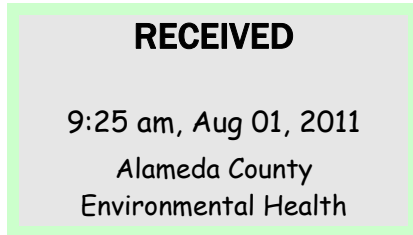


Atlantic Richfield Company

Shannon Couch
Project Manager

PO Box 1257
San Ramon, CA 94583
Phone: (925) 275-3804
Fax: (925) 275-3815
E-Mail: shannon.couch@bp.com



July 29, 2011

Re: Second Quarter 2011 Semi-Annual Groundwater Monitoring Report
Atlantic Richfield Company Station #4977
2770 Castro Valley Boulevard, Castro Valley, California
ACEH Case #RO0002436

"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Submitted by,

A handwritten signature in black ink, consisting of a large, stylized 'S' followed by a horizontal line and a large loop.

Shannon Couch
Project Manager

Attachment

**SECOND QUARTER 2011 SEMI-ANNUAL
GROUNDWATER MONITORING REPORT**

Atlantic Richfield Company Station #4977
2770 Castro Valley Blvd, Castro Valley, California
ACEH Case #RO0002436

Prepared for

Ms. Shannon Couch
Project Manager
Atlantic Richfield Company
P.O. Box 1257
San Ramon, California 94583

Prepared by



1324 Mangrove Avenue, Suite 212
Chico, California 95926
(530) 566-1400
www.broadbentinc.com

July 29, 2011

Project No. 06-82-625

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
Voice (530) 566-1400
Fax (530) 566-1401

Creating Valuable Solutions, Building Trust



July 29, 2011

Project No. 06-82-625

Atlantic Richfield Company
P.O. Box 1257
San Ramon, CA 94583
Submitted via ENFOS

Attn.: Ms. Shannon Couch

Re: Second Quarter 2011 Semi-Annual Groundwater Monitoring Report, Atlantic Richfield Company Station #4977, 2770 Castro Valley Blvd., Castro Valley, California; ACEH Case #RO0002436

Dear Ms. Couch:

Attached is the *Second Quarter 2011 Semi-Annual Groundwater Monitoring Report* for Atlantic Richfield Company (a BP affiliated company) Station #4977 located at 2770 Castro Valley Blvd., Castro Valley, Alameda County, California (Site). This report presents a summary of current developments regarding the Site through the Second Quarter 2011. Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

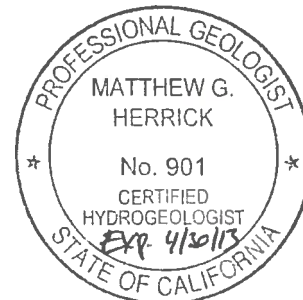
Sincerely,
BROADBENT & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read 'Jason Duda'.

Jason Duda
Project Scientist

A handwritten signature in black ink, appearing to read 'Matthew G. Herrick'.

Matthew G. Herrick, P.G., C.HG
Senior Hydrogeologist



Enclosure

cc: Mr. Paresh Khatri, ACEH (Submitted via ACEH ftp Site)
Electronic Copy Uploaded to Geotracker

**SECOND QUARTER 2011 SEMI-ANNUAL
GROUNDWATER MONITORING REPORT
STATION #4977, CASTRO VALLEY, CALIFORNIA**

Broadbent & Associates, Inc. (BAI) is pleased to present this *Second Quarter 2011 Monitoring Report* on behalf of Atlantic Richfield Company (a BP affiliated company) for Station #4977 located in Castro Valley, Alameda County, California. Reporting is being submitted to the Alameda County Environmental Health Services Agency (ACEH) consistent with the requirements under the legal authority of the California Regional Water Quality Control Board as codified by California Code of Regulations Title 23, Section 2652(d). A summary description of current developments regarding the site is provided below.

| | |
|-------------------------------------|--|
| Facility Name / Address: | <u>Station #4977 / 2779 Castro Valley Boulevard, Castro Valley, CA</u> |
| Client Project Manager / Title: | <u>Ms. Shannon Couch / Project Manager</u> |
| BAI Contact: | <u>Jason Duda, (530) 566-1400</u> |
| BAI Project No.: | <u>06-82-625</u> |
| Primary Regulatory Agency / ID No.: | <u>ACEH, Case #RO0002436</u> |
| Current phase of project: | <u>Monitoring and On-site Assessment</u> |
| List of Acronyms / Abbreviations: | <u>See end of report text for list of acronyms/abbreviations used in report.</u> |

WORK PERFORMED THIS QUARTER (Second Quarter 2011):

1. Prepared and submitted the *First Quarter 2011 Status Report*.
2. Conducted groundwater monitoring/sampling for Second Quarter 2011 on May 17, 2011.

WORK SCHEDULED FOR NEXT QUARTER (Third Quarter 2011):

1. Prepare and submit *Second Quarter 2011 Monitoring Report* (contained herein).
2. Conduct on-site assessment activities.

GROUNDWATER MONITORING PLAN SUMMARY:

| | | |
|--|--------------------------|-------------|
| Groundwater level gauging: | <u>MW-1 through MW-3</u> | (2Q and 4Q) |
| Groundwater sample collection: | <u>MW-1 through MW-3</u> | (2Q and 4Q) |
| Biodegradation indicator parameter monitoring: | <u>NA</u> | |

QUARTERLY RESULTS SUMMARY:

LNAPL

| | | |
|-------------------------------|----------------|----------|
| LNAPL observed this quarter: | <u>No</u> | (yes\no) |
| LNAPL recovered this quarter: | <u>None</u> | (gal) |
| Cumulative LNAPL recovered: | <u>Unknown</u> | (gal) |

Groundwater Elevation and Gradient:

| | | |
|------------------------------|----------------------------------|-----------------------------|
| Depth to groundwater: | <u>4.44 (MW-3 to 7.71 (MW-1)</u> | (ft below TOC) |
| Gradient direction: | <u>South-Southeast</u> | (compass direction) |
| Gradient magnitude: | <u>0.042</u> | (ft/ft) |
| Average change in elevation: | <u>2.03</u> | (ft since last measurement) |

Laboratory Analytical Data

Summary: GRO were detected in two of the three wells sampled at a maximum concentration of 14,000 µg/L in MW-2. Benzene detected in MW-2 at a concentration of 230 µg/L. MTBE detected in each of the three wells sampled at a maximum concentration of 29 µg/L in MW-2.

ACTIVITIES CONDUCTED & RESULTS:

Second Quarter 2011 semi-annual groundwater monitoring was conducted on May 17, 2011 by BAI personnel in accordance with the monitoring plan summary detailed above. No irregularities were noted during water level gauging. Light, Non-Aqueous Phase Liquid (LNAPL, or free product) was not noted to be present in the wells monitored during this event. Depth to water measurements ranged from 4.44 ft at MW-3 to 7.71 ft at MW-1. Resulting groundwater surface elevations ranged from 155.73 ft at MW-1 to 160.09 ft at MW-3. Groundwater elevations are summarized in Table 1. Water level elevations yielded a horizontal groundwater gradient to the South-Southeast at approximately 0.042 ft/ft. Field methods used during groundwater monitoring are provided in Appendix A. Field data sheets are included in Appendix B. A Site Location Map is presented as Drawing 1. Potentiometric groundwater elevation contours are presented in Drawing 2.

Groundwater samples were collected on May 17, 2011 from wells MW-1, MW-2 and MW-3 at Station #4977, consistent with the current monitoring schedule. No irregularities were reported during sampling. Samples were submitted under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. (Garden Grove, California) for analysis of Gasoline-Range Organics (GRO, C6-C12) by EPA Method 8015M; for Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), Tert-Amyl Methyl Ether (TAME), Di-Isopropyl Ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), Tert-Butyl Alcohol (TBA) and Ethanol by EPA Method 8260. The GRO concentration in the sample collected from MW-3 was “quantitated against gasoline.” No other significant irregularities were encountered during analysis of the samples. The laboratory analytical report, including chain-of-custody documentation, is provided in Appendix C.

Hydrocarbons in the GRO range were detected above the laboratory reporting limit in two of the three wells sampled at concentrations up to 14,000 micrograms per liter ($\mu\text{g/L}$) in MW-2. Benzene, Ethylbenzene, and Total Xylenes were detected above the laboratory reporting limits in MW-2 at concentrations of 230 $\mu\text{g/L}$, 43 $\mu\text{g/L}$, and 7.2 $\mu\text{g/L}$, respectively. MTBE was detected above the laboratory reporting limit in each of the three wells sampled at concentrations up to 29 $\mu\text{g/L}$ in MW-2. TBA was detected above the laboratory reporting limit in well MW-3 at a concentration of 34 $\mu\text{g/L}$. The remaining analytes were not detected above their laboratory reporting limits in the wells sampled this last monitoring event. Groundwater monitoring laboratory analytical results are summarized in Table 1 and Table 2. The most recent GRO, Benzene, and MTBE concentrations are also presented in Drawing 2. Groundwater monitoring data (GEO_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix D.

DISCUSSION:

Groundwater levels were between historic minimum and maximum elevations for each well gauged this quarter, with the exception of well MW-3 which reached a maximum elevation of 160.09 ft. Groundwater elevations yielded a horizontal groundwater gradient to the South-Southeast at approximately 0.042 ft/ft, generally consistent with the historic flow direction and gradient data presented in Table 3.

This event's detected analytical concentrations were within the historic minimum and maximum ranges recorded for each well with the following exceptions: MTBE reached historic minimum concentrations in wells MW-1 and MW-2 and Benzene, Ethylbenzene, and Total Xylenes reached historic minimum concentrations in well MW-2. The next semi-annual groundwater monitoring and sampling event is scheduled to be conducted during the Fourth Quarter 2011.

RECOMMENDATIONS:

In response to the November 18, 2010 *Soil and Ground-Water Investigation Work Plan*, ACEH issued the November 18, 2010 letter recommending installation of an additional boring 20 feet south of proposed boring B-5. The ACEH letter requested the submittal of a revised figure to show the proposed location of the additional boring. In the December 3, 2010 email, BAI submitted the revised drawing that included the addition of boring B-6. Although written approval from ACEH of the above discussed revision has not been received, soil and groundwater investigation activities are scheduled to proceed during the Third Quarter 2011 unless otherwise directed by ACEH. The next semi-annual groundwater monitoring and sampling event is scheduled to be conducted during the Fourth Quarter of 2011.

