00	8.970	90	63-135	51-147	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/20/15
601 North McDowell Blvd.		Work Order:	15-10-1423
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-880-1401	**LCS**	**Aqueous**	**GC/MS L**	**10/30/15**	**10/30/15 09:46**	**151030L013**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	10.00	10.26	103	80-120	73-127	
Toluene	10.00	10.20	102	80-120	73-127	
Ethylbenzene	10.00	11.01	110	80-120	73-127	
o-Xylene	10.00	10.71	107	80-120	73-127	
p/m-Xylene	20.00	22.19	111	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)	10.00	8.626	86	75-123	67-131	
Tert-Butyl Alcohol (TBA)	50.00	47.97	96	80-120	73-127	
Diisopropyl Ether (DIPE)	10.00	9.208	92	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)	10.00	8.501	85	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)	10.00	8.546	85	80-120	73-127	
1,1-Dichloroethene	10.00	11.37	114	77-120	70-127	
1,2-Dibromoethane	10.00	8.724	87	80-120	73-127	
1,2-Dichlorobenzene	10.00	10.00	100	80-120	73-127	
1,2-Dichloroethane	10.00	9.833	98	80-122	73-129	
Carbon Tetrachloride	10.00	10.84	108	80-129	72-137	
Chlorobenzene	10.00	10.22	102	80-120	73-127	
Trichloroethene	10.00	10.05	100	80-120	73-127	
Vinyl Chloride	10.00	9.896	99	63-135	51-147	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 15-10-1423 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8015B (M)	EPA 3510C	974	GC 46	1
EPA 8015B (M)	EPA 5030C	902	GC 1	2
EPA 8260B	EPA 5030C	316	GC/MS L	2

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Glossary of Terms and Qualifiers

Work Order: 15-10-1423 Page 1 of 1

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

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

ExxonMobil

15-10-1423

Consultant Name: Cardno ERI | **Account #:** NA | **PO#:** Direct Bill Cardno
Consultant Address: 601 N. McDowell Boulevard | **Invoice To:** Direct Bill Cardno ERI
Consultant City/State/Zip: Petaluma, California, 94954 | **Report To:** Scott Perkins
ExxonMobil Project Mgr: Jennifer Sedlachek | **Project Name:** 02 2735 C
Consultant Project Mgr: Scott Perkins | **ExxonMobil Site #:** 79374 | **ajor Project (AFE :**
Consultant Telephone Number: 707-766-2000 | **Fax No.:** 707-789-0414 | **Site Address:** 990 San Pablo Avenue
Sampler Name (Print): CARY MICELICH | **Site City, State, Zip:** Albany, California
Sampler Signature: | **Oversight Agency:** Alameda County Environmental Health Department

	Sample ID	Field Point Name	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	HCl	NaOH	H_2SO_4 Plastic	H_2SO_4 Glass	HNO_3	Ice	Other: Unpreserved	None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Air	Other (specify): Distilled Water	Analyze For: TPHg 8015M	TPHd 8015M	TPHmo 8015M	BTEX 8260B	7 Oxygenates 8260B	8260B Full Scan			RUSH TAT (Pre-Schedule)	5-day TAT	Standard 10-day TAT	Due Date of Report
1	QCBB	QCBB	10/16/15	1250	2						2v														X		H	O	L	D						
2	MW9	MW9	10/16/15	1315	10						8v							2A	X							X	X	X	X	X	X					X	
3	SVE4	SVE4	10/16/15	1455	10						8v							2A	X							X	X	X	X	X	X					X	
4	SVE5	SVE5	10/16/15	1435	10						8v							2A	X							X	X	X	X	X	X					X	
5	SVE6	SVE6	10/16/15	1410	10						8v							2A	X							X	X	X	X	X	X					X	
6	SVE7	SVE7	10/16/15	1340	10						8v							2A	X							X	X	X	X	X	X					X	

Comments/Special Instructions:
PLEASE E-MAIL ALL PDF FILES TO
norcallabs@eri-us.com;
GLOBAL ID # T0619716673

Use silica gel cleanup on all TPHd/TPHmo analyses
Oxygenates = MTBE, ETBE, DIPE, TAME, TBA, 1,2-DCA, EDB

Laboratory Comments:
Temperature Upon Receipt:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N

QC Deliverables (please circle one)
Level 2
Level 3
Level 4
Site Specific - if yes, please attach pre-schedule w/ lab
Project Manager or attach specific instructions

Relinquished by:		Date	Time	Received by:	Date	Time
	CARDNO	10/19/15	1055	Tao Malby ECI	10/19/15	1055
Relinquished by:		Date	Time	Received by (Lab personnel):	Date	Time
Tao Malby 78 680		10/19/15	1730		10/20/15	1100

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WORK ORDER NUMBER: 15-10- 1423

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno ERI

DATE: 10 / 20 / 2015

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

Thermometer ID: SC2 (CF:-0.4°C); Temperature (w/o CF): 3.4 °C (w/ CF): 3.0 °C; ☑ Blank ☐ Sample

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

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

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

Ambient Temperature: ☐ Air ☐ Filter Checked by: 15

CUSTODY SEAL:

Cooler ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: 15

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 905

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

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☑ 6 VOAh ☐ VOA**na**$_2$ ☐ 100PJ ☐ 100PJ**na**$_2$ ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

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

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

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

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

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

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na**$_2$ = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: 905

s = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH Reviewed by: 862

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Supplemental Report 1

The original report has been revised/corrected.

WORK ORDER NUMBER: 15-10-0905

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno

Client Project Name: ExxonMobil 79374/022735C

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

Approved for release on 10/28/2015 by:
Cecile deGuia
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: ExxonMobil 79374/022735C
Work Order Number: 15-10-0905

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Work Order Narrative

Work Order: 15-10-0905 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/13/15. They were assigned to Work Order 15-10-0905.

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.

The report has been amended to correct the units for VOCs + Oxygenates by EPA 8260B from uk/kg to mg/kg.

Please note that sample S-15.5-SVE4 was extracted and analyzed twice. Sample was first extracted on 10/16/15 and analyzed on 10/17/15. However, the sample surrogate recoveries were below the control limits, prompting confirmation analysis. The results for the confirmation also yielded low surrogate recoveries. As per laboratory protocol, the next step was to re-extract the sample. Sample was re-extracted on 10/20/15 and analyzed on 10/22/15. The results were within criteria and reported. However, the results from the original extract needed to be reported since the same sample was spiked for MS/MSD. Note that all the samples for this WO were included in this MS/MSD QC batch (151016L05). The QC batch for the re-extraction was 151020L11.

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Sample Summary

Client:	Cardno	Work Order:	15-10-0905
	601 North McDowell Blvd.	Project Name:	ExxonMobil 79374/022735C
	Petaluma, CA 94954-2312	PO Number:	022735C
		Date/Time Received:	10/13/15 10:00
		Number of Containers:	18
Attn:	Scott Perkins		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
S-5-B18	15-10-0905-1	10/08/15 10:00	1	Solid
S-10-B18	15-10-0905-2	10/08/15 10:40	1	Solid
S-15-B18	15-10-0905-3	10/08/15 11:15	1	Solid
S-5-MW9	15-10-0905-4	10/08/15 13:00	1	Solid
S-10.5-MW9	15-10-0905-5	10/08/15 13:10	1	Solid
S-15.5-MW9	15-10-0905-6	10/08/15 13:15	1	Solid
S-5-SVE5	15-10-0905-7	10/09/15 08:50	1	Solid
S-11.5-SVE5	15-10-0905-8	10/09/15 09:00	1	Solid
S-15.5-SVE5	15-10-0905-9	10/09/15 09:05	1	Solid
S-5-SVE4	15-10-0905-10	10/09/15 11:30	1	Solid
S-9.5-SVE4	15-10-0905-11	10/09/15 12:40	1	Solid
S-15.5-SVE4	15-10-0905-12	10/09/15 11:40	1	Solid
S-5-SVE7	15-10-0905-13	10/09/15 13:30	1	Solid
S-10-SVE7	15-10-0905-14	10/09/15 13:55	1	Solid
S-12-SVE7	15-10-0905-15	10/09/15 14:00	1	Solid
S-15.5-SVE7	15-10-0905-16	10/09/15 14:05	1	Solid
S-5-SVE6	15-10-0905-17	10/09/15 14:55	1	Solid
S-12-SVE6	15-10-0905-18	10/09/15 15:00	1	Solid

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B18	**15-10-0905-1-A**	**10/08/15 10:00**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 17:10**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	103	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B18	**15-10-0905-2-A**	**10/08/15 10:40**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 17:27**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	4.9	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	104	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15-B18	**15-10-0905-3-A**	**10/08/15 11:15**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 17:43**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	102	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-MW9	**15-10-0905-4-A**	**10/08/15 13:00**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 17:59**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.1	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	105	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10.5-MW9	**15-10-0905-5-A**	**10/08/15 13:10**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 18:15**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	6.3	5.0	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	102	61-145	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-MW9	**15-10-0905-6-A**	**10/08/15 13:15**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 18:32**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	104	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE5	**15-10-0905-7-A**	**10/09/15 08:50**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 18:48**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	103	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-11.5-SVE5	**15-10-0905-8-A**	**10/09/15 09:00**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 19:04**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	160	4.9	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	99	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE5	**15-10-0905-9-A**	**10/09/15 09:05**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 19:20**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	100	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE4	**15-10-0905-10-A**	**10/09/15 11:30**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 19:53**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-9.5-SVE4	**15-10-0905-11-A**	**10/09/15 12:40**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 20:09**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	9.2	4.9	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	99	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE4	**15-10-0905-12-A**	**10/09/15 11:40**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 20:26**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	4.9	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE7	**15-10-0905-13-A**	**10/09/15 13:30**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 20:42**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	4.9	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	94	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-SVE7	**15-10-0905-14-A**	**10/09/15 13:55**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 20:58**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12-SVE7	**15-10-0905-15-A**	**10/09/15 14:00**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 21:14**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE7	**15-10-0905-16-A**	**10/09/15 14:05**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 21:30**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	105	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE6	**15-10-0905-17-A**	**10/09/15 14:55**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 21:47**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	4.9	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12-SVE6	**15-10-0905-18-A**	**10/09/15 15:00**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 22:02**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	76	5.0	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-422-2111**	**N/A**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 15:49**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	92	61-145	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B18	**15-10-0905-1-A**	**10/08/15 10:00**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 09:03**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	64	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B18	**15-10-0905-2-A**	**10/08/15 10:40**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 10:49**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	64	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15-B18	**15-10-0905-3-A**	**10/08/15 11:15**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 11:25**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	62	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-MW9	**15-10-0905-4-A**	**10/08/15 13:00**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 12:00**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	65	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10.5-MW9	**15-10-0905-5-A**	**10/08/15 13:10**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 12:36**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	36	0.48	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	199	42-126	AZ

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-MW9	**15-10-0905-6-A**	**10/08/15 13:15**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 13:11**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	64	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE5	**15-10-0905-7-A**	**10/09/15 08:50**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 13:47**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	64	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-11.5-SVE5	**15-10-0905-8-A**	**10/09/15 09:00**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 21:02**	**151020L059**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	390	20	40.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	98	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE5	**15-10-0905-9-A**	**10/09/15 09:05**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 14:22**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	64	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE4	**15-10-0905-10-A**	**10/09/15 11:30**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 14:57**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	52	42-126	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-9.5-SVE4	**15-10-0905-11-A**	**10/09/15 12:40**	**Solid**	**GC 24**	**10/22/15**	**10/22/15 23:50**	**151022L050**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	82	4.0	8.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	151	42-126	AZ

