



April 26, 2013

Roya C. Kambin
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6270
RKLG@chevron.com

Mr. Jerry Wickham
Alameda County Health Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

RECEIVED

By Alameda County Environmental Health at 10:16 am, Apr 29, 2013

RE: First Quarter 2013 Semi-Annual Groundwater Monitoring Report
800, 726, and 706 Harrison Street, Oakland, California 94607
Fuel Leak Case No.: RO0000231, RO0000321, and RO0000484
Comingled Plume Claim No. 6678

Dear Mr. Wickham,

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

If you have any questions or need additional information, please contact me at 925.790.6270.

Sincerely,

Roya Kambin
Union Oil of California – Project Manager

Attachment
First Quarter 2013 Semi-Annual Groundwater Monitoring Report

ARCADIS U.S., Inc.
 2000 Powell Street
 7th Floor
 Emeryville
 California 94608
 Tel 510.652.4500
 Fax 510.652.4906
www.arcadis-us.com

Mr. Jerry Wickham
 Senior Hazardous Materials Specialist
 Alameda County Environmental Health (ACEH)
 1131 Harbor Bay Parkway
 Alameda, California 94502-6577

ENVIRONMENT

Subject:
 First Quarter 2013 Semi-Annually Groundwater Monitoring Report Submittal

Dear Mr. Wickham:

Date:
 April 26, 2013

On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California (hereinafter "EMC"), ARCADIS is submitting the enclosed Semi-Annual Groundwater Monitoring Report for the following facility:

Contact:
 Katherine Brandt

<u>Facility No.</u>	<u>Case No.</u>	<u>Location</u>	
0752/YEE/GIN Comingled Plume	RO0000231	706/726/800 Harrison St Oakland, California	

Phone:
 510.596.9675

Email:
Katherine.Brandt@arcadis-us.com

If you have any questions or comments regarding the contents of this document, please contact Ms. Roya Kambin of Chevron at 925.790.6270 or by e-mail at RKambin@Chevron.com. Alternatively, you may contact Katherine Brandt of ARCADIS at 510.596.9675 or by e-mail at Katherine.Brandt@arcadis-us.com.

Our ref:
 B0047339.2012

Sincerely,

ARCADIS



Katherine Brandt
 Certified Project Manager



Jacob Henry, P.G.
 Professional Geologist



Imagine the result

Copies:

Ms. Cherie McCaulou, CRWQCB – San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612 (CD)

Ms. Roya Kambin, Union Oil of California (electronic copy only)

Mr. Muhammad Usman and Mr. Mahmood M. Ali, Property Owners - 800 Harrison Street, Oakland, California

Mr. Peter Yee and Mr. Kin Chan, 726 Harrison Street Property Owners

Mr. Bo Gin, 726 Harrison Street Property Owner – 342 Lester Avenue, Oakland, California 94606

**UNION OIL OF CALIFORNIA
SEMI-ANNUALLY MONITORING REPORT
FIRST QUARTER 2013
April 26, 2013**

Facility No.: 0752/Yee/Gin
Comingled Plume Address: 706/726/800 Harrison Street, Oakland, California

Consulting Company/Contact Person/Phone No.: ARCADIS / Katherine Brandt / 510.596.9675

Primary Agency/Contact Person/Regulatory ID No.: Alameda County Environmental Health (ACEH) / Mr. Jerry
Wickham / Case No. RO0000231

WORK PERFORMED DURING THIS REPORTING PERIOD (First Quarter – 2013) :

1. Gettler-Ryan conducted groundwater monitoring and sampling on February 27, 2013. Field data sheets and general procedures are included as **Attachment A**. Eight (8) groundwater monitoring wells associated with the former Unocal station no. 0752, seven (7) wells associated with 706 Harrison Street (GIN), and seven (7) groundwater monitoring wells associated with 726 Harrison Street (YEE) were gauged and sampled during this monitoring event.

Groundwater samples were analyzed for total purgeable petroleum hydrocarbons (TPPH) by Environmental Protection Agency (EPA) Method 8015B-GC/MS; benzene, toluene, ethylbenzene, and total xylenes (BTEX, collectively), methyl tert-butyl ether (MTBE), 1,2-dibromoethane (EDB), and 1,2-dichloroethane (EDC) by EPA Method 8260B; methane by RSK-175M; total alkalinity by EPA-310.1; nitrate and sulfate by EPA-300; nitrite by EPA-353.2; non-volatile organic carbon by EPA-415.1; and dissolved iron by EPA-6010B. The groundwater samples collected from MW-1 (800 Harrison Street) were sampled for additional analytes that include the full volatile organic compound (VOC) suite and dissolved metals (cadmium, chromium, lead, nickel, and zinc).

The site location map, the site plan, and the groundwater contour map are presented on **Figures 1** through **3**. Concentration maps for TPPH, benzene, and MTBE are on **Figures 4** through **6**. Current Groundwater Gauging and Analytical Results are summarized in **Table 1**, Additional Groundwater Analytical Results are summarized in **Tables 1a, 1b, and 1c**, Historical Groundwater Gauging and Analytical Results are summarized in **Table 2**, Additional Historical Groundwater Analytical Results are summarized in **Tables 2a, 2b, and 2c**, and Historical Groundwater Results from TRC are included as **Attachment B**. A copy of the laboratory analytical report and chain-of-custody documentation is included as **Attachment C**.

WORK PROPOSED FOR THE NEXT REPORTING PERIOD (Third Quarter – 2013):

1. Perform groundwater monitoring and related reporting during third quarter 2013.

Current Phase of Project:	<u>Groundwater Monitoring/ Pilot Testing</u>
Site Use:	<u>Active 76 branded service station/parking lots (YEE/GIN)</u>
Frequency of Sampling:	<u>Groundwater – Semi-Annually</u>
Frequency of Monitoring:	<u>Groundwater – Semi-Annually</u>
Are Separate-Phase Hydrocarbons (SPH) Present On-Site:	<u>No</u>
Cumulative SPH Recovered to Date:	<u>None</u>
SPH Recovered This Quarter:	<u>None</u>
Bulk Soil Removed to Date:	<u>Unknown</u>
Bulk Soil Removed this Quarter:	<u>None</u>
Water Wells or Surface Waters within a 2000' Radius and Their Respective Directions:	<u>San Francisco Bay (approximately 300 ft west)</u>
Groundwater Use Designation:	<u>Potential Drinking Water Source</u>
Current Remediation Techniques:	<u>None at this time</u>

**UNION OIL OF CALIFORNIA
SEMI-ANNUALLY MONITORING REPORT
FIRST QUARTER 2013
April 26, 2013**

Facility No.: 0752/Yee/Gin Address: 706/726/800 Harrison Street, Oakland, California
Comingled Plume

Permits for Discharge (No.): None

Approximate Depth to Groundwater (at Unocal 0752): 17.48 (MW-6) – 19.41 (MW-1) feet below top of casing
Measured Estimated

Approximate Groundwater Elevation (at Unocal 0752): 14.37 (MW-7) – 15.58 (MW-2) feet relative to mean sea level
Measured Estimated

Groundwater Gradient: 0.009 ft/ft (Magnitude) Southwest (Direction)

DISCUSSION:

Groundwater conditions during the first quarter 2013 remained generally consistent with previous quarters.

706 Harrison Street:

The maximum dissolved concentrations of TPPH (45,000 micrograms per liter [$\mu\text{g/L}$]), benzene (1,700 $\mu\text{g/L}$), toluene (2,500 $\mu\text{g/L}$), ethylbenzene (1,200 $\mu\text{g/L}$), total xylenes (4,900 $\mu\text{g/L}$), MTBE (2,700 $\mu\text{g/L}$), and EDC (1.0 $\mu\text{g/L}$) were detected in the samples collected from MW-2. EDB and ethanol were not detected above the laboratory reporting limits for all wells sampled.

726 Harrison Street:

The maximum dissolved concentrations of TPPH (3,000 $\mu\text{g/L}$), benzene (480 $\mu\text{g/L}$), toluene (26 $\mu\text{g/L}$), ethylbenzene (52 $\mu\text{g/L}$), total xylenes (56 $\mu\text{g/L}$), and MTBE (2,600 $\mu\text{g/L}$) were detected in the samples collected from MW-1. The maximum dissolved concentration of EDC (0.70 $\mu\text{g/L}$) was detected in the samples collected from MW-6. EDB and ethanol were not detected above the laboratory reporting limits for all wells sampled.

800 Harrison Street:

The maximum dissolved concentrations of TPPH (1,600 $\mu\text{g/L}$), ethylbenzene (2.8 $\mu\text{g/L}$), and MTBE (820 $\mu\text{g/L}$) were detected in the samples collected from MW-3. The maximum dissolved concentrations of benzene (58 $\mu\text{g/L}$), toluene (11 $\mu\text{g/L}$), and total xylenes (13 $\mu\text{g/L}$) were detected in the samples collected from MW-5. EDB, EDC, and ethanol were not detected above the laboratory reporting limits for all wells sampled. No additional VOCs were detected this sampling event.

Groundwater elevations at the site vary by approximately two feet, creating a relatively gentle hydraulic gradient of 0.009 foot per foot in the southwest direction.

CONCLUSIONS AND RECOMMENDATIONS:

Dissolved constituents of concern concentrations have remained relatively consistent with previous quarters. ARCADIS recommends continued groundwater monitoring.

**UNION OIL OF CALIFORNIA
SEMI-ANNUALLY MONITORING REPORT
FIRST QUARTER 2013
April 26, 2013**

Facility No.: 0752/Yee/Gin Address: 706/726/800 Harrison Street, Oakland, California
Comingled Plume

ATTACHMENTS:

- Figure 1: Site Location Map
 - Figure 2: Site Plan
 - Figure 3: Groundwater Contour Map
 - Figure 4: TPPH Isoconcentration Map
 - Figure 5: Benzene Isoconcentration Map
 - Figure 6: MTBE Isoconcentration Map
-
- Table 1: Current Groundwater Gauging and Analytical Results
 - Table 1a: Additional Groundwater Analytical Results – MNA Parameters
 - Table 1b: Additional Groundwater Analytical Results – VOCs
 - Table 1c: Additional Groundwater Analytical Results – Metals
 - Table 2: Historical Groundwater Gauging and Analytical Results
 - Table 2a: Historical Additional Groundwater Analytical Results – MNA Parameters
 - Table 2b: Historical Additional Groundwater Analytical Results – VOCs
 - Table 2c: Historical Additional Groundwater Analytical Results – Metals
-
- Attachment A: Field Data Sheets and General Procedures
 - Attachment B: Historical Groundwater Results from TRC
 - Attachment C: Laboratory Reports and Chain-of-Custody Documentation

ARCADIS

Figures



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. □UAD., OAKLAND WEST, CALIFORNIA, 1993.

0 2000' 4000'
Approximate Scale: 1 □ = 2000 ft.



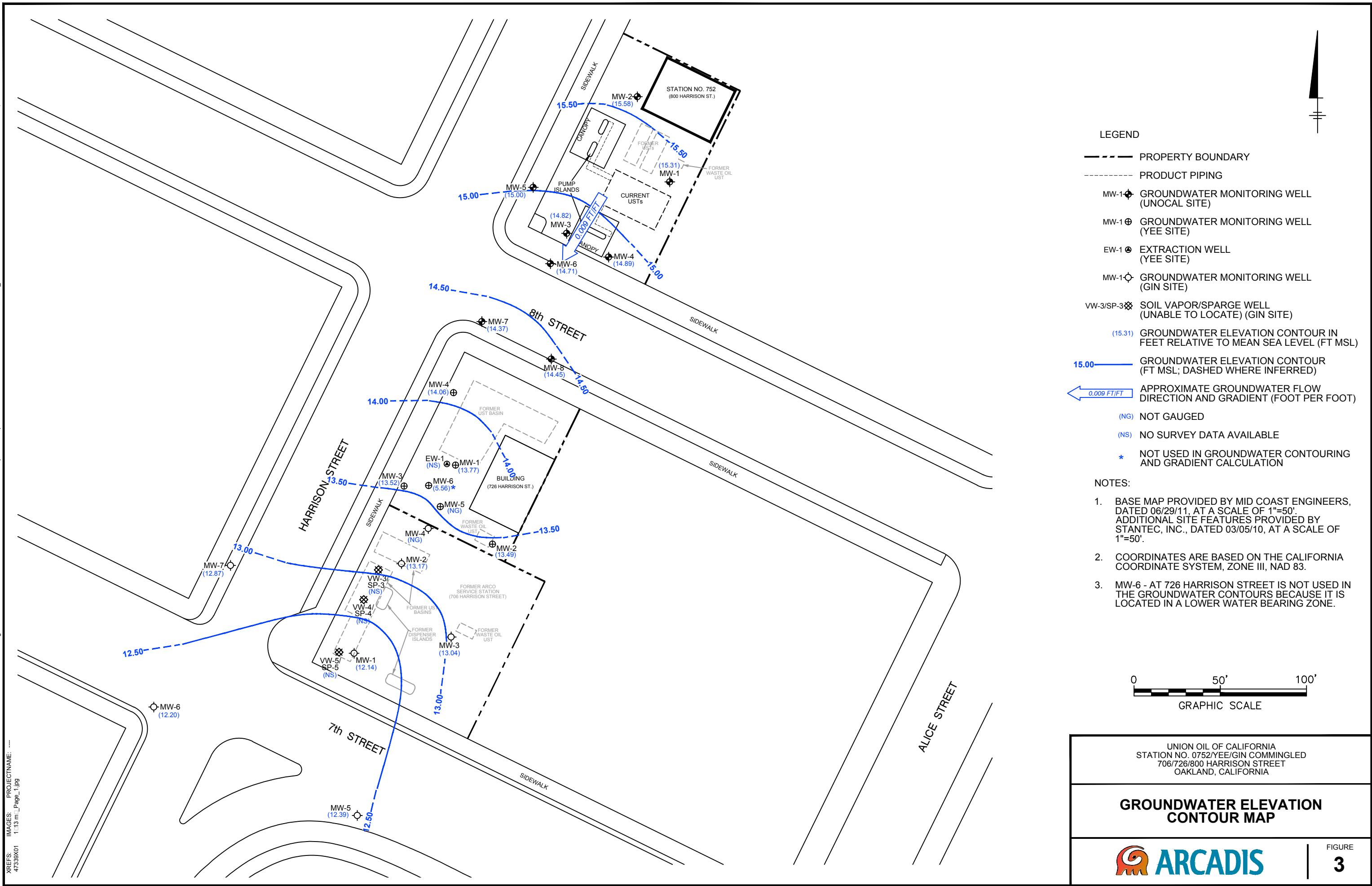
UNION OIL OF CALIFORNIA
STATION NO. 0752/YEE/GIN COMMINGLED
706/726/800 HARRISON STREET
OAKLAND, CALIFORNIA

SITE LOCATION MAP

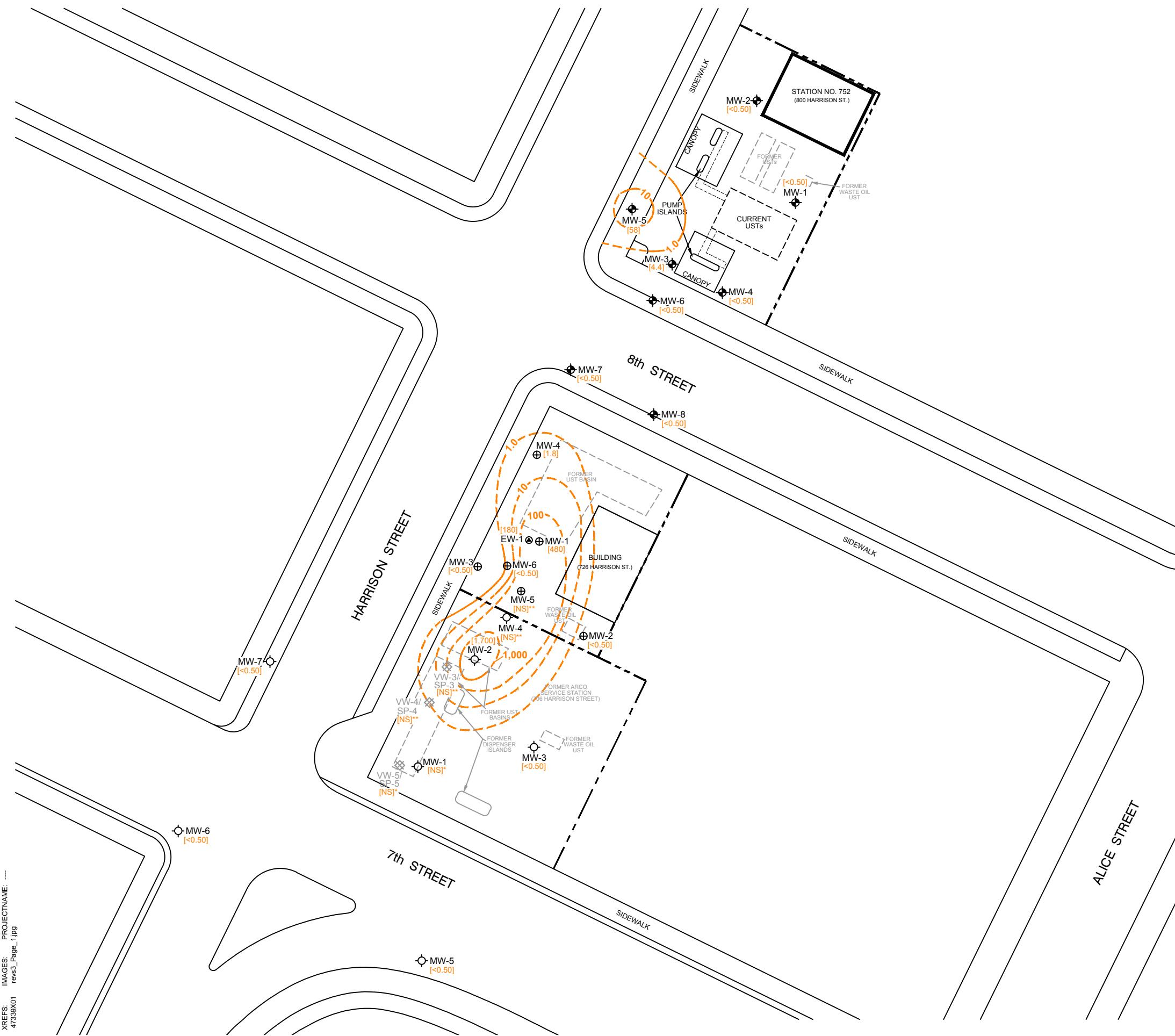
 ARCADIS

FIGURE
1







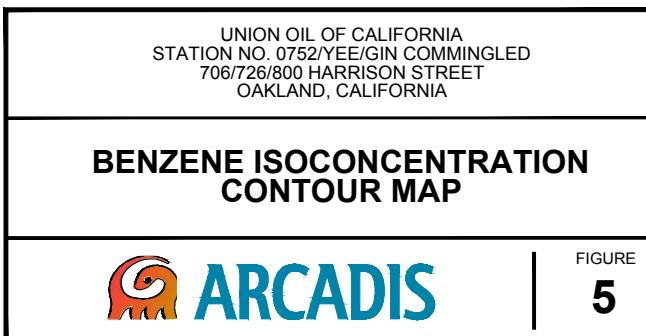


LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 (●) GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1+ (⊕) GROUNDWATER MONITORING WELL (YEE SITE)
- EW-1 (◎) EXTRACTION WELL (YEE SITE)
- MW-1- (○) GROUNDWATER MONITORING WELL (GIN SITE)
- VW-3/SP-3 (⊗) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
- [BENZ] BENZENE CONCENTRATION IN MICROGRAMS PER LITER ($\mu\text{g}/\text{L}$)
- 100 — BENZENE ISOCONCENTRATION CONTOUR ($\mu\text{g}/\text{L}$; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- [NS]* NOT SAMPLED DUE TO UNABLE TO LOCATE
- [NS]** NOT SAMPLED DUE TO CAR PARKED ON LOCATION

NOTES:

- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
- COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
- MW-6 - AT 726 HARRISON STREET IS NOT USED IN THE GROUNDWATER CONTOURS BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.