LIMITATIONS:

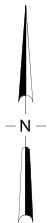
The findings presented in this report are based upon: observations of BAI field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. (Garden Grove, California). Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company (a BP affiliated company). It is possible that variations in soil or groundwater conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

ATTACHMENTS:

| | |
|-------------|---|
| Drawing 1: | Site Location Map |
| Drawing 2: | Groundwater Elevation Contours and Analytical Summary Map, May 17, 2011 |
| Table 1: | Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses |
| Table 2: | Summary of Fuel Additives Analytical Data |
| Table 3: | Historic Groundwater Gradient – Direction and Magnitude |
| Appendix A: | Field Methods |
| Appendix B: | Field Data Sheets and Non-Hazardous Waste Data Form |
| Appendix C: | Laboratory Report and Chain-of-Custody Documentation |
| Appendix D: | GeoTracker Upload Confirmation Receipts |

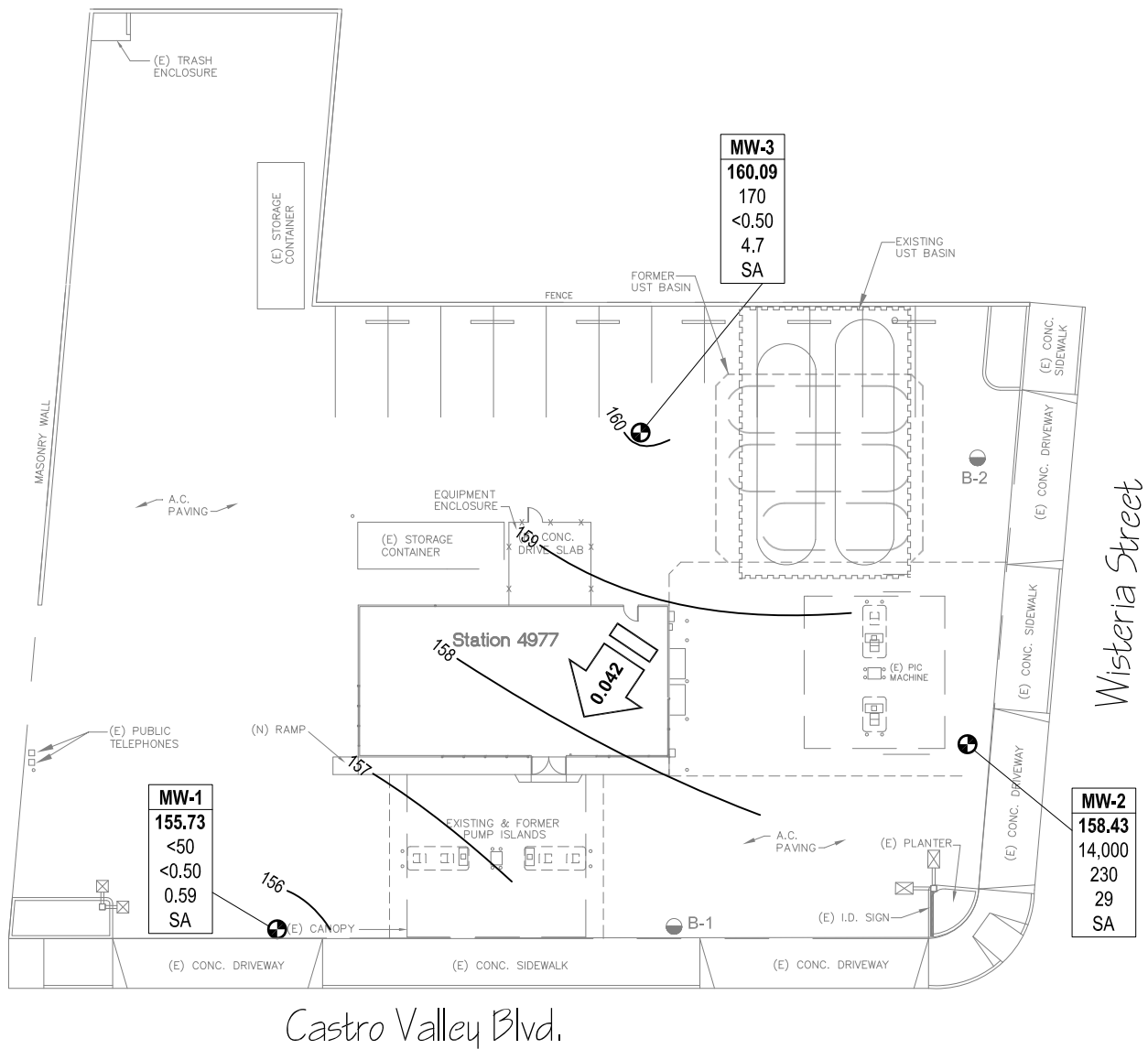
LIST OF COMMONLY USED ACCRONYMS/ABBREVIATIONS:

| | | | |
|--------------------|---|-------------------|---|
| BAI: | Broadbent & Associates, Inc. | gal: | Gallons |
| BTEX: | Benzene, Toluene, Ethylbenzene, Total Xylenes | GRO: | Gasoline-Range Organics |
| 1,2-DCA: | 1,2-Dichloroethane | LNAPL: | Light Non-Aqueous Phase Liquid |
| DIPE: | Di-Isopropyl Ether | MTBE: | Methyl Tertiary Butyl Ether |
| DO: | Dissolved Oxygen | NO ₃ : | Nitrate as Nitrogen |
| DRO: | Diesel-Range Organics | ppb: | parts per billion |
| EDB: | 1,2-Dibromomethane | SFBRWQCB: | San Francisco Bay Regional Water Quality Control Board |
| Eh: | Oxidation Reduction Potential | SO ₄ : | Sulfate |
| EPA: | Environmental Protection Agency | TAME: | Tert-Amyl Methyl Ether |
| ETBE: | Ethyl Tertiary Butyl Ether | TBA: | Tertiary Butyl Ether |
| Fe ²⁺ : | Ferrous Iron | TOC: | Top of Casing |
| ft/ft: | feet per foot | µg/L: | micrograms per liter |



APPROXIMATE SCALE (mi)

IMAGE SOURCE: DELORME



LEGEND

- MONITORING WELL
- SOIL BORING

| | |
|-------------|---|
| Well | WELL DESIGNATION |
| ELEV | GROUND-WATER ELEVATION (FT) |
| GRO | CONCENTRATION OF GRO, BENZENE AND MTBE IN GROUND WATER (µg/L) |
| BZ | |
| MTBE | |
| Q | SAMPLING FREQUENCY |

- < NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS
- SA SAMPLED SEMI-ANNUALLY (2ND AND 4TH QUARTERS)
- 156 GROUNDWATER ELEVATION CONTOUR (FT)
- GROUNDWATER GRADIENT (FT/FT)

NOTE: SITE MAP ADAPTED FROM DELTA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

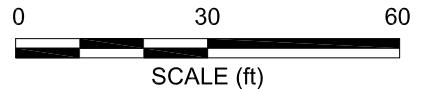


Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

| Well and Sample Date | P/NP | TOC (feet) | Top of Screen (ft bgs) | Bottom of Screen (ft bgs) | DTW (feet) | Water Level Elevation (feet) | Concentrations in (µg/L) | | | | | | DO (mg/L) | pH | Footnote |
|----------------------|------|------------|------------------------|---------------------------|------------|------------------------------|--------------------------|---------|---------|---------------|---------------|------|-----------|------|----------|
| | | | | | | | GRO/TPHg | Benzene | Toluene | Ethyl-Benzene | Total Xylenes | MTBE | | | |
| MW-1 | | | | | | | | | | | | | | | |
| 4/19/2002 | -- | 161.11 | 5.00 | 15.00 | 11.21 | 149.90 | 660 | 12 | 1.3 | 4.3 | 0.8 | 38 | -- | -- | |
| 9/27/2002 | -- | | 5.00 | 15.00 | 9.29 | 151.82 | 130 | 7.7 | 0.87 | 5.4 | 0.79 | 39 | 1.7 | 6.9 | |
| 12/16/2002 | -- | | 5.00 | 15.00 | 8.55 | 152.56 | 77 | 1.8 | <0.50 | 0.69 | <1.0 | 42 | 1.6 | 6.9 | a |
| 3/11/2003 | -- | | 5.00 | 15.00 | 8.07 | 153.04 | 140 | 9.8 | <0.50 | 5.6 | <0.50 | 20 | 1.4 | 7.4 | |
| 6/17/2003 | -- | | 5.00 | 15.00 | 8.31 | 152.80 | 510 | 60 | 1.4 | 81 | <1.0 | 23 | 2.2 | 7 | |
| 9/18/2003 | -- | | 5.00 | 15.00 | 9.45 | 151.66 | 72 | 2.4 | 1.4 | 1.6 | 1.5 | 39 | 2.7 | 7 | b |
| 12/11/2003 | P | | 5.00 | 15.00 | 8.80 | 152.31 | 79 | 1.5 | <0.50 | 1.5 | 4.4 | 48 | 2.1 | 7.0 | |
| 03/11/2004 | P | 163.44 | 5.00 | 15.00 | 7.61 | 155.83 | <50 | 1.3 | <0.50 | 0.77 | 1.3 | 17 | 1.4 | 6.8 | |
| 06/02/2004 | P | | 5.00 | 15.00 | 8.95 | 154.49 | 53 | 1.4 | <0.50 | 0.93 | <0.50 | 39 | 2.3 | 7.1 | |
| 09/22/2004 | P | | 5.00 | 15.00 | 9.42 | 154.02 | 70 | <0.50 | <0.50 | <0.50 | <0.50 | 48 | 1.7 | 6.8 | |
| 12/15/2004 | P | | 5.00 | 15.00 | 7.88 | 155.56 | 63 | <0.50 | <0.50 | <0.50 | <0.50 | 45 | 1.8 | 6.9 | |
| 03/07/2005 | P | | 5.00 | 15.00 | 7.02 | 156.42 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 4.0 | 2.4 | 6.8 | |
| 06/27/2005 | P | | 5.00 | 15.00 | 7.53 | 155.91 | 52 | 2.0 | <0.50 | 1.9 | 0.78 | 8.1 | 2.8 | 7.1 | |
| 09/16/2005 | P | | 5.00 | 15.00 | 9.20 | 154.24 | <50 | <0.50 | <0.50 | <0.50 | 0.76 | 14 | 1.82 | 6.9 | |
| 12/27/2005 | P | | 5.00 | 15.00 | 7.60 | 155.84 | <50 | 1.3 | <0.50 | 1.5 | <0.50 | 9.4 | 2.02 | 7.87 | |
| 03/16/2006 | P | | 5.00 | 15.00 | 6.97 | 156.47 | 71 | 3.0 | <0.50 | 3.5 | <0.50 | 3.4 | 1.6 | 7.1 | |
| 6/26/2006 | P | | 5.00 | 15.00 | 8.58 | 154.86 | 71 | 0.69 | <0.50 | 1.1 | 3.5 | 3.2 | 2.2 | 6.9 | |
| 9/29/2006 | P | | 5.00 | 15.00 | 8.85 | 154.59 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 5.2 | 2.35 | 6.7 | |
| 12/19/2006 | P | | 5.00 | 15.00 | 8.00 | 155.44 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 4.3 | 4.80 | 7.21 | |
| 3/29/2007 | P | | 5.00 | 15.00 | 7.70 | 155.74 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 2.3 | 3.44 | 7.18 | |
| 6/5/2007 | P | | 5.00 | 15.00 | 8.77 | 154.67 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 3.2 | 3.45 | 7.29 | |
| 9/25/2007 | P | | 5.00 | 15.00 | 9.18 | 154.26 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 5.3 | 2.61 | 7.41 | |
| 12/26/2007 | P | | 5.00 | 15.00 | 8.45 | 154.99 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 2.9 | 5.57 | 7.43 | |
| 3/25/2008 | P | | 5.00 | 15.00 | 8.29 | 155.15 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.94 | 3.52 | 7.80 | |
| 6/10/2008 | P | | 5.00 | 15.00 | 9.17 | 154.27 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 1.3 | 3.38 | 7.01 | |
| 9/2/2008 | P | | 5.00 | 15.00 | 9.15 | 154.29 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 5.6 | 2.30 | 6.81 | |
| 12/2/2008 | P | | 5.00 | 15.00 | 8.90 | 154.54 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 2.7 | 2.41 | 6.96 | |
| 3/5/2009 | P | | 5.00 | 15.00 | 8.05 | 155.39 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 1.3 | 2.48 | 7.47 | |
| 6/2/2009 | P | | 5.00 | 15.00 | 14.91 | 148.53 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.60 | 0.83 | 7.01 | |
| 11/6/2009 | P | | 5.00 | 15.00 | 8.46 | 154.98 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 1.9 | 1.15 | 6.8 | |

