**ExxonMobil**
**Environmental Services Company**
4096 Piedmont Avenue #194
Oakland, California 94611
510 547 8196 Telephone
510 547 8706 Facsimile

**Jennifer C. Sedlachek**
Project Manager

ExxonMobil

January 22, 2015

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



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

Dear Mr. Detterman:

Attached for your review and comment is a copy of the letter report entitled ***Well Installation Report,*** dated January 22, 2015, 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 ***Well Installation Report,*** dated January 22, 2015

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

Shaping the Future

Cardno ERI
License A/C10-611383

601 N McDowell Boulevard
Petaluma, CA 94954

**Phone** **707 766 2000**
Toll-free 800 382 9105
Fax 707 789 0414
www.cardno.com

**www.cardnoeri.com**

January 22, 2015
Cardno ERI 2735C.R08

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

**SUBJECT** **Well Installation Report**
Former Exxon Service Station 79374
990 San Pablo Avenue, Albany, California

Alameda County Department of Environmental Health RO 0002974

Ms. Sedlachek:

At the request of ExxonMobil Environmental Services (EMES), on behalf of Exxon Mobil Corporation, Cardno ERI prepared this well installation report for the site. The purpose of the work was to install and sample off-site groundwater monitoring wells MW7 and MW8 to monitor the extent of dissolved-phase petroleum hydrocarbons in groundwater downgradient of the site. The work was conducted in accordance with the *Work Plan for Well Installation* (Work Plan), dated July 7, 2014 (Cardno ERI, 2014a), which was approved by the Alameda County Health Care Services Agency in a letter dated August 22, 2014 (Appendix A). An extension for this report to January 23, 2015, was granted in electronic correspondence dated October 24, 2014 (Appendix A).

**SITE DESCRIPTION**

Former Exxon Service Station 79374 is located at 990 San Pablo Avenue, on the northwestern corner of the intersection of Buchanan Street and San Pablo Avenue, Albany, California (Plate 1). A Generalized Site Plan is included as Plate 2. A tabular site conceptual model for the site detailing additional site information is included as Appendix B.

A retail outlet for Benjamin Moore paints and painting products and associated asphalt parking area currently occupies the site. The surrounding areas consist of residential and commercial properties (Plate 2). The City of Albany Fire Department and Police Department are located south of the site on Buchanan Street. ACEH case number RO0000119, identified as Firestone #3655 in the GeoTracker database, is located across San Pablo Avenue to the east. A Shell Service Station and an Atlantic Richfield Company Service Station (Arco) are located approximately 350 and 500 feet away, respectively, south-southeast of the site.

In 1945, a service station owned by Signal Oil Company occupied the site (EDR, 2009a). Humble Oil company acquired the site in approximately 1967 from Standard Oil Company of California (Chevron), rebranding the site as an Enco station. The station was rebranded as an Exxon service station in 1975 (EDR, 2009a; EDR, 2009b). In 1983, the service station was demolished and one used-oil UST and four gasoline USTs were removed. The resulting tank cavity was backfilled with sand and compacted to 90% (City of Albany, 1983).

**GEOLOGY AND HYDROGEOLOGY**

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

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

Soil boring logs indicate that the soil beneath the site consists predominantly of silt and clay with an apparently continuous coarse-grained unit 2 to 8 feet thick encountered between approximately 8 and 20 feet bgs (EC&A, 2008; Cardno ERI, 2011; Cardno ERI, 2012a). Fill material was encountered in the boring for well SVE3 (located in the former UST pit) to approximately 7 feet bgs. CPT soil borings indicate the presence of predominantly silt and clay between approximately 20 and 60 feet bgs, the maximum depth explored. Coarse-grained layers up to 3 feet thick are interbedded with the silt and clay. Historical groundwater elevation data indicate that DTW ranges from 5 to 11 feet bgs beneath the site with varying groundwater flow directions. The distribution of dissolved-phase hydrocarbons suggests that the dominant groundwater flow direction is west to southwest.

## PREVIOUS WORK

Cumulative groundwater monitoring and sampling data are summarized in Tables 1A and 1B. Well construction details are presented in Table 2. Cumulative soil analytical results are summarized in Tables 3A and 3B. Select soil and groundwater analytical results are illustrated on Plates 3 and 4, respectively. A tabular site conceptual model for the site detailing additional site information is included as Appendix B.

### Fueling System Activities

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

### Site Assessment Activities

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

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

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

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

### Remediation Activities

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

Between January 31 and February 1, 2012, Cardno ERI conducted three 4-hour feasibility tests: a DPE only test, a combined AS and DPE test, and an AS only test. Approximately 93 pounds of TPHg and 0.09 pound of benzene were removed during feasibility testing (Cardno ERI, 2012b).

**Groundwater Monitoring Activities**

Groundwater monitoring began at the site in 2010 following the installation of wells MW1 through MW6. Maximum concentrations are present in wells MW3 and MW4, located west of the former USTs. In 2008, the laboratory reported an immiscible sheen in the samples collected from soil borings B1 and B2 (EC&A, 2008). Neither NAPL nor sheen have been observed in the groundwater monitoring wells at the site.

**Soil Vapor Monitoring Activities**

Concentrations of vapor-phase petroleum hydrocarbons exceed ESLs by up to two to three orders of magnitude in wells SVS1 through SVS3. Maximum concentrations are present in well SVS3, located in the vicinity of the suspected locations of the former dispenser islands. During the most recent soil vapor sampling event (August 2014), benzene was reported at 21,000 micrograms per cubic meter ($\mu g/m^3$) in well SVS3 (Cardno ERI, 2014c).

## WELL INSTALLATION

The well installations were conducted in general accordance with the Work Plan, standard field protocols (Appendix C), a site-specific health and safety plan, and applicable regulatory guidelines under the advisement of a professional geologist.

The locations of the wells were adjusted from the locations proposed in the Work Plan. The location of well MW7 was moved approximately 10 feet northwest due to the proximity of a gas line. The location of well MW8 was moved approximately 40 feet north due to the presence of subsurface gas and water lines in addition to overhead electrical lines.

**Pre-Drilling Activities**

Cardno ERI obtained a well installation permit from the Alameda County Public Works Agency and an encroachment permit from the City of Albany to install and sample monitoring wells MW7 and MW8 (Appendix D). Cardno ERI personnel visited the site to check for obstructions and to mark the proposed locations. Underground Service Alert was notified at least 48 hours prior to the onset of field activities.

**Well Installation Activities**

On December 8, 2014, Cardno ERI observed the installation of wells MW7 and MW8 at the site. Boring locations MW7 and MW8 were manually excavated with hand tools to 8 feet bgs in accordance with EMES' subsurface clearance protocol. The borings were subsequently drilled using a limited-access hollow stem auger drill rig to approximately 15 feet bgs and were sampled at a minimum of 5-foot intervals to total depth for geologic logging purposes. Select soil samples were submitted for laboratory analysis. Wells were constructed in the borings using 2-inch diameter, Schedule 40, PVC casing with a 10-foot screened interval from approximately 5 to 15 feet bgs. Well construction details are included in Table 2 and in the boring logs included in Appendix E.

**Development and Sampling**

On December 23, 2014, Cardno ERI developed wells MW7 and MW8 using a 2-inch diameter surge block and an electric pump in accordance with the protocols provided in Appendix C. On December 30, 2014, Cardno ERI gauged and sampled the newly-installed wells. Groundwater monitoring and sampling results are included in Tables 1A and 1B. Field data sheets are included in Appendix F.

**Laboratory Analyses**

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

**Site Survey**

On December 23, 2014, Cardno ERI observed Morrow Surveying survey the locations and elevations of wells MW7 and MW8. The survey report is included in Appendix H.

**Waste Containment and Disposal**

Soil and water generated during assessment activities were temporarily stored on site in 55-gallon drums. Belshire Environmental Services, Inc. transported three 55-gallon drums of soil for recycling to Soil Safe of Adelanto, California. Cardno ERI transported 35 gallons of purge and decon water and 65 gallons of water generated during well development for recycling to InStrat Inc., in Rio Vista, California. Waste documentation is included in Appendix I.

## RESULTS

Sediments observed during this investigation consist largely of sands and clays with lesser amounts of silt to 15 feet bgs, the maximum depth explored. A coarse-grained interval of varying thickness was encountered in each boring at depths between approximately 10 and 15 feet bgs. The coarse-grained layer appears to be laterally continuous across the area of exploration although in some of the locations it has lenses of fine-grained sediment within it. Groundwater was encountered at 12.5 and 5 feet bgs in borings MW7 and MW8, respectively. Groundwater rose following installation to depths of 7.07 and 4.10 feet bgs, respectively.

Residual petroleum hydrocarbons were below screening levels in well MW8, located west of the site. With the exception of TPHd (120 mg/kg) and TPHg (540 mg/kg) in boring MW7 at 10 feet bgs, residual petroleum hydrocarbons were below reporting limits in soil samples collected during this investigation.

Dissolved-phase TPHd (2,900 µg/L), TPHg (7,300 µg/L), benzene (52 µg/L), toluene (8.9 µg/L), ethylbenzene (32 µg/L), total xylenes (15 µg/L), and DIPE (13 µg/L) were reported in well MW7. Dissolved-phase concentrations were not reported in the sample collected from well MW8.

## CONCLUSIONS

Sediments observed during this investigation were consistent with previous investigations. With the exception of the UST area where backfill material is present, there is a coarse-grained layer of varying thickness present at approximately 10 feet bgs across the area of exploration although in some of the locations it has fine-grained lenses within it. Maximum residual hydrocarbon concentrations are encountered between approximately 10 and 12 feet bgs near and southwest of the former USTs. Residual concentrations are adequately delineated and primarily limited to the site and the area directly adjacent to the southwest part of the site.

Dissolved-phase concentrations are adequately delineated by the existing well network and previous soil borings; however, an additional well southwest of the site would be beneficial in further monitoring dissolved-phase concentrations southwest of the site.

## SITE CONCEPTUAL MODEL

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

## RECOMMENDATIONS

Cardno ERI recommends continued soil vapor and groundwater sampling and incorporating the newly-installed wells into the groundwater monitoring and sampling schedule. Based on the dissolved-phase concentrations reported from boring B9 and the location of well MW8, Cardno ERI recommends installing an additional monitoring well south of well MW8 closer to the location proposed in the Work Plan. Based on the location of the water line, gas line, and overhead lines, the well may need to be installed on the west side of Adams Street near the intersection with Buchanan Street.

Cardno ERI also recommends preparing a feasibility study/corrective action plan (FS/CAP), as detailed in the *Response to Comments and Request for Extension* (Cardno ERI, 2014b).

## CONTACT INFORMATION

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

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

Sincerely,






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

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

Enclosures:

References

Acronym List

| | |
|---|---|
| Plate 1 | Site Vicinity Map |
| Plate 2 | Generalized Site Plan |
| Plate 3 | Select Soil Analytical Results |
| Plate 4 | Select Groundwater Analytical Results |

| | |
|---|---|
| Table 1A | Cumulative Groundwater Monitoring and Sampling Data |
| Table 1B | Additional Cumulative Groundwater Monitoring and Sampling Data |
| Table 2 | Well Construction Details |
| Table 3A | Cumulative Soil Analytical Results |
| Table 3B | Additional Cumulative Soil Analytical Results – HVOCs and PAHs |

| | |
|---|---|
| Appendix A | Correspondence |
| Appendix B | Site Conceptual Model |
| Appendix C | Field Protocol |
| Appendix D | Permits |
| Appendix E | Boring Logs |
| Appendix F | Field Data Sheets |
| Appendix G | Laboratory Analytical Reports |
| Appendix H | Survey |
| Appendix I | 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 Trusts, 1563 Solano Avenue, #344, Berkeley, California, 94707

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

**REFERENCES**

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

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

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

Cardno ERI. April 12, 2012b. *Air Sparge and Dual-Phase Extraction and Feasibility Testing, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California.*

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

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

Cardno ERI. October 7, 2014c. *Soil Vapor Assessment Report, Former Exxon Service Station 79374, 990 San Pablo Avenue, Albany, California.*

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

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

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

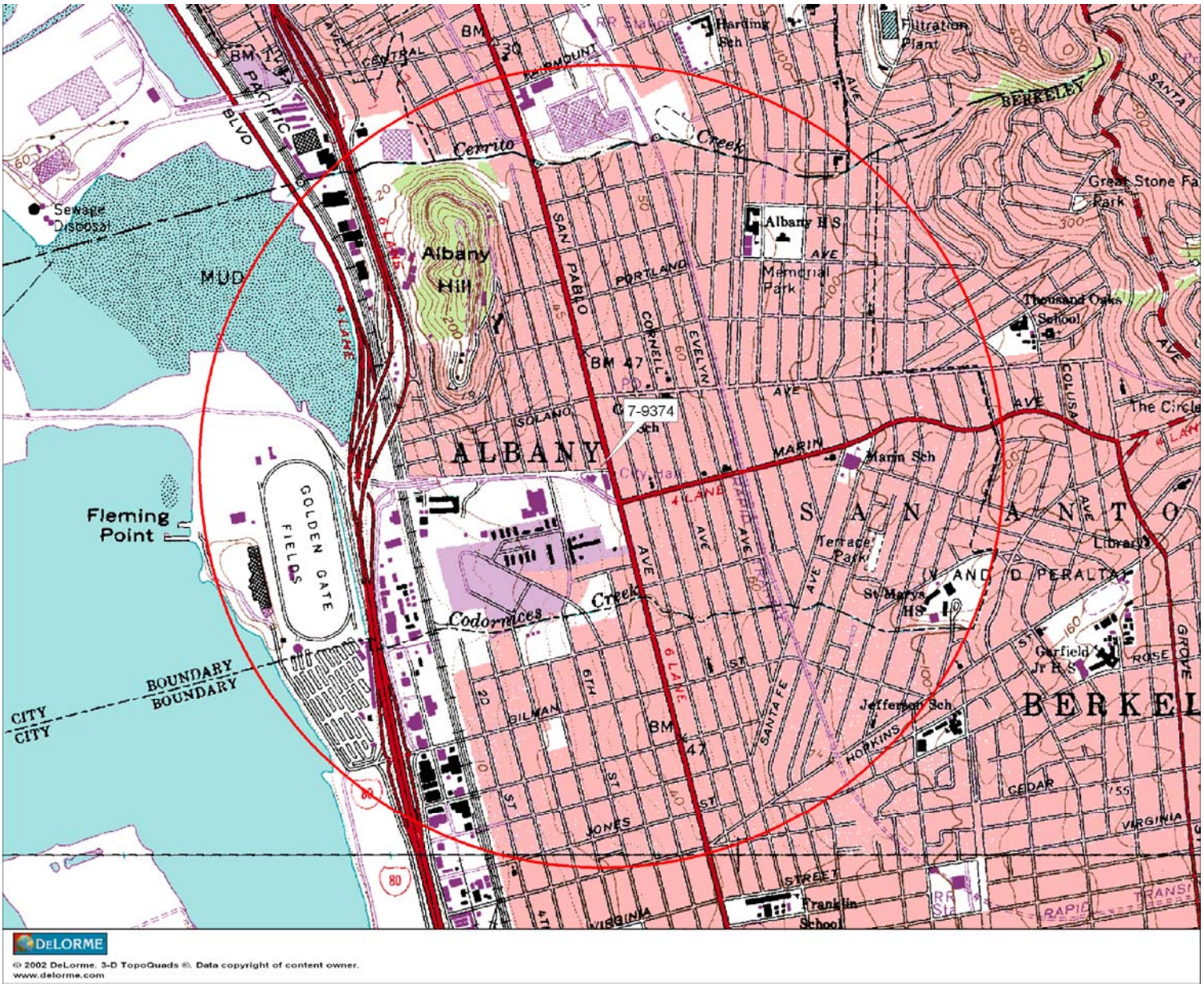
Environmental Data Resources Inc. (EDR). December 1, 2009b. *Certified Sanborn® Map Report, 990 San Pablo Avenue, Albany, CA 94706. Inquiry Number: 2648519.36.*

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

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

## 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

Cardno ERI
Shaping the Future

# SITE VICINITY MAP

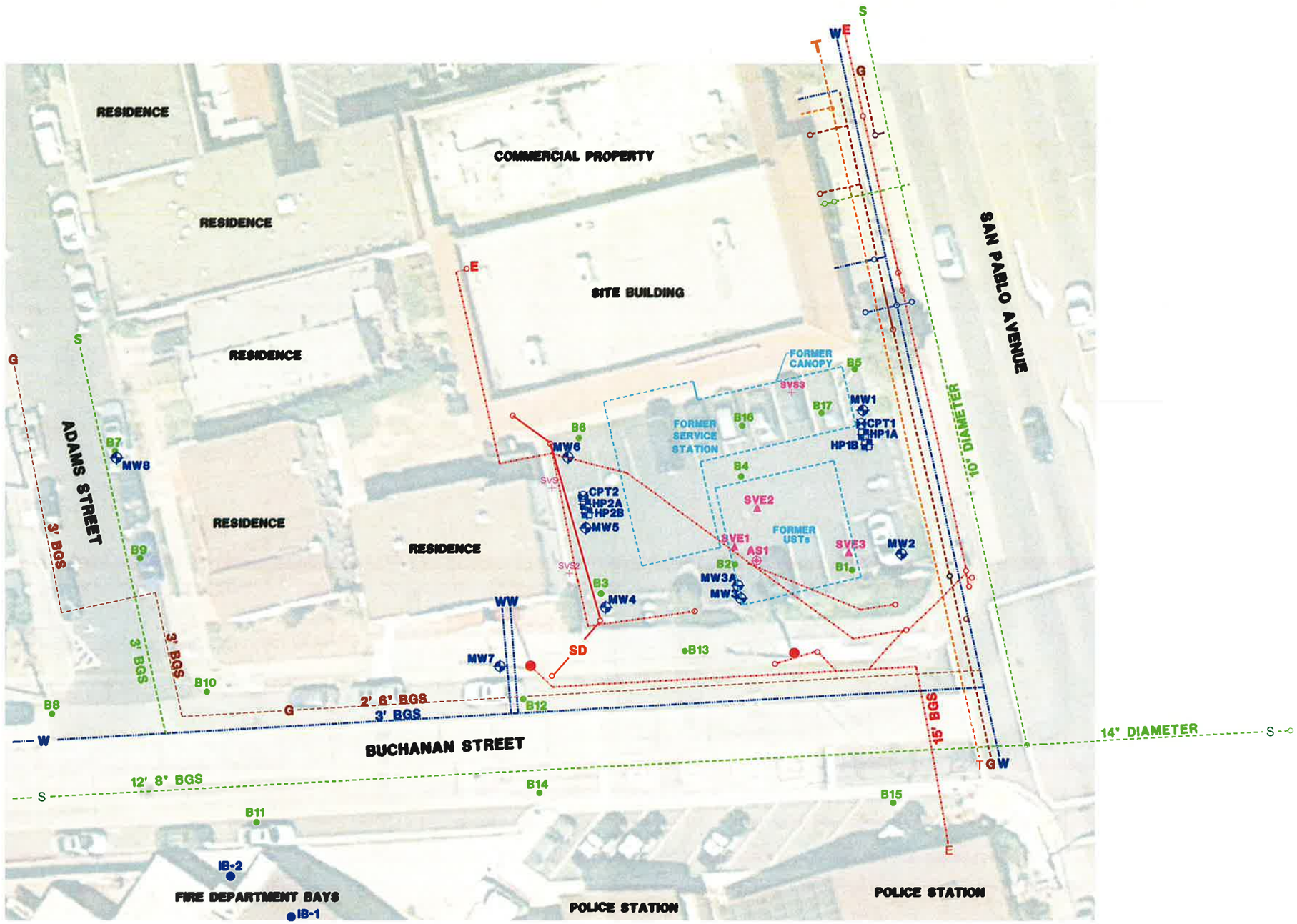
FORMER EXXON SERVICE STATION 79374
990 San Pablo Avenue
Albany, California