ARCADIS

Tables

Table 1
Current Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet)	LPH DTW (feet btoc)	GW Thickness (feet)	Previous Elevation (feet)	Change in Quarter GWE (feet AMSL)	TPPH (8015B-GC/MC)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
800 Harrison Street																
MW-1	2/27/2013	34.72	19.41	0.00	15.31	15.58	-0.27	50	<0.50	<0.50	<0.50	<1.0	6.7	<0.50	<0.50	<250
MW-2	2/27/2013	34.74	19.16	0.00	15.58	15.85	-0.27	<50	<0.50	<0.50	<0.50	<1.0	9.6	<0.50	<0.50	<250
MW-3	2/27/2013	33.18	18.36	0.00	14.82	15.16	-0.34	1,600	4.4	0.69	2.8	<1.0	820	<0.50	<0.50	<250
MW-4	2/27/2013	32.72	17.83	0.00	14.89	15.17	-0.28	<50	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<250
MW-5	2/27/2013	32.98	17.98	0.00	15.00	15.25	-0.25	1,300	58	11	2.4	13	8.0	<0.50	<0.50	<250
MW-6	2/27/2013	32.19	17.48	0.00	14.71	15.02	-0.31	77	<0.50	<0.50	<0.50	<1.0	2.4	<0.50	<0.50	<250
MW-7	2/27/2013	32.22	17.85	0.00	14.37	14.69	-0.32	<50	<0.50	<0.50	<0.50	<1.0	3.8	<0.50	<0.50	<250
MW-8	2/27/2013	32.03	17.58	0.00	14.45	14.74	-0.29	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250
706 Harrison Street																
MW-1	2/27/2013	29.17	17.03	0.00	12.14	12.59	-0.45	--	--	--	--	--	--	--	--	Parked Car
MW-2	2/27/2013	30.53	17.36	0.00	13.17	13.63	-0.46	45,000	1,700	2,500	1,200	4,900	2,700	<50	1.0	<250
MW-3	2/27/2013	29.79	16.75	0.00	13.04	13.47	-0.43	<50	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<250
MW-4	2/27/2013	31.20	--	--	--	--	--	--	--	--	--	--	--	--	--	Parked Car
MW-5	2/27/2013	28.07	15.68	0.00	12.39	12.85	-0.46	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250
MW-6	2/27/2013	29.13	16.93	0.00	12.20	12.72	-0.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250
MW-7	2/27/2013	29.70	16.83	0.00	12.87	13.32	-0.45	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250
SP-3	2/27/2013	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	2/27/2013	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	2/27/2013	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
726 Harrison Street																
EW-1	2/27/2013	*--	18.17	0.00	*--	--	--	960	180	6.0	3.6	12	170	<0.50	<0.50	<250
MW-1	2/27/2013	31.98	18.21	0.00	13.77	14.16	-0.39	3,000	480	26	52	56	2,600	<0.50	<0.50	<250
MW-2	2/27/2013	32.44	18.95	0.00	13.49	13.89	-0.40	<50	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<250
MW-3	2/27/2013	31.64	18.12	0.00	13.52	13.90	-0.38	<50	<0.50	<0.50	<0.50	<1.0	2.8	<0.50	<0.50	<250
MW-4	2/27/2013	32.56	18.50	0.00	14.06	14.40	-0.34	170	1.8	<0.50	<0.50	<1.0	22	<0.50	<0.50	<250
MW-5	2/27/2013	32.06	--	--	--	--	--	--	--	--	--	--	--	--	--	Parked Car
MW-6	2/27/2013	32.04	26.48	0.00	5.56	3.77	1.79	<50	<0.50	<0.50	<0.50	<1.0	970	<0.50	0.70	<250

Table 1
Current Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Cmingled Plume
706/726/800 Harrison Street Oakland, California

Note

Analytical results given in micrograms per liter ($\mu\text{g/l}$)

Standard Abbreviations

--	not analyzed, measured, or collected
*--	not surveyed
<	not detected at or above laboratory detection limit
TOC	top of casing (surveyed reference elevation)
AMSL	above mean sealevel
DTW	depth to water
btoc	below top of casing
LPH	liquid-phase hydrocarbons
GW	groundwater
$\mu\text{g/l}$	micrograms per liter (approx. equivalent to parts per billion, ppb)

Analytes

TPPH	total purgeable petroleum hydrocarbons (C6-C12)
MTBE	methyl tertiary butyl ether
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane (same as ethylene dichloride)
8260B	EPA Method 8260B for Volatile Organic Compounds
GC/MS	gas chromatography-mass spectrometry for TPPH
A01	PQL's and MDL's are raised due to sample dilution.
J	Estimated Value
PQL	practical quantitation limit
MDL	method detection limit

Table 1A
Additional Groundwater Analytical Results - MNA Parameters
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Methane (mg/l)	Alkalinity as CaCO ₃ (mg/l)	Nitrate as NO ₃ (mg/l)	Nitrite as NO ₂ (mg/l)	Sulfate (mg/l)	Non-Volatile Organic Carbon	Comments
800 Harrison Street								
MW-1	2/27/2013	0.0019	56	1.2	<0.17	9.0	0.87	
MW-2	2/27/2013	0.055	320	16	0.24	160	2.1	
MW-3	2/27/2013	4.4	390	<0.44	<0.17	4.5	4	A01
MW-4	2/27/2013	0.0023	130	9.7	<0.17	25	0.89	
MW-5	2/27/2013	1.9	200	<0.44	<0.17	24	2.1	A01
MW-6	2/27/2013	0.19	99	0.45	<0.17	13	0.75	
MW-7	2/27/2013	0.13	140	<0.44	<0.17	38	1.1	
MW-8	2/27/2013	0.0027	190	<0.44	<0.17	49	2.7	
706 Harrison Street								
MW-1	2/27/2013	--	--	--	--	--	--	Parked Car
MW-2	2/27/2013	4.9	530	<0.44	<0.17	4.1	16	A01, A10
MW-3	2/27/2013	0.0029	130	39	<0.17	52	1.1	
MW-4	2/27/2013	--	--	--	--	--	--	Parked Car
MW-5	2/27/2013	0.0026	150	17	<0.17	46	2.1	
MW-6	2/27/2013	0.0019	190	<0.44	<0.17	60	2.4	
MW-7	2/27/2013	0.0012	260	<0.44	<0.17	56	3.4	
SP-3	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-4	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-5	2/27/2013	--	--	--	--	--	--	Unable to Locate
726 Harrison Street								
EW-1	2/27/2013	0.91	210	0.5	<0.17	10	3.2	A01
MW-1	2/27/2013	0.51	230	<0.44	<0.17	14	6.4	
MW-2	2/27/2013	<0.0010	82	66	<0.17	27	1.1	
MW-3	2/27/2013	0.0012	160	<0.44	<0.17	22	2.0	
MW-4	2/27/2013	0.32	400	<0.44	<0.17	13	4.8	
MW-5	2/27/2013	--	--	--	--	--	--	Parked Car
MW-6	2/27/2013	0.0033	170	6.2	<0.17	25	0.70	

Note

Analytical results given in milligrams per liter (mg/l)

Standard Abbreviations

- not analyzed, measured, or collected
- < not detected at or above laboratory detection limit
- mg/l milligrams per liter (approx. equivalent to parts per million, ppm)

Analytes

- CaCO₃ calcium carbonate
- NO₃ nitrate
- NO₂ nitrogen dioxide
- EDC 1,2-dichloroethane (same as ethylene dichloride)
- A01 PQL's and MDL's are raised due to sample dilution.
- PQL practical quantitation limit
- MDL method detection limit
- A10 PQL's and MDL's were raised due to matrix interference.

Table 1B
Additional Groundwater Analytical Results - VOCs
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Acenaph-thene	Acenaph-thylene	Aldrin	Aniline (Benzene)	Anthra-cene	Benzi-dine	Anthra-cene	Benzo(a) Fluoran-(b)	Benzo(k)	Benzo(a) Pyrene	Benzo(g,h,i) Perylene	Benzoi-c Acid	Benzyl Alcohol	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC (Lindane)	bis(2-Chloroethoxy)	bis(2-Chloroethyl)	bis(2-Ethylhexyl)	4-Bromo-phenyl-phthalate	4-Chloro-aniline	2-Chloro-naphthalene	4-Chloro-phenyl	Chrysene	4,4'-DDD	4,4'-DDE
800 Harrison Street																												
MW-1	2/27/2013	<2.0	<2.0	<2.0	<5.0	<2.0	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<3.0
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
706 Harrison Street																												
MW-1	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SP-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SP-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SP-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
726 Harrison Street																												
EW-1	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Note

Analytical results given in micrograms per liter ($\mu\text{g/l}$)

Standard Abbreviations

-- not analyzed, measured, or collected

< not detected at or above laboratory detection limit

$\mu\text{g/l}$ micrograms per liter (approx. equivalent to parts per billion, ppb)

Table 1B
Additional Groundwater
76 Station 0752/YEE/GIN
706/726/800 Harrison Street

Well ID	Date Sampled	4,4'-DDT	Dibenz(a,h)anthracen	Dibenzo-furan	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dieldrin	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Di-n-octyl phthalate	1,2-Diphenylhydrazin	Endosulfan I (alpha-hydrizin)	Endosulfan II	Endosulfan Sulfate	Endrin	Floranthene	Fluorene	Hepta-chlor Epoxide	Hepta-chlorobenzene	Hexachloro-cyclohexadiene	Hexachloro-pentadiene	Hexachloroethane	Indeno(1,2,3-cd)
800 Harrison Street																											
MW-1	2/27/2013	<2.0	<3.0	<2.0	<2.0	<2.0	<2.0	<3.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<3.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-7	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
706 Harrison Street																											
MW-1	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-7	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
SP-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
SP-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
SP-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
726 Harrison Street																											
EW-1	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-1	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

Table 1B
Additional Groundwater
76 Station 0752/YEE/GIN
706/726/800 Harrison Street

Well ID	Date Sampled	2-Methyl-naphthalene	2-Naphthalene	Naphthalene	2-Nitro-aniline	3-Nitro-aniline	4-Nitro-aniline	Nitrobenzene	N-Nitro-sodimethylamine	N-Nitro-sodi-n-propylamine	N-Nitrosodiphenylamine	Phenanthrene	Pyrene	1,2,4-Trichlorobenzene	p-Chloro-m-cresol	2-Chlorophenol	Dichlorophenol	Dimethylphenol	2-methylphenol	4,6-Dinitrophenol	2,4-Dinitrophenol	2,4-Dinitrophenol	3-/4-Methylphenol	2-Nitrophenol	4-Nitrophenol	Penta-chlorophenol	Phenol
800 Harrison Street																											
MW-1	2/27/2013	<2.0	<2.0	<2.0	<20	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0		
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-7	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
706 Harrison Street																											
MW-1	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-7	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
SP-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
SP-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
SP-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
726 Harrison Street																											
EW-1	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-1	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

Table 1C
Additional Groundwater Analytical Results - Metals
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Dissolved Cadmium	Dissolved Chromium	Dissolved Iron	Dissolved Lead	Dissolved Nickel	Dissolved Zinc	Comments
800 Harrison Street								
MW-1	2/27/2013	<10	<10	<50	<50	<10	<10	
MW-2	2/27/2013	--	--	56	--	--	--	
MW-3	2/27/2013	--	--	8,400	--	--	--	
MW-4	2/27/2013	--	--	<50	--	--	--	
MW-5	2/27/2013	--	--	860	--	--	--	
MW-6	2/27/2013	--	--	<50	--	--	--	
MW-7	2/27/2013	--	--	1,000	--	--	--	
MW-8	2/27/2013	--	--	1,400	--	--	--	
706 Harrison Street								
MW-1	2/27/2013	--	--	--	--	--	--	Parked Car
MW-2	2/27/2013	--	--	9,500	--	--	--	
MW-3	2/27/2013	--	--	<50	--	--	--	
MW-4	2/27/2013	--	--	--	--	--	--	Parked Car
MW-5	2/27/2013	--	--	<50	--	--	--	
MW-6	2/27/2013	--	--	94	--	--	--	
MW-7	2/27/2013	--	--	2,600	--	--	--	
SP-3	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-4	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-5	2/27/2013	--	--	--	--	--	--	Unable to Locate
726 Harrison Street								
EW-1	2/27/2013	--	--	3,100	--	--	--	
MW-1	2/27/2013	--	--	2,000	--	--	--	
MW-2	2/27/2013	--	--	<50	--	--	--	
MW-3	2/27/2013	--	--	<50	--	--	--	
MW-4	2/27/2013	--	--	4,300	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	Parked Car
MW-6	2/27/2013	--	--	<50	--	--	--	

Note

Analytical results given in micrograms per liter ($\mu\text{g/l}$)

Standard Abbreviations

- not analyzed, measured, or collected
- < not detected at or above laboratory detection limit
- $\mu\text{g/l}$ micrograms per liter (approx. equivalent to parts per billion, ppb)

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8015B-GC/MC)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
800 Harrison Street																	
MW-1	2/7/2012	34.72	20.00	0.00	14.72	15.22	-0.50	97	<0.50	<0.50	<0.50	<1.0	8.6	<0.50	<0.50	--	
MW-1	8/9/2012	34.72	19.14	0.00	15.58	14.72	0.86	140	<0.50	<0.50	<0.50	<1.0	18	<0.50	<0.50	<250	
MW-1	2/27/2013	34.72	19.41	0.00	15.31	15.58	-0.27	50	<0.50	<0.50	<0.50	<1.0	6.7	<0.50	<0.50	<250	
MW-2	2/7/2012	34.74	19.77	0.00	14.97	15.42	-0.45	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	
MW-2	8/9/2012	34.74	18.89	0.00	15.85	14.97	0.88	<50	<0.50	<0.50	<0.50	<1.0	4.7	<0.50	<0.50	<250	
MW-2	2/27/2013	34.74	19.16	0.00	15.58	15.85	-0.27	<50	<0.50	<0.50	<0.50	<1.0	9.6	<0.50	<0.50	<250	
MW-3	2/7/2012	33.18	18.88	0.00	14.30	14.88	-0.58	1,800	6.7	<1.0	1.9	<2.0	1,600	<0.50	<0.50	--	A01
MW-3	8/9/2012	33.18	18.02	0.00	15.16	14.30	0.86	1,400	1.8	<0.50	1.5	<1.0	370	<0.50	<0.50	<250	A01
MW-3	2/27/2013	33.18	18.36	0.00	14.82	15.16	-0.34	1,600	4.4	0.69	2.8	<1.0	820	<0.50	<0.50	<250	A01
MW-4	2/7/2012	32.72	18.38	0.00	14.34	14.87	-0.53	<50	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	--	
MW-4	8/9/2012	32.72	17.55	0.00	15.17	14.34	0.83	<50	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<250	
MW-4	2/27/2013	32.72	17.83	0.00	14.89	15.17	-0.28	<50	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<250	
MW-5	2/7/2012	32.98	18.59	0.00	14.39	14.93	-0.54	1,600	58	11	3.0	25	10	<0.50	<0.50	--	A01
MW-5	8/9/2012	32.98	17.73	0.00	15.25	14.39	0.86	1,900	81	18	10	22	19	<0.50	<0.50	<250	A01
MW-5	2/27/2013	32.98	17.98	0.00	15.00	15.25	-0.25	1,300	58	11	2.4	13	8.0	<0.50	<0.50	<250	
MW-6	2/7/2012	32.19	18.02	0.00	14.17	14.71	-0.54	450	<0.50	<0.50	<0.50	<1.0	29	<0.50	<0.50	--	
MW-6	8/9/2012	32.19	17.17	0.00	15.02	14.17	0.85	180	<0.50	<0.50	<0.50	<1.0	10	<0.50	<0.50	<250	
MW-6	2/27/2013	32.19	17.48	0.00	14.71	15.02	-0.31	77	<0.50	<0.50	<0.50	<1.0	2.4	<0.50	<0.50	<250	
MW-7	2/7/2012	32.22	18.40	0.00	13.82	14.39	-0.57	310	25	2	<0.50	3.2	9.0	<0.50	<0.50	--	
MW-7	8/9/2012	32.22	17.53	0.00	14.69	13.82	0.87	280	11	1.2	<0.50	<1.0	24	<0.50	<0.50	<250	
MW-7	2/27/2013	32.22	17.85	0.00	14.37	14.69	-0.32	<50	<0.50	<0.50	<0.50	<1.0	3.8	<0.50	<0.50	<250	
MW-8	2/7/2012	32.03	18.15	0.00	13.88	14.50	-0.62	<50	<0.50	<0.50	<0.50	<1.0	0.75	<0.50	<0.50	--	
MW-8	8/9/2012	32.03	17.29	0.00	14.74	13.88	0.86	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-8	2/27/2013	32.03	17.58	0.00	14.45	14.74	-0.29	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
706 Harrison Street																	
MW-1	2/7/2012	29.17	17.33	0.00	11.84	15.22	-3.38	8,900	1,000	260	230	610	420	<0.50	<0.50	--	A01
MW-1	8/9/2012	29.17	16.58	0.00	12.59	11.84	0.75	2,200	850	110	42	120	84	<5.0	<5.0	<2,500	A01
MW-1	2/27/2013	29.17	17.03	0.00	12.14	12.59	-0.45	--	--	--	--	--	--	--	--	Parked Car	
MW-2	2/7/2012	30.53	17.90	0.00	12.63	15.42	-2.79	36,000	1,100	3,600	990	4,200	1,600	<5.0	<5.0	--	A01
MW-2	8/9/2012	30.53	16.90	0.00	13.63	12.63	1.00	5,100	810	1,800	440	1,900	4,100	<50	<50	<25,000	A01

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8015B-GC/MC)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
	2/27/2013	30.53	17.36	0.00	13.17	13.63	-0.46	45,000	1,700	2,500	1,200	4,900	2,700	<50	1.0	<250	A01
MW-2	2/7/2012	29.79	17.23	0.00	12.56	14.88	-2.32	<50	<0.50	<0.50	<0.50	<1.0	110	<0.50	<0.50	--	A01
MW-3	8/9/2012	29.79	16.32	0.00	13.47	12.56	0.91	<50	<0.50	<0.50	<0.50	<1.0	0.80	<0.50	<0.50	<250	
MW-3	2/27/2013	29.79	16.75	0.00	13.04	13.47	-0.43	<50	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<250	
MW-4	2/7/2012	31.20	18.43	0.00	12.77	14.87	-2.10	1,800	140	15	21	32	430	<0.50	<0.50	--	A01
MW-4	8/9/2012	31.20	--	--	--	12.77	--	--	--	--	--	--	--	--	--	Parked Car	
MW-4	2/27/2013	31.20	--	--	--	--	--	--	--	--	--	--	--	--	--	Parked Car	
MW-5	2/7/2012	28.07	16.45	0.00	11.62	14.93	-3.31	<50	<0.50	<0.50	<0.50	1.6	190	<0.50	<0.50	--	A01
MW-5	8/9/2012	28.07	15.22	0.00	12.85	11.62	1.23	<50	<0.50	<0.50	<0.50	<1.0	13	<0.50	<0.50	<250	
MW-5	2/27/2013	28.07	15.68	0.00	12.39	12.85	-0.46	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-6	2/7/2012	29.13	17.51	0.00	11.62	14.71	-3.09	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	
MW-6	8/9/2012	29.13	16.41	0.00	12.72	11.62	1.10	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-6	2/27/2013	29.13	16.93	0.00	12.20	12.72	-0.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-7	2/7/2012	29.70	17.40	0.00	12.30	14.39	-2.09	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	
MW-7	8/9/2012	29.70	16.38	0.00	13.32	12.30	1.02	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-7	2/27/2013	29.70	16.83	0.00	12.87	13.32	-0.45	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
SP-3	2/27/2013	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	Unable to Locate	
SP-4	2/27/2013	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	Unable to Locate	
SP-5	2/27/2013	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	Unable to Locate	
726 Harrison Street																	
EW-1	2/27/2013	*--	18.17	0.00	*--	--	--	960	180	6.0	3.6	12	170	<0.50	<0.50	<250	A01
MW-1	2/7/2012	31.98	18.77	0.00	13.21	15.22	-2.01	370	46	1.7	4.2	4.5	3,800	<0.50	<0.50	--	A01
MW-1	8/9/2012	31.98	17.82	0.00	14.16	13.21	0.95	6600	760	27	58	60	6,700	<0.50	<0.50	--	A01
MW-1	2/27/2013	31.98	18.21	0.00	13.77	14.16	-0.39	3,000	480	26	52	56	2,600	<0.50	<0.50	<250	A01
MW-2	2/7/2012	32.44	19.52	0.00	12.92	15.42	-2.50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	
MW-2	8/9/2012	32.44	18.55	0.00	13.89	12.92	0.97	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	
MW-2	2/27/2013	32.44	18.95	0.00	13.49	13.89	-0.40	<50	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<250	
MW-3	2/7/2012	31.64	18.71	0.00	12.93	14.88	-1.95	25	<0.50	<0.50	<0.50	<1.0	2.1	<0.50	<0.50	--	J
MW-3	8/9/2012	31.64	17.74	0.00	13.90	12.93	0.97	39	<0.50	<0.50	<0.50	<1.0	9.2	<0.50	<0.50	--	J
MW-3	2/27/2013	31.64	18.12	0.00	13.52	13.90	-0.38	<50	<0.50	<0.50	<0.50	<1.0	2.8	<0.50	<0.50	<250	

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8015B-GC/MC)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
MW-4	2/7/2012	32.56	19.09	0.00	13.47	14.87	-1.40	210	<0.50	<0.50	<0.50	<1.0	17	<0.50	<0.50	--	
MW-4	8/9/2012	32.56	18.16	0.00	14.40	13.47	0.93	280	2	<0.50	<0.50	<1.0	21	<0.50	<0.50	--	
MW-4	2/27/2013	32.56	18.50	0.00	14.06	14.40	-0.34	170	1.8	<0.50	<0.50	<1.0	22	<0.50	<0.50	<250	
MW-5	2/7/2012	32.06	19.16	0.00	12.90	14.93	-2.03	19,000	890	410	360	990	17,000	<6.2	<6.2	--	A01
MW-5	8/9/2012	32.06	18.24	0.00	13.82	12.90	0.92	16,000	1,400	580	470	960	16,000	<5.0	<5.0	--	A01
MW-5	2/27/2013	32.06	--	--	--	--	--	--	--	--	--	--	--	--	--	Parked Car	
MW-6	2/7/2012	32.04	26.53	0.00	5.51	14.71	-9.20	410	<0.50	<0.50	<0.50	<1.0	970	<0.50	0.79	--	A01
MW-6	8/9/2012	32.04	28.27	0.00	3.77	5.51	-1.74	830	<0.50	<0.50	<0.50	<1.0	970	<0.50	1.2	--	A01
MW-6	2/27/2013	32.04	26.48	0.00	5.56	3.77	1.79	<50	<0.50	<0.50	<0.50	<1.0	970	<0.50	0.70	<250	A01

Note

Analytical results given in micrograms per liter ($\mu\text{g/l}$)

Standard Abbreviations

--	not analyzed, measured, or collected
*--	not surveyed
<	not detected at or above laboratory detection limit
TOC	top of casing (surveyed reference elevation)
AMSL	above mean sealevel
DTW	depth to water
btoc	below top of casing
LPH	liquid-phase hydrocarbons
GW	groundwater
$\mu\text{g/l}$	micrograms per liter (approx. equivalent to parts per billion, ppb)

Analytes

TPPH	total purgeable petroleum hydrocarbons
MTBE	methyl tertiary butyl ether
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane (same as ethylene dichloride)
8260B	EPA Method 8260B for Volatile Organic Compounds
GC/MS	gas chromatography-mass spectrometry for TPPH
A01	PQL's and MDL's are raised due to sample dilution.

Table 2A
Historical Additional Groundwater Analytical Results - MNA Parameters
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Methane (mg/l)	Alkalinity as CaCO ₃ (mg/l)	Nitrate as NO ₃ (mg/l)	Nitrite as NO ₂ (mg/l)	Sulfate (mg/l)	Non-Volatile Organic Carbon	Comments
800 Harrison Street								
MW-1	8/9/2012	0.026	69	1.9	<0.17	10	1.6	
MW-1	2/27/2013	0.0019	56	1.2	<0.17	9.0	0.87	
MW-2	8/9/2012	0.076	190	19	0.38	130	1.4	
MW-2	2/27/2013	0.055	320	16	0.24	160	2.1	
MW-3	8/9/2012	6.3	290	<0.44	<0.17	3.5	2.9	A01, S01
MW-3	2/27/2013	4.4	390	<0.44	<0.17	4.5	4	A01
MW-4	8/9/2012	0.031	98	4.3	<0.17	22	0.90	
MW-4	2/27/2013	0.0023	130	9.7	<0.17	25	0.89	
MW-5	8/9/2012	2.9	140	<0.44	<0.17	2.5	1.7	A01
MW-5	2/27/2013	1.9	200	<0.44	<0.17	24	2.1	A01
MW-6	8/9/2012	0.18	130	<0.44	<0.17	16	1.0	A01
MW-6	2/27/2013	0.19	99	0.45	<0.17	13	0.75	
MW-7	8/9/2012	0.43	180	<0.44	<0.17	17	2.7	A01
MW-7	2/27/2013	0.13	140	<0.44	<0.17	38	1.1	
MW-8	8/9/2012	0.0041	130	1.3	<0.17	37	1.6	
MW-8	2/27/2013	0.0027	190	<0.44	<0.17	49	2.7	
706 Harrison Street								
MW-1	8/9/2012	0.28	250	<0.44	<0.17	51	7.3	A01
MW-1	2/27/2013	--	--	--	--	--	--	Parked Car
MW-2	8/9/2012	6.8	500	<0.44	<0.17	<1.0	15	A01, S01
MW-2	2/27/2013	4.9	530	<0.44	<0.17	4.1	16	A01, A10
MW-3	8/9/2012	<0.0010	130	43	<0.17	61	1.4	
MW-3	2/27/2013	0.0029	130	39	<0.17	52	1.1	
MW-4	8/9/2012	--	--	--	--	--	--	Parked Car
MW-4	2/27/2013	--	--	--	--	--	--	Parked Car
MW-5	8/9/2012	<0.0010	150	19	<0.17	49	2.0	
MW-5	2/27/2013	0.0026	150	17	<0.17	46	2.1	
MW-6	8/9/2012	0.0082	140	<0.44	<0.17	27	1.9	
MW-6	2/27/2013	0.0019	190	<0.44	<0.17	60	2.4	
MW-7	8/9/2012	0.0045	230	<0.44	<0.17	49	3.0	
MW-7	2/27/2013	0.0012	260	<0.44	<0.17	56	3.4	
SP-3	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-4	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-5	2/27/2013	--	--	--	--	--	--	Unable to Locate

Table 2A
Historical Additional Groundwater Analytical Results - MNA Parameters
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Methane (mg/l)	Alkalinity as CaCO ₃ (mg/l)	Nitrate as NO ₃ (mg/l)	Nitrite as NO ₂ (mg/l)	Sulfate (mg/l)	Non-Volatile Organic Carbon	Comments
726 Harrison Street								
EW-1	2/27/2013	0.91	210	0.5	<0.17	10	3.2	A01
MW-1	8/9/2012	--	--	--	--	--	--	
MW-1	2/27/2013	0.51	230	<0.44	<0.17	14	6.4	
MW-2	8/9/2012	--	--	--	--	--	--	
MW-2	2/27/2013	<0.0010	82	66	<0.17	27	1.1	
MW-3	8/9/2012	--	--	--	--	--	--	
MW-3	2/27/2013	0.0012	160	<0.44	<0.17	22	2.0	
MW-4	8/9/2012	--	--	--	--	--	--	
MW-4	2/27/2013	0.32	400	<0.44	<0.17	13	4.8	
MW-5	8/9/2012	--	--	--	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	Parked Car
MW-6	8/9/2012	--	--	--	--	--	--	
MW-6	2/27/2013	0.0033	170	6.2	<0.17	25	0.70	

Note

Analytical results given in milligrams per liter (mg/l)

Standard Abbreviations

- not analyzed, measured, or collected
- < not detected at or above laboratory detection limit
- mg/l milligrams per liter (approx. equivalent to parts per million, ppm)

Analytes

- CaCO₃ calcium carbonate
- NO₃ nitrate
- NO₂ nitrogen dioxide
- EDC 1,2-dichloroethane (same as ethylene dichloride)
- A01 PQL's and MDL's are raised due to sample dilution.
- PQL practical quantitation limit
- MDL method detection limit
- A10 PQL's and MDL's were raised due to matrix interference.
- S01 sample result is not within the quantitation range of the method.

