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**Environmental Services Company**
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**Jennifer C. Sedlachek**
Project Manager

**RECEIVED**
*By Alameda County Environmental Health at 9:33 am, Jul 21, 2014*

ExxonMobil

July 18, 2014

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

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

Dear Mr. Detterman:

Attached for your review and comment is a copy of the letter report entitled ***Groundwater Monitoring Report, First and Second Quarter 2014,*** dated July 18, 2014, for the above-referenced site. The report was prepared by Cardno ERI of Petaluma, California, and details activities at the subject site.

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

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

Sincerely,

Jennifer C. Sedlachek
Project Manager

Attachment: Cardno ERI's ***Groundwater Monitoring Report, First and Second Quarter 2014,*** dated July 18, 2014

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

w/o attachment
Mr. Greg Gurss, Cardno ERI

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July 18, 2014
Cardno ERI 2735C.Q142

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

**SUBJECT** **Groundwater Monitoring Report, First and Second Quarter 2014**
Former Exxon Service Station 79374
990 San Pablo Avenue, Albany, California

Alameda County RO#2974

## INTRODUCTION

At the request of ExxonMobil Environmental Services (EMES), on behalf of Exxon Mobil Corporation, Cardno ERI performed first quarter 2014 NAPL monitoring in well MW4 and second quarter 2014 groundwater monitoring and sampling activities at the subject site. Relevant plates, tables, and appendices are included at the end of this report. Currently, the site is occupied by a retail outlet for paints and painting products.

## GROUNDWATER MONITORING AND SAMPLING SUMMARY

| | | |
|---|---|---|
| **Gauging dates:** | | 04/30/14 |
| **Sampling date:** | | 05/01/14 |
| **Wells gauged and sampled:** | | MW1 through MW3, MW3A, MW4 through MW6 |
| **Wells gauged only:** | | AS1, SVE1 through SVE3 |
| **Presence of NAPL:** | | Not observed |
| **Laboratory:** | | Calscience Environmental Laboratories, Inc.<br>Garden Grove, California |
| **Analyses performed:** | EPA Method 8015B | TPHd, TPHg, TPHmo |
| | EPA Method 8260B | BTEX, MTBE, ETBE, TAME, TBA, DIPE, EDB, 1,2-DCA |
| **Waste disposal:** | 64 gallons purge and decon water delivered to InStrat, Inc., of Rio Vista, California, on 05/23/14 | |

## RESULTS AND CONCLUSIONS

### Groundwater Gradient

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 2014, the groundwater flow direction in the shallow water-bearing zone was towards the north under a hydraulic gradient of approximately 0.0167. Due to varying well construction, the groundwater flow in the deep water-bearing zone was not calculated. Groundwater elevation maps for the shallow and deep water-bearing zones are included as Plates 3 and 4, respectively.

### Non-Aqueous Phase Liquid

During the fourth quarter 2012 sampling event, concentrations of TPHg (270,000 µg/L) were two orders of magnitude higher in well MW4 than previous concentrations, potentially indicative of the presence of NAPL. Although the TPHg concentrations increased, BTEX concentrations were consistent with previous data. NAPL has not been observed. Concentrations of TPHg reported in well MW4 since second quarter 2013 have been consistent with historical results. On March 5, 2014, during soil boring activities (Cardno ERI, 2014a) a disposable bailer was lowered into well MW4 and inspected for NAPL. NAPL was not observed.

### Hydrocarbons in Groundwater

Maximum petroleum hydrocarbon concentrations were reported in well MW3, located in the vicinity of the former USTs, and wells MW4 and MW5, located west of the former USTs. Petroleum hydrocarbons were near or below reporting limits in wells MW1 and MW2, located in the eastern portion of the site. Petroleum hydrocarbon concentrations were consistent with historic site data.

## RECOMMENDATIONS

Cardno ERI submitted the *Soil, Soil Vapor, and Groundwater Investigation Report and Site Conceptual Model*, dated May 2, 2014 (Cardno ERI, 2014a) and the *Work Plan for Well Installation*, dated July 7, 2014 (Cardno ERI, 2014b), recommending continued semi-annual groundwater monitoring and sampling, conducting a second round of soil vapor sampling during the dry season of 2014, and installing off-site groundwater monitoring wells near borings B9 and B12. Cardno ERI recommends implementing the work proposed in the report and work plan.

Groundwater samples have been analyzed for TPHmo since the onset of sampling in 2010. When reported, TPHmo concentrations are typically at least one order of magnitude less than the TPHg or TPHd concentration. Cardno ERI recommends discontinuing TPHmo analysis.

## LIMITATIONS

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

This document and the work performed have been undertaken in good faith, with due diligence and with the expertise, experience, capability, and specialized knowledge necessary to perform the work in a good and workmanlike manner and within all accepted standards pertaining to providers of environmental services in California at the time of investigation. No soil engineering or geotechnical references are implied or should be

inferred. The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

Please contact Mr. Greg A. Gurss, Cardno ERI's project manager for this site, at greg.gurss@cardno.com or at (916) 692-3130 with any questions regarding this report.

Sincerely,

SCANNED IMAGE

SCANNED IMAGE

PROFESSIONAL GEOLOGIST
DAVID RICHARD DANIELS
No. 8737
EXP. 7/31/15
STATE OF CALIFORNIA

Christine M. Capwell
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Enclosures:

References
Acronym List

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

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

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

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

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

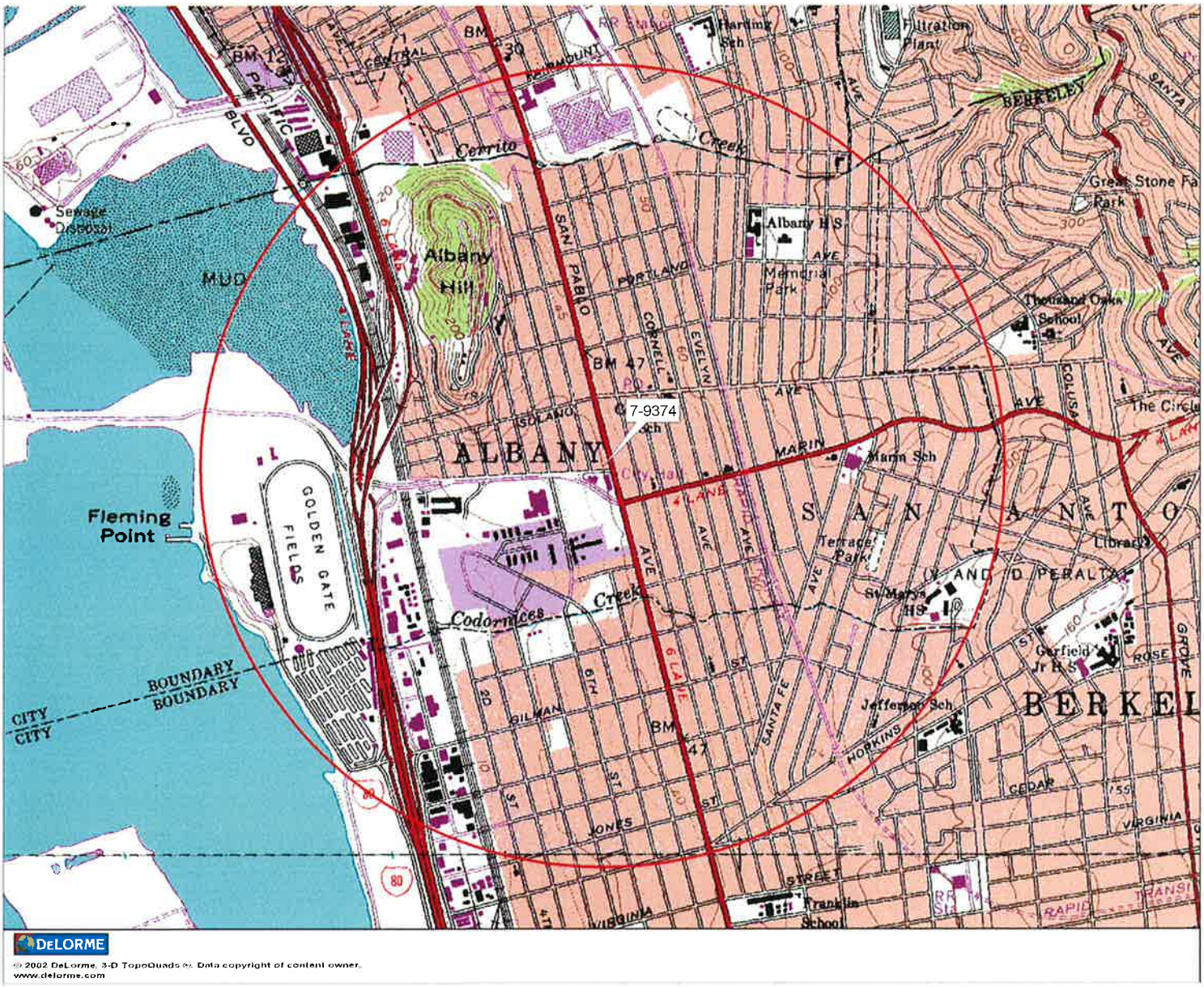
## REFERENCES

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.*

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

## ACRONYM LIST

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

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Shaping the Future

# SITE VICINITY MAP

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

**PROJECT NO.**
2735

**PLATE**
1

Analyte Concentrations in ug/L
Sampled May 1, 2014

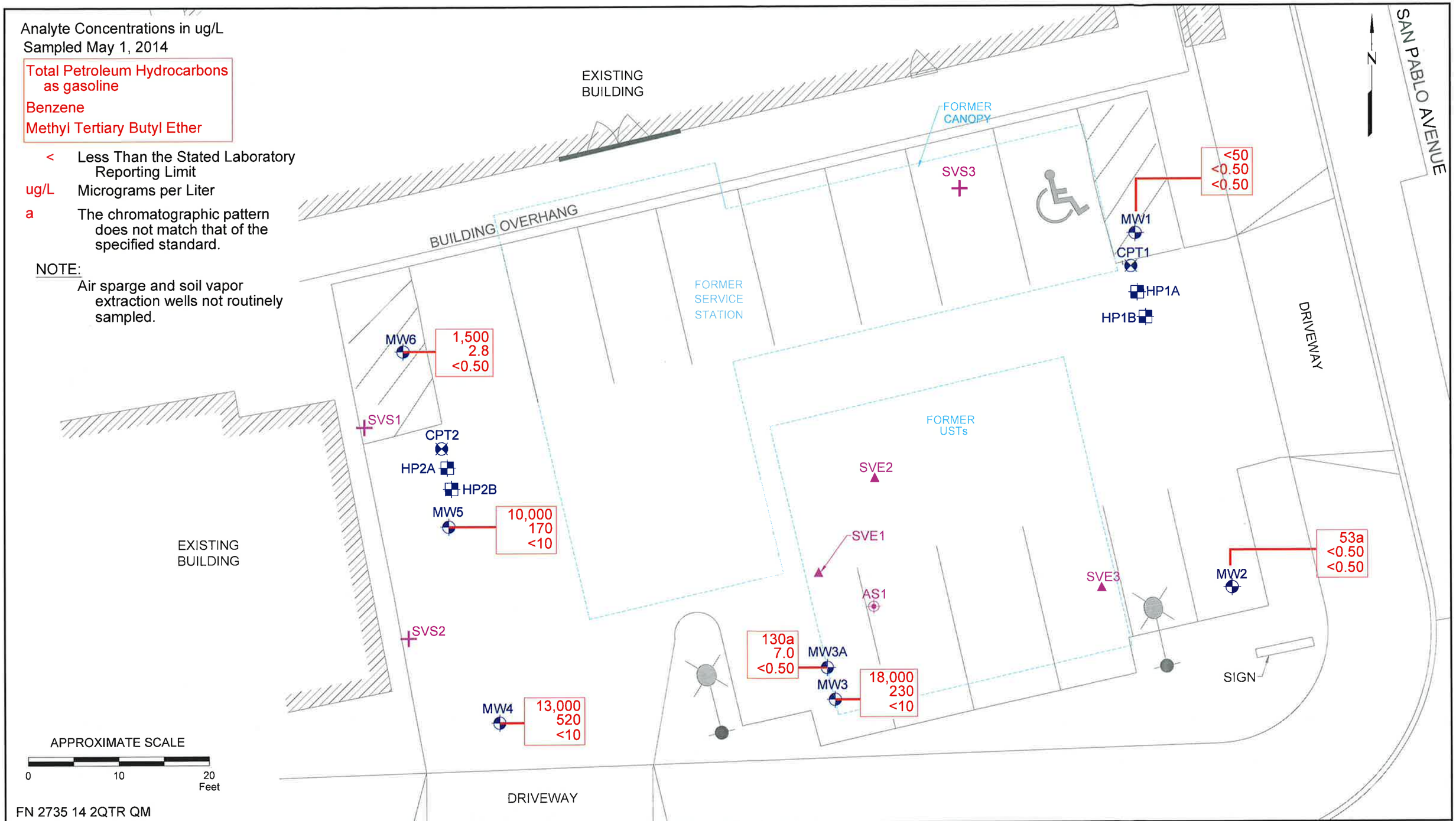
Total Petroleum Hydrocarbons as gasoline
Benzene
Methyl Tertiary Butyl Ether

< Less Than the Stated Laboratory Reporting Limit

ug/L Micrograms per Liter

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

NOTE:
Air sparge and soil vapor extraction wells not routinely sampled.




FN 2735 14 2QTR QM

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# SELECT ANALYTICAL RESULTS
## May 1, 2014
FORMER EXXON SERVICE STATION 79374
990 San Pablo Avenue
Albany, California

EXPLANATION

MW6 Groundwater Monitoring Well
HP2B Hydropunch Boring
CPT2 Cone Penetration Test Boring
AS1 Air Sparge Well
SVE3 Soil Vapor Extraction Well
SVS3 Soil Vapor Sampling Well

PROJECT NO.
2735

PLATE
2

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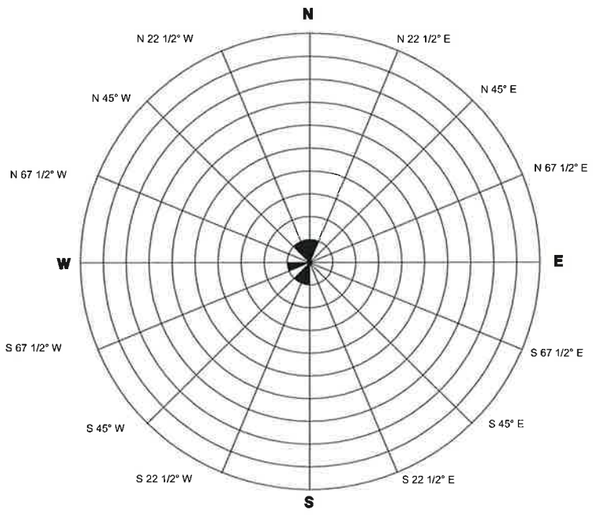


Rose diagram developed by evaluating the groundwater gradient direction from the quarterly monitoring data. Each circle on the rose diagram represents the gradient plotted in that 22 1/2 degree sector.

