Atlantic Richfield Company

Chuck Carmel
Environmental Business Manager

PO Box 1257
San Ramon, CA 94583
Phone: (925) 275-3803
Fax: (925) 275-3815
E-Mail: charles.carmel@bp.com

RECEIVED

8:55 am, Oct 06, 2010

Alameda County
Environmental Health

October 5, 2010

Re: Third Quarter 2010 Semi-Annual Groundwater Monitoring Report
Atlantic Richfield Company Station #2107
3310 Park Boulevard, Oakland, California
ACEH Case #RO0002526

"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,

Chuck Carmel
Environmental Business Manager

Attachment:

Third Quarter 2010 Semi-Annual Groundwater Monitoring Report
Atlantic Richfield Company Station #2107
3310 Park Boulevard, Oakland, California
ACEH Case #RO0002526

Prepared for

Mr. Chuck Carmel
Environmental Business Manager
Atlantic Richfield Company
P.O. Box 1257
San Ramon, California 94583

Prepared by

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

875 Cotting Lane, Suite G
Vacaville, California 95688
(707) 455-7290
www.broadbentinc.com

October 5, 2010

Project No. 06-88-614

Broadbent & Associates, Inc.
875 Cotting Ln., Suite G
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BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

October 5, 2010

Project No. 06-88-614

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

Attn.: Mr. Chuck Carmel

Re: Third Quarter 2010 Semi-Annual Groundwater Monitoring Report, Atlantic Richfield Company Station #2107, 3310 Park Boulevard, Oakland, California;
ACEH Case #RO0002526

Dear Mr. Carmel:

Attached is the *Third Quarter 2010 Semi-Annual Groundwater Monitoring Report* for Atlantic Richfield Company (a BP affiliated company) Station #2107 located at, 3310 Park Boulevard, Oakland, Alameda County, California (Site). This report presents results of groundwater monitoring conducted at the Site during the Third Quarter of 2010.

Should you have questions regarding the work performed or results obtained, please do not hesitate to contact me at (707) 455-7290.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Sparrowe, P.G.
Senior Geologist

Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp site)
Electronic copy uploaded to GeoTracker

STATION # 2107 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

Facility: #2107 Address:	3310 Park Boulevard, Oakland, California
Environmental Business Manager:	Mr. Chuck Carmel
Consulting Co./Contact Person:	Broadbent & Associates, Inc.(BAI)/Mr. Tom Sparrowe, PG (707) 455-7290
Consultant Project No.:	06-88-614
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case # RO0002526
Facility Permits/Permitting Agency:	NA

WORK PERFORMED THIS QUARTER (Third Quarter 2010):

1. Prepared and submitted *Second Quarter 2010 Status Report* (BAI, 7/19/2010).
2. Conducted groundwater monitoring/sampling for Third Quarter 2010. Work performed on July 23, 2010 by BAI.

WORK PROPOSED FOR NEXT QUARTER (Second Quarter 2010):

1. Prepared and submitted this *Third Quarter 2010 Semi-Annual Groundwater Monitoring Report* (contained herein).
2. No sampling or environmental activities are scheduled at the Site during Fourth Quarter 2010.

RESULTS SUMMARY:

Current phase of project:	**Groundwater Monitoring/Sampling**
Frequency of Groundwater monitoring:*	**Semi-Annually (1Q &3Q): MW-11A, MW-11B, MW-12A, MW-12B, MW-13A, MW-13B**
Frequency of Groundwater sampling:*	**Semi-Annually (1Q &3Q): MW-11A, MW-11B, MW-12A, MW-12B, MW-13A, MW-13B**
Is free product (FP) present on-site:	**No**
FP recovered this quarter:	**None**
Current remediation techniques:	**NA**
Depth to ground water (below TOC):	**2.74 ft (MW-13B) to 10.75 ft (MW-12B)**
General Groundwater flow direction:	**North ('B' wells)**
Approximate hydraulic gradient:	**0.05 ft/ft ('B' wells)**

* Revised schedule beginning Third Quarter 2010. Schedule modifications discussed below.

DISCUSSION:

Third quarter 2010 groundwater monitoring and sampling was conducted at Station #2107 on July 23, 2010 by BAI personnel. Water levels were gauged in the six wells associated with the Site. No irregularities were noted during water level gauging. Depth to water measurements ranged from 2.74 feet (ft) at MW-13B to 10.75 ft at MW-12B. Resulting groundwater surface elevations ranged from 113.89 ft above datum (NAVD88) in well MW-11B to 110.09 ft at well MW-12B. Water level elevations are summarized in Table 1. A review of the Third Quarter 2010 groundwater level elevations shows an upward vertical hydraulic gradient between paired wells MW-11A and MW-11B and paired wells MW-13A and MW-13B, but a downward vertical hydraulic gradient between paired wells MW-12A and MW-12B. These vertical gradients are similar to those documented since the First Quarter 2010. Water level elevations in the three 'B' wells yielded a potentiometric groundwater flow direction and gradient to

the north at approximately 0.05 ft/ft, generally consistent with previous monitoring events (see Table 3). Groundwater monitoring field data sheets are provided within Appendix A. Measured depths to groundwater and respective groundwater elevations are summarized in Table 1. A Site Location Map is provided as Drawing 1. Potentiometric groundwater elevation contours are presented in Drawing 2.

Groundwater samples were collected from each well associated with the Site this quarter. 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, C6-12) by EPA Method 8015B; for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Tert-Amyl Methyl Ether (TAME), Di-Isopropyl Ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dicholorethane (1,2-DCA), Tert-Butyl Alcohol (TBA) and Ethanol by EPA Method 8260B. No significant irregularities were encountered during laboratory analysis of the samples. Groundwater sampling field data sheets and the laboratory analytical report, including chain-of-custody documentation, are provided in Appendix A.

Concentrations of GRO were detected above the laboratory reporting limit in two of the six wells sampled at concentrations up to 1,300 micrograms per liter (µg/L) in well MW-11A. MTBE was detected above the laboratory reporting limit in each of the six wells sampled at concentrations up to 510 µg/L in well MW-12B. Benzene, Toluene, and Ethylbenzene were detected in well MW-11A at concentrations of 20 µg/L, 22 µg/L, and 23 µg/L, respectively. TAME was detected above the laboratory reporting limit only in well MW-11A a concentration of 6.5 µg/L. The remaining fuel constituents were not detected above their laboratory reporting limits in the five wells sampled this quarter.