Table 2B
Historical Additional Groundwater Analytical Results - VOCs
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Acenaph-thene	Acenaph-thylene	Aniline (Benzene)	Benzo(a)Anthracene	Benzo(b)Anthracene	Benzo(k)Fluoranthene	Benzo(a)Pyrene	Benzo(g,h,i)Perylene	Benzoinic Acid	Benzyl Alcohol	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC (Lindane)	bis(2-Chloroethoxy)	bis(2-Chloroethyl)	bis(2-Ethylhexyl)	4-Bromophthalate	4-Chlorophenylether	4-Chloroaniline	2-Chloronaphthalene	4-Chlorophenylphenyl	Chrysene	4,4'-DDD	4,4'-DDE
800 Harrison Street																										
MW-1	2/7/2012	<2.0	<2.0	<2.0	<5.0	<2.0	<20	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
MW-1	8/9/2012	<2.0	<2.0	<2.0	<5.0	<2.0	<20	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<3.0	
MW-1	2/27/2013	<2.0	<2.0	<2.0	<5.0	<2.0	<20	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<3.0	
MW-2	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Note

Analytical results given in micrograms per liter ($\mu\text{g/l}$)

Standard Abbreviations

-- not analyzed, measured, or collected

< not detected at or above laboratory detection limit

$\mu\text{g/l}$ micrograms per liter (approx. equivalent to parts per billion, ppb)

Table 2B
Historical Additional Gro
76 Station 0752/YEE/GIN
706/726/800 Harrison Street

Well ID	Date Sampled	4,4'-DDT	Dibenz(a,h)anthracen	Dibenzo-furan	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dieldrin	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Di-n-octyl phthalate	1,2-Diphenylhydrazin	Endosulfan I (alpha-hydrizin)	Endosulfan II	Endosulfan Sulfate	Endrin	Floranthene	Fluorene	Hepta-chlor Epoxide	Hepta-chlorobenzene	Hexachloro-butadiene	Hexachloro-cyclo-pentadiene	Hexachloro-ethane	Indeno(1,2,3-cd)
800 Harrison Street																											
MW-1	2/7/2012	<2.0	<3.0	<2.0	<2.0	<2.0	<2.0	<3.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<3.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
MW-1	8/9/2012	<2.0	<3.0	<2.0	<2.0	<2.0	<2.0	<3.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<3.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
MW-1	2/27/2013	<2.0	<3.0	<2.0	<2.0	<2.0	<2.0	<3.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<3.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
MW-2	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 2B
Historical Additional Gro
76 Station 0752/YEE/GIN
706/726/800 Harrison Street

Well ID	Date Sampled	Iso-naphthalene	2-Methyl-naphthalene	2-Naphthalene	2-Naphthalene-amine	2-Nitro-aniline	3-Nitro-aniline	4-Nitro-aniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Phenanthrene	Pyrene	1,2,4-Trichlorobenzene	p-Chloro-m-cresol	2-Chlorophenol	Dichlorophenol	Dimethylphenol	2-methylphenol	4,6-Dinitrophenol	2,4-Dinitrophenol	2-Methylphenol	Methylphenol	3-/4-Methylphenol	2-Nitrophenol	4-Nitrophenol	Penta-chlorophenol	Phenol
800 Harrison Street																													
MW-1	2/7/2012	<2.0	<2.0	<2.0	<20	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<10	<2.0		
MW-1	8/9/2012	<2.0	<2.0	<2.0	<20	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<10	<2.0		
MW-1	2/27/2013	<2.0	<2.0	<2.0	<20	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	
MW-2	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-2	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-6	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-7	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-7	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-7	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	2/7/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	2/27/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

Table 2C
Historical Additional Groundwater Analytical Results - Metals
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Dissolved Cadmium	Dissolved Chromium	Dissolved Iron	Dissolved Lead	Dissolved Nickel	Dissolved Zinc	Comments
800 Harrison Street								
MW-1	2/7/2012	<10	<10	--	<50	<10	<10	
MW-1	8/9/2012	<10	<10	<50	<50	<10	<10	
MW-1	2/27/2013	<10	<10	<50	<50	<10	<10	
MW-2	2/7/2012	--	--	--	--	--	--	
MW-2	8/9/2012	--	--	2,200	--	--	--	
MW-2	2/27/2013	--	--	56	--	--	--	
MW-3	2/7/2012	--	--	--	--	--	--	
MW-3	8/9/2012	--	--	5,700	--	--	--	
MW-3	2/27/2013	--	--	8,400	--	--	--	
MW-4	2/7/2012	--	--	--	--	--	--	
MW-4	8/9/2012	--	--	<50	--	--	--	
MW-4	2/27/2013	--	--	<50	--	--	--	
MW-5	2/7/2012	--	--	--	--	--	--	
MW-5	8/9/2012	--	--	860	--	--	--	
MW-5	2/27/2013	--	--	860	--	--	--	
MW-6	2/7/2012	--	--	--	--	--	--	
MW-6	8/9/2012	--	--	160	--	--	--	
MW-6	2/27/2013	--	--	<50	--	--	--	
MW-7	2/7/2012	--	--	--	--	--	--	
MW-7	8/9/2012	--	--	670	--	--	--	
MW-7	2/27/2013	--	--	1,000	--	--	--	
MW-8	2/7/2012	--	--	--	--	--	--	
MW-8	8/9/2012	--	--	680	--	--	--	
MW-8	2/27/2013	--	--	1,400	--	--	--	
706 Harrison Street								
MW-1	8/9/2012	--	--	830	--	--	--	
MW-1	2/27/2013	--	--	--	--	--	--	Parked Car
MW-2	8/9/2012	--	--	6,900	--	--	--	
MW-2	2/27/2013	--	--	9,500	--	--	--	
MW-3	8/9/2012	--	--	<50	--	--	--	
MW-3	2/27/2013	--	--	<50	--	--	--	
MW-4	8/9/2012	--	--	--	--	--	--	
MW-4	2/27/2013	--	--	--	--	--	--	Parked Car
MW-5	8/9/2012	--	--	<50	--	--	--	
MW-5	2/27/2013	--	--	<50	--	--	--	
MW-6	8/9/2012	--	--	<50	--	--	--	
MW-6	2/27/2013	--	--	94	--	--	--	

Table 2C
Historical Additional Groundwater Analytical Results - Metals
76 Station 0752/YEE/GIN Commingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Dissolved Cadmium	Dissolved Chromium	Dissolved Iron	Dissolved Lead	Dissolved Nickel	Dissolved Zinc	Comments
MW-7	8/9/2012	--	--	860	--	--	--	
MW-7	2/27/2013	--	--	2,600	--	--	--	
SP-3	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-4	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-5	2/27/2013	--	--	--	--	--	--	Unable to Locate
726 Harrison Street								
EW-1	2/27/2013	--	--	3,100	--	--	--	
MW-1	8/9/2012	--	--	--	--	--	--	
MW-1	2/27/2013	--	--	2,000	--	--	--	
MW-2	8/9/2012	--	--	--	--	--	--	
MW-2	2/27/2013	--	--	<50	--	--	--	
MW-3	8/9/2012	--	--	--	--	--	--	
MW-3	2/27/2013	--	--	<50	--	--	--	
MW-4	8/9/2012	--	--	--	--	--	--	
MW-4	2/27/2013	--	--	4,300	--	--	--	
MW-5	8/9/2012	--	--	--	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	Parked Car
MW-6	8/9/2012	--	--	--	--	--	--	
MW-6	2/27/2013	--	--	<50	--	--	--	

Note

Analytical results given in micrograms per liter ($\mu\text{g/l}$)

Standard Abbreviations

$\mu\text{g/l}$ micrograms per liter (approx. equivalent to parts per billion, ppb)

ARCADIS

Attachment A

Field Data Sheets and General Procedures



GETTLER - RYAN INC.



TRANSMITTAL

March 11, 2013
G-R #385647

TO: Ms. Katherine Brandt
Arcadis
2000 Powell Street, 7th Floor
Emeryville, CA 94608

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: **Chevron Facility**
#351646/0752
800 Harrison Street
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package First Semi-Annual Event of February 27, 2013

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/351646 0752

WELL CONDITION STATUS SHEET

1 of 2

Client/
Facility #: **Chevron #351646 / 0752**

Site Address: **800 Harrison Street**

City: **Oakland, CA**

Job #: **385647**
 Event Date: **2-27-13**
 Sampler: **An / AM**

WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/N
MW-3	OK						→			Emco 1/2" / 2	
MW-6	OK	→	3S	OK		→				BL 1/8" / 3	
A-MW-1	OK	→	2S	OK		→				Morrison 1/8" / 2	
A-MW-2	OK	OK				→				Brickard Kilman 18" / 3	
A-MW-3	OK	→	1B R-2	PS		→				↓	
A-MW-4				UTA							
SP-3				UTL							
SP-4				UTL							
SP-5				UTL							
S-MW-1	OK	→	3B	3S	OK	→	→			BL 1/8" / 3	
S-MW-2	OK	→	2B in flange	OK		→	→			Morrison 1/8" / 2	
S-MW-3	OK	→		2S	OK	→	→			↓	
S-MW-4	OK	→		2S	OK	→	→			↓	
S-MW-5				UTA							
S-MW-6	OK						→			Morrison 1/2" / 2	
S-BW-1	OK						→			↓	

Comments * Lid & frame loose.

WELL CONDITION STATUS SHEET

20 f2

**Client/
Facility #:** **Chevron #351646 / 0752**
Site Address: **800 Harrison Street**
City: **Oakland, CA**

Job #: **385647**
Event Date: **2.27.13**
Sampler: **FT**

Comments

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Evergreen Oil located in Newark, California.



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2.27.13 (inclusive)
 Sampler: FT

Well ID: MW-1
 Well Diameter: 2 in.
 Total Depth: 33.50 ft.
 Depth to Water: 19.41 ft.
14.09 xVF .17 = 2.39 x3 case volume = Estimated Purge Volume: 7.0 gal.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Date Monitored: 2.27.13

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 22.22

Purge Equipment:

Disposable Bailer ✓
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer ✓
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1245

Weather Conditions: SUNNY

Sample Time/Date: 1315 12-27-13

Water Color: Brown Odor: ODIN MODERATE

Approx. Flow Rate: / gpm.

Sediment Description: S-SILTY

Did well de-water?

ND

If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 19.52

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm}$)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>1250</u>	<u>2.5</u>	<u>7.22</u>	<u>862</u>	<u>19.7</u>	<u>1.1</u>	<u>PRE: -24</u>	<u>56</u>
<u>1255</u>	<u>5.0</u>	<u>7.19</u>	<u>868</u>	<u>20.0</u>			
<u>1300</u>	<u>7.0</u>	<u>7.16</u>	<u>872</u>	<u>20.5</u>	<u>1.2</u>	<u>POST: -30</u>	<u>64</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>6</u> x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)
					SVOC's(8270)
<u>2</u> x 1 liter ambers	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)	
<u>1</u> x 500ml poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY	
<u>1</u> x 1 liter poly	YES	NP	BC LABS	METHANE	
<u>3</u> x voa vial	YES	NP	BC LABS	TOC	
<u>1</u> x 500ml ambers	YES	H2SO4	BC LABS		

COMMENTS: Emco 12" OIC

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351646 / 0752**

Site Address: **800 Harrison Street**

City: **Oakland, CA**

Job Number: **385647**

Event Date: **2-27-13** (inclusive)

Sampler: **Fr**

Well ID: **MW-2**
 Well Diameter: **2** in.
 Total Depth: **30.78** ft.
 Depth to Water: **19.16** ft.

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.

11.62 xVF **.17** = **1.97** x3 case volume = Estimated Purge Volume: **6.0** gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: **21.48**

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer
 Stack Pump
 Suction Pump
 Grundfos
 Peristaltic Pump
 QED Bladder Pump
 Other:

Sampling Equipment:

Disposable Bailer
 Pressure Bailer
 Metal Filters
 Peristaltic Pump
 QED Bladder Pump
 Other:

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): **1200**

Weather Conditions:

SUNNY

Sample Time/Date: **1222 / 2.27.13**

Water Color: **Brown.**

Odor: Y / NP

Approx. Flow Rate: **/** gpm.

Sediment Description:

S. SILTY

Did well de-water?

NO

If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: **19.24**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - 18)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
1204	2.0	7.08	510	19.7	PRE: 1.9	PRE: 42	PRE: 86
1208	4.0	7.05	506	19.9			
1212	6.0	7.02	500	20.3	POST: 1.8	POST: 53	POST: 94

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
1	1 x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
3	3 x voa vial	YES	NP	BC LABS	METHANE
1	1 x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: _____

UNIVERSAL 8" (1SF)

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752

Site Address: 800 Harrison Street

City: Oakland, CA

Job Number: 385647

Event Date: 02-27-13 (inclusive)

Sampler: AM / AW

Well ID: MW-3
 Well Diameter: 2 in.
 Total Depth: 30.50 ft.
 Depth to Water: 18.36 ft.
12.14 xVF .17 = 2.06 x3 case volume = Estimated Purge Volume: 6.5 gal.

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.78

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1350 Weather Conditions: SUNNY
 Sample Time/Date: 1420 / 02 - 27 - 13 Water Color: Cloudy Odor: Y N SLIGHT
 Approx. Flow Rate: - gpm. Sediment Description: CLOUDY
 Did well de-water? N If yes, Time: - Volume: - gal. DTW @ Sampling: 20.29

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - 10°)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)	TURBIDITY NTU
<u>1355</u>	<u>2.5</u>	<u>7.04</u>	<u>6.77</u>	<u>19.8</u>	<u>PRE: 1.4</u>	<u>PRE: 32</u>	<u>PRE: 17.0</u>
<u>1400</u>	<u>6.5</u>	<u>7.8</u>	<u>0.77</u>	<u>19.8</u>			
<u>1405</u>	<u>6.5</u>	<u>7.10</u>	<u>7.8</u>	<u>19.7</u>	<u>POST: 1.6</u>	<u>POST: 14</u>	<u>POST: 320</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)</u>
	<u>x 1 liter ambers</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>SVOC's(8270)</u>
	<u>x 500ml poly</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)</u>
	<u>1</u> x 1 liter poly	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY</u>
	<u>3</u> x voa vial	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>METHANE</u>
	<u>1</u> x 500ml ambers	<u>YES</u>	<u>H2SO4</u>	<u>BC LABS</u>	<u>TOC</u>

COMMENTS: EMCO / 12" / 2 ~OK

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351646 / 0752**
 Site Address: **800 Harrison Street**
 City: **Oakland, CA**

Job Number: **385647**
 Event Date: **1-27-13** (inclusive)
 Sampler: **FT**

Well ID: **MW-4**
 Well Diameter: **2** in.
 Total Depth: **32.00** ft.
 Depth to Water: **17.83** ft.
14.17 xVF **.17** = **2.40** x3 case volume = Estimated Purge Volume: **7.0** gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: **20.66**
 Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer
 Stack Pump
 Suction Pump
 Grundfos
 Peristaltic Pump
 QED Bladder Pump
 Other:

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer
 Metal Filters
 Peristaltic Pump
 QED Bladder Pump
 Other:

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): **11:00** Weather Conditions: **SUNNY**
 Sample Time/Date: **1125 / 2-27-13** Water Color: **Brown** Odor: **Y/N**
 Approx. Flow Rate: **1** gpm. Sediment Description: **S-SILTY**
 Did well de-water? **NO** If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: **17.96**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - 15)	Temperature (0 / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
1105	2.5	7.39	522	19.8	PRE: 1.7	PRE: 6	PRE: 74
1110	5.0	7.36	519	20.1			
1115	7.0	7.33	514	20.5	POST: 1.6	POST: 17	POST: 84

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
	3 x voa vial	YES	NP	BC LABS	METHANE
	1 x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: **Emco 12" oil**

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: FS

Well ID MW-5

Date Monitored: 2-27-13

Well Diameter 2 in.

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Total Depth 31.62 ft.

Depth to Water 17.98 ft.

Check if water column is less than 0.50 ft.

13.64 xVF .17 = 2.31 x3 case volume = Estimated Purge Volume: 7.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.70

Purge Equipment:

Disposable Bailer /
 Stainless Steel Bailer /
 Stack Pump /
 Suction Pump /
 Grundfos /
 Peristaltic Pump /
 QED Bladder Pump /
 Other: /

Sampling Equipment:

Disposable Bailer /
 Pressure Bailer /
 Metal Filters /
 Peristaltic Pump /
 QED Bladder Pump /
 Other: /

Time Started: _____ (2400 hrs)

Time Completed: _____ (2400 hrs)

Depth to Product: _____ ft

Depth to Water: _____ ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): 1335

Weather Conditions: SUNNY

Sample Time/Date: 1405 / 2-27-13

Water Color: LT. BROWN Odor: ODOR SLIGHT

Approx. Flow Rate: / gpm.

Sediment Description: S. SILTY

Did well de-water? No

If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 18.08

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm}$)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)	TURBIDITY
1340	2.5	7.02	721	20.2	PRE: 1.9	PRE: 41	PRE: 60
1345	5.0	6.99	725	20.6			
1350	7.0	6.96	731	20.9	POST: 1.7	POST: 51	POST: 72

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
1	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
3	x voa vial	YES	NP	BC LABS	METHANE
1	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: EMCO 12" OIL

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: AW / AM

Well ID: MW-6
 Well Diameter: 2 in.
 Total Depth: 30.85 ft.
 Depth to Water: 17.48 ft.
13.37 xVF 17 = 2.27 x3 case volume = Estimated Purge Volume: 7.0 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.15
 Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1300 Weather Conditions: Sunny
 Sample Time/Date: 1340 / 2-27-13 Water Color: Cloudy Odor: Y
 Approx. Flow Rate: — gpm. Sediment Description: Cloudy
 Did well de-water? N If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 19.44

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)	TURBIDITY (NTU)
1308	2.5	7.72	0.22	19.2	1.1	9	35.0
1315	5.0	7.58	0.28	19.5			
1322	7.0	7.42	0.38	19.7	1.5	7	220

LABORATORY INFORMATION

SAMPLE ID	# CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
1	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
3	x voa vial	YES	NP	BC LABS	METHANE
1	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: BL/8"/35

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351646 / 0752**
 Site Address: **800 Harrison Street**
 City: **Oakland, CA**

Job Number: **385647**
 Event Date: **2-27-13** (inclusive)
 Sampler: **FT**

Well ID: **MW-7**
 Well Diameter: **2** in.
 Total Depth: **31.38** ft.
 Depth to Water: **17.85** ft.
13.53 xVF **.17** = **2.30**

Date Monitored: **2-27-13**

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: **20.55**

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer
 Stack Pump
 Suction Pump
 Grundfos
 Peristaltic Pump
 QED Bladder Pump
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer
 Metal Filters
 Peristaltic Pump
 QED Bladder Pump
 Other: _____

Time Started: _____ (2400 hrs)

Time Completed: _____ (2400 hrs)

Depth to Product: _____ ft

Depth to Water: _____ ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description: _____

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): **0650**

Weather Conditions: **CLOUDY / SUNNY**

Sample Time/Date: **0715 12-27-13**

Water Color: **LT. BROWN** Odor: **① / N S. SILTY**

Approx. Flow Rate: **1** gpm.

Sediment Description: _____

Did well de-water? **No** If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: **17.95**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
0655	2.5	7.10	826	16.7	PRE: 1.3	PRE: -25	PRE: 68
0700	5.0	7.07	831	17.0			
0705	7.0	7.05	836	17.3	POST: 1.2	POST: -31	POST: 75

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
1	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
3	x voa vial	YES	NP	BC LABS	METHANE
1	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: **EMCO 12" oil**

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2.27.13 (inclusive)
 Sampler: FT

Well ID: MW-8
 Well Diameter: 2 in.
 Total Depth: 28.35 ft.
 Depth to Water: 17.58 ft.

Date Monitored: 2.27.13

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.
10.77 xVF .17 = 1.83 x3 case volume = Estimated Purge Volume: 5.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.73

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer
 Stack Pump
 Suction Pump
 Grundfos
 Peristaltic Pump
 QED Bladder Pump
 Other:

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer
 Metal Filters
 Peristaltic Pump
 QED Bladder Pump
 Other:

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 0615
 Sample Time/Date: 0635 / 2.27.13
 Approx. Flow Rate: / gpm.
 Did well de-water? ND If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 17.62

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - 15)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0618</u>	<u>1.5</u>	<u>7.39</u>	<u>495</u>	<u>16.2</u>	<u>PRE: 2.4</u>	<u>PRE: 52</u>	<u>PRE: 324</u>
<u>0621</u>	<u>3.0</u>	<u>7.36</u>	<u>500</u>	<u>16.5</u>			
<u>0625</u>	<u>5.0</u>	<u>7.34</u>	<u>507</u>	<u>16.9</u>	<u>POST: 2.3</u>	<u>POST: 60</u>	<u>POST: 300</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV.	TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>6</u> x voa vial	<u>YES</u>		<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)</u>
	<u>x 1 liter ambers</u>	<u>YES</u>		<u>NP</u>	<u>BC LABS</u>	<u>SVOC's(8270)</u>
	<u>x 500ml poly</u>	<u>YES</u>		<u>NP</u>	<u>BC LABS</u>	<u>DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)</u>
<u>1</u>	<u>x 1 liter poly</u>	<u>YES</u>		<u>NP</u>	<u>BC LABS</u>	<u>DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY</u>
<u>3</u>	<u>x voa vial</u>	<u>YES</u>		<u>NP</u>	<u>BC LABS</u>	<u>METHANE</u>
<u>1</u>	<u>x 500ml ambers</u>	<u>YES</u>		<u>H2SO4</u>	<u>BC LABS</u>	<u>TOC</u>

COMMENTS: _____

BRAUNING KILMAN 8" oil

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: AW AM

Well ID: A-MW-1
 Well Diameter: 2 in.
 Total Depth: 24.39 ft.
 Depth to Water: 17.03 ft.
7.36 xVF .17 = _____

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Date Monitored: 2-27-13

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): _____ Weather Conditions: _____
 Sample Time/Date: _____ / _____ Odor: Y / N _____
 Approx. Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (μmhos/cm - μS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE:	PRE:	PRE:
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	POST:	POST:	POST:
_____	_____	_____	_____	_____			

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/ EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ ALKALINITY
	x voa vial	YES	NP	BC LABS	METHANE
	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: Unable to sample, well under car. Unable to drop bailed. into water.
fa/6 morrison / 8" / 25

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: aw /Am

Well ID: A-MW-2
 Well Diameter: 2 in.
 Total Depth: 24.84 ft.
 Depth to Water: 17.36 ft.
7.48 xVF .17 = 1.27 x3 case volume = Estimated Purge Volume: 4.0 gal.