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE4	**15-10-0905-12-A**	**10/09/15 11:40**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 15:33**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	63	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE7	**15-10-0905-13-A**	**10/09/15 13:30**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 16:44**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	45	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-SVE7	**15-10-0905-14-A**	**10/09/15 13:55**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 17:19**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	2.0	0.49	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	75	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12-SVE7	**15-10-0905-15-A**	**10/09/15 14:00**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 20:26**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	11	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	110	42-126	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE7	**15-10-0905-16-A**	**10/09/15 14:05**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 18:04**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	64	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE6	**15-10-0905-17-A**	**10/09/15 14:55**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 18:40**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	59	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12-SVE6	**15-10-0905-18-A**	**10/09/15 15:00**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 21:37**	**151020L059**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	520	50	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	78	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-571-2677**	**N/A**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 07:52**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	62	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-571-2678**	**N/A**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 08:28**	**151020L059**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	4.0	8.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	66	42-126	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-571-2680**	**N/A**	**Solid**	**GC 24**	**10/22/15**	**10/22/15 14:23**	**151022L050**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	4.0	8.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	76	42-126	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B18	**15-10-0905-1-A**	**10/08/15 10:00**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 15:41**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	90	22-130	
Nitrobenzene-d5	86	20-145	
p-Terphenyl-d14	90	33-147	

Return to Contents

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

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Analytical Report

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

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B18	**15-10-0905-2-A**	**10/08/15 10:40**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 16:02**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	77	22-130	
Nitrobenzene-d5	70	20-145	
p-Terphenyl-d14	89	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 3 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15-B18	**15-10-0905-3-A**	**10/08/15 11:15**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 16:22**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	74	22-130	
Nitrobenzene-d5	67	20-145	
p-Terphenyl-d14	80	33-147	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 4 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-MW9	**15-10-0905-4-A**	**10/08/15 13:00**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 16:42**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	95	22-130	
Nitrobenzene-d5	87	20-145	
p-Terphenyl-d14	98	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 5 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10.5-MW9	**15-10-0905-5-A**	**10/08/15 13:10**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 17:03**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	88	22-130	
Nitrobenzene-d5	83	20-145	
p-Terphenyl-d14	97	33-147	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-MW9	**15-10-0905-6-A**	**10/08/15 13:15**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 17:23**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	79	22-130	
Nitrobenzene-d5	73	20-145	
p-Terphenyl-d14	84	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 7 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE5	**15-10-0905-7-A**	**10/09/15 08:50**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 17:44**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	80	22-130	
Nitrobenzene-d5	80	20-145	
p-Terphenyl-d14	83	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 8 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-11.5-SVE5	**15-10-0905-8-A**	**10/09/15 09:00**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/20/15 13:48**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	1.2	0.099	5.00	
2-Methylnaphthalene	2.1	0.099	5.00	
1-Methylnaphthalene	1.0	0.099	5.00	
Acenaphthylene	ND	0.099	5.00	
Acenaphthene	ND	0.099	5.00	
Fluorene	ND	0.099	5.00	
Phenanthrene	ND	0.099	5.00	
Anthracene	ND	0.099	5.00	
Fluoranthene	ND	0.099	5.00	
Pyrene	ND	0.099	5.00	
Benzo (a) Anthracene	ND	0.099	5.00	
Chrysene	ND	0.099	5.00	
Benzo (k) Fluoranthene	ND	0.099	5.00	
Benzo (b) Fluoranthene	ND	0.099	5.00	
Benzo (a) Pyrene	ND	0.099	5.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.099	5.00	
Dibenz (a,h) Anthracene	ND	0.099	5.00	
Benzo (g,h,i) Perylene	ND	0.099	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	64	22-130	
Nitrobenzene-d5	59	20-145	
p-Terphenyl-d14	83	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 9 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE5	**15-10-0905-9-A**	**10/09/15 09:05**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 18:24**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	53	22-130	
Nitrobenzene-d5	49	20-145	
p-Terphenyl-d14	58	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 10 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE4	**15-10-0905-10-A**	**10/09/15 11:30**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 18:45**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	79	22-130	
Nitrobenzene-d5	68	20-145	
p-Terphenyl-d14	91	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 11 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-9.5-SVE4	**15-10-0905-11-A**	**10/09/15 12:40**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 19:05**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	0.14	0.020	1.00	
1-Methylnaphthalene	0.060	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	86	22-130	
Nitrobenzene-d5	79	20-145	
p-Terphenyl-d14	93	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 12 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE4	**15-10-0905-12-A**	**10/09/15 11:40**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 19:26**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	10	22-130	AZ
Nitrobenzene-d5	7	20-145	AZ
p-Terphenyl-d14	11	33-147	AZ

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 13 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE4	**15-10-0905-12-A**	**10/09/15 11:40**	**Solid**	**GC/MS AAA**	**10/20/15**	**10/22/15 20:12**	**151020L11**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	57	22-130	
Nitrobenzene-d5	62	20-145	
p-Terphenyl-d14	59	33-147	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 14 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE7	**15-10-0905-13-A**	**10/09/15 13:30**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 19:46**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	71	22-130	
Nitrobenzene-d5	65	20-145	
p-Terphenyl-d14	87	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 15 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-SVE7	**15-10-0905-14-A**	**10/09/15 13:55**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 20:06**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	65	22-130	
Nitrobenzene-d5	61	20-145	
p-Terphenyl-d14	92	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 16 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12-SVE7	**15-10-0905-15-A**	**10/09/15 14:00**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 20:27**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	53	22-130	
Nitrobenzene-d5	52	20-145	
p-Terphenyl-d14	68	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 17 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE7	**15-10-0905-16-A**	**10/09/15 14:05**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 20:47**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	22-130	
Nitrobenzene-d5	58	20-145	
p-Terphenyl-d14	110	33-147	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE6	**15-10-0905-17-A**	**10/09/15 14:55**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 21:07**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	85	22-130	
Nitrobenzene-d5	80	20-145	
p-Terphenyl-d14	95	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 19 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12-SVE6	**15-10-0905-18-A**	**10/09/15 15:00**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 21:28**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	0.39	0.020	1.00	
2-Methylnaphthalene	0.81	0.020	1.00	
1-Methylnaphthalene	0.38	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	0.024	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	102	22-130	
Nitrobenzene-d5	98	20-145	
p-Terphenyl-d14	85	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 20 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-010-2457**	**N/A**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 15:21**	**151016L05**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	93	22-130	
Nitrobenzene-d5	88	20-145	
p-Terphenyl-d14	92	33-147	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 21 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-010-2458**	**N/A**	**Solid**	**GC/MS AAA**	**10/20/15**	**10/21/15 10:26**	**151020L11**

Parameter	Result	RL	DF	Qualifiers
Naphthalene	ND	0.020	1.00	
2-Methylnaphthalene	ND	0.020	1.00	
1-Methylnaphthalene	ND	0.020	1.00	
Acenaphthylene	ND	0.020	1.00	
Acenaphthene	ND	0.020	1.00	
Fluorene	ND	0.020	1.00	
Phenanthrene	ND	0.020	1.00	
Anthracene	ND	0.020	1.00	
Fluoranthene	ND	0.020	1.00	
Pyrene	ND	0.020	1.00	
Benzo (a) Anthracene	ND	0.020	1.00	
Chrysene	ND	0.020	1.00	
Benzo (k) Fluoranthene	ND	0.020	1.00	
Benzo (b) Fluoranthene	ND	0.020	1.00	
Benzo (a) Pyrene	ND	0.020	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	1.00	
Dibenz (a,h) Anthracene	ND	0.020	1.00	
Benzo (g,h,i) Perylene	ND	0.020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	99	22-130	
Nitrobenzene-d5	91	20-145	
p-Terphenyl-d14	100	33-147	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 1 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-B18	**15-10-0905-1-A**	**10/08/15 10:00**	**Solid**	**GC/MS O**	**10/13/15**	**10/15/15 05:15**	**151014L039**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	60-132	
Dibromofluoromethane	106	63-141	
1,2-Dichloroethane-d4	120	62-146	
Toluene-d8	104	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 2 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-B18	**15-10-0905-2-A**	**10/08/15 10:40**	**Solid**	**GC/MS O**	**10/13/15**	**10/15/15 05:44**	**151014L039**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	60-132	
Dibromofluoromethane	104	63-141	
1,2-Dichloroethane-d4	113	62-146	
Toluene-d8	104	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 3 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15-B18	**15-10-0905-3-A**	**10/08/15 11:15**	**Solid**	**GC/MS O**	**10/13/15**	**10/15/15 06:13**	**151014L039**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	60-132	
Dibromofluoromethane	100	63-141	
1,2-Dichloroethane-d4	113	62-146	
Toluene-d8	104	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 4 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-MW9	**15-10-0905-4-A**	**10/08/15 13:00**	**Solid**	**GC/MS O**	**10/13/15**	**10/15/15 06:42**	**151014L039**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	60-132	
Dibromofluoromethane	100	63-141	
1,2-Dichloroethane-d4	106	62-146	
Toluene-d8	103	80-120	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 5 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10.5-MW9	**15-10-0905-5-A**	**10/08/15 13:10**	**Solid**	**GC/MS O**	**10/13/15**	**10/16/15 16:36**	**151016L026**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	60-132	
Dibromofluoromethane	103	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	105	80-120	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 6 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-MW9	**15-10-0905-6-A**	**10/08/15 13:15**	**Solid**	**GC/MS O**	**10/13/15**	**10/15/15 07:11**	**151014L039**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	60-132	
Dibromofluoromethane	102	63-141	
1,2-Dichloroethane-d4	114	62-146	
Toluene-d8	104	80-120	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 7 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE5	**15-10-0905-7-A**	**10/09/15 08:50**	**Solid**	**GC/MS O**	**10/13/15**	**10/15/15 07:40**	**151014L039**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	60-132	
Dibromofluoromethane	102	63-141	
1,2-Dichloroethane-d4	111	62-146	
Toluene-d8	106	80-120	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 8 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-11.5-SVE5	**15-10-0905-8-A**	**10/09/15 09:00**	**Solid**	**GC/MS O**	**10/13/15**	**10/16/15 20:30**	**151016L049**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.49	50.0	
Toluene	ND	0.49	50.0	
Ethylbenzene	5.1	0.49	50.0	
o-Xylene	1.8	0.49	50.0	
p/m-Xylene	5.2	0.49	50.0	
Xylenes (total)	7.0	0.49	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.49	50.0	
Tert-Butyl Alcohol (TBA)	ND	4.9	50.0	
Diisopropyl Ether (DIPE)	ND	0.98	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	0.98	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	0.98	50.0	
1,2-Dibromoethane	ND	0.49	50.0	
1,2-Dichloroethane	ND	0.49	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	60-132	
Dibromofluoromethane	89	63-141	
1,2-Dichloroethane-d4	77	62-146	
Toluene-d8	99	80-120	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 9 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE5	**15-10-0905-9-A**	**10/09/15 09:05**	**Solid**	**GC/MS O**	**10/13/15**	**10/15/15 08:10**	**151014L039**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	60-132	
Dibromofluoromethane	101	63-141	
1,2-Dichloroethane-d4	111	62-146	
Toluene-d8	105	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 10 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE4	**15-10-0905-10-A**	**10/09/15 11:30**	**Solid**	**GC/MS O**	**10/13/15**	**10/15/15 08:39**	**151014L039**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	60-132	
Dibromofluoromethane	102	63-141	
1,2-Dichloroethane-d4	117	62-146	
Toluene-d8	108	80-120	