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

ARCO Service Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

| Well and Sample Date | P/NP | TOC (feet) | Top of Screen (ft bgs) | Bottom of Screen (ft bgs) | DTW (feet) | Water Level Elevation (feet) | Concentrations in (µg/L) | | | | | | DO (mg/L) | pH | Footnote |
|----------------------|----------|------------|------------------------|---------------------------|-------------|------------------------------|--------------------------|-----------------|-----------------|-----------------|-----------------|-------------|-------------|------------|----------|
| | | | | | | | GRO/TPHg | Benzene | Toluene | Ethyl-Benzene | Total Xylenes | MTBE | | | |
| MW-1 Cont. | | | | | | | | | | | | | | | |
| 5/20/2010 | -- | 163.44 | 5.00 | 15.00 | 8.02 | 155.42 | -- | -- | -- | -- | -- | -- | -- | -- | |
| 11/3/2010 | P | | 5.00 | 15.00 | 8.85 | 154.59 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 1.4 | 0.80 | 6.3 | |
| 5/17/2011 | P | | 5.00 | 15.00 | 7.71 | 155.73 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 0.59 | 0.97 | 7.3 | |
| MW-2 | | | | | | | | | | | | | | | |
| 4/19/2002 | -- | 161.87 | 5.00 | 15.00 | 6.59 | 155.28 | 28,000 | 970 | 120 | 860 | 6,900 | 760 | -- | -- | |
| 9/27/2002 | -- | | 5.00 | 15.00 | 7.18 | 154.69 | 17,000 | 1,400 | <50 | 1,200 | 3,700 | 1,400 | 1.5 | 6.8 | |
| 12/16/2002 | -- | | 5.00 | 15.00 | 7.31 | 154.56 | 17,000 | 1,000 | <50 | 980 | 3,300 | 980 | 1.9 | 6.8 | a |
| 3/11/2003 | -- | | 5.00 | 15.00 | 6.02 | 155.85 | 24,000 | 1,600 | 70 | 1,300 | 4,300 | 920 | 1.7 | 7.4 | |
| 6/17/2003 | -- | | 5.00 | 15.00 | 6.31 | 155.56 | 28,000 | 1,300 | 55 | 1,300 | 4,500 | 610 | 1.4 | 6.9 | |
| 9/18/2003 | -- | | 5.00 | 15.00 | 7.61 | 154.26 | 19,000 | 960 | 63 | 1,100 | 3,100 | 580 | 2.7 | 6.8 | |
| 12/11/2003 | P | | 5.00 | 15.00 | 6.50 | 155.37 | 29,000 | 710 | 53 | 1,300 | 3,800 | 490 | 2.0 | 7.0 | |
| 03/11/2004 | P | 164.29 | 5.00 | 15.00 | 6.02 | 158.27 | 19,000 | 830 | 49 | 1,500 | 4,000 | 410 | 0.8 | 6.5 | |
| 06/02/2004 | P | | 5.00 | 15.00 | 7.14 | 157.15 | 25,000 | 680 | <50 | 1,300 | 3,900 | 240 | 4.3 | 7.1 | |
| 09/22/2004 | -- | | 5.00 | 15.00 | 7.63 | 156.66 | 15,000 | 980 | <25 | 980 | 940 | 390 | -- | 6.7 | |
| 12/15/2004 | P | | 5.00 | 15.00 | 6.48 | 157.81 | 22,000 | 610 | 26 | 1,300 | 3,200 | 290 | 0.3 | 6.9 | c |
| 03/07/2005 | P | | 5.00 | 15.00 | 6.08 | 158.21 | 25,000 | 570 | 33 | 1,400 | 3,900 | 120 | 2.3 | 6.8 | |
| 06/27/2005 | P | | 5.00 | 15.00 | 6.90 | 157.39 | 24,000 | 630 | 32 | 1,200 | 2,900 | 86 | 2.5 | 7.2 | |
| 09/16/2005 | P | | 5.00 | 15.00 | 7.66 | 156.63 | 25,000 | 550 | <25 | 1,400 | 3,000 | 82 | 1.41 | 7.0 | |
| 12/27/2005 | P | | 5.00 | 15.00 | 5.60 | 158.69 | 33,000 | 540 | <25 | 1,300 | 2,700 | 100 | 2.26 | 7.19 | |
| 03/16/2006 | P | | 5.00 | 15.00 | 7.25 | 157.04 | 29,000 | 710 | <50 | 1,400 | 2,600 | 78 | 1.4 | 7.1 | c |
| 6/26/2006 | P | | 5.00 | 15.00 | 6.60 | 157.69 | 20,000 | 630 | <25 | 1,200 | 1,100 | 110 | 0.64 | 6.8 | c |
| 9/29/2006 | P | | 5.00 | 15.00 | 6.85 | 157.44 | 24,000 | 530 | <25 | 1,300 | 1,800 | 86 | 1.36 | 6.7 | |
| 12/19/2006 | P | | 5.00 | 15.00 | 6.02 | 158.27 | 21,000 | 500 | <25 | 1,400 | 1,700 | 70 | 1.11 | 7.42 | |
| 3/29/2007 | P | | 5.00 | 15.00 | 6.03 | 158.26 | 16,000 | 530 | <25 | 1,100 | 1,100 | 80 | 2.98 | 7.18 | |
| 6/5/2007 | P | | 5.00 | 15.00 | 6.85 | 157.44 | 21,000 | 420 | <25 | 1,100 | 1,100 | 50 | 2.09 | 7.20 | |
| 9/25/2007 | P | | 5.00 | 15.00 | 7.15 | 157.14 | 25,000 | 620 | <25 | 1,400 | 1,200 | 70 | 3.25 | 7.59 | |
| 12/26/2007 | P | | 5.00 | 15.00 | 6.25 | 158.04 | 16,000 | 440 | <5.0 | 760 | 570 | 80 | 1.84 | 7.66 | |
| 3/25/2008 | P | | 5.00 | 15.00 | 6.63 | 157.66 | 16,000 | 530 | 7.8 | 790 | 470 | 96 | 1.78 | 7.72 | |
| 6/10/2008 | P | | 5.00 | 15.00 | 7.04 | 157.25 | 14,000 | 480 | <25 | 730 | 240 | 100 | 1.83 | 6.96 | |
| 9/2/2008 | P | | 5.00 | 15.00 | 7.25 | 157.04 | 13,000 | 440 | <25 | 690 | 240 | 91 | 3.09 | 6.61 | |

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

| Well and Sample Date | P/NP | TOC (feet) | Top of Screen (ft bgs) | Bottom of Screen (ft bgs) | DTW (feet) | Water Level Elevation (feet) | Concentrations in (µg/L) | | | | | | DO (mg/L) | pH | Footnote |
|----------------------|----------|------------|------------------------|---------------------------|-------------|------------------------------|--------------------------|------------|----------------|---------------|---------------|-----------|-------------|------------|----------|
| | | | | | | | GRO/TPHg | Benzene | Toluene | Ethyl-Benzene | Total Xylenes | MTBE | | | |
| MW-2 Cont. | | | | | | | | | | | | | | | |
| 12/2/2008 | P | 164.29 | 5.00 | 15.00 | 6.42 | 157.87 | 31,000 | 490 | <10 | 670 | 120 | 97 | 3.05 | 7.00 | |
| 3/5/2009 | P | | 5.00 | 15.00 | 5.83 | 158.46 | 16,000 | 470 | <10 | 490 | 130 | 82 | 2.99 | 7.35 | |
| 6/2/2009 | P | | 5.00 | 15.00 | 14.51 | 149.78 | 11,000 | 340 | <10 | 490 | 210 | 34 | 1.07 | 6.89 | |
| 11/6/2009 | P | | 5.00 | 15.00 | 6.52 | 157.77 | 14,000 | 470 | <10 | 400 | 110 | 76 | 0.32 | 6.8 | |
| 5/20/2010 | P | | 5.00 | 15.00 | 6.80 | 157.49 | 12,000 | 430 | <10 | 270 | 55 | 64 | 0.74 | 6.5 | |
| 11/3/2010 | P | | 5.00 | 15.00 | 7.52 | 156.77 | 9,000 | 300 | <10 | 79 | <10 | 52 | 0.37 | 6.3 | d |
| 5/17/2011 | P | | 5.00 | 15.00 | 5.86 | 158.43 | 14,000 | 230 | <5.0 | 43 | 7.2 | 29 | 1.28 | 7.3 | |
| MW-3 | | | | | | | | | | | | | | | |
| 4/19/2002 | -- | 162.14 | 5.00 | 15.00 | 6.94 | 155.20 | 1,200 | 29 | 1.1 | 43 | 62 | 1,700 | -- | -- | |
| 9/27/2002 | -- | | 5.00 | 15.00 | 8.26 | 153.88 | 740 | 7.8 | <2.5 | 6.8 | 4.4 | 1,100 | 1 | 6.7 | |
| 12/16/2002 | -- | | 5.00 | 15.00 | 6.76 | 155.38 | 1,200 | 13 | <10 | 170 | 88 | 910 | 2.3 | 6.8 | a |
| 3/11/2003 | -- | | 5.00 | 15.00 | 6.92 | 155.22 | <2,500 | <25 | <25 | <25 | <25 | 470 | 1.7 | 7.5 | |
| 6/17/2003 | -- | | 5.00 | 15.00 | 7.44 | 154.70 | <1,000 | <10 | <10 | 14 | <10 | 530 | 1.9 | 7 | |
| 9/18/2003 | -- | | 5.00 | 15.00 | 8.43 | 153.71 | 470 | 4.8 | <2.5 | 10 | 9.2 | 300 | 2.9 | 6.8 | |
| 12/11/2003 | P | | 5.00 | 15.00 | 6.72 | 155.42 | <500 | <5.0 | <5.0 | 7.0 | 13 | 180 | 1.9 | 6.9 | |
| 03/11/2004 | P | 164.53 | 5.00 | 15.00 | 6.09 | 158.44 | 360 | 1.9 | <1.0 | 5.6 | 5.0 | 110 | 2.6 | 6.8 | |
| 06/02/2004 | P | | 5.00 | 15.00 | 7.50 | 157.03 | 380 | 2.8 | <0.50 | 8.0 | 2.1 | 43 | 3.6 | 7.3 | |
| 09/22/2004 | P | | 5.00 | 15.00 | 8.00 | 156.53 | 270 | <0.50 | <0.50 | 0.54 | <0.50 | 50 | 1.8 | 6.9 | |
| 12/15/2004 | P | | 5.00 | 15.00 | 6.43 | 158.10 | 390 | 3.5 | <0.50 | 20 | 3.7 | 49 | 1.1 | 6.9 | |
| 03/07/2005 | P | | 5.00 | 15.00 | 6.12 | 158.41 | 1,900 | 13 | <1.0 | 93 | 29 | 70 | 2.3 | 6.8 | |
| 06/27/2005 | P | | 5.00 | 15.00 | 7.08 | 157.45 | 830 | 4.0 | <0.50 | 13 | 2.8 | 33 | 3.3 | 7.3 | |
| 09/16/2005 | P | | 5.00 | 15.00 | 7.28 | 157.25 | 320 | 2.1 | <0.50 | 5.4 | 0.60 | 21 | 2.11 | 7.0 | |
| 12/27/2005 | P | | 5.00 | 15.00 | 6.47 | 158.06 | 770 | 6.0 | <0.50 | 33 | 2.7 | 36 | 2.96 | 7.42 | |
| 03/16/2006 | P | | 5.00 | 15.00 | 6.10 | 158.43 | 1,600 | 11 | <0.50 | 59 | 6.4 | 45 | 1.4 | 7.1 | |
| 6/26/2006 | P | | 5.00 | 15.00 | 6.92 | 157.61 | 400 | <0.50 | <0.50 | 1.6 | 2.1 | 26 | 2.41 | 7.0 | |
| 9/29/2006 | P | | 5.00 | 15.00 | 7.38 | 157.15 | 220 | 0.86 | <0.50 | 2.2 | 0.58 | 14 | 1.95 | 7.0 | |
| 12/19/2006 | P | | 5.00 | 15.00 | 6.65 | 157.88 | 450 | 4.3 | <0.50 | 19 | 1.4 | 19 | 3.68 | 7.30 | |
| 3/29/2007 | P | | 5.00 | 15.00 | 6.92 | 157.61 | 390 | 3.0 | <0.50 | 9.1 | 0.60 | 27 | 1.98 | 7.16 | |
| 6/5/2007 | P | | 5.00 | 15.00 | 7.01 | 157.52 | 390 | 1.9 | <0.50 | 6.9 | <0.50 | 20 | 1.99 | 7.34 | |
| 9/25/2007 | P | | 5.00 | 15.00 | 7.52 | 157.01 | 260 | 1.3 | <0.50 | 2.7 | <0.50 | 12 | 3.44 | 7.41 | |