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 18.85

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started:	(2400 hrs)
Time Completed:	(2400 hrs)
Depth to Product:	ft
Depth to Water:	ft
Hydrocarbon Thickness:	ft
Visual Confirmation/Description:	
Skimmer / Absorbant Sock (circle one)	
Amt Removed from Skimmer:	gal
Amt Removed from Well:	gal
Water Removed:	_____

Start Time (purge): 1110 Weather Conditions: Sunny
 Sample Time/Date: 1140 / 2-27-13 Water Color: Cloudy Odor: Y/N Strong
 Approx. Flow Rate: - gpm. Sediment Description: Cloudy
 Did well de-water? N If yes, Time: - Volume: - gal. DTW @ Sampling: 18.19

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm}$ - μs)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)	TURBIDITY
1115	1.5	6.98	0.92	18.6	PRE: 0.8	PRE: 49	PRE: 83 NTU
1120	3.0	7.03	0.90	18.9			
1125	4.0	7.11	0.85	19.2	POST: 1.3	POST: 32	POST: 500

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV.	TYPE	LABORATORY	ANALYSES
<u>A-MW-2</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)	
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)	
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)	
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY	
<u>3</u>	x voa vial	YES	NP	BC LABS	METHANE	
<u>1</u>	x 500ml ambers	YES	H2SO4	BC LABS	TOC	

COMMENTS: Barrow Kliman / 8/13
Lid & frame loose

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752

Site Address: 800 Harrison Street

City: Oakland, CA

Job Number: 385647

Event Date: 2-27-13 (inclusive)

Sampler: HN/AM

Well ID: A-MW-3
 Well Diameter: 2 in.
 Total Depth: 27.47 ft.
 Depth to Water: 16.75 ft.
10.72 xVF .17 = 1.82

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.
 1.82×3 case volume = Estimated Purge Volume: 5.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 18.89

Purge Equipment:

Disposable Bailer ✓
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer ✓
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1155

Weather Conditions:

Sample Time/Date: 1225 / 2-27-13

Water Color: Cloudy

Sunny

Approx. Flow Rate: — gpm.

Sediment Description: Cloudy

Odor O/N Slight

Did well de-water? N

If yes, Time: — Volume: — gal. DTW @ Sampling: 18.00

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos}/\text{cm} - \mu\text{s}$)	Temperature ($^{\circ}\text{C}$ $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)	TURBIDITY
1200	2.0	7.37	0.45	18.8	PRE: 0.8	PRE: -2	PRE: 3.9 NTM
1205	4.0	7.30	0.51	18.7			
1210	5.5	7.26	0.58	18.6	POST: 1.2	POST: 7	POST: 280

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>A-MW-3</u>	<u>6</u> x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	<u>1</u> x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
	<u>3</u> x voa vial	YES	NP	BC LABS	METHANE
	<u>1</u> x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: Baynard Kilian / 8" / 18

Add/Replaced Gasket: _____

Add/Replaced Bolt: (2)

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: AW

Well ID A-MW-4Date Monitored: 2-27-13Well Diameter 2 in.

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Total Depth 25.58 ft.Depth to Water N/A ft. Check if water column is less than 0.50 ft.xVF 17 = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)

Time Completed: _____ (2400 hrs)

Depth to Product: _____ ft

Depth to Water: _____ ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): _____

Weather Conditions: _____

Sample Time/Date: _____ / _____

Water Color: _____ Odor: Y / N _____

Approx. Flow Rate: _____ gpm.

Sediment Description: _____

Did well de-water? _____

If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos}/\text{cm} - \mu\text{S}$)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE:	PRE:	PRE:
_____	_____	_____	_____	_____	POST:	POST:	POST:
_____	_____	_____	_____	_____			

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260)/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
	x voa vial	YES	NP	BC LABS	METHANE
	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: unable to access, parked over.

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2.27.13 (inclusive)
 Sampler: FT

Well ID: A-MW-5

Date Monitored: 2.27.13

Well Diameter: 2 in.

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Total Depth: 28.18 ft.

Depth to Water: 15.68 ft.

Check if water column is less than 0.50 ft.

12.50 xVF .17 = 2.12 x3 case volume = Estimated Purge Volume: 60 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 18.18

Purge Equipment:

Disposable Bailer /
 Stainless Steel Bailer /
 Stack Pump /
 Suction Pump /
 Grundfos /
 Peristaltic Pump /
 QED Bladder Pump /
 Other: _____

Sampling Equipment:

Disposable Bailer /
 Pressure Bailer /
 Metal Filters /
 Peristaltic Pump /
 QED Bladder Pump /
 Other: _____

Time Started: _____ (2400 hrs)

Time Completed: _____ (2400 hrs)

Depth to Product: _____ ft

Depth to Water: _____ ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): 0915

Weather Conditions:

Sample Time/Date: 0937 12.27.13

SUNNY

Approx. Flow Rate: / gpm.

Water Color: LT. BROWN Odor: Y/N

Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 15-74

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>US</u>)	Temperature (<u>C</u> / <u>F</u>)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0919</u>	<u>2.0</u>	<u>7.67</u>	<u>541</u>	<u>16.8</u>	<u>PRE: 1.8</u>	<u>PRE: 26</u>	<u>PRE: 159</u>
<u>0923</u>	<u>4.0</u>	<u>7.64</u>	<u>538</u>	<u>17.1</u>			
<u>0927</u>	<u>6.0</u>	<u>7.61</u>	<u>534</u>	<u>17.8</u>	<u>POST: 1.9</u>	<u>POST: 32</u>	<u>POST: 165</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>A-MW-5</u>	<u>4</u> x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
	<u>3</u> x voa vial	YES	NP	BC LABS	METHANE
	<u>1</u> x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: CHNISTY Box on

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: /

Add/Replaced Plug: / (2")



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2. 27.13 (inclusive)
 Sampler: FT

Well ID	<u>A-MW-6</u>	Date Monitored:	<u>2. 27.13</u>	
Well Diameter	<u>2</u> in.	Volume Factor (VF)		
Total Depth	<u>25.95</u> ft.	3/4"= 0.02	1"= 0.04	2"= 0.17
Depth to Water	<u>16.93</u> ft.	4"= 0.66	5"= 1.02	3"= 0.38
	<u>9.02</u>	x VF <u>.17</u>	= <u>1.53</u>	6"= 1.50 12"= 5.80
Check if water column is less than 0.50 ft.				
x3 case volume = Estimated Purge Volume: <u>5.0</u> gal.				
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>20.31</u>				
Purge Equipment:	<input checked="" type="checkbox"/>			
Disposable Bailer	<input checked="" type="checkbox"/>			
Stainless Steel Bailer	<input type="checkbox"/>			
Stack Pump	<input type="checkbox"/>			
Suction Pump	<input type="checkbox"/>			
Grundfos	<input type="checkbox"/>			
Peristaltic Pump	<input type="checkbox"/>			
QED Bladder Pump	<input type="checkbox"/>			
Other:	<input type="checkbox"/>			
Sampling Equipment:				
Disposable Bailer	<input checked="" type="checkbox"/>			
Pressure Bailer	<input checked="" type="checkbox"/>			
Metal Filters	<input type="checkbox"/>			
Peristaltic Pump	<input type="checkbox"/>			
QED Bladder Pump	<input type="checkbox"/>			
Other:	<input type="checkbox"/>			
<div style="border: 1px solid black; padding: 5px;"> Time Started: _____ (2400 hrs) Time Completed: _____ (2400 hrs) Depth to Product: _____ ft Depth to Water: _____ ft Hydrocarbon Thickness: _____ ft Visual Confirmation/Description: Skimmer / Absorbant Sock (circle one) Amt Removed from Skimmer: _____ gal Amt Removed from Well: _____ gal Water Removed: _____ </div>				

Start Time (purge): 0830 Weather Conditions: CLOUDY
 Sample Time/Date: 0850 12.27.13 Water Color: LT. BROWN Odor: Y / AD
 Approx. Flow Rate: / gpm. Sediment Description: S. SILTY
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 17.04

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>15</u>)	Temperature (<u>0</u> / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0833</u>	<u>1.5</u>	<u>7.34</u>	<u>578</u>	<u>17.2</u>	<u>PRE: 1.8</u>	<u>PRE: 40</u>	<u>PRE: 165</u>
<u>0836</u>	<u>3.0</u>	<u>7.31</u>	<u>574</u>	<u>17.6</u>			
<u>0840</u>	<u>5.0</u>	<u>7.29</u>	<u>570</u>	<u>17.9</u>	<u>POST: 1.7</u>	<u>POST: 48</u>	<u>POST: 173</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>A-MW-6</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)</u>
	<u>x 1 liter ambers</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>SVOC's(8270)</u>
	<u>x 500ml poly</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)</u>
	<u>1</u> x 1 liter poly	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY</u>
	<u>3</u> x voa vial	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>METHANE</u>
	<u>1</u> x 500ml ambers	<u>YES</u>	<u>H2SO4</u>	<u>BC LABS</u>	<u>TOC</u>

COMMENTS: CHMISTY Box (OK)

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock:

Add/Replaced Plug: (20)



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752

Job Number: 385647

Site Address: 800 Harrison Street

Event Date: 2.27.13 (inclusive)

City: Oakland, CA

Sampler: FT

Well ID: A-MW-7

Date Monitored: 2.27.13

Well Diameter: 2 in.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Total Depth: 27.73 ft.

Depth to Water: 16.83 ft.

Depth to Water: 10.90 ft. Check if water column is less than 0.50 ft.

x VF .17 = 1.85 x3 case volume = Estimated Purge Volume: 6.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.01

Purge Equipment:

Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other: _____

Sampling Equipment:

Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump
Other: _____

Time Started: _____ (2400 hrs)

Time Completed: _____ (2400 hrs)

Depth to Product: _____ ft

Depth to Water: _____ ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): 1015

Weather Conditions:

SUNNY

Sample Time/Date: 1038 12-27-13

Water Color: LT. BROWN Odor: Y/N

Approx. Flow Rate: / gpm.

Sediment Description: S. SILTY

Did well de-water?

NO

If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 16.91

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm}$ - μs)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>1019</u>	<u>2.0</u>	<u>7.11</u>	<u>533</u>	<u>20.4</u>	<u>PRE: 2.1</u>	<u>PRE: 36</u>	<u>PRE: 215</u>
<u>1023</u>	<u>4.0</u>	<u>7.09</u>	<u>530</u>	<u>20.7</u>			
<u>1027</u>	<u>6.0</u>	<u>7.07</u>	<u>526</u>	<u>21.0</u>	<u>POST: 1.9</u>	<u>POST: 44</u>	<u>POST: 226</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>A-MW-7</u>	<u>6</u> x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260))
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	<u>1</u> x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
	<u>3</u> x voa vial	YES	NP	BC LABS	METHANE
	<u>1</u> x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS:

CHMSTY BOX ON

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock:

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: AW / AM

Well ID SP-3Date Monitored: 2-27-13Well Diameter 2 in.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Total Depth N/A ft.Depth to Water N/A ft. Check if water column is less than 0.50 ft.

xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): _____

Weather Conditions: _____

Sample Time/Date: _____ / _____

Water Color: _____ Odor: Y / N _____

Approx. Flow Rate: _____ gpm.

Sediment Description: _____

Did well de-water?

If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (μmhos/cm - μS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE:	PRE:	PRE:
_____	_____	_____	_____	_____	POST:	POST:	POST:
_____	_____	_____	_____	_____			
_____	_____	_____	_____	_____			

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/ EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ ALKALINITY
	x voa vial	YES	NP	BC LABS	METHANE
	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: Unable to locate

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351646 / 0752**

Site Address: **800 Harrison Street**

City: **Oakland, CA**

Job Number: **385647**

Event Date: **2-27-13** (inclusive)

Sampler: **AW / AM**

Well ID: **SP-4**
 Well Diameter: **2** in.
 Total Depth: **N/A** ft.
 Depth to Water: **N/A** ft.

Date Monitored: **2-27-13**

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.

xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): _____

Weather Conditions:

Sample Time/Date: _____ / _____

Water Color: _____ Odor: Y / N _____

Approx. Flow Rate: _____ gpm.

Sediment Description: _____

Did well de-water?

If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (μ hos/cm - μ S)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE:	PRE:	PRE:
_____	_____	_____	_____	_____	POST:	POST:	POST:
_____	_____	_____	_____	_____			
_____	_____	_____	_____	_____			

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/ EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ ALKALINITY
	x voa vial	YES	NP	BC LABS	METHANE
	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: **Unable to locate.**

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: SW / AM

Well ID SP- 5

Date Monitored: 2-27-13

Well Diameter 2 in.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Total Depth ft.

Depth to Water N/A ft.

Check if water column is less than 0.50 ft.

xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____

Stainless Steel Bailer _____

Stack Pump _____

Suction Pump _____

Grundfos _____

Peristaltic Pump _____

QED Bladder Pump _____

Other: _____

Sampling Equipment:

Disposable Bailer _____

Pressure Bailer _____

Metal Filters _____

Peristaltic Pump _____

QED Bladder Pump _____

Other: _____

Time Started: _____ (2400 hrs)

Time Completed: _____ (2400 hrs)

Depth to Product: _____ ft

Depth to Water: _____ ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description: _____

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): _____

Weather Conditions: _____

Sample Time/Date: _____ / _____

Water Color: _____ Odor: Y / N _____

Approx. Flow Rate: _____ gpm.

Sediment Description: _____

Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (μmhos/cm - μS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE:	PRE:	PRE:
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	POST:	POST:	POST:
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV.	TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)	
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)	
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)	
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY	
	x voa vial	YES	NP	BC LABS	METHANE	
	x 500ml ambers	YES	H2SO4	BC LABS	TOC	

COMMENTS: unable to locate

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: AJ / AM

Well ID S-MW-1

Date Monitored: 2-27-13

Well Diameter 2 in.

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Total Depth 27.20 ft.

Depth to Water 18.21 ft.

Check if water column is less than 0.50 ft.

8.99 xVF .17 = 1.52 x3 case volume = Estimated Purge Volume: 5.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.00

Purge Equipment:

Disposable Bailer /
 Stainless Steel Bailer /
 Stack Pump /
 Suction Pump /
 Grundfos /
 Peristaltic Pump /
 QED Bladder Pump /
 Other: _____

Sampling Equipment:

Disposable Bailer /
 Pressure Bailer /
 Metal Filters /
 Peristaltic Pump /
 QED Bladder Pump /
 Other: _____

Time Started: _____ (2400 hrs)

Time Completed: _____ (2400 hrs)

Depth to Product: _____ ft

Depth to Water: _____ ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): 0830

Weather Conditions:

Sample Time/Date: 0900 / 227-13

Water Color: Cloudy Odor: OD N Slight

Approx. Flow Rate: - gpm.

Sediment Description: Cloudy

Did well de-water? N

If yes, Time: — Volume: — gal. DTW @ Sampling: 19.85

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0835</u>	<u>1.5</u>	<u>7.06</u>	<u>0.54</u>	<u>17.9</u>	<u>1.3</u>	<u>16</u>	<u>4.2 NTU</u>
<u>0840</u>	<u>3.0</u>	<u>7.12</u>	<u>0.53</u>	<u>18.3</u>			
<u>0845</u>	<u>5.0</u>	<u>7.20</u>	<u>0.48</u>	<u>18.8</u>	<u>1.7</u>	<u>29</u>	<u>110</u>

LABORATORY INFORMATION

SAMPLE ID	# CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-MW-1</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)</u>
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
	<u>3</u> x voa vial	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>METHANE</u>
	<u>1</u> x 500ml ambers	<u>YES</u>	<u>H2SO4</u>	<u>BC LABS</u>	<u>TOC</u>

COMMENTS: _____

BL / 8" / 35

Add/Replaced Gasket: _____

Add/Replaced Bolt: 3

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: pw AM

Well ID: S-MW-2
 Well Diameter: 2 in.
 Total Depth: 28.00 ft.
 Depth to Water: 18.95 ft.

Date Monitored: 2-27-13

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.
 $9.05 \times VF .17 = 1.53$ x3 case volume = Estimated Purge Volume: 5.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 22.74

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 1020
 Sample Time/Date: 1050 / 2-27-13
 Weather Conditions: Sunny
 Approx. Flow Rate: — gpm.
 Did well de-water? If yes, Time: — Volume: — gal. DTW @ Sampling: 20.76

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (μmhos/cm - DS)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
1025	1.5	7.43	0.30	18.2	PRE: 1.3	PRE: 27	PRE: 18.0 NTU
1030	3.0	7.14	0.32	18.3			
1035	5.0	6.87	0.34	18.6	POST: 1.5	POST: 43	POST: 700

LABORATORY INFORMATION

SAMPLE ID	# CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
S-MW-2	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	1 x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY
3	x voa vial	YES	NP	BC LABS	METHANE
1	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: mornson / 8" / 2 B n flange

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: AW AM

Well ID S-MW-3

Date Monitored: 2-27-13

Well Diameter 2 in.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Total Depth 29.20 ft.

Depth to Water 18.12 ft.

Check if water column is less then 0.50 ft.

11.08 xVF .17 = 1.88 x3 case volume = Estimated Purge Volume: 6.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.33

Purge Equipment:

Disposable Bailer /
 Stainless Steel Bailer /
 Stack Pump /
 Suction Pump /
 Grundfos /
 Peristaltic Pump /
 QED Bladder Pump /
 Other: _____

Sampling Equipment:

Disposable Bailer /
 Pressure Bailer /
 Metal Filters /
 Peristaltic Pump /
 QED Bladder Pump /
 Other: _____

Time Started: _____ (2400 hrs)

Time Completed: _____ (2400 hrs)

Depth to Product: _____ ft

Depth to Water: _____ ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): 0710

Weather Conditions: Cloudy

Sample Time/Date: 0740 / 2-27-13

Water Color: Cloudy Odor: Y /AD

Approx. Flow Rate: — gpm.

Sediment Description: Cloudy

Did well de-water? N

If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 19.78

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm} - \mu\text{s}$)	Temperature ($^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0715</u>	<u>2.0</u>	<u>7.71</u>	<u>0.39</u>	<u>17.8</u>	<u>1.1</u>	<u>15</u>	<u>22.0 mfu</u>
<u>0720</u>	<u>4.0</u>	<u>7.55</u>	<u>0.41</u>	<u>18.3</u>			
<u>0725</u>	<u>6.0</u>	<u>7.22</u>	<u>0.44</u>	<u>18.7</u>	<u>1.3</u>	<u>1</u>	<u>90.0</u>

LABORATORY INFORMATION

SAMPLE ID	# CONTAINER	REFRIG.	PRESERV.	TYPE	LABORATORY	ANALYSES
<u>S-MW-3</u>	<u>6</u> x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)	
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)	
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)	
<u>1</u>	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY	
<u>3</u>	x voa vial	YES	NP	BC LABS	METHANE	
<u>1</u>	x 500ml ambers	YES	H2SO4	BC LABS	TOC	

COMMENTS: _____

number 1.8" / 25

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: AW AM

Well ID: S-MW-4
 Well Diameter: 2 in.
 Total Depth: 29.70 ft.
 Depth to Water: 18.50 ft.

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.
11.20 xVF .17 = 1.90 x3 case volume = Estimated Purge Volume: 6.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.74

Purge Equipment:
 Disposable Bailer ✓
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer ✓
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 0630
 Sample Time/Date: 0700 / 2-27-13
 Approx. Flow Rate: — gpm.
 Did well de-water? N If yes, Time: — Volume: — gal. DTW @ Sampling: 19.55

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0635</u>	<u>2.0</u>	<u>7.10</u>	<u>0.80</u>	<u>55</u>	<u>1.2</u>	<u>-24</u>	<u>450 ntu</u>
<u>0640</u>	<u>4.0</u>	<u>7.14</u>	<u>0.76</u>	<u>6.8</u>			
<u>0645</u>	<u>6.0</u>	<u>7.21</u>	<u>0.70</u>	<u>18.5</u>	<u>1.5</u>	<u>-18</u>	<u>320</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV.	TYPE	LABORATORY	ANALYSES
<u>S-MW-4</u>	<u>6</u> x voa vial	<u>YES</u>		<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)</u>
	x 1 liter ambers	YES		NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES		NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
<u>1</u>	<u>1</u> x 1 liter poly	<u>YES</u>		<u>NP</u>	<u>BC LABS</u>	<u>DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY</u>
<u>3</u>	x voa vial	YES		NP	BC LABS	METHANE
<u>1</u>	x 500ml ambers	YES		H2SO4	BC LABS	TOC

COMMENTS: Morrison 18/2-25

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351646 / 0752**

Site Address: **800 Harrison Street**

City: **Oakland, CA**

Job Number: **385647**

Event Date: **2-27-13** (inclusive)

Sampler: **An**

Well ID	S-MW-5	Date Monitored:	2-27-13
Well Diameter	2 in.	Volume Factor (VF)	3/4"= 0.02 1"= 0.04 2"= 0.17 3"= 0.38 4"= 0.66 5"= 1.02 6"= 1.50 12"= 5.80
Total Depth	28.50 ft.		
Depth to Water	N/A ft.	<input type="checkbox"/> Check if water column is less than 0.50 ft.	
	x VF .17	=	x3 case volume = Estimated Purge Volume: _____ gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____			
Purge Equipment:	Sampling Equipment:		
Disposable Bailer	Disposable Bailer	Pressure Bailer	_____
Stainless Steel Bailer	Pressure Bailer	Metal Filters	_____
Stack Pump	Metal Filters	Peristaltic Pump	_____
Suction Pump	Peristaltic Pump	QED Bladder Pump	_____
Grundfos	QED Bladder Pump	Other:	_____
Peristaltic Pump			
QED Bladder Pump			
Other:			

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:

 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge):	Weather Conditions:
Sample Time/Date:	Water Color: _____ Odor: Y / N _____
Approx. Flow Rate:	Sediment Description: _____
Did well de-water?	If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos}/\text{cm} - \mu\text{S}$)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE:	PRE:	PRE:
_____	_____	_____	_____	_____	POST:	POST:	POST:
_____	_____	_____	_____	_____			
_____	_____	_____	_____	_____			

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/ EDB/EDC(8260/ETHANOL(8260))
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ ALKALINITY
	x voa vial	YES	NP	BC LABS	METHANE
	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: **Unable to access, purged over.**

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752 Job Number: 385647
 Site Address: 800 Harrison Street Event Date: 2-27-13 (inclusive)
 City: Oakland, CA Sampler: AW AM

Well ID: S-MW-6 Date Monitored: 2-27-13
 Well Diameter: 2 in.
 Total Depth: 48.09 ft.
 Depth to Water: 26.48 ft. Check if water column is less then 0.50 ft.
24.61 xVF .17 = 3.67 x3 case volume = Estimated Purge Volume: 11.0 gal.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 30.80

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer /
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer /
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description:
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 0750 Weather Conditions: Cloudy
 Sample Time/Date: 0820 / 2-27-13 Water Color: Clear Odor: Y / N
 Approx. Flow Rate: 1.0 gpm. Sediment Description: Clear
 Did well de-water? N If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 30.11

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm}$ - $\mu\Omega$)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0754</u>	<u>4.0</u>	<u>8.05</u>	<u>0.40</u>	<u>18.5</u>	<u>0.9</u>	<u>37</u>	<u>2.2 NTU</u>
<u>0758</u>	<u>8.0</u>	<u>8.11</u>	<u>0.45</u>	<u>18.9</u>			
<u>0801</u>	<u>11.0</u>	<u>8.25</u>	<u>0.49</u>	<u>19.0</u>	<u>1.2</u>	<u>25</u>	<u>3.4</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-MW-6</u>	<u>6</u> x voa vial	YES	HCL	BC LABS	TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/ EDB/EDC(8260/ETHANOL(8260))
	x 1 liter ambers	YES	NP	BC LABS	SVOC's(8270)
	x 500ml poly	YES	NP	BC LABS	DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)
	x 1 liter poly	YES	NP	BC LABS	DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ ALKALINITY
<u>3</u>	x voa vial	YES	NP	BC LABS	METHANE
	x 500ml ambers	YES	H2SO4	BC LABS	TOC

COMMENTS: monitor 1/2" / 2-OK

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 385647
 Event Date: 2-27-13 (inclusive)
 Sampler: BW/AM

Well ID: S-EW-1

Date Monitored: 2-27-13

Well Diameter: 6 in.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Total Depth: 28.68 ft.