**N** Compass Direction

**GROUNDWATER FLOW DIRECTION ROSE DIAGRAM**

EXISTING BUILDING

BUILDING OVERHANG

FORMER CANOPY

SVS3

MW1

CPT1

HP1A

HP1B

FORMER SERVICE STATION

DRIVEWAY

SAN PABLO AVENUE

N

MW6

SVS1

CPT2

HP2A

HP2B

MW5

35.61

FORMER USTs

SVE2

35.59

35.6

35.7

SVE1

35.62

GROUNDWATER FLOW DIRECTION

35.8

i = 0.0167

April 30, 2014

AS1

SVE3

35.88

MW2

SVS2

35.7

MW3A

35.87

MW3

35.8

SIGN

MW4

35.79

EXISTING BUILDING

APPROXIMATE SCALE

0 10 20 Feet

DRIVEWAY

FN 2735 14 2QTR QM

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# GROUNDWATER ELEVATION MAP SHALLOW WATER-BEARING ZONE April 30, 2014

FORMER EXXON SERVICE STATION 79374

990 San Pablo Avenue

Albany, California

EXPLANATION

- MW5 — Groundwater Monitoring Well
- 35.61 — Groundwater elevation in feet; datum is NAVD88
- i = Interpreted Hydraulic Gradient
- HP2B — Hydropunch Boring
- CPT2 — Cone Penetration Test Boring
- 35.6 ------ Line of Equal Groundwater Elevation; datum is NAVD88
- AS1 — Air Sparge Well
- SVE3 — Soil Vapor Extraction Well
- SVS3 — Soil Vapor Sampling Well

**PROJECT NO.** 2735

**PLATE** 3

L:\EXXONMOBIL\ExxonMobil Projects\022735C (79374) Albany\2735 AutoCad\QM\2014\14 2QTR QM.dwg, mary jones

EXISTING BUILDING

FORMER CANOPY

BUILDING OVERHANG

FORMER SERVICE STATION

MW1 34.70

CPT1

HP1A

HP1B

MW6 35.57

CPT2

HP2A

HP2B

MW5

FORMER USTs

SVE2

SVE1

AS1

SVE3

MW2 34.36

MW3A

MW3 33.99

MW4

SIGN

DRIVEWAY

SAN PABLO AVENUE

N

EXISTING BUILDING

APPROXIMATE SCALE

0 10 20 Feet

FN 2735 14 2QTR QM

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# GROUNDWATER ELEVATION MAP
# DEEP WATER-BEARING ZONE
## April 30, 2014

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

EXPLANATION

MW6 Groundwater Monitoring Well

35.57 Groundwater elevation in feet; datum is NAVD88

NOTE: Wells not contoured due to varying well construction.

HP2B Hydropunch Boring

CPT2 Cone Penetration Test Boring

AS1 Air Sparge Well

SVE3 Soil Vapor Extraction Well

PROJECT NO. 2735

PLATE 4

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**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** |
| 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** |
| 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 |
| 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 | --- | --- | --- | --- | --- | --- | --- | --- | --- |

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

| Well ID | Sampling Date | Depth (feet) | TOC Elev. (feet) | DTW (feet) | GW Elev. | NAPL (feet) | O&G (µg/L) | TPHmo (µg/L) | TPHd (µg/L) | TPHg (µg/L) | MTBE (µg/L) | B (µg/L) | T (µg/L) | E (µg/L) | X (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW3 | 12/20/13 | --- | 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** |
| 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** |
| 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** |
| MW5 | 11/11/10 | --- | Well installed. | | | | | | | | | | | | |
| MW5 | 12/01/10 | --- | 40.38 | Well surveyed. | | | | | | | | | | | |
| MW5 | 12/16/10 | --- | 40.38 | 7.69 | 32.69 | No | --- | <250 | 1,100a | 6,200 | <2.5 | 150 | 96 | 270 | 980 |
| MW5 | 01/31/11 | --- | 40.38 | 8.00 | 32.38 | No | --- | 270 | 4,600a | 15,000 | <10 | 520 | 310 | 1,100 | 2,500 |
| MW5 | 04/07/11 | --- | 40.38 | 6.73 | 33.65 | No | --- | <250 | 610a | 2,500 | <2.5 | 61 | 32 | 180 | 390 |
| MW5 | 07/18/11 | --- | 40.38 | 7.63 | 32.75 | No | --- | <250 | 2,000a | 11,000 | <2.5 | 340 | 160 | 990 | 1,800 |
| MW5 | 10/13/11 | --- | 40.38 | 9.31 | 31.07 | No | --- | 660 | 7,600a | 23,000 | <20 | 390 | 160 | 1,200 | 3,100 |
| MW5 | 04/06/12 | --- | 40.38 | 6.77 | 33.61 | No | --- | <250 | 880a | 6,000a | <5.0 | 62 | 17 | 360 | 680 |
| MW5 | 10/19/12 | --- | 40.38 | 10.64 | 29.74 | No | --- | 280a | 2,100a | 15,000 | <20 | 580 | 63 | 950 | 1,400 |
| MW5 | 06/11/13 | --- | 40.38 | 10.06 | 30.32 | No | --- | <250 | 2,700a | 13,000 | <20 | 540 | 36 | 930 | 1,200 |
| MW5 | 12/19/13 | --- | 40.38 | 9.85 | 30.53 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |

**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 | 12/20/13 | --- | 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** |
| 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** |
| 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** | **---** | **---** | **---** | **---** | **---** | **---** | **---** | **---** | **---** |
| 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** | **---** | **---** | **---** | **---** | **---** | **---** | **---** | **---** | **---** |
| 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** | **---** | **---** | **---** | **---** | **---** | **---** | **---** | **---** | **---** |
| 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 | --- | --- | --- | --- | --- | --- | --- | --- | --- |

**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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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** | **---** | **---** | **---** | **---** | **---** | **---** | **---** | **---** | **---** |
| **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-SVE1-2 | 01/31/12 | 10 | --- | --- | --- | --- | --- | 890a | 1,500a | 1,400 | <1.0 | 46 | 2.0 | 24 | 23 |
| W-10-SVE1-1 | 01/31/12 | 10 | --- | --- | --- | --- | --- | 990a | 1,900a | 2,000 | <2.0 | 87 | 2.1 | 13 | 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 |
| 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 |

**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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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. |
| Add'l VOCs | = | Additional volatile organic carbons analyzed using EPA Method 8260B. |
| Add'l SVOCs | = | Additional semi-volatile organic carbons 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. |

**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) | 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** | **---** | **---** |
| 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** | **---** | **---** |
| 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** | **---** | **---** |
| MW3A | 01/18/12 | --- | Well installed. | | | | | | | |
| MW3A | 04/06/12 | --- | <2.0 | <2.0 | <2.0 | <20 | <2.0 | <2.0 | --- | --- |
| MW3A | 10/19/12 | --- | <5.0 | <5.0 | <5.0 | <50 | <5.0 | <5.0 | --- | --- |
| MW3A | 06/11/13 | --- | <2.0 | <2.0 | <2.0 | <20 | <2.0 | <2.0 | --- | --- |
| MW3A | 12/19/13 | --- | <2.0 | <2.0 | <2.0 | <20 | <2.0 | <2.0 | --- | --- |
| **MW3A** | **05/01/14** | **---** | **<0.50** | **<0.50** | **<0.50** | **<5.0** | **<0.50** | **<0.50** | **---** | **---** |

**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) | Add'l VOCs (µg/L) | Add'l SVOCs (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| 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** | **---** | **---** |
| 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** | **---** | **---** |
| MW6 | 11/03/10 | --- | Well installed. | | | | | | | |
| MW6 | 12/16/10 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW6 | 01/31/11 | --- | <1.0 | <1.0 | <1.0 | <10 | <1.0 | <1.0 | --- | --- |
| MW6 | 04/07/11 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW6 | 07/18/11 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW6 | 10/13/11 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW6 | 04/06/12 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW6 | 10/19/12 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW6 | 06/11/13 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW6 | 12/19/13 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| **MW6** | **05/01/14** | **---** | **<0.50** | **<0.50** | **<0.50** | **<5.0** | **<0.50** | **<0.50** | **---** | **---** |
| 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. | | | | | | | |