**PROJECT NO.** 2735

**PLATE** 1

UTILITIES LEGEND

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




APPROXIMATE SCALE

0 30 60 Feet

FN 2735 GPS AERIAL _SP R08

Cardno ERI
Shaping the Future

# GENERALIZED SITE PLAN

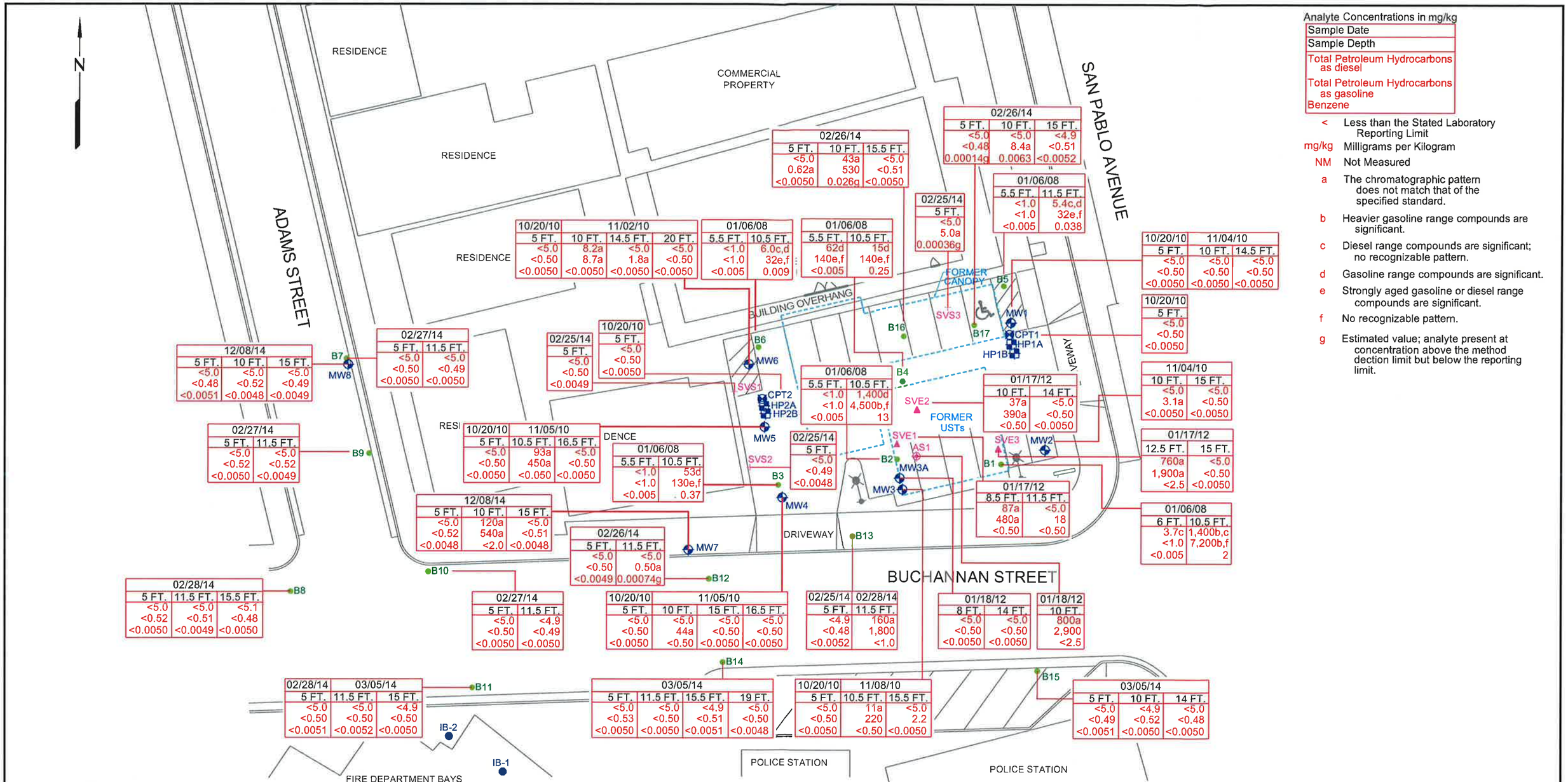
FORMER EXXON SERVICE STATION 79374
990 San Pablo Avenue
Albany, California

EXPLANATION

- MW8 Groundwater Monitoring Well
- B17 Soil Boring
- IB-2 Soil Boring by Other Consultant for City of Albany
- HP2B Hydropunch Boring
- CPT2 Cone Penetration Test Boring
- SVS3 Soil Vapor Sampling Well
- AS1 Air Sparge Well
- SVE3 Soil Vapor Extraction Well

**PROJECT NO.** 2735

**PLATE** 2




| 12/08/14 | | |
|---|---|---|
| 5 FT. | 10 FT. | 15 FT. |
| <5.0 | <5.0 | <5.0 |
| <0.48 | <0.52 | <0.49 |
| <0.0051 | <0.0048 | <0.0049 |

| 02/27/14 | |
|---|---|
| 5 FT. | 11.5 FT. |
| <5.0 | <5.0 |
| <0.50 | <0.49 |
| <0.0050 | <0.0050 |

| 02/27/14 | |
|---|---|
| 5 FT. | 11.5 FT. |
| <5.0 | <5.0 |
| <0.52 | <0.52 |
| <0.0050 | <0.0049 |

| 02/28/14 | | |
|---|---|---|
| 5 FT. | 11.5 FT. | 15.5 FT. |
| <5.0 | <5.0 | <5.1 |
| <0.52 | <0.51 | <0.48 |
| <0.0050 | <0.0049 | <0.0050 |

| 12/08/14 | | |
|---|---|---|
| 5 FT. | 10 FT. | 15 FT. |
| <5.0 | 120a | <5.0 |
| <0.52 | 540a | <0.51 |
| <0.0048 | <2.0 | <0.0048 |

| 10/20/10 | 11/02/10 | | |
|---|---|---|---|
| 5 FT. | 10 FT. | 14.5 FT. | 20 FT. |
| <5.0 | 8.2a | <5.0 | <5.0 |
| <0.50 | 8.7a | 1.8a | <0.50 |
| <0.0050 | <0.0050 | <0.0050 | <0.0050 |

| 01/06/08 | |
|---|---|
| 5.5 FT. | 10.5 FT. |
| <1.0 | 6.0c,d |
| <1.0 | 32e,f |
| <0.005 | 0.009 |

| 01/06/08 | |
|---|---|
| 5.5 FT. | 10.5 FT. |
| 62d | 15d |
| 140e,f | 140e,f |
| <0.005 | 0.25 |

| 02/26/14 | | |
|---|---|---|
| 5 FT. | 10 FT. | 15.5 FT. |
| <5.0 | 43a | <5.0 |
| 0.62a | 530 | <0.51 |
| <0.0050 | 0.026g | <0.0050 |

| 02/25/14 |
|---|
| 5 FT. |
| <5.0 |
| 5.0a |
| 0.00036g |

| 02/26/14 | | |
|---|---|---|
| 5 FT. | 10 FT. | 15 FT. |
| <5.0 | <5.0 | <4.9 |
| <0.48 | 8.4a | <0.51 |
| 0.00014g | 0.0063 | <0.0052 |

| 01/06/08 | |
|---|---|
| 5.5 FT. | 11.5 FT. |
| <1.0 | 5.4c,d |
| <1.0 | 32e,f |
| <0.005 | 0.038 |

| 10/20/10 | 11/04/10 | |
|---|---|---|
| 5 FT. | 10 FT. | 14.5 FT. |
| <5.0 | <5.0 | <5.0 |
| <0.50 | <0.50 | <0.50 |
| <0.0050 | <0.0050 | <0.0050 |

| 10/20/10 |
|---|
| 5 FT. |
| <5.0 |
| <0.50 |
| <0.0050 |

| 02/25/14 |
|---|
| 5 FT. |
| <5.0 |
| <0.50 |
| <0.0049 |

| 10/20/10 |
|---|
| 5 FT. |
| <5.0 |
| <0.50 |
| <0.0050 |

| 01/06/08 | |
|---|---|
| 5.5 FT. | 10.5 FT. |
| <1.0 | 1,400d |
| <1.0 | 4,500b,f |
| <0.005 | 13 |

| 01/17/12 | |
|---|---|
| 10 FT. | 14 FT. |
| 37a | <5.0 |
| 390a | <0.50 |
| <0.50 | <0.0050 |

| 11/04/10 | |
|---|---|
| 10 FT. | 15 FT. |
| <5.0 | <5.0 |
| 3.1a | <0.50 |
| <0.0050 | <0.0050 |

| 10/20/10 | 11/05/10 | |
|---|---|---|
| 5 FT. | 10.5 FT. | 16.5 FT. |
| <5.0 | 93a | <5.0 |
| <0.50 | 450a | <0.50 |
| <0.0050 | <0.050 | <0.0050 |

| 01/06/08 | |
|---|---|
| 5.5 FT. | 10.5 FT. |
| <1.0 | 53d |
| <1.0 | 130e,f |
| <0.005 | 0.37 |

| 02/25/14 |
|---|
| 5 FT. |
| <5.0 |
| <0.49 |
| <0.0048 |

| 01/17/12 | |
|---|---|
| 12.5 FT. | 15 FT. |
| 760a | <5.0 |
| 1,900a | <0.50 |
| <2.5 | <0.0050 |

| 01/17/12 | |
|---|---|
| 8.5 FT. | 11.5 FT. |
| 87a | <5.0 |
| 480a | 18 |
| <0.50 | <0.50 |

| 01/06/08 | |
|---|---|
| 6 FT. | 10.5 FT. |
| 3.7c | 1,400b,c |
| <1.0 | 7,200b,f |
| <0.005 | 2 |

| 02/26/14 | |
|---|---|
| 5 FT. | 11.5 FT. |
| <5.0 | <5.0 |
| <0.50 | 0.50a |
| <0.0049 | 0.00074g |

| 02/27/14 | |
|---|---|
| 5 FT. | 11.5 FT. |
| <5.0 | <4.9 |
| <0.50 | <0.49 |
| <0.0050 | <0.0050 |

| 10/20/10 | 11/05/10 | | |
|---|---|---|---|
| 5 FT. | 10 FT. | 15 FT. | 16.5 FT. |
| <5.0 | <5.0 | <5.0 | <5.0 |
| <0.50 | 44a | <0.50 | <0.50 |
| <0.0050 | <0.50 | <0.0050 | <0.0050 |

| 02/25/14 | 02/28/14 | |
|---|---|---|
| 5 FT. | 11.5 FT. | |
| <4.9 | 160a | |
| <0.48 | 1,800 | |
| <0.0052 | <1.0 | |

| 01/18/12 | |
|---|---|
| 8 FT. | 14 FT. |
| <5.0 | <5.0 |
| <0.50 | <0.50 |
| <0.0050 | <0.0050 |

| 01/18/12 |
|---|
| 10 FT. |
| 800a |
| 2,900 |
| <2.5 |

| 02/28/14 | 03/05/14 | | |
|---|---|---|---|
| 5 FT. | 11.5 FT. | 15 FT. | |
| <5.0 | <5.0 | <4.9 | |
| <0.50 | <0.50 | <0.50 | |
| <0.0051 | <0.0052 | <0.0050 | |

| 03/05/14 | | | |
|---|---|---|---|
| 5 FT. | 11.5 FT. | 15.5 FT. | 19 FT. |
| <5.0 | <5.0 | <4.9 | <5.0 |
| <0.53 | <0.50 | <0.51 | <0.50 |
| <0.0050 | <0.0050 | <0.0051 | <0.0048 |

| 10/20/10 | 11/08/10 | |
|---|---|---|
| 5 FT. | 10.5 FT. | 15.5 FT. |
| <5.0 | 11a | <5.0 |
| <0.50 | 220 | 2.2 |
| <0.0050 | <0.50 | <0.0050 |

| 03/05/14 | | |
|---|---|---|
| 5 FT. | 10 FT. | 14 FT. |
| <5.0 | <4.9 | <5.0 |
| <0.49 | <0.52 | <0.48 |
| <0.0051 | <0.0050 | <0.0050 |

Analyte Concentrations in mg/kg

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

- < Less than the Stated Laboratory Reporting Limit
- mg/kg Milligrams per Kilogram
- NM Not Measured
- a The chromatographic pattern does not match that of the specified standard.
- b Heavier gasoline range compounds are significant.
- c Diesel range compounds are significant; no recognizable pattern.
- d Gasoline range compounds are significant.
- e Strongly aged gasoline or diesel range compounds are significant.
- f No recognizable pattern.
- g Estimated value; analyte present at concentration above the method dection limit but below the reporting limit.

FN 27350004 R08

Cardno ERI
Shaping the Future

# SELECT SOIL ANALYTICAL RESULTS

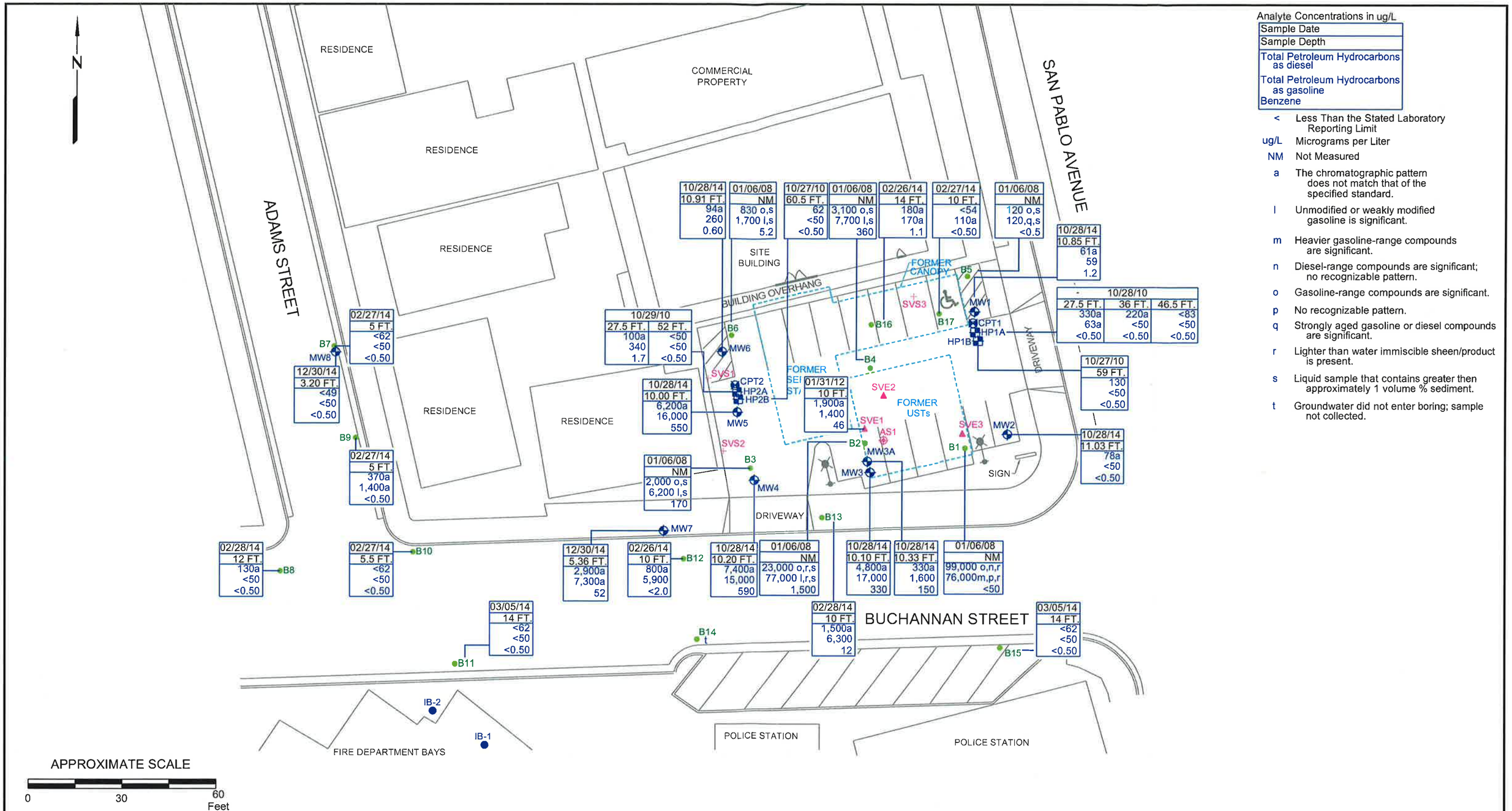
FORMER EXXON SERVICE STATION 79374
990 San Pablo Avenue
Albany, California

EXPLANATION

- MW8 Groundwater Monitoring Well
- B17 Soil Boring
- IB-2 Soil Boring by Other Consultant for City of Albany
- HP2B Hydropunch Boring
- CPT2 Cone Penetration Test Boring
- SVS3 Soil Vapor Sampling Well
- AS1 Air Sparge Well
- SVE3 Soil Vapor Extraction Well

**PROJECT NO.** 2735

**PLATE** 3




Analyte Concentrations in ug/L

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

- < Less Than the Stated Laboratory Reporting Limit
- ug/L Micrograms per Liter
- NM Not Measured
- a The chromatographic pattern does not match that of the specified standard.
- 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 then approximately 1 volume % sediment.
- t Groundwater did not enter boring; sample not collected.

FN 27350004 R08

Cardno ERI
Shaping the Future

# SELECT GROUNDWATER ANALYTICAL RESULTS

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

EXPLANATION

- MW8 Groundwater Monitoring Well
- B17 Soil Boring
- IB-2 Soil Boring by Other Consultant for City of Albany
- HP2B Hydropunch Boring
- CPT2 Cone Penetration Test Boring
- SVS3 Soil Vapor Sampling Well
- AS1 Air Sparge Well
- SVE3 Soil Vapor Extraction Well

**PROJECT NO.** 2735

**PLATE** 4

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

| Well ID | Sampling Date | Depth (feet) | TOC Elev. (feet) | DTW (feet) | GW Elev. | NAPL (feet) | O&G (µg/L) | TPHmo (µg/L) | TPHd (µg/L) | TPHg (µg/L) | MTBE (µg/L) | B (µg/L) | T (µg/L) | E (µg/L) | X (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Monitoring Well Samples** | | | | | | | | | | | | | | | |
| MW1 | 11/04/10 | --- | Well installed. | | | | | | | | | | | | |
| MW1 | 12/01/10 | --- | 41.45 | Well surveyed. | | | | | | | | | | | |
| MW1 | 12/16/10 | --- | 41.45 | 9.18 | 32.27 | No | --- | <250 | 71a | 54 | <0.50 | 1.4 | 0.65 | 0.58 | 1.6 |
| MW1 | 01/31/11 | --- | 41.45 | 8.78 | 32.67 | No | --- | <250 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW1 | 04/07/11 | --- | 41.45 | 8.45 | 33.00 | No | --- | <250 | 65a | 160a | <0.50 | 2.9 | 0.92 | <0.50 | 1.7 |
| MW1 | 07/18/11 | --- | 41.45 | 9.49 | 31.96 | No | --- | <250 | <50 | 63a | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW1 | 10/13/11 | --- | 41.45 | 9.86 | 31.59 | No | --- | <250 | 54 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW1 | 04/06/12 | --- | 41.45 | 8.11 | 33.34 | No | --- | <250 | 130 | 130 | <0.50 | 2.1 | <0.50 | <0.50 | <0.50 |
| MW1 | 10/19/12 | --- | 41.45 | 10.42 | 31.03 | No | --- | <250 | <50 | <50 | <0.50 | 0.51 | 2.2 | <0.50 | 0.65 |
| MW1 | 06/11/13 | --- | 41.45 | 10.48 | 30.97 | No | --- | <250 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW1 | 12/19/13 | --- | 41.45 | 10.67 | 30.78 | No | --- | <250 | <50 | <50 | <0.50 | <0.50 | 1.3 | <0.50 | 0.53 |
| MW1 | 04/03/14 | --- | 44.19 | Elevation converted to NAVD88. | | | | | | | | | | | |
| MW1 | 04/30/14 | --- | 44.19 | 9.49 | 34.70 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW1 | 05/01/14 | --- | 44.19 | --- | --- | --- | --- | <240 | <48 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW1 | 10/28/14 | --- | 44.19 | 10.85 | 33.34 | No | --- | <250 | 61a | 59 | <0.50 | 1.2 | <0.50 | 0.64 | <0.50 |
| MW2 | 11/04/10 | --- | Well installed. | | | | | | | | | | | | |
| MW2 | 12/01/10 | --- | 41.25 | Well surveyed. | | | | | | | | | | | |
| MW2 | 12/16/10 | --- | 41.25 | 8.11 | 33.14 | No | --- | <250 | 110a | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 01/31/11 | --- | 41.25 | 9.29 | 31.96 | No | --- | <250 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 04/07/11 | --- | 41.25 | 8.21 | 33.04 | No | --- | <250 | <50 | <50 | 0.51 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 07/18/11 | --- | 41.25 | 9.52 | 31.73 | No | --- | <250 | <50 | 54a | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 10/13/11 | --- | 41.25 | 9.56 | 31.69 | No | --- | <250 | 98 | 75a | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 04/06/12 | --- | 41.25 | 8.68 | 32.57 | No | --- | <250 | 60 | 68 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 10/19/12 | --- | 41.25 | 11.03 | 30.22 | No | --- | <250 | <50 | 59a | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 06/11/13 | --- | 41.25 | 10.67 | 30.58 | No | --- | <250 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 12/19/13 | --- | 41.25 | 10.77 | 30.48 | No | --- | <250 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 04/03/14 | --- | 43.99 | Elevation converted to NAVD88. | | | | | | | | | | | |
| MW2 | 04/30/14 | --- | 43.99 | 9.63 | 34.36 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW2 | 05/01/14 | --- | 43.99 | --- | --- | --- | --- | <240 | <48 | 53a | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW2 | 10/28/14 | --- | 43.99 | 11.03 | 32.96 | No | --- | <250 | 78a | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 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 |