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

| Well and Sample Date | P/NP | TOC (feet) | Top of Screen (ft bgs) | Bottom of Screen (ft bgs) | DTW (feet) | Water Level Elevation (feet) | Concentrations in (µg/L) | | | | | | DO (mg/L) | pH | Footnote |
|----------------------|----------|------------|------------------------|---------------------------|-------------|------------------------------|--------------------------|-----------------|-----------------|-----------------|-----------------|------------|-------------|------------|----------|
| | | | | | | | GRO/TPHg | Benzene | Toluene | Ethyl-Benzene | Total Xylenes | MTBE | | | |
| MW-3 Cont. | | | | | | | | | | | | | | | |
| 12/26/2007 | P | 164.53 | 5.00 | 15.00 | 6.65 | 157.88 | 460 | 3.1 | <0.50 | 15 | 0.89 | 17 | 4.05 | 7.46 | |
| 3/25/2008 | P | | 5.00 | 15.00 | 6.71 | 157.82 | 260 | 0.91 | 0.71 | 2.5 | 0.54 | 29 | 2.40 | 7.63 | |
| 6/10/2008 | P | | 5.00 | 15.00 | 7.33 | 157.20 | 120 | <0.50 | <0.50 | 2.0 | <0.50 | 12 | 2.29 | 7.59 | |
| 9/2/2008 | P | | 5.00 | 15.00 | 7.53 | 157.00 | 97 | <0.50 | <0.50 | <0.50 | <0.50 | 9.3 | 3.28 | 6.81 | |
| 12/2/2008 | P | | 5.00 | 15.00 | 7.38 | 157.15 | 140 | <0.50 | <0.50 | <0.50 | <0.50 | 8.4 | 3.18 | 7.06 | |
| 3/5/2009 | P | | 5.00 | 15.00 | 5.21 | 159.32 | 530 | 3.3 | <0.50 | 22 | 0.71 | 18 | 3.11 | 7.46 | |
| 6/2/2009 | P | | 5.00 | 15.00 | 14.81 | 149.72 | 490 | 2.1 | <0.50 | 6.2 | <0.50 | 13 | 0.83 | 7.03 | |
| 11/6/2009 | P | | 5.00 | 15.00 | 7.38 | 157.15 | 99 | <0.50 | <0.50 | <0.50 | <0.50 | 5.8 | 0.32 | 6.97 | |
| 5/20/2010 | P | | 5.00 | 15.00 | 6.78 | 157.75 | 300 | 0.89 | <0.50 | <0.50 | <0.50 | 14 | -- | 6.48 | |
| 11/3/2010 | P | | 5.00 | 15.00 | 7.73 | 156.80 | 66 | <0.50 | <0.50 | <0.50 | <0.50 | 4.4 | 1.11 | 6.0 | d |
| 5/17/2011 | P | | 5.00 | 15.00 | 4.44 | 160.09 | 170 | <0.50 | <0.50 | <0.50 | <0.50 | 4.7 | 0.41 | 7.4 | d |

Symbols & Abbreviations:

< = Not detected at or above specified laboratory reporting limits

-- = Not measured, sampled, analyzed, applicable

ft bgs = Feet below ground surface

DO = Dissolved oxygen

DTW = Depth to water in ft

GRO = Gasoline range organics

GWE = Groundwater elevation in ft

mg/L = Milligrams per liter

MTBE = Methyl tert-butyl ether analyzed by EPA Method 8021B unless otherwise noted (before 12/16/02)

P/NP = Well was purged/not purged prior to sampling

TPH-g = Total petroleum hydrocarbons as gasoline (C5-C9)

TOC = Top of casing measured in ft MSL

µg/L = Micrograms per liter

Footnotes:

a = TPH, benzene, toluene, ethylbenzene, total xylenes, and MTBE analyzed by EPA Method 8260B beginning on 4th quarter sampling event (12/16/02)

b = This sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was performed past the recommended hold time. The results may still be used for their intended purpose.

c = Sheen in well

d = Quantitation of unknown hydrocarbon(s) in sample based on gasoline

Notes:

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential inclusion of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported

Wells were re-surveyed on 3/23/2004

Values for DO and pH were field measurements

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008. The analysis for GRO was changed to EPA method 8015B (C6-C12) for samples collected from the time period February 5, 2008 through the present

The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

| Well and Sample Date | Concentrations in (µg/L) | | | | | | | | Footnote |
|----------------------|--------------------------|---------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------|
| | Ethanol | TBA | MTBE | DIPE | ETBE | TAME | 1,2-DCA | EDB | |
| MW-1 | | | | | | | | | |
| 4/19/2002 | -- | -- | 38 | -- | -- | -- | -- | -- | |
| 9/27/2002 | -- | -- | 39 | -- | -- | -- | -- | -- | |
| 12/16/2002 | <50 | <5.0 | 42 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 3/11/2003 | <100 | <20 | 20 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 6/17/2003 | <200 | <40 | 23 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | |
| 9/18/2003 | <100 | <20 | 39 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | a |
| 12/11/2003 | <100 | <20 | 48 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 03/11/2004 | <100 | <20 | 17 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 06/02/2004 | <100 | <20 | 39 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 09/22/2004 | <100 | <20 | 48 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 12/15/2004 | <100 | <20 | 45 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | a |
| 03/07/2005 | <100 | <20 | 4.0 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 06/27/2005 | <100 | <20 | 8.1 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 09/16/2005 | <100 | <20 | 14 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 12/27/2005 | <100 | <20 | 9.4 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | b |
| 03/16/2006 | <300 | <20 | 3.4 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | c |
| 6/26/2006 | <300 | <20 | 3.2 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 9/29/2006 | <300 | <20 | 5.2 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 12/19/2006 | <300 | <20 | 4.3 | <0.50 | <0.50 | <0.50 | <0.50 | -- | b |
| 3/29/2007 | <300 | <20 | 2.3 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 6/5/2007 | <300 | <20 | 3.2 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 9/25/2007 | <300 | <20 | 5.3 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 12/26/2007 | <300 | <20 | 2.9 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 3/25/2008 | <300 | <10 | 0.94 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 6/10/2008 | <300 | <10 | 1.3 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 9/2/2008 | <300 | <10 | 5.6 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 12/2/2008 | <300 | <10 | 2.7 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 3/5/2009 | <300 | <10 | 1.3 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 6/2/2009 | <300 | <10 | 0.60 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 11/6/2009 | <300 | <10 | 1.9 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 11/3/2010 | <300 | <10 | 1.4 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 5/17/2011 | <300 | <10 | 0.59 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

| Well and Sample Date | Concentrations in (µg/L) | | | | | | | | Footnote |
|----------------------|--------------------------|--------|-------|------|------|------|---------|------|----------|
| | Ethanol | TBA | MTBE | DIPE | ETBE | TAME | 1,2-DCA | EDB | |
| MW-2 | | | | | | | | | |
| 4/19/2002 | -- | -- | 760 | -- | -- | -- | -- | -- | |
| 9/27/2002 | -- | -- | 1,400 | -- | -- | -- | -- | -- | |
| 12/16/2002 | <5,000 | <500 | 980 | <50 | <50 | <50 | <50 | <50 | |
| 3/11/2003 | <10,000 | <2,000 | 920 | <50 | <50 | <50 | <50 | <50 | |
| 6/17/2003 | <10,000 | <2,000 | 610 | <50 | <50 | <50 | <50 | <50 | |
| 9/18/2003 | <5,000 | <1,000 | 580 | <25 | <25 | <25 | <25 | <25 | |
| 12/11/2003 | <5,000 | <1,000 | 490 | <25 | <25 | <25 | <25 | <25 | |
| 03/11/2004 | <2,000 | <400 | 410 | <10 | <10 | <10 | <10 | <10 | |
| 06/02/2004 | <10,000 | <2,000 | 240 | <50 | <50 | <50 | <50 | <50 | |
| 09/22/2004 | <5,000 | <1,000 | 390 | <25 | <25 | <25 | <25 | <25 | |
| 12/15/2004 | <2,000 | <400 | 290 | <10 | <10 | <10 | <10 | <10 | a |
| 03/07/2005 | <5,000 | <1,000 | 120 | <25 | <25 | <25 | <25 | <25 | |
| 06/27/2005 | <5,000 | <1,000 | 86 | <25 | <25 | <25 | <25 | <25 | |
| 09/16/2005 | <5,000 | <1,000 | 82 | <25 | <25 | <25 | <25 | <25 | |
| 12/27/2005 | <5,000 | <1,000 | 100 | <25 | <25 | <25 | <25 | <25 | b |
| 03/16/2006 | <30,000 | <2,000 | 78 | <50 | <50 | <50 | <50 | <50 | c |
| 6/26/2006 | <15,000 | <1,000 | 110 | <25 | <25 | <25 | <25 | <25 | |
| 9/29/2006 | <15,000 | <1,000 | 86 | <25 | <25 | <25 | <25 | <25 | |
| 12/19/2006 | <15,000 | <1,000 | 70 | <25 | <25 | <25 | <25 | -- | b |
| 3/29/2007 | <15,000 | <1,000 | 80 | <25 | <25 | <25 | <25 | <25 | |
| 6/5/2007 | <15,000 | <1,000 | 50 | <25 | <25 | <25 | <25 | <25 | |
| 9/25/2007 | <15,000 | <1,000 | 70 | <25 | <25 | <25 | <25 | <25 | |
| 12/26/2007 | <3,000 | <200 | 80 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| 3/25/2008 | <1,500 | <50 | 96 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | |
| 6/10/2008 | <15,000 | <500 | 100 | <25 | <25 | <25 | <25 | <25 | |
| 9/2/2008 | <15,000 | <500 | 91 | <25 | <25 | <25 | <25 | <25 | |
| 12/2/2008 | <6,000 | <200 | 97 | <10 | <10 | <10 | <10 | <10 | |
| 3/5/2009 | <6,000 | <200 | 82 | <10 | <10 | <10 | <10 | <10 | |
| 6/2/2009 | <6,000 | <200 | 34 | <10 | <10 | <10 | <10 | <10 | |
| 11/6/2009 | <6,000 | <200 | 76 | <10 | <10 | <10 | <10 | <10 | |
| 5/20/2010 | <6,000 | <200 | 64 | <10 | <10 | <10 | <10 | <10 | |
| 11/3/2010 | <6,000 | <200 | 52 | <10 | <10 | <10 | 11 | <10 | |