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

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Analytical Report

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

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-9.5-SVE4	**15-10-0905-11-A**	**10/09/15 12:40**	**Solid**	**GC/MS O**	**10/13/15**	**10/19/15 22:04**	**151019L010**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	50.0	
Toluene	ND	0.50	50.0	
Ethylbenzene	ND	0.50	50.0	
o-Xylene	ND	0.50	50.0	
p/m-Xylene	ND	0.50	50.0	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	50.0	
Tert-Butyl Alcohol (TBA)	ND	5.0	50.0	
Diisopropyl Ether (DIPE)	ND	1.0	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	50.0	
1,2-Dibromoethane	ND	0.50	50.0	
1,2-Dichloroethane	ND	0.50	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	109	60-132	
Dibromofluoromethane	100	63-141	
1,2-Dichloroethane-d4	98	62-146	
Toluene-d8	104	80-120	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 12 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE4	**15-10-0905-12-A**	**10/09/15 11:40**	**Solid**	**GC/MS O**	**10/13/15**	**10/19/15 18:40**	**151019L029**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	60-132	
Dibromofluoromethane	99	63-141	
1,2-Dichloroethane-d4	105	62-146	
Toluene-d8	102	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 13 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE7	**15-10-0905-13-A**	**10/09/15 13:30**	**Solid**	**GC/MS O**	**10/13/15**	**10/19/15 19:09**	**151019L029**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0098	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0098	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0098	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	60-132	
Dibromofluoromethane	99	63-141	
1,2-Dichloroethane-d4	106	62-146	
Toluene-d8	100	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 14 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-10-SVE7	**15-10-0905-14-A**	**10/09/15 13:55**	**Solid**	**GC/MS O**	**10/13/15**	**10/19/15 21:06**	**151019L029**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	60-132	
Dibromofluoromethane	89	63-141	
1,2-Dichloroethane-d4	96	62-146	
Toluene-d8	102	80-120	

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

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Analytical Report

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

Date Received: 10/13/15
Work Order: 15-10-0905
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12-SVE7	**15-10-0905-15-A**	**10/09/15 14:00**	**Solid**	**GC/MS O**	**10/13/15**	**10/19/15 22:33**	**151019L010**

Comment(s): - BH Reporting limits raised due to high level of non-target analytes.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.49	50.0	
Toluene	ND	0.49	50.0	
Ethylbenzene	ND	0.49	50.0	
o-Xylene	ND	0.49	50.0	
p/m-Xylene	ND	0.49	50.0	
Xylenes (total)	ND	0.49	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.49	50.0	
Tert-Butyl Alcohol (TBA)	ND	4.9	50.0	
Diisopropyl Ether (DIPE)	ND	0.98	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	0.98	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	0.98	50.0	
1,2-Dibromoethane	ND	0.49	50.0	
1,2-Dichloroethane	ND	0.49	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	60-132	
Dibromofluoromethane	89	63-141	
1,2-Dichloroethane-d4	88	62-146	
Toluene-d8	101	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 16 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-15.5-SVE7	**15-10-0905-16-A**	**10/09/15 14:05**	**Solid**	**GC/MS O**	**10/13/15**	**10/19/15 19:38**	**151019L029**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0049	1.00	
Toluene	ND	0.0049	1.00	
Ethylbenzene	ND	0.0049	1.00	
o-Xylene	ND	0.0049	1.00	
p/m-Xylene	ND	0.0049	1.00	
Xylenes (total)	ND	0.0049	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0049	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.049	1.00	
Diisopropyl Ether (DIPE)	ND	0.0099	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0099	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0099	1.00	
1,2-Dibromoethane	ND	0.0049	1.00	
1,2-Dichloroethane	ND	0.0049	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	60-132	
Dibromofluoromethane	97	63-141	
1,2-Dichloroethane-d4	101	62-146	
Toluene-d8	107	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 17 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5-SVE6	**15-10-0905-17-A**	**10/09/15 14:55**	**Solid**	**GC/MS O**	**10/13/15**	**10/19/15 20:08**	**151019L029**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0048	1.00	
Toluene	ND	0.0048	1.00	
Ethylbenzene	ND	0.0048	1.00	
o-Xylene	ND	0.0048	1.00	
p/m-Xylene	ND	0.0048	1.00	
Xylenes (total)	ND	0.0048	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0048	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.048	1.00	
Diisopropyl Ether (DIPE)	ND	0.0097	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0097	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0097	1.00	
1,2-Dibromoethane	ND	0.0048	1.00	
1,2-Dichloroethane	ND	0.0048	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	60-132	
Dibromofluoromethane	97	63-141	
1,2-Dichloroethane-d4	102	62-146	
Toluene-d8	101	80-120	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 18 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-12-SVE6	**15-10-0905-18-A**	**10/09/15 15:00**	**Solid**	**GC/MS O**	**10/13/15**	**10/20/15 19:43**	**151020L010**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.0	100	
Toluene	ND	1.0	100	
Ethylbenzene	17	1.0	100	
o-Xylene	1.3	1.0	100	
p/m-Xylene	9.3	1.0	100	
Xylenes (total)	11	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	100	
Tert-Butyl Alcohol (TBA)	ND	10	100	
Diisopropyl Ether (DIPE)	ND	2.0	100	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	100	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	100	
1,2-Dibromoethane	ND	1.0	100	
1,2-Dichloroethane	ND	1.0	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	108	60-132	
Dibromofluoromethane	91	63-141	
1,2-Dichloroethane-d4	98	62-146	
Toluene-d8	105	80-120	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 19 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-882-1766**	**N/A**	**Solid**	**GC/MS O**	**10/14/15**	**10/15/15 01:51**	**151014L039**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	60-132	
Dibromofluoromethane	101	63-141	
1,2-Dichloroethane-d4	108	62-146	
Toluene-d8	102	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 20 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-882-1770**	**N/A**	**Solid**	**GC/MS O**	**10/16/15**	**10/16/15 13:12**	**151016L026**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-132	
Dibromofluoromethane	99	63-141	
1,2-Dichloroethane-d4	105	62-146	
Toluene-d8	105	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 21 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-882-1771**	**N/A**	**Solid**	**GC/MS O**	**10/16/15**	**10/16/15 13:41**	**151016L049**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	50.0	
Toluene	ND	0.50	50.0	
Ethylbenzene	ND	0.50	50.0	
o-Xylene	ND	0.50	50.0	
p/m-Xylene	ND	0.50	50.0	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	50.0	
Tert-Butyl Alcohol (TBA)	ND	5.0	50.0	
Diisopropyl Ether (DIPE)	ND	1.0	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	50.0	
1,2-Dibromoethane	ND	0.50	50.0	
1,2-Dichloroethane	ND	0.50	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	60-132	
Dibromofluoromethane	114	63-141	
1,2-Dichloroethane-d4	123	62-146	
Toluene-d8	109	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 22 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-882-1775**	**N/A**	**Solid**	**GC/MS O**	**10/19/15**	**10/19/15 15:45**	**151019L010**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	50.0	
Toluene	ND	0.50	50.0	
Ethylbenzene	ND	0.50	50.0	
o-Xylene	ND	0.50	50.0	
p/m-Xylene	ND	0.50	50.0	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	50.0	
Tert-Butyl Alcohol (TBA)	ND	5.0	50.0	
Diisopropyl Ether (DIPE)	ND	1.0	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	50.0	
1,2-Dibromoethane	ND	0.50	50.0	
1,2-Dichloroethane	ND	0.50	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	60-132	
Dibromofluoromethane	102	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	107	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 23 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-882-1774**	**N/A**	**Solid**	**GC/MS O**	**10/19/15**	**10/19/15 15:16**	**151019L029**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-132	
Dibromofluoromethane	97	63-141	
1,2-Dichloroethane-d4	100	62-146	
Toluene-d8	100	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 24 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-882-1777**	**N/A**	**Solid**	**GC/MS O**	**10/20/15**	**10/20/15 14:51**	**151020L010**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	50.0	
Toluene	ND	0.50	50.0	
Ethylbenzene	ND	0.50	50.0	
o-Xylene	ND	0.50	50.0	
p/m-Xylene	ND	0.50	50.0	
Xylenes (total)	ND	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	50.0	
Tert-Butyl Alcohol (TBA)	ND	5.0	50.0	
Diisopropyl Ether (DIPE)	ND	1.0	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	50.0	
1,2-Dibromoethane	ND	0.50	50.0	
1,2-Dichloroethane	ND	0.50	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	60-132	
Dibromofluoromethane	107	63-141	
1,2-Dichloroethane-d4	116	62-146	
Toluene-d8	107	80-120	