**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 | 06/11/13 | --- | 40.42 | 9.48 | 30.94 | No | --- | <250 | 2,700a | 17,000 | <10 | 270 | 110 | 990 | 140 |
| MW3 | 12/19/13 | --- | 40.42 | 10.00 | 30.42 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW3 | 12/20/13 | --- | 40.42 | --- | --- | --- | --- | <250 | 2,000a | 16,000 | <10 | 310 | 120 | 710 | 120 |
| MW3 | 04/03/14 | --- | 43.16 | Elevation converted to NAVD88. | | | | | | | | | | | |
| MW3 | 04/30/14 | --- | 43.16 | 9.17 | 33.99 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW3 | 05/01/14 | --- | 43.16 | --- | --- | --- | --- | <240 | 3,100a | 18,000 | <10 | 230 | 110 | 1,100 | 170 |
| MW3 | 10/28/14 | --- | 43.16 | 10.10 | 33.06 | No | --- | <250 | 4,800a | 17,000 | <20 | 330 | 120 | 1,200 | 150 |
| MW3A | 01/18/12 | --- | Well installed. | | | | | | | | | | | | |
| MW3A | 02/06/12 | --- | 40.68 | Well surveyed. | | | | | | | | | | | |
| MW3A | 04/06/12 | --- | 40.68 | 6.02 | 34.66 | No | --- | <250 | 170a | 1,300 | <2.0 | 41 | 7.5 | 140 | 38 |
| MW3A | 10/19/12 | --- | 40.68 | 10.44 | 30.24 | No | --- | <250 | 860a | 4,400a | <5.0 | 390 | 59 | 410 | 82 |
| MW3A | 06/11/13 | --- | 40.68 | 9.75 | 30.93 | No | --- | <250 | 160a | 1,100 | <2.0 | 99 | 14 | 110 | 3.6 |
| MW3A | 12/19/13 | --- | 40.68 | 10.05 | 30.63 | No | --- | <250 | 270a | 1,800 | <2.0 | 150 | 18 | 65 | 4.7 |
| MW3A | 04/03/14 | --- | 43.42 | Elevation converted to NAVD88. | | | | | | | | | | | |
| MW3A | 04/30/14 | --- | 43.42 | 7.55 | 35.87 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW3A | 05/01/14 | --- | 43.42 | --- | --- | --- | --- | <240 | <48 | 130a | <0.50 | 7.0 | 1.2 | 7.4 | 1.3 |
| MW3A | 10/28/14 | --- | 43.42 | 10.33 | 33.09 | No | --- | <250 | 330a | 1,600 | <0.50 | 150 | 17 | 26 | 4.0 |
| MW4 | 11/05/10 | --- | Well installed. | | | | | | | | | | | | |
| MW4 | 12/01/10 | --- | 39.30 | Well surveyed. | | | | | | | | | | | |
| MW4 | 12/16/10 | --- | 39.30 | 6.10 | 33.20 | No | --- | <250 | 2,000a | 9,900 | <5.0 | 440 | 40 | 170 | 380 |
| MW4 | 01/31/11 | --- | 39.30 | 6.84 | 32.46 | No | --- | 260 | 3,900a | 13,000 | <10 | 500 | 59 | 320 | 740 |
| MW4 | 04/07/11 | --- | 39.30 | 5.29 | 34.01 | No | --- | <250 | 1,900a | 9,600 | <10 | 530 | 59 | 250 | 340 |
| MW4 | 07/18/11 | --- | 39.30 | 7.36 | 31.94 | No | --- | <250 | 2,800a | 14,000 | <10 | 570 | 66 | 320 | 510 |
| MW4 | 10/13/11 | --- | 39.30 | 7.83 | 31.47 | No | --- | 320 | 7,200a | 14,000 | <10 | 350 | 43 | 340 | 690 |
| MW4 | 04/06/12 | --- | 39.30 | 6.21 | 33.09 | No | --- | <250 | 1,800a | 9,100a | <10 | 380 | 40 | 220 | 410 |
| MW4 | 10/19/12 | --- | 39.30 | 10.64 | 28.66 | No | --- | 1,400a | 20,000a | 270,000 | <10 | 440 | 88 | 2,100 | 3,800 |
| MW4 | 03/06/13 | --- | 39.30 | 8.02 | 31.28 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW4 | 06/11/13 | --- | 39.30 | 9.05 | 30.25 | No | --- | <250 | 3,400a | 16,000 | <10 | 430 | 48 | 520 | 820 |
| MW4 | 12/19/13 | --- | 39.30 | 8.95 | 30.35 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW4 | 12/20/13 | --- | 39.30 | --- | --- | --- | --- | <250 | 2,800a | 13,000 | <10 | 590 | 41 | 430 | 530 |
| MW4 | 03/05/14 | --- | 39.30 | --- | --- | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW4 | 04/03/14 | --- | 42.04 | Elevation converted to NAVD88. | | | | | | | | | | | |
| MW4 | 04/30/14 | --- | 42.04 | 6.25 | 35.79 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW4 | 05/01/14 | --- | 42.04 | --- | --- | --- | --- | <240 | 3,000a | 13,000 | <10 | 520 | 46 | 310 | 340 |
| MW4 | 10/28/14 | --- | 42.04 | 10.20 | 31.84 | No | --- | <250 | 7,400a | 15,000 | <10 | 590 | 42 | 360 | 230 |
| 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 |

**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 | 10/13/11 | --- | 40.38 | 9.31 | 31.07 | No | --- | 660 | 7,600a | 23,000 | <20 | 390 | 160 | 1,200 | 3,100 |
| MW5 | 04/06/12 | --- | 40.38 | 6.77 | 33.61 | No | --- | <250 | 880a | 6,000a | <5.0 | 62 | 17 | 360 | 680 |
| MW5 | 10/19/12 | --- | 40.38 | 10.64 | 29.74 | No | --- | 280a | 2,100a | 15,000 | <20 | 580 | 63 | 950 | 1,400 |
| MW5 | 06/11/13 | --- | 40.38 | 10.06 | 30.32 | No | --- | <250 | 2,700a | 13,000 | <20 | 540 | 36 | 930 | 1,200 |
| MW5 | 12/19/13 | --- | 40.38 | 9.85 | 30.53 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW5 | 12/20/13 | --- | 40.38 | --- | --- | --- | --- | <250 | 2,100a | 21,000 | <20 | 370 | 36 | 1,500 | 1,400 |
| MW5 | 04/03/14 | --- | 43.12 | Elevation converted to NAVD88. | | | | | | | | | | | |
| MW5 | 04/30/14 | --- | 43.12 | 7.51 | 35.61 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW5 | 05/01/14 | --- | 43.12 | --- | --- | --- | --- | <240 | 2,000a | 10,000 | <10 | 170 | 10 | 600 | 510 |
| MW5 | 10/28/14 | --- | 43.12 | 10.00 | 33.12 | No | --- | 360a | 6,200a | 16,000 | <10 | 550 | 17 | 890 | 360 |
| MW6 | 11/03/10 | --- | Well installed. | | | | | | | | | | | | |
| MW6 | 12/01/10 | --- | 41.06 | Well surveyed. | | | | | | | | | | | |
| MW6 | 12/16/10 | --- | 41.06 | 8.55 | 32.51 | No | --- | <250 | 110a | 1,700 | <0.50 | 2.8 | 1.2 | 61 | 46 |
| MW6 | 01/31/11 | --- | 41.06 | 8.52 | 32.54 | No | --- | <250 | 800a | 2,000a | <1.0 | 6.0 | <1.0 | 30 | 24 |
| MW6 | 04/07/11 | --- | 41.06 | 7.78 | 33.28 | No | --- | <250 | 660a | 2,000 | <0.50 | 10 | 1.0 | 20 | 19 |
| MW6 | 07/18/11 | --- | 41.06 | 9.27 | 31.79 | No | --- | <250 | 350a | 1,000a | <0.50 | 2.5 | <0.50 | 3.8 | 3.5 |
| MW6 | 10/13/11 | --- | 41.06 | 10.21 | 30.85 | No | --- | <250 | 370a | 890a | <0.50 | 2.8 | <0.50 | 7.9 | 5.5 |
| MW6 | 04/06/12 | --- | 41.06 | 7.19 | 33.87 | No | --- | <250 | 440a | 1,400a | <0.50 | 2.4 | <0.50 | 13 | 15 |
| MW6 | 10/19/12 | --- | 41.06 | 11.36 | 29.70 | No | --- | <250 | 99a | 510a | <0.50 | 4.2 | 1.6 | 8.0 | 7.0 |
| MW6 | 06/11/13 | --- | 41.06 | 10.81 | 30.25 | No | --- | <250 | 150a | 500 | <0.50 | <0.50 | <0.50 | 2.4 | 1.1 |
| MW6 | 12/19/13 | --- | 41.06 | 10.78 | 30.28 | No | --- | <250 | 68a | 440 | <0.50 | <0.50 | <0.50 | 2.3 | 0.87 |
| MW6 | 04/03/14 | --- | 43.80 | Elevation converted to NAVD88. | | | | | | | | | | | |
| MW6 | 04/30/14 | --- | 43.80 | 8.23 | 35.57 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW6 | 05/01/14 | --- | 43.80 | --- | --- | --- | --- | <240 | 450a | 1,500 | <0.50 | 2.8 | 0.57 | 13 | 4.8 |
| MW6 | 10/28/14 | --- | 43.80 | 10.91 | 32.89 | No | --- | <250 | 94a | 260 | <0.50 | 0.60 | <0.50 | 0.56 | <0.50 |
| **MW7** | **12/08/14** | **---** | **Well installed.** | | | | | | | | | | | | |
| **MW7** | **12/23/14** | **---** | **41.21** | **Well surveyed.** | | | | | | | | | | | |
| **MW7** | **12/30/14** | **---** | **41.21** | **5.36** | **35.85** | **No** | **---** | **<250** | **2,900a** | **7,300a** | **<5.0** | **52** | **8.9** | **32** | **15** |
| **MW8** | **12/08/14** | **---** | **Well installed.** | | | | | | | | | | | | |
| **MW8** | **12/23/14** | **---** | **39.65** | **Well surveyed.** | | | | | | | | | | | |
| **MW8** | **12/30/14** | **---** | **39.65** | **3.20** | **36.45** | **No** | **---** | **<250** | **<49** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<0.50** | **<0.50** |
| AS1 | 01/18/12 | --- | Well installed. | | | | | | | | | | | | |
| AS1 | 10/19/12 | --- | --- | 10.32 | --- | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AS1 | 06/11/13 | --- | --- | 9.82 | --- | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AS1 | 12/19/13 | --- | --- | 10.12 | --- | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AS1 | 04/30/14 | --- | --- | 7.95 | --- | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AS1 | 10/28/14 | --- | --- | 10.35 | --- | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | --- | --- | --- | --- | --- | --- | --- | --- | --- |

**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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SVE1 | 06/11/13 | --- | 40.58 | 9.63 | 30.95 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE1 | 12/19/13 | --- | 40.58 | 9.89 | 30.69 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE1 | 04/03/14 | --- | 43.32 | Elevation converted to NAVD88. | | | | | | | | | | | |
| SVE1 | 04/30/14 | --- | 43.32 | 7.70 | 35.62 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE1 | 10/28/14 | --- | 43.32 | 10.17 | 33.15 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE2 | 01/17/12 | --- | Well installed. | | | | | | | | | | | | |
| SVE2 | 02/06/12 | --- | 40.94 | Well surveyed. | | | | | | | | | | | |
| SVE2 | 10/19/12 | --- | 40.94 | 10.48 | 30.46 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE2 | 06/11/13 | --- | 40.94 | 9.94 | 31.00 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE2 | 12/19/13 | --- | 40.94 | 10.20 | 30.74 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE2 | 04/03/14 | --- | 43.68 | Elevation converted to NAVD88. | | | | | | | | | | | |
| SVE2 | 04/30/14 | --- | 43.68 | 8.09 | 35.59 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE2 | 10/28/14 | --- | 43.68 | 10.50 | 33.18 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE3 | 01/17/12 | --- | Well installed. | | | | | | | | | | | | |
| SVE3 | 02/06/12 | --- | 40.93 | Well surveyed. | | | | | | | | | | | |
| SVE3 | 10/19/12 | --- | 40.93 | 10.39 | 30.54 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE3 | 06/11/13 | --- | 40.93 | 9.65 | 31.28 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE3 | 12/19/13 | --- | 40.93 | 10.31 | 30.62 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE3 | 04/03/14 | --- | 43.67 | Elevation converted to NAVD88. | | | | | | | | | | | |
| SVE3 | 04/30/14 | --- | 43.67 | 7.79 | 35.88 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SVE3 | 10/28/14 | --- | 43.67 | 10.48 | 33.19 | No | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |

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

| Well ID | Sampling Date | | Depth (feet) | TOC Elev. (feet) | DTW (feet) | GW Elev. | NAPL (feet) | O&G (µg/L) | TPHmo (µg/L) | TPHd (µg/L) | TPHg (µg/L) | MTBE (µg/L) | B (µg/L) | T (µg/L) | E (µg/L) | X (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-27.5-HP2A | 10/29/10 | | 27.5 | --- | --- | --- | --- | --- | <250 | 100a | 340 | <0.50 | 1.7 | 2.1 | 20 | 46 |
| W-52-HP2A | 10/29/10 | | 52 | --- | --- | --- | --- | --- | <250 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| W-60.5-HP2B | 10/27/10 | | 60.5 | --- | --- | --- | --- | --- | <250 | 62 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| W-10-SVE1-1 | 01/31/12 | | 10 | --- | --- | --- | --- | --- | 990a | 1,900a | 2,000 | <2.0 | 87 | 2.1 | 13 | 23 |
| W-10-SVE1-2 | 01/31/12 | | 10 | --- | --- | --- | --- | --- | 890a | 1,500a | 1,400 | <1.0 | 46 | 2.0 | 24 | 23 |
| W-5-B7 | 02/27/14 | | 5 | --- | --- | --- | --- | --- | <310 | <62 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| W-12-B8 | 02/28/14 | | 12 | --- | --- | --- | --- | --- | <240 | 130a | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| W-5-B9 | 02/27/14 | | 5 | --- | --- | --- | --- | --- | <310 | 370a | 1,400a | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| W-5.5-B10 | 02/27/14 | | 5.5 | --- | --- | --- | --- | --- | <310 | <62 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| W-14-B11 | 03/05/14 | | 14 | --- | --- | --- | --- | --- | <310 | <62 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| W-10-B12 | 02/26/14 | | 10 | --- | --- | --- | --- | --- | <250 | 800a | 5,900 | <2.0 | <2.0 | <2.0 | 7.5 | <2.0 |
| W-10-B13 | 02/28/14 | | 10 | --- | --- | --- | --- | --- | <250 | 1,500a | 6,300 | <5.0 | 12 | 8.8 | 290 | 22 |
| B14 | 03/05/14 | t | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| W-14-B15 | 03/05/14 | | 14 | --- | --- | --- | --- | --- | <310 | <62 | <50 | 1.3 | <0.50 | <0.50 | <0.50 | <0.50 |
| W-14-B16 | 02/26/14 | | 14 | --- | --- | --- | --- | --- | <250 | 180a | 170a | <0.50 | 1.1 | <0.50 | 5.4 | <0.50 |
| W-10-B17 | 02/27/14 | | 10 | --- | --- | --- | --- | --- | <270 | <54 | 110a | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |

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

Notes:

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

Notes:

x = p-isopropyltoluene.
y = Tetrachloroethene.
z = Trichloroethene.

**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 | --- | --- |
| MW1 | 10/28/14 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | 0.67f, 18w, 85u,y, 9.8,z | --- |
| MW2 | 11/04/10 | --- | Well installed. | | | | | | | |
| MW2 | 12/16/10 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 01/31/11 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 04/07/11 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 07/18/11 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 10/13/11 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 04/06/12 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 10/19/12 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 06/11/13 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 12/19/13 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 05/01/14 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW2 | 10/28/14 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | 8.8e, 73u,y, 8.9z | --- |
| MW3 | 11/08/10 | --- | Well installed. | | | | | | | |
| MW3 | 12/16/10 | --- | <12 | <12 | <12 | <120 | <12 | <12 | --- | --- |
| MW3 | 01/31/11 | --- | <12 | <12 | <12 | <120 | <12 | <12 | --- | --- |
| MW3 | 04/07/11 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW3 | 07/18/11 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW3 | 10/13/11 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW3 | 04/06/12 | --- | <20 | <20 | <20 | <200 | <20 | <20 | --- | --- |
| MW3 | 10/19/12 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW3 | 06/11/13 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW3 | 12/20/13 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW3 | 05/01/14 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW3 | 10/28/14 | --- | <20 | <20 | <20 | <200 | <20 | <20 | 30b, 110d, 210e, 36g, 290h | --- |
| 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 | --- | --- |

**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) |
|---|---|---|---|---|---|---|---|---|---|---|
| MW3A | 12/19/13 | --- | <2.0 | <2.0 | <2.0 | <20 | <2.0 | <2.0 | --- | --- |
| MW3A | 05/01/14 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| MW3A | 10/28/14 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | 5.4b, 6.3c, 20d, 28e, 4.6f, 1.6g, 4.6h, 2.9v, 2.0x | --- |
| MW4 | 11/05/10 | --- | Well installed. | | | | | | | |
| MW4 | 12/16/10 | --- | <5.0 | <5.0 | <5.0 | <50 | <5.0 | <5.0 | --- | --- |
| MW4 | 01/31/11 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW4 | 04/07/11 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW4 | 07/18/11 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW4 | 10/13/11 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW4 | 04/06/12 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW4 | 10/19/12 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW4 | 06/11/13 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW4 | 12/20/13 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW4 | 05/01/14 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW4 | 10/28/14 | --- | <10 | <10 | <10 | <100 | <10 | <10 | 72b, 24c, 75d, 190e, 350f, 160g, 270h | --- |
| MW5 | 11/11/10 | --- | Well installed. | | | | | | | |
| MW5 | 12/16/10 | --- | <2.5 | <2.5 | <2.5 | <25 | <2.5 | <2.5 | --- | --- |
| MW5 | 01/31/11 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW5 | 04/07/11 | --- | <2.5 | <2.5 | <2.5 | <25 | <2.5 | <2.5 | --- | --- |
| MW5 | 07/18/11 | --- | <2.5 | <2.5 | <2.5 | <25 | <2.5 | <2.5 | --- | --- |
| MW5 | 10/13/11 | --- | <20 | <20 | <20 | <200 | <20 | <20 | --- | --- |
| MW5 | 04/06/12 | --- | <0.50 | <5.0 | <5.0 | <50 | <5.0 | <5.0 | --- | --- |
| MW5 | 10/19/12 | --- | <20 | <20 | <20 | <200 | <20 | <20 | --- | --- |
| MW5 | 06/11/13 | --- | <20 | <20 | <20 | <200 | <20 | <20 | --- | --- |
| MW5 | 12/20/13 | --- | <20 | <20 | <20 | <200 | <20 | <20 | --- | --- |
| MW5 | 05/01/14 | --- | <10 | <10 | <10 | <100 | <10 | <10 | --- | --- |
| MW5 | 10/28/14 | --- | <10 | <10 | <10 | <100 | <10 | <10 | 82b, 33c, 120d, 380e, 730f, 130g, 250h, 14x | --- |
| 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 | --- | --- |
| MW6 | 10/28/14 | --- | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | 0.73c, 0.84d, 1.9e, 1.4h | --- |
| **MW7** | **12/08/14** | **---** | **Well installed.** | | | | | | | |
| **MW7** | **12/30/14** | **---** | **<5.0** | **<5.0** | **<5.0** | **<50** | **<5.0** | **13** | **---** | **---** |

**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) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MW8** | **12/08/14** | **---** | **Well installed.** | | | | | | | |
| **MW8** | **12/30/14** | **---** | **<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. | | | | | | | |
| 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 | --- | --- |

**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) |
|---|---|---|---|---|---|---|---|---|---|---|
| W-10-B12 | 02/26/14 | 10 | <2.0 | <2.0 | <2.0 | <20 | <2.0 | <2.0 | --- | --- |
| W-10-B13 | 02/28/14 | 10 | <5.0 | <5.0 | <5.0 | <50 | <5.0 | <5.0 | --- | --- |
| B14 | 03/05/14 t | | --- | --- | --- | --- | --- | --- | --- | --- |
| W-14-B15 | 03/05/14 | 14 | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| W-14-B16 | 02/26/14 | 14 | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |
| W-10-B17 | 02/27/14 | 10 | <0.50 | <0.50 | <0.50 | <5.0 | <0.50 | <0.50 | --- | --- |

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

Notes:

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

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

Notes:

x = p-isopropyltoluene.
y = Tetrachloroethene.
z = Trichloroethene.

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

| Well ID | Well Installation Date | TOC Elevation (feet) | Borehole Diameter (inches) | Total Depth of Boring (feet bgs) | Well Depth (feet bgs) | Casing Diameter (inches) | Well Casing Material | Screened Interval (feet bgs) | Slot Size (inches) | Filter Pack Interval (feet bgs) | Filter Pack Material |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW1 | 11/04/10 | 44.19 | 8 | 17 | 17 | 2 | Schedule 40 PVC | 12-17 | 0.020 | 10-17 | #3 Sand |
| MW2 | 11/04/10 | 43.99 | 8 | 17 | 17 | 4 | Schedule 40 PVC | 12-17 | 0.020 | 10-17 | #3 Sand |
| MW3 | 11/08/10 | 43.16 | 8 | 17 | 17 | 4 | Schedule 40 PVC | 11-16 | 0.020 | 9-16 | #3 Sand |
| MW3A | 01/18/12 | 43.42 | 10 | 15.5 | 15.5 | 4 | Schedule 40 PVC | 5-15 | 0.020 | 4.5-15.5 | #2/12 Sand |
| MW4 | 11/05/10 | 42.04 | 8 | 17 | 13 | 2 | Schedule 40 PVC | 8-13 | 0.020 | 6-13 | #3 Sand |
| MW5 | 11/05/10 | 43.12 | 8 | 17 | 14 | 2 | Schedule 40 PVC | 9-14 | 0.020 | 7-14 | #3 Sand |
| MW6 | 11/03/10 | 43.80 | 10 | 20 | 20 | 2 | Schedule 40 PVC | 15-20 | 0.020 | 13-20 | #3 Sand |
| MW7 | 12/08/14 | 41.21 | 10 | 15 | 15 | 2 | Schedule 40 PVC | 5-15 | 0.020 | 4-15 | #3 Sand |
| MW8 | 12/08/14 | 39.65 | 10 | 15 | 15 | 2 | Schedule 40 PVC | 5-15 | 0.020 | 4-15 | #3 Sand |
| 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.