Depth to Water: 18.17 ft.

Check if water column is less than 0.50 ft.

10.57 xVF 1.50 = 15.76 x3 case volume = Estimated Purge Volume: 47.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.27

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer ✓
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer ✓
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)

Time Completed: _____ (2400 hrs)

Depth to Product: _____ ft

Depth to Water: _____ ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): 0915

Weather Conditions:

Sunny

Sample Time/Date: 1005 / 2-27-13

Water Color: clear

Odor: Y 01

Approx. Flow Rate: 1-2 gpm.

Sediment Description:

Clear

Did well de-water?

N If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 19.66

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm}$)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0925</u>	<u>16.0</u>	<u>7.43</u>	<u>0.45</u>	<u>17.8</u>	<u>PRE: 1.3</u>	<u>PRE: 35</u>	<u>PRE: 8.5 NTU</u>
<u>0935</u>	<u>32.0</u>	<u>7.25</u>	<u>0.47</u>	<u>18.4</u>			
<u>0945</u>	<u>47.5</u>	<u>7.10</u>	<u>0.42</u>	<u>18.9</u>	<u>POST: 1.4</u>	<u>POST: 29</u>	<u>POST: 2.7</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-EW-1</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(C6-C12)(8015B)/BTEX+MTBE(8260)/EDB/EDC(8260/ETHANOL(8260)</u>
	<u>x 1 liter ambers</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>SVOC's(8270)</u>
	<u>x 500ml poly</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>DISSOLVED METALS (Cd, Cr, Pb, Ni, Zn) (6010)</u>
	<u>1 x 1 liter poly</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>DISSOLVED IRON/NITRATE/NITRITE/SULFATE/ALKALINITY</u>
	<u>3 x voa vial</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>METHANE</u>
	<u>1 x 500ml ambers</u>	<u>YES</u>	<u>H2SO4</u>	<u>BC LABS</u>	<u>TOC</u>

COMMENTS: normal / 12-12-OK

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

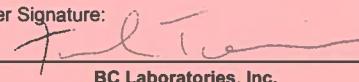
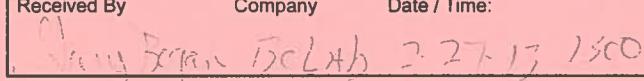
Add/Replaced Lock: _____

Add/Replaced Plug: _____

CHAIN OF CUSTODY FORM

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

COC 1 of 2

Union Oil Site ID: 0752				Union Oil Consultant: ARCADIS	ANALYSES REQUIRED										
Site Global ID: T0600101486				Consultant Contact: KATHLEEN BLANDT											
Site Address: 800 HAMILTON ST. OAKLAND, CA				Consultant Phone No.: (510) 596-9675											
CITIVIS Union Oil PM: ROYA KAMBIN				Sampling Company: IFC GETTLE - RYAN											
CITIVIS Union Oil PM Phone No.: 19251790-6270				Sampled By (PRINT): FLANK T., ALEX W. & ALEX M.											
Charge Code: NWRTB-0 351646-0-LAB				Sampler Signature: 											
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY .				BC Laboratories, Inc. Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911											
SAMPLE ID				Sample Time	# of Containers	TPH - Diesel by EPA 8015	TPH - G by BC (S12)(S015B)	BTEX/MTBE/G by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	SVOCS (8270) CO, CO ₂ , NO _x , NO ₂ , SO ₂ , H ₂ S, Dissolved Metals	METHANE	(H ₂ S04) TOC	EDB / EDC (8260) Dissolved Total Nitrate/Nitrite	SULFATE / ALKALINITY
Field Point Name	Matrix	DTW	Date (yymmdd)												
QA	W-S-A		2/27		2										
MW-1	W-S-A			1315	14										
MW-2	W-S-A			1222	11										
MW-3	W-S-A			1420	11										
MW-4	W-S-A			1125	11										
MW-5	W-S-A			1405	11										
MW-6	W-S-A			1340	11										
MW-7	W-S-A			0715	11										
MW-8	W-S-A			0635	11										
A-MW-2	W-S-A			1140	11										
A-MW-3	W-S-A			1225	11										
A-MW-5	W-S-A		✓	0937	11										
Relinquished By	Company	Date / Time:		1500	Relinquished By	Company	Date / Time:			Relinquished By	Company	Date / Time:			
	6-IL	2/27/13													
Received By	Company	Date / Time:			Received By	Company	Date / Time:			Received By	Company	Date / Time:			
	Union Oil Del Norte	2/27/13 1500													

CHAIN OF CUSTODY FORM

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

COC 2 of 2

Union Oil Site ID: <u>0732</u>				Union Oil Consultant: <u>ANCADIS</u>		ANALYSES REQUIRED																					
Site Global ID: <u>T0600101486</u>				Consultant Contact: <u>KATHLEEN BLANDT</u>		Turnaround Time (TAT): <input checked="" type="checkbox"/> Standard 24 Hours <input type="checkbox"/> <input type="checkbox"/> 48 Hours <input checked="" type="checkbox"/> 72 Hours																					
Site Address: <u>800 HAMILTON ST OAKLAND, CA</u>				Consultant Phone No.: <u>(510) 596-9675</u>																							
				Sampling Company: <u>GETTLEN-RYAN</u>																							
Union Oil PM: <u>ROYA KHAMBIN</u> Union Oil PM Phone No.: <u>(925) 790-6270</u>				Sampled By (PRINT): <u>Franck J. ALEX W & ALICE M.</u>																							
Charge Code: NWRTB-0 <u>351646</u> -0-LAB				Sampler Signature: <u>J. Alex</u>		Special Instructions																					
<i>This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.</i>				BC Laboratories, Inc. Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911																							
SAMPLE ID				Sample Time												# of Containers		Notes / Comments									
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers											TPH - Diesel by EPA 8015	TPH - G by <u>GOMS</u> ((6-12)(S01:b))	BTEX/MTBE/OXYS by EPA 8260g	Ethanol by EPA 8260g	EPA 8260B Full List with OXYS	METHANE	TOC (H2524)	FID/B/ECD (S260)	DISSOLVED/ION/NITRATE/INNATE	SURFACE/ALKALINITY		
A-MW-6	W-S-A		13227	0850	11	X	X	X	X	X	X	X	X	X	X												
A-MW-7	W-S-A			1038	11	X	X	X	X	X	X	X	X	X	X												
S-MW-1	W-S-A			0900	11	X	X	X	X	X	X	X	X	X	X												
S-MW-2	W-S-A			1050	11	X	X	X	X	X	X	X	X	X	X												
S-MW-3	W-S-A			0740	11	X	X	X	X	X	X	X	X	X	X												
S-MW-4	W-S-A			0700	11	X	X	X	X	X	X	X	X	X	X												
S-MW-6	W-S-A			0820	11	X	X	X	X	X	X	X	X	X	X												
S-EW-1	W-S-A		↓	1005	11	X	X	X	X	X	X	X	X	X	X												
	W-S-A																										
	W-S-A																										
	W-S-A																										
	W-S-A																										
Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time:																	
<u>J. Alex</u>	6-1	2-27-13 15:00																									
Received By	Company	Date / Time:		Received By	Company	Date / Time:		Received By	Company	Date / Time:																	

ARCADIS

Attachment B

Historical Groundwater Results from TRC

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 ($\mu\text{g/l}$)	TPH-G (GC/MS) ($\mu\text{g/l}$)	Benzene ($\mu\text{g/l}$)	Toluene ($\mu\text{g/l}$)	Ethyl-benzene ($\mu\text{g/l}$)	Total Xylenes ($\mu\text{g/l}$)	MTBE (8021B) ($\mu\text{g/l}$)	MTBE (8260B) ($\mu\text{g/l}$)	Comments
MW-1														
6/5/1991	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	--
9/30/1991	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	--
12/30/1991	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	--
4/2/1992	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	--
6/30/1992	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	--
9/15/1992	34.94	--	--	--	--	76	--	1.0	ND	ND	ND	--	--	--
12/21/1992	34.94	21.17	0.00	13.77	--	95	--	0.69	ND	ND	1.0	--	--	--
4/28/1993	34.94	--	--	--	--	920	--	3.1	2.3	1.2	9.7	--	--	--
7/23/1993	34.94	20.13	0.00	14.81	--	ND	--	0.5	0.66	ND	ND	--	--	--
10/5/1993	34.69	20.30	0.00	14.39	-0.42	92	--	1.5	ND	ND	0.72	--	--	--
1/3/1994	34.69	20.52	0.00	14.17	-0.22	ND	--	ND	ND	ND	ND	--	--	--
4/2/1994	34.69	20.16	0.00	14.53	0.36	ND	--	ND	ND	ND	ND	--	--	--
7/5/1994	34.69	19.27	0.00	15.42	0.89	250	--	4.8	13	1.2	7.3	--	--	--
10/6/1994	34.69	20.87	0.00	13.82	-1.60	540	--	1.4	ND	0.66	11	--	--	--
1/2/1995	34.69	19.67	0.00	15.02	1.20	140	--	ND	ND	ND	ND	--	--	--
4/3/1995	34.69	17.61	0.00	17.08	2.06	580	--	3.6	0.8	ND	4.0	--	--	--
7/14/1995	34.69	18.58	0.00	16.11	-0.97	260	--	2.1	ND	ND	1.2	--	--	--
10/10/1995	34.69	19.60	0.00	15.09	-1.02	220	--	2.0	ND	25	5.6	29	--	--
1/3/1996	34.69	19.69	0.00	15.00	-0.09	190	--	2.4	ND	0.71	1.2	--	--	--
4/10/1996	34.69	17.65	0.00	17.04	2.04	540	--	8.9	1.7	1.5	7.4	50	--	--
7/9/1996	34.69	18.52	0.00	16.17	-0.87	490	--	3.0	1.4	1.3	2.5	150	--	--
1/24/1997	34.69	17.72	0.00	16.97	0.80	760	--	27	0.89	5.2	10	510	--	--
7/23/1997	34.69	19.42	0.00	15.27	-1.70	ND	--	ND	ND	ND	ND	550	--	--
1/26/1998	34.69	17.46	0.00	17.23	1.96	1800	--	ND	ND	ND	ND	4800	--	--
7/3/1998	34.69	18.61	0.00	16.08	-1.15	ND	--	ND	ND	ND	ND	1800	--	--
1/14/1999	34.69	18.92	0.00	15.77	-0.31	83	--	ND	ND	ND	ND	230	--	--
7/15/1999	34.69	17.84	0.00	16.85	1.08	110	--	ND	ND	ND	1.0	290	--	--
1/7/2000	34.69	19.13	0.00	15.56	-1.29	ND	--	ND	ND	ND	ND	260	--	--
7/19/2000	34.69	20.27	0.00	14.42	-1.14	ND	--	ND	ND	ND	ND	648	--	--
1/2/2001	34.69	20.04	0.00	14.65	0.23	ND	--	ND	ND	ND	ND	119	--	--
5/23/2001	34.69	18.27	0.00	16.42	1.77	84	--	ND	ND	ND	ND	760	--	--
7/30/2001	34.69	18.56	0.00	16.13	-0.29	<50	--	<0.50	<0.50	<0.50	<0.50	350	--	--
10/15/2001	34.69	18.72	0.00	15.97	-0.16	96	--	<0.50	<0.50	<0.50	<0.50	160	--	--

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)		TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
				Change in Elevation (feet)	Water Elevation (feet)									
1/14/2002	34.69	16.78	0.00	17.91	1.94	450	--	<2.5	<2.5	<2.5	3.3	4100	--	
4/15/2002	34.69	17.35	0.00	17.34	-0.57	<1000	--	<10	<10	<10	<10	10000	--	
7/15/2002	34.69	17.63	0.00	17.06	-0.28	2100	--	<10	<10	<10	<20	--	2100	
1/18/2003	34.69	17.04	0.00	17.65	0.59	<25000	--	<250	<250	<250	<500	--	29000	
7/11/2003	34.69	17.91	0.00	16.78	-0.87	4000	--	<25	<25	<25	<50	--	6300	
2/4/2004	34.69	17.98	0.00	16.71	-0.07	--	8000	<50	<50	<50	<100	--	8500	
8/11/2004	34.69	17.84	0.00	16.85	0.14	--	1100	<10	<10	<10	<20	--	1500	
3/31/2005	34.69	15.71	0.00	18.98	2.13	--	<2000	<0.50	<0.50	0.54	2.2	--	4900	
9/30/2005	34.69	17.65	0.00	17.04	-1.94	--	190	<0.50	<0.50	<0.50	<1.0	--	160	
3/27/2006	34.69	15.03	0.00	19.66	2.62	--	760	<0.50	<0.50	<0.50	<1.0	--	1000	
9/27/2006	34.69	18.45	0.00	16.24	-3.42	--	170	<0.50	<0.50	<0.50	0.61	--	73	
3/27/2007	34.69	18.84	0.00	15.85	-0.39	--	120	<0.50	<0.50	<0.50	<0.50	--	99	
9/28/2007	34.69	19.73	0.00	14.96	-0.89	--	68	<0.50	<0.50	<0.50	<0.50	--	15	
3/26/2008	34.69	19.32	0.00	15.37	0.41	--	200	<0.50	<0.50	<0.50	1.0	--	47	
7/28/2008	34.69	20.15	0.00	14.54	-0.83	--	<50	<0.50	<0.50	<0.50	<1.0	--	8.7	
1/26/2009	34.69	20.74	0.00	13.95	-0.59	--	<50	<0.50	<0.50	<0.50	<1.0	--	5.2	
8/3/2009	34.72	20.10	0.00	14.62	0.67	--	76	<0.50	<0.50	<0.50	<1.0	--	12	
1/25/2010	34.72	19.78	0.00	14.94	0.32	--	<50	<0.50	<0.50	<0.50	<1.0	--	14	
8/3/2010	34.72	19.47	0.00	15.25	0.31	--	210	<0.50	<0.50	<0.50	<1.0	--	37	
2/17/2011	34.72	19.50	0.00	15.22	-0.03	--	150	<0.50	<0.50	<0.50	<1.0	--	17	
8/3/2011	34.72	18.96	0.00	15.76	0.54	--	230	<0.50	<0.50	<0.50	<1.0	--	44	
MW-2														
6/5/1991	34.97	--	--	--	--	49	--	ND	ND	ND	ND	--	--	
9/30/1991	34.97	--	--	--	--	130	--	18	0.53	14	9.6	--	--	
12/30/1991	34.97	--	--	--	--	91	--	16	0.89	11	1.9	--	--	
4/2/1992	34.97	--	--	--	--	88	--	12	0.32	6.3	7.2	--	--	
6/30/1992	34.97	--	--	--	--	76	--	9.3	0.76	4.8	6.9	--	--	
9/15/1992	34.97	--	--	--	--	1300	--	91	5.7	80	110	--	--	
12/21/1992	34.97	20.85	0.00	14.12	--	960	--	97	3.2	74	96	--	--	
4/28/1993	34.97	--	--	--	--	1300	--	76	1.9	130	87	--	--	
7/23/1993	34.97	19.81	0.00	15.16	--	66	--	1.8	ND	2.5	2.0	--	--	
10/5/1993	34.72	19.95	0.00	14.77	-0.39	120	--	12	ND	2.1	12	--	--	
1/3/1994	34.72	20.21	0.00	14.51	-0.26	260	--	25	ND	5.5	26	--	--	
4/2/1994	34.72	19.88	0.00	14.84	0.33	ND	--	0.65	ND	ND	0.99	--	--	

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)		TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
				Change in Elevation (feet)	TPH-G 8015 (µg/l)									
7/5/1994	34.72	19.07	0.00	15.65	0.81	160	--	16	ND	0.73	10	--	--	--
10/6/1994	34.72	20.55	0.00	14.17	-1.48	170	--	15	ND	1.4	11	--	--	--
1/2/1995	34.72	19.25	0.00	15.47	1.30	190	--	27	ND	0.95	11	--	--	--
4/3/1995	34.72	17.49	0.00	17.23	1.76	2400	--	65	6.6	19	63	--	--	--
7/14/1995	34.72	18.30	0.00	16.42	-0.81	750	--	270	ND	ND	13	--	--	--
10/10/1995	34.72	19.25	0.00	15.47	-0.95	50	--	1.6	ND	ND	ND	200	--	--
1/3/1996	34.72	19.40	0.00	15.32	-0.15	ND	--	ND	ND	ND	ND	--	--	--
4/10/1996	34.72	17.35	0.00	17.37	2.05	300	--	42	ND	2.4	9	620	--	--
7/9/1996	34.72	18.22	0.00	16.50	-0.87	760	--	230	ND	1.3	2.4	1500	--	--
1/24/1997	34.72	17.59	0.00	17.13	0.63	2900	--	400	350	190	720	1300	--	--
7/23/1997	34.72	19.13	0.00	15.59	-1.54	ND	--	ND	ND	ND	ND	65	--	--
1/26/1998	34.72	17.12	0.00	17.60	2.01	ND	--	ND	ND	ND	0.58	13	--	--
7/3/1998	34.72	18.20	0.00	16.52	-1.08	140	--	26	ND	0.95	5.0	330	--	--
1/14/1999	34.72	18.56	0.00	16.16	-0.36	ND	--	0.54	ND	ND	ND	350	--	--
7/15/1999	34.72	17.39	0.00	17.33	1.17	ND	--	0.88	ND	ND	ND	39	--	--
1/7/2000	34.72	18.78	0.00	15.94	-1.39	ND	--	ND	ND	ND	ND	24	--	--
7/19/2000	34.72	19.68	0.00	15.04	-0.90	ND	--	1.45	ND	ND	ND	117	--	--
1/2/2001	34.72	19.73	0.00	14.99	-0.05	ND	--	ND	ND	ND	ND	11.4	--	--
5/23/2001	34.72	18.16	0.00	16.56	1.57	ND	--	ND	ND	ND	ND	33	--	--
7/30/2001	34.72	18.34	0.00	16.38	-0.18	<50	--	<0.50	<0.50	<0.50	<0.50	67	--	--
10/15/2001	34.72	18.52	0.00	16.20	-0.18	<50	--	<0.50	<0.50	<0.50	<0.50	31	--	--
1/14/2002	34.72	16.72	0.00	18.00	1.80	<50	--	<0.50	<0.50	<0.50	0.56	11	--	--
4/15/2002	34.72	17.26	0.00	17.46	-0.54	<50	--	<0.50	<0.50	<0.50	<0.50	110	--	--
7/15/2002	34.72	17.46	0.00	17.26	-0.20	270	--	21	<0.50	3.8	4.0	--	73	--
1/18/2003	34.72	16.93	0.00	17.79	0.53	<50	--	<0.50	<0.50	<0.50	<1.0	--	22	--
7/11/2003	34.72	17.68	0.00	17.04	-0.75	130	--	3.0	<0.50	<0.50	<1.0	--	89	--
2/4/2004	34.72	17.36	0.00	17.36	0.32	--	61	2.9	<0.50	<0.50	<1.0	--	22	--
8/11/2004	34.72	17.61	0.00	17.11	-0.25	--	140	<0.50	0.60	<0.50	<1.0	--	94	--
3/31/2005	34.72	15.56	0.00	19.16	2.05	--	<50	<0.50	<0.50	<0.50	<1.0	--	14	--
9/30/2005	34.72	17.31	0.00	17.41	-1.75	--	<50	<0.50	<0.50	<0.50	<1.0	--	9.1	--
3/27/2006	34.72	14.91	0.00	19.81	2.40	--	<50	<0.50	<0.50	<0.50	<1.0	--	2.7	--
9/27/2006	34.72	18.15	0.00	16.57	-3.24	--	<50	<0.50	<0.50	<0.50	<0.50	--	7.7	--
3/27/2007	34.72	18.57	0.00	16.15	-0.42	--	<50	<0.50	<0.50	<0.50	<0.50	--	1.4	--
9/28/2007	34.72	18.38	0.00	16.34	0.19	--	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
3/26/2008	34.72	19.06	0.00	15.66	-0.68	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
7/28/2008	34.72	19.90	0.00	14.82	-0.84	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
1/26/2009	34.72	20.50	0.00	14.22	-0.60	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
8/3/2009	34.74	19.92	0.00	14.82	0.60	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
1/25/2010	34.74	19.70	0.00	15.04	0.22	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
8/3/2010	34.74	19.26	0.00	15.48	0.44	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
2/17/2011	34.74	19.32	0.00	15.42	-0.06	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
8/3/2011	34.74	18.74	0.00	16.00	0.58	--	77	6.7	<0.50	<0.50	<1.0	--	14	
MW-3														
6/5/1991	33.39	--	--	--	--	5800	--	1200	40	140	97	--	--	
9/30/1991	33.39	--	--	--	--	6800	--	1400	130	290	240	--	--	
12/30/1991	33.39	--	--	--	--	7200	--	2100	690	410	550	--	--	
4/2/1992	33.39	--	--	--	--	8000	--	1400	200	300	310	--	--	
6/30/1992	33.39	--	--	--	--	8900	--	1900	210	430	550	--	--	
9/15/1992	33.39	--	--	--	--	10000	--	1900	330	400	580	--	--	
12/21/1992	33.39	20.02	0.00	13.37	--	8500	--	1500	150	310	330	--	--	
4/28/1993	33.39	--	--	--	--	2600	--	220	7.6	41	27	--	--	
7/23/1993	33.39	19.00	0.00	14.39	--	4400	--	660	26	160	82	--	--	
10/5/1993	33.14	19.20	0.00	13.94	-0.45	9200	--	720	88	140	140	--	--	
1/3/1994	33.14	19.40	0.00	13.74	-0.20	4900	--	830	100	170	150	--	--	
4/2/1994	33.14	19.01	0.00	14.13	0.39	6000	--	800	30	140	110	--	--	
7/5/1994	33.14	18.14	0.00	15.00	0.87	25000	--	ND	ND	ND	ND	--	--	
10/6/1994	33.14	19.73	0.00	13.41	-1.59	49000	--	1300	200	280	300	--	--	
1/2/1995	33.14	18.36	0.00	14.78	1.37	480	--	1.6	ND	1.4	ND	--	--	
4/3/1995	33.14	16.38	0.00	16.76	1.98	8100	--	65	ND	ND	ND	--	--	
7/14/1995	33.14	17.49	0.00	15.65	-1.11	ND	--	1300	ND	ND	ND	--	--	
10/10/1995	33.14	18.50	0.00	14.64	-1.01	3100	--	1400	36	50	53	190000	--	
1/3/1996	33.14	18.54	0.00	14.60	-0.04	ND	--	2300	110	150	140	--	--	
7/9/1996	33.14	17.43	0.00	15.71	1.11	ND	--	2000	ND	150	160	140000	--	
1/24/1997	33.14	16.57	0.00	16.57	0.86	540	--	8.0	ND	11	9.9	45	--	
7/23/1997	33.14	18.38	0.00	14.76	-1.81	7400	--	1900	180	140	340	45000	--	
1/26/1998	33.14	16.22	0.00	16.92	2.16	250	--	2.2	1.9	0.87	1.9	4.0	--	
7/3/1998	33.14	17.46	--	15.68	-1.24	230	--	1.8	2.5	1.5	3.4	6.3	--	
1/14/1999	33.14	17.73	--	15.41	-0.27	400	--	8.2	2.7	0.90	5.9	140	--	