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

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 1 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-0906-5	**Sample**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 16:54**	**151015S03**
15-10-0906-5	**Matrix Spike**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 16:22**	**151015S03**
15-10-0906-5	**Matrix Spike Duplicate**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 16:38**	**151015S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	454.4	114	490.6	123	64-130	8	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 2 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
S-5-B18	**Sample**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 09:03**	**151020S030**
S-5-B18	**Matrix Spike**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 09:39**	**151020S030**
S-5-B18	**Matrix Spike Duplicate**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 10:14**	**151020S030**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	10.00	8.978	90	9.849	98	48-114	9	0-23	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 3 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
S-9.5-SVE4	**Sample**	**Solid**	**GC 24**	**10/22/15**	**10/22/15 23:50**	**151022S021**
S-9.5-SVE4	**Matrix Spike**	**Solid**	**GC 24**	**10/22/15**	**10/23/15 00:23**	**151022S021**
S-9.5-SVE4	**Matrix Spike Duplicate**	**Solid**	**GC 24**	**10/22/15**	**10/23/15 00:56**	**151022S021**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	81.78	80.00	147.5	82	139.5	72	48-114	6	0-23	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
Project: ExxonMobil 79374/022735C			Page 4 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
S-15.5-SVE4	**Sample**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 19:26**	**151016S05**
S-15.5-SVE4	**Matrix Spike**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 21:48**	**151016S05**
S-15.5-SVE4	**Matrix Spike Duplicate**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 22:09**	**151016S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	0.2000	0.1450	73	0.1506	75	20-150	4	0-33	
2-Methylnaphthalene	ND	0.2000	0.1877	94	0.1907	95	29-137	2	0-31	
1-Methylnaphthalene	ND	0.2000	0.1496	75	0.1668	83	34-136	11	0-29	
Acenaphthylene	ND	0.2000	0.1354	68	0.1444	72	29-131	6	0-32	
Acenaphthene	ND	0.2000	0.1465	73	0.1515	76	29-137	3	0-28	
Fluorene	ND	0.2000	0.1462	73	0.1511	76	36-132	3	0-27	
Phenanthrene	ND	0.2000	0.1579	79	0.1584	79	20-144	0	0-27	
Anthracene	ND	0.2000	0.1525	76	0.1564	78	26-134	2	0-27	
Fluoranthene	ND	0.2000	0.1646	82	0.1672	84	20-151	2	0-26	
Pyrene	ND	0.2000	0.1466	73	0.1475	74	20-150	1	0-32	
Benzo (a) Anthracene	ND	0.2000	0.1537	77	0.1596	80	24-150	4	0-24	
Chrysene	ND	0.2000	0.1509	75	0.1584	79	25-145	5	0-28	
Benzo (k) Fluoranthene	ND	0.2000	0.1602	80	0.1562	78	28-148	3	0-26	
Benzo (b) Fluoranthene	ND	0.2000	0.1521	76	0.1736	87	21-153	13	0-26	
Benzo (a) Pyrene	ND	0.2000	0.1513	76	0.1579	79	29-149	4	0-22	
Indeno (1,2,3-c,d) Pyrene	ND	0.2000	0.1417	71	0.1470	73	20-154	4	0-25	
Dibenz (a,h) Anthracene	ND	0.2000	0.1365	68	0.1401	70	20-132	3	0-26	
Benzo (g,h,i) Perylene	ND	0.2000	0.1502	75	0.1563	78	20-148	4	0-27	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
Project: ExxonMobil 79374/022735C			Page 5 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-0454-1	**Sample**	**Solid**	**GC/MS AAA**	**10/20/15**	**10/21/15 11:47**	**151020S11**
15-10-0454-1	**Matrix Spike**	**Solid**	**GC/MS AAA**	**10/20/15**	**10/21/15 12:27**	**151020S11**
15-10-0454-1	**Matrix Spike Duplicate**	**Solid**	**GC/MS AAA**	**10/20/15**	**10/21/15 11:26**	**151020S11**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	0.2000	0.1916	96	0.1783	89	20-150	7	0-33	
2-Methylnaphthalene	ND	0.2000	0.2005	100	0.1887	94	29-137	6	0-31	
1-Methylnaphthalene	ND	0.2000	0.1849	92	0.1729	86	34-136	7	0-29	
Acenaphthylene	ND	0.2000	0.1761	88	0.1682	84	29-131	5	0-32	
Acenaphthene	ND	0.2000	0.1827	91	0.1734	87	29-137	5	0-28	
Fluorene	ND	0.2000	0.1788	89	0.1709	85	36-132	5	0-27	
Phenanthrene	ND	0.2000	0.1844	92	0.1768	88	20-144	4	0-27	
Anthracene	ND	0.2000	0.1747	87	0.1690	84	26-134	3	0-27	
Fluoranthene	ND	0.2000	0.1827	91	0.1775	89	20-151	3	0-26	
Pyrene	ND	0.2000	0.1819	91	0.1724	86	20-150	5	0-32	
Benzo (a) Anthracene	ND	0.2000	0.1740	87	0.1677	84	24-150	4	0-24	
Chrysene	ND	0.2000	0.1695	85	0.1613	81	25-145	5	0-28	
Benzo (k) Fluoranthene	ND	0.2000	0.1650	82	0.1453	73	28-148	13	0-26	
Benzo (b) Fluoranthene	ND	0.2000	0.1958	98	0.1879	94	21-153	4	0-26	
Benzo (a) Pyrene	ND	0.2000	0.2059	103	0.1931	97	29-149	6	0-22	
Indeno (1,2,3-c,d) Pyrene	ND	0.2000	0.1548	77	0.1652	83	20-154	6	0-25	
Dibenz (a,h) Anthracene	ND	0.2000	0.1663	83	0.1750	87	20-132	5	0-26	
Benzo (g,h,i) Perylene	ND	0.2000	0.1562	78	0.1746	87	20-148	11	0-27	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 6 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-0867-1	**Sample**	**Solid**	**GC/MS O**	**10/12/15**	**10/15/15 02:49**	**151014S017**
15-10-0867-1	**Matrix Spike**	**Solid**	**GC/MS O**	**10/12/15**	**10/15/15 03:18**	**151014S017**
15-10-0867-1	**Matrix Spike Duplicate**	**Solid**	**GC/MS O**	**10/12/15**	**10/15/15 03:47**	**151014S017**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.03821	76	0.04363	87	61-127	13	0-20	
Toluene	ND	0.05000	0.03824	76	0.04415	88	63-123	14	0-20	
Ethylbenzene	ND	0.05000	0.03894	78	0.04690	94	57-129	19	0-22	
o-Xylene	ND	0.05000	0.04019	80	0.04671	93	70-130	15	0-30	
p/m-Xylene	ND	0.1000	0.08036	80	0.09573	96	70-130	17	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04098	82	0.04261	85	57-123	4	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.1987	79	0.2074	83	30-168	4	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.03791	76	0.04210	84	57-129	10	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.03724	74	0.04163	83	55-127	11	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.04043	81	0.04279	86	58-124	6	0-20	
1,2-Dibromoethane	ND	0.05000	0.03697	74	0.04080	82	64-124	10	0-20	
1,2-Dichloroethane	ND	0.05000	0.04643	93	0.04848	97	80-120	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 7 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-1128-1	**Sample**	**Solid**	**GC/MS O**	**10/15/15**	**10/16/15 14:10**	**151016S001**
15-10-1128-1	**Matrix Spike**	**Solid**	**GC/MS O**	**10/15/15**	**10/16/15 14:39**	**151016S001**
15-10-1128-1	**Matrix Spike Duplicate**	**Solid**	**GC/MS O**	**10/15/15**	**10/16/15 15:09**	**151016S001**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.04151	83	0.04323	86	61-127	4	0-20	
Toluene	ND	0.05000	0.04035	81	0.04305	86	63-123	6	0-20	
Ethylbenzene	ND	0.05000	0.04007	80	0.04407	88	57-129	10	0-22	
o-Xylene	ND	0.05000	0.04005	80	0.04472	89	70-130	11	0-30	
p/m-Xylene	ND	0.1000	0.08085	81	0.08962	90	70-130	10	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04482	90	0.04675	93	57-123	4	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2358	94	0.2280	91	30-168	3	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.04125	83	0.04381	88	57-129	6	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.04219	84	0.04424	88	55-127	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.04326	87	0.04485	90	58-124	4	0-20	
1,2-Dibromoethane	ND	0.05000	0.03880	78	0.04138	83	64-124	6	0-20	
1,2-Dichloroethane	ND	0.05000	0.04872	97	0.04929	99	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 8 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-1074-4	**Sample**	**Solid**	**GC/MS O**	**10/19/15**	**10/19/15 16:14**	**151019S001**
15-10-1074-4	**Matrix Spike**	**Solid**	**GC/MS O**	**10/19/15**	**10/19/15 16:43**	**151019S001**
15-10-1074-4	**Matrix Spike Duplicate**	**Solid**	**GC/MS O**	**10/19/15**	**10/19/15 17:13**	**151019S001**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.04206	84	0.04331	87	61-127	3	0-20	
Toluene	ND	0.05000	0.04037	81	0.04109	82	63-123	2	0-20	
Ethylbenzene	ND	0.05000	0.04102	82	0.04268	85	57-129	4	0-22	
o-Xylene	ND	0.05000	0.04148	83	0.04210	84	70-130	1	0-30	
p/m-Xylene	ND	0.1000	0.08358	84	0.08546	85	70-130	2	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04404	88	0.04466	89	57-123	1	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2194	88	0.2145	86	30-168	2	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.04246	85	0.04344	87	57-129	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.04044	81	0.04161	83	55-127	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.04075	81	0.04028	81	58-124	1	0-20	
1,2-Dibromoethane	ND	0.05000	0.04093	82	0.04238	85	64-124	3	0-20	
1,2-Dichloroethane	ND	0.05000	0.04765	95	0.04759	95	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 9 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-1316-1	**Sample**	**Solid**	**GC/MS O**	**10/17/15**	**10/20/15 15:20**	**151020S003**
15-10-1316-1	**Matrix Spike**	**Solid**	**GC/MS O**	**10/17/15**	**10/20/15 15:49**	**151020S003**
15-10-1316-1	**Matrix Spike Duplicate**	**Solid**	**GC/MS O**	**10/17/15**	**10/20/15 16:18**	**151020S003**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.04288	86	0.04511	90	61-127	5	0-20	
Toluene	ND	0.05000	0.04216	84	0.04488	90	63-123	6	0-20	
Ethylbenzene	ND	0.05000	0.04366	87	0.04676	94	57-129	7	0-22	
o-Xylene	ND	0.05000	0.04395	88	0.04829	97	70-130	9	0-30	
p/m-Xylene	ND	0.1000	0.08744	87	0.09630	96	70-130	10	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.04257	85	0.04401	88	57-123	3	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2159	86	0.2286	91	30-168	6	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.04230	85	0.04443	89	57-129	5	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.04127	83	0.04341	87	55-127	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.04307	86	0.04474	89	58-124	4	0-20	
1,2-Dibromoethane	ND	0.05000	0.03864	77	0.04029	81	64-124	4	0-20	
1,2-Dichloroethane	ND	0.05000	0.04809	96	0.04986	100	80-120	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 1 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-422-2111	**LCS**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 16:05**	**151015B03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	470.5	118	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 2 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-571-2677	**LCS**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 07:17**	**151020L058**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	10.00	10.07	101	70-124	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 3 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-571-2678	**LCS**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 07:17**	**151020L059**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	10.00	10.07	101	70-124	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 4 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-571-2680	**LCS**	**Solid**	**GC 24**	**10/22/15**	**10/22/15 13:17**	**151022L050**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	10.00	8.655	87	70-124	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
Project: ExxonMobil 79374/022735C			Page 5 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-06-010-2457	**LCS**	**Solid**	**GC/MS AAA**	**10/16/15**	**10/17/15 15:00**	**151016L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Naphthalene	0.2000	0.1987	99	51-129	38-142	
2-Methylnaphthalene	0.2000	0.2088	104	50-127	37-140	
1-Methylnaphthalene	0.2000	0.1919	96	54-132	41-145	
Acenaphthylene	0.2000	0.1898	95	50-123	38-135	
Acenaphthene	0.2000	0.1989	99	53-125	41-137	
Fluorene	0.2000	0.1932	97	55-127	43-139	
Phenanthrene	0.2000	0.1985	99	50-122	38-134	
Anthracene	0.2000	0.1936	97	50-132	36-146	
Fluoranthene	0.2000	0.1976	99	55-127	43-139	
Pyrene	0.2000	0.1761	88	50-134	36-148	
Benzo (a) Anthracene	0.2000	0.1865	93	50-133	36-147	
Chrysene	0.2000	0.1818	91	51-129	38-142	
Benzo (k) Fluoranthene	0.2000	0.1760	88	49-150	32-167	
Benzo (b) Fluoranthene	0.2000	0.2091	105	50-142	35-157	
Benzo (a) Pyrene	0.2000	0.1908	95	50-134	36-148	
Indeno (1,2,3-c,d) Pyrene	0.2000	0.2096	105	50-148	34-164	
Dibenz (a,h) Anthracene	0.2000	0.2141	107	50-133	36-147	
Benzo (g,h,i) Perylene	0.2000	0.2172	109	50-130	37-143	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
Project: ExxonMobil 79374/022735C			Page 6 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-06-010-2458	**LCS**	**Solid**	**GC/MS AAA**	**10/20/15**	**10/21/15 10:46**	**151020L11**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Naphthalene	0.2000	0.1820	91	51-129	38-142	
2-Methylnaphthalene	0.2000	0.1924	96	50-127	37-140	
1-Methylnaphthalene	0.2000	0.1769	88	54-132	41-145	
Acenaphthylene	0.2000	0.1789	89	50-123	38-135	
Acenaphthene	0.2000	0.1844	92	53-125	41-137	
Fluorene	0.2000	0.1829	91	55-127	43-139	
Phenanthrene	0.2000	0.1871	94	50-122	38-134	
Anthracene	0.2000	0.1801	90	50-132	36-146	
Fluoranthene	0.2000	0.1813	91	55-127	43-139	
Pyrene	0.2000	0.1761	88	50-134	36-148	
Benzo (a) Anthracene	0.2000	0.1724	86	50-133	36-147	
Chrysene	0.2000	0.1662	83	51-129	38-142	
Benzo (k) Fluoranthene	0.2000	0.1664	83	49-150	32-167	
Benzo (b) Fluoranthene	0.2000	0.1881	94	50-142	35-157	
Benzo (a) Pyrene	0.2000	0.1752	88	50-134	36-148	
Indeno (1,2,3-c,d) Pyrene	0.2000	0.1808	90	50-148	34-164	
Dibenz (a,h) Anthracene	0.2000	0.1866	93	50-133	36-147	
Benzo (g,h,i) Perylene	0.2000	0.1902	95	50-130	37-143	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 7 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-882-1766	**LCS**	**Solid**	**GC/MS O**	**10/14/15**	**10/14/15 23:54**	**151014L039**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	0.05000	0.05029	101	78-120	71-127	
Toluene	0.05000	0.05023	100	77-120	70-127	
Ethylbenzene	0.05000	0.05432	109	76-120	69-127	
o-Xylene	0.05000	0.05477	110	75-125	67-133	
p/m-Xylene	0.1000	0.1111	111	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.05151	103	77-120	70-127	
Tert-Butyl Alcohol (TBA)	0.2500	0.2489	100	68-122	59-131	
Diisopropyl Ether (DIPE)	0.05000	0.04715	94	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04845	97	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.05046	101	75-120	68-128	
1,2-Dibromoethane	0.05000	0.05090	102	80-120	73-127	
1,2-Dichloroethane	0.05000	0.05808	116	80-120	73-127	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 8 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-882-1770	**LCS**	**Solid**	**GC/MS O**	**10/16/15**	**10/16/15 11:13**	**151016L026**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	0.05000	0.04901	98	78-120	71-127	
Toluene	0.05000	0.04970	99	77-120	70-127	
Ethylbenzene	0.05000	0.05340	107	76-120	69-127	
o-Xylene	0.05000	0.05296	106	75-125	67-133	
p/m-Xylene	0.1000	0.1091	109	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04776	96	77-120	70-127	
Tert-Butyl Alcohol (TBA)	0.2500	0.2552	102	68-122	59-131	
Diisopropyl Ether (DIPE)	0.05000	0.04606	92	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04605	92	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04813	96	75-120	68-128	
1,2-Dibromoethane	0.05000	0.04643	93	80-120	73-127	
1,2-Dichloroethane	0.05000	0.05323	106	80-120	73-127	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 9 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-882-1771	**LCS**	**Solid**	**GC/MS O**	**10/16/15**	**10/16/15 11:13**	**151016L049**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	0.05000	0.04901	98	78-120	71-127	
Toluene	0.05000	0.04970	99	77-120	70-127	
Ethylbenzene	0.05000	0.05340	107	76-120	69-127	
o-Xylene	0.05000	0.05296	106	75-125	67-133	
p/m-Xylene	0.1000	0.1091	109	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04776	96	77-120	70-127	
Tert-Butyl Alcohol (TBA)	0.2500	0.2552	102	68-122	59-131	
Diisopropyl Ether (DIPE)	0.05000	0.04606	92	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04605	92	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04813	96	75-120	68-128	
1,2-Dibromoethane	0.05000	0.04643	93	80-120	73-127	
1,2-Dichloroethane	0.05000	0.05323	106	80-120	73-127	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 10 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-882-1775	**LCS**	**Solid**	**GC/MS O**	**10/19/15**	**10/19/15 13:19**	**151019L010**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	0.05000	0.04744	95	78-120	71-127	
Toluene	0.05000	0.04650	93	77-120	70-127	
Ethylbenzene	0.05000	0.05189	104	76-120	69-127	
o-Xylene	0.05000	0.05109	102	75-125	67-133	
p/m-Xylene	0.1000	0.1051	105	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04487	90	77-120	70-127	
Tert-Butyl Alcohol (TBA)	0.2500	0.2455	98	68-122	59-131	
Diisopropyl Ether (DIPE)	0.05000	0.04379	88	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04447	89	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04426	89	75-120	68-128	
1,2-Dibromoethane	0.05000	0.04588	92	80-120	73-127	
1,2-Dichloroethane	0.05000	0.05043	101	80-120	73-127	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 11 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-882-1774	**LCS**	**Solid**	**GC/MS O**	**10/19/15**	**10/19/15 13:19**	**151019L029**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	0.05000	0.04744	95	78-120	71-127	
Toluene	0.05000	0.04650	93	77-120	70-127	
Ethylbenzene	0.05000	0.05189	104	76-120	69-127	
o-Xylene	0.05000	0.05109	102	75-125	67-133	
p/m-Xylene	0.1000	0.1051	105	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04487	90	77-120	70-127	
Tert-Butyl Alcohol (TBA)	0.2500	0.2455	98	68-122	59-131	
Diisopropyl Ether (DIPE)	0.05000	0.04379	88	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04447	89	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04426	89	75-120	68-128	
1,2-Dibromoethane	0.05000	0.04588	92	80-120	73-127	
1,2-Dichloroethane	0.05000	0.05043	101	80-120	73-127	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0905
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 12 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-882-1777	**LCS**	**Solid**	**GC/MS O**	**10/20/15**	**10/20/15 12:25**	**151020L010**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	0.05000	0.04757	95	78-120	71-127	
Toluene	0.05000	0.04703	94	77-120	70-127	
Ethylbenzene	0.05000	0.05130	103	76-120	69-127	
o-Xylene	0.05000	0.05120	102	75-125	67-133	
p/m-Xylene	0.1000	0.1051	105	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04795	96	77-120	70-127	
Tert-Butyl Alcohol (TBA)	0.2500	0.2577	103	68-122	59-131	
Diisopropyl Ether (DIPE)	0.05000	0.04652	93	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04717	94	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04775	95	75-120	68-128	
1,2-Dibromoethane	0.05000	0.04646	93	80-120	73-127	
1,2-Dichloroethane	0.05000	0.05027	101	80-120	73-127	