**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) | Add'l VOCs (µg/L) | Add'l SVOCs (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| SVE3 | 10/19/12 - Present | Not sampled. | | | | | | | | |
| **Grab Groundwater Samples** | | | | | | | | | | |
| B-1W | 01/06/08 | --- | <50 | <50 | <50 | <200 | <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 | 110b, 140e, 440f, 2,400g, 730h, 610i, 32j | --- |
| B-3W | 01/06/08 | --- | <10 | <10 | <10 | <40 | <10 | <10 | 25b, 11c, 74d, 190e, 290f, 49g, 55i | --- |
| B-4W | 01/06/08 | --- | <10 | <10 | <10 | <40 | <10 | <10 | 46b, 19c, 48d, 160e, 16f, 100h | --- |
| B-5W | 01/06/08 | --- | ND | <0.5 | <0.5 | <2.0 | <0.5 | <0.5 | 2.6b, 0.83e, 4.8f, 1.2g, 6.5h | --- |
| B-6W | 01/06/08 | --- | <2.5 | <2.5 | <2.5 | <10 | <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 | 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-SVE1-2 | 01/31/12 | 10 | <1.0 | <1.0 | <1.0 | 57 | <1.0 | <1.0 | --- | --- |
| W-10-SVE1-1 | 01/31/12 | 10 | <2.0 | <2.0 | <2.0 | 62 | <2.0 | <2.0 | --- | --- |
| 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 | --- | --- |
| 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. |
| Add'l VOCs | = | Additional volatile organic carbons analyzed using EPA Method 8260B. |
| Add'l SVOCs | = | Additional semi-volatile organic carbons 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. |

**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 |
| 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 |
| SVS1 | 02/25/14 | --- | 4 | 5.6 | 5.6 | 0.25 | PVC | 5.4-5.6 | 0.010 | 4.6-5.6 | #3 Sand |
| SVS2 | 02/25/14 | --- | 4 | 5.6 | 5.6 | 0.25 | PVC | 5.4-5.6 | 0.010 | 4.6-5.6 | #3 Sand |
| SVS3 | 02/25/14 | --- | 4 | 5.6 | 5.6 | 0.25 | PVC | 5.4-5.6 | 0.010 | 4.6-5.6 | #3 Sand |

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

# APPENDIX A

# GROUNDWATER SAMPLING PROTOCOL

## GROUNDWATER SAMPLING PROTOCOL

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

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

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

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

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

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

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

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

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

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

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

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

# APPENDIX B

# FIELD DATA SHEETS

# Daily Field Report

Cardno ERI

Cardno ERI
Shaping the Future

**Project ID #: 79374** — **Cardno ERI Job # 2735**

**Subject:** Gauging for Separate Phase Hydrocarbons (MW4) — **Date:** 3/5/2014

**Equipment Used:** DTW meter, Sub. Bailer. — **Sheet:** 1 of 1

**Name(s):** Azat R. Magdanov

**Time Arrived On Site:** 7:00 **Time Departed Site:** 17:45

| | |
|---|---|
| 07:00 | On site |
| 07:00-07:30 | Safety meeting, gen. work permit. |
| 07:30-17:15 | Organized traffic control for well boring on site. |
| 17:15-17:45 | Bailed to visually check grownwater fom MW4 for hydrocarbons presence. |
| 17:45 | Off site |

* No separate phase hydrocarbons were discovered in MW4.

** Strong odor of hydrocarbons from the well.

# DAILY FIELD REPORT

Cardno ERI

PROJECT: 79374 JOB # + ACTIVITY: 2735

SUBJECT: Monitoring & Sampling DATE: 5/1/14

EQUIPMENT USED: DTW Tape, Sub. Pump SHEET: 1 OF 1

NAME: Scott Elder PROJECT MNGR: R. Westrup

| | |
|---|---|
| On site | - 2100 |
| H & S Meeting | - 2100 - 2115 |
| Opened wells | - 2115 - 2130 |
| Decon Equipment | - 2130 - 2200 |
| DTW wells | - 2200 - 2215 |
| Purged wells: MW1, MW2, MW6, MW3A, MW3, MW5, MW4 | - 2221 - 001 |
| Sampled wells: MW1, MW2, MW6, MW3A, MW3, MW5, MW4 | - 030 - 240 |
| Off site | - 300 |

Decon water - 24 gal.
Purge water - 40 gal.
Total water - 64 gal.

- No NAPL present in MW4



601 N. McDowell Boulevard, Petaluma, California 94954 707 766 2000 (Fax 707 789 0414)

## ERI Groundwater M+S
## Depth To Water

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

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

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

| Project | Location | Date | Name |
|---|---|---|---|
| 2735 | 79374 | 4/30/14 | Scott Elder |

| WELL ID | WELL DIAMETER | ODOR? SHEEN? | TOTAL DEPTH | Pre-Purge DTW | CASE VOLUME | 80% RECHARGE | COMMENTS |
|---|---|---|---|---|---|---|---|
| | inches | | feet | feet | gallons | feet | |
| AS1 | 1 | | — | 7.95 | | | |
| SVE1 | 4 | | — | 7.70 | | | |
| SVE2 | 4 | | — | 8.09 | | | |
| SVE3 | 4 | | — | 7.79 | | | |
| MW1 | 2 | | 16.61 | 9.49 | 1.16 | 10.91 | |
| MW2 | 4 | | 16.89 | 9.63 | 4.73 | 11.08 | |
| MW6 | 2 | | 19.26 | 8.23 | 1.80 | 10.44 | |
| MW3A | 4 | | 14.98 | 7.55 | 4.84 | 9.04 | |
| MW3 | 4 | | 15.20 | 9.17 | 3.93 | 10.38 | |
| MW5 | 2 | | 13.40 | 7.51 | 0.96 | 8.69 | |
| MW4 | 2 | | 13.10 | 6.25 | 1.12 | 7.62 | |
| | | | | | | | |
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# WATER SAMPLING SITE STATUS

Date: 4/30/14

Inspected by: Scott Elder

Cardno ERI Job No.: 2735 Station No.: 79374 Site Address: 990 San Pablo Ave, Albany, CA

| Well ID | Well Head Screws | Rubber Gasket | Well Cap Locking | Lock on Well Cap | Concrete Well Seal | Well Head PVC | Water in Well Vault | Tabs | Well Cover | Fence/Gate Condition | # Drums | Drum Contents | Building Condition | Site Appearance | Comments / Well Covers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N/R/ok | N/R/ok | N/R/ok | N/R/ok | N/R/ok | N/R/ok | Y / N | N/R/ok | N/R/ok | N/R/ok | | s/w/e | g/v/o | N/R/ok | |
| AS1 | ok | ok | ok | N | ok | ok | N | ok | ok | NA | NA | NA | NA | ok | No Lock |
| SVE1 | ↓ | | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | No Lock |
| SVE2 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | No Lock |
| SVE3 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | | ↓ | ↓ | ↓ | ↓ | | ↓ | No Lock |
| MW1 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | Y | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | No Lock |
| MW2 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | N | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | No Lock |
| MW6 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | | No Lock |
| MW3A | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | | No Lock |
| MW3 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | No Lock |
| MW5 | ↓ | ↓ | ↓ | ok | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | |
| MW4 | ↓ | ↓ | ↓ | N | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | No Lock |

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

Y = Yes.
N = No.