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 B.

CONCLUSIONS AND RECOMMENDATIONS:

Preliminary review of the vertical gradients documented between co-located well pairs after six rounds of monitoring appears to show an upward vertical gradient at MW-11A/MW-11B and MW-13A/MW-13B, and downward vertical gradient at MW-12A/MW-12B. As was mentioned in the *Groundwater Investigation and Third Quarter 2009 Groundwater Monitoring Report* (BAI, 4/30/2009), over-drilling of well MW-13A to 24 ft bgs, then partially backfilling with bentonite to 19 ft bgs, and constructing the well screen from 11.5-16.5 ft bgs was a variance from the planned scope of work. The validity of data distinguishing Groundwater conditions between wells MW-13A and MW-13B is therefore suspect.

The next scheduled groundwater monitoring and sampling event will occur during the First Quarter 2011.

CLOSURE:

The findings presented in this report are based upon: observations of Broadbent & Associates, Inc. and/or their subcontractors' 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. 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, Station #2107, 3310 Park Boulevard, Oakland, California

Drawing 2. Groundwater Elevation Contour and Analytical Summary Map, July 23, 2010, Station #2107, 3310 Park Boulevard, Oakland, California

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #2107, 3310 Park Boulevard, Oakland, California

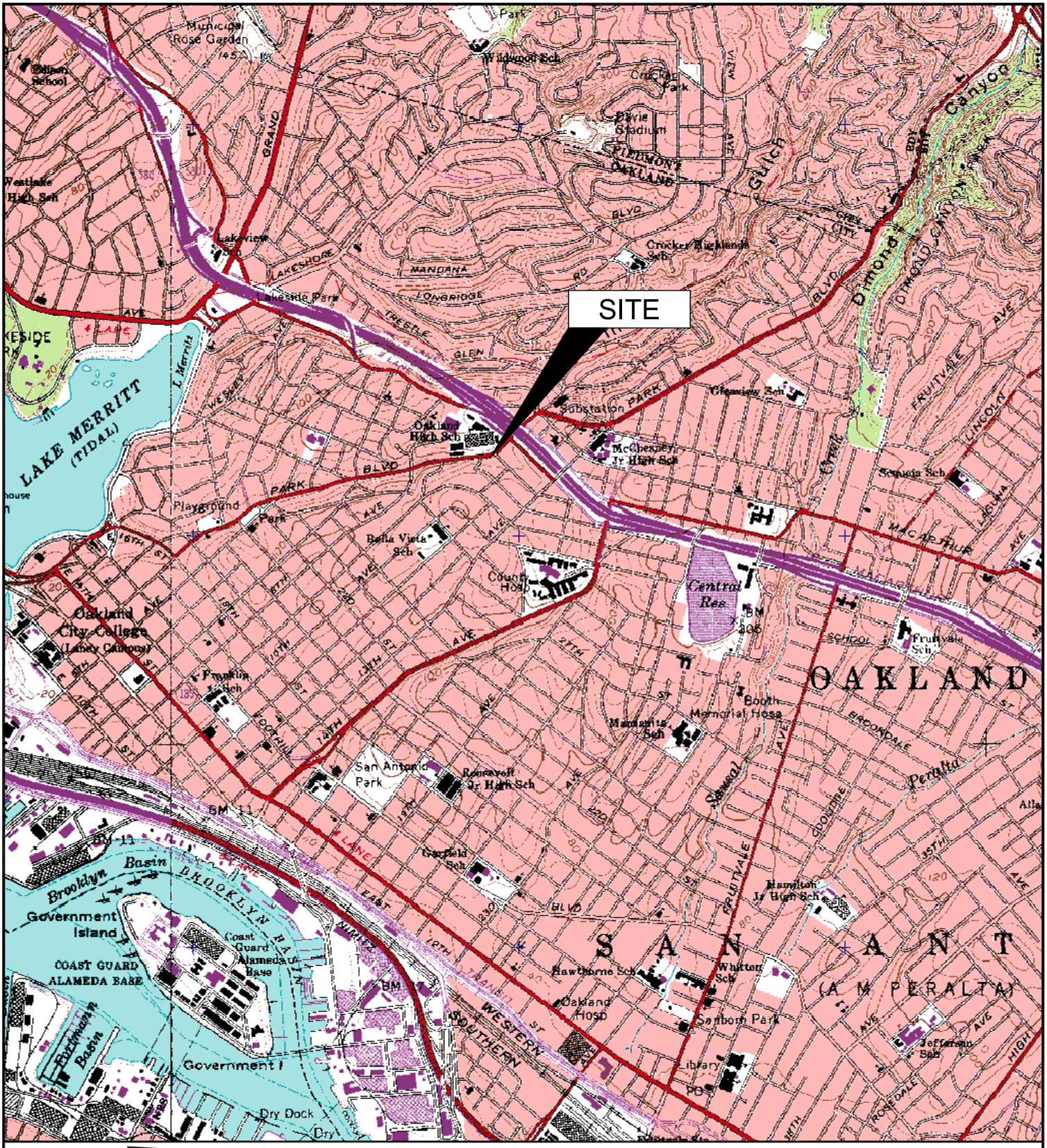
Table 2. Summary of Fuel Additives Analytical Data, Station #2107, 3310 Park Boulevard, Oakland, California

Table 3. Historical Groundwater Flow Direction and Gradient Data, Station #2107, 3310 Park Boulevard, Oakland, California

Appendix A. BAI Groundwater Sampling Data Package (Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Analytical Report with Chain-of-Custody Documentation, and Field Procedures).