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)		TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
				Change in Elevation (feet)	Water Elevation (feet)									
7/15/1999	33.14	16.58	--	16.56	1.15	290	--	3.3	3.6	1.7	2.5	13	--	
1/7/2000	33.14	17.84	--	15.30	-1.26	ND	--	890	91	100	480	20000	--	
7/19/2000	33.14	18.92	--	14.22	-1.08	354	--	3.87	2.61	0.646	ND	13.7	--	
1/2/2001	33.14	19.07	--	14.07	-0.15	464	--	ND	3.69	3.91	ND	21.1	--	
5/23/2001	33.14	17.12	--	16.02	1.95	420	--	7.6	3.1	3.0	5.1	1900	--	
7/30/2001	33.14	17.38	--	15.76	-0.26	290	--	4.6	4.1	<0.50	3.4	23	--	
10/15/2001	33.14	17.61	--	15.53	-0.23	400	--	<0.50	<0.50	<0.50	<0.50	13	--	
1/14/2002	33.14	15.53	--	17.61	2.08	130	--	0.50	0.61	1.1	<0.50	9.9	--	
4/15/2002	33.14	16.12	--	17.02	-0.59	280	--	9.9	1.6	3.3	6.8	1400	--	
7/15/2002	33.14	16.48	--	16.66	-0.36	64	--	<0.50	<0.50	<0.50	<1.0	33	--	
1/18/2003	33.14	15.81	--	17.33	0.67	420	--	0.54	<0.50	<0.50	<1.0	130	--	
7/11/2003	33.14	16.74	--	16.40	-0.93	--	300	2.3	<0.50	<0.50	<1.0	--	31	
2/4/2004	33.14	16.15	0.00	16.99	0.59	--	130	7.9	<0.50	<0.50	<1.0	--	63	
8/11/2004	33.14	16.64	0.00	16.50	-0.49	--	<20000	<200	<200	<200	<400	--	20000	
3/31/2005	33.14	14.53	0.00	18.61	2.11	--	<20000	330	<200	<200	<400	--	78000	
9/30/2005	33.14	16.55	0.00	16.59	-2.02	--	12000	360	40	<25	50	--	20000	
3/27/2006	33.14	13.66	0.00	19.48	2.89	--	10000	150	<25	53	99	--	15000	
9/27/2006	33.14	17.40	0.00	15.74	-3.74	--	<12000	<120	<120	<120	<120	--	12000	
3/27/2007	33.14	17.55	0.00	15.59	-0.15	--	8700	180	<12	60	57	--	8900	
9/28/2007	33.14	18.59	0.00	14.55	-1.04	--	9000	55	<50	<50	<50	--	11000	
3/26/2008	33.14	18.19	0.00	14.95	0.40	--	450	13	1.3	0.84	1.4	--	7200	
7/28/2008	33.14	19.00	0.00	14.14	-0.81	--	8300	<50	<50	<50	<100	--	13000	
1/26/2009	33.14	19.54	0.00	13.60	-0.54	--	8800	27	<12	<12	<25	--	13000	
8/3/2009	33.18	18.90	0.00	14.28	0.68	--	9300	56	<50	<50	<100	--	8000	
1/25/2010	33.18	18.54	0.00	14.64	0.36	--	4900	79	7.3	5.4	13	--	8100	
8/3/2010	33.18	18.35	0.00	14.83	0.19	--	2500	30	<12	<12	<25	--	4600	
2/17/2011	33.18	18.30	0.00	14.88	0.05	--	3800	11	<5.0	<5.0	<10	--	4700	
8/3/2011	33.18	17.87	0.00	15.31	0.43	--	2,600	9.7	0.8	3.1	1.4	--	2,000	
MW-4														
10/19/1992	--	--	--	--	--	480	--	0.51	2.1	2.8	6.8	--	--	
12/21/1992	33.12	19.73	--	13.39	--	220	--	ND	ND	0.97	0.74	--	--	
4/28/1993	33.12	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
7/23/1993	33.12	18.72	--	14.40	--	85	--	ND	ND	ND	ND	--	--	
10/5/1993	32.71	18.74	--	13.97	-0.43	130	--	ND	ND	ND	ND	--	--	

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)		TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
				Water Elevation (feet)	Change in Elevation (feet)									
1/3/1994	32.71	18.93	--	13.78	-0.19	210	--	ND	ND	0.76	1.6	--	--	--
4/2/1994	32.71	18.53	--	14.18	0.40	89	--	ND	ND	ND	ND	--	--	--
7/5/1994	32.71	17.67	--	15.04	0.86	190	--	ND	ND	ND	ND	--	--	--
10/6/1994	32.71	19.25	--	13.46	-1.58	170	--	0.85	ND	ND	0.74	--	--	--
1/2/1995	32.71	17.75	--	14.96	1.50	ND	--	ND	ND	ND	ND	--	--	--
4/3/1995	32.71	15.87	--	16.84	1.88	98	--	ND	ND	ND	ND	--	--	--
7/14/1995	32.71	17.01	--	15.70	-1.14	ND	--	ND	ND	ND	ND	--	--	--
10/10/1995	32.71	18.03	--	14.68	-1.02	ND	--	ND	ND	ND	ND	120	--	--
1/3/1996	32.71	18.05	--	14.66	-0.02	ND	--	ND	ND	ND	ND	--	--	--
4/10/1996	32.71	16.00	--	16.71	2.05	ND	--	ND	ND	ND	ND	240	--	--
7/9/1996	32.71	16.96	--	15.75	-0.96	ND	--	ND	ND	ND	ND	480	--	--
1/24/1997	32.71	16.04	0.00	16.67	0.92	ND	--	ND	ND	ND	ND	270	--	--
7/23/1997	32.71	17.87	0.00	14.84	-1.83	ND	--	ND	ND	ND	ND	460	--	--
1/26/1998	32.71	16.05	--	16.66	1.82	ND	--	ND	ND	ND	ND	17	--	--
7/3/1998	32.71	16.95	--	15.76	-0.90	ND	--	ND	ND	ND	ND	3.8	--	--
1/14/1999	32.71	17.34	--	15.37	-0.39	ND	--	ND	ND	ND	ND	4600	--	--
7/15/1999	32.71	16.36	--	16.35	0.98	ND	--	ND	ND	ND	ND	ND	--	--
1/7/2000	32.71	17.81	--	14.90	-1.45	ND	--	ND	ND	ND	ND	450	--	--
7/19/2000	32.71	18.94	--	13.77	-1.13	ND	--	ND	ND	ND	ND	ND	--	--
1/2/2001	32.71	18.85	--	13.86	0.09	ND	--	ND	ND	ND	ND	ND	--	--
5/23/2001	32.71	16.82	--	15.89	2.03	ND	--	ND	ND	ND	ND	ND	--	--
7/30/2001	32.71	16.88	--	15.83	-0.06	<50	--	<0.50	<0.50	<0.50	<0.50	4.9	--	--
10/15/2001	32.71	17.08	--	15.63	-0.20	<50	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
1/14/2002	32.71	14.97	--	17.74	2.11	<50	--	<0.50	<0.50	<0.50	<0.50	30	--	--
4/15/2002	32.71	15.48	--	17.23	-0.51	<50	--	<0.50	<0.50	<0.50	<0.50	180	--	--
7/15/2002	32.71	15.90	--	16.81	-0.42	<50	--	<0.50	<0.50	<0.50	<1.0	50	--	--
1/18/2003	32.71	15.39	--	17.32	0.51	<50	--	<0.50	<0.50	<0.50	<1.0	<2.0	--	--
7/11/2003	32.71	16.17	--	16.54	-0.78	--	200	<0.50	<0.50	<0.50	<1.0	--	52	--
2/4/2004	32.71	16.12	0.00	16.59	0.05	--	1300	<10	<10	<10	<20	--	1700	--
8/11/2004	32.71	16.16	0.00	16.55	-0.04	--	<5000	<50	<50	<50	<100	--	6400	--
3/31/2005	32.71	14.15	0.00	18.56	2.01	--	<1300	<0.50	<0.50	<0.50	<1.0	--	1600	--
9/30/2005	32.71	16.91	0.00	15.80	-2.76	--	900	<0.50	<0.50	<0.50	<1.0	--	3800	--
3/27/2006	32.71	13.94	0.00	18.77	2.97	--	870	<0.50	<0.50	<0.50	<1.0	--	2000	--
9/27/2006	32.71	16.91	0.00	15.80	-2.97	--	<1000	<10	<10	<10	<10	--	1600	--

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
3/27/2007	32.71	17.15	0.00	15.56	-0.24	--	1500	<2.5	<2.5	<2.5	<2.5	--	1700	
9/28/2007	32.71	18.13	0.00	14.58	-0.98	--	590	<5.0	<5.0	<5.0	<5.0	--	1400	
3/26/2008	32.71	17.66	0.00	15.05	0.47	--	390	<0.50	<0.50	<0.50	<1.0	--	1400	
7/28/2008	32.71	18.34	0.00	14.37	-0.68	--	480	<1.0	<1.0	<1.0	<2.0	--	950	
1/26/2009	32.71	18.80	0.00	13.91	-0.46	--	500	<0.50	<0.50	<0.50	<1.0	--	830	
8/3/2009	32.72	18.43	0.00	14.29	0.38	--	640	<5.0	6.6	<5.0	<10	--	570	
1/25/2010	32.72	18.02	0.00	14.70	0.41	--	190	<0.50	<0.50	<0.50	<1.0	--	400	
8/3/2010	32.72	17.83	0.00	14.89	0.19	--	58	<0.50	<0.50	<0.50	<1.0	--	110	
2/17/2011	32.72	17.85	0.00	14.87	-0.02	--	<50	<0.50	<0.50	<0.50	<1.0	--	12	
8/3/2011	32.72	17.36	0.00	15.36	0.49	--	<50	<0.50	<0.50	<0.50	<1.0	--	12	
MW-5														
10/19/1992	--	--	--	--	--	2700	--	61	5.0	100	61	--	--	
12/21/1992	33.25	19.75	--	13.50	--	1700	--	51	4.7	83	34	--	--	
4/28/1993	33.25	--	--	--	--	6700	--	200	190	250	430	--	--	
7/23/1993	33.25	18.74	--	14.51	--	2000	--	122	8.0	68	47	--	--	
10/5/1993	32.95	18.83	--	14.12	-0.39	1700	--	70	6.2	54	40	--	--	
1/3/1994	32.95	19.05	--	13.90	-0.22	1500	--	44	ND	42	46	--	--	
4/2/1994	32.95	18.68	--	14.27	0.37	1800	--	46	5.1	38	35	--	--	
7/5/1994	32.95	17.90	--	15.05	0.78	2200	--	97	8.4	37	36	--	--	
10/6/1994	32.95	19.37	--	13.58	-1.47	1600	--	79	5.7	28	22	--	--	
1/2/1995	32.95	17.92	--	15.03	1.45	1700	--	50	8.6	30	28	--	--	
4/3/1995	32.95	16.15	--	16.80	1.77	5400	--	190	240	170	420	--	--	
7/14/1995	32.95	17.18	--	15.77	-1.03	3800	--	210	100	130	190	--	--	
10/10/1995	32.95	18.15	--	14.80	-0.97	1300	--	92	14	15	39	1100	--	
1/3/1996	32.95	18.20	--	14.75	-0.05	630	--	53	4.4	8.3	13	--	--	
4/10/1996	32.95	16.05	--	16.90	2.15	500	--	25	18	7.0	20	640	--	
7/9/1996	32.95	17.11	--	15.84	-1.06	1000	--	44	20	10	34	150	--	
1/24/1997	32.95	16.36	0.00	16.59	0.75	4000	--	190	400	160	430	600	--	
7/23/1997	32.95	18.08	0.00	14.87	-1.72	1700	--	200	23	18	45	2500	--	
1/26/1998	32.95	16.27	--	16.68	1.81	ND	--	ND	ND	ND	ND	ND	--	
7/3/1998	32.95	17.27	--	15.68	-1.00	ND	--	ND	ND	ND	ND	ND	--	
1/14/1999	32.95	17.55	--	15.40	-0.28	330	--	61	4.1	2.2	2.9	560	--	
7/15/1999	32.95	16.41	--	16.54	1.14	1100	--	170	ND	ND	27	660	--	
1/7/2000	32.95	17.85	--	15.10	-1.44	1000	--	180	6.3	ND	14	430	--	

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)		Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
				Water Elevation (feet)	Change in Elevation (feet)										
7/19/2000	32.95	18.87	--	14.08	-1.02	2980	--	289	57.3	65.3	43.4	976	--	--	
1/2/2001	32.95	18.47	--	14.48	0.40	1150	--	87.2	17.8	7.97	9.32	368	--	--	
5/23/2001	32.95	17.38	--	15.57	1.09	840	--	42	10	13	7.1	130	--	--	
7/30/2001	32.95	17.12	--	15.83	0.26	1900	--	82	24	6.9	13	370	--	--	
10/15/2001	32.95	17.33	--	15.62	-0.21	26000	--	390	230	58	1300	<500	--	--	
1/14/2002	32.95	15.33	--	17.62	2.00	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	
4/15/2002	32.95	15.89	--	17.06	-0.56	310	--	20	6.7	11	7.7	77	--	--	
7/15/2002	32.95	16.21	--	16.74	-0.32	1500	--	40	22	60	28	170	--	--	
1/18/2003	32.95	15.68	--	17.27	0.53	<50	--	0.75	<0.50	<0.50	<1.0	81	--	--	
7/11/2003	32.95	16.29	--	16.66	-0.61	--	<50	<0.50	<0.50	<0.50	<1.0	--	3.6	--	
2/4/2004	32.95	16.08	0.00	16.87	0.21	--	82	16	1.6	0.65	<1.0	--	16	--	
8/11/2004	32.95	16.38	0.00	16.57	-0.30	--	900	81	14	2.8	11	--	120	--	
3/31/2005	32.95	14.30	0.00	18.65	2.08	--	5000	160	84	65	72	--	140	--	
9/30/2005	32.95	16.19	0.00	16.76	-1.89	--	1200	26	5.8	2.4	9.2	--	38	--	
3/27/2006	32.95	13.90	0.00	19.05	2.29	--	1100	13	12	4.7	16	--	8.8	--	
9/27/2006	32.95	17.06	0.00	15.89	-3.16	--	1300	20	11	2.3	15	--	21	--	
3/27/2007	32.95	17.43	0.00	15.52	-0.37	--	960	15	7.8	2.2	11	--	14	--	
9/28/2007	32.95	18.25	0.00	14.70	-0.82	--	1300	13	6.0	2.3	15	--	8.4	--	
3/26/2008	32.95	17.82	0.00	15.13	0.43	--	1200	7.6	3.3	1.8	11	--	2.7	--	
7/28/2008	32.95	18.70	0.00	14.25	-0.88	--	2000	12	4.9	3.2	17	--	<0.50	--	
1/26/2009	32.95	19.25	0.00	13.70	-0.55	--	1400	7.4	3.3	2.5	11	--	3.3	--	
8/3/2009	32.98	18.62	0.00	14.36	0.66	--	1500	17	9.0	3.5	22	--	7.3	--	
1/25/2010	32.98	18.34	0.00	14.64	0.28	--	1600	7.6	3.6	2.4	15	--	1.7	--	
8/3/2010	32.98	18.07	0.00	14.91	0.27	--	2200	32	32	10	48	--	10	--	
2/17/2011	32.98	18.05	0.00	14.93	0.02	--	1800	33	7.4	<0.50	11	--	15	--	
8/3/2011	32.98	17.57	0.00	15.41	0.48	--	2,500	58	23	12	34	--	40	--	
MW-6															
10/19/1992	--	--	--	--	--	3900	--	420	12	60	28	--	--	--	
12/21/1992	32.42	19.17	--	13.25	--	2300	--	370	11	39	15	--	--	--	
4/28/1993	32.42	--	--	--	--	1200	--	54	1.5	11	5.3	--	--	--	
7/23/1993	32.42	18.17	--	14.25	--	580	--	19	0.99	3.4	2.7	--	--	--	
10/5/1993	32.16	18.35	--	13.81	-0.44	1400	--	34	ND	5.3	7.3	--	--	--	
1/3/1994	32.16	18.54	--	13.62	-0.19	1400	--	57	ND	8.5	11	--	--	--	
4/2/1994	32.16	18.15	--	14.01	0.39	5300	--	ND	ND	ND	ND	--	--	--	

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)		TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
				Change in Elevation (feet)	Water Elevation (feet)									
7/5/1994	32.16	17.25	--	14.91	0.90	ND	--	ND	ND	ND	ND	--	--	--
10/6/1994	32.16	18.85	--	13.31	-1.60	11000	--	ND	ND	ND	ND	--	--	--
1/2/1995	32.16	17.51	--	14.65	1.34	550	--	18	0.92	2.0	1.8	--	--	--
4/3/1995	32.16	15.48	--	16.68	2.03	6600	--	ND	ND	ND	ND	--	--	--
7/14/1995	32.16	16.63	--	15.53	-1.15	ND	--	ND	ND	ND	ND	--	--	--
10/10/1995	32.16	17.68	--	14.48	-1.05	ND	--	81	ND	ND	ND	75000	--	--
1/3/1996	32.16	17.66	--	14.50	0.02	70	--	9.9	0.58	ND	0.81	--	--	--
4/10/1996	32.16	15.56	--	16.60	2.10	300	--	258	4.7	0.94	2.7	53000	--	--
7/9/1996	32.16	16.59	--	15.57	-1.03	1800	--	410	ND	12	ND	76000	--	--
1/24/1997	32.16	15.69	0.00	16.47	0.90	ND	--	0.80	ND	ND	ND	390	--	--
7/23/1997	32.16	17.53	0.00	14.63	-1.84	5700	--	1100	240	240	700	16000	--	--
1/26/1998	32.16	15.44	--	16.72	2.09	ND	--	ND	ND	ND	ND	ND	--	--
7/3/1998	32.16	16.58	--	15.58	-1.14	ND	--	ND	ND	ND	ND	ND	--	--
1/14/1999	32.16	17.02	--	15.14	-0.44	ND	--	ND	ND	ND	ND	14	--	--
7/15/1999	32.16	15.95	--	16.21	1.07	ND	--	ND	ND	ND	ND	2.8	--	--
1/7/2000	32.16	16.96	--	15.20	-1.01	78	--	24	ND	0.66	17	280	--	--
7/19/2000	32.16	18.04	--	14.12	-1.08	ND	--	ND	1.32	ND	0.974	ND	--	--
1/2/2001	32.16	18.10	--	14.06	-0.06	ND	--	ND	ND	ND	ND	ND	--	--
5/23/2001	32.16	16.42	--	15.74	1.68	ND	--	ND	ND	ND	ND	ND	--	--
7/30/2001	32.16	16.49	--	15.67	-0.07	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
10/15/2001	32.16	16.67	--	15.49	-0.18	<50	--	<0.50	0.62	<0.50	<0.50	<5.0	--	--
1/14/2002	32.16	14.60	--	17.56	2.07	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
4/15/2002	32.16	15.07	--	17.09	-0.47	<50	--	<0.50	<0.50	<0.50	0.73	<5.0	--	--
7/15/2002	32.16	15.56	--	16.60	-0.49	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
1/18/2003	32.16	15.80	--	16.36	-0.24	<50	--	<0.50	<0.50	<0.50	<1.0	<2.0	--	--
7/11/2003	32.16	15.74	--	16.42	0.06	--	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--
2/4/2004	32.16	15.49	0.00	16.67	0.25	--	<50	2.6	<0.50	<0.50	<1.0	--	2.4	--
8/11/2004	32.16	15.81	0.00	16.35	-0.32	--	7900	95	<50	<50	<100	--	9100	--
3/31/2005	32.16	13.70	0.00	18.46	2.11	--	<5000	2.5	<0.50	<0.50	<1.0	--	7600	--
9/30/2005	32.16	15.48	0.00	16.68	-1.78	--	4300	140	37	28	41	--	5800	--
3/27/2006	32.16	13.02	0.00	19.14	2.46	--	7200	34	0.66	0.96	18	--	9900	--
9/27/2006	32.16	16.56	0.00	15.60	-3.54	--	1800	<12	<12	<12	<12	--	3300	--
3/27/2007	32.16	16.73	0.00	15.43	-0.17	--	1600	2.8	<2.5	<2.5	<2.5	--	1800	--
9/28/2007	32.16	17.75	0.00	14.41	-1.02	--	830	<5.0	<5.0	<5.0	<5.0	--	1600	--

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
3/26/2008	32.16	17.31	0.00	14.85	0.44	--	940	45	5.9	2.0	5.3	--	1300	
7/28/2008	32.16	18.50	0.00	13.66	-1.19	--	500	<1.0	<1.0	<1.0	<2.0	--	750	
1/26/2009	32.16	18.46	0.00	13.70	0.04	--	570	<0.50	<0.50	<0.50	<1.0	--	500	
8/3/2009	32.19	18.01	0.00	14.18	0.48	--	800	<5.0	<5.0	<5.0	<10	--	690	
1/25/2010	32.19	17.64	0.00	14.55	0.37	--	410	4.8	0.63	<0.50	1.4	--	390	
8/3/2010	32.19	17.48	0.00	14.71	0.16	--	480	2.0	<0.50	<0.50	<1.0	--	520	
2/17/2011	32.19	17.48	0.00	14.71	0.00	--	290	<0.50	<0.50	<0.50	<1.0	--	130	
8/3/2011	32.19	17.02	0.00	15.17	0.46	--	330	<0.50	<0.50	<0.50	<1.0	--	89	
MW-7														
10/19/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	
4/28/1993	32.49	--	--	--	--	110	--	2.8	1.3	1.4	1.7	--	--	
7/23/1993	32.49	18.60	--	13.89	--	790	--	23	3.3	28	5.4	--	--	
10/5/1993	32.20	18.76	--	13.44	-0.45	360	--	10	1.2	0.91	0.99	--	--	
1/3/1994	32.20	18.91	--	13.29	-0.15	ND	--	0.93	ND	0.75	1.9	--	--	
4/2/1994	32.20	18.50	--	13.70	0.41	360	--	2.0	ND	ND	0.8	--	--	
7/5/1994	32.20	17.52	--	14.68	0.98	ND	--	ND	ND	ND	ND	--	--	
10/6/1994	32.20	19.25	--	12.95	-1.73	340	--	5.6	0.85	ND	1.2	--	--	
1/2/1995	32.20	17.67	--	14.53	1.58	ND	--	ND	ND	ND	ND	--	--	
4/3/1995	32.20	15.81	--	16.39	1.86	570	--	24	ND	3.4	5.8	--	--	
7/14/1995	32.20	17.05	--	15.15	-1.24	ND	--	14	ND	ND	ND	--	--	
10/10/1995	32.20	18.08	--	14.12	-1.03	740	--	170	ND	ND	ND	13000	--	
1/3/1996	32.20	18.02	--	14.18	0.06	360	--	16	1.3	2.7	1.4	--	--	
4/10/1996	32.20	15.81	--	16.39	2.21	120	--	4.1	1.5	ND	0.88	3200	--	
7/9/1996	32.20	16.99	--	15.21	-1.18	ND	--	ND	ND	ND	ND	3400	--	
1/24/1997	32.20	16.08	0.00	16.12	0.91	ND	--	16	ND	ND	ND	6600	--	
7/23/1997	32.20	17.99	0.00	14.21	-1.91	ND	--	16	ND	ND	0.62	10000	--	
1/26/1998	32.20	15.56	--	16.64	2.43	ND	--	ND	ND	ND	0.56	ND	--	
7/3/1998	32.20	17.04	--	15.16	-1.48	ND	--	ND	ND	ND	ND	ND	--	
1/14/1999	32.20	--	--	--	--	--	--	--	--	--	--	--	--	essible-parke
7/15/1999	32.20	15.72	--	16.48	--	ND	--	ND	ND	ND	ND	290	--	
1/7/2000	32.20	16.80	--	15.40	-1.08	ND	--	7.7	ND	ND	4.4	98	--	
7/19/2000	32.20	17.88	--	14.32	-1.08	ND	--	ND	1.27	ND	0.979	ND	--	
1/2/2001	32.20	17.97	--	14.23	-0.09	ND	--	ND	ND	ND	ND	ND	--	
5/23/2001	32.20	16.81	--	15.39	1.16	ND	--	ND	ND	ND	ND	ND	--	