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

| Well and Sample Date | Concentrations in (µg/L) | | | | | | | | Footnote |
|----------------------|--------------------------|----------------|-----------|----------------|----------------|----------------|----------------|----------------|----------|
| | Ethanol | TBA | MTBE | DIPE | ETBE | TAME | 1,2-DCA | EDB | |
| MW-2 Cont. | | | | | | | | | |
| 5/17/2011 | <3,000 | <100 | 29 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| MW-3 | | | | | | | | | |
| 4/19/2002 | -- | -- | 1,700 | -- | -- | -- | -- | -- | |
| 9/27/2002 | -- | -- | 1,100 | -- | -- | -- | -- | -- | |
| 12/16/2002 | <1,000 | <100 | 910 | <10 | <10 | 12 | <10 | <10 | |
| 3/11/2003 | <5,000 | <1,000 | 470 | <25 | <25 | <25 | <25 | <25 | |
| 6/17/2003 | <2,000 | <400 | 530 | <10 | <10 | <10 | <10 | <10 | |
| 9/18/2003 | <500 | <100 | 300 | <2.5 | <2.5 | 3.2 | <2.5 | <2.5 | |
| 12/11/2003 | <1,000 | <200 | 180 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| 03/11/2004 | <200 | 570 | 110 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | |
| 06/02/2004 | <100 | 130 | 43 | <0.50 | <0.50 | 0.56 | <0.50 | <0.50 | |
| 09/22/2004 | <100 | 28 | 50 | <0.50 | <0.50 | 0.51 | <0.50 | <0.50 | |
| 12/15/2004 | <100 | 110 | 49 | <0.50 | 0.52 | 0.61 | <0.50 | <0.50 | a |
| 03/07/2005 | <200 | 190 | 70 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | |
| 06/27/2005 | <100 | 130 | 33 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 09/16/2005 | <100 | 44 | 21 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 12/27/2005 | <100 | 150 | 36 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | b |
| 03/16/2006 | <300 | 160 | 45 | <0.50 | <0.50 | 0.84 | <0.50 | <0.50 | c |
| 6/26/2006 | <300 | 53 | 26 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 9/29/2006 | <300 | 55 | 14 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 12/19/2006 | <300 | <20 | 19 | <0.50 | <0.50 | <0.50 | <0.50 | -- | b |
| 3/29/2007 | <300 | 130 | 27 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 6/5/2007 | <300 | 77 | 20 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 9/25/2007 | <300 | 30 | 12 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 12/26/2007 | <300 | 76 | 17 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 3/25/2008 | <300 | 100 | 29 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 6/10/2008 | <300 | 25 | 12 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 9/2/2008 | <300 | <10 | 9.3 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 12/2/2008 | <300 | <10 | 8.4 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 3/5/2009 | <300 | 98 | 18 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 6/2/2009 | <300 | 89 | 13 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

| Well and Sample Date | Concentrations in (µg/L) | | | | | | | | Footnote |
|----------------------|--------------------------|-----------|------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------|
| | Ethanol | TBA | MTBE | DIPE | ETBE | TAME | 1,2-DCA | EDB | |
| MW-3 Cont. | | | | | | | | | |
| 11/6/2009 | <300 | 11 | 5.8 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 5/20/2010 | <300 | 100 | 14 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 11/3/2010 | <300 | <10 | 4.4 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |
| 5/17/2011 | <300 | 34 | 4.7 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | |

Symbols & Abbreviations:

< = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

µg/L = Micrograms per liter

Footnotes:

a = This sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was performed past the recommended hold time. The results may still be used for their intended purpose

b = Calibration verification for ethanol was within method limits but outside contract limits

c = Possible high bias for DIPE, 1,2-DCA, and ethanol due to CCV falling outside acceptance criteria

Notes:

The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information

Table 3. Historical Groundwater Gradient - Direction and Magnitude
ARCO Service Station #4977, 2770 Castro Valley Blvd., Castro Valley, CA

| Date Measured | Approximate Gradient Direction | Approximate Gradient Magnitude (ft/ft) |
|----------------------|---------------------------------------|---|
| 4/19/2002 | Southwest | 0.038 |
| 9/27/2002 | Southwest | 0.021 |
| 12/16/2002 | Southeast | 0.029 |
| 3/11/2003 | South | 0.024 |
| 6/17/2003 | South-Southwest | 0.022 |
| 9/18/2003 | South-Southwest | 0.022 |
| 3/11/2004 | South-Southwest | 0.024 |
| 6/2/2004 | South | 0.025 |
| 9/22/2004 | South | 0.025 |
| 12/15/2004 | South | 0.020 |
| 3/7/2005 | South | 0.02 |
| 6/27/2005 | South | 0.01 |
| 9/16/2005 | Southeast | 0.03 |
| 12/27/2005 | South-Southeast | 0.02 |
| 3/16/2006 | Southeast | 0.02 |
| 6/26/2006 | South | 0.03 |
| 9/29/2006 | South | 0.025 |
| 12/19/2006 | South | 0.024 |
| 3/29/2007 | South | 0.020 |
| 6/5/2007 | South | 0.027 |
| 9/25/2007 | South | 0.023 |
| 12/26/2007 | South | 0.027 |
| 3/25/2008 | South | 0.026 |
| 6/10/2008 | South | 0.026 |
| 9/2/2008 | South | 0.026 |
| 12/2/2008 | South | 0.028 |
| 3/5/2009 | South | 0.037 |
| 6/2/2009 | South | 0.011 |
| 11/6/2009 | South-Southwest | 0.025 |
| 5/20/2010 | South | 0.021 |
| 11/3/2010 | South | 0.021 |
| 5/17/2011 | South-Southeast | 0.042 |

Notes:

The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information

APPENDIX A
FIELD METHODS

BROADBENT & ASSOCIATES INC. FIELD PROCEDURES

A.1 QUALITY ASSURANCE/QUALITY CONTROL FIELD PROTOCOLS

Field protocols have been implemented to enhance the accuracy and reliability of data collection, groundwater sample collection, transportation and laboratory analysis. Discussion of these protocols is provided below.

A.1.1 Water Level & Free-Product Measurement

Prior to groundwater sample collection from each monitoring well, the presence of separate-phase hydrocarbons (SPH or free product, FP) and depth to groundwater shall be measured. Depth to groundwater will be measured with a standard water level indicator that has been decontaminated prior to its use in accordance with procedures discussed below. Depth to groundwater will be gauged from a saw cut notch at the top of the well casing on each well head. Where FP is suspected, the initial gauging will be done with an oil-water interface probe. Once depth to water has been measured, the first retrieval of a new disposable bailer will be scrutinized for the presence of SPH/FP.

A.1.2 Monitoring Well Purging

Subsequent to measuring depth to groundwater and prior to the collection of groundwater samples, purging of standing water within the monitoring well will be performed if called for. Consistent with the American Society for Testing and Materials (ASTM) Standard D6452-99, Section 7.1, the well will be purged of approximately three wetted-casing volumes of water, or until the well is dewatered, or until monitored field parameters indicate stabilization. The well will be purged using a pre-cleaned disposable bailer or submersible pump and disposable plastic tubing dedicated to each individual well. The well will be purged at a low flow rate to minimize the possibility of purging the well dry. So that the sample collected is representative of formation water, several field parameters will be monitored during the purging process. The sample will not be collected until these parameters (i.e. temperature, pH, and conductivity) have stabilized to within 10% of the previously measured value. If a well is purged dry, the sample should not be collected until the well has recovered to a minimum 50% of its initial volume.

A.1.3 Groundwater Sample Collection

Once the wells are satisfactorily purged, water samples will be collected from each well. Water samples for organic analyses will be collected using a pre-cleaned, new, disposable bailer and transferred into the appropriate, new, laboratory-prepared containers such that no head space or air bubbles are present in the sample container (if appropriate to the analysis). The samples will be properly labeled (i.e. sample identification, sampler initials, date/time of collection, site location, requested analyses), placed in an ice chest with bagged ice or ice substitute, and delivered to the contracted analytical laboratory.

A.1.4 Surface Water Sample Collection

Unless specified otherwise, surface water samples will be collected from mid-depth in the central area of the associated surface water body. Water samples will be collected into appropriate, new, laboratory-prepared containers by dipping the container into the surface water unless the container has a preservative present. If a sample preservative is present, a new, cleaned non-preserved surrogate container will be used to obtain the sample which will then be directly transferred into a new, laboratory-provided, preserved container. Samples will be properly labeled and transported as described above.

A.1.5 Decontamination Protocol

Prior to use in each well, re-usable groundwater sampling equipment (e.g., water level indicator, oil-interface probe, purge pump, etc.) will be decontaminated. Decontamination protocol will include thoroughly cleaning with a solution of Liquinox, rinsing with clean water, and final rinsing with control water (potable water of known quality, distilled, or de-ionized water). Pre-cleaned new disposable bailers and disposable plastic tubing will be dedicated to each individual well.

A.1.6 Chain of Custody Procedures

Sample identification documents will be carefully prepared so identification and chain of custody can be maintained and sample disposition can be controlled. The sample identification documents include Chain-of-Custody (COC) records and Daily Field Report forms. Chain of custody procedures are outlined below.

Field Custody Procedures

The field sampler is individually responsible for the care and custody of the samples collected until they are properly transferred.

Samples will have unique labels. The information on these labels will correspond to the COC which shows the identification of individual samples and the contents of the shipping container. The original COC will accompany the shipment and a copy will be retained by the field sampler.

Transfer of Custody and Shipment

A COC will accompany samples during transfer and shipment. When transferring samples, the individual relinquishing and the individual receiving the samples will each sign, date, and note the time on the COC. This documents the sample custody transfer.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis, with a separate COC accompanying each shipment. Shipments will be accompanied by the original COC. Samples will be delivered by BAI personnel to the laboratory, or shipped by responsible courier. When a shipping courier is utilized, the sample shipment number will be identified on the COC.

A.1.7 Field Records

In addition to sample identification numbers and COC records, Daily Field Report records will be maintained by field staff to provide daily records of significant events, observations, and measurements during field investigations. These documents will contain observed information such as: the personnel present, site conditions, sampling procedures, measurement procedures, calibration records, equipment used, supplies used, etc. Field measurements will be recorded on the appropriate forms. Entries on the data forms will be signed and dated. The data forms will be kept as permanent file records.