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


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

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


| Sample ID | Sampling Date | Depth (feet bgs) | TPHmo (mg/kg) | TPHd (mg/kg) | TPHg (mg/kg) | MTBE (mg/kg) | B (mg/kg) | T (mg/kg) | E (mg/kg) | X (mg/kg) | EDB (mg/kg) | 1,2-DCA (mg/kg) | TBA (mg/kg) | DIPE (mg/kg) | ETBE (mg/kg) | TAME (mg/kg) | Naph-thalene (mg/kg) | VOCs (mg/kg) | Lead (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Environmental Screening Levels, Potential Drinking Water Source (December 2013)** | | | | | | | | | | | | | | | | | | | |
| Shallow (<10 feet bgs), Residential (Table A-1) | | | --- | 100 | 100 | 0.023 | 0.044 | 2.9 | 3.3 | 2.3 | 0.00033 | 0.0045 | 0.075 | --- | --- | --- | 1.2 | --- | 80 |
| Shallow (<10 feet bgs), Commercial (Table A-2) | | | --- | 110 | 500 | 0.023 | 0.044 | 2.9 | 3.3 | 2.3 | 0.00033 | 0.0045 | 0.075 | --- | --- | --- | 1.2 | --- | 320 |
| Deep (≥10 feet bgs), Residential (Table C-1) | | | --- | 110 | 500 | 0.023 | 0.044 | 2.9 | 3.3 | 2.3 | 0.00033 | 0.0045 | 0.075 | --- | --- | --- | 1.2 | --- | 80 |
| Deep (≥10 feet bgs), Commercial (Table C-2) | | | --- | 110 | 770 | 0.023 | 0.044 | 2.9 | 3.3 | 2.3 | 0.00033 | 0.0045 | 0.075 | --- | --- | --- | 1.2 | --- | 320 |
| S-5-B14 | 03/05/14 | 5.0 | <25 | <5.0 | <0.53 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | <0.050 | --- | --- |
| S-11.5-B14 | 03/05/14 | 11.5 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-15.5-B14 | 03/05/14 | 15.5 | <24 | <4.9 | <0.51 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | <0.051 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-19-B14 | 03/05/14 | 19.0 | <25 | <5.0 | <0.50 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.048 | <0.0096 | <0.0096 | <0.0096 | --- | --- | --- |
| S-5-B15 | 03/05/14 | 5.0 | <25 | <5.0 | <0.49 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | <0.051 | <0.010 | <0.010 | <0.010 | <0.051 | --- | --- |
| S-10-B15 | 03/05/14 | 10.0 | <24 | <4.9 | <0.52 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-14.0-B15 | 03/05/14 | 14.0 | <25 | <5.0 | <0.48 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-5-B16 | 02/26/14 | 5.0 | <25 | <5.0 | 0.62a | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | 0.030g | <0.0099 | <0.0099 | <0.0099 | <0.050 | --- | --- |
| S-10-B16 | 02/26/14 | 10.0 | <24 | 43a | **530** | <0.49 | 0.026g | <0.49 | 0.10g | 0.058g | <0.49 | <0.49 | <4.9 | <0.97 | <0.97 | <0.97 | 0.84g | --- | --- |
| S-15.5-B16 | 02/26/14 | 15.5 | <25 | <5.0 | <0.51 | <0.0050 | <0.0050 | <0.0050 | 0.00021g | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-5-B17 | 02/26/14 | 5.0 | <25 | <5.0 | <0.48 | <0.0050 | 0.00014g | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | 0.011g | <0.010 | <0.010 | <0.010 | 0.0021g | --- | --- |
| S-10-B17 | 02/26/14 | 10.0 | <25 | <5.0 | 8.4a | <0.0050 | 0.0063 | <0.0050 | <0.0050 | 0.00081g | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | <0.050 | --- | --- |
| S-15.5-B17 | 02/26/14 | 15.5 | <24 | <4.9 | <0.51 | <0.0052 | <0.0052 | <0.0052 | <0.0052 | <0.0052 | <0.0052 | <0.0052 | <0.052 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| **Well Samples** | | | | | | | | | | | | | | | | | | | |
| S-5-MW1 | 10/20/10 | 5.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-10-MW1 | 11/04/10 | 10.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-14.5-MW1 | 11/04/10 | 14.5 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-10-MW2 | 11/04/10 | 10.0 | <25 | <5.0 | 3.1a | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-15-MW2 | 11/04/10 | 15.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-5-MW3 | 10/20/10 | 5.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-10.5-MW3 | 11/08/10 | 10.5 | <25 | 11a | **220** | <0.50 | <0.50 | <0.50 | 2.0 | 1.1 | <0.50 | <0.50 | <5.0 | <1.0 | <1.0 | <1.0 | --- | --- | --- |
| S-15.5-MW3 | 11/08/10 | 15.5 | <25 | <5.0 | 2.2 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-8-MW3A | 01/18/12 | 8.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-14.5-MW3A | 01/18/12 | 14.5 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | 0.015 | 0.0052 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-5-MW4 | 10/20/10 | 5.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-10-MW4 | 11/05/10 | 10.0 | <25 | <5.0 | 44a | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <5.0 | <1.0 | <1.0 | <1.0 | --- | --- | --- |
| S-15-MW4 | 11/05/10 | 15.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-16.5-MW4 | 11/05/10 | 16.5 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-5-MW5 | 10/20/10 | 5.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-10.5-MW5 | 11/05/10 | 10.5 | 29 | 93a | **450a** | <0.050 | <0.050 | 1.5 | <0.50 | <0.50 | <0.50 | <0.50 | <5.0 | <1.0 | <1.0 | <1.0 | --- | --- | --- |
| S-16.5-MW5 | 11/05/10 | 16.5 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-5-MW6 | 10/20/10 | 5.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-10-MW6 | 11/02/10 | 10.0 | <25 | 8.2a | 8.7a | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |

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


| Sample ID | Sampling Date | Depth (feet bgs) | TPHmo (mg/kg) | TPHd (mg/kg) | TPHg (mg/kg) | MTBE (mg/kg) | B (mg/kg) | T (mg/kg) | E (mg/kg) | X (mg/kg) | EDB (mg/kg) | 1,2-DCA (mg/kg) | TBA (mg/kg) | DIPE (mg/kg) | ETBE (mg/kg) | TAME (mg/kg) | Naph-thalene (mg/kg) | VOCs (mg/kg) | Lead (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Environmental Screening Levels, Potential Drinking Water Source (December 2013)** | | | | | | | | | | | | | | | | | | | |
| Shallow (<10 feet bgs), Residential (Table A-1) | | | --- | 100 | 100 | 0.023 | 0.044 | 2.9 | 3.3 | 2.3 | 0.00033 | 0.0045 | 0.075 | --- | --- | --- | 1.2 | --- | 80 |
| Shallow (<10 feet bgs), Commercial (Table A-2) | | | --- | 110 | 500 | 0.023 | 0.044 | 2.9 | 3.3 | 2.3 | 0.00033 | 0.0045 | 0.075 | --- | --- | --- | 1.2 | --- | 320 |
| Deep (≥10 feet bgs), Residential (Table C-1) | | | --- | 110 | 500 | 0.023 | 0.044 | 2.9 | 3.3 | 2.3 | 0.00033 | 0.0045 | 0.075 | --- | --- | --- | 1.2 | --- | 80 |
| Deep (≥10 feet bgs), Commercial (Table C-2) | | | --- | 110 | 770 | 0.023 | 0.044 | 2.9 | 3.3 | 2.3 | 0.00033 | 0.0045 | 0.075 | --- | --- | --- | 1.2 | --- | 320 |
| S-14.5-MW6 | 11/02/10 | 14.5 | <25 | <5.0 | 1.8a | <0.0050 | <0.0050 | <0.0050 | <0.0093 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-20-MW6 | 11/02/10 | 20.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-5-MW7 | 12/08/14 | 5.0 | --- | <5.0 | <0.52 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | --- | --- | <0.048 | <0.0096 | <0.0096 | <0.0096 | --- | --- | --- |
| S-10-MW7 | 12/08/14 | 10.0 | --- | **120a** | **540a** | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | --- | --- | <20 | <4.0 | <4.0 | <4.0 | --- | --- | --- |
| S-15-MW7 | 12/08/14 | 15.0 | --- | <5.0 | <0.51 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | --- | --- | <0.048 | <0.0096 | <0.0096 | <0.0096 | --- | --- | --- |
| S-5-MW8 | 12/08/14 | 5.0 | --- | <5.0 | <0.48 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | <0.0051 | --- | --- | <0.051 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-10-MW8 | 12/08/14 | 10.0 | --- | <5.0 | <0.52 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | --- | --- | <0.048 | <0.0096 | <0.0096 | <0.0096 | --- | --- | --- |
| S-15-MW8 | 12/08/14 | 15.0 | --- | <5.0 | <0.49 | <0.0049 | <0.0049 | <0.0049 | <0.0049 | <0.0049 | --- | --- | <0.049 | <0.0097 | <0.0097 | <0.0097 | --- | --- | --- |
| S-5-CPT1 | 10/20/10 | 5.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-5-CPT2 | 10/20/10 | 5.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-10-AS1 | 01/18/12 | 10.0 | <25 | **800a** | **2,900** | <2.5 | <2.5 | <2.5 | **47** | <2.5 | <2.5 | <2.5 | <25 | <5.0 | <5.0 | <5.0 | --- | --- | --- |
| S-8.5-SVE1 | 01/17/12 | 8.5 | <25 | 87a | **480a** | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <5.0 | <1.0 | <1.0 | <1.0 | --- | --- | --- |
| S-11.5-SVE1 | 01/17/12 | 11.5 | <25 | <5.0 | 18 | <0.0050 | <0.50 | 0.010 | 0.084 | 0.11 | <0.0050 | <0.0050 | <0.50 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-10-SVE2 | 01/17/12 | 10.0 | 53a | 37a | **390a** | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <5.0 | <1.0 | <1.0 | <1.0 | --- | --- | --- |
| S-14-SVE2 | 01/17/12 | 14.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.50 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-12.5-SVE3 | 01/17/12 | 12.5 | 57a | **760a** | **1,900a** | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <0.50 | <0.50 | <5.0 | <1.0 | <1.0 | <1.0 | --- | --- | --- |
| S-15-SVE3 | 01/17/12 | 15.0 | <25 | <5.0 | <0.50 | <0.0050 | <0.0050 | <0.0050 | 0.015 | 0.033 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | --- |
| S-5-SVS1 | 02/25/14 | 5.0 | <25 | <5.0 | <0.50 | <0.0049 | <0.0049 | <0.0049 | <0.0049 | <0.0049 | <0.0049 | <0.0049 | <0.049 | <0.0099 | <0.0099 | <0.0099 | <0.049 | --- | --- |
| S-5-SVS2 | 02/25/14 | 5.0 | <25 | <5.0 | <0.49 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.0048 | <0.048 | <0.0096 | <0.0096 | <0.0096 | <0.048 | --- | --- |
| S-5-SVS3 | 02/25/14 | 5.0 | <25 | <5.0 | 5.0a | <0.0050 | 0.00036g | <0.0050 | 0.0030g | 0.00088g | <0.0050 | <0.0050 | 0.016g | <0.010 | <0.010 | <0.010 | 0.0038g | --- | --- |
| **Drum Samples** | | | | | | | | | | | | | | | | | | | |
| DR-1 | 01/06/08 | --- | <5.0 | 2.5c,d | 4.9e,f | <0.050 | <0.005 | 0.027 | 0.035 | 0.035 | --- | --- | --- | --- | --- | --- | --- | --- | 9.7 |
| **Soil Stockpile Samples** | | | | | | | | | | | | | | | | | | | |
| COMP(S-Profile-1-4) | 11/08/10 | --- | <25 | 7.1a | 14a | <0.0050 | <0.0050 | <0.0050 | 0.069 | 0.049 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | 6.93 |
| S-SP1 (1-4) | 01/18/12 | --- | 190a | 39a | 230 | <0.0050 | 0.20 | 0.66 | 4.3 | 14 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | --- | --- | 37.6 |
| SP1 | 03/05/14 | --- | <24 | <4.9 | <0.49 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 | <0.010 | <0.010 | <0.010 | <0.050 | ND | 5.34 |

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


Notes:

| | | |
|---|---|---|
| TPHmo | = | Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015B. |
| TPHd | = | Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B. |
| TPHg | = | Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B. |
| MTBE | = | Methyl tertiary butyl ether analyzed using EPA Method 8260B; analyzed using EPA Method 8020 in 2008. |
| BTEX | = | Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B. |
| EDB | = | 1,2-Dibromoethane analyzed using EPA Method 8260B. |
| 1,2-DCA | = | 1,2-Dicholorethane analyzed using EPA Method 8260B. |
| TBA | = | Tertiary butyl alcohol analyzed using EPA Method 8260B. |
| DIPE | = | Di-isopropyl ether analyzed using EPA Method 8260B. |
| ETBE | = | Ethyl tertiary butyl ether analyzed using EPA Method 8260B. |
| TAME | = | Tertiary amyl methyl ether analyzed using EPA Method 8260B. |
| Lead | = | Total lead analyzed using EPA Method 6010B. |
| VOCs | = | Volatile organic compounds analyzed using EPA Method 8260B. |
| HVOCs | = | Halogenated volatile organic compounds analyzed using EPA Method 8260B. |
| PAHs | = | Polyaromatic hydrocarbons analyzed using EPA Method 8310. |
| feet bgs | = | Feet below ground surface. |
| ND | = | Not detected. |
| --- | = | Not analyzed/Not applicable |
| < | = | Less than the laboratory reporting limit. |
| a | = | The chromatographic pattern does not match that of the specified standard. |
| b | = | Heavier gasoline range compounds are significant. |
| c | = | Diesel range compounds are significant; no recognizable pattern. |
| d | = | Gasoline range compounds are significant. |
| e | = | Strongly aged gasoline or diesel range compounds are significant. |
| f | = | No recognizable pattern. |
| g | = | Estimated value; analyte present at concentration above the method detection limit but below the reporting limit. |

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


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

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


| | | | HVOCs | | | | | | | | | PAHs | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Sampling Date | Depth (feet bgs) | 1,2,4-trimethyl-benzene (mg/kg) | 1,3,5-trimethyl-benzene (mg/kg) | Isopropyl-benzene (mg/kg) | Naph-thalene (mg/kg) | n-Butyl-benzene (mg/kg) | p-Isopropyl-toluene (mg/kg) | sec-Butyl-benzene (mg/kg) | t-Butyl-benzene (mg/kg) | HVOCs (mg/kg) | Naph-thalene (mg/kg) | Pyrene (mg/kg) | PAHs (mg/kg) |
| **Environmental Screening Levels, Potential Drinking Water Source (December 2013)** | | | | | | | | | | | | | | |
| Shallow (<10 feet bgs), Residential (Table A-1) | | | --- | --- | --- | 1.2 | --- | --- | --- | --- | --- | 1.2 | 85 | --- |
| Shallow (<10 feet bgs), Commercial (Table A-2) | | | --- | --- | --- | 1.2 | --- | --- | --- | --- | --- | 1.2 | 85 | --- |
| Deep (≥10 feet bgs), Residential (Table C-1) | | | --- | --- | --- | 1.2 | --- | --- | --- | --- | --- | 1.2 | 85 | --- |
| Deep (≥10 feet bgs), Commercial (Table C-2) | | | --- | --- | --- | 1.2 | --- | --- | --- | --- | --- | 1.2 | 85 | --- |
| S-5-B16 | 02/26/14 | 5.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | <15 | <10 | ND |
| S-10-B16 | 02/26/14 | 10.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | <15 | <10 | ND |
| S-15.5-B16 | 02/26/14 | 15.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S-5-B17 | 02/26/14 | 5.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | <15 | <10 | ND |
| S-10-B17 | 02/26/14 | 10.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | <15 | <10 | ND |
| S-15.5-B17 | 02/26/14 | 15.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Well Samples** | | | | | | | | | | | | | | |
| Not analyzed for these analytes prior to or after February 2014. | | | | | | | | | | | | | | |
| S-5-SVS1 | 02/25/14 | 5.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | <15 | 11 | ND |
| S-5-SVS2 | 02/25/14 | 5.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | <15 | <10 | ND |
| S-5-SVS3 | 02/25/14 | 5.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | <15 | <10 | ND |
| **Drum Samples** | | | | | | | | | | | | | | |
| Not analyzed for these analytes. | | | | | | | | | | | | | | |
| **Soil Stockpile Samples** | | | | | | | | | | | | | | |
| COMP(S-Profile-1-4) | 11/08/10 | --- | 0.0053 | 0.062 | 0.061 | 0.098 | 0.14 | 0.012 | 0.053 | 0.018 | ND | --- | --- | --- |
| S-SP1 (1-4) | 01/18/12 | --- | 8.3 | 2.2 | 0.12 | <5.0 | 0.20 | 0.018 | 0.051 | <0.0050 | 2.5g | --- | --- | --- |
| SP1 | 03/05/14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

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


Notes:

| | | |
|---|---|---|
| TPHmo | = | Total petroleum hydrocarbons as motor oil analyzed using EPA Method 8015B. |
| TPHd | = | Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B. |
| TPHg | = | Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B. |
| MTBE | = | Methyl tertiary butyl ether analyzed using EPA Method 8260B; analyzed using EPA Method 8020 in 2008. |
| BTEX | = | Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B. |
| EDB | = | 1,2-Dibromoethane analyzed using EPA Method 8260B. |
| 1,2-DCA | = | 1,2-Dicholorethane analyzed using EPA Method 8260B. |
| TBA | = | Tertiary butyl alcohol analyzed using EPA Method 8260B. |
| DIPE | = | Di-isopropyl ether analyzed using EPA Method 8260B. |
| ETBE | = | Ethyl tertiary butyl ether analyzed using EPA Method 8260B. |
| TAME | = | Tertiary amyl methyl ether analyzed using EPA Method 8260B. |
| Lead | = | Total lead analyzed using EPA Method 6010B. |
| VOCs | = | Volatile organic compounds analyzed using EPA Method 8260B. |
| HVOCs | = | Halogenated volatile organic compounds analyzed using EPA Method 8260B. |
| PAHs | = | Polyaromatic hydrocarbons analyzed using EPA Method 8310. |
| feet bgs | = | Feet below ground surface. |
| ND | = | Not detected. |
| --- | = | Not analyzed/Not applicable |
| < | = | Less than the laboratory reporting limit. |
| a | = | The chromatographic pattern does not match that of the specified standard. |
| b | = | Heavier gasoline range compounds are significant. |
| c | = | Diesel range compounds are significant; no recognizable pattern. |
| d | = | Gasoline range compounds are significant. |
| e | = | Strongly aged gasoline or diesel range compounds are significant. |
| f | = | No recognizable pattern. |
| g | = | Estimated value; analyte present at concentration above the method detection limit but below the reporting limit. |

# APPENDIX A

# CORRESPONDENCE

ALAMEDA COUNTY
**HEALTH CARE SERVICES**
AGENCY
ALEX BRISCOE, Agency Director

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

August 22, 2014

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

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

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

Dear Ms. Sedlachek and Mrs. Blank:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the *Work Plan for Well Installation*, dated July 7, 2014, and the *Groundwater Monitoring Report, First and Second Quarter 2014,* dated July 18, 2014, which were prepared and submitted on your behalf by Cardno ERI (Cardno) for the subject site. Thank you for submitting the reports.

Based on ACEH staff review of the work plan, the proposed scope of work is conditionally approved for implementation provided that the technical comments below are incorporated during the proposed work. Submittal of a revised work plan or a work plan addendum is not required unless an alternate scope of work outside that described in the work plan or these technical comments is proposed. We request that you address the following technical comments, perform the proposed work, and send us the report described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: mark.detterman@acgov.org) prior to the start of field activities.

## TECHNICAL COMMENTS

1. **Work Plan Modifications –** The referenced work plan proposes a series of actions with which ACEH is in general agreement of undertaking; however, ACEH requests a modification to the approach. Please submit a report by the date specified below.

    a. **Subsurface Clearance Protocols –** The referenced work plan proposes to clear well bore locations with hand tools or an air knife. ACEH requests that clearance not include air knifing due to the likelihood of volatilization of light hydrocarbon fractions, in particular in the vicinity of soil bore B12 / MW7.