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)		Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
				Water Elevation (feet)	Change in Elevation (feet)										
7/30/2001	32.20	16.79	--	15.41	0.02	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--	
10/15/2001	32.20	16.98	--	15.22	-0.19	<50	--	<0.50	0.58	<0.50	<0.50	<0.50	<5.0	--	
1/14/2002	32.20	14.85	--	17.35	2.13	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--	
4/15/2002	32.20	15.29	--	16.91	-0.44	<50	--	<0.50	<0.50	<0.50	<0.50	0.70	<5.0	--	
7/15/2002	32.20	15.92	--	16.28	-0.63	<50	--	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
1/18/2003	32.20	15.11	--	17.09	0.81	<50	--	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	--	
7/11/2003	32.20	15.89	--	16.31	-0.78	--	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	19	
2/4/2004	32.20	15.90	0.00	16.30	-0.01	--	<50	3.6	<0.50	<0.50	<0.50	<1.0	--	3.2	
8/11/2004	32.20	16.12	0.00	16.08	-0.22	--	<5000	120	<50	<50	<100	--	5100		
3/31/2005	32.20	13.99	0.00	18.21	2.13	--	<5000	190	<50	<50	<100	--	8400		
9/30/2005	32.20	15.93	0.00	16.27	-1.94	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50		
3/27/2006	32.20	13.40	0.00	18.80	2.53	--	2500	160	10	11	26	--	5600		
9/27/2006	32.20	16.96	0.00	15.24	-3.56	--	2800	180	<12	15	44	--	4200		
3/27/2007	32.20	17.30	0.00	14.90	-0.34	--	920	66	2.9	3.4	4.5	--	970		
9/28/2007	32.20	18.10	0.00	14.10	-0.80	--	4000	440	15	17	59	--	3300		
3/26/2008	32.20	17.64	0.00	14.56	0.46	--	390	39	3.3	0.85	7.5	--	96		
7/28/2008	32.20	18.50	0.00	13.70	-0.86	--	64	3.3	<0.50	<0.50	<1.0	--	8.7		
1/26/2009	32.20	18.90	0.00	13.30	-0.40	--	80	7.9	0.58	<0.50	<1.0	--	10		
8/3/2009	32.22	18.29	0.00	13.93	0.63	--	2100	220	14	10	31	--	750		
1/25/2010	32.22	17.49	0.00	14.73	0.80	--	490	25	3.5	0.54	6.9	--	16		
8/3/2010	32.22	17.84	0.00	14.38	-0.35	--	240	45	1.8	1.2	1.7	--	290		
2/17/2011	32.22	17.83	0.00	14.39	0.01	--	370	53	2.0	<0.50	2.1	--	12		
8/3/2011	32.22	17.42	0.00	14.80	0.41	--	390	20	1.8	<0.50	1.6	--	27		
MW-8															
4/28/1993	32.33	--	--	--	--	450	--	18	1.8	1.8	1.4	--	--		
7/23/1993	32.33	18.45	--	13.88	--	260	--	5.1	ND	0.6	ND	--	--		
10/5/1993	32.00	18.57	--	13.43	-0.45	120	--	1.7	ND	ND	ND	--	--		
1/3/1994	32.00	18.73	--	13.27	-0.16	ND	--	ND	ND	ND	ND	51	--		
4/2/1994	32.00	18.30	--	13.70	0.43	150	--	1.2	ND	ND	ND	--	--		
7/5/1994	32.00	17.41	--	14.59	0.89	730	--	17	ND	1.6	ND	--	--		
10/6/1994	32.00	18.98	--	13.02	-1.57	140	--	ND	ND	ND	ND	--	--		
1/2/1995	32.00	17.58	--	14.42	1.40	440	--	18	0.72	2.0	1.8	--	--		
4/3/1995	32.00	15.54	--	16.46	2.04	960	--	11	ND	ND	ND	--	--		
7/14/1995	32.00	16.81	--	15.19	-1.27	280	--	4.2	2.6	1.1	3.3	--	--		

Table 2
HISTORICAL GROUNDWATER RESULTS

August 3, 2011
76 Station 0752

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)		TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
				Change in Elevation (feet)	Water Elevation (feet)									
10/10/1995	32.00	17.85	--	14.15	-1.04	110	--	1.3	0.62	0.67	ND	170	--	--
1/3/1996	32.00	17.82	--	14.18	0.03	63	--	ND	0.51	ND	1.8	--	--	--
4/10/1996	32.00	15.70	--	16.30	2.12	ND	--	1.1	0.61	ND	ND	60	--	--
7/9/1996	32.00	16.78	--	15.22	-1.08	72	--	1.0	ND	ND	ND	140	--	--
1/24/1997	32.00	15.79	0.00	16.21	0.99	ND	--	ND	ND	ND	ND	76	--	--
7/23/1997	32.00	17.69	0.00	14.31	-1.90	ND	--	ND	ND	ND	ND	270	--	--
1/26/1998	32.00	15.50	--	16.50	2.19	ND	--	ND	ND	ND	0.76	2.9	--	--
7/3/1998	32.00	16.80	--	15.20	-1.30	ND	--	ND	ND	ND	ND	ND	--	--
1/14/1999	32.00	17.13	--	14.87	-0.33	ND	--	ND	ND	ND	ND	11	--	--
7/15/1999	32.00	15.85	--	16.15	1.28	ND	--	ND	ND	ND	ND	ND	--	--
1/7/2000	32.00	16.94	--	15.06	-1.09	ND	--	ND	ND	ND	ND	11	--	--
7/19/2000	32.00	18.06	--	13.94	-1.12	ND	--	ND	2.99	0.521	ND	ND	--	--
1/2/2001	32.00	18.12	--	13.88	-0.06	ND	--	ND	ND	ND	ND	ND	--	--
5/23/2001	32.00	16.96	--	15.04	1.16	ND	--	ND	ND	ND	ND	ND	--	--
7/30/2001	32.00	16.52	--	15.48	0.44	<50	--	<0.50	<0.50	<0.50	<0.50	2.7	--	--
10/15/2001	32.00	16.72	--	15.28	-0.20	<50	--	<0.50	0.65	<0.50	<0.50	<5.0	--	--
1/14/2002	32.00	14.53	--	17.47	2.19	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
4/15/2002	32.00	14.96	--	17.04	-0.43	<50	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
7/15/2002	32.00	15.60	--	16.40	-0.64	<50	--	<0.50	<0.50	<0.50	<1.0	11	--	--
1/18/2003	32.00	14.78	--	17.22	0.82	<50	--	<0.50	<0.50	<0.50	<1.0	<2.0	--	--
2/4/2004	32.00	15.65	0.00	16.35	-0.87	--	52	2.3	<0.50	<0.50	<1.0	--	2.4	
8/11/2004	32.00	15.86	0.00	16.14	-0.21	--	350	<2.5	<2.5	<2.5	<5.0	--	310	
3/31/2005	32.00	13.73	0.00	18.27	2.13	--	<2000	<0.50	<0.50	<0.50	<1.0	--	2100	
9/30/2005	32.00	15.94	0.00	16.06	-2.21	--	1200	<0.50	0.50	<0.50	<1.0	--	6900	
3/27/2006	32.00	13.13	0.00	18.87	2.81	--	460	<0.50	<0.50	<0.50	<1.0	--	820	
9/27/2006	32.00	16.75	0.00	15.25	-3.62	--	520	<5.0	<5.0	<5.0	8.2	--	870	
3/27/2007	32.00	16.87	0.00	15.13	-0.12	--	1400	<0.50	<0.50	<0.50	<0.50	--	3600	
9/28/2007	32.00	17.91	0.00	14.09	-1.04	--	280	<2.5	<2.5	<2.5	<2.5	--	670	
3/26/2008	32.00	17.45	0.00	14.55	0.46	--	110	<0.50	<0.50	<0.50	<1.0	--	210	
7/28/2008	32.00	18.50	0.00	13.50	-1.05	--	<50	<0.50	<0.50	<0.50	<1.0	--	11	
1/26/2009	32.00	18.65	0.00	13.35	-0.15	--	<50	<0.50	<0.50	<0.50	<1.0	--	22	
8/3/2009	32.03	18.11	0.00	13.92	0.57	--	67	<0.50	<0.50	<0.50	<1.0	--	64	
1/25/2010	32.03	17.67	0.00	14.36	0.44	--	<50	<0.50	<0.50	<0.50	<1.0	--	10	
8/3/2010	32.03	17.58	0.00	14.45	0.09	--	<50	<0.50	<0.50	<0.50	<1.0	--	10	

Table 2
HISTORICAL GROUNDWATER RESULTS

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 ($\mu\text{g/l}$)	TPH-G (GC/MS) ($\mu\text{g/l}$)	Benzene ($\mu\text{g/l}$)	Toluene ($\mu\text{g/l}$)	Ethyl-benzene ($\mu\text{g/l}$)	Total Xylenes ($\mu\text{g/l}$)	MTBE (8021B) ($\mu\text{g/l}$)	MTBE (8260B) ($\mu\text{g/l}$)	Comments
2/17/2011	32.03	17.53	0.00	14.50	0.05	--	<50	<0.50	<0.50	<0.50	<1.0	--	2.5	
8/3/2011	32.03	17.18	0.00	14.85	0.35	--	<50	<0.50	<0.50	<0.50	<1.0	--	1.6	

ARCADIS

Attachment C

Laboratory Reports and Chain-of-Custody Documentation



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Date of Report: 03/08/2013

Kathy Brandt

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Project: 0752
BC Work Order: 1304072
Invoice ID: B141429

Enclosed are the results of analyses for samples received by the laboratory on 2/27/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Contact Person: Molly Meyers
Client Service Rep



Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

Page 1 of 142



Table of Contents

Sample Information

Chain of Custody and Cooler Receipt form.....	5
Laboratory / Client Sample Cross Reference.....	14

Sample Results

1304072-01 - QA-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	21
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	22
1304072-02 - MW-1-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	23
Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C).....	24
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	27
Gas Testing in Water.....	28
Water Analysis (General Chemistry).....	29
Metals Analysis.....	30
1304072-03 - MW-2-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	31
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	32
Gas Testing in Water.....	33
Water Analysis (General Chemistry).....	34
Metals Analysis.....	35
1304072-04 - MW-3-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	36
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	37
Gas Testing in Water.....	38
Water Analysis (General Chemistry).....	39
Metals Analysis.....	40
1304072-05 - MW-4-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	41
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	42
Gas Testing in Water.....	43
Water Analysis (General Chemistry).....	44
Metals Analysis.....	45
1304072-06 - MW-5-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	46
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	47
Gas Testing in Water.....	48
Water Analysis (General Chemistry).....	49
Metals Analysis.....	50
1304072-07 - MW-6-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	51
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	52
Gas Testing in Water.....	53
Water Analysis (General Chemistry).....	54
Metals Analysis.....	55
1304072-08 - MW-7-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	56
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	57
Gas Testing in Water.....	58
Water Analysis (General Chemistry).....	59
Metals Analysis.....	60
1304072-09 - MW-8-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	61
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	62
Gas Testing in Water.....	63

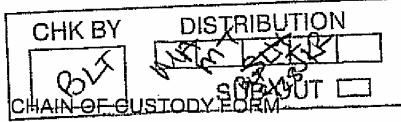
Table of Contents

Water Analysis (General Chemistry).....	64
Metals Analysis.....	65
1304072-10 - A-MW-2-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	66
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	67
Gas Testing in Water.....	68
Water Analysis (General Chemistry).....	69
Metals Analysis.....	70
1304072-11 - A-MW-3-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	71
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	72
Gas Testing in Water.....	73
Water Analysis (General Chemistry).....	74
Metals Analysis.....	75
1304072-12 - A-MW-5-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	76
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	77
Gas Testing in Water.....	78
Water Analysis (General Chemistry).....	79
Metals Analysis.....	80
1304072-13 - A-MW-6-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	81
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	82
Gas Testing in Water.....	83
Water Analysis (General Chemistry).....	84
Metals Analysis.....	85
1304072-14 - A-MW-7-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	86
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	87
Gas Testing in Water.....	88
Water Analysis (General Chemistry).....	89
Metals Analysis.....	90
1304072-15 - S-MW-1-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	91
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	92
Gas Testing in Water.....	93
Water Analysis (General Chemistry).....	94
Metals Analysis.....	95
1304072-16 - S-MW-2-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	96
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	97
Gas Testing in Water.....	98
Water Analysis (General Chemistry).....	99
Metals Analysis.....	100
1304072-17 - S-MW-3-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	101
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	102
Gas Testing in Water.....	103
Water Analysis (General Chemistry).....	104
Metals Analysis.....	105
1304072-18 - S-MW-4-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	106
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	107
Gas Testing in Water.....	108

Table of Contents

Water Analysis (General Chemistry).....	109
Metals Analysis.....	110
1304072-19 - S-MW-6-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	111
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	112
Gas Testing in Water.....	113
Water Analysis (General Chemistry).....	114
Metals Analysis.....	115
1304072-20 - S-EW-1-W-130227	
Volatile Organic Analysis (EPA Method 8260).....	116
Purgeable Aromatics and Total Petroleum Hydrocarbons.....	117
Gas Testing in Water.....	118
Water Analysis (General Chemistry).....	119
Metals Analysis.....	120
Quality Control Reports	
Volatile Organic Analysis (EPA Method 8260)	
Method Blank Analysis.....	121
Laboratory Control Sample.....	122
Precision and Accuracy.....	123
Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)	
Method Blank Analysis.....	124
Laboratory Control Sample.....	127
Precision and Accuracy.....	128
Purgeable Aromatics and Total Petroleum Hydrocarbons	
Method Blank Analysis.....	130
Laboratory Control Sample.....	131
Precision and Accuracy.....	132
Gas Testing in Water	
Method Blank Analysis.....	133
Laboratory Control Sample.....	134
Water Analysis (General Chemistry)	
Method Blank Analysis.....	135
Laboratory Control Sample.....	136
Precision and Accuracy.....	137
Metals Analysis	
Method Blank Analysis.....	139
Laboratory Control Sample.....	140
Precision and Accuracy.....	141
Notes	
Notes and Definitions.....	142

Chain of Custody and Cooler Receipt Form for 1304072 Page 1 of 9

 CHARGE TO: ROYAL KAMBI RECEIVED BY: GETTLE-RYAN PM Phone No.: (925) 790-6270										COC 1 of 2			
Union Oil Site ID: 0752 Site Global ID: TO600101486 Site Address: 800 HARRISON ST. OAKLAND, CA CHARGE TO: ROYAL KAMBI RECEIVED BY: GETTLE-RYAN PM Phone No.: (925) 790-6270				Union Oil Consultant: ARCADIS Consultant Contact: KATHERINE BLAND Consultant Phone No.: (510) 596-9675 Sampling Company: GETTLE-RYAN				DISTRIBUTION CHK BY ROYAL KAMBI SIGNATURE DATE 2-27-13 CHARGE TO: ROYAL KAMBI RECEIVED BY: GETTLE-RYAN PM Phone No.: (925) 790-6270				SHORT HOLDING TIME Cr ⁺⁶ NO ₂ OP SS DO Cl ₂ BOD MBAS COT	
ANALYSES REQUIRED												Turnaround Time (TAT): Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/> Special Instructions	
Charge Code: NWRTB-0351646-0-LAB <i>This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.</i>													
SAMPLE ID				Sample Time Date (yyymmdd)				# of Containers				Notes / Comments	
Field Point Name	Matrix	DTW											
1 QA	W-S-A	13-2-27		1315		14							
2 MW-1	W-S-A			1222		11							
3 MW-2	W-S-A			1420		11							
4 MW-3	W-S-A			1125		11							
5 MW-4	W-S-A			1405		11							
6 MW-5	W-S-A			1340		11							
7 MW-6	W-S-A			0715		11							
8 MW-7	W-S-A			0635		11							
9 MW-8	W-S-A			1140		11							
10 A-MW-2	W-S-A			1225		11							
11 A-MW-3	W-S-A			0937		11							
12 A-MW-5	W-S-A												
Relinquished By	Company	Date / Time:		1500	Relinquished By	Company	Date / Time:		1830	Relinquished By	Company	Date / Time:	
<i>Felicia</i>	6-n	2-27-13		1500	<i>Mary Roger Blab</i>	BC LAB	2-27-13		1830	<i>Karen</i>	BCLAB	2-27-13 21:30	
Received By	Company	Date / Time:			Received By	Company	Date / Time:			Received By	Company	Date / Time:	
<i>Mary Roger Blab</i>	BC LAB	2-27-13 1500			<i>Karen</i>	BCLAB	2-27-13 1830			<i>Karen</i>	BCLAB	2-27-13 2130	

CHAIN OF CUSTODY FORM										
Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583										
COC <u>2</u> of <u>2</u>										
Union Oil Site ID: <u>0752</u>				Union Oil Consultant: <u>AN CAPIS</u>				ANALYSES REQUIRED		
Site Global ID: <u>T0600101486</u>				Consultant Contact: <u>KATHLEEN BRANDT</u>						
Site Address: <u>800 HARRISON ST. OAKLAND, CA</u>				Consultant Phone No.: <u>(510) 596-9675</u>				Turnaround Time (TAT):		
Oil PM: <u>ROYA KAMBIN</u>				Sampling Company: <u>GETTER RYAN</u>				<input checked="" type="checkbox"/> Standard <u>24 Hours</u>	<input type="checkbox"/> 48 Hours <u>72 Hours</u>	
Oil PM Phone No.: <u>(925) 790-6270</u>				Sampled By (PRINT): <u>FRANK T., ALEX W. & ALEX M.</u>				Special Instructions		
Charge Code: NWRTB-035164L-0-LAB				Sampler Signature: <u>Frank T.</u>						
<i>This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.</i>										
SAMPLE ID				Sample Time				# of Containers		
Field Point Name	Matrix	DTW	Date (yymmdd)							
-13 A-MW-16	W-S-A		13227	0850				X		
-14 A-MW-7	W-S-A			1038			X	X		
-15 S-MW-1	W-S-A			0900			X	X		
-16 S-MW-2	W-S-A			1050			X	X		
-17 S-MW-3	W-S-A			0740			X	X		
-18 S-MW-4	W-S-A			0700			X	X		
-19 S-MW-6	W-S-A			0820			X	X		
-20 S-EW-1	W-S-A			1005			X	X		
	W-S-A									
	W-S-A									
	W-S-A									
	W-S-A									
Relinquished By	Company	Date / Time:		Relinquished By	Company	Date / Time :		Relinquished By	Company	Date / Time:
<u>Frank T.</u>	<u>6-k</u>	<u>2-27-13 1500</u>		<u>Mary Beagan BCLAB</u>	<u>BCLAB</u>	<u>2-27-13 1830</u>		<u>Bob</u>	<u>BCLAB</u>	<u>2-27-13 21:30</u>
Received By	Company	Date / Time:		Received By	Company	Date / Time :		Received By	Company	Date / Time:
<u>Mary Beagan</u>	<u>BCLAB</u>	<u>2-27-13 1500</u>		<u>Bob</u>	<u>BCLAB</u>	<u>2-27-13 1830</u>		<u>Karen</u>	<u>BCLAB</u>	<u>2-27-13 2130</u>
EPA 8260B FILTRATION WITH OXYS EPA 8260B FILTRATION BY EPA 8260B TESTS TOC (H2S4) TH - Gb (G) TH - Dissolved by EPA 8015										



Chain of Custody and Cooler Receipt Form for 1304072 Page 3 of 9

BC LABORATORIES INC.		COOLER RECEIPT FORM		Rev. No. 13	08/17/12	Page 1 Of 7				
Submission #: 1304072										
SHIPPING INFORMATION			SHIPPING CONTAINER							
Federal Express <input type="checkbox"/>	UPS <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>						
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/>	(Specify) _____	Box <input type="checkbox"/>	Other <input type="checkbox"/>	(Specify) _____					
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals	Ice Chest <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	Containers <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	None <input checked="" type="checkbox"/> Comments: _____							
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Emissivity: 0.98	Container: V001	Thermometer ID: 207	Date/Time: 8-27-13 2:30	Analyst Init: JMW					
	Temperature: (A) 4.5 °C / (C) 4.0 °C									
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A (2)									
40ml VOA VIAL		A (4)	A (4)	A (4)	A (4)	A (4)	A (4)	A (4)	A (4)	
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - unpre.		B (3)	B (3)	B (3)	B (3)	B (3)	B (3)	B (3)	B (3)	
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Comments: -17D was cracked & transferred into another Pt Amber in lab.										
Sample Numbering Completed By: BLT Date/Time: 2/28/13 @ 0830										
A = Actual / C = Corrected										



Chain of Custody and Cooler Receipt Form for 1304072 Page 4 of 9

BC LABORATORIES INC.		COOLER RECEIPT FORM					Rev. No. 13	08/17/12	Page 2 of 7	
Submission #: 1304072										
		SHIPPING INFORMATION			SHIPPING CONTAINER					
Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____					Ice Chest <input checked="" type="checkbox"/>		None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/>		Comments:								
Custody Seals Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>										
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: 0.98 Container: V001 Thermometer ID: 207			Date/Time 8-27-13 Analyst Init JWN 207					
		Temperature: (A) 4.5 °C / (C) 4.10 °C								
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A 10	A 10	A 10	A 10	A 10	A 10	A 10	A 10	A 10	A 10
40ml VOA VIAL										
QT EPA 413.1, 4132, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - unpre.	B (3)	B (3)	B (3)	B (3)	B (3)	B (3)	B (3)	B (3)	B (3)	B (3)
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Comments: _____										
Sample Numbering Completed By: BLT Date/Time: 2/28/13 @ 0630										



Chain of Custody and Cooler Receipt Form for 1304072 Page 5 of 9

BC LABORATORIES INC.		COOLER RECEIPT FORM		Rev. No. 13	08/17/12	Page 3 Of 7				
Submission #: 1304072										
SHIPPING INFORMATION			SHIPPING CONTAINER							
Federal Express <input type="checkbox"/>	UPS <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>						
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____		Box <input type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____						
Refrigerant: Ice <input checked="" type="checkbox"/>	Blue Ice <input type="checkbox"/>	None <input type="checkbox"/>	Other <input type="checkbox"/>	Comments: _____						
Custody Seals	Ice Chest <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	Containers <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	None <input checked="" type="checkbox"/> Comments: _____							
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Emissivity: 0.95	Container: Q4P	Thermometer ID: 207	Date/Time 8-27-13						
	Temperature: (A) 3.9 °C / (C) 4.2 °C			Analyst Init JWN 2B0						
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	14	2	3	4	5	6	+8	+9	+12	+13
QT GENERAL MINERAL/ GENERAL PHYSICAL	C	C	C	C	C	C	C	C	C	C
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PT PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/G08/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Comments: _____										
Sample Numbering Completed By: BLT	Date/Time: 2/28/13 @ 0830									
A = Actual / C = Corrected										