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

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

# GROUNDWATER SAMPLING FIELD LOG

Client Name: Exxon Mobil  Cardno ERI Job #: 2735  Date: 4/3x/14 Page 1 of 1

Location: 79374  Field Cleaning Performed: _____  Case Volume = (TD - DTW) x F where F =

Field Crew: Scott Elder  Analysis: _____

0.163 for 2" inside-diameter well casing
0.652 for 4" inside-diamter well casing
1.457 for 6" inside-diamter well casing

| Well ID | Time | Case Volume | Purge Volume | Temp | Cond | pH | Post-Purge DTW | 80% Recharge | BB | 40mil | Amber | DO | ORP | Comments Well Box Condition |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW1 | 2221 | 1.16 | | | | | 9.53 | Y | | | | | | Dry @ 4 gal. |
| | 2223 | 2 | 2 | 14.5 | 301 | 7.31 | w-10 - MW1@030 | | | | | | | |
| | 2224 | | 4 | 14.5 | 317 | 7.32 | | | | | | | | |
| | | | 6 | | | | | | | | | | | |
| MW2 | 2236 | 4.73 | | | | | 9.76 | Y | | | | | | Dry @ 7 gal. |
| | 2239 | 5 | 5 | 13.3 | 381 | 7.61 | w-10 - MW2@100 | | | | | | | |
| | | | 10 | | | | | | | | | | | |
| | | | 15 | | | | | | | | | | | |
| MW6 | 2252 | 1.80 | | | | | 11.32 | N | | | | | | Slow recharge |
| | 2254 | 2 | 2 | 13.6 | 302 | 7.77 | w-11 - MW6@120 | | | | | | | |
| | 2255 | | 4 | 13.5 | 288 | 7.53 | | | | | | | | |
| | 2256 | | 6 | 13.4 | 280 | 7.42 | | | | | | | | |
| MW3A | 2314 | 4.84 | | | | | 13.72 | N | | | | | | Dry @ 11 gal |
| | 2316 | 5 | 5 | 13.5 | 287 | 7.64 | w-14 - MW3A@140 | | | | | | | Slow recharge |
| | 2319 | | 10 | 13.5 | 280 | 7.49 | | | | | | | | |
| | | | 15 | | | | | | | | | | | |
| MW3 | 2329 | 3.93 | | | | | 13.17 | N | | | | | | Dry @ 5 gal. |
| | 2331 | 4 | 4 | 13.3 | 311 | 7.54 | w-13 - MW3@200 | | | | | | | Slow recharge |
| | | | 8 | | | | | | | | | | | |
| | | | 12 | | | | | | | | | | | |
| MW5 | 2344 | 0.96 | | | | | 9.27 | N | | | | | | Slow recharge |
| | 2345 | 1 | 1 | 13.4 | 252 | 7.65 | w- 9 - MW5@220 | | | | | | | |
| | 2346 | | 2 | 13.9 | 252 | 7.53 | | | | | | | | |
| | 2346 | | 3 | 13.7 | 266 | 7.47 | | | | | | | | |
| MW4 | 2358 | 1.12 | | | | | 6.72 | Y | | | | | | Dry @ 4 gal. |
| | 2359 | 2 | 2 | 13.7 | 331 | 7.48 | w-7 - MW4@240 | | | | | | | |
| | 001 | | 4 | 14.0 | 329 | 7.35 | | | | | | | | |
| | | | 6 | | | | | | | | | | | |

# APPENDIX C

# LABORATORY ANALYTICAL REPORT

Calscience Environmental Laboratories, Inc.

# CALSCIENCE

## WORK ORDER NUMBER: 14-05-0229

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno ERI

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

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

RECEIVED
MAY 16 2014

BY: .....

Approved for release on 05/15/2014 by:
Cecile deGuia
Project Manager

ResultLink ▸

Email your PM ▸

Calscience Environmental Laboratories, Inc.

# Contents

Client Project Name: ExxonMobil 79374/022735C
Work Order Number: 14-05-0229

Calscience Environmental Laboratories, Inc.

# Work Order Narrative

Work Order: 14-05-0229 Page 1 of 1

**Condition Upon Receipt:**

Samples were received under Chain of Custody (COC) on 05/03/14. They were assigned to Work Order 14-05-0229.

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.

**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.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

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.

**Subcontractor Information:**

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

Calscience Environmental Laboratories, Inc.

# Sample Summary

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

Work Order: 14-05-0229
Project Name: ExxonMobil 79374/022735C
PO Number: 022735C
Date/Time Received: 05/03/14 09:20
Number of Containers: 58

Attn: Rebekah Westrup

| Sample Identification | Lab Number | Collection Date and Time | Number of Containers | Matrix |
|---|---|---|---|---|
| QCBB | 14-05-0229-1 | 05/01/14 02:50 | 2 | Aqueous |
| W-10-MW1 | 14-05-0229-2 | 05/01/14 00:30 | 8 | Aqueous |
| W-10-MW2 | 14-05-0229-3 | 05/01/14 01:00 | 8 | Aqueous |
| W-13-MW3 | 14-05-0229-4 | 05/01/14 02:00 | 8 | Aqueous |
| W-14-MW3A | 14-05-0229-5 | 05/01/14 01:40 | 8 | Aqueous |
| W-7-MW4 | 14-05-0229-6 | 05/01/14 02:40 | 8 | Aqueous |
| W-9-MW5 | 14-05-0229-7 | 05/01/14 02:20 | 8 | Aqueous |
| W-11-MW6 | 14-05-0229-8 | 05/01/14 01:20 | 8 | Aqueous |

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 3510C
Method: EPA 8015B (M)
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 |
|---|---|---|---|---|---|---|---|
| **W-10-MW1** | **14-05-0229-2-G** | **05/01/14 00:30** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 00:48** | **140505B09** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 94 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-10-MW2** | **14-05-0229-3-G** | **05/01/14 01:00** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 01:04** | **140505B09** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 108 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-13-MW3** | **14-05-0229-4-G** | **05/01/14 02:00** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 01:19** | **140505B09** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 99 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-14-MW3A** | **14-05-0229-5-G** | **05/01/14 01:40** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 01:35** | **140505B09** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 109 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-7-MW4** | **14-05-0229-6-G** | **05/01/14 02:40** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 01:51** | **140505B09** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 108 | 68-140 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 3510C
Method: EPA 8015B (M)
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 |
|---|---|---|---|---|---|---|---|
| **W-9-MW5** | **14-05-0229-7-G** | **05/01/14 02:20** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 02:06** | **140505B09** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 101 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-11-MW6** | **14-05-0229-8-G** | **05/01/14 01:20** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 02:22** | **140505B09** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Motor Oil | ND | 240 | 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 |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-15-278-612** | **N/A** | **Aqueous** | **GC 48** | **05/05/14** | **05/06/14 23:30** | **140505B09** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 134 | 68-140 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 3510C
Method: EPA 8015B (M)
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 |
|---|---|---|---|---|---|---|---|
| **W-10-MW1** | **14-05-0229-2-G** | **05/01/14 00:30** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 00:48** | **140505B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | ND | 48 | 1.00 | SG |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 94 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-10-MW2** | **14-05-0229-3-G** | **05/01/14 01:00** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 01:04** | **140505B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | ND | 48 | 1.00 | SG |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 108 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-13-MW3** | **14-05-0229-4-G** | **05/01/14 02:00** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 01:19** | **140505B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | 3100 | 48 | 1.00 | HD,SG |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 99 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-14-MW3A** | **14-05-0229-5-G** | **05/01/14 01:40** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 01:35** | **140505B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | ND | 48 | 1.00 | SG |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 109 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-7-MW4** | **14-05-0229-6-G** | **05/01/14 02:40** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 01:51** | **140505B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | 3000 | 48 | 1.00 | HD,SG |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 108 | 68-140 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 3510C
Method: EPA 8015B (M)
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 |
|---|---|---|---|---|---|---|---|
| **W-9-MW5** | **14-05-0229-7-G** | **05/01/14 02:20** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 02:06** | **140505B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | 2000 | 48 | 1.00 | HD,SG |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 101 | 68-140 | |

| **W-11-MW6** | **14-05-0229-8-G** | **05/01/14 01:20** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 02:22** | **140505B08** |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | 450 | 48 | 1.00 | HD,SG |