Appendix B. GeoTracker Upload Confirmation Receipts

DRAWINGS

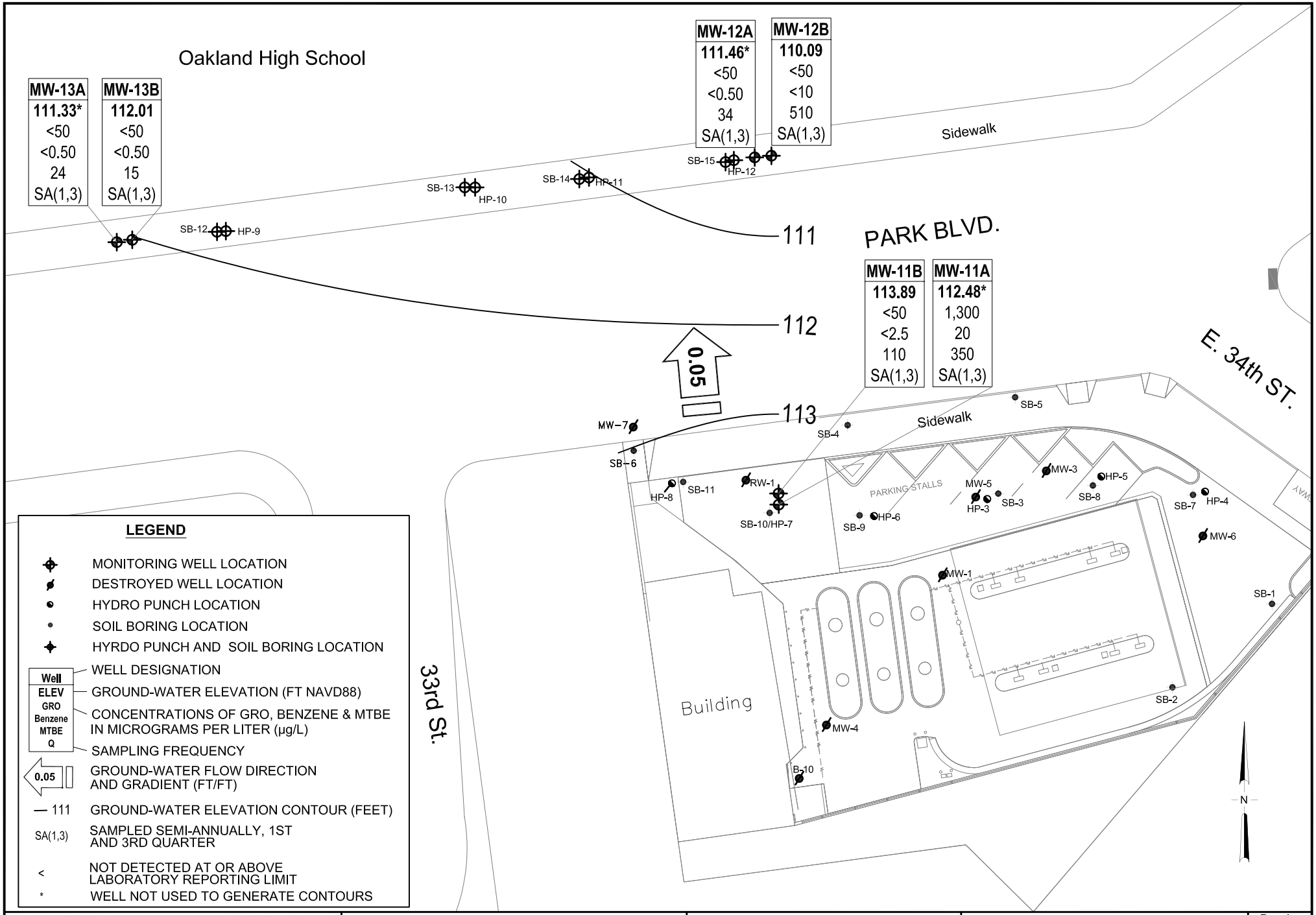


BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, CA 95926
Project No.: 06-88-614 Date: 07/22/09

Station #2107
3310 Park Boulevard
Oakland, California

Site Location Map

Drawing
1



0 30 60

SCALE (ft)

BROADBENT & ASSOCIATES, INC.

ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California

Project No.: 06-88-614 Date: 9/20/2010

Station #2107
3310 Park Boulevard
Oakland, California

Groundwater Elevation Contours and Analytical Summary Map
July 23, 2010

Drawing
2

TABLES

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

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Well and Sample Date	P/NP	Comments	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
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-11A															
3/9/2009	P		120.85	16	**20**	12.41	108.44	1,000	1.5	<1.0	13	4.8	60	9.20	12.74
6/18/2009	P	a	120.85	16	**20**	14.58	106.27	260	11	<5.0	6.8	<5.0	280	--	9.83
9/1/2009	P		120.85	16	**20**	8.75	112.10	1,400	28	20	61	6.7	340	1.40	7.84
11/11/2009	--		120.85	16	20	10.40	110.45	--	--	--	--	--	--	1.55	12.5
2/19/2010	P		120.85	16	20	8.90	111.95	1,300	20	17	25	<5.0	340	2.01	12.13
7/23/2010	**P**		**120.85**	**16**	**20**	**8.37**	**112.48**	**1,300**	**20**	**22**	**23**	**<5.0**	**350**	**1.11**	**12.0**
MW-11B															
3/9/2009	P		121.31	26	**30**	7.33	113.98	280	1.3	1.3	7.6	<0.50	240	9.56	7.14
6/18/2009	P	a	121.31	26	**30**	7.38	113.93	130	<5.0	<5.0	<5.0	<5.0	200	--	6.96
9/1/2009	P		121.31	26	**30**	7.66	113.65	69	<5.0	<5.0	<5.0	<5.0	210	1.01	7.01
11/11/2009	P		121.31	26	**30**	7.70	113.61	55	<5.0	<5.0	<5.0	<5.0	200	0.38	6.7
2/19/2010	P		121.31	26	30	7.59	113.72	68	<2.5	<2.5	<2.5	<2.5	180	2.38	7.44
7/23/2010	**P**		**121.31**	**26**	**30**	**7.42**	**113.89**	**<50**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	**110**	**1.57**	**7.02**
MW-12A															
3/9/2009	P		120.64	13	**18**	8.70	111.94	<50	<0.50	<0.50	<0.50	<0.50	41	4.62	6.76
6/18/2009	P	a	120.64	13	**18**	8.58	112.06	<50	<1.0	<1.0	<1.0	<1.0	40	--	7.92
9/1/2009	P		120.64	13	**18**	9.21	111.43	<50	<0.50	<0.50	<0.50	<0.50	39	1.06	6.97
11/11/2009	P		120.64	13	**18**	9.15	111.49	<50	<1.0	<1.0	<1.0	<1.0	41	0.51	6.2
2/19/2010	P		120.64	13	18	9.13	111.51	<50	<0.50	<0.50	<0.50	<0.50	32	0.38	6.58
7/23/2010	**P**		**120.64**	**13**	**18**	**9.18**	**111.46**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**34**	**0.68**	**7.6**
MW-12B															
3/9/2009	P		120.84	27	**30**	14.89	105.95	<50	<0.50	0.55	<0.50	<0.50	150	5.87	7.74
6/18/2009	P	a	120.84	27	**30**	13.51	107.33	140	<2.5	<2.5	<2.5	<2.5	380	--	8.60
9/1/2009	P		120.84	27	**30**	9.54	111.30	89	<10	<10	<10	<10	460	0.99	6.88
11/11/2009	P		120.84	27	**30**	11.53	109.31	<50	<5.0	<5.0	<5.0	<5.0	600	1.00	6.46
2/19/2010	P		120.84	27	30	11.07	109.77	52	<5.0	<5.0	<5.0	<5.0	620	3.32	6.89
7/23/2010	**P**		**120.84**	**27**	**30**	**10.75**	**110.09**	**<50**	**<10**	**<10**	**<10**	**<10**	**510**	**1.70**	**7.54**