APPENDIX B

FIELD DATA SHEETS AND NON-HAZARDOUS WASTE DATA FORM

DATE: 5/17/11
 PERSONNEL: SB & JK
 WEATHER: Rain

PROJECT NO.: 06-82-625
 COMMENTS: B9/ARCO 0977

| Well ID | Time | MEASURING POINT | DTW (FT) | PRODUCT THICKNESS | Equip: | Geosquirt | Tubing | Bailers | DO | wji | Ec/pH | WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC |
|---------|------|-----------------|----------|-------------------|--------|--------------|-------------|-----------|------------|-------------|-------------|--|
| | | | | | pH | Cond. (X100) | Temp. (C/F) | DO (mg/l) | Redox (mV) | Iron (mg/l) | Alk. (mg/l) | |
| MW-1 | 1331 | TOL | 7.71 | | | | | | | | | |
| MW-2 | 1353 | ↓ | 5.86 | | | | | | | | | |
| MW-3 | 1258 | ↓ | 4.44 | | | | | | | | | |
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Groundwater Sampling Data Sheet

Well I.D.: MW-1
 Project Name/Location: BP/ARCO 4977 Project #: 06-82-625
 Sampler's Name: SB DJR Date: 5/17/01
 Purging Equipment: boiler
 Sampling Equipment: boiler

Casing Type: PVC
 Casing Diameter: 4 inch
 Total Well Depth: 15.12 feet
 Depth to Water: 7.71 feet
 Water Column Thickness: 7.41 feet
 Unit Casing Volume*: 0.65 gallon / foot
 Casing Water Volume: 4.28 gallons
 Casing Volume: 3 each
 Estimated Purge Volume: 14.4 gallons

***UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.
 3" = 0.37 gal/lin ft.
 4" = 0.65 gal/lin ft.
 6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

| Purged (gallons) | Time (24:00) | DO | ORP (mV) | Fe | Conductance (µS) | Temperature (Fahrenheit) | pH | Observations |
|------------------|--------------|------|----------|----|------------------|--------------------------|-----|--------------|
| 0 | 1333 | 0.97 | — | — | 1277 | 17.2 | 7.3 | |
| 2 | 1337 | X | X | X | 1263 | 18.4 | 7.3 | |
| 4 | 1339 | X | X | X | 1265 | 18.5 | 7.3 | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |

Total Water Volume Purged: 4.0 gallons
 Depth to Water at Sample Collection: _____ feet
 Sample Collection Time: 1345

Purged Dry? (Y/N) (N)

Comments: _____

Groundwater Sampling Data Sheet

Well I.D.: MW-2
 Project Name/Location: BD/APCO 4977 Project #: 06-82-625
 Sampler's Name: SJS + JR Date: 5/17/11
 Purging Equipment: bailey
 Sampling Equipment: bailey

Casing Type: PVC
 Casing Diameter: 4 inch
 Total Well Depth: 14.85 feet
 Depth to Water: 5.86 feet
 Water Column Thickness: 8.99 feet
 Unit Casing Volume*: x 0.65 gallon / foot
 Casing Water Volume: = 5.8 gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = 17.5 gallons

***UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.
 3" = 0.37 gal/lin ft.
 4" = 0.65 gal/lin ft.
 6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

| Purged (gallons) | Time (24:00) | DO | ORP (mV) | Fe | Conductance (µS) | Temperature (Fahrenheit) | pH | Observations |
|------------------|--------------|------|----------|----|------------------|--------------------------|-----|--------------|
| 0 | 1357 | 1.28 | — | — | 638 | 18.6 | 7.3 | |
| 2 | 1359 | X | X | X | 615 | 19.4 | 7.3 | |
| 4 | 1401 | X | X | X | 641 | 18.5 | 7.3 | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |

Total Water Volume Purged: 41.0 gallons
 Depth to Water at Sample Collection: _____ feet
 Sample Collection Time: 1405 Purged Dry? (Y/N) (N)

Comments: ifc odor

Groundwater Sampling Data Sheet

Well I.D.: mw-3
 Project Name/Location: BP/ARCO 4977 Project #: 06-82-625-
 Sampler's Name: SSDJR Date: 5/17/11
 Purging Equipment: bauler
 Sampling Equipment: bauler

Casing Type: PVC
 Casing Diameter: 4 inch
 Total Well Depth: 14.96 feet
 Depth to Water: 4.44 feet
 Water Column Thickness: = 10.52 feet
 Unit Casing Volume*: x 0.65 gallon / foot
 Casing Water Volume: = 6.8 gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = 20.0 gallons

***UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.
 3" = 0.37 gal/lin ft.
 4" = 0.65 gal/lin ft.
 6" = 1.47 gal/lin ft.

Free product measurement (if present):

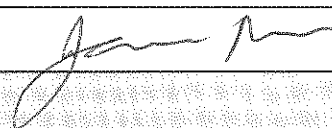
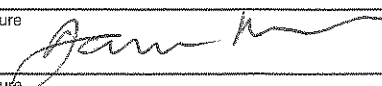
| Purged (gallons) | Time (24:00) | DO | ORP (mV) | Fe | Conductance (µS) | Temperature (Fahrenheit) | pH | Observations |
|------------------|--------------|------|----------|----|------------------|--------------------------|-----|--------------|
| 0 | 1303 | 0.91 | — | — | 840 | 17.3 | 7.4 | |
| 2 | 1304 | X | X | X | 847 | 19.2 | 7.3 | |
| 4 | 1307 | X | X | X | 854 | 18.7 | 7.4 | |
| 6 | 1310 | X | X | X | 869 | 18.7 | 7.4 | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |
| | | X | X | X | | | | |

Total Water Volume Purged: 6.0 gallons
 Depth to Water at Sample Collection: — feet
 Sample Collection Time: 1315

Purged Dry? (Y/N) (N)

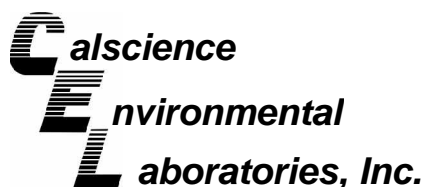
Comments:

NON-HAZARDOUS WASTE DATA FORM

| | | | | | | | | |
|---|---|--|--|-------------------|----------------|-----------------|------|------|
| | | 1. BEIS # | | | | | | |
| GENERATOR | 2. Generator's Name and Mailing Address | | Generator's Site Address (if different than mailing address) | | | | | |
| | BP WEST COAST PRODUCTS, LLC P.O. BOX 80249 RANCHO SANTA MARGARITA, CA 92688 | | BP 4977 2770 Castro Valley Blvd Castro Valley, CA | | | | | |
| | Generator's Phone: (949) 480-5200 | | 24-HOUR EMERGENCY PHONE: (949) 699-3706 | | | | | |
| | 3. Transporter 1 Company Name | | Phone # | | | | | |
| | Broadbent & Associates, Inc. | | (530) 586-1400 | | | | | |
| 4. Transporter 2 Company Name | | Phone # | | | | | | |
| Gomes Excavating | | (707) 374-2881 | | | | | | |
| 5. Designated Facility Name and Site Address | | Phone # | | | | | | |
| INTRAT, INC. 1105 AIRPORT RD #C RIO VISTA, CA 94571 | | (530) 753-1820 | | | | | | |
| 6. Waste Shipping Name and Description | | 7. Containers | | 8. Total Quantity | 9. Unit Wt/Vol | 10. Profile No. | | |
| | | No. | Type | | | | | |
| A. NON-HAZARDOUS WATER | | 1 | TT | 14 | G | | | |
| B. | | | | | | | | |
| C. | | | | | | | | |
| D. | | | | | | | | |
| 11. Special Handling Instructions and Additional Information | | | | | | | | |
| WEAR ALL APPROPRIATE PROTECTIVE CLOTHING | | | | | | | | |
| WELL FURGING / DECON WATER | | | | | | | | |
| 12. GENERATOR'S CERTIFICATION: I certify the materials described above on this data form are non-hazardous. | | | | | | | | |
| Generator's/Officer's Printed/Typed Name | | Signature | | | Month | Day | Year | |
| James Ramos | |  | | | 5 | 20 | 11 | |
| | | | | | | | | |
| FACILITY TRANSPORTER | 13. Transporter Acknowledgment of Receipt of Materials | | | | | | | |
| | Transporter 1 Printed/Typed Name | | Signature | | | Month | Day | Year |
| | James Ramos | |  | | | 5 | 20 | 11 |
| Transporter 2 Printed/Typed Name | | Signature | | | Month | Day | Year | |
| | | | | | | | | |
| | | | | | | | | |
| 14. Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form. | | | | | | | | |
| Printed/Typed Name | | Signature | | | Month | Day | Year | |
| | | | | | | | | |

APPENDIX C

**LABORATORY REPORT
AND CHAIN-OF-CUSTODY DOCUMENTATION**



May 31, 2011

Jason Duda
Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Subject: **CalScience Work Order No.: 11-05-1216**
Client Reference: BP 4977

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/19/2011 and analyzed in accordance with the attached chain-of-custody.

CalScience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard Villafania'.

CalScience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Analytical Report



Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 05/19/11
Work Order No: 11-05-1216
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: BP 4977

Page 1 of 1

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-----------------------|---------------------------|----------------|-------------|-----------------|---------------------------|------------------|
| MW-1 | 11-05-1216-1-E | 05/17/11 13:45 | Aqueous | GC 4 | 05/19/11 | 05/19/11 16:29 | 110519B01 |

| Parameter | Result | RL | DF | Qual | Units |
|----------------------------------|----------------|-----------------------|----|-------------|-------|
| Gasoline Range Organics (C6-C12) | ND | 50 | 1 | | ug/L |
| <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | | <u>Qual</u> | |
| 1,4-Bromofluorobenzene | 70 | 38-134 | | | |

| | | | | | | | |
|-------------|-----------------------|---------------------------|----------------|-------------|-----------------|---------------------------|------------------|
| MW-2 | 11-05-1216-2-E | 05/17/11 14:05 | Aqueous | GC 4 | 05/19/11 | 05/19/11 17:30 | 110519B01 |
|-------------|-----------------------|---------------------------|----------------|-------------|-----------------|---------------------------|------------------|

| Parameter | Result | RL | DF | Qual | Units |
|----------------------------------|----------------|-----------------------|----|-------------|-------|
| Gasoline Range Organics (C6-C12) | 14000 | 500 | 10 | | ug/L |
| <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | | <u>Qual</u> | |
| 1,4-Bromofluorobenzene | 84 | 38-134 | | | |

| | | | | | | | |
|-------------|-----------------------|---------------------------|----------------|-------------|-----------------|---------------------------|------------------|
| MW-3 | 11-05-1216-3-E | 05/17/11 13:15 | Aqueous | GC 4 | 05/19/11 | 05/19/11 17:00 | 110519B01 |
|-------------|-----------------------|---------------------------|----------------|-------------|-----------------|---------------------------|------------------|

Comment(s): -LW Quantitated against gasoline.