## TECHNICAL REPORT REQUEST

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

- **September 19, 2014 –** Draft Feasibility Study / Corrective Action Plan
  File to be named: RO2974_DRAFT_FEASSTUD_R_yyyy-mm-dd

- **November 15, 2014 –** Site Investigation Report
  File to be named: RO2974_SWI_R_yyyy-mm-dd
- **December 5, 2014 –** Semi-Annual Groundwater Monitoring Report
  File to be named: RO2974_GWM_R_yyyy-mm-dd

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

Online case files are available for review at the following website: http://www.acgov.org/aceh/index.htm. If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Thank you for your cooperation. If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email, c=US
Date: 2014.08.22 15:31:19 -07'00'

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

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

cc: Rebekah Westrup, Environmental Resolutions, Inc., 601 North McDowell Blvd., Petaluma, CA 94954 (Sent via E-mail to: rebekah.westrup@cardno.com)

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

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

Dilan Roe, ACEH (Sent via E-mail to: dilan.roe@acgov.org)
Mark Detterman, ACEH (sent via electronic mail to mark.detterman@acgov.org)
GeoTracker, file

**Attachment 1**

**Responsible Party(ies) Legal Requirements / Obligations**

REPORT REQUESTS

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

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "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." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

| Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) | **REVISION DATE:** May 15, 2014 |
|---|---|
| | **ISSUE DATE:** July 5, 2005 |
| | **PREVIOUS REVISIONS:** October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010 |
| **SECTION:** Miscellaneous Administrative Topics & Procedures | **SUBJECT:** Electronic Report Upload (ftp) Instructions |

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

**REQUIREMENTS**

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

**Submission Instructions**

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

**From:** Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]
**Sent:** Friday, October 24, 2014 1:38 PM
**To:** Greg Gurss
**Subject:** RE: Former Exxon 79374, 990 San Pablo Avenue, Albany, CA (No. RO0002974)

Greg,
Thanks for the update. ACEH is in agreement that the requested extension is warranted. Please use this email to document this. I will update Geotracker shortly.

*Mark Detterman*
*Senior Hazardous Materials Specialist, PG, CEG*
*Alameda County Environmental Health*
*1131 Harbor Bay Parkway*
*Alameda, CA 94502*
*Direct: 510.567.6876*
*Fax: 510.337.9335*
*Email: mark.detterman@acgov.org*

*PDF copies of case files can be downloaded at:*

*http://www.acgov.org/aceh/lop/ust.htm*

**From:** Greg Gurss [mailto:greg.gurss@cardno.com]
**Sent:** Friday, October 24, 2014 1:23 PM
**To:** Detterman, Mark, Env. Health
**Subject:** Former Exxon 79374, 990 San Pablo Avenue, Albany, CA (No. RO0002974)

Mr. Detterman,

Alameda County Environmental Health (ACEH) issued a letter dated August 22, 2014 requesting that the Site Investigation Report (2 offsite wells) be submitted by November 15, 2014. Cardno received the encroachment permit from the City of Albany on October 16, 2014. Upon receipt, we contacted the driller to schedule the scope work. The driller informed us that they are not available until December 8, 2014. Based on this, we are requesting an extension for submittal of Site Investigation Report to January 23, 2015.

Please call or email if you should have any questions. Thank you.

Greg A. Gurss
SACRAMENTO BRANCH MANAGER
CARDNO ENGINEERING & ENVIRONMENTAL SERVICES

Cardno
Shaping the Future

Phone (+1) 916-692-3100 Fax (+1) 707-789-0414 Direct (+1) 916-692-3130 Mobile (+1) 916-842-6486
Address 701 University Avenue, Suite 200, Sacramento, CA 95825
Email greg.gurss@cardno.com Web www.cardno.com www.cardnoeri.com

# APPENDIX B

# SITE CONCEPTUAL MODEL

| Element | Description | Data Gaps |
|---|---|---|
| **Geology and Hydrogeology** | | |
| Regional Geology and Hydrogeology | The site lies at an approximate elevation of 40 feet above msl, and the local topography slopes toward the southwest. The site is located along the eastern margin of the San Francisco Bay within the East Bay Plain (Hickenbottom and Muir, 1988). The surficial deposits in the site vicinity are mapped as Holocene alluvial fan and fluvial deposits (Graymer, 2000). The active northwest trending Hayward fault is located approximately 1.5 miles northeast of the site.<br>The East Bay Plain is regionally divided into two major groundwater basins: the San Pablo and the San Francisco Basin. These basins are tectonic depressions that are filled primarily with a sequence of coalescing alluvial fans. The San Francisco Basin is further divided into seven sub-areas. The site is located in the Berkeley Sub-Area, which is filled primarily by alluvial deposits that range from 10 to 300 feet thick with poorly defined aquitards (CRWQCB, 1999). Under natural conditions, the direction of groundwater flow in the East Bay Plain is east to west. | None |
| Site Geology, Hydrogeology, Hydraulic Flow, and Groundwater Gradient | Soil boring logs indicate that the soil beneath the site consists predominantly of silt and clay with an apparently continuous coarse-grained unit 2 to 8 feet thick encountered between approximately 8 and 20 feet bgs. Fill material was encountered in the boring for well SVE3 (located in the former UST pit) to approximately 7 feet bgs. CPT borings indicate the presence of predominantly silt and clay between approximately 20 and 60 feet bgs, the maximum depth explored. Coarse-grained layers up to 3 feet thick are interbedded with the silt and clay (EC&A, 2008; Cardno ERI, 2011; Cardno ERI, 2012).<br>Historical groundwater elevation data indicate that DTW ranges from 5 to 11 feet bgs beneath the site with varying groundwater flow directions. The distribution of dissolved-phase hydrocarbons suggests that the dominant groundwater flow direction is west to southwest (Cardno ERI, 2014b).<br>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 fourth quarter 2013, the groundwater flow direction in the shallow water-bearing zone was towards the southwest with a hydraulic gradient of approximately 0.008. Due to varying well construction, the groundwater flow in the deep water-bearing zone is not calculated (Cardno ERI, 2014b). | None |
| **Facility History** | | |
| Facility Structures and Site Operations | In 1945, a service station owned by Signal Oil Company occupied the site. Humble Oil company acquired the site in 1967 from Standard Oil Company of California (Chevron), rebranding the site as an Enco station. The station was rebranded as an Exxon service station in 1975 (EDR, 2009a; EDR, 2009b).<br>The service station was demolished in 1983. During demolition activities, one used-oil UST and four gasoline USTs were removed and the resulting tank cavity was backfilled with sand and compacted to 90% (City of Albany, 1983).<br>Cardno ERI reviewed eight aerial photographs of the site and site vicinity dated from September 6, 1949, to June 21, 1983 (EDR, 2009b). Based on these photographs, the dispenser islands appeared to be located beneath the station canopy on the northern portion of the site and the former USTs appeared to be located on the southern portion of the site, east of the station's service bays. The location of the former used-oil UST is unknown. The approximate location of the former USTs are shown on Plate 2.<br>A retail outlet for Benjamin Moore paints and painting products and associated asphalt parking currently occupy the site. | None |

| Element | Description | Data Gaps |
|---|---|---|
| **Sensitive Receptors, Land Use, and Nearby Sites** | | |
| Surface Water Bodies | The site is located approximately 1,630 feet north-northwest of Cordornices Creek. No other surface water bodies have been located within a 300-meter radius of the site. | None |
| Nearby Wells | There are not public water supply, municipal, or domestic wells located within a ¼-mile radius of the site. | None |
| Public Use Areas | Two public use areas are present within a 100-meter radius of the site: the City of Albany Police, Fire, and City offices located across Buchanan Street at 1000 San Pablo Avenue and a physical therapy office located in the strip mall approximately 50 meters north of the site. | None |
| Residences | Sixteen residential buildings have been identified within a 300-meter radius of the site; five of those buildings are located within a 100-meter radius of the site. | None |
| Sub-Grade | Sub-grade structures have not been identified within a 100-meter radius of the site. | None |
| Utility Vaults | Twenty-three vaults have been identified on or immediately adjacent to the site. Vault uses include: water, telephone, gas meter, electric, sewer, traffic box, traffic signal, and anode. | None |
| Storm and Sanitary Sewers | Three storm drains are located on or adjacent to the site. The storm drains daylight along the curb and water flows west along Buchanan Street. The City of Albany Public Works Department confirmed that the storm drains discharge directly into the Bay.<br>Two sanitary sewer cleanout vaults are located on site. The City of Albany Public Works Department confirmed that sewage is discharged at the East Bay Municipal Utilities District Treatment Plant, located 4.5 miles south of the site, at the entrance to the San Francisco Bay Bridge. | None |
| Other | Other site receptors have not been identified. | None |
| Nearby Sites | The surrounding areas consist of residential and commercial properties (Plate 2). The City of Albany Fire Department and Police Department are located south of the site on Buchanan Street. ACEH case number RO0000119, identified as Firestone #3655 in the GeoTracker™ database, is located across San Pablo Avenue to the east. A Shell Service Station and an Atlantic Richfield Company Service Station (Arco) are located approximately 350 and 500 feet away, respectively, south-southeast of the site. | None |
| **Release Information** | | |
| Release History | The primary sources of petroleum hydrocarbons at the site are the former used-oil UST and the four former gasoline USTs. The USTs were removed in 1983 (City of Albany, 1983). | None |
| Extent and Distribution of Petroleum Hydrocarbon Concentrations | **Non-Aqueous Phase Liquid**<br>An immiscible sheen was reported in groundwater samples collected from borings B1 and B2 (EC&A, 2008). Neither NAPL nor sheen have been observed in the groundwater monitoring wells at the site; however, during fourth quarter 2012, concentrations of TPHg (270,000 µg/L) reported in well MW4 were potentially indicative of the presence of NAPL. Although the TPHg concentrations increased, BTEX concentrations were consistent with previous data. Concentrations of TPHg reported since fourth quarter 2012 have and not indicative of the presence of NAPL and fourth quarter 2013 (13,000 µg/L) consistent with historical results. The fourth quarter 2012 TPHd result for well MW4 appears to have been anomalous. | None |

| Element | Description | Data Gaps |
|---|---|---|
| | **Hydrocarbons in Groundwater**<br>Current and historic maximum dissolved-phase petroleum hydrocarbon concentrations have been reported in well MW3, located in the vicinity of the former USTs, and wells MW4 and MW5, located west of the former USTs. Concentrations are delineated to the east of the site by wells MW1 and MW2 and to the south of the site by borings B11 and B15.<br>Dissolved-phase hydrocarbons are adequately vertically delineated at the site with petroleum hydrocarbon concentrations below or near the laboratory reporting limits in groundwater samples collected deeper than 27.5 feet bgs (Cardno ERI, 2011).<br>**Data Gap:** Dissolved-phase petroleum hydrocarbons require monitoring off site to the west and southwest near borings B9 and B12.<br>**How to Address:** Cardno ERI installed two off-site wells near borings B9 and B12. Cardno ERI recommends incorporating the wells into the semi-annual groundwater monitoring and sampling schedule at the site. Cardno ERI recommends installing an additional well south of well MW8. | **Yes** |
| | **Hydrocarbons in Soil**<br>Maximum residual petroleum hydrocarbon concentrations are present at approximately 10.5 feet bgs in the vicinity of the former USTs. With the exception of naphthalene by EPA Method 8310 in boring B13 (5 feet bgs) and TPHg in borings B4 (5 feet bgs) and SVE1 (8.5 feet bgs), residual petroleum hydrocarbon concentrations have been near or below reporting limits in the shallow soil samples collected at the site, including samples collected in the vicinity of the former UST and suspected dispenser island locations. Residual petroleum hydrocarbon concentrations are adequately delineated in both shallow (less than 10 feet bgs) and deep (greater than or equal to 10 feet bgs) soil to the northeast, the northwest, the west, the east, the southwest, and the south by borings B5 through B11, B14, B15, MW1, MW2, and CPT1. Residual TPHg (530 mg/kg) is present to the north at 10 feet bgs in boring B16, but is near or below reporting limits at 5 and 15.5 feet bgs (EC&A, 2008; Cardno ERI, 2011; Cardno ERI, 2014a). | None |
| | **Hydrocarbons in Soil Vapor**<br>Maximum vapor-phase concentrations are present in well SVS3, located in the vicinity of the suspected locations of the former dispenser islands. Petroleum hydrocarbons exceed ESLs by up to three orders of magnitude in wells SVS1 through SVS3.<br>**Data Gap:** Vapor-phase concentrations exceed applicable screening levels.<br>**How to Address:** Cardno ERI will submit a Feasibility Study/Corrective Action Plan (FS/CAP) to address vapor-phase concentrations. | **Yes** |
| **Exposure Routes and Potential Receptors** | | |
| Exposure Routes and Potential Receptors | Utility trench backfill material is not acting as a preferential pathway for petroleum hydrocarbon concentrations (Cardno ERI, 2014a).<br>There are not public water supply, municipal, or domestic wells located within a quarter mile of the site. The nearest surface water body (Cordornices Creek) is located approximately 1,630 feet south-southeast of the site. Residual and dissolved-phase petroleum hydrocarbons are delineated south and east of the site and are not likely to migrate to Cordornices Creek.<br>A construction worker excavating soil at the site is a potential receptor; however, since the site is paved, direct exposure (via ingestion or dermal contact) to chemicals of concern released during Exxon's operations is not likely.<br>The potential exposure route of vapor inhalation may exist in the commercial/industrial setting for workers in the on-site retail outlet.<br>Users of shallow and deep groundwater are potential receptors.<br>**Data Gap:** See the groundwater and soil vapor data gaps in the Release Information section. | **Yes** |

**REFERENCES**

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

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

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

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

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

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

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

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

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

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

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

# APPENDIX C

# FIELD PROTOCOLS

**Cardno ERI**
**Soil Boring and Well Installation**
**Field Protocol**

## Preliminary Activities

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

## Drilling and Soil Sampling Procedures

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

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

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

## Field Screening Procedures

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

## Air Monitoring Procedures

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

## Groundwater Sampling

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

## Backfilling of Soil Boring

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

## Well Construction

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

## Well Development and Sampling

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

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

## Surveying

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

## Decontamination Procedures

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

## Waste Treatment and Soil Disposal

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

## 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 D

# PERMITS

# Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

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

**Application Approved on: 10/22/2014 By jamesy**

**Permit Numbers: W2014-0961 to W2014-0962**
**Permits Valid from 11/03/2014 to 11/07/2014**

**Application Id:** 1413410168769 **City of Project Site:** Albany
**Site Location:** 990 San Pablo Avenue, Albany.
Two monitoring wells on street/sidewalk - related to Former Exxon 79374
**Project Start Date:** 11/03/2014 **Completion Date:** 11/07/2014
**Assigned Inspector:** Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

| | | |
|---|---|---|
| **Applicant:** | Cardno ERI - Nadya Vicente<br>601 North McDowell Blvd, Petaluma, CA 94954 | **Phone:** 707-280-7487 |
| **Property Owner:** | Blank Family Trust Trustees<br>1164 Solano Ave,, Albany, CA 94706 | **Phone:** 510-527-4337 |
| **Client:** | Jennifer Sedlachek<br>4096 Piedmont Ave, Oakland, CA 94611 | **Phone:** 510-547-8196 |
| **Contact:** | Greg Gurss | **Phone:** 916-842-6486<br>**Cell:** -- |

**Total Due:** $794.00
**Receipt Number: WR2014-0421** **Total Amount Paid:** $794.00
**Payer Name : nadya m vicente** Paid By: MC **PAID IN FULL**

**Works Requesting Permits:**

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

**Specifications**

| Permit # | Issued Date | Expire Date | Owner Well Id | Hole Diam. | Casing Diam. | Seal Depth | Max. Depth |
|---|---|---|---|---|---|---|---|
| W2014-0961 | 10/22/2014 | 02/01/2015 | MW7 | 10.00 in. | 2.00 in. | 5.00 ft | 15.00 ft |
| W2014-0962 | 10/22/2014 | 02/01/2015 | MW8 | 10.00 in. | 2.00 in. | 5.00 ft | 15.00 ft |

**Specific Work Permit Conditions**

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

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

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

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

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

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

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

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

# City of Albany

## ENCROACHMENT PERMIT
## PERMANENT OR TEMPORARY CONSTRUCTION WITHIN CITY RIGHT OF WAY

PERMIT NO. 14-271

**LOCATION:** 990 San Pablo Avenue, Albany, California 94706

| NAME | ADDRESS | Phone No. Normal/Emergency | Business Lic. No. Workers Comp. No. |
|---|---|---|---|
| Applicant Cardno ERI | 601 North McDowell Blvd. Petaluma, California 94954 | 707-766-2000 | WC039901297 |
| Owner: | | | |
| Engineer / Architect | | | |
| Contractor | | | |

**TYPE OF WORK**

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

**DESCRIPTION OF WORK**

Install one well on Buchanan Street approximately 130' west of San Pablo Ave. Install one well on Adams Street approximately 30'north of Buchanan Street. Wells will be installed to 15' below ground surface.

**REQUIRED CONDITIONS**

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

Applicant's Signature: Heidi Waffle Cole Date: 09/09/14

**STAFF USE ONLY**

**Permit Fee Computation**

| | |
|---|---|
| Total construction cost subject to fee | |
| New construction at 6% of construction cost | |
| In-Lieu slurry seal fee (when street is cut) | |
| Minimum fee per schedule (if greater than % fee) | |
| Total Fee due (transfer to fee schedule from) (Bill fee to be billed, copy of permit to Finance) | 137.59 |

Special Conditions: See Engineer's Special Conditions

Issued by: _____ Date: 10/16/2014

Permit Expiration Date: 4/16/2015 (not to exceed 180 days for date issued)

Final Sign Off by: _____ Date: _____

J:/Forms/EncroachmentPermitFirstPgDec04

*City of Albany*

# ENVIRONMENTAL PROTECTION STATEMENT OF RESPONSIBILITY FOR DISCHARGES & DAMAGE

## I. PURPOSE

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

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

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

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

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

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

## III. CERTIFICATION OF COMPLIANCE

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

| | |
|---|---|
| Cardno ERI | 09-09-14 |
| Property Owner or Permittee | Date |
| Cardno ERI David Daniels | 09-09-14 |
| Business Name & Contractor's Authorized Representative | Date |

Location or Title of Project: 990 San Pablo Avenue, Albany, California 94706

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

*City of Albany*

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

Permit # 14-271

Location: 990 San Pablo Avenue, Albany, California 94706

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

- ☐ Description of Job
- ☒ APPROVED Construction Plans and/or Documents
- ☐ An Engineer's Estimate of the value of all public improvements and utility services within the public right-of-way
- ☐ A Soils Report prepared by a Registered Civil Engineer.
- ☒ Others: Specify Cardno ERI's Work Plan for Well Installation dated July 7, 2014. Traffic control plans for each well location

Alameda County Health Care Services-Conditional Work Plan Approval

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

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

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

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

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

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

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

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

# City of Albany

EXCAVATION OF PAVED STREETS

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

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

REVOCATION OF PERMIT

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

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

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

HOURS OF WORK

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

COMPLETION OF WORK

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

PERMITTEE LIABILITY

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

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

APPLICANT'S SIGNATURE Heidi Dieffenbach-Carle Date: 09-09-14

NAME (print): Heidi Dieffenbach-Carle COMPANY: Cardno ERI

# City of Albany

Date: 10/13/14

## Special Conditions

## Encroachment Permit for

Cardno ERI at the request of Exxon Mobil Environmental Services (EMES), to install ground water monitoring wells. One well on Buchanan, One well on Adams.