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

| **Method Blank** | **099-15-304-686** | **N/A** | **Aqueous** | **GC 48** | **05/05/14** | **05/06/14 23:30** | **140505B08** |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | ND | 50 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 134 | 68-140 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 5030C
Method: EPA 8015B (M)
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 |
|---|---|---|---|---|---|---|---|
| **W-10-MW1** | **14-05-0229-2-D** | **05/01/14 00:30** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 04:26** | **140509L035** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | ND | 50 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 81 | 38-134 | |

| **W-10-MW2** | **14-05-0229-3-D** | **05/01/14 01:00** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 06:14** | **140509L035** |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | 53 | 50 | 1.00 | HD |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 80 | 38-134 | |

| **W-13-MW3** | **14-05-0229-4-D** | **05/01/14 02:00** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 08:02** | **140509L035** |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | 18000 | 100 | 2.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 166 | 38-134 | AZ |

| **W-14-MW3A** | **14-05-0229-5-D** | **05/01/14 01:40** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 06:50** | **140509L035** |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | 130 | 50 | 1.00 | HD |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 83 | 38-134 | |

| **W-7-MW4** | **14-05-0229-6-D** | **05/01/14 02:40** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 08:38** | **140509L035** |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | 13000 | 100 | 2.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 132 | 38-134 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 5030C
Method: EPA 8015B (M)
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 |
|---|---|---|---|---|---|---|---|
| **W-9-MW5** | **14-05-0229-7-D** | **05/01/14 02:20** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 09:14** | **140509L035** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | 10000 | 100 | 2.00 | |

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

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-11-MW6** | **14-05-0229-8-D** | **05/01/14 01:20** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 07:26** | **140509L035** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | 1500 | 50 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 105 | 38-134 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-436-9324** | **N/A** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 03:14** | **140509L035** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | ND | 50 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 79 | 38-134 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
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 |
|---|---|---|---|---|---|---|---|
| **W-10-MW1** | **14-05-0229-2-A** | **05/01/14 00:30** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 16:12** | **140510L021** |

| 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) | 5.1 | 5.0 | 1.00 | |
| Diisopropyl Ether (DIPE) | ND | 0.50 | 1.00 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 0.50 | 1.00 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 0.50 | 1.00 | |
| 1,2-Dibromoethane | ND | 0.50 | 1.00 | |
| 1,2-Dichloroethane | ND | 0.50 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 93 | 68-120 | |
| Dibromofluoromethane | 97 | 80-127 | |
| 1,2-Dichloroethane-d4 | 100 | 80-128 | |
| Toluene-d8 | 97 | 80-120 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
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 |
|---|---|---|---|---|---|---|---|
| **W-10-MW2** | **14-05-0229-3-A** | **05/01/14 01:00** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 18:02** | **140510L021** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 88 | 68-120 | |
| Dibromofluoromethane | 103 | 80-127 | |
| 1,2-Dichloroethane-d4 | 103 | 80-128 | |
| Toluene-d8 | 90 | 80-120 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
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 |
|---|---|---|---|---|---|---|---|
| **W-13-MW3** | **14-05-0229-4-A** | **05/01/14 02:00** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 18:29** | **140510L021** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | 230 | 10 | 20.0 | |
| Toluene | 110 | 10 | 20.0 | |
| o-Xylene | 27 | 10 | 20.0 | |
| p/m-Xylene | 150 | 10 | 20.0 | |
| Xylenes (total) | 170 | 10 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 10 | 20.0 | |
| Tert-Butyl Alcohol (TBA) | ND | 100 | 20.0 | |
| Diisopropyl Ether (DIPE) | ND | 10 | 20.0 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 10 | 20.0 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 10 | 20.0 | |
| 1,2-Dibromoethane | ND | 10 | 20.0 | |
| 1,2-Dichloroethane | ND | 10 | 20.0 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 101 | 68-120 | |
| Dibromofluoromethane | 104 | 80-127 | |
| 1,2-Dichloroethane-d4 | 104 | 80-128 | |
| Toluene-d8 | 93 | 80-120 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-13-MW3** | **14-05-0229-4-B** | **05/01/14 02:00** | **Aqueous** | **GC/MS T** | **05/12/14** | **05/12/14 21:42** | **140512L043** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Ethylbenzene | 1100 | 20 | 40.0 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 98 | 68-120 | |
| Dibromofluoromethane | 102 | 80-127 | |
| 1,2-Dichloroethane-d4 | 90 | 80-128 | |
| Toluene-d8 | 106 | 80-120 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
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 |
|---|---|---|---|---|---|---|---|
| **W-14-MW3A** | **14-05-0229-5-B** | **05/01/14 01:40** | **Aqueous** | **GC/MS T** | **05/12/14** | **05/12/14 22:10** | **140512L043** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | 7.0 | 0.50 | 1.00 | |
| Toluene | 1.2 | 0.50 | 1.00 | |
| Ethylbenzene | 7.4 | 0.50 | 1.00 | |
| o-Xylene | ND | 0.50 | 1.00 | |
| p/m-Xylene | 1.3 | 0.50 | 1.00 | |
| Xylenes (total) | 1.3 | 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 | |
| 1,2-Dibromoethane | ND | 0.50 | 1.00 | |
| 1,2-Dichloroethane | ND | 0.50 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 95 | 68-120 | |
| Dibromofluoromethane | 102 | 80-127 | |
| 1,2-Dichloroethane-d4 | 94 | 80-128 | |
| Toluene-d8 | 109 | 80-120 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
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 |
|---|---|---|---|---|---|---|---|
| **W-7-MW4** | **14-05-0229-6-A** | **05/01/14 02:40** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 19:52** | **140510L021** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | 520 | 10 | 20.0 | |
| Toluene | 46 | 10 | 20.0 | |
| Ethylbenzene | 310 | 10 | 20.0 | |
| o-Xylene | 54 | 10 | 20.0 | |
| p/m-Xylene | 290 | 10 | 20.0 | |
| Xylenes (total) | 340 | 10 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 10 | 20.0 | |
| Tert-Butyl Alcohol (TBA) | ND | 100 | 20.0 | |
| Diisopropyl Ether (DIPE) | ND | 10 | 20.0 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 10 | 20.0 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 10 | 20.0 | |
| 1,2-Dibromoethane | ND | 10 | 20.0 | |
| 1,2-Dichloroethane | ND | 10 | 20.0 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 100 | 68-120 | |
| Dibromofluoromethane | 98 | 80-127 | |
| 1,2-Dichloroethane-d4 | 100 | 80-128 | |
| Toluene-d8 | 110 | 80-120 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
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 |
|---|---|---|---|---|---|---|---|
| **W-9-MW5** | **14-05-0229-7-B** | **05/01/14 02:20** | **Aqueous** | **GC/MS T** | **05/12/14** | **05/12/14 22:39** | **140512L043** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | 170 | 10 | 20.0 | |
| Toluene | 10 | 10 | 20.0 | |
| Ethylbenzene | 600 | 10 | 20.0 | |
| o-Xylene | 79 | 10 | 20.0 | |
| p/m-Xylene | 440 | 10 | 20.0 | |
| Xylenes (total) | 510 | 10 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 10 | 20.0 | |
| Tert-Butyl Alcohol (TBA) | ND | 100 | 20.0 | |
| Diisopropyl Ether (DIPE) | ND | 10 | 20.0 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 10 | 20.0 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 10 | 20.0 | |
| 1,2-Dibromoethane | ND | 10 | 20.0 | |
| 1,2-Dichloroethane | ND | 10 | 20.0 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 68-120 | |
| Dibromofluoromethane | 105 | 80-127 | |
| 1,2-Dichloroethane-d4 | 96 | 80-128 | |
| Toluene-d8 | 94 | 80-120 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
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 |
|---|---|---|---|---|---|---|---|
| **W-11-MW6** | **14-05-0229-8-A** | **05/01/14 01:20** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 20:47** | **140510L021** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | 2.8 | 0.50 | 1.00 | |
| Toluene | 0.57 | 0.50 | 1.00 | |
| Ethylbenzene | 13 | 0.50 | 1.00 | |
| o-Xylene | 0.53 | 0.50 | 1.00 | |
| p/m-Xylene | 4.3 | 0.50 | 1.00 | |
| Xylenes (total) | 4.8 | 0.50 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 0.50 | 1.00 | |
| Tert-Butyl Alcohol (TBA) | ND | 5.0 | 1.00 | |
| Diisopropyl Ether (DIPE) | ND | 0.50 | 1.00 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 0.50 | 1.00 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 0.50 | 1.00 | |
| 1,2-Dibromoethane | ND | 0.50 | 1.00 | |
| 1,2-Dichloroethane | ND | 0.50 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 104 | 68-120 | |
| Dibromofluoromethane | 102 | 80-127 | |
| 1,2-Dichloroethane-d4 | 103 | 80-128 | |
| Toluene-d8 | 104 | 80-120 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
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** | **099-12-884-1161** | **N/A** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 15:27** | **140510L021** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 90 | 68-120 | |
| Dibromofluoromethane | 100 | 80-127 | |
| 1,2-Dichloroethane-d4 | 100 | 80-128 | |
| Toluene-d8 | 93 | 80-120 | |

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

Calscience Environmental Laboratories, Inc.