| Parameter | Result | RL | DF | Qual | Units |
|----------------------------------|----------------|-----------------------|----|-------------|-------|
| Gasoline Range Organics (C6-C12) | 170 | 50 | 1 | | ug/L |
| <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | | <u>Qual</u> | |
| 1,4-Bromofluorobenzene | 76 | 38-134 | | | |

| | | | | | | | |
|---------------------|-------------------------|------------|----------------|-------------|-----------------|---------------------------|------------------|
| Method Blank | 099-12-695-1,077 | N/A | Aqueous | GC 4 | 05/19/11 | 05/19/11 10:55 | 110519B01 |
|---------------------|-------------------------|------------|----------------|-------------|-----------------|---------------------------|------------------|

| Parameter | Result | RL | DF | Qual | Units |
|----------------------------------|----------------|-----------------------|----|-------------|-------|
| Gasoline Range Organics (C6-C12) | ND | 50 | 1 | | ug/L |
| <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | | <u>Qual</u> | |
| 1,4-Bromofluorobenzene | 68 | 38-134 | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 05/19/11
Work Order No: 11-05-1216
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: BP 4977

Page 1 of 2

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| MW-1 | 11-05-1216-1-A | 05/17/11 13:45 | Aqueous | GC/MS BB | 05/19/11 | 05/19/11 18:47 | 110519L01 |

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|-----------------------|----------------|-----------------------|-------------|------|-------------------------------|----------------|-----------------------|-------------|------|
| Benzene | ND | 0.50 | 1 | | Methyl-t-Butyl Ether (MTBE) | 0.59 | 0.50 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 1 | | Diisopropyl Ether (DIPE) | ND | 0.50 | 1 | |
| Ethylbenzene | ND | 0.50 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.50 | 1 | |
| Toluene | ND | 0.50 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.50 | 1 | |
| Xylenes (total) | ND | 0.50 | 1 | | Ethanol | ND | 300 | 1 | |
| <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | <u>Qual</u> | | <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | <u>Qual</u> | |
| 1,2-Dichloroethane-d4 | 94 | 80-128 | | | Dibromofluoromethane | 91 | 80-127 | | |
| Toluene-d8 | 101 | 80-120 | | | 1,4-Bromofluorobenzene | 93 | 68-120 | | |

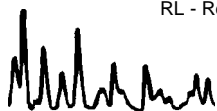
| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| MW-2 | 11-05-1216-2-A | 05/17/11 14:05 | Aqueous | GC/MS BB | 05/19/11 | 05/19/11 15:23 | 110519L01 |

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|-----------------------|----------------|-----------------------|-------------|------|-------------------------------|----------------|-----------------------|-------------|------|
| Benzene | 230 | 5.0 | 10 | | Methyl-t-Butyl Ether (MTBE) | 29 | 5.0 | 10 | |
| 1,2-Dibromoethane | ND | 5.0 | 10 | | Tert-Butyl Alcohol (TBA) | ND | 100 | 10 | |
| 1,2-Dichloroethane | ND | 5.0 | 10 | | Diisopropyl Ether (DIPE) | ND | 5.0 | 10 | |
| Ethylbenzene | 43 | 5.0 | 10 | | Ethyl-t-Butyl Ether (ETBE) | ND | 5.0 | 10 | |
| Toluene | ND | 5.0 | 10 | | Tert-Amyl-Methyl Ether (TAME) | ND | 5.0 | 10 | |
| Xylenes (total) | 7.2 | 5.0 | 10 | | Ethanol | ND | 3000 | 10 | |
| <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | <u>Qual</u> | | <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | <u>Qual</u> | |
| 1,2-Dichloroethane-d4 | 97 | 80-128 | | | Dibromofluoromethane | 94 | 80-127 | | |
| Toluene-d8 | 102 | 80-120 | | | 1,4-Bromofluorobenzene | 103 | 68-120 | | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| MW-3 | 11-05-1216-3-A | 05/17/11 13:15 | Aqueous | GC/MS BB | 05/19/11 | 05/19/11 19:16 | 110519L01 |

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|-----------------------|----------------|-----------------------|-------------|------|-------------------------------|----------------|-----------------------|-------------|------|
| Benzene | ND | 0.50 | 1 | | Methyl-t-Butyl Ether (MTBE) | 4.7 | 0.50 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 1 | | Tert-Butyl Alcohol (TBA) | 34 | 10 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 1 | | Diisopropyl Ether (DIPE) | ND | 0.50 | 1 | |
| Ethylbenzene | ND | 0.50 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.50 | 1 | |
| Toluene | ND | 0.50 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.50 | 1 | |
| Xylenes (total) | ND | 0.50 | 1 | | Ethanol | ND | 300 | 1 | |
| <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | <u>Qual</u> | | <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | <u>Qual</u> | |
| 1,2-Dichloroethane-d4 | 107 | 80-128 | | | Dibromofluoromethane | 96 | 80-127 | | |
| Toluene-d8 | 91 | 80-120 | | | 1,4-Bromofluorobenzene | 98 | 68-120 | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Broadbent & Associates, Inc.
 1324 Mangrove Ave, Ste 212
 Chico, CA 95926-2642

Date Received: 05/19/11
 Work Order No: 11-05-1216
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: BP 4977

Page 2 of 2

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| Method Blank | 099-12-703-1,714 | N/A | Aqueous | GC/MS BB | 05/19/11 | 05/19/11 14:24 | 110519L01 |

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|-----------------------|----------------|-----------------------|-------------|------|-------------------------------|----------------|-----------------------|-------------|------|
| Benzene | ND | 0.50 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.50 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 1 | | Diisopropyl Ether (DIPE) | ND | 0.50 | 1 | |
| Ethylbenzene | ND | 0.50 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.50 | 1 | |
| Toluene | ND | 0.50 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.50 | 1 | |
| Xylenes (total) | ND | 0.50 | 1 | | Ethanol | ND | 300 | 1 | |
| <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | <u>Qual</u> | | <u>Surrogates:</u> | <u>REC (%)</u> | <u>Control Limits</u> | <u>Qual</u> | |
| 1,2-Dichloroethane-d4 | 112 | 80-128 | | | Dibromofluoromethane | 102 | 80-127 | | |
| Toluene-d8 | 95 | 80-120 | | | 1,4-Bromofluorobenzene | 95 | 68-120 | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - Spike/Spike Duplicate



Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 05/19/11
Work Order No: 11-05-1216
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project BP 4977

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---------------------------|---------|------------|---------------|---------------|---------------------|
| 11-05-1214-3 | Aqueous | GC 4 | 05/19/11 | 05/19/11 | 110519S01 |

| <u>Parameter</u> | <u>MS %REC</u> | <u>MSD %REC</u> | <u>%REC CL</u> | <u>RPD</u> | <u>RPD CL</u> | <u>Qualifiers</u> |
|----------------------------------|----------------|-----------------|----------------|------------|---------------|-------------------|
| Gasoline Range Organics (C6-C12) | 93 | 81 | 38-134 | 13 | 0-25 | |

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

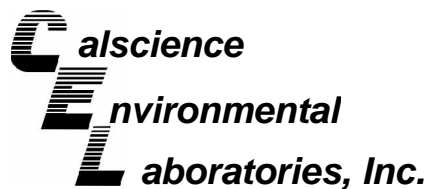
Date Received: 05/19/11
Work Order No: 11-05-1216
Preparation: EPA 5030C
Method: EPA 8260B

Project BP 4977

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---------------------------|---------|------------|---------------|---------------|---------------------|
| 11-05-1214-3 | Aqueous | GC/MS BB | 05/19/11 | 05/19/11 | 110519S01 |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|-------------------------------|---------|----------|---------|-----|--------|------------|
| Benzene | 108 | 98 | 76-124 | 10 | 0-20 | |
| Carbon Tetrachloride | 111 | 106 | 74-134 | 4 | 0-20 | |
| Chlorobenzene | 104 | 104 | 80-120 | 0 | 0-20 | |
| 1,2-Dibromoethane | 108 | 95 | 80-120 | 13 | 0-20 | |
| 1,2-Dichlorobenzene | 105 | 105 | 80-120 | 0 | 0-20 | |
| 1,2-Dichloroethane | 108 | 96 | 80-120 | 12 | 0-20 | |
| Ethylbenzene | 106 | 106 | 78-126 | 0 | 0-20 | |
| Toluene | 105 | 101 | 80-120 | 4 | 0-20 | |
| Trichloroethene | 104 | 107 | 77-120 | 2 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 115 | 93 | 67-121 | 21 | 0-49 | |
| Tert-Butyl Alcohol (TBA) | 107 | 106 | 36-162 | 1 | 0-30 | |
| Diisopropyl Ether (DIPE) | 105 | 96 | 60-138 | 9 | 0-45 | |
| Ethyl-t-Butyl Ether (ETBE) | 107 | 100 | 69-123 | 7 | 0-30 | |
| Tert-Amyl-Methyl Ether (TAME) | 103 | 87 | 65-120 | 17 | 0-20 | |
| Ethanol | 124 | 128 | 30-180 | 3 | 0-72 | |

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: N/A
Work Order No: 11-05-1216
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: BP 4977

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---------------------------|---------|------------|---------------|---------------|-----------------------|
| 099-12-695-1,077 | Aqueous | GC 4 | 05/19/11 | 05/19/11 | 110519B01 |

| <u>Parameter</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>%REC CL</u> | <u>RPD</u> | <u>RPD CL</u> | <u>Qualifiers</u> |
|----------------------------------|-----------------|------------------|----------------|------------|---------------|-------------------|
| Gasoline Range Organics (C6-C12) | 86 | 92 | 78-120 | 7 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: N/A
Work Order No: 11-05-1216
Preparation: EPA 5030C
Method: EPA 8260B

Project: BP 4977

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number | | |
|-------------------------------|-----------------|------------------|----------------|---------------|-----------------------|---------------|-------------------|
| 099-12-703-1,714 | Aqueous | GC/MS BB | 05/19/11 | 05/19/11 | 110519L01 | | |
| <u>Parameter</u> | <u>LCS %REC</u> | <u>LCSD %REC</u> | <u>%REC CL</u> | <u>ME CL</u> | <u>RPD</u> | <u>RPD CL</u> | <u>Qualifiers</u> |
| Benzene | 110 | 100 | 80-120 | 73-127 | 9 | 0-20 | |
| Carbon Tetrachloride | 116 | 106 | 74-134 | 64-144 | 10 | 0-20 | |
| Chlorobenzene | 101 | 108 | 80-120 | 73-127 | 6 | 0-20 | |
| 1,2-Dibromoethane | 100 | 100 | 79-121 | 72-128 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 101 | 105 | 80-120 | 73-127 | 4 | 0-20 | |
| 1,2-Dichloroethane | 112 | 97 | 80-120 | 73-127 | 14 | 0-20 | |
| Ethylbenzene | 106 | 109 | 80-120 | 73-127 | 2 | 0-20 | |
| Toluene | 105 | 102 | 80-120 | 73-127 | 3 | 0-20 | |
| Trichloroethene | 105 | 101 | 79-127 | 71-135 | 4 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 121 | 107 | 69-123 | 60-132 | 12 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 106 | 102 | 63-123 | 53-133 | 5 | 0-20 | |
| Diisopropyl Ether (DIPE) | 125 | 93 | 59-137 | 46-150 | 30 | 0-37 | |
| Ethyl-t-Butyl Ether (ETBE) | 129 | 100 | 69-123 | 60-132 | 25 | 0-20 | LQ,BA |
| Tert-Amyl-Methyl Ether (TAME) | 115 | 102 | 70-120 | 62-128 | 13 | 0-20 | |
| Ethanol | 105 | 102 | 28-160 | 6-182 | 3 | 0-57 | |