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

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Well and Sample Date	P/NP	Comments	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
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-13A															
3/9/2009	P		114.55	11.5	**16.5**	9.53	105.02	<50	<0.50	<0.50	<0.50	<0.50	13	9.39	7.64
6/18/2009	P	a	114.55	11.5	**16.5**	2.88	111.67	<50	<0.50	<0.50	<0.50	<0.50	23	--	7.21
9/1/2009	P		114.55	11.5	**16.5**	3.31	111.24	<50	<0.50	<0.50	<0.50	<0.50	34	0.96	6.90
11/11/2009	P		114.55	11.5	**16.5**	3.66	110.89	<50	<0.50	<0.50	<0.50	<0.50	21	1.79	6.5
2/19/2010	P		114.55	11.5	16.5	3.43	111.12	<50	<0.50	<0.50	<0.50	<0.50	15	0.92	6.69
7/23/2010	**P**		**114.55**	**11.5**	**16.5**	**3.22**	**111.33**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**24**	**1.4**	**7.0**
MW-13B															
3/9/2009	P		114.75	18.5	**22.5**	2.96	111.79	<50	<0.50	<0.50	<0.50	<0.50	13	8.44	6.99
6/18/2009	P	a	114.75	18.5	**22.5**	2.85	111.90	<50	<0.50	<0.50	<0.50	<0.50	12	--	6.92
9/1/2009	P		114.75	18.5	**22.5**	3.36	111.39	<50	<0.50	<0.50	<0.50	<0.50	17	0.96	7.29
11/11/2009	P		114.75	18.5	**22.5**	3.49	111.26	<50	<0.50	<0.50	<0.50	<0.50	21	2.45	6.39
2/19/2010	P		114.75	18.5	22.5	3.10	111.65	<50	<0.50	<0.50	<0.50	<0.50	19	1.46	6.50
7/23/2010	**P**		**114.75**	**18.5**	**22.5**	**2.74**	**112.01**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**15**	**1.16**	**7.19**

ABBREVIATIONS AND SYMBOLS:
--/--- = Not measured/applicable/analyzed/sampled
µg/L = Micrograms per liter
DO = Dissolved oxygen
DTW = Depth to water in ft below TOC
GRO = Gasoline range organics
mg/L = Milligrams per liter
MTBE = Methyl tert butyl ether
< = Not detected at or above specified laboratory reporting limit
NP = Well not purged prior to sampling
P = Well purged prior to sampling
TOC = Top of casing in ft above NAVD88 datum

FOOTNOTES:

NOTES:
a = DO meter not working.

Values for DO and pH were obtained through field measurements.

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-11A									
3/9/2009	--	<20	60	<1.0	<1.0	<1.0	--	--	
6/18/2009	<3,000	<100	280	<5.0	<5.0	<5.0	<5.0	<5.0	
9/1/2009	<3,000	<100	340	<5.0	<5.0	5.3	<5.0	<5.0	
2/19/2010	<3,000	<100	340	<5.0	<5.0	6.1	<5.0	<5.0	
7/23/2010	**<3,000**	**<100**	**350**	**<5.0**	**<5.0**	**6.5**	**<5.0**	**<5.0**	
MW-11B									
3/9/2009	--	<10	240	<0.50	<0.50	3.1	--	--	
6/18/2009	<3,000	<100	200	<5.0	<5.0	<5.0	<5.0	<5.0	
9/1/2009	<3,000	<100	210	<5.0	<5.0	<5.0	<5.0	<5.0	
11/11/2009	<3,000	<100	200	<5.0	<5.0	<5.0	<5.0	<5.0	
2/19/2010	<1,500	<50	180	<2.5	<2.5	<2.5	<2.5	<2.5	
7/23/2010	**<1,500**	**<50**	**110**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	
MW-12A									
3/9/2009	--	<10	41	<0.50	<0.50	<0.50	--	--	
6/18/2009	<600	<20	40	<1.0	<1.0	<1.0	<1.0	<1.0	
9/1/2009	<300	<10	39	<0.50	<0.50	<0.50	<0.50	<0.50	
11/11/2009	<600	<20	41	<1.0	<1.0	<1.0	<1.0	<1.0	
2/19/2010	<300	<10	32	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	**<300**	**<10**	**34**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-12B									
3/9/2009	--	<10	150	<0.50	<0.50	<0.50	--	--	
6/18/2009	<1,500	<50	380	<2.5	<2.5	<2.5	<2.5	<2.5	
9/1/2009	<6,000	<200	460	<10	<10	<10	<10	<10	
11/11/2009	<3,000	<100	600	<5.0	<5.0	<5.0	<5.0	<5.0	
2/19/2010	<3,000	<100	620	<5.0	<5.0	5.1	<5.0	<5.0	
7/23/2010	**<6,000**	**<200**	**510**	**<10**	**<10**	**<10**	**<10**	**<10**	
MW-13A									
3/9/2009	--	<10	13	<0.50	<0.50	<0.50	--	--	
6/18/2009	<300	<10	23	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-13A Cont.									
9/1/2009	<300	<10	34	<0.50	<0.50	<0.50	<0.50	<0.50	
11/11/2009	<300	<10	21	<0.50	<0.50	<0.50	<0.50	<0.50	
2/19/2010	<300	<10	15	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	**<300**	**<10**	**24**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-13B									
3/9/2009	--	<10	13	<0.50	<0.50	<0.50	--	--	
6/18/2009	<300	<10	12	<0.50	<0.50	<0.50	<0.50	<0.50	
9/1/2009	<300	<10	17	<0.50	<0.50	<0.50	<0.50	<0.50	
11/11/2009	<300	<10	21	<0.50	<0.50	<0.50	<0.50	<0.50	
2/19/2010	<300	<10	19	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	**<300**	**<10**	**15**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