# Analytical Report

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

Date Received: 05/03/14
Work Order: 14-05-0229
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** | **099-12-884-1162** | **N/A** | **Aqueous** | **GC/MS T** | **05/12/14** | **05/12/14 19:22** | **140512L043** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 93 | 68-120 | |
| Dibromofluoromethane | 104 | 80-127 | |
| 1,2-Dichloroethane-d4 | 97 | 80-128 | |
| Toluene-d8 | 96 | 80-120 | |

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

Calscience Environmental Laboratories, Inc.

# Quality Control - Spike/Spike Duplicate

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

Project: ExxonMobil 79374/022735C

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 5030C
Method: EPA 8015B (M)
Page 1 of 3

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|---|
| **W-10-MW1** | **Sample** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 04:26** | **140509S019** |
| **W-10-MW1** | **Matrix Spike** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 05:02** | **140509S019** |
| **W-10-MW1** | **Matrix Spike Duplicate** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 05:38** | **140509S019** |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | ND | 2000 | 1870 | 93 | 1857 | 93 | 68-122 | 1 | 0-18 | |

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 05/03/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-05-0229 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| Project: ExxonMobil 79374/022735C | | | Page 2 of 3 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|---|
| **W-10-MW1** | **Sample** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 16:12** | **140510S009** |
| **W-10-MW1** | **Matrix Spike** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 16:39** | **140510S009** |
| **W-10-MW1** | **Matrix Spike Duplicate** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 17:06** | **140510S009** |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 10.00 | 9.555 | 96 | 9.684 | 97 | 75-125 | 1 | 0-20 | |
| Toluene | ND | 10.00 | 9.358 | 94 | 9.520 | 95 | 75-125 | 2 | 0-20 | |
| Ethylbenzene | ND | 10.00 | 10.37 | 104 | 10.24 | 102 | 75-125 | 1 | 0-20 | |
| o-Xylene | ND | 10.00 | 10.64 | 106 | 10.44 | 104 | 75-127 | 2 | 0-20 | |
| p/m-Xylene | ND | 20.00 | 21.36 | 107 | 20.86 | 104 | 75-125 | 2 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 10.00 | 10.51 | 105 | 11.12 | 111 | 71-131 | 6 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 5.051 | 50.00 | 55.89 | 102 | 57.65 | 105 | 20-180 | 3 | 0-40 | |
| Diisopropyl Ether (DIPE) | ND | 10.00 | 10.38 | 104 | 10.62 | 106 | 64-136 | 2 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 10.00 | 10.18 | 102 | 10.50 | 105 | 73-133 | 3 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 10.00 | 10.28 | 103 | 10.97 | 110 | 75-125 | 7 | 0-20 | |
| 1,2-Dibromoethane | ND | 10.00 | 10.76 | 108 | 11.17 | 112 | 75-126 | 4 | 0-20 | |
| 1,2-Dichloroethane | ND | 10.00 | 9.475 | 95 | 9.857 | 99 | 75-127 | 4 | 0-20 | |

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

# Quality Control - Spike/Spike Duplicate

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

Project: ExxonMobil 79374/022735C

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 5030C
Method: EPA 8260B



| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|---|
| **14-05-0594-2** | **Sample** | **Aqueous** | **GC/MS T** | **05/12/14** | **05/12/14 20:18** | **140512S025** |
| **14-05-0594-2** | **Matrix Spike** | **Aqueous** | **GC/MS T** | **05/12/14** | **05/12/14 20:46** | **140512S025** |
| **14-05-0594-2** | **Matrix Spike Duplicate** | **Aqueous** | **GC/MS T** | **05/12/14** | **05/12/14 21:14** | **140512S025** |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 10.00 | 11.96 | 120 | 11.86 | 119 | 75-125 | 1 | 0-20 | |
| Toluene | ND | 10.00 | 13.17 | 132 | 13.32 | 133 | 75-125 | 1 | 0-20 | HX |
| Ethylbenzene | ND | 10.00 | 11.89 | 119 | 11.68 | 117 | 75-125 | 2 | 0-20 | |
| o-Xylene | ND | 10.00 | 12.29 | 123 | 12.45 | 125 | 75-127 | 1 | 0-20 | |
| p/m-Xylene | ND | 20.00 | 24.18 | 121 | 24.32 | 122 | 75-125 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 10.00 | 10.43 | 104 | 10.56 | 106 | 71-131 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 50.00 | 70.98 | 142 | 57.86 | 116 | 20-180 | 20 | 0-40 | |
| Diisopropyl Ether (DIPE) | ND | 10.00 | 11.02 | 110 | 10.99 | 110 | 64-136 | 0 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 10.00 | 10.88 | 109 | 11.03 | 110 | 73-133 | 1 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 10.00 | 11.76 | 118 | 11.62 | 116 | 75-125 | 1 | 0-20 | |
| 1,2-Dibromoethane | ND | 10.00 | 11.78 | 118 | 10.96 | 110 | 75-126 | 7 | 0-20 | |
| 1,2-Dichloroethane | ND | 10.00 | 11.74 | 117 | 11.42 | 114 | 75-127 | 3 | 0-20 | |

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

# Quality Control - LCS/LCSD

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

Project: ExxonMobil 79374/022735C

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 3510C
Method: EPA 8015B (M)



| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|---|
| **099-15-278-612** | **LCS** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 00:17** | **140505B09** |
| **099-15-278-612** | **LCSD** | **Aqueous** | **GC 48** | **05/05/14** | **05/07/14 00:32** | **140505B09** |

| Parameter | Spike Added | LCS Conc. | LCS %Rec. | LCSD Conc. | LCSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | 2000 | 2168 | 108 | 2198 | 110 | 75-117 | 1 | 0-13 | |

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

# Quality Control - LCS/LCSD

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

Project: ExxonMobil 79374/022735C

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 3510C
Method: EPA 8015B (M)
Page 2 of 5

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|---|
| 099-15-304-686 | LCS | Aqueous | GC 48 | 05/05/14 | 05/06/14 23:46 | 140505B08 |
| 099-15-304-686 | LCSD | Aqueous | GC 48 | 05/05/14 | 05/07/14 00:01 | 140505B08 |

| Parameter | Spike Added | LCS Conc. | LCS %Rec. | LCSD Conc. | LCSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | 2000 | 1981 | 99 | 2066 | 103 | 75-117 | 4 | 0-13 | |

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 05/03/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-05-0229 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8015B (M) |
| Project: ExxonMobil 79374/022735C | | | Page 3 of 5 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS Batch Number |
|---|---|---|---|---|---|---|
| **099-12-436-9324** | **LCS** | **Aqueous** | **GC 29** | **05/09/14** | **05/10/14 03:50** | **140509L035** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | Qualifiers |
|---|---|---|---|---|---|
| TPH as Gasoline | 2000 | 1895 | 95 | 78-120 | |