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 15-10-0905 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8015B (M)	EPA 3550B	974	GC 48	1
EPA 8015B (M)	EPA 5030C	715	GC 24	2
EPA 8015B (M)	EPA 5030C	902	GC 1	2
EPA 8260B	EPA 5030C	867	GC/MS O	2
EPA 8270C SIM PAHs	EPA 3545	1038	GC/MS AAA	1

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Glossary of Terms and Qualifiers

Work Order: 15-10-0905 Page 1 of 1

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

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Sandy Tat

From: David R. Daniels <david.daniels@cardno.com>
Sent: Wednesday, October 14, 2015 4:15 PM
To: Sandy Tat
Subject: RE: ExxonMobil 79374/022735C (15-10-0905)
Attachments: 15-10-0905 Revised.pdf

Revised COC attached

David Daniels PG
PROJECT GEOLOGIST
ENGINEERING & ENVIRONMENTAL SERVICES DIVISION
CARDNO

Direct (+1) 707-766-2024 Mobile (+1) 707-338-6997 Fax (+1) 707-789-0414
Address 601 North McDowell Blvd., Petaluma, CA 94954
Email david.daniels@cardno.com Web www.cardno.com

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From: Sandy Tat [mailto:SandyTat@eurofinsUS.com]
Sent: Wednesday, October 14, 2015 10:36 AM
To: David R. Daniels <david.daniels@cardno.com>
Subject: FW: ExxonMobil 79374/022735C (15-10-0905)
Importance: High

Hi David,

Please also verify the sampling time for sample (S-5-SVE5)(Cel# 7), because it was labeled as 08:50 on the label.

Thanks!

Sandy Tat
Project Manager Assistant

From: Sandy Tat
Sent: Wednesday, October 14, 2015 10:34 AM
To: David Daniels (david.daniels@cardno.com)
Subject: ExxonMobil 79374/022735C (15-10-0905)
Importance: High

Hi David,

Please verify the Field Point Name for the first three samples. Should the FPN be (B18) instead of (B16)? Please advise.

Thanks!

Sandy Tat
Project Manager Assistant

Eurofins Calscience, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
USA
Phone: (714) 895-5494
Fax: (714) 894-7501

Email: SandyTat@eurofinsus.com
Website: www.Calscience.com

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **15-10-0905**

DATE: 10/9/15

PAGE: 1 OF 2

LABORATORY CLIENT: **Cardno / ExxonMobil**

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

TEL: (707) 766-2000 E-MAIL: scott.perkins@cardno.com

CLIENT PROJECT NAME / NUMBER: Former Exxon 79374

P.O. NO.: 02 2735CX

PROJECT CONTACT: Scott Perkins

SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: T0619716673 LOG CODE:

SPECIAL INSTRUCTIONS:

DRD revised 10/14/2015

***TPHd - Silica Gel Cleanup**

****Oxys by 8260B: DIPE, ETBE, TAME, and TBA**

***** Lead Scavengers (1,2-DCA and EDB)**

Please email PDF files to: norcallabs@eri-us.com

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☒ TPH(g) (8015B)	☒ TPH(d) (8015B)	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX 8260B ☒	MTBE 8260B	Oxygenates (8260B)**	Lead Scavengers (8260B) ***	PAHs ☒ 8270C
1	S-5-~~B16~~ B18	~~B16~~ B18	10/8/15	1000	Soil	1				x	x			x	x	x	x	x
2	S-10-~~B16~~ B18	~~B16~~ B18	10/8/15	1040	Soil	1				x	x			x	x	x	x	x
3	S-15-~~B16~~ B18	~~B16~~ B18	10/8/15	1115	Soil	1				x	x			x	x	x	x	x
4	S-5-MW9	MW9	10/8/15	1300	Soil	1				x	x			x	x	x	x	x
5	S-10.5-MW9	MW9	10/8/15	1310	Soil	1				x	x			x	x	x	x	x
6	S-15.5-MW9	MW9	10/8/15	1315	Soil	1				x	x			x	x	x	x	x
7	S-5-SVE5	SVE5	10/9/15	0850 ~~0840~~	Soil	1				x	x			x	x	x	x	x
8	S-11.5-SVE5	SVE5	10/9/15	0900	Soil	1				x	x			x	x	x	x	x
9	S-15.5-SVE5	SVE5	10/9/15	0905	Soil	1				x	x			x	x	x	x	x
10	S-5-SVE4	SVE4	10/9/15	1130	Soil	1				x	x			x	x	x	x	x

Relinquished by: (Signature)	Received by: (Signature/Affiliation) Tom Malloy ECI	Date: 10/12/15	Time: 1255
Relinquished by: (Signature) Tom Malloy TO GSO 10/12/15 1730	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 10/13/15	Time: 1000

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **15-10-0905**

DATE: 10/9/15

PAGE: 1 OF 2

LABORATORY CLIENT: **Cardno / ExxonMobil**

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

TEL: (707) 766-2000 E-MAIL: scott.perkins@cardno.com

CLIENT PROJECT NAME / NUMBER: Former Exxon 79374

P.O. NO.: 02 2735CX

PROJECT CONTACT: Scott Perkins

SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: T0619716673 LOG CODE:

SPECIAL INSTRUCTIONS:

***TPHd - Silica Gel Cleanup**

****Oxys by 8260B: DIPE, ETBE, TAME, and TBA**

***** Lead Scavengers (1,2-DCA and EDB)**

Please email PDF files to: norcallabs@eri-us.com

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☒ TPH(g) (8015B)	☒ TPH(d) (8015B)	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX 8260B ☒	MTBE 8260B	Oxygenates (8260B)**	Lead Scavengers (8260B) ***	PAHs ☒ 8270C
1	S-5-~~B16~~ B18	B16	10/8/15	1000	Soil	1				x	x			x	x	x	x	x
2	S-10-~~B16~~ B18	B16	10/8/15	1040	Soil	1				x	x			x	x	x	x	x
3	S-15-~~B16~~ B18	B16	10/8/15	1115	Soil	1				x	x			x	x	x	x	x
4	S-5-MW9	MW9	10/8/15	1300	Soil	1				x	x			x	x	x	x	x
5	S-10.5-MW9	MW9	10/8/15	1310	Soil	1				x	x			x	x	x	x	x
6	S-15.5-MW9	MW9	10/8/15	1315	Soil	1				x	x			x	x	x	x	x
7	S-5-SVE5	SVE5	10/9/15	0840	Soil	1				x	x			x	x	x	x	x
8	S-11.5-SVE5	SVE5	10/9/15	0900	Soil	1				x	x			x	x	x	x	x
9	S-15.5-SVE5	SVE5	10/9/15	0905	Soil	1				x	x			x	x	x	x	x
10	S-5-SVE4	SVE4	10/9/15	1130	Soil	1				x	x			x	x	x	x	x

Relinquished by: (Signature)	Received by: (Signature/Affiliation) Tom Malloy ECI	Date: 10/12/15	Time: 1255
Relinquished by: (Signature) Tom Malloy TO GSO 10/12/15 1730	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 10/13/15	Time: 1000

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CHAIN OF CUSTODY RECORD

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WO # / LAB USE ONLY: 0405

DATE: 10/9/15

PAGE: 2 OF 2

LABORATORY CLIENT: Cardno / ExxonMobil

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

TEL: (707) 766-2000 E-MAIL: scott.perkins@cardno.com

CLIENT PROJECT NAME / NUMBER: Former Exxon 79374

P.O. NO.: 02 2735CX

PROJECT CONTACT: Scott Perkins

SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: T0619716673 LOG CODE:

SPECIAL INSTRUCTIONS:

***TPHd - Silica Gel Cleanup**

****Oxys by 8260B: DIPE, ETBE, TAME, and TBA**

***** Lead Scavengers (1,2-DCA and EDB)**

Please email PDF files to: norcallabs@eri-us.com

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☒ TPH(g) (8015B)	☒ TPH(d) (8015B)	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX 8260B ☒	MTBE 8260B	Oxygenates (8260B)**	Lead Scavengers (8260B) ***	PAHs ☒ 8270C
11	S - 9.5 - SVE 4	SVE4	10/9/15	1240	Soil	1				x	x			x	x	x	x	x
12	S - 15.5 - SVE4	SVE4	10/9/15	1140	Soil	1				x	x			x	x	x	x	x
13	S - 5 - SVE 7	SVE7	10/9/15	1330	Soil	1				x	x			x	x	x	x	x
14	S - 10 - SVE7	SVE7	10/9/15	1355	Soil	1				x	x			x	x	x	x	x
15	S - 12 - SVE7	SVE7	10/9/15	1400	Soil	1				x	x			x	x	x	x	x
16	S - 15.5 - SVE7	SVE7	10/9/15	1405	Soil	1				x	x			x	x	x	x	x
17	S - 5 - SVE6	SVE 6	10/9/15	1455	Soil	1				x	x			x	x	x	x	x
18	S - 12 - SVE6	SVE6	10/9/15	1500	Soil	1				x	x			x	x	x	x	x

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 10/12/15	Time: 1255
Relinquished by: (Signature) Tom Malley to GSO 10/12/15 1730	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 10/13/15	Time: 1000

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WORK ORDER NUMBER: 15-10-0905

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno ERI

DATE: 10 / 13 / 2015

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

Thermometer ID: SC2 (CF:-0.4°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.1 °C; ☑ Blank ☐ Sample

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

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

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

Ambient Temperature: ☐ Air ☐ Filter Checked by: 15

CUSTODY SEAL:

Cooler ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: 15

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1017

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☒ AG 10/13/15	☑	☐
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

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

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (P/S) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

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

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

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

Labeled/Checked by: 1017

Reviewed by: 82

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WORK ORDER NUMBER: 15-10- 0905

SAMPLE ANOMALY REPORT

DATE: 10 / 13 / 2015

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)	(-7) Collection time per label is 8:50
☐ Project information	
☐ Client sample ID	
☑ Sampling date and/or time	
☐ Number of container(s)	
☐ Requested analysis	
☐ Sample container(s) compromised (comment)	
☐ Broken	
☐ Water present in sample container	
☐ Air sample container(s) compromised (comment)	
☐ Flat	
☐ Very low in volume	
☐ Leaking (not transferred; duplicate bag submitted)	
☐ Leaking (transferred into ECI Tedlar™ bags*)	
☐ Leaking (transferred into client's Tedlar™ bags*)	

* Transferred at client's request.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

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

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

(Containers with bubble for other analysis)

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

Comments:

Reported by: 1017

Reviewed by: 862

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

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Supplemental Report 1

The original report has been revised/corrected.

WORK ORDER NUMBER: 15-10-0906

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno

Client Project Name: ExxonMobil 79374/022735C

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

Approved for release on 10/29/2015 by:
Cecile deGuia
Project Manager

ResultLink

Email your PM

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Client Project Name: ExxonMobil 79374/022735C
Work Order Number: 15-10-0906

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Work Order Narrative

Work Order: 15-10-0906 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/13/15. They were assigned to Work Order 15-10-0906.

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.

On October 29, 2015, Eurofins Calscience Inc. received a request for a correction to the client project name of “ExxonMobil 99DEL” to “ExxonMobil 79374”. The report has been amended to reflect the corrected ExxonMobil site.

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Sample Summary

Client:	Cardno	Work Order:	15-10-0906
	601 North McDowell Blvd.	Project Name:	ExxonMobil 79374/022735C
	Petaluma, CA 94954-2312	PO Number:	022732C
		Date/Time Received:	10/13/15 10:00
		Number of Containers:	5
Attn:	Scott Perkins		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
S-SP1-1	15-10-0906-1	10/08/15 13:30	1	Solid
S-SP1-2	15-10-0906-2	10/08/15 13:40	1	Solid
S-SP1-3	15-10-0906-3	10/09/15 08:00	1	Solid
S-SP1-4	15-10-0906-4	10/09/15 08:05	1	Solid
SP-1	15-10-0906-5	10/08/15 00:00	1	Solid

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	**15-10-0906-5-A**	**10/08/15 00:00**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 16:54**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	4.9	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	101	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-422-2111**	**N/A**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 15:49**	**151015B03**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	92	61-145	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0906
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	**15-10-0906-5-A**	**10/08/15 00:00**	**Solid**	**GC 1**	**10/13/15**	**10/21/15 19:15**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	0.79	0.49	1.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	67	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-571-2677**	**N/A**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 07:52**	**151020L058**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	62	42-126	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0906
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	**15-10-0906-5-A**	**10/08/15 00:00**	**Solid**	**ICP 7300**	**10/14/15**	**10/15/15 22:54**	**151014L03**

Parameter	Result	RL	DF	Qualifiers
Lead	5.74	0.524	1.05	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-21911**	**N/A**	**Solid**	**ICP 7300**	**10/14/15**	**10/15/15 15:22**	**151014L03**

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.510	1.02	

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

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Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0906
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	**15-10-0906-5-A**	**10/08/15 00:00**	**Solid**	**GC/MS SS**	**10/15/15**	**10/16/15 14:42**	**151015L02**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1.00	
Acenaphthylene	ND	0.50	1.00	
Aniline	ND	0.50	1.00	
Anthracene	ND	0.50	1.00	
Azobenzene	ND	0.50	1.00	
Benzidine	ND	10	1.00	
Benzo (a) Anthracene	ND	0.50	1.00	
Benzo (a) Pyrene	ND	0.50	1.00	
Benzo (b) Fluoranthene	ND	0.50	1.00	
Benzo (g,h,i) Perylene	ND	0.50	1.00	
Benzo (k) Fluoranthene	ND	0.50	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.50	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00	
Butyl Benzyl Phthalate	ND	0.50	1.00	
4-Chloro-3-Methylphenol	ND	0.50	1.00	
4-Chloroaniline	ND	0.50	1.00	
2-Chloronaphthalene	ND	0.50	1.00	
2-Chlorophenol	ND	0.50	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00	
Chrysene	ND	0.50	1.00	
Di-n-Butyl Phthalate	ND	0.50	1.00	
Di-n-Octyl Phthalate	ND	0.50	1.00	
Dibenz (a,h) Anthracene	ND	0.50	1.00	
Dibenzofuran	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	
3,3'-Dichlorobenzidine	ND	10	1.00	
2,4-Dichlorophenol	ND	0.50	1.00	
Diethyl Phthalate	ND	0.50	1.00	

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

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Analytical Report

Cardno	Date Received:	10/13/15
601 North McDowell Blvd.	Work Order:	15-10-0906
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: ExxonMobil 79374/022735C		Page 2 of 6

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	85	27-120	

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

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Analytical Report

Cardno	Date Received:	10/13/15
601 North McDowell Blvd.	Work Order:	15-10-0906
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: ExxonMobil 79374/022735C		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	87	25-120	
Nitrobenzene-d5	81	33-123	
p-Terphenyl-d14	83	27-159	
Phenol-d6	85	26-122	
2,4,6-Tribromophenol	89	18-138	

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

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Analytical Report

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

Date Received: 10/13/15
Work Order: 15-10-0906
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: ExxonMobil 79374/022735C

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-549-3429**	**N/A**	**Solid**	**GC/MS SS**	**10/15/15**	**10/15/15 17:32**	**151015L02**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1.00	
Acenaphthylene	ND	0.50	1.00	
Aniline	ND	0.50	1.00	
Anthracene	ND	0.50	1.00	
Azobenzene	ND	0.50	1.00	
Benzidine	ND	10	1.00	
Benzo (a) Anthracene	ND	0.50	1.00	
Benzo (a) Pyrene	ND	0.50	1.00	
Benzo (b) Fluoranthene	ND	0.50	1.00	
Benzo (g,h,i) Perylene	ND	0.50	1.00	
Benzo (k) Fluoranthene	ND	0.50	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.50	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00	
Butyl Benzyl Phthalate	ND	0.50	1.00	
4-Chloro-3-Methylphenol	ND	0.50	1.00	
4-Chloroaniline	ND	0.50	1.00	
2-Chloronaphthalene	ND	0.50	1.00	
2-Chlorophenol	ND	0.50	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00	
Chrysene	ND	0.50	1.00	
Di-n-Butyl Phthalate	ND	0.50	1.00	
Di-n-Octyl Phthalate	ND	0.50	1.00	
Dibenz (a,h) Anthracene	ND	0.50	1.00	
Dibenzofuran	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	
3,3'-Dichlorobenzidine	ND	10	1.00	
2,4-Dichlorophenol	ND	0.50	1.00	
Diethyl Phthalate	ND	0.50	1.00	

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

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Analytical Report

Cardno	Date Received:	10/13/15
601 North McDowell Blvd.	Work Order:	15-10-0906
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: ExxonMobil 79374/022735C		Page 5 of 6

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	89	27-120	

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

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Analytical Report

Cardno	Date Received:	10/13/15
601 North McDowell Blvd.	Work Order:	15-10-0906
Petaluma, CA 94954-2312	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: ExxonMobil 79374/022735C		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	98	25-120	
Nitrobenzene-d5	89	33-123	
p-Terphenyl-d14	94	27-159	
Phenol-d6	97	26-122	
2,4,6-Tribromophenol	95	18-138	

Return to Contents

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	**15-10-0906-5-A**	**10/08/15 00:00**	**Solid**	**GC/MS OO**	**10/13/15**	**10/15/15 07:43**	**151014L053**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
Ethanol	ND	0.25	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	60-132	
Dibromofluoromethane	109	63-141	
1,2-Dichloroethane-d4	113	62-146	
Toluene-d8	102	80-120	

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

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Analytical Report

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 79374/022735C			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-882-1767**	**N/A**	**Solid**	**GC/MS OO**	**10/14/15**	**10/15/15 03:31**	**151014L053**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0050	1.00	
Toluene	ND	0.0050	1.00	
Ethylbenzene	ND	0.0050	1.00	
o-Xylene	ND	0.0050	1.00	
p/m-Xylene	ND	0.0050	1.00	
Xylenes (total)	ND	0.0050	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.050	1.00	
Diisopropyl Ether (DIPE)	ND	0.010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1.00	
Ethanol	ND	0.25	1.00	
1,2-Dibromoethane	ND	0.0050	1.00	
1,2-Dichloroethane	ND	0.0050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-132	
Dibromofluoromethane	108	63-141	
1,2-Dichloroethane-d4	109	62-146	
Toluene-d8	98	80-120	

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

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SP-1	**Sample**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 16:54**	**151015S03**
SP-1	**Matrix Spike**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 16:22**	**151015S03**
SP-1	**Matrix Spike Duplicate**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 16:38**	**151015S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	454.4	114	490.6	123	64-130	8	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-0905-1	**Sample**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 09:03**	**151020S030**
15-10-0905-1	**Matrix Spike**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 09:39**	**151020S030**
15-10-0905-1	**Matrix Spike Duplicate**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 10:14**	**151020S030**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	10.00	8.978	90	9.849	98	48-114	9	0-23	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ExxonMobil 79374/022735C			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-0934-1	**Sample**	**Solid**	**ICP 7300**	**10/14/15**	**10/15/15 15:26**	**151014S03**
15-10-0934-1	**Matrix Spike**	**Solid**	**ICP 7300**	**10/14/15**	**10/15/15 15:28**	**151014S03**
15-10-0934-1	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**10/14/15**	**10/15/15 15:30**	**151014S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	54.46	25.00	75.02	82	86.14	127	75-125	14	0-20	HX