ABBREVIATIONS AND SYMBOLS:
-- = Not analyzed/applicable/measurable
< = Not detected above reported detection limit
1,2-DCA = 1,2-Dichloroethane
µg/L = Micrograms per Liter
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

FOOTNOTES:

NOTES:
All volatile organic compounds analyzed using EPA Method 8260B.

Table 3. Historical Ground-Water Flow Direction and Gradient

ARCO Service Station #2107, 3310 Park Boulevard, Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
3/9/2009	Northeast	0.06
6/18/2009	Northeast	0.06
9/1/2009	North-Northwest	0.03
11/11/2009	North	0.05
2/19/2010	North	0.03
7/23/2010	**North**	**0.05**

APPENDIX A

BAI GROUNDWATER SAMPLING DATA PACKAGE
(Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Analytical Report with Chain-Of-Custody Documentation, and Field Procedures)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

FIELD DATA REPORT

DATE: 7/23/10
PERSONNEL: EBB
WEATHER:

PROJECT NO.: BP2107
COMMENTS:

Equip:	Geosquirt	Tubing	Bailers	DO	wli	Ec/pH

Well ID	Time	MEASURING POINT	DTW (FT)	PRODUCT THICKNESS	pH	Cond. (X100)	Temp. (C/F)	DO (mg/l)	Redox (mV)	Iron (mg/l)	Alk. (mg/l)	WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC
MW-11A	1047		8.37									
MW-11B	1046		7.42									
MW-12A	1118		9.16									
MW-12B	1119		10.75									
MW-13A	1147		3.22									
MW-13B	1148		2.76									

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-11A
Project Name/Location: BP 2107 Project #: 06.88.614
Sampler's Name: EFSB Date: 7/23/10
Purging Equipment: Bn. Lv
Sampling Equipment: Bn. Lv
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		20.00	feet
Depth to Water:	-	8.37	feet
Water Column Thickness:	=	11.63	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	1.86	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	5.58	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	1052	1.11	-135		9080	67.8	11.8	
2.0	1058	X	X	X	8047	72.4	12.0	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 2 gallons
Depth to Water at Sample Collection: — feet
Sample Collection Time: 1100 Purged Dry? (Y / N)

Comments: Dry @ 2 gal

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-11B
Project Name/Location: BP 2107 Project #: 06.88.614
Sampler's Name: EFSB Date: 7/23/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		30.0	feet
Depth to Water:	-	7.42	feet
Water Column Thickness:	=	22.58	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	3.61	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	10.84	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	1052	1.57	72		7.37.0	70.2	6.88	
2.5	1058	X	X	X	774.0	67.4	6.93	
3.5	1057	X	X	X	749.7	67.6	7.02	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.5 gallons
Depth to Water at Sample Collection: 8.01 feet
Sample Collection Time: 1105 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-12A
Project Name/Location: BP 2107 Project #: 06.88.614
Sampler's Name: EPSB Date: 7/23/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		18.00	feet
Depth to Water:	-	9.18	feet
Water Column Thickness:	=	8.82	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	1.41	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	4.23	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	1123	0.68	-92		743.8	70.6	8.7	
2	1129	x	x	x	738.3	70.0	7.8	
3	1130	x	x	x	743.4	69.9	7.6	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 3 gallons
Depth to Water at Sample Collection: 9.92 feet
Sample Collection Time: 1135 Purged Dry? (Y / N)

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-12 B
Project Name/Location: BP 2107 Project #: 06-88614
Sampler's Name: CESB Date: 7/23/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		30.00	feet
Depth to Water:	-	10.75	feet
Water Column Thickness:	=	19.25	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	2.88	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	9.66	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	1125	1.70	-168		1198	71.4	9.41	
2.5	1125	x	x	x	1192	69.2	7.83	
3.5	1127	x	x	x	1179	69.3	7.54	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 3.5 gallons
Depth to Water at Sample Collection: 11.02 feet
Sample Collection Time: 1130 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-13A
Project Name/Location: BP2107 Project #: 06.88.614
Sampler's Name: EFSB Date: 7/23/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		16.50	feet
Depth to Water:	-	3.22	feet
Water Column Thickness:	=	13.28	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	2.12	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	6.37	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	1154	1.4	-18		998.9	75.2	7.4	
2	1156	x	x	x	995.0	73.4	7.3	
3	1157	x	x	x	1016	72.3	7.0	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 3 gallons
Depth to Water at Sample Collection: 3.48 feet
Sample Collection Time: 1200 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-13B
Project Name/Location: BP2107 Project #: 06.88.614
Sampler's Name: EF SB Date: 7/23/10
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		22.50	feet
Depth to Water:	-	2.74	feet
Water Column Thickness:	=	19.76	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	3.16	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	9.48	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	1152	7.16	-66		1059	76.0	7.80	
3	1157	x	x	x	1028	70.8	7.20	
5	1159	x	x	x	1030	70.9	7.19	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 5 gallons
Depth to Water at Sample Collection: 2.90 feet
Sample Collection Time: 1205 Purged Dry? (Y (N)

Comments:

NO. 857304

NON-HAZARDOUS WASTE DATA FORM

1. BESI #

GENERATOR

2. Generator's Name and Mailing Address

BP WEST COAST PRODUCTS, LLC
P.O. BOX 80249
RANCHO SANTA MARGARITA, CA 92688

Generator's Site Address (if different than mailing address)

BP 2107
3310 Park blvd
Oakland, CA

Generator's Phone: (949) 460-5200

24-HOUR EMERGENCY PHONE: (949) 699-3706

3. Transporter 1 Company Name: Broadbent & Associates, Inc. — Phone #: (530) 566-1400

4. Transporter 2 Company Name: Gomes Excavating — Phone #: (707) 374-2881

5. Designated Facility Name and Site Address

INTRAT, INC.
1105 AIRPORT RD #C
RIO VISTA, CA 94571

Phone #: (530) 753-1829

6. Waste Shipping Name and Description	7. Containers No.	7. Containers Type	8. Total Quantity	9. Unit Wt/Vol	10. Profile No.
A. NON-HAZARDOUS WATER	1	TT	20	G	
B.					
C.					
D.					

11. Special Handling Instructions and Additional Information

WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

WELL PURGING / DECON WATER

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this data form are non-hazardous.

Generator's/Offeror's Printed/Typed Name: Eric Fuller — Signature: [signature] — Month: 8 — Day: 3 — Year: 10

TRANSPORTER

13. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Fuller — Signature: [signature] — Month: 8 — Day: 3 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

FACILITY

14. Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR (ORIGINAL)

Calscience Environmental Laboratories, Inc.

August 09, 2010

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

Subject: **Calscience Work Order No.: 10-07-1937**
Client Reference: BP 2107

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/27/2010 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,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 07/27/10
Work Order No: 10-07-1937
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 2107

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11A	**10-07-1937-1-E**	**07/23/10 11:00**	**Aqueous**	**GC 11**	**07/30/10**	**07/31/10 02:38**	**100730B01**

Comment(s): -The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons are also present (or were detected).

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	1300	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	114	38-134	

MW-11B	**10-07-1937-2-D**	**07/23/10 11:05**	**Aqueous**	**GC 4**	**08/02/10**	**08/03/10 11:41**	**100802B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	73	38-134	

MW-12A	**10-07-1937-3-E**	**07/23/10 11:35**	**Aqueous**	**GC 11**	**07/30/10**	**07/31/10 04:19**	**100730B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	38-134	

MW-12B	**10-07-1937-4-E**	**07/23/10 11:30**	**Aqueous**	**GC 11**	**07/30/10**	**07/31/10 04:53**	**100730B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 07/27/10
Work Order No: 10-07-1937
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 2107

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13A	**10-07-1937-5-E**	**07/23/10 12:00**	**Aqueous**	**GC 11**	**07/30/10**	**07/31/10 05:27**	**100730B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	95	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13B	**10-07-1937-6-E**	**07/23/10 12:05**	**Aqueous**	**GC 11**	**07/30/10**	**07/31/10 06:01**	**100730B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	94	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-868**	**N/A**	**Aqueous**	**GC 11**	**07/30/10**	**07/30/10 18:11**	**100730B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	93	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-869**	**N/A**	**Aqueous**	**GC 4**	**08/02/10**	**08/02/10 13:49**	**100802B01**

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	07/27/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-07-1937
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L

Project: BP 2107

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11A	**10-07-1937-1-A**	**07/23/10 11:00**	**Aqueous**	**GC/MS BB**	**08/04/10**	**08/04/10 18:52**	**100804L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	20	5.0	10		Methyl-t-Butyl Ether (MTBE)	350	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	23	5.0	10		Ethyl-t-Butyl Ether (ETBE)	ND	5.0	10	
Toluene	22	5.0	10		Tert-Amyl-Methyl Ether (TAME)	6.5	5.0	10	
Xylenes (total)	ND	5.0	10		Ethanol	ND	3000	10	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	106	80-128			Dibromofluoromethane	99	80-127		
Toluene-d8	103	80-120			1,4-Bromofluorobenzene	95	68-120		

MW-11B	**10-07-1937-2-A**	**07/23/10 11:05**	**Aqueous**	**GC/MS BB**	**08/04/10**	**08/04/10 19:21**	**100804L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.5	5		Methyl-t-Butyl Ether (MTBE)	110	2.5	5	
1,2-Dibromoethane	ND	2.5	5		Tert-Butyl Alcohol (TBA)	ND	50	5	
1,2-Dichloroethane	ND	2.5	5		Diisopropyl Ether (DIPE)	ND	2.5	5	
Ethylbenzene	ND	2.5	5		Ethyl-t-Butyl Ether (ETBE)	ND	2.5	5	
Toluene	ND	2.5	5		Tert-Amyl-Methyl Ether (TAME)	ND	2.5	5	
Xylenes (total)	ND	2.5	5		Ethanol	ND	1500	5	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	108	80-128			Dibromofluoromethane	105	80-127		
Toluene-d8	99	80-120			1,4-Bromofluorobenzene	92	68-120		

MW-12A	**10-07-1937-3-A**	**07/23/10 11:35**	**Aqueous**	**GC/MS BB**	**08/04/10**	**08/04/10 19:50**	**100804L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	34	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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	106	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	96	80-120			1,4-Bromofluorobenzene	91	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	07/27/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-07-1937
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L
Project: BP 2107			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12B	**10-07-1937-4-A**	**07/23/10 11:30**	**Aqueous**	**GC/MS BB**	**08/04/10**	**08/04/10 20:19**	**100804L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	10	20		Methyl-t-Butyl Ether (MTBE)	510	10	20	
1,2-Dibromoethane	ND	10	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
1,2-Dichloroethane	ND	10	20		Diisopropyl Ether (DIPE)	ND	10	20	
Ethylbenzene	ND	10	20		Ethyl-t-Butyl Ether (ETBE)	ND	10	20	
Toluene	ND	10	20		Tert-Amyl-Methyl Ether (TAME)	ND	10	20	
Xylenes (total)	ND	10	20		Ethanol	ND	6000	20	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	105	80-128			Dibromofluoromethane	99	80-127		
Toluene-d8	97	80-120			1,4-Bromofluorobenzene	91	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13A	**10-07-1937-5-A**	**07/23/10 12:00**	**Aqueous**	**GC/MS BB**	**08/04/10**	**08/04/10 20:48**	**100804L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	24	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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	113	80-128			Dibromofluoromethane	104	80-127		
Toluene-d8	101	80-120			1,4-Bromofluorobenzene	92	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13B	**10-07-1937-6-A**	**07/23/10 12:05**	**Aqueous**	**GC/MS BB**	**08/04/10**	**08/04/10 16:55**	**100804L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	15	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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	93	80-128			Dibromofluoromethane	98	80-127		
Toluene-d8	99	80-120			1,4-Bromofluorobenzene	88	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	07/27/10
1324 Mangrove Ave, Ste 212		Work Order No:	10-07-1937
Chico, CA 95926-2642		Preparation:	EPA 5030B
		Method:	EPA 8260B
		Units:	ug/L
Project: BP 2107			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-1,413**	**N/A**	**Aqueous**	**GC/MS BB**	**08/04/10**	**08/04/10 15:54**	**100804L01**