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



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

# APPENDIX E

# BORING LOGS

Cardno ERI
Shaping the Future

# BORING LOG MW7

(Page 1 of 1)

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

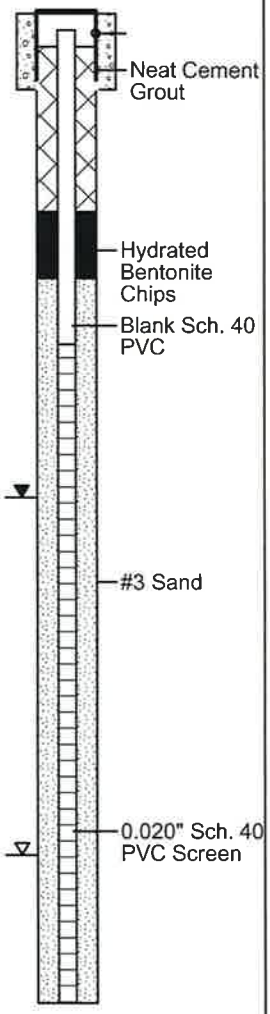
| | |
|---|---|
| Date Drilled | : 12/08/2014 |
| Drilling Co. | : Gregg Drilling |
| Drilling Method | : Hollow-Stem Auger |
| Sampling Method | : Direct Push |
| Borehole Diameter | : 10" |
| Casing Diameter | : 2" |
| Location (N-S) | : 37.8878386 |
| Location (E-W) | : -122.2987881 |
| Total Depth | : 15' bgs |
| GW encountered | : 12.5' bgs |

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

Water Levels
- 7.07' bgs on 12/30/14
- 12.5' bgs

Boring: MW7

| Depth (ft) | Blow Count | OVM/PID (ppmv) | Sample | Column | ASTM | DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | | | 4" Concrete. Borehole cleared to 5' bgs using hand tools. |
| | | | | | GW | GRAVEL (FILL): brown, damp, fine- to coarse-grained, well graded, subangular gravel up to 1" diameter (0,0,20,80) |
| | | 13.8 | | | CL | CLAY: dark green-gray, moist, low to medium plasticity, fine-grained sand (65,30,5,0) |
| | | 30.5 | | | | |
| 5 | | 243 | | | | Sandy CLAY: dark green with some brown mottling, moist, low plasticity, fine-grained sand (65,5,30,0) |
| | | | | | CL | |
| | | 90 | | | | |
| 10 | | +2400 | | | SW | SAND with Gravel: dark gray, moist, fine- to coarse-grained sand, well graded, subangular gravel up to 0.75" diameter (5,0,80,15) |
| | | 30 | | | CL | Sandy CLAY: dark green-brown, moist, low plasticity, fine -to medium-grained sand (65,0,35,0) |
| | | | | | SW-SC | SAND with Gravel: mottled dark green and brown, moist to wet, fine- to coarse-grained, well graded, gravel up to 1" diameter, Iron oxide staining (10,0,50,40) |
| 15 | | 47 | | | | TD = 15 feet bgs<br>Free Groundwater Encountered at 12.5' bgs. |
| 20 | | | | | | |



Cardno ERI
Shaping the Future

# BORING LOG MW8

(Page 1 of 1)

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

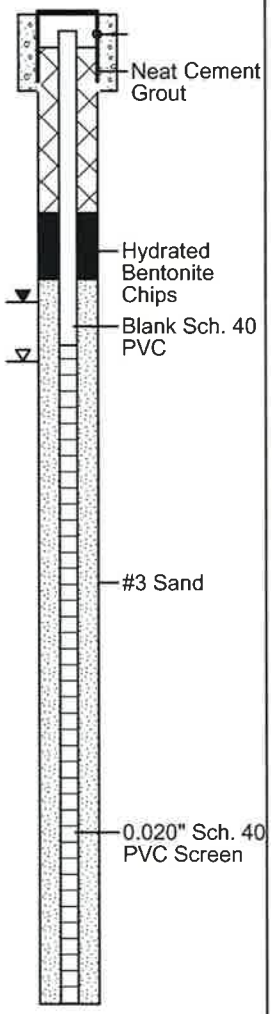
| | |
|---|---|
| Date Drilled | : 12/08/2014 |
| Drilling Co. | : Gregg Drilling |
| Drilling Method | : Hollow-Stem Auger |
| Sampling Method | : Direct Push |
| Borehole Diameter | : 10" |
| Casing Diameter | : 2" |
| Location (N-S) | : 37.8879920 |
| Location (E-W) | : -122.2991575 |
| Total Depth | : 15' bgs |
| GW encountered | : 5' bgs |

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

Water Levels
- 4.10' bgs on 12/30/14
- 5' bgs

Boring: MW8

| Depth (ft) | Blow Count | OVM/PID (ppmv) | Sample | Column | ASTM | DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | | | 6" Asphalt. Borehole cleared to 8' bgs using hand tools. |
| | | | | | GW | GRAVEL (FILL): brown, damp, fine- to coarse-grained, well graded, subangular gravel up to 1" diameter (0,0,20,80) |
| | | 0.0 | | | CH | CLAY: dark brown, damp, medium to high plasticity (90,10,0,0) |
| | | | | | ML | SILT with Sand: graybrown, damp, high plasticity, fine-grained sand (0,85,15,0) |
| 5 | | 0.0 | | | SC | Clayey SAND with Gravel: yellow-brown, moist, fine- to coarse-grained, well graded, subangular fine gravel up to 0.25" diameter (15,0,65,20)<br>Wet at 5' bgs |
| | | 9.0 | | | | |
| 10 | | 20.0 | | | | |
| | | 15.9 | | | SW | SAND with Gravel: brown, saturated, fine- to coarse-grained sand, well graded, fine subrounded gravel (0, 0,55,45) |
| | | 15.9 | | | CL | Sandy CLAY: mottled light gray and orange-brown, moist, low plasticity, fine-grained sand (65,0,35,0) |
| 15 | | | | | | TD = 15 feet bgs<br>Free Groundwater Encountered at 5' bgs. |
| 20 | | | | | | |




01-09-2015 \\Uspeterinas01\data-pet\EXXONMOBIL\ExxonMobil Projects\022735C (79374) Albany\2735 AutoCad\Boring Logs\MW8.bor

# APPENDIX F

# FIELD DATA SHEETS

# Daily Field Report

Cardno ERI
Shaping the Future

Project ID #: 79374 ERI Job # 2735
Subject: Monitoring + Sampling Date: 12-30-14
Equipment Used: Sub pump, DTW Tape Sheet: 1 of 1
Name(s): Darin Einhell
Time Arrived On Site: Time Departed Site: Total Travel:

| | |
|---|---|
| On Site | 645 |
| H + S Meeting | 645 - 700 |
| opened Wells | 700 - 715 |
| Decon Equipment | 715 - 745 |
| DTW on Wells | 745 - 805 |
| Purged Wells MW8, MW7 | 810 - 910 |
| Sampled Wells MW8, MW7 | 830 - 930 |
| QCBB | 945 |
| off Site | 1015 |

Total Water - 35
Purge - 12
Decon - 23

# Cardno 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 | 12/30/14 | Darin Einhell |

| WELL ID | WELL DIAMETER inches | ODOR? SHEEN? | TOTAL DEPTH feet | Pre-Purge DTW feet | Case volume Gal. | 80% r/chrg. DTW feet | COMMENTS |
|---|---|---|---|---|---|---|---|
| MW8 | 2 | | 14.46 | 3.20 | 1.84 | 8.36 | |
| MW7 | 2 | | 14.44 | 5.36 | 1.48 | 7.18 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

# WATER SAMPLING SITE STATUS

Date: _____

Inspected by: Darin Einhell

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

| 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 | |
| MW8 | OK | OK | OK | N | OK | OK | Y | OK | OK | NA | NA | NA | NA | OK | NO LOCK |
| MW7 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 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: 12-30-24 Page 1 of 1

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

Field Crew: Darin Einhell  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 | DTW | DTW at Sampling | 80% Recharge | 40mil | Amber | DO | ORP | Comments Well Box Condition |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW8 | 810 | 1.84 | | | | | | 4.10 | Y | | | | | |
| | 811 | 2 | 2 | 16.2 | 170.8 | 7.35 | | W - 4 - MW8 @ 830 | | | | | | |
| | 813 | | 4 | 16.3 | 161.3 | 7.40 | | | | | | | | |
| | 814 | | 6 | 16.5 | 159.4 | 7.42 | | | | | | | | |
| MW7 | 905 | 1.48 | | | | | | 7.07 | Y | | | | | |
| | 907 | 2 | 2 | 16.8 | 310 | 7.54 | | W - 7 - MW7 @ 930 | | | | | | |
| | 908 | | 4 | 19.0 | 308 | 7.70 | | | | | | | | |
| | 910 | | 6 | 19.6 | 303 | 7.66 | | | | | | | | |
| | | | | | | | | QCBB @ 945 | | | | | | |

# APPENDIX G

# LABORATORY ANALYTICAL REPORTS

eurofins | Calscience

# WORK ORDER NUMBER: 14-12-1091

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno ERI

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

**Attention:** Greg Gurss
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Approved for release on 12/23/2014 by:
Cecile deGuia
Project Manager

ResultLink

Email your PM

eurofins | Calscience

# Contents

Client Project Name: ExxonMobil 79374/022735C
Work Order Number: 14-12-1091

eurofins | Calscience

# Work Order Narrative

Work Order: 14-12-1091 Page 1 of 1

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 12/11/14. They were assigned to Work Order 14-12-1091.

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.

Return to Contents

eurofins | Calscience

# Sample Summary

| | | | |
|---|---|---|---|
| Client: | Cardno ERI | Work Order: | 14-12-1091 |
| | 601 North McDowell Blvd. | Project Name: | ExxonMobil 79374/022735C |
| | Petaluma, CA 94954-2312 | PO Number: | 022735C |
| | | Date/Time Received: | 12/11/14 10:45 |
| | | Number of Containers: | 6 |
| Attn: | Greg Gurss | | |

| Sample Identification | Lab Number | Collection Date and Time | Number of Containers | Matrix |
|---|---|---|---|---|
| S-5-MW8 | 14-12-1091-1 | 12/08/14 09:30 | 1 | Solid |
| S-10-MW8 | 14-12-1091-2 | 12/08/14 10:05 | 1 | Solid |
| S-15-MW8 | 14-12-1091-3 | 12/08/14 10:15 | 1 | Solid |
| S-5-MW7 | 14-12-1091-4 | 12/08/14 13:15 | 1 | Solid |
| S-10-MW7 | 14-12-1091-5 | 12/08/14 13:25 | 1 | Solid |
| S-15-MW7 | 14-12-1091-6 | 12/08/14 13:35 | 1 | Solid |

Return to Contents

eurofins | Calscience

# Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 12/11/14
Work Order: 14-12-1091
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-5-MW8** | **14-12-1091-1-A** | **12/08/14 09:30** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 19:46** | **141215B08** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 108 | 61-145 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-10-MW8** | **14-12-1091-2-A** | **12/08/14 10:05** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 20:02** | **141215B08** |

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

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

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-15-MW8** | **14-12-1091-3-A** | **12/08/14 10:15** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 20:19** | **141215B08** |

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

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

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-5-MW7** | **14-12-1091-4-A** | **12/08/14 13:15** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 20:34** | **141215B08** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 101 | 61-145 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-10-MW7** | **14-12-1091-5-A** | **12/08/14 13:25** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 20:51** | **141215B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | 120 | 5.0 | 1.00 | SG,HD |

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

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



Return to Contents

eurofins | Calscience

# Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 12/11/14
Work Order: 14-12-1091
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-15-MW7** | **14-12-1091-6-A** | **12/08/14 13:35** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 21:07** | **141215B08** |

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

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

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-15-422-1537** | **N/A** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 18:42** | **141215B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | ND | 5.0 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 111 | 61-145 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 12/11/14
Work Order: 14-12-1091
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-5-MW8** | **14-12-1091-1-A** | **12/08/14 09:30** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 14:39** | **141212L055** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | ND | 0.48 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene - FID | 88 | 42-126 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-10-MW8** | **14-12-1091-2-A** | **12/08/14 10:05** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 15:15** | **141212L055** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | ND | 0.52 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene - FID | 85 | 42-126 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-15-MW8** | **14-12-1091-3-A** | **12/08/14 10:15** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 15:51** | **141212L055** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | ND | 0.49 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene - FID | 89 | 42-126 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-5-MW7** | **14-12-1091-4-A** | **12/08/14 13:15** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 16:26** | **141212L055** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | ND | 0.52 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene - FID | 88 | 42-126 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-10-MW7** | **14-12-1091-5-A** | **12/08/14 13:25** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 18:13** | **141212L056** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | 540 | 20 | 40.0 | HD |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene - FID | 118 | 42-126 | |

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

Return to Contents

eurofins | Calscience

# Analytical Report

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8015B (M) |
| | | Units: | mg/kg |
| Project: ExxonMobil 79374/022735C | | | Page 2 of 2 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-15-MW7** | **14-12-1091-6-A** | **12/08/14 13:35** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 17:02** | **141212L055** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | ND | 0.51 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene - FID | 88 | 42-126 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-14-571-2030** | **N/A** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 05:44** | **141212L055** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | ND | 0.50 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene - FID | 88 | 42-126 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-14-571-2031** | **N/A** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 06:19** | **141212L056** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | ND | 4.0 | 8.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene - FID | 90 | 42-126 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | mg/kg |
| Project: ExxonMobil 79374/022735C | | | Page 1 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-5-MW8** | **14-12-1091-1-A** | **12/08/14 09:30** | **Solid** | **GC/MS Q** | **12/12/14** | **12/17/14 19:50** | **141217L030** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | ND | 0.0051 | 1.00 | |
| Toluene | ND | 0.0051 | 1.00 | |
| Ethylbenzene | ND | 0.0051 | 1.00 | |
| o-Xylene | ND | 0.0051 | 1.00 | |
| p/m-Xylene | ND | 0.0051 | 1.00 | |
| Xylenes (total) | ND | 0.0051 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 0.0051 | 1.00 | |
| Tert-Butyl Alcohol (TBA) | ND | 0.051 | 1.00 | |
| Diisopropyl Ether (DIPE) | ND | 0.010 | 1.00 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 0.010 | 1.00 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 0.010 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 100 | 60-132 | |
| Dibromofluoromethane | 93 | 63-141 | |
| 1,2-Dichloroethane-d4 | 98 | 62-146 | |
| Toluene-d8 | 97 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | mg/kg |
| Project: ExxonMobil 79374/022735C | | | Page 2 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-10-MW8** | **14-12-1091-2-A** | **12/08/14 10:05** | **Solid** | **GC/MS Q** | **12/12/14** | **12/17/14 20:16** | **141217L030** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | ND | 0.0048 | 1.00 | |
| Toluene | ND | 0.0048 | 1.00 | |
| Ethylbenzene | ND | 0.0048 | 1.00 | |
| o-Xylene | ND | 0.0048 | 1.00 | |
| p/m-Xylene | ND | 0.0048 | 1.00 | |
| Xylenes (total) | ND | 0.0048 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 0.0048 | 1.00 | |
| Tert-Butyl Alcohol (TBA) | ND | 0.048 | 1.00 | |
| Diisopropyl Ether (DIPE) | ND | 0.0096 | 1.00 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 0.0096 | 1.00 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 0.0096 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 100 | 60-132 | |
| Dibromofluoromethane | 95 | 63-141 | |
| 1,2-Dichloroethane-d4 | 98 | 62-146 | |
| Toluene-d8 | 96 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | mg/kg |
| Project: ExxonMobil 79374/022735C | | | Page 3 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-15-MW8** | **14-12-1091-3-A** | **12/08/14 10:15** | **Solid** | **GC/MS Q** | **12/12/14** | **12/17/14 20:44** | **141217L030** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | ND | 0.0049 | 1.00 | |
| Toluene | ND | 0.0049 | 1.00 | |
| Ethylbenzene | ND | 0.0049 | 1.00 | |
| o-Xylene | ND | 0.0049 | 1.00 | |
| p/m-Xylene | ND | 0.0049 | 1.00 | |
| Xylenes (total) | ND | 0.0049 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 0.0049 | 1.00 | |
| Tert-Butyl Alcohol (TBA) | ND | 0.049 | 1.00 | |
| Diisopropyl Ether (DIPE) | ND | 0.0097 | 1.00 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 0.0097 | 1.00 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 0.0097 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 101 | 60-132 | |
| Dibromofluoromethane | 95 | 63-141 | |
| 1,2-Dichloroethane-d4 | 99 | 62-146 | |
| Toluene-d8 | 98 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | mg/kg |
| Project: ExxonMobil 79374/022735C | | | Page 4 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-5-MW7** | **14-12-1091-4-A** | **12/08/14 13:15** | **Solid** | **GC/MS Q** | **12/12/14** | **12/17/14 21:11** | **141217L030** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | ND | 0.0048 | 1.00 | |
| Toluene | ND | 0.0048 | 1.00 | |
| Ethylbenzene | ND | 0.0048 | 1.00 | |
| o-Xylene | ND | 0.0048 | 1.00 | |
| p/m-Xylene | ND | 0.0048 | 1.00 | |
| Xylenes (total) | ND | 0.0048 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 0.0048 | 1.00 | |
| Tert-Butyl Alcohol (TBA) | ND | 0.048 | 1.00 | |
| Diisopropyl Ether (DIPE) | ND | 0.0096 | 1.00 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 0.0096 | 1.00 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 0.0096 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 100 | 60-132 | |
| Dibromofluoromethane | 95 | 63-141 | |
| 1,2-Dichloroethane-d4 | 99 | 62-146 | |
| Toluene-d8 | 98 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

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

Date Received: 12/11/14
Work Order: 14-12-1091
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 79374/022735C



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-10-MW7** | **14-12-1091-5-A** | **12/08/14 13:25** | **Solid** | **GC/MS V V** | **12/12/14** | **12/19/14 23:05** | **141219L038** |

Comment(s): - DF Reporting limits elevated due to matrix interferences.

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | ND | 2.0 | 200 | |
| Toluene | ND | 2.0 | 200 | |
| Ethylbenzene | ND | 2.0 | 200 | |
| o-Xylene | ND | 2.0 | 200 | |
| p/m-Xylene | ND | 2.0 | 200 | |
| Xylenes (total) | ND | 2.0 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 200 | |
| Tert-Butyl Alcohol (TBA) | ND | 20 | 200 | |
| Diisopropyl Ether (DIPE) | ND | 4.0 | 200 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 4.0 | 200 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 4.0 | 200 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 108 | 60-132 | |
| Dibromofluoromethane | 108 | 63-141 | |
| 1,2-Dichloroethane-d4 | 101 | 62-146 | |
| Toluene-d8 | 103 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | mg/kg |
| Project: ExxonMobil 79374/022735C | | | Page 6 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S-15-MW7** | **14-12-1091-6-A** | **12/08/14 13:35** | **Solid** | **GC/MS Q** | **12/12/14** | **12/17/14 21:37** | **141217L030** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | ND | 0.0048 | 1.00 | |
| Toluene | ND | 0.0048 | 1.00 | |
| Ethylbenzene | ND | 0.0048 | 1.00 | |
| o-Xylene | ND | 0.0048 | 1.00 | |
| p/m-Xylene | ND | 0.0048 | 1.00 | |
| Xylenes (total) | ND | 0.0048 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 0.0048 | 1.00 | |
| Tert-Butyl Alcohol (TBA) | ND | 0.048 | 1.00 | |
| Diisopropyl Ether (DIPE) | ND | 0.0096 | 1.00 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 0.0096 | 1.00 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 0.0096 | 1.00 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 98 | 60-132 | |
| Dibromofluoromethane | 95 | 63-141 | |
| 1,2-Dichloroethane-d4 | 99 | 62-146 | |
| Toluene-d8 | 97 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

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

Date Received: 12/11/14
Work Order: 14-12-1091
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 79374/022735C



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-882-1695** | **N/A** | **Solid** | **GC/MS Q** | **12/17/14** | **12/17/14 12:45** | **141217L030** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 101 | 60-132 | |
| Dibromofluoromethane | 90 | 63-141 | |
| 1,2-Dichloroethane-d4 | 87 | 62-146 | |
| Toluene-d8 | 102 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

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

Date Received: 12/11/14
Work Order: 14-12-1091
Preparation: EPA 5030C
Method: EPA 8260B
Units: mg/kg

Project: ExxonMobil 79374/022735C



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-882-1696** | **N/A** | **Solid** | **GC/MS V V** | **12/19/14** | **12/19/14 17:28** | **141219L038** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | ND | 0.50 | 50.0 | |
| Toluene | ND | 0.50 | 50.0 | |
| Ethylbenzene | ND | 0.50 | 50.0 | |
| o-Xylene | ND | 0.50 | 50.0 | |
| p/m-Xylene | ND | 0.50 | 50.0 | |
| Xylenes (total) | ND | 0.50 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 0.50 | 50.0 | |
| Tert-Butyl Alcohol (TBA) | ND | 5.0 | 50.0 | |
| Diisopropyl Ether (DIPE) | ND | 1.0 | 50.0 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 1.0 | 50.0 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 1.0 | 50.0 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 95 | 60-132 | |
| Dibromofluoromethane | 111 | 63-141 | |
| 1,2-Dichloroethane-d4 | 112 | 62-146 | |
| Toluene-d8 | 102 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Quality Control - Spike/Spike Duplicate

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 3550B |
| | | Method: | EPA 8015B (M) |
| Project: ExxonMobil 79374/022735C | | | Page 1 of 4 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|---|
| **S-5-MW7** | **Sample** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 20:34** | **141215S08** |
| **S-5-MW7** | **Matrix Spike** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 19:15** | **141215S08** |
| **S-5-MW7** | **Matrix Spike Duplicate** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 19:30** | **141215S08** |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | ND | 400.0 | 387.2 | 97 | 373.2 | 93 | 64-130 | 4 | 0-15 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - Spike/Spike Duplicate

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8015B (M) |
| Project: ExxonMobil 79374/022735C | | | Page 2 of 4 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|---|
| **14-12-0925-2** | **Sample** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 06:55** | **141212S031** |
| **14-12-0925-2** | **Matrix Spike** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 07:31** | **141212S031** |
| **14-12-0925-2** | **Matrix Spike Duplicate** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 08:06** | **141212S031** |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | ND | 10.00 | 9.453 | 95 | 9.880 | 99 | 48-114 | 4 | 0-23 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - Spike/Spike Duplicate

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| Project: ExxonMobil 79374/022735C | | | Page 3 of 4 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|---|
| **14-12-1589-1** | **Sample** | **Solid** | **GC/MS Q** | **12/17/14** | **12/17/14 13:37** | **141217S001** |
| **14-12-1589-1** | **Matrix Spike** | **Solid** | **GC/MS Q** | **12/17/14** | **12/17/14 16:15** | **141217S001** |
| **14-12-1589-1** | **Matrix Spike Duplicate** | **Solid** | **GC/MS Q** | **12/17/14** | **12/17/14 16:41** | **141217S001** |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.05000 | 0.04257 | 85 | 0.04287 | 86 | 61-127 | 1 | 0-20 | |
| Toluene | ND | 0.05000 | 0.04474 | 89 | 0.04520 | 90 | 63-123 | 1 | 0-20 | |
| Ethylbenzene | ND | 0.05000 | 0.04103 | 82 | 0.04117 | 82 | 57-129 | 0 | 0-22 | |
| o-Xylene | ND | 0.05000 | 0.04048 | 81 | 0.04057 | 81 | 70-130 | 0 | 0-30 | |
| p/m-Xylene | ND | 0.1000 | 0.08176 | 82 | 0.08261 | 83 | 70-130 | 1 | 0-30 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 0.05000 | 0.04221 | 84 | 0.04180 | 84 | 57-123 | 1 | 0-21 | |
| Tert-Butyl Alcohol (TBA) | ND | 0.2500 | 0.2080 | 83 | 0.2275 | 91 | 30-168 | 9 | 0-34 | |
| Diisopropyl Ether (DIPE) | ND | 0.05000 | 0.03693 | 74 | 0.03676 | 74 | 57-129 | 0 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 0.05000 | 0.04066 | 81 | 0.04063 | 81 | 55-127 | 0 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 0.05000 | 0.04353 | 87 | 0.04404 | 88 | 58-124 | 1 | 0-20 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - Spike/Spike Duplicate