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: ExxonMobil 79374/022735C			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-1081-8	**Sample**	**Solid**	**GC/MS SS**	**10/15/15**	**10/15/15 17:52**	**151015S02**
15-10-1081-8	**Matrix Spike**	**Solid**	**GC/MS SS**	**10/15/15**	**10/15/15 18:12**	**151015S02**
15-10-1081-8	**Matrix Spike Duplicate**	**Solid**	**GC/MS SS**	**10/15/15**	**10/15/15 18:32**	**151015S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	10.00	10.28	103	10.25	103	34-148	0	0-20	
Acenaphthylene	ND	10.00	9.887	99	10.01	100	53-120	1	0-20	
Butyl Benzyl Phthalate	ND	10.00	11.88	119	11.71	117	15-189	1	0-20	
4-Chloro-3-Methylphenol	ND	10.00	11.18	112	11.20	112	32-120	0	0-20	
2-Chlorophenol	ND	10.00	9.674	97	9.694	97	53-120	0	0-20	
1,4-Dichlorobenzene	ND	10.00	6.994	70	7.585	76	43-120	8	0-26	
Dimethyl Phthalate	ND	10.00	9.971	100	9.735	97	44-122	2	0-20	
2,4-Dinitrotoluene	ND	10.00	11.01	110	10.59	106	28-120	4	0-20	
Fluorene	ND	10.00	10.62	106	10.53	105	12-186	1	0-20	
N-Nitroso-di-n-propylamine	ND	10.00	8.904	89	8.841	88	38-140	1	0-20	
Naphthalene	ND	10.00	8.815	88	9.086	91	20-140	3	0-20	
4-Nitrophenol	ND	10.00	10.31	103	9.993	100	14-128	3	0-59	
Pentachlorophenol	ND	10.00	10.83	108	10.77	108	10-124	1	0-20	
Phenol	ND	10.00	9.599	96	9.514	95	22-124	1	0-20	
Pyrene	ND	10.00	11.33	113	11.40	114	31-169	1	0-20	
1,2,4-Trichlorobenzene	ND	10.00	9.192	92	9.475	95	56-120	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-10-0967-1	**Sample**	**Solid**	**GC/MS OO**	**10/13/15**	**10/15/15 04:27**	**151014S025**
15-10-0967-1	**Matrix Spike**	**Solid**	**GC/MS OO**	**10/13/15**	**10/15/15 04:55**	**151014S025**
15-10-0967-1	**Matrix Spike Duplicate**	**Solid**	**GC/MS OO**	**10/13/15**	**10/15/15 05:23**	**151014S025**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.03926	79	0.03770	75	61-127	4	0-20	
Toluene	ND	0.05000	0.04044	81	0.03839	77	63-123	5	0-20	
Ethylbenzene	ND	0.05000	0.04112	82	0.03927	79	57-129	5	0-22	
o-Xylene	ND	0.05000	0.04202	84	0.04019	80	70-130	4	0-30	
p/m-Xylene	ND	0.1000	0.08426	84	0.08006	80	70-130	5	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.03810	76	0.03896	78	57-123	2	0-21	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.1952	78	0.1989	80	30-168	2	0-34	
Diisopropyl Ether (DIPE)	ND	0.05000	0.03818	76	0.03760	75	57-129	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.03705	74	0.03638	73	55-127	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.03808	76	0.03791	76	58-124	0	0-20	
Ethanol	ND	0.5000	0.5147	103	0.4833	97	17-167	6	0-47	
1,2-Dibromoethane	ND	0.05000	0.03895	78	0.03939	79	64-124	1	0-20	
1,2-Dichloroethane	ND	0.05000	0.04155	83	0.04045	81	80-120	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS/PDSD

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

Project: ExxonMobil 79374/022735C

Date Received: 10/13/15
Work Order: 15-10-0906
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
15-10-0934-1	**Sample**	**Solid**	**ICP 7300**	**10/14/15 00:00**	**10/15/15 15:26**	**151014S03**
15-10-0934-1	**PDS**	**Solid**	**ICP 7300**	**10/14/15 00:00**	**10/19/15 19:26**	**151014S03**
15-10-0934-1	**PDSD**	**Solid**	**ICP 7300**	**10/14/15 00:00**	**10/19/15 19:32**	**151014S03**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	54.46	25.00	78.26	95	78.07	94	75-125	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-422-2111	**LCS**	**Solid**	**GC 48**	**10/15/15**	**10/15/15 16:05**	**151015B03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	470.5	118	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: ExxonMobil 79374/022735C			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-571-2677	**LCS**	**Solid**	**GC 1**	**10/20/15**	**10/21/15 07:17**	**151020L058**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	10.00	10.07	101	70-124	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: ExxonMobil 79374/022735C			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21911	**LCS**	**Solid**	**ICP 7300**	**10/14/15**	**10/15/15 15:24**	**151014L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	25.00	26.68	107	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: ExxonMobil 79374/022735C			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-549-3429	**LCS**	**Solid**	**GC/MS SS**	**10/15/15**	**10/15/15 17:13**	**151015L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acenaphthene	10.00	9.131	91	51-123	39-135	
Acenaphthylene	10.00	9.172	92	52-120	41-131	
Butyl Benzyl Phthalate	10.00	11.29	113	43-139	27-155	
4-Chloro-3-Methylphenol	10.00	11.02	110	55-121	44-132	
2-Chlorophenol	10.00	10.51	105	58-124	47-135	
1,4-Dichlorobenzene	10.00	8.246	82	42-132	27-147	
Dimethyl Phthalate	10.00	9.394	94	51-123	39-135	
2,4-Dinitrotoluene	10.00	10.61	106	51-129	38-142	
Fluorene	10.00	9.367	94	54-126	42-138	
N-Nitroso-di-n-propylamine	10.00	9.522	95	40-136	24-152	
Naphthalene	10.00	8.661	87	32-146	13-165	
4-Nitrophenol	10.00	10.16	102	24-126	7-143	
Pentachlorophenol	10.00	10.04	100	23-131	5-149	
Phenol	10.00	9.944	99	40-130	25-145	
Pyrene	10.00	9.992	100	47-143	31-159	
1,2,4-Trichlorobenzene	10.00	9.175	92	45-129	31-143	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Cardno		Date Received:	10/13/15
601 North McDowell Blvd.		Work Order:	15-10-0906
Petaluma, CA 94954-2312		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ExxonMobil 79374/022735C			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-882-1767	**LCS**	**Solid**	**GC/MS OO**	**10/14/15**	**10/15/15 02:35**	**151014L053**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	0.05000	0.04966	99	78-120	71-127	
Toluene	0.05000	0.05064	101	77-120	70-127	
Ethylbenzene	0.05000	0.05208	104	76-120	69-127	
o-Xylene	0.05000	0.05334	107	75-125	67-133	
p/m-Xylene	0.1000	0.1061	106	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.05102	102	77-120	70-127	
Tert-Butyl Alcohol (TBA)	0.2500	0.2459	98	68-122	59-131	
Diisopropyl Ether (DIPE)	0.05000	0.04954	99	78-120	71-127	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04906	98	78-120	71-127	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04970	99	75-120	68-128	
Ethanol	0.5000	0.5657	113	56-140	42-154	
1,2-Dibromoethane	0.05000	0.05213	104	80-120	73-127	
1,2-Dichloroethane	0.05000	0.05316	106	80-120	73-127	

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

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 15-10-0906 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 8015B (M)	EPA 3550B	974	GC 48	1
EPA 8015B (M)	EPA 5030C	902	GC 1	2
EPA 8260B	EPA 5030C	1032	GC/MS OO	2
EPA 8270C	EPA 3545	923	GC/MS SS	1

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Glossary of Terms and Qualifiers

Work Order: 15-10-0906 Page 1 of 1

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

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Cecile L de Guia

From: Greg Gurss [greg.gurss@cardno.com]
Sent: Tuesday, October 13, 2015 4:47 PM
To: Cecile L de Guia
Cc: Nadya Vicente
Subject: FW: ExxonMobil 99DEL; 15-10-0906
Attachments: 15100906.pdf

Cecile,

8260B will work. Thanks.

Greg A. Gurss
SACRAMENTO BRANCH MANAGER
CARDNO ENGINEERING & ENVIRONMENTAL SERVICES

Phone (+1) 916-692-3100 Fax (+1) 707-789-0414 Direct (+1) 916-692-3130 Mobile (+1) 916-842-6486
Address 701 University Avenue, Suite 200, Sacramento, CA 95825
Email greg.gurss@cardno.com Web www.cardno.com www.cardnoeri.com

From: Scott Perkins
Sent: Tuesday, October 13, 2015 4:34 PM
To: Greg Gurss <greg.gurss@cardno.com>
Cc: Nadya Vicente <nadya.vicente@cardno.com>
Subject: FW: ExxonMobil 99DEL; 15-10-0906

Looks like this question is for you Greg.

Scott Perkins
SENIOR PROJECT MANAGER
ENGINEERING & ENVIRONMENTAL SERVICES DIVISION
CARDNO

Direct +1 707 766 2000 Mobile +1 925 580 2455 Fax +1 707 789 0414
Address 601 North McDowell Boulevard, Petaluma, CA 94954
Email scott.perkins@cardno.com Web www.cardno.com

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From: Cecile L de Guia [mailto:CecileLdeGuia@eurofinsUS.com]
Sent: Tuesday, October 13, 2015 4:31 PM
To: Scott Perkins <Scott.Perkins@cardno.com>
Cc: Nadya Vicente <nadya.vicente@cardno.com>
Subject: ExxonMobil 99DEL; 15-10-0906

Good Afternoon Scott,

Please advise on what method BTEX/MTBE should be analyze for? EPA 8021B or 8260B method?
Thank you.

Best regards,
Cecile de Guia
Project Manager

Eurofins Calscience
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494
Email: ceciledeguia@eurofinsUS.com
Website: www. eurofinsus.com

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Cecile L de Guia

From: Scott Perkins [Scott.Perkins@cardno.com]
Sent: Thursday, October 29, 2015 8:50 AM
To: Cecile L de Guia
Cc: David R. Daniels
Subject: incorrect site
Attachments: 2735 revised COC.pdf

Cecile,

The attached COC had the incorrect site identified on the COC. Please correct the reports and reissue as indicated on the attached.

The Global ID provided on the original COC is correct.

Sorry for the mix-up.