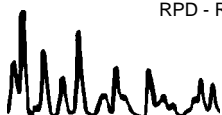
Total number of LCS compounds : 15

Total number of ME compounds : 1

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

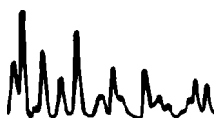
RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 11-05-1216

| <u>Qualifier</u> | <u>Definition</u> |
|------------------|--|
| AX | Sample too dilute to quantify surrogate. |
| BA | Relative percent difference out of control. |
| BA,AY | BA = Relative percent difference out of control. AY = Matrix interference suspected. |
| BB | Sample > 4x spike concentration. |
| BF | Reporting limits raised due to high hydrocarbon background. |
| BH | Reporting limits raised due to high level of non-target analytes. |
| BU | Sample analyzed after holding time expired. |
| BV | Sample received after holding time expired. |
| BY | Sample received at improper temperature. |
| BZ | Sample preserved improperly. |
| CL | Initial analysis within holding time but required dilution. |
| CQ | Analyte concentration greater than 10 times the blank concentration. |
| CU | Surrogate concentration diluted to not detectable during analysis. |
| DF | Reporting limits elevated due to matrix interferences. |
| DU | Insufficient sample quantity for matrix spike/dup matrix spike. |
| ET | Sample was extracted past end of recommended max. holding time. |
| ET | Sample was extracted past end of recommended maximum holding time. |
| EY | Result exceeds normal dynamic range; reported as a min est. |
| GR | Internal standard recovery is outside method recovery limit. |
| IB | CCV recovery abovelimit; analyte not detected. |
| IH | Calibrtn. verif. recov. below method CL for this analyte. |
| IJ | Calibrtn. verif. recov. above method CL for this analyte. |
| J,DX | J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL. |
| LA | Confirmatory analysis was past holding time. |
| LG,AY | LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected. |
| LH,AY | LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected. |
| LM,AY | LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected. |
| LN,AY | LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected. |
| LQ | LCS recovery above method control limits. |
| LR | LCS recovery below method control limits. |
| LW | Quantitation of unknown hydrocarbon(s) in sample based on gasoline. |
| LX | Quantitation of unknown hydrocarbon(s) in sample based on diesel. |
| MB | Analyte present in the method blank. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| PC | Sample taken from VOA vial with air bubble > 6mm diameter. |
| PI | Primary and confirm results varied by > than 40% RPD. |
| RB | RPD exceeded method control limit; % recoveries within limits. |
| SG | A silica gel cleanup procedure was performed. |

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.





Laboratory Management Program - LAMP Chain of Custody Record

1216

Page ____ of ____

BP/ARC Project Name: BP 4977

Req Due Date (mm/dd/yy): _____

Rush TAT: Yes ___ No X

BP/ARC Facility No: _____ 4977

Lab Work Order Number: _____

| | | |
|-------------------------------|---|---|
| Lab Name: Calscience | BP/ARC Facility Address: 2770 Castro Valley Road | Consultant/Contractor: Broadbent & Associates, Inc. |
| Lab Address: 7440 Lincoln Way | City, State, ZIP Code: Castro Valley, CA | Consultant/Contractor Project No: 06-88-625-401-880 |
| Lab PM: Richard Villafania | Lead Regulatory Agency: ACEH | Address: 1324 Mangrove Ave. Ste. 212, Chico, CA 95926 |
| Lab Phone: 714-895-5494 | California Global ID No.: T0600100089 | Consultant/Contractor PM: Jason Duda |
| Lab Shipping Acct: 9225 | Enfos Proposal No: 005X0-0001 | Phone: 530-566-1400 |
| Lab Bottle Order No: | Accounting Mode: Provision <u>X</u> OOC-BU ___ OOC-RM ___ | Email EDD To: jduda@broadbentinc.com |
| Other Info: | Stage: Execute (4) Activity: Project Spend (80) | Invoice To: BP/ARC <u>X</u> Contractor ___ |

| Lab No. | Sample Description | Date | Time | Matrix | | | | | | No. Containers / Preservative | | | | | | Requested Analyses | | | | | | Report Type & QC Level | | Comments |
|---------|--------------------|---------|------|--------------|----------------|-------------|----------------------------|-------------|--------------------------------|-------------------------------|-----|----------|------------|-------------|---------------|--------------------|----------------|----------------|-------------------|-----------------------|---|------------------------|--|----------|
| | | | | Soil / Solid | Water / Liquid | Air / Vapor | Total Number of Containers | Unpreserved | H ₂ SO ₄ | HNO ₃ | HCl | Methanol | GRO (8015) | BTEX (8260) | 5 Olys (8260) | EDB (8260) | 1,2-DCA (8260) | Ethanol (8260) | Standard <u>X</u> | Full Data Package ___ | | | | |
| 1 | MW-1 | 5-17-11 | 1345 | | X | | | 6 | | | | | | | | | X | X | X | X | X | X | | |
| 2 | MW-2 | 5-17-11 | 1405 | | X | | | 6 | | | | | | | | | X | X | X | X | X | X | | |
| 3 | MW-3 | 5-17-11 | 1315 | | X | | | 6 | | | | | | | | | X | X | X | X | X | X | | |
| 4 | TB - 4977 - 110517 | 5-17-11 | 1410 | X | | | | 2 | | | | | | | | | | | | | | | | Hold |

| | | | | | | |
|---|---|----------------------|-------------------|--|----------------------|-------------------|
| Sampler's Name: <u>James Ramos/Sam Bartley</u> | Relinquished By / Affiliation: <u>James Ramos</u> | Date: <u>5-17-11</u> | Time: <u>1700</u> | Accepted By / Affiliation: <u>Wolfram CA</u> | Date: <u>5/18/11</u> | Time: <u>0730</u> |
| Sampler's Company: <u>BAI</u> | | | | | | |
| Shipment Method: <u>GSO</u> Ship Date: <u>5-17-11</u> | | | | | | |
| Shipment Tracking No: <u>107158267</u> | | | | | | |

Special Instructions: _____

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No Temp Blank: Yes / No Cooler Temp on Receipt: _____ °F/C Trip Blank: Yes / No MS/MSD Sample Submitted: Yes / No

1216

1 FROM

DATE 8/16/5-17-11

COMPANY Broadbent & Associates, Inc.

ADDRESS 875 Cotting Lane, Suite G

ADDRESS

CITY Vacaville

SENDERS NAME James Rains / Sam Berkley

STE/ROOM

ZIP CODE 95688

PHONE NUMBER 707-455-7290

COMPANY CAL SCIENCE

NAME Kristina

ADDRESS 7440 LINCOLN WAY

ADDRESS

CITY GARDEN GROVE

STE/ROOM

ZIP CODE 92841

PHONE NUMBER 714-895-5494

YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE

DIAL INSTRUCTIONS

GSO
GOLDEN STATE OVERNIGHT

1-800-322-5555

WWW.GSO.COM

SHIPPING AIR BILL

4 PACKAGE INFORMATION

LETTER (MAX 8 OZ)

PACKAGE (WT) _____

DECLARED VALUE \$ _____

COD AMOUNT \$ _____
(CASH NOT ACCEPTED)

PACKAGE LABEL

5 DELIVERY SERVICE PRIORITY OVERNIGHT BY 10:30 AM EARLY PRIORITY BY 8:00 AM SATURDAY DELIVERY

*DELIVERY TIMES MAY BE LATER IN SOME AREAS * CONSULT YOUR SERVICE GUIDE OR CALL GOLDEN STATE OVERNIGHT.

6 RELEASE SIGNATURE

SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNATURE

8 PICK UP INFORMATION


TIME 107158267

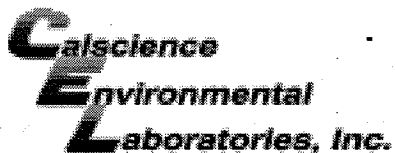
DRIVER # _____ ROUTE # _____

PEEL OFF HERE

9 GSO TRACKING NUMBER

107158267





WORK ORDER #: 11-05-1216

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: BAI

DATE: 05/19/11

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C - 6.0°C, not frozen)

Temperature 2.4°C + 0.5°C (CF) = 2.9°C [X] 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

Initial: WS

CUSTODY SEALS INTACT:

- [X] Cooler [] _____ [] No (Not Intact) [] Not Present [] N/A
[] Sample [] _____ [] No (Not Intact) [X] Not Present

Initial: WS

Initial: JR

SAMPLE CONDITION:

Table with 4 columns: Question, Yes, No, N/A. Rows include Chain-Of-Custody (COC) document(s) received with samples, COC document(s) received complete, Sampler's name indicated on COC, etc.

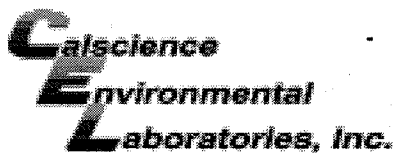
CONTAINER TYPE:

- Solid: [] 4ozCGJ [X] 8ozCGJ [] 16ozCGJ [] Sleeve (____) [] EnCores® [] TerraCores® [] _____
Water: [] VOA [X] VOAh [] VOAna2 [] 125AGB [] 125AGBh [] 125AGBp [] 1AGB [] 1AGBna2 [] 1AGBs
[] 500AGB [] 500AGJ [] 500AGJs [] 250AGB [] 250CGB [] 250CGBs [] 1PB [] 500PB [] 500PBna
[] 250PB [] 250PBn [] 125PB [] 125PBzanna [] 100PJ [] 100PJna2 [] _____ [] _____ [] _____

Air: [] Tedlar® [] Summa® Other: [] _____ Trip Blank Lot#: _____ Labeled/Checked by: JR

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

Preservative: h: HCL n: HNO3 na2: Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 zanna: ZnAc2+NaOH f: Field-filtered Scanned by: JP



WORK ORDER #: 11-05-1216

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- Sample(s)/Container(s) NOT RECEIVED but listed on COC
- Sample(s)/Container(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: _____

(-4) No ID on Trip Blank

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: YL 05/19/11

APPENDIX D

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A GEO_WELL FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

| | |
|------------------------------------|---|
| <u>Submittal Type:</u> | GEO_WELL |
| <u>Submittal Title:</u> | 2Q11 GEO_WELL 4977 |
| <u>Facility Global ID:</u> | T0600100089 |
| <u>Facility Name:</u> | ARCO #4977 |
| <u>File Name:</u> | GEO_WELL.zip |
| <u>Organization Name:</u> | Broadbent & Associates, Inc. |
| <u>Username:</u> | BROADBENT-C |
| <u>IP Address:</u> | 67.118.40.90 |
| <u>Submittal Date/Time:</u> | 6/16/2011 9:59:26 AM |
| <u>Confirmation Number:</u> | 9535764336 |

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

| | |
|------------------------------------|---|
| <u>Submittal Type:</u> | EDF - Monitoring Report - Semi-Annually |
| <u>Submittal Title:</u> | 2Q11 GW Monitoring |
| <u>Facility Global ID:</u> | T0600100089 |
| <u>Facility Name:</u> | ARCO #4977 |
| <u>File Name:</u> | 11051216.zip |
| <u>Organization Name:</u> | Broadbent & Associates, Inc. |
| <u>Username:</u> | BROADBENT-C |
| <u>IP Address:</u> | 67.118.40.90 |
| <u>Submittal Date/Time:</u> | 6/16/2011 9:57:45 AM |
| <u>Confirmation Number:</u> | 5060841381 |

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)