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| Project: ExxonMobil 79374/022735C | | | Page 4 of 4 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|---|
| **14-12-1783-1** | **Sample** | **Solid** | **GC/MS V V** | **12/19/14** | **12/19/14 17:56** | **141219S013** |
| **14-12-1783-1** | **Matrix Spike** | **Solid** | **GC/MS V V** | **12/19/14** | **12/19/14 18:24** | **141219S013** |
| **14-12-1783-1** | **Matrix Spike Duplicate** | **Solid** | **GC/MS V V** | **12/19/14** | **12/19/14 18:52** | **141219S013** |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.05000 | 0.05781 | 116 | 0.05363 | 107 | 61-127 | 8 | 0-20 | |
| Toluene | ND | 0.05000 | 0.05827 | 117 | 0.05397 | 108 | 63-123 | 8 | 0-20 | |
| Ethylbenzene | ND | 0.05000 | 0.05596 | 112 | 0.05279 | 106 | 57-129 | 6 | 0-22 | |
| o-Xylene | ND | 0.05000 | 0.05815 | 116 | 0.05456 | 109 | 70-130 | 6 | 0-30 | |
| p/m-Xylene | ND | 0.1000 | 0.1179 | 118 | 0.1091 | 109 | 70-130 | 8 | 0-30 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 0.05000 | 0.04610 | 92 | 0.04475 | 89 | 57-123 | 3 | 0-21 | |
| Tert-Butyl Alcohol (TBA) | ND | 0.2500 | 0.2611 | 104 | 0.2491 | 100 | 30-168 | 5 | 0-34 | |
| Diisopropyl Ether (DIPE) | ND | 0.05000 | 0.05082 | 102 | 0.04903 | 98 | 57-129 | 4 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 0.05000 | 0.04336 | 87 | 0.04283 | 86 | 55-127 | 1 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 0.05000 | 0.04761 | 95 | 0.04519 | 90 | 58-124 | 5 | 0-20 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - LCS

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 3550B |
| | | Method: | EPA 8015B (M) |
| Project: ExxonMobil 79374/022735C | | | Page 1 of 5 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS Batch Number |
|---|---|---|---|---|---|---|
| **099-15-422-1537** | **LCS** | **Solid** | **GC 48** | **12/15/14** | **12/15/14 18:58** | **141215B08** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | Qualifiers |
|---|---|---|---|---|---|
| TPH as Diesel | 400.0 | 353.2 | 88 | 75-123 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - LCS

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8015B (M) |
| Project: ExxonMobil 79374/022735C | | | Page 2 of 5 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS Batch Number |
|---|---|---|---|---|---|---|
| **099-14-571-2030** | **LCS** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 05:08** | **141212L055** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | Qualifiers |
|---|---|---|---|---|---|
| TPH as Gasoline | 10.00 | 10.47 | 105 | 70-124 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - LCS

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| 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 |
|---|---|---|---|---|---|---|
| **099-14-571-2031** | **LCS** | **Solid** | **GC 1** | **12/12/14** | **12/14/14 05:08** | **141212L056** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | Qualifiers |
|---|---|---|---|---|---|
| TPH as Gasoline | 10.00 | 10.47 | 105 | 70-124 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - LCS

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| Project: ExxonMobil 79374/022735C | | | Page 4 of 5 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS Batch Number |
|---|---|---|---|---|---|---|
| **099-12-882-1695** | **LCS** | **Solid** | **GC/MS Q** | **12/17/14** | **12/17/14 10:47** | **141217L030** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | Qualifiers |
|---|---|---|---|---|---|
| Benzene | 0.05000 | 0.05110 | 102 | 78-120 | |
| Toluene | 0.05000 | 0.05349 | 107 | 77-120 | |
| Ethylbenzene | 0.05000 | 0.05185 | 104 | 76-120 | |
| o-Xylene | 0.05000 | 0.05326 | 107 | 75-125 | |
| p/m-Xylene | 0.1000 | 0.1059 | 106 | 75-125 | |
| Methyl-t-Butyl Ether (MTBE) | 0.05000 | 0.04611 | 92 | 77-120 | |
| Tert-Butyl Alcohol (TBA) | 0.2500 | 0.2375 | 95 | 68-122 | |
| Diisopropyl Ether (DIPE) | 0.05000 | 0.04202 | 84 | 78-120 | |
| Ethyl-t-Butyl Ether (ETBE) | 0.05000 | 0.04611 | 92 | 78-120 | |
| Tert-Amyl-Methyl Ether (TAME) | 0.05000 | 0.05001 | 100 | 75-120 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - LCS

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/11/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-1091 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| Project: ExxonMobil 79374/022735C | | | Page 5 of 5 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS Batch Number |
|---|---|---|---|---|---|---|
| **099-12-882-1696** | **LCS** | **Solid** | **GC/MS V V** | **12/19/14** | **12/19/14 16:05** | **141219L038** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | Qualifiers |
|---|---|---|---|---|---|
| Benzene | 0.05000 | 0.05360 | 107 | 78-120 | |
| Toluene | 0.05000 | 0.05391 | 108 | 77-120 | |
| Ethylbenzene | 0.05000 | 0.05457 | 109 | 76-120 | |
| o-Xylene | 0.05000 | 0.05692 | 114 | 75-125 | |
| p/m-Xylene | 0.1000 | 0.1112 | 111 | 75-125 | |
| Methyl-t-Butyl Ether (MTBE) | 0.05000 | 0.04781 | 96 | 77-120 | |
| Tert-Butyl Alcohol (TBA) | 0.2500 | 0.2482 | 99 | 68-122 | |
| Diisopropyl Ether (DIPE) | 0.05000 | 0.05106 | 102 | 78-120 | |
| Ethyl-t-Butyl Ether (ETBE) | 0.05000 | 0.04673 | 93 | 78-120 | |
| Tert-Amyl-Methyl Ether (TAME) | 0.05000 | 0.04791 | 96 | 75-120 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Glossary of Terms and Qualifiers

Work Order: 14-12-1091 Page 1 of 1

| Qualifiers | Definition |
|---|---|
| AZ | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| B | Analyte was present in the associated method blank. |
| BA | The MS/MSD RPD was out of control due to suspected matrix interference. |
| BB | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| BU | Sample analyzed after holding time expired. |
| BV | Sample received after holding time expired. |
| 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. |

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

# CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **14-12-1091**

DATE: 12/8/14

PAGE: 1 OF 1

LABORATORY CLIENT: **Cardno / ExxonMobil**

ADDRESS: 601 N. McDowell Blvd

CITY: Petaluma STATE: CA ZIP: 94954

TEL: (707) 766-2000 E-MAIL: greg.gurss@cardno.com

CLIENT PROJECT NAME / NUMBER: Former Exxon 79374

P.O. NO.: 02 2735CX

PROJECT CONTACT: Greg Gurss

SAMPLER(S): (PRINT) Nadya Vicente.

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: **T0619716673** LOG CODE:

SPECIAL INSTRUCTIONS:

***TPHd - Silica Gel Cleanup**

****Oxys by 8260B: DIPE, ETBE, TAME, and TBA**

Please email PDF files to: norcallabs@eri-us.com

## REQUESTED ANALYSES

Please check box or fill in blank as needed.

| LAB USE ONLY | SAMPLE ID | Field Point Name | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. OF CONT. | Unpreserved | Preserved | Field Filtered | ☒ TPH(g) (8015B) | ☒ TPH(d) (8015B) | TPH ☐ C6-C36 ☐ C6-C44 | TPH ____ | BTEX 8260B☒ ____ | MTBE 8260B | Oxygenates (8260B)** | Lead Scavengers (8260B) | SVOCs (8270 C) | Pesticides (8081) | PCBs (8082) | PAHs ☐ 8270 ☐ 8270 SIM | T22 Metals ☐ 6010/747X ☐ 6020/747X | Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S-5-MW8 | MW8 | 12/8/14 | 0930 | Soil | 1 | | | | x | x | | | x | x | x | | | | | | | |
| 2 | S-10-MW8 | MW8 | 12/8/14 | 1005 | Soil | 1 | | | | | | | | | | | | | | | | | |
| 3 | S-15-MW8 | MW8 | 12/8/14 | 1015 | Soil | 1 | | | | | | | | | | | | | | | | | |
| 4 | S-5-MW7 | MW7 | 12/8/14 | 1315 | Soil | 1 | | | | | | | | | | | | | | | | | |
| 5 | S-10-MW7 | MW7 | 12/8/14 | 1325 | Soil | 1 | | | | | | | | | | | | | | | | | |
| 6 | S-15-MW7 | MW7 | 12/8/14 | 1335 | Soil | 1 | | | | | | | | | | | | | | | | | |

| Relinquished by: (Signature) | Received by: (Signature/Affiliation) | Date: | Time: |
|---|---|---|---|
| | Tom O'Malley ECI | 12/10/14 | 1135 |
| Tom O'Malley TO GSO 12/10/14 1730 | | 12/11/14 | 1045 |
| | | Date: | Time: |

ECI

06/02/14 Revision



Return to Contents

GSO

WebShip > > > > >

800-322-5555 www.gso.com

7091

*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:
ETIC, CARDNO ERI, ARCADIS, HALEY & ALDRICH

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 526358033

NPS

ORC

A

GARDEN GROVE

D92845A

31705607

Print Date : 12/10/14 14:56 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.

Return to Contents

eurofins | Calscience

WORK ORDER #: 14-12-1091

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Cardno ERM

DATE: 12/11/14

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

Temperature 2.8 °C - 0.2 °C (CF) = 2.6 °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: 816

**CUSTODY SEALS INTACT:**

☒ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: 816

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present Checked by: 592

| 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 (5/10) ☐EnCores® ☐TerraCores® ☐_____

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

☐500AGB ☐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:** 592

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** 1200

**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:** 1200

Return to Contents

eurofins | Calscience

# WORK ORDER NUMBER: 14-12-2430

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno ERI

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

**Attention:** Greg Gurss
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Approved for release on 01/13/2015 by:
Cecile deGuia
Project Manager

ResultLink

Email your PM

eurofins | Calscience

# Contents

Client Project Name: ExxonMobil 79374/022735C
Work Order Number: 14-12-2430

eurofins | Calscience

# Work Order Narrative

Work Order: 14-12-2430 Page 1 of 1

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 12/31/14. They were assigned to Work Order 14-12-2430.

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.

Return to Contents

eurofins | Calscience

# Sample Summary

| | | | |
|---|---|---|---|
| Client: | Cardno ERI | Work Order: | 14-12-2430 |
| | 601 North McDowell Blvd. | Project Name: | ExxonMobil 79374/022735C |
| | Petaluma, CA 94954-2312 | PO Number: | 022735C |
| | | Date/Time Received: | 12/31/14 09:00 |
| | | Number of Containers: | 18 |
| Attn: | Greg Gurss | | |

| Sample Identification | Lab Number | Collection Date and Time | Number of Containers | Matrix |
|---|---|---|---|---|
| QCBB | 14-12-2430-1 | 12/30/14 09:45 | 2 | Aqueous |
| W-7-MW7 | 14-12-2430-2 | 12/30/14 09:30 | 8 | Aqueous |
| W-4-MW8 | 14-12-2430-3 | 12/30/14 08:30 | 8 | Aqueous |

Return to Contents

eurofins | Calscience

# Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 12/31/14
Work Order: 14-12-2430
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-7-MW7** | **14-12-2430-2-H** | **12/30/14 09:30** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 04:35** | **150102B09** |

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

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

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-4-MW8** | **14-12-2430-3-H** | **12/30/14 08:30** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 04:52** | **150102B09** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 107 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-15-278-793** | **N/A** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 03:11** | **150102B09** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 104 | 68-140 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 12/31/14
Work Order: 14-12-2430
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-7-MW7** | **14-12-2430-2-H** | **12/30/14 09:30** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 04:35** | **150102B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | 2900 | 49 | 1.00 | SG,HD |

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

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-4-MW8** | **14-12-2430-3-H** | **12/30/14 08:30** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 04:52** | **150102B08** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Diesel | ND | 49 | 1.00 | SG |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 107 | 68-140 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-15-304-912** | **N/A** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 03:11** | **150102B08** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| n-Octacosane | 104 | 68-140 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

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

Project: ExxonMobil 79374/022735C

Date Received: 12/31/14
Work Order: 14-12-2430
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-7-MW7** | **14-12-2430-2-E** | **12/30/14 09:30** | **Aqueous** | **GC 25** | **01/03/15** | **01/03/15 21:52** | **150103L018** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| TPH as Gasoline | 7300 | 500 | 10.0 | HD |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 91 | 38-134 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **W-4-MW8** | **14-12-2430-3-E** | **12/30/14 08:30** | **Aqueous** | **GC 25** | **01/03/15** | **01/03/15 22:25** | **150103L018** |

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

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 72 | 38-134 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-436-9794** | **N/A** | **Aqueous** | **GC 25** | **01/03/15** | **01/03/15 16:53** | **150103L018** |

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

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

Return to Contents

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

eurofins | Calscience

# Analytical Report

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

Date Received: 12/31/14
Work Order: 14-12-2430
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-MW7** | **14-12-2430-2-B** | **12/30/14 09:30** | **Aqueous** | **GC/MS L** | **01/08/15** | **01/08/15 19:20** | **150108L030** |

| Parameter | Result | RL | DF | Qualifiers |
|---|---|---|---|---|
| Benzene | 52 | 5.0 | 10.0 | |
| Toluene | 8.9 | 5.0 | 10.0 | |
| Ethylbenzene | 32 | 5.0 | 10.0 | |
| o-Xylene | ND | 5.0 | 10.0 | |
| p/m-Xylene | 15 | 5.0 | 10.0 | |
| Xylenes (total) | 15 | 5.0 | 1.00 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 5.0 | 10.0 | |
| Tert-Butyl Alcohol (TBA) | ND | 50 | 10.0 | |
| Diisopropyl Ether (DIPE) | 13 | 5.0 | 10.0 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 5.0 | 10.0 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 5.0 | 10.0 | |
| 1,2-Dibromoethane | ND | 5.0 | 10.0 | |
| 1,2-Dichloroethane | ND | 5.0 | 10.0 | |

| Surrogate | Rec. (%) | Control Limits | Qualifiers |
|---|---|---|---|
| 1,4-Bromofluorobenzene | 102 | 68-120 | |
| Dibromofluoromethane | 91 | 80-127 | |
| 1,2-Dichloroethane-d4 | 98 | 80-128 | |
| Toluene-d8 | 100 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

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

Date Received: 12/31/14
Work Order: 14-12-2430
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-4-MW8** | **14-12-2430-3-B** | **12/30/14 08:30** | **Aqueous** | **GC/MS L** | **01/08/15** | **01/08/15 19:49** | **150108L030** |

| 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 | 94 | 80-127 | |
| 1,2-Dichloroethane-d4 | 97 | 80-128 | |
| Toluene-d8 | 98 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Analytical Report

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

Date Received: 12/31/14
Work Order: 14-12-2430
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** | **099-12-884-1224** | **N/A** | **Aqueous** | **GC/MS L** | **01/08/15** | **01/08/15 12:12** | **150108L030** |

| 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 | 98 | 68-120 | |
| Dibromofluoromethane | 92 | 80-127 | |
| 1,2-Dichloroethane-d4 | 102 | 80-128 | |
| Toluene-d8 | 101 | 80-120 | |

Return to Contents

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

eurofins | Calscience

# Quality Control - Spike/Spike Duplicate

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/31/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-2430 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8015B (M) |
| Project: ExxonMobil 79374/022735C | | | Page 1 of 2 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|---|
| **15-01-0011-1** | **Sample** | **Aqueous** | **GC 25** | **01/03/15** | **01/03/15 17:59** | **150103S012** |
| **15-01-0011-1** | **Matrix Spike** | **Aqueous** | **GC 25** | **01/03/15** | **01/03/15 18:33** | **150103S012** |
| **15-01-0011-1** | **Matrix Spike Duplicate** | **Aqueous** | **GC 25** | **01/03/15** | **01/03/15 19:06** | **150103S012** |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | ND | 2000 | 1864 | 93 | 1838 | 92 | 68-122 | 1 | 0-18 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - Spike/Spike Duplicate

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/31/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-2430 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| Project: ExxonMobil 79374/022735C | | | Page 2 of 2 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|---|
| **15-01-0220-1** | **Sample** | **Aqueous** | **GC/MS L** | **01/08/15** | **01/08/15 12:41** | **150108S003** |
| **15-01-0220-1** | **Matrix Spike** | **Aqueous** | **GC/MS L** | **01/08/15** | **01/08/15 16:01** | **150108S003** |
| **15-01-0220-1** | **Matrix Spike Duplicate** | **Aqueous** | **GC/MS L** | **01/08/15** | **01/08/15 16:29** | **150108S003** |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 10.00 | 9.528 | 95 | 9.668 | 97 | 75-125 | 1 | 0-20 | |
| Toluene | ND | 10.00 | 9.792 | 98 | 9.803 | 98 | 75-125 | 0 | 0-20 | |
| Ethylbenzene | ND | 10.00 | 9.914 | 99 | 9.957 | 100 | 75-125 | 0 | 0-20 | |
| o-Xylene | ND | 10.00 | 10.16 | 102 | 10.32 | 103 | 75-127 | 2 | 0-20 | |
| p/m-Xylene | ND | 20.00 | 20.65 | 103 | 20.69 | 103 | 75-125 | 0 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 10.00 | 8.842 | 88 | 8.995 | 90 | 71-131 | 2 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 50.00 | 70.04 | 140 | 69.49 | 139 | 20-180 | 1 | 0-40 | |
| Diisopropyl Ether (DIPE) | ND | 10.00 | 10.25 | 102 | 10.20 | 102 | 64-136 | 1 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 10.00 | 9.308 | 93 | 9.399 | 94 | 73-133 | 1 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 10.00 | 8.162 | 82 | 8.156 | 82 | 75-125 | 0 | 0-20 | |
| 1,2-Dibromoethane | ND | 10.00 | 9.335 | 93 | 9.585 | 96 | 75-126 | 3 | 0-20 | |
| 1,2-Dichloroethane | ND | 10.00 | 9.666 | 97 | 9.629 | 96 | 75-127 | 0 | 0-20 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - LCS/LCSD

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/31/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-2430 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 3510C |
| | | Method: | EPA 8015B (M) |
| Project: ExxonMobil 79374/022735C | | | Page 1 of 4 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|---|
| **099-15-278-793** | **LCS** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 04:02** | **150102B09** |
| **099-15-278-793** | **LCSD** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 04:19** | **150102B09** |

| Parameter | Spike Added | LCS Conc. | LCS %Rec. | LCSD Conc. | LCSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | 2000 | 2333 | 117 | 2300 | 115 | 75-117 | 1 | 0-13 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - LCS/LCSD

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/31/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-2430 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 3510C |
| | | Method: | EPA 8015B (M) |
| Project: ExxonMobil 79374/022735C | | | Page 2 of 4 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|---|
| **099-15-304-912** | **LCS** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 03:28** | **150102B08** |
| **099-15-304-912** | **LCSD** | **Aqueous** | **GC 46** | **01/02/15** | **01/03/15 03:45** | **150102B08** |

| Parameter | Spike Added | LCS Conc. | LCS %Rec. | LCSD Conc. | LCSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | 2000 | 1846 | 92 | 1797 | 90 | 75-117 | 3 | 0-13 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - LCS

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/31/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-2430 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8015B (M) |
| Project: ExxonMobil 79374/022735C | | | Page 3 of 4 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS Batch Number |
|---|---|---|---|---|---|---|
| **099-12-436-9794** | **LCS** | **Aqueous** | **GC 25** | **01/03/15** | **01/03/15 17:26** | **150103L018** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | Qualifiers |
|---|---|---|---|---|---|
| TPH as Gasoline | 2000 | 1833 | 92 | 78-120 | |

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Quality Control - LCS

| | | | |
|---|---|---|---|
| Cardno ERI | | Date Received: | 12/31/14 |
| 601 North McDowell Blvd. | | Work Order: | 14-12-2430 |
| Petaluma, CA 94954-2312 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| Project: ExxonMobil 79374/022735C | | | Page 4 of 4 |

| Quality Control Sample ID | Type | Matrix | Instrument | Date Prepared | Date Analyzed | LCS Batch Number |
|---|---|---|---|---|---|---|
| **099-12-884-1224** | **LCS** | **Aqueous** | **GC/MS L** | **01/08/15** | **01/08/15 11:05** | **150108L030** |

| Parameter | Spike Added | Conc. Recovered | LCS %Rec. | %Rec. CL | ME CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 10.00 | 9.173 | 92 | 80-120 | 73-127 | |
| Toluene | 10.00 | 9.286 | 93 | 80-120 | 73-127 | |
| Ethylbenzene | 10.00 | 9.407 | 94 | 80-120 | 73-127 | |
| o-Xylene | 10.00 | 9.796 | 98 | 80-120 | 73-127 | |
| p/m-Xylene | 20.00 | 19.75 | 99 | 80-120 | 73-127 | |
| Methyl-t-Butyl Ether (MTBE) | 10.00 | 9.595 | 96 | 75-123 | 67-131 | |
| Tert-Butyl Alcohol (TBA) | 50.00 | 59.45 | 119 | 80-120 | 73-127 | |
| Diisopropyl Ether (DIPE) | 10.00 | 10.40 | 104 | 73-121 | 65-129 | |
| Ethyl-t-Butyl Ether (ETBE) | 10.00 | 9.927 | 99 | 76-124 | 68-132 | |
| Tert-Amyl-Methyl Ether (TAME) | 10.00 | 8.895 | 89 | 80-120 | 73-127 | |
| 1,2-Dibromoethane | 10.00 | 9.725 | 97 | 80-120 | 73-127 | |
| 1,2-Dichloroethane | 10.00 | 9.589 | 96 | 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

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

# Sample Analysis Summary Report

Work Order: 14-12-2430 Page 1 of 1

| Method | Extraction | Chemist ID | Instrument | Analytical Location |
|---|---|---|---|---|
| EPA 8015B (M) | EPA 3510C | 500 | GC 46 | 1 |
| EPA 8015B (M) | EPA 5030C | 797 | GC 25 | 2 |
| EPA 8260B | EPA 5030C | 316 | GC/MS L | 2 |

Return to Contents

eurofins | Calscience

# Glossary of Terms and Qualifiers

Work Order: 14-12-2430 Page 1 of 1

| Qualifiers | Definition |
|---|---|
| AZ | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| B | Analyte was present in the associated method blank. |
| BA | The MS/MSD RPD was out of control due to suspected matrix interference. |
| BB | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| BU | Sample analyzed after holding time expired. |
| BV | Sample received after holding time expired. |
| 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.