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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	105	80-128			Dibromofluoromethane	102	80-127		
Toluene-d8	101	80-120			1,4-Bromofluorobenzene	94	68-120		

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 07/27/10
Work Order No: 10-07-1937
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-07-1936-1	**Aqueous**	**GC 11**	**07/30/10**	**07/30/10**	**100730S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	77	74	38-134	4	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 07/27/10
Work Order No: 10-07-1937
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-07-2154-3	**Aqueous**	**GC 4**	**08/02/10**	**08/02/10**	**100802S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	103	101	38-134	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 07/27/10
Work Order No: 10-07-1937
Preparation: EPA 5030B
Method: EPA 8260B

Project BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-13B	**Aqueous**	**GC/MS BB**	**08/04/10**	**08/04/10**	**100804S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	112	110	76-124	2	0-20	
Carbon Tetrachloride	92	92	74-134	0	0-20	
Chlorobenzene	108	109	80-120	1	0-20	
1,2-Dibromoethane	113	123	80-120	8	0-20	LM,AY
1,2-Dichlorobenzene	103	108	80-120	5	0-20	
1,2-Dichloroethane	120	120	80-120	0	0-20	
Ethylbenzene	106	106	78-126	0	0-20	
Toluene	113	111	80-120	2	0-20	
Trichloroethene	109	106	77-120	3	0-20	
Methyl-t-Butyl Ether (MTBE)	132	148	67-121	5	0-49	LM,AY
Tert-Butyl Alcohol (TBA)	107	108	36-162	1	0-30	
Diisopropyl Ether (DIPE)	101	100	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	102	101	69-123	1	0-30	
Tert-Amyl-Methyl Ether (TAME)	108	107	65-120	1	0-20	
Ethanol	121	117	30-180	4	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-07-1937
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-868	**Aqueous**	**GC 11**	**07/30/10**	**07/30/10**	**100730B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	106	105	78-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-07-1937
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-869	**Aqueous**	**GC 4**	**08/02/10**	**08/02/10**	**100802B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	95	95	78-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-07-1937
Preparation: EPA 5030B
Method: EPA 8260B

Project: BP 2107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,413	**Aqueous**	**GC/MS BB**	**08/04/10**	**08/04/10**	**100804L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	105	104	80-120	73-127	1	0-20	
Carbon Tetrachloride	86	89	74-134	64-144	3	0-20	
Chlorobenzene	104	105	80-120	73-127	1	0-20	
1,2-Dibromoethane	104	111	79-121	72-128	6	0-20	
1,2-Dichlorobenzene	104	104	80-120	73-127	0	0-20	
1,2-Dichloroethane	109	111	80-120	73-127	2	0-20	
Ethylbenzene	103	103	80-120	73-127	0	0-20	
Toluene	107	105	80-120	73-127	1	0-20	
Trichloroethene	101	101	79-127	71-135	1	0-20	
Methyl-t-Butyl Ether (MTBE)	90	94	69-123	60-132	3	0-20	
Tert-Butyl Alcohol (TBA)	94	93	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	97	98	59-137	46-150	1	0-37	
Ethyl-t-Butyl Ether (ETBE)	96	101	69-123	60-132	6	0-20	
Tert-Amyl-Methyl Ether (TAME)	97	98	70-120	62-128	1	0-20	
Ethanol	138	107	28-160	6-182	25	0-57	

Total number of LCS compounds : 15
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

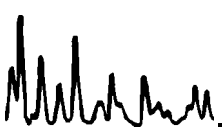
Glossary of Terms and Qualifiers

Work Order Number: 10-07-1937

Qualifier	Definition
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.
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.

Work Order Number: 10-07-1937

Qualifier	Definition
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.



Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

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Page ____ of ____

BP/ARC Project Name: BP 2107 **Req Due Date (mm/dd/yy):** STD-TAT **Rush TAT:** Yes ____ No X

BP/ARC Facility No: 2107 **Lab Work Order Number:**

Lab Name: Cal science	BP/ARC Facility Address: 3310 Park Blvd.	Consultant/Contractor: Broadbent & Associates, Inc.
Lab Address: 7440 Lincoln Way	City, State, ZIP Code: Oakland, CA	Consultant/Contractor Project No: 06-88-614-1-813
Lab PM: Richard Villafania	Lead Regulatory Agency: ACEH	Address: 875 Cotting Lane Ste. G, Vacaville, CA 95688
Lab Phone: 714-895-5494 / 714-895-7501 (fax)	California Global ID No.: T06019734306	Consultant/Contractor PM: Tom Sparrowe
Lab Shipping Accnt: 9255	Enfos Proposal No: 000TK-0004	Phone: 707-455-7290 / 707-455-7295 (fax)
Lab Bottle Order No:	Accounting Mode: Provision X OOC-BU ___ OOC-RM ___	Email EDD To: tsparrowe@broadbentinc.com
Other Info:	Stage: Appraise (1) Activity: Monitoring (13)	Invoice To: BP/ARC X Contractor ___
BP/ARC EBM: Chuck Carmel		
EBM Phone: 925-275-3803		
EBM Email: charles.carmel@bp.com		