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

# Quality Control - LCS

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

Project: ExxonMobil 79374/022735C

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 5030C
Method: EPA 8260B



| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS Batch Number |
|---|---|---|---|---|---|---|
| **099-12-884-1161** | **LCS** | **Aqueous** | **GC/MS T** | **05/10/14** | **05/10/14 14:22** | **140510L021** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | ME CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 10.00 | 10.22 | 102 | 80-120 | 73-127 | |
| Toluene | 10.00 | 10.54 | 105 | 80-120 | 73-127 | |
| Ethylbenzene | 10.00 | 10.37 | 104 | 80-120 | 73-127 | |
| o-Xylene | 10.00 | 10.71 | 107 | 80-120 | 73-127 | |
| p/m-Xylene | 20.00 | 21.24 | 106 | 80-120 | 73-127 | |
| Methyl-t-Butyl Ether (MTBE) | 10.00 | 10.69 | 107 | 75-123 | 67-131 | |
| Tert-Butyl Alcohol (TBA) | 50.00 | 49.02 | 98 | 80-120 | 73-127 | |
| Diisopropyl Ether (DIPE) | 10.00 | 10.56 | 106 | 73-121 | 65-129 | |
| Ethyl-t-Butyl Ether (ETBE) | 10.00 | 10.79 | 108 | 76-124 | 68-132 | |
| Tert-Amyl-Methyl Ether (TAME) | 10.00 | 11.06 | 111 | 80-120 | 73-127 | |
| 1,2-Dibromoethane | 10.00 | 10.58 | 106 | 80-120 | 73-127 | |
| 1,2-Dichloroethane | 10.00 | 10.73 | 107 | 80-122 | 73-129 | |

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

# Quality Control - LCS

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

Project: ExxonMobil 79374/022735C

Date Received: 05/03/14
Work Order: 14-05-0229
Preparation: EPA 5030C
Method: EPA 8260B



| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS Batch Number |
|---|---|---|---|---|---|---|
| **099-12-884-1162** | **LCS** | **Aqueous** | **GC/MS T** | **05/12/14** | **05/12/14 18:24** | **140512L043** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | ME CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 10.00 | 11.28 | 113 | 80-120 | 73-127 | |
| Toluene | 10.00 | 11.71 | 117 | 80-120 | 73-127 | |
| Ethylbenzene | 10.00 | 10.59 | 106 | 80-120 | 73-127 | |
| o-Xylene | 10.00 | 11.53 | 115 | 80-120 | 73-127 | |
| p/m-Xylene | 20.00 | 22.30 | 111 | 80-120 | 73-127 | |
| Methyl-t-Butyl Ether (MTBE) | 10.00 | 10.15 | 102 | 75-123 | 67-131 | |
| Tert-Butyl Alcohol (TBA) | 50.00 | 50.82 | 102 | 80-120 | 73-127 | |
| Diisopropyl Ether (DIPE) | 10.00 | 10.06 | 101 | 73-121 | 65-129 | |
| Ethyl-t-Butyl Ether (ETBE) | 10.00 | 10.48 | 105 | 76-124 | 68-132 | |
| Tert-Amyl-Methyl Ether (TAME) | 10.00 | 11.83 | 118 | 80-120 | 73-127 | |
| 1,2-Dibromoethane | 10.00 | 10.71 | 107 | 80-120 | 73-127 | |
| 1,2-Dichloroethane | 10.00 | 10.81 | 108 | 80-122 | 73-129 | |

Total number of LCS compounds: 12
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

# Glossary of Terms and Qualifiers

Work Order: 14-05-0229



| 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. |
| 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.

# Calscience Environmental Laboratories, Inc.

7440 Lincoln Way
Garden Grove, CA 92841

Phone: 714-895-5494
Fax: 714-894-7501

**ExxonMobil 14-05-0229**

**Consultant Name:** Cardno ERI | **Account #:** NA | **PO#:** Direct Bill Cardno ERI
**Consultant Address:** 601 N. McDowell Boulevard | **Invoice To:** Direct Bill Cardno ERI
**Consultant City/State/Zip:** Petaluma, California, 94954 | **Report To:** Rebekah Westrup
**ExxonMobil Project Mgr:** Jennifer Sedlachek | **Project Name:** 02 2735 C
**Consultant Project Mgr:** Rebekah Westrup | **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):** Scott Elder | **Site City, State, Zip:** Albany, California
**Sampler Signature:** Scott Elder | **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 | | | | RUSH TAT (Pre-Schedule) | 5-day TAT | Standard 10-day TAT | Due Date of Report |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | QCBB | QCBB | 5/1/14 | 250 | 2 | | | | | | 2v | | | | | | | | | | | | | | X | | H | O | L | D | | | | | | X | |
| 2 | W-10-MW1 | MW1 | ↓ | 030 | 8 | | | | | | 6v | | | | | | 2A | | X | | | | | | | X | X | X | X | X | | | | | | X | |
| 3 | W-10-MW2 | MW2 | | 100 | 8 | | | | | | 6v | | | | | | 2A | | X | | | | | | | X | X | X | X | X | | | | | | X | |
| 4 | W-13-MW3 | MW3 | | 200 | 8 | | | | | | 6v | | | | | | 2A | | X | | | | | | | X | X | X | X | X | | | | | | X | |
| 5 | W-14-MW3A | MW3A | | 140 | 8 | | | | | | 6v | | | | | | 2A | | X | | | | | | | X | X | X | X | X | | | | | | X | |
| 6 | W-7-MW4 | MW4 | | 240 | 8 | | | | | | 6v | | | | | | 2A | | X | | | | | | | X | X | X | X | X | | | | | | X | |
| 7 | W-9-MW5 | MW5 | | 220 | 8 | | | | | | 6v | | | | | | 2A | | X | | | | | | | X | X | X | X | X | | | | | | X | |
| 8 | W-11-MW6 | MW6 | | 120 | 8 | | | | | | 6v | | | | | | 2A | | 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 analyses
Oxygenates = MTBE, ETBE, DIPE, TAME, TBA, 1,2-DCA, EDB
Set TBA reporting limit at or below 12 ug/L.

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

| Relinquished by: | | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| Scott Elder | | 5/2/14 | 1040 | Tom O'Malley CBE | 5/2/14 | 1040 |
| Relinquished by: | | Date | Time | Received by (Lab personnel): | Date | Time |
| Tom O'Malley TOM | | 5/2/14 | 1730 | | 5/3/14 | 0920 |

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

0229

GSO

**< WebShip > > > > >**

800-322-5555 www.gso.com

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

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

COD:
$0.00

Reference:
CARDNO ERI

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 524562034

SDS

**ORC**

**A**

**GARDEN GROVE**

**D92843A**

24033895

Print Date : 05/02/14 16:10 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

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

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

STEP 2 - Fold this page in half.

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

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

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

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

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 14-05-0229

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Cardno ERI

DATE: 05/03/14

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.5 °C - 0.3 °C (CF) = 2.2 °C ☑ Blank ☐ Sample

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

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

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

Ambient Temperature: ☐ Air ☐ Filter Checked by: 802

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: 802

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 776

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

**CONTAINER TYPE:**

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

**Aqueous:** ☐VOA ☑6 VOAh ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☑3 500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 776

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

**Preservative:** h: HCL n: $HNO_3$ na$_2$:$Na_2S_2O_3$ na: NaOH p: $H_3PO_4$ s: $H_2SO_4$ u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered Scanned by: 681

# APPENDIX D

# WASTE DISPOSAL DOCUMENTATION

# NON-HAZARDOUS WASTE MANIFEST

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

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No.

Manifest Document No. ER12735

2. Page 1 of 1

3. Generator's Name and Mailing Address
EM# 79374
990 SAN PABLO AVE
ALBANY, CA

4. Generator's Phone ( )

CARDNO ERI

5. Transporter 1 Company Name
CARDNO ERI

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
[redacted]

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone [redacted]

| 11. WASTE DESCRIPTION | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. NON-HAZ PURGE WATER | 1 | POLY | 64 | GAL |
| b. | | | | |
| c. | | | | |
| d. | | | | |

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

**16. GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

| Printed/Typed Name | Signature | Date (Month / Day / Year) |
|---|---|---|
| | | |

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date (Month / Day / Year) |
|---|---|---|
| JOE D. LEWIS | Joe D. Lewis | 5 / 23 / 14 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date (Month / Day / Year) |
|---|---|---|
| | | |

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

| Printed/Typed Name | Signature | Date (Month / Day / Year) |
|---|---|---|
| MICHAEL WHITEHEAD | [signature] | 5 / 23 / 14 |

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE



Rev. 3/95