Return to Contents

## Sandy Tat

**From:** Azat Magdanov (Petaluma) <azat.magdanov@cardno.com>
**Sent:** Friday, January 02, 2015 8:37 AM
**To:** Sandy Tat
**Cc:** David R. Daniels
**Subject:** RE: ExxonMobil 79374/022735C (14-12-2430)

Hi, Sandy.

MW8 was sampled @ 0830 - right sample name W-4-MW8;
MW7 was sampled @ 0930 - right sample name W-7-MW7.

Best regards,

Azat R. Magdanov
SR. STAFF SCIENTIST
MONITORING AND SAMPLING MANAGER
CARDNO ERI

Phone (+1) 707-766-2000 Fax (+1) 707-789-0414 Mobile (+1) 707-304-2306
Address 601 North McDowell Blvd., Petaluma, CA 94954-2312 USA
Email azat.magdanov@cardno.com Web www.cardno.com www.cardnoeri.com

**From:** David R. Daniels
**Sent:** Wednesday, December 31, 2014 4:19 PM
**To:** Azat Magdanov (Petaluma)
**Subject:** Fwd: ExxonMobil 79374/022735C (14-12-2430)

See below

Sent from my mobile device

Begin forwarded message:

> **From:** "Sandy Tat" <SandyTat@eurofinsUS.com>
> **To:** "David R. Daniels" <david.daniels@cardno.com>
> **Subject: ExxonMobil 79374/022735C (14-12-2430)**



Return to Contents

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

ExxonMobil

**14-12-2430**

**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:** Greg Gurss
**ExxonMobil Project Mgr:** Jennifer Sedlachek | **Project Name:** 02 2735 C
**Consultant Project Mgr:** Greg Gurss | **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):** Darin Einhell | **Site City, State, Zip:** Albany, California
**Sampler Signature:** Darin Einhell | **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 | 12-30-14 | 945 | 2 | | | | | | 2v | | | | | | | | | | | | | | X | | H | O | L | D | | | | | | | |
| 2 | W- 7 -MW7 | MW7 | ↓ | 930 | 8 | | | | | | 6v | | | | | | 2A | | X | | | | | | | X | X | X | X | X | | | | | | X | |
| 3 | W- 4 -MW8 | MW8 | ↓ | 830 | 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
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

| Relinquished by: | | Date | Time | Received by: | | Date | Time |
|---|---|---|---|---|---|---|---|
| Darin Einhell | | 12/30/14 | 1120 | FCT | | 12/30/14 | 1120 |
| Relinquished by: | | Date | Time | Received by (Lab personnel): | | Date | Time |
| to GSO | | 12/30/14 | 1730 | | | 12/31/14 | 0900 |

Return to Contents

2430

12/30/2014

GSO
GLOBAL STATE OVERNIGHT

800-322-5555 www.gso.com

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

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

COD: $0.00
Weight: 0 lb(s)
Reference:
JACOBSON JAMES, ~~BAES~~, ERI
Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 526521206

NPS

ORC

A

GARDEN GROVE

D92845A

32341272

Print Date: 12/30/2014 2:22 PM

Package 1 of 2

Return to Contents

eurofins | Calscience

WORK ORDER #: 14-12-2430

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Cardno ERI

DATE: 12/31/14

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

Temperature 2.8 °C - 0.2 °C (CF) = 2.6 °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:** 15

**CUSTODY SEALS INTACT:**

☑ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Checked by:** 15

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present **Checked by:** 972

| **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 ☐125AGBh ☐125AGBp ☐1AGB ☐1AGB**na**$_2$ ☐1AGBs

☐500AGB (2) ☑500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB

☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJ**na**$_2$ ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** 972

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** 972

**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:** 972



Return to Contents

eurofins | Calscience

WORK ORDER #: 14-12-[2][4][3][0]

# SAMPLE ANOMALY FORM

## SAMPLES - CONTAINERS & LABELS:

**Comments:**

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments
  - ☑ **Sample ID**
  - ☑ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

Comments:
(-2) labeled as W-7-MW8
a:10 per container

## HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

| Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Cont. received | Analysis |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Comments: _____

*Transferred at Client's request.

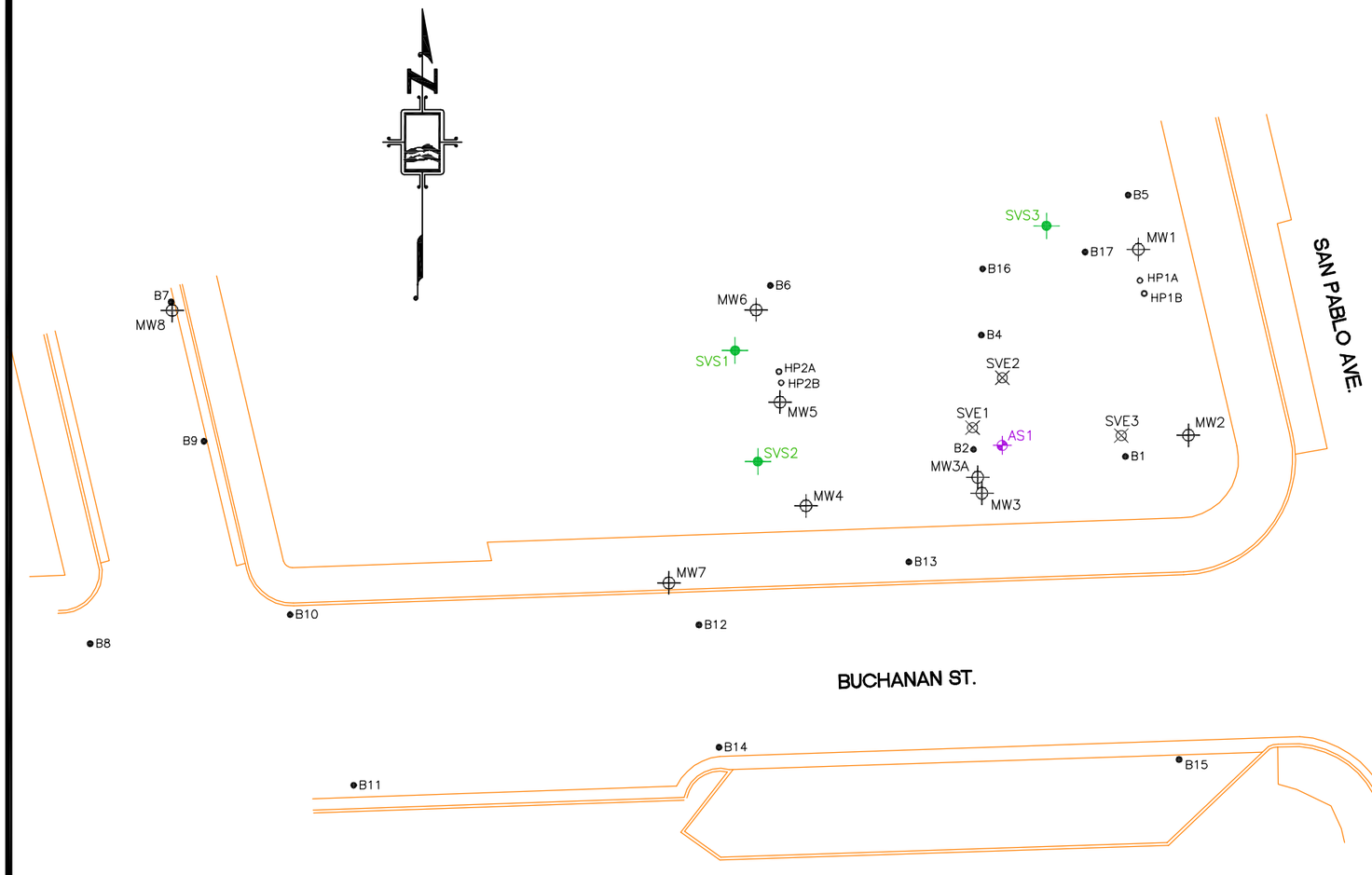
Initial / Date: AZ 12/31/14



Return to Contents

# APPENDIX H

# SURVEY




| DESC. | NORTHING | EASTING | LATITUDE | LONGITUDE | EL. PVC | EL. RIM | EL. GND |
|---|---|---|---|---|---|---|---|
| WELLS BORINGS PREVIOUSLY SURVEYED BY CARDNO, CONVERTED TO NAVD 88 BY MORROW: | | | | | | | |
| B1 | 2150759.8 | 6042697.0 | 37.8879174 | -122.2984540 | | | 44.1 |
| B2 | 2150761.3 | 6042664.8 | 37.8879199 | -122.2985658 | | | 43.7 |
| B4 | 2150785.6 | 6042666.4 | 37.8879867 | -122.2985617 | | | 44.0 |
| B5 | 2150815.3 | 6042697.6 | 37.8880700 | -122.2984557 | | | 44.7 |
| B6 | 2150796.1 | 6042621.6 | 37.8880132 | -122.2987177 | | | 44.3 |
| HP1A | 2150797.2 | 6042700.1 | 37.8880203 | -122.2984458 | | | 44.5 |
| HP1B | 2150794.4 | 6042701.0 | 37.8880128 | -122.2984424 | | | 44.5 |
| HP2A | 2150777.8 | 6042623.4 | 37.8879631 | -122.2987101 | | | 43.6 |
| HP2B | 2150775.5 | 6042623.9 | 37.8879566 | -122.2987083 | | | 43.5 |
| MW1 | 2150803.8 | 6042699.8 | 37.8880384 | -122.2984473 | 44.19 | 44.49 | |
| MW2 | 2150764.3 | 6042710.4 | 37.8879305 | -122.2984079 | 43.99 | 44.37 | |
| MW3 | 2150752.0 | 6042666.5 | 37.8878945 | -122.2985590 | 43.16 | 43.66 | |
| MW4 | 2150749.3 | 6042629.2 | 37.8878851 | -122.2986883 | 42.04 | 42.46 | |
| MW5 | 2150771.3 | 6042623.6 | 37.8879453 | -122.2987089 | 43.12 | 43.40 | |
| MW6 | 2150790.9 | 6042618.6 | 37.8879988 | -122.2987277 | 43.80 | 44.11 | |
| WELLS SURVEYED BY MORROW ON 2-6-12( CONVERTED TO NAVD 88 BASED ON 4-3-14 SURVEY) | | | | | | | |
| MW3A | 2150755.4 | 6042665.6 | 37.8879037 | -122.2985623 | 43.42 | 43.69 | |
| SVE1 | 2150765.9 | 6042664.6 | 37.8879326 | -122.2985668 | 43.32 | 43.77 | |
| SVE2 | 2150776.5 | 6042670.9 | 37.8879620 | -122.2985456 | 43.68 | 43.95 | |
| SVE3 | 2150764.2 | 6042696.1 | 37.8879296 | -122.2984573 | 43.67 | 44.18 | |
| AS1 | 2150762.2 | 6042670.8 | 37.8879226 | -122.2985448 | | 43.81 | |
| WELLS AND BORINGS SURVEYED BY MORROW ON 4-3-14: | | | | | | | |
| SVS1 | 2150782.3 | 6042614.1 | 37.8879749 | -122.2987427 | | 43.87 | |
| SVS2 | 2150758.7 | 6042618.9 | 37.8879104 | -122.2987244 | | 42.90 | |
| SVS3 | 2150808.8 | 6042680.3 | 37.8880511 | -122.2985153 | | 44.47 | |
| B7 | 2150792.6 | 6042494.3 | 37.8879969 | -122.2991584 | | | 40.1 |
| B8 | 2150720.0 | 6042477.1 | 37.8877967 | -122.2992132 | | | 39.5 |
| B9 | 2150763.0 | 6042501.3 | 37.8879160 | -122.2991323 | | | 39.9 |
| B10 | 2150726.2 | 6042519.6 | 37.8878158 | -122.2990665 | | | 40.1 |
| B11 | 2150689.9 | 6042533.1 | 37.8877171 | -122.2990172 | | | 40.2 |
| B12 | 2150724.0 | 6042606.4 | 37.8878144 | -122.2987654 | | | 41.6 |
| B13 | 2150737.4 | 6042651.0 | 37.8878535 | -122.2986119 | | | 42.6 |
| B14 | 2150698.0 | 6042610.7 | 37.8877432 | -122.2987489 | | | 41.6 |
| B15 | 2150695.4 | 6042708.4 | 37.8877413 | -122.2984102 | | | 43.1 |
| B16 | 2150799.7 | 6042666.7 | 37.8880253 | -122.2985617 | | | 44.4 |
| B17 | 2150803.2 | 6042688.5 | 37.8880363 | -122.2984865 | | | 44.4 |
| WELLS SURVEYED ON 12-23-14: | | | | | | | |
| MW7 | 2150732.9 | 6042600.0 | 37.8878386 | -122.2987881 | 41.21 | 41.63 | |
| MW8 | 2150790.8 | 6042494.5 | 37.8879920 | -122.2991575 | 39.65 | 40.06 | |

0 15 30 60 90

SCALE IN FEET


Morrow Surveying
LAND SURVEYORS

1255 Starboard Drive
West Sacramento ~ CA ~ 95691
Phone: 916-372-8124
Fax: 916-372-8538
Email: mark@morrowsurveying.com
www.morrowsurveying.com


DATE: APRIL, 2014
DATE SURVEYED: 4-3-14 SF, 12-23-14 MS
SCALE: 1"=30'
SHEET 1 OF 1
FIELD BOOK: MW-57
DRAWING NO. : 1873-155
DRAWN BY: MAM

**BASIS OF COORDINATES & ELEVATIONS:**

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK.

COORDINATE DATUM IS NAD 83.

REFERENCE GEOID IS GEOID03.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.

# *MONITORING WELL EXHIBIT*

Prepared for:
CARDNO ERI

**FORMER EXXON 79374**

990 San Pablo Ave.
City of Albany Alameda County
California

# APPENDIX I

# WASTE DISPOSAL DOCUMENTATION

# Manifest

## SOIL SAFE OF CA – TPST
Non-Hazardous Soils

↓ Manifest # ↓

| Date of Shipment: | Responsible for Payment: | Transport Truck #: | Facility #: | Approval Number: | Load # |
|---|---|---|---|---|---|
| 1/7/15 | | 393/733 | A07 | 42571 | 0012 |

**Generator and/or Consultant**

Generator's Name and Billing Address:
EXXONMOBIL OIL CORP.
ATTN: EMES ADMINISTRATOR
2555 W. 190TH ST. #1100
TORRANCE, CA 90504

Generator's Phone #: 310-212-2938
Person to Contact:
FAX#:
Customer Account Number:

Consultant's Name and Billing Address:

Consultant's Phone #:
Person to Contact:
FAX#:
Customer Account Number:

Generation Site (Transport from): *(name & address)*
EXXONMOBIL 79374
980 SAN PABLO AVE
ALBANY, CA 94706

Site Phone #:
Person to Contact:
FAX#:

Designated Facility (Transport to): *(name & address)*
SOIL SAFE
12328 HIBISCUS AVENUE
ADELANTO, CA 92301

Facility Phone #: (800) 862-8001
Person to Contact: JOE PROVANSAL
FAX#: (760) 246-8004

Transporter Name and Mailing Address:
BELSHIRE
25971 TOWNE CENTRE DRIVE
FOOTHILL RANCH, CA 92610
BESI: 248797

Transporter's Phone #: 949-460-5200
CAR000183913
Person to Contact: LARRY MOOTHART
450647
FAX#: 949-460-5210
Customer Account Number:

| Description of Soil | Moisture Content | Contaminated by: | Approx. Qty: | Description of Delivery | Gross Weight | Tare Weight | Net Weight |
|---|---|---|---|---|---|---|---|
| Sand ☐ Organic ☐ Clay ☐ Other ☐ | 0 - 10% ☐ 10 - 20% ☐ 20% - over ☐ | Gas ☐ Diesel ☐ Other ☐ | 3 DM | Soil | 38800 | 37100 | 1700 |
| Sand ☐ Organic ☐ Clay ☐ Other ☐ | 0 - 10% ☐ 10 - 20% ☐ 20% - over ☐ | Gas ☐ Diesel ☐ Other ☐ | | | | | 85 |

List any exception to items listed above: Scale Ticket # 117059

*Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils descried in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.*

Print or Type Name: Generator ☐ Consultant ☒ David Daniels On behalf of Exxon Mobil
Signature and date:
Month 12 Day 22 Year 14

**Transporter**

*Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.*

Print or Type Name: Ron Green
Signature and date:
Month 12 Day 23 Year 14

**Recycling Facility**

Discrepancies:
79374
1100158

*Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:*

Print or Type Name: J. PROVANSAL
Signature and date: 1-7-15

Please print or type.

TRANSPORTER COPY

# NON-HAZARDOUS WASTE MANIFEST

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

NON-HAZARDOUS WASTE

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No.

Manifest Document No. 27357014230

2. Page 1 of

3. Generator's Name and Mailing Address
EXXONMOBIL OIL CORP
2555 W. 190TH ST. #1108
TORRANCE, CA 90504
ATTN: EMES ADMINISTRATOR
590 San Pablo Ave, Albany, CA
EM 79374

4. Generator's Phone ( 310 ) 212-2833

5. Transporter 1 Company Name
CARNO

6. US EPA ID Number

A. State Transporter's ID 707-795-2330

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
INSTRAT INC.
1175 C. AIRPORT ROAD
RIO VISTA, CA 94571

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone 530-753-1829

| 11. WASTE DESCRIPTION | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. NON-HAZARDOUS PURGE WATER | 1 | Trailer | 35 | |
| 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.

GENERATOR

Printed/Typed Name: On behalf of ES Exxon Mobil Attn R. Maydonado

Signature

Date: Month 12 Day 30 Year 2014

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: JOE D. LEWIS

Signature

Date: Month 1 Day 12 Year 15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: Month Day Year

FACILITY

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.

EDI

Printed/Typed Name: PATRICK MAHONEY

Signature

Date: Month 1 Day 12 Year 15

# 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. 27352014122 3

2. Page 1 of

3. Generator's Name and Mailing Address
EXXONMOBIL OIL CORP.
2555 W. 190TH ST. #1106
TORRANCE, CA 90504
ATTN: EMES ADMINISTRATOR
990 So. Pablo Ave. Albany, CA.
(EM ~~2735~~ 79374)

4. Generator's Phone ( 310 ) 212-2938

5. Transporter 1 Company Name: CARDNO

6. US EPA ID Number

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

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
INSTRAT INC.
1105 C. AIRPORT ROAD
RIO VISTA, CA 94571

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone 530-753-1829

| 11. WASTE DESCRIPTION | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. NON-HAZARDOUS PURGE WATER | 01 | Trailer | 65 | 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

**GENERATOR**

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

Printed/Typed Name: On behalf of ExxonMobil Azar R. Magdanov

Signature

Date: Month 12 Day 23 Year 2015

**TRANSPORTER**

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: JOE D. LEWIS

Signature: Joe D. Lewis

Date: Month 1 Day 16 Year 15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: Month Day Year

**FACILITY**

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: MICHAEL WHITEHEAD

Signature

Date: Month 1 Day 16 Year 15

**NON-HAZARDOUS WASTE**