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analyses: GRO (8015)	BTEX (8260)	5 Oxys (8260)	EDB (8260)	1,2-DCA (8260)	Ethanol (8260)					Report Type & QC Level / Comments
1	MW-11A	7/23/2010	1100		X			6				X			X	X	X	X	X	X					
2	MW-11B	7/23/2010	1105		X			6				X			X	X	X	X	X	X					
3	MW-12A	7/23/2010	1135		X			6				X			X	X	X	X	X	X					
4	MW-12B	7/23/2010	1130		X			6				X			X	X	X	X	X	X					
5	MW-13A	7/23/2010	1200		X			6				X			X	X	X	X	X	X					
6	MW-13B	7/23/2010	1205		X			6				X			X	X	X	X	X	X					
7	TB - 2107 -100723	7/23/2010			X			2				X													ON HOLD

Sampler's Name: Eric Farrar	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: BAI						
Shipment Method: GSO Ship Date: 7/26/10		7/26/10	1600	Wdata CEL	7/27/10	1006
Shipment Tracking No: 106836601						

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

1937

1 FROM

DATE 10/6/10
COMPANY BAT
ADDRESS 816 Cottage Grove C
ADDRESS
CITY Vacaville
SENDER'S NAME Eric Farrar
STE/ ROOM 6
ZIP CODE 95688
PHONE NUMBER 775-247-7901

2 TO

COMPANY CAL SCIENCE
NAME
PHONE NUMBER 714) 895-6494
ADDRESS 7340 LINCOLN WAY
ADDRESS
STE/ ROOM
CITY GARDEN GROVE
ZIP CODE 92841

3 YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE

SPECIAL INSTRUCTIONS

GSO
GOLDEN STATE OVERNIGHT

1-800-322-5555
WWW.GSO.COM

SHIPPING AIR BILL

4 PACKAGE INFORMATION
- ☐ LETTER (MAX 8 OZ)
- ☒ PACKAGE (WT) 50
- ☐ DECLARED VALUE $
- ☐ COD AMOUNT $ (CASH NOT ACCEPTED)

PACKAGE

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 OVERN

6 RELEASE SIGNATURE
SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNATURE

7

8 PICK UP INFORMATION
TIME DRIVER # ROUTE #

9 GSO TRACKING NUMBER
106836601

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-07-1937

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: BAI DATE: 07/27/10

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

Temperature 2.3 °C + 0.5 °C (CF) = 2.8 °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 ☐ Metals Only ☐ PCBs Only Initial: WB

CUSTODY SEALS INTACT:

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: WB

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: PS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑ PS 7/27/10	☑	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Water: ☐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 ☐500PB ☐500PB**na** ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 100709A **Labeled/Checked by:** PS

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

Preservative: h: HCL n: HNO_3 na$_2$: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** _____

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-07-1937

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**
  - ☐ **Without Label(s)**
- ☐ **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:** _____

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
7	B	2							

Comments: _____

*Transferred at Client's request.

Initial / Date: BS 07/27/10

FIELD PROCEDURES

A.1 QUALITY ASSURANCE/QUALITY CONTROL FIELD PROTOCOLS

Field protocols have been implemented to maximize 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-Phase Product Measurement

Prior to Groundwater sample collection from each monitor well, the presence of free-phase product and depth to ground water shall be measured. Depth to ground water will be measured with a standard M-Scope water level indicator (or equivalent) that has been decontaminated prior to its use in accordance with procedures discussed below. Depth to ground water will be gauged from a saw cut notch at the top of the well casing on each well head. Once depth to water has been measured, a new disposable bailer will be utilized to monitor for the presence and thickness of free-phase product.

A.1.2 Monitor Well Purging

Subsequent to measuring depth to ground water, a minimum of three casing volumes of water will be purged from each monitor well using a Geosquirt submersible pump (or equivalent) 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. To assure that the sample collected is representative of formation water, several field parameters will be monitored during the purging process and the sample will not be collected until these parameters have stabilized to within 10% of a measured value. These parameters will include temperature, pH, and conductivity. If a well is purged dry, the sample will not be collected until the well has recovered to a minimum 50% of its initial volume.

Groundwater sampling equipment (e.g., M-scope and the Geosquirt purge pump) will be thoroughly cleansed with a solution of Liquinox, rinsed with tap water, and finally rinsed with control water prior to use in each well. Pre-cleaned disposable bailers and disposable plastic tubing will be dedicated to each individual well.

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 clean disposable bailer and transferred to laboratory-prepared 40 ml vials, in duplicate; such that no head space or air bubbles are present in the sample. The samples will be properly labeled (sample identification, sampler initials, date and time of collection, site location, and requested analyses), placed in an ice chest with blue ice, and delivered to an analytical laboratory.

A.1.4 Surface Water Sample Collection

Surface water samples will be collected from mid-depth in the central area of the associated stream. Water samples will be collected in laboratory-prepared 40 ml vials by dipping the vial into the stream water. Each vial will be inverted to check that no head space or bubbles are present. The samples will be properly labeled and transported as described above.

A.1.5 Chain of Custody Procedure

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 personally responsible for the care and custody of the samples collected until they are properly transferred.

Samples will have individual 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 sampler for the client.

The staff person conducting the sampling will determine whether proper custody procedures were followed during the field work.

Transfer of Custody and Shipment

A COC will accompany samples during transfer and shipment. When transferring samples, the individual's relinquishing and receiving the samples will sign, date, and note the time on the COC. This COC 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 courier.

A.1.6 Field Records

In addition to sample identification numbers and Chain-of Custody records, Daily Field Report records will be maintained by staff personnel to provide daily records of significant events, observations, and measurements during field investigations. These documents will contain information such as: personnel present, site conditions, sampling procedures, measurement procedures, calibration records, 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 records.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

Processing is complete. No errors were found!
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Submittal Type:	**EDF - Monitoring Report - Semi-Annually**
Submittal Title:	**3Q10 GW Monitoring**
Facility Global ID:	**T06019734306**
Facility Name:	**ARCO #2107**
File Name:	**10071937.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**9/3/2010 10:48:29 AM**
Confirmation Number:	**7586451232**

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