Regards,

Scott

Scott Perkins
SENIOR PROJECT MANAGER
ENGINEERING & ENVIRONMENTAL SERVICES DIVISION
CARDNO

Cardno®
Shaping the Future

Direct +1 707 766 2000 Mobile +1 925 580 2455 Fax +1 707 789 0414
Address 601 North McDowell Boulevard, Petaluma, CA 94954
Email scott.perkins@cardno.com Web www.cardno.com

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For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **15-10-0906**

DATE: 10-9-15

PAGE: 1 OF 1

LABORATORY CLIENT: Cardno / ExxonMobil

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

TEL: (707) 766-2000 E-MAIL: scott.perkins@cardno.com

CLIENT PROJECT NAME / NUMBER: Former Mobil Service Station ~~9DEL~~ 79374

P.O. NO.: ~~0227320X~~ 022735CX

PROJECT CONTACT: Scott Perkins

SAMPLER(S): (PRINT) Nadya Vicente

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: T0619716673 LOG CODE:

SPECIAL INSTRUCTIONS:

*TPHd - Silica Gel Cleanup

**Oxys by 8260: MTBE, TBA, DIPE, ETBE, TAME, 1,2-DCA, ethanol and EDB

***Combine all 4 sleeves into single sample SP-1

Please email PDF files to: norcallabs@eri-us.com

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☒ TPH(g) (8015)	☒ TPH(d) 8015*	TPH ☐ C8-C36 ☐ C8-C44	TPH ____	BTEX / MTBE ☒	Full Scan VOCs (8260)	Oxygenates (8260)**	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
1	S-SP1-1***	SP1	10/8/15	1330	Soil	1				x	x			x		x	x	x					
2	S-SP1-2***	SP1	10/8/15	1340	Soil	1				x	x			x		x	x	x					
3	S-SP1-3***	SP1	10/9/15	0800	Soil	1				x	x			x		x	x	x					
4	S-SP1-4***	SP1	10/9/15	0805	Soil	1				x	x			x		x	x	x					

Relinquished by: (Signature)	Received by: (Signature/Affiliation) GSO	Date: 10/12/15	Time: 1255
Relinquished by: (Signature) To GSO 10/12/15 1730	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 10/13/15	Time: 1000

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **15-10-0906**

DATE: 10-9-15

PAGE: 1 OF 1

LABORATORY CLIENT: **Cardno / ExxonMobil**

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

TEL: (707) 766-2000 E-MAIL: scott.perkins@cardno.com

CLIENT PROJECT NAME / NUMBER: Former Mobil Service Station 99DEL

P.O. NO.: 022732CX

PROJECT CONTACT: Scott Perkins

SAMPLER(S): (PRINT) Nadya Vicente

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: T0619716673 LOG CODE:

SPECIAL INSTRUCTIONS:

*TPHd - Silica Gel Cleanup
**Oxys by 8260: MTBE, TBA, DIPE, ETBE, TAME, 1,2-DCA, ethanol and EDB
***Combine all 4 sleeves into single sample SP-1
Please email PDF files to: norcallabs@eri-us.com

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	Field Point Name	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☒ TPH(g) (8015)	☒ TPH(d) 8015*	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☒	Full Scan VOCs (8260)	Oxygenates (8260)**	Total Lead (6010)	SVOCs (8270 C)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
1	S-SP1-1***	SP1	10/8/15	1330	Soil	1				x	x			x		x	x	x					
2	S-SP1-2***	SP1	10/8/15	1340	Soil	1				x	x			x		x	x	x					
3	S-SP1-3***	SP1	10/9/15	0800	Soil	1				x	x			x		x	x	x					
4	S-SP1-4***	SP1	10/9/15	0805	Soil	1				x	x			x		x	x	x					

Relinquished by: (Signature)	Received by: (Signature/Affiliation) Tom Malley GSO	Date: 10/12/15	Time: 1255
Relinquished by: (Signature) Tom Malley TO GSO 10/12/15 1730	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 10/13/15	Time: 1000

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WORK ORDER NUMBER: 15-10- 0906

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno ERD

DATE: 10 / 13 / 2015

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

Thermometer ID: SC2 (CF:-0.4°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.1 °C; ☑ Blank ☐ Sample

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

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

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

Ambient Temperature: ☐ Air ☐ Filter Checked by: 15

CUSTODY SEAL:

Cooler ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: 15

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1017

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

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

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

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

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

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

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

Labeled/Checked by: 1017

Reviewed by: 802

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APPENDIX

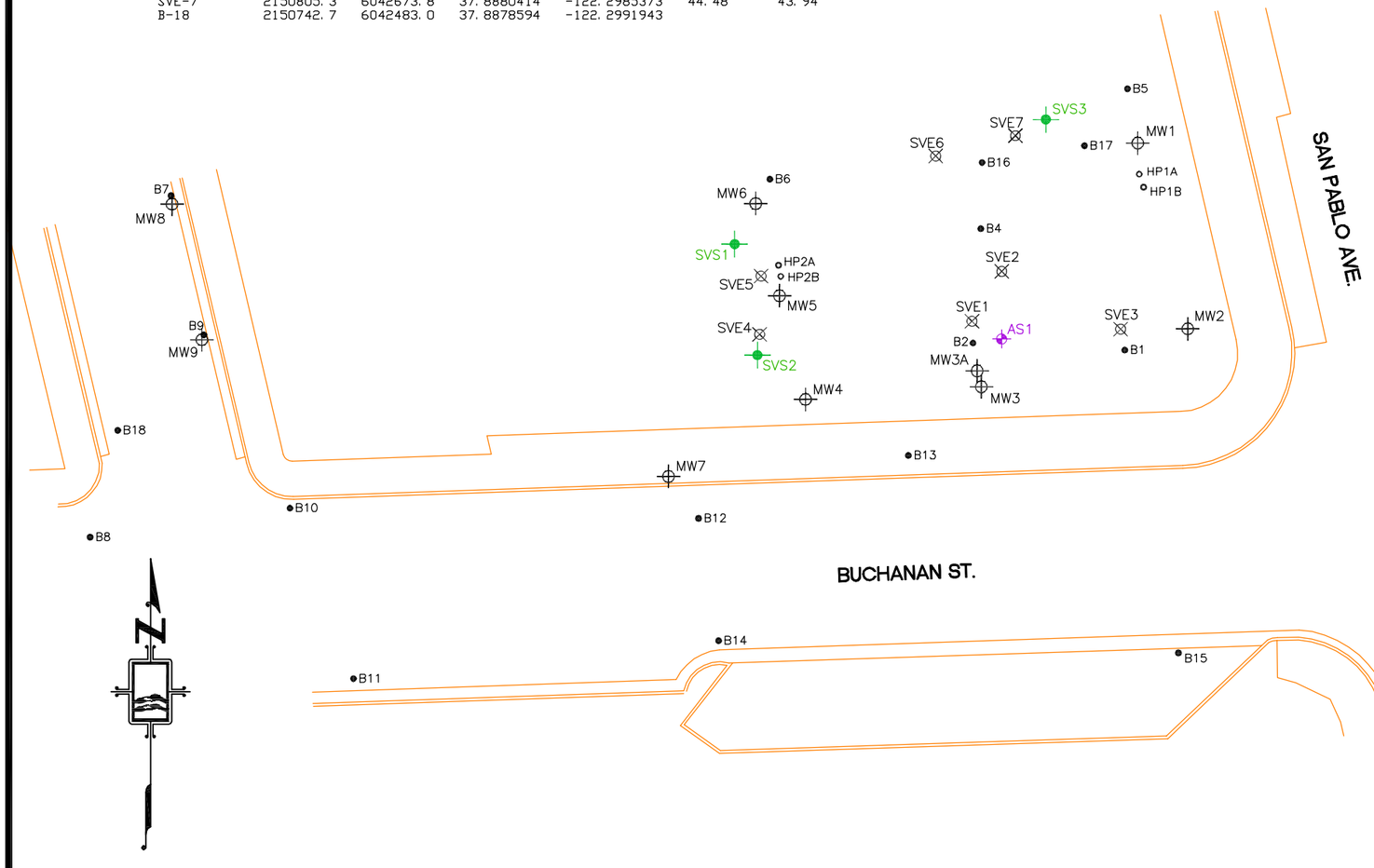
H

SURVEY DATA

Cardno
Shaping the Future

WELLS SURVEYED ON 10-26-15

DESC.	NORTHING	EASTING	LATITUDE	LONGITUDE	EL. PVC	EL. RIM
MW-9	2150762.1	6042501.0	37.8879136	-122.2991332	39.50	39.80
SVE-4	2150763.1	6042619.4	37.8879226	-122.2987229	43.10	42.53
SVE-5	2150775.5	6042619.7	37.8879566	-122.2987228	43.70	43.07
SVE-6	2150801.0	6042656.8	37.8880287	-122.2985959	44.37	43.93
SVE-7	2150805.3	6042673.8	37.8880414	-122.2985373	44.48	43.94
B-18	2150742.7	6042483.0	37.8878594	-122.2991943		



DESC.	NORTHING	EASTING	LATITUDE	LONGITUDE	EL. PVC	EL. RIM	EL. GND
WELLS BORINGS PREVIOUSLY SURVEYED BY CARDNO, CONVERTED TO NAVD 88 BY MORROW:							
B1	2150759.8	6042697.0	37.8879174	-122.2984540			44.1
B2	2150761.3	6042664.8	37.8879199	-122.2985658			43.7
B4	2150785.6	6042666.4	37.8879867	-122.2985617			44.0
B5	2150815.3	6042697.6	37.8880700	-122.2984557			44.7
B6	2150796.1	6042621.6	37.8880132	-122.2987177			44.3
HP1A	2150797.2	6042700.1	37.8880203	-122.2984458			44.5
HP1B	2150794.4	6042701.0	37.8880128	-122.2984424			44.5
HP2A	2150777.8	6042623.4	37.8879631	-122.2987101			43.6
HP2B	2150775.5	6042623.9	37.8879566	-122.2987083			43.5
MW1	2150803.8	6042699.8	37.8880384	-122.2984473	44.19	44.49	
MW2	2150764.3	6042710.4	37.8879305	-122.2984079	43.99	44.37	
MW3	2150752.0	6042666.5	37.8878945	-122.2985590	43.16	43.66	
MW4	2150749.3	6042629.2	37.8878851	-122.2986883	42.04	42.46	
MW5	2150771.3	6042623.6	37.8879453	-122.2987089	43.12	43.40	
MW6	2150790.9	6042618.6	37.8879988	-122.2987277	43.80	44.11	
WELLS SURVEYED BY MORROW ON 2-6-12: (CONVERTED TO NAVD 88 BASED ON 4-3-14 SURVEY)							
MW3A	2150755.4	6042665.6	37.8879037	-122.2985623	43.42	43.69	
SVE1	2150765.9	6042664.6	37.8879326	-122.2985668	43.32	43.77	
SVE2	2150776.5	6042670.9	37.8879620	-122.2985456	43.68	43.95	
SVE3	2150764.2	6042696.1	37.8879296	-122.2984573	43.67	44.18	
AS1	2150762.2	6042670.8	37.8879226	-122.2985448		43.81	
WELLS AND BORINGS SURVEYED BY MORROW ON 4-3-14:							
SVS1	2150782.3	6042614.1	37.8879749	-122.2987427		43.87	
SVS2	2150758.7	6042618.9	37.8879104	-122.2987244		42.90	
SVS3	2150808.8	6042680.3	37.8880511	-122.2985153		44.47	
B7	2150792.6	6042494.3	37.8879969	-122.2991584			40.1
B8	2150720.0	6042477.1	37.8877967	-122.2992132			39.5
B9	2150763.0	6042501.3	37.8879160	-122.2991323			39.9
B10	2150726.2	6042519.6	37.8878158	-122.2990665			40.1
B11	2150689.9	6042533.1	37.8877171	-122.2990172			40.2
B12	2150724.0	6042606.4	37.8878144	-122.2987654			41.6
B13	2150737.4	6042651.0	37.8878535	-122.2986119			42.6
B14	2150698.0	6042610.7	37.8877432	-122.2987489			41.6
B15	2150695.4	6042708.4	37.8877413	-122.2984102			43.1
B16	2150799.7	6042666.7	37.8880253	-122.2985617			44.4
B17	2150803.2	6042688.5	37.8880363	-122.2984865			44.4
WELLS SURVEYED ON 12-23-14:							
MW7	2150732.9	6042600.0	37.8878386	-122.2987881	41.21	41.63	
MW8	2150790.8	6042494.5	37.8879920	-122.2991575	39.65	40.06	

0 15 30 60 90

SCALE IN FEET

Morrow Surveying
LAND SURVEYORS

1255 Starboard Drive
West Sacramento ~ CA ~ 95691
Phone: 916-372-8124
Fax: 916-372-8538
Email: matt@morrowsurveying.com
www.morrowsurveying.com

DATE: APRIL, 2014
DATE SURVEYED: 4-3-14 SF,
12-23-14 MS, 10-26-15 SF
SCALE: 1"=30'
SHEET 1 OF 1
FIELD BOOK: MW-57
DRAWING NO. : 1873-155
DRAWN BY: MAM

BASIS OF COORDINATES & ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3
COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK.

COORDINATE DATUM IS NAD 83.

REFERENCE GEOID IS GEOID03.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.

MONITORING WELL EXHIBIT

Prepared for:
CARDNO ERI

FORMER EXXON 79374

990 San Pablo Ave.
City of Albany Alameda County
California