Chain of Custody and Cooler Receipt Form for 1304072 Page 6 of 9

BC LABORATORIES INC.		COOLER RECEIPT FORM		Rev. No. 13	08/17/12	Page 4 Of 7				
Submission #: 1304072										
SHIPPING INFORMATION			SHIPPING CONTAINER							
Federal Express <input type="checkbox"/>	UPS <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>						
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/>	(Specify)	Box <input type="checkbox"/>	Other <input type="checkbox"/>	(Specify)					
Comments:										
Custody Seals	Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	Comments:							
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Emissivity: 0.97	Container: QTA	Thermometer ID: 207		Date/Time: 8-27-13 2:30					
	Temperature: (A) 1.7 °C / (C) 1.8 °C		Analyst Init: JLN							
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON		D		D			D	D		
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	I	I	I	I	I	I	I	I	I	
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- S04										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8815M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Comments: _____										
Sample Numbering Completed By: BLT	Date/Time: 2/28/13 @ 0830									
A = Actual / C = Corrected										



Chain of Custody and Cooler Receipt Form for 1304072 Page 7 of 9

BC LABORATORIES INC.		COOLER RECEIPT FORM				Rev. No. 13	DB/17/12	Page 5 Of 7		
Submission #: 1304072										
SHIPPING INFORMATION				SHIPPING CONTAINER						
Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/>			None <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____					
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals		Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	None <input checked="" type="checkbox"/> Comments: _____ Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>						
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: 0.97 Container: QTA Thermometer ID: 207				Date/Time 2-27-13				
		Temperature: (A) 0.5 °C / (C) 0.6 °C				Analyst Init JWW 230				
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PC UNPRESERVED	E									
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON	D	D		D	D		D	D		
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL-304										
QT EPA 508/608/8080										
QT EPA 515. L/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER	F G									
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Comments: _____										
Sample Numbering Completed By: BLT	Date/Time: 2/28/13 @ 08:50									



Chain of Custody and Cooler Receipt Form for 1304072 Page 8 of 9

BC LABORATORIES INC.		COOLER RECEIPT FORM			Rev. No. 13	08/17/12	Page 4 of 7			
Submission #: 1304072										
SHIPPING INFORMATION			SHIPPING CONTAINER							
Federal Express <input type="checkbox"/>	UPS <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>	Box <input type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____				
BC Lab Field Service <input checked="" type="checkbox"/>			Other <input type="checkbox"/> (Specify) _____							
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals		Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	None <input checked="" type="checkbox"/> Comments: _____						
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: 0.95	Container: Q4PE	Thermometer ID: 207 JWW.2127	Date/Time: 8-27-13 2013	Analyst Init: JWW 2013				
Temperature: (A) 3.7 °C / (C) 34.0 °C										
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	-10	-7	4	15	16	17	18	19	10-20
QT GENERAL MINERAL/ GENERAL PHYSICAL	C			C	C	C	C	C	C	
PT PP UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
Zoz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ JAR										
32 OZ JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Comments: _____										
Sample Numbering Completed By: BLT	Date/Time: 7/28/13 @ 0830									

X



Chain of Custody and Cooler Receipt Form for 1304072 Page 9 of 9

BC LABORATORIES INC.		COOLER RECEIPT FORM		Rev. No. 13	08/17/12	Page 1 Of 1				
Submission #: 1304072										
SHIPPING INFORMATION			SHIPPING CONTAINER							
Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> 3C Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____							
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals		Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input type="checkbox"/> Comments: _____ Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>							
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: 0.97 Container: QTA Thermometer ID: 207 Temperature: (A) 0.5 °C / (C) 0.6 °C	Date/Time 8-27-13 Analyst Init JMW 230							
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10-20
1T GENERAL MINERAL/ GENERAL PHYSICAL										
1T PE UNPRESERVED										
1T INORGANIC CHEMICAL METALS										
1T INORGANIC CHEMICAL METALS										
1T CYANIDE										
1T NITROGEN FORMS										
1T TOTAL SULFIDE										
1OZ. NITRATE / NITRITE										
1T TOTAL ORGANIC CARBON	D	D	D	D	D	D	D	D	D	
1T TOX										
1T CHEMICAL OXYGEN DEMAND										
1LA PHENOLICS										
10ml VOA VIAL TRAVEL BLANK										
10ml VOA VIAL										
1T EPA 413.1, 413.2, 418.1										
1T ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
10 ml VOA VIAL- 504										
1T EPA 508/608/8080										
1T EPA 515.1/8150										
1T EPA 525										
1T EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
1T EPA 548										
1T EPA 519										
1T EPA 632										
1T EPA 8015M										
1T AMBER										
1 OZ. JAR										
12 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Comments: _____										
Sample Numbering Completed By: BLT	Date/Time: 2128/13@0830									

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1304072-01	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: QA-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 00:00 Sample Depth: --- Lab Matrix: Water Sample Type: Trip Blank Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): QA-W Matrix: W Sample QC Type (SACode): CS Cooler ID:	02/27/2013 21:30
1304072-02	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-1-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 13:15 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:	02/27/2013 21:30
1304072-03	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-2-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 12:22 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:	02/27/2013 21:30



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1304072-04	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-3-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 14:20 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-05	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-4-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 11:25 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-06	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-5-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 14:05 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1304072-07	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-6-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 13:40 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-08	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-7-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 07:15 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-7 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-09	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-8-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 06:35 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1304072-10	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: A-MW-2-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 11:40 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): A-MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-11	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: A-MW-3-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 12:25 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): A-MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-12	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: A-MW-5-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 09:37 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): A-MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1304072-13	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: A-MW-6-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 08:50 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): A-MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-14	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: A-MW-7-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 10:38 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): A-MW-7 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-15	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-1-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 09:00 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1304072-16	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-2-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 10:50 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-17	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-3-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 07:40 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-18	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-4-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 07:00 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1304072-19	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-6-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 08:20 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1304072-20	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-EW-1-W-130227 Sampled By: GRD	Receive Date: 02/27/2013 21:30 Sampling Date: 02/27/2013 10:05 Sample Depth: --- Lab Matrix: Water Sample Type: Water Metal Analysis: 2-Lab Filtered and Acidified Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-EW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-01	Client Sample Name:	0752, QA-W-130227, 2/27/2013 12:00:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run			Dilution	QC Batch ID
			Date/Time	Analyst	Instrument		
1	EPA-8260B	02/28/13	02/28/13 23:23	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-01	Client Sample Name:	0752, QA-W-130227, 2/27/2013 12:00:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	88.7	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/05/13	03/06/13 18:00	jjh	GC-V9	1	BWC0214



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-02	Client Sample Name:	0752, MW-1-W-130227, 2/27/2013 1:15:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	6.7	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	02:52	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID:	1304072-02	Client Sample Name:	0752, MW-1-W-130227, 2/27/2013 1:15:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	2.0	EPA-8270C	ND		1
Acenaphthylene	ND	ug/L	2.0	EPA-8270C	ND		1
Aldrin	ND	ug/L	2.0	EPA-8270C	ND		1
Aniline	ND	ug/L	5.0	EPA-8270C	ND		1
Anthracene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzidine	ND	ug/L	20	EPA-8270C	ND		1
Benzo[a]anthracene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[b]fluoranthene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[k]fluoranthene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[a]pyrene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[g,h,i]perylene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzoic acid	ND	ug/L	10	EPA-8270C	ND		1
Benzyl alcohol	ND	ug/L	2.0	EPA-8270C	ND		1
Benzyl butyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
alpha-BHC	ND	ug/L	2.0	EPA-8270C	ND		1
beta-BHC	ND	ug/L	2.0	EPA-8270C	ND		1
delta-BHC	ND	ug/L	2.0	EPA-8270C	ND		1
gamma-BHC (Lindane)	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Chloroethoxy)methane	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Chloroethyl) ether	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Chloroisopropyl)ether	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Ethylhexyl)phthalate	ND	ug/L	5.0	EPA-8270C	ND		1
4-Bromophenyl phenyl ether	ND	ug/L	2.0	EPA-8270C	ND		1
4-Chloroaniline	ND	ug/L	2.0	EPA-8270C	ND		1
2-Chloronaphthalene	ND	ug/L	2.0	EPA-8270C	ND		1
4-Chlorophenyl phenyl ether	ND	ug/L	2.0	EPA-8270C	ND		1
Chrysene	ND	ug/L	2.0	EPA-8270C	ND		1
4,4'-DDD	ND	ug/L	2.0	EPA-8270C	ND		1
4,4'-DDE	ND	ug/L	3.0	EPA-8270C	ND		1
4,4'-DDT	ND	ug/L	2.0	EPA-8270C	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	3.0	EPA-8270C	ND		1
Dibenzofuran	ND	ug/L	2.0	EPA-8270C	ND		1
1,2-Dichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID:	1304072-02	Client Sample Name:	0752, MW-1-W-130227, 2/27/2013 1:15:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
1,3-Dichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
1,4-Dichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
3,3-Dichlorobenzidine	ND	ug/L	10	EPA-8270C	ND		1
Dieldrin	ND	ug/L	3.0	EPA-8270C	ND		1
Diethyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
Dimethyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
Di-n-butyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
2,4-Dinitrotoluene	ND	ug/L	2.0	EPA-8270C	ND		1
2,6-Dinitrotoluene	ND	ug/L	2.0	EPA-8270C	ND		1
Di-n-octyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
1,2-Diphenylhydrazine	ND	ug/L	2.0	EPA-8270C	ND		1
Endosulfan I	ND	ug/L	10	EPA-8270C	ND		1
Endosulfan II	ND	ug/L	10	EPA-8270C	ND		1
Endosulfan sulfate	ND	ug/L	3.0	EPA-8270C	ND		1
Endrin	ND	ug/L	2.0	EPA-8270C	ND		1
Endrin aldehyde	ND	ug/L	10	EPA-8270C	ND		1
Fluoranthene	ND	ug/L	2.0	EPA-8270C	ND		1
Fluorene	ND	ug/L	2.0	EPA-8270C	ND		1
Heptachlor	ND	ug/L	2.0	EPA-8270C	ND		1
Heptachlor epoxide	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachlorobutadiene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachlorocyclopentadiene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachloroethane	ND	ug/L	2.0	EPA-8270C	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	2.0	EPA-8270C	ND		1
Isophorone	ND	ug/L	2.0	EPA-8270C	ND		1
2-Methylnaphthalene	ND	ug/L	2.0	EPA-8270C	ND		1
Naphthalene	ND	ug/L	2.0	EPA-8270C	ND		1
2-Naphthylamine	ND	ug/L	20	EPA-8270C	ND		1
2-Nitroaniline	ND	ug/L	2.0	EPA-8270C	ND		1
3-Nitroaniline	ND	ug/L	2.0	EPA-8270C	ND		1
4-Nitroaniline	ND	ug/L	5.0	EPA-8270C	ND		1
Nitrobenzene	ND	ug/L	2.0	EPA-8270C	ND		1

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID:	1304072-02	Client Sample Name:	0752, MW-1-W-130227, 2/27/2013 1:15:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
N-Nitrosodimethylamine	ND	ug/L	2.0	EPA-8270C	ND		1
N-Nitrosodi-N-propylamine	ND	ug/L	2.0	EPA-8270C	ND		1
N-Nitrosodiphenylamine	ND	ug/L	2.0	EPA-8270C	ND		1
Phenanthrene	ND	ug/L	2.0	EPA-8270C	ND		1
Pyrene	ND	ug/L	2.0	EPA-8270C	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
4-Chloro-3-methylphenol	ND	ug/L	5.0	EPA-8270C	ND		1
2-Chlorophenol	ND	ug/L	2.0	EPA-8270C	ND		1
2,4-Dichlorophenol	ND	ug/L	2.0	EPA-8270C	ND		1
2,4-Dimethylphenol	ND	ug/L	2.0	EPA-8270C	ND		1
4,6-Dinitro-2-methylphenol	ND	ug/L	10	EPA-8270C	ND		1
2,4-Dinitrophenol	ND	ug/L	10	EPA-8270C	ND		1
2-Methylphenol	ND	ug/L	2.0	EPA-8270C	ND		1
3- & 4-Methylphenol	ND	ug/L	2.0	EPA-8270C	ND		1
2-Nitrophenol	ND	ug/L	2.0	EPA-8270C	ND		1
4-Nitrophenol	ND	ug/L	2.0	EPA-8270C	ND		1
Pentachlorophenol	ND	ug/L	10	EPA-8270C	ND		1
Phenol	ND	ug/L	2.0	EPA-8270C	ND		1
2,4,5-Trichlorophenol	ND	ug/L	5.0	EPA-8270C	ND		1
2,4,6-Trichlorophenol	ND	ug/L	5.0	EPA-8270C	ND		1
2-Fluorophenol (Surrogate)	32.0	%	30 - 120 (LCL - UCL)	EPA-8270C			1
Phenol-d5 (Surrogate)	23.6	%	12 - 110 (LCL - UCL)	EPA-8270C			1
Nitrobenzene-d5 (Surrogate)	79.8	%	60 - 130 (LCL - UCL)	EPA-8270C			1
2-Fluorobiphenyl (Surrogate)	85.5	%	55 - 125 (LCL - UCL)	EPA-8270C			1
2,4,6-Tribromophenol (Surrogate)	94.6	%	40 - 150 (LCL - UCL)	EPA-8270C			1
p-Terphenyl-d14 (Surrogate)	64.4	%	40 - 150 (LCL - UCL)	EPA-8270C			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C	03/04/13	03/05/13 18:31	SKC	MS-B2	1	BWC0304



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-02	Client Sample Name:	0752, MW-1-W-130227, 2/27/2013 1:15:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	50	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	98.3	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/05/13	03/06/13 18:42	jjh	GC-V9	1	BWC0214



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-02	Client Sample Name: 0752, MW-1-W-130227, 2/27/2013 1:15:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.0019	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/06/13	03/06/13 13:15	EAR	GC-V1	1	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-02	Client Sample Name: 0752, MW-1-W-130227, 2/27/2013 1:15:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	56	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	1.2	mg/L	0.44	EPA-300.0	ND		2
Sulfate	9.0	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	0.87	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 11:11	RML	MET-1	1	BWC0032
2	EPA-300.0	02/28/13	02/28/13 14:27	LD1	IC1	1	BWB2007
3	EPA-353.2	02/28/13	02/28/13 15:53	TMS	KONE-1	1	BWC0122
4	EPA-415.1	03/04/13	03/04/13 19:43	CDR	TOC2	1	BWC0106



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-02	Client Sample Name: 0752, MW-1-W-130227, 2/27/2013 1:15:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Cadmium	ND	ug/L	10	EPA-6010B	ND		1
Dissolved Chromium	ND	ug/L	10	EPA-6010B	ND		1
Dissolved Iron	ND	ug/L	50	EPA-6010B	ND		1
Dissolved Lead	ND	ug/L	50	EPA-6010B	ND		1
Dissolved Nickel	ND	ug/L	10	EPA-6010B	ND		1
Dissolved Zinc	ND	ug/L	10	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 08:48	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-03	Client Sample Name:	0752, MW-2-W-130227, 2/27/2013 12:22:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	9.6	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	03:09	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-03	Client Sample Name:	0752, MW-2-W-130227, 2/27/2013 12:22:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	97.2	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/05/13	03/06/13 19:02	jjh	GC-V9	1	BWC0214



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-03	Client Sample Name: 0752, MW-2-W-130227, 2/27/2013 12:22:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.055	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	03/06/13	03/06/13 13:22	EAR	GC-V1	1	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-03	Client Sample Name: 0752, MW-2-W-130227, 2/27/2013 12:22:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	320	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	16	mg/L	0.44	EPA-300.0	ND		2
Sulfate	160	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	0.24	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	2.1	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run		Instrument	Dilution	QC	Batch ID
			Date/Time	Analyst				
1	EPA-310.1	03/01/13	03/01/13 11:16	RML	MET-1	1	BWC0032	
2	EPA-300.0	02/28/13	02/28/13 15:13	LD1	IC1	1	BWB2007	
3	EPA-353.2	02/28/13	02/28/13 15:53	TMS	KONE-1	1	BWC0122	
4	EPA-415.1	03/04/13	03/04/13 19:56	CDR	TOC2	1	BWC0106	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-03	Client Sample Name:	0752, MW-2-W-130227, 2/27/2013 12:22:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	56	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 08:56	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-04	Client Sample Name:	0752, MW-3-W-130227, 2/27/2013 2:20:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	4.4	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	2.8	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	820	ug/L	5.0	EPA-8260B	ND	A01	2
Toluene	0.69	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	91.3	%	75 - 125 (LCL - UCL)	EPA-8260B			2
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	90.5	%	80 - 120 (LCL - UCL)	EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	123	%	80 - 120 (LCL - UCL)	EPA-8260B		S09	1
4-Bromofluorobenzene (Surrogate)	106	%	80 - 120 (LCL - UCL)	EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC
			Date	Time				Batch ID
1	EPA-8260B	02/28/13	03/01/13	03:27	EAR	MS-V12	1	BWB1884
2	EPA-8260B	03/04/13	03/04/13	12:01	EAR	MS-V12	10	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-04	Client Sample Name: 0752, MW-3-W-130227, 2/27/2013 2:20:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	1600	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	223	%	70 - 130 (LCL - UCL)	EPA-8015B		S09	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/05/13	03/07/13 13:21	jjh	GC-V9	1	BWC0214



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-04	Client Sample Name: 0752, MW-3-W-130227, 2/27/2013 2:20:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	4.4	mg/L	0.020	RSK-175M	ND	A01	1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/06/13	03/06/13 15:00	EAR	GC-V1	20	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-04	Client Sample Name:	0752, MW-3-W-130227, 2/27/2013 2:20:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	390	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	4.5	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	4.0	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run		Instrument	Dilution	QC	Batch ID
			Date/Time	Analyst				
1	EPA-310.1	03/01/13	03/01/13 11:25	RML	MET-1	1	BWC0032	
2	EPA-300.0	02/28/13	02/28/13 15:25	LD1	IC1	1	BWB2007	
3	EPA-353.2	02/28/13	02/28/13 15:53	TMS	KONE-1	1	BWC0122	
4	EPA-415.1	03/04/13	03/04/13 20:09	CDR	TOC2	1	BWC0106	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-04	Client Sample Name:	0752, MW-3-W-130227, 2/27/2013 2:20:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	8400	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 08:58	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-05	Client Sample Name:	0752, MW-4-W-130227, 2/27/2013 11:25:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	1.1	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.6	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	03:44	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-05	Client Sample Name:	0752, MW-4-W-130227, 2/27/2013 11:25:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	82.4	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/05/13	03/06/13 19:44	jjh	GC-V9	1	BWC0214



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-05	Client Sample Name: 0752, MW-4-W-130227, 2/27/2013 11:25:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.0023	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	03/06/13	03/06/13 13:39	EAR	GC-V1	1	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-05	Client Sample Name:	0752, MW-4-W-130227, 2/27/2013 11:25:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	130	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	9.7	mg/L	0.44	EPA-300.0	ND		2
Sulfate	25	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	0.89	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 11:34	RML	MET-1	1	BWC0032
2	EPA-300.0	02/28/13	02/28/13 15:36	LD1	IC1	1	BWB2007
3	EPA-353.2	02/28/13	02/28/13 15:53	TMS	KONE-1	1	BWC0122
4	EPA-415.1	03/04/13	03/04/13 20:23	CDR	TOC2	1	BWC0106



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-05	Client Sample Name:	0752, MW-4-W-130227, 2/27/2013 11:25:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	ND	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	EPA-6010B	02/28/13	03/04/13 09:00	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-06	Client Sample Name:	0752, MW-5-W-130227, 2/27/2013 2:05:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	58	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	2.4	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	8.0	ug/L	0.50	EPA-8260B	ND		1
Toluene	11	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	13	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	111	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	04:02	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-06	Client Sample Name: 0752, MW-5-W-130227, 2/27/2013 2:05:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	1300	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	125	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/05/13	03/06/13 20:05	jjh	GC-V9	1	BWC0214



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-06	Client Sample Name: 0752, MW-5-W-130227, 2/27/2013 2:05:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	1.9	mg/L	0.010	RSK-175M	ND	A01	1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/06/13	03/06/13 15:12	EAR	GC-V1	10	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-06	Client Sample Name:	0752, MW-5-W-130227, 2/27/2013 2:05:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	200	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	24	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	2.1	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run		Instrument	Dilution	QC	Batch ID
			Date/Time	Analyst				
1	EPA-310.1	03/01/13	03/01/13 11:40	RML	MET-1	1	BWC0032	
2	EPA-300.0	02/28/13	02/28/13 15:48	LD1	IC1	1	BWB2007	
3	EPA-353.2	02/28/13	02/28/13 15:53	TMS	KONE-1	1	BWC0122	
4	EPA-415.1	03/04/13	03/04/13 20:36	CDR	TOC2	1	BWC0106	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-06	Client Sample Name:	0752, MW-5-W-130227, 2/27/2013 2:05:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	860	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:06	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-07	Client Sample Name:	0752, MW-6-W-130227, 2/27/2013 1:40:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	2.4	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	04:19	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-07	Client Sample Name:	0752, MW-6-W-130227, 2/27/2013 1:40:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	77	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	87.3	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/05/13	03/06/13 20:26	jjh	GC-V9	1	BWC0214



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-07	Client Sample Name: 0752, MW-6-W-130227, 2/27/2013 1:40:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.19	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	03/06/13	03/06/13 14:03	EAR	GC-V1	1	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-07	Client Sample Name:	0752, MW-6-W-130227, 2/27/2013 1:40:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	99	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	0.45	mg/L	0.44	EPA-300.0	ND		2
Sulfate	13	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	0.75	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 12:03	RML	MET-1	1	BWC0033
2	EPA-300.0	02/28/13	02/28/13 16:22	LS1	IC1	1	BWB2007
3	EPA-353.2	02/28/13	02/28/13 15:59	TMS	KONE-1	1	BWC0122
4	EPA-415.1	03/04/13	03/04/13 21:16	CDR	TOC2	1	BWC0106



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-07	Client Sample Name:	0752, MW-6-W-130227, 2/27/2013 1:40:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	ND	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	EPA-6010B	02/28/13	03/04/13 09:08	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-08	Client Sample Name:	0752, MW-7-W-130227, 2/27/2013 7:15:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	3.8	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	04:37	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-08	Client Sample Name: 0752, MW-7-W-130227, 2/27/2013 7:15:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	95.9	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/05/13	03/06/13 20:46	jjh	GC-V9	1	BWC0214



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-08	Client Sample Name: 0752, MW-7-W-130227, 2/27/2013 7:15:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.13	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	03/06/13	03/06/13 15:25	EAR	GC-V1	1	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-08	Client Sample Name:	0752, MW-7-W-130227, 2/27/2013 7:15:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	140	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	38	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	1.1	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 12:15	RML	MET-1	1	BWC0033
2	EPA-300.0	02/28/13	02/28/13 16:34	LS1	IC1	1	BWB2007
3	EPA-353.2	02/28/13	02/28/13 15:59	TMS	KONE-1	1	BWC0122
4	EPA-415.1	03/04/13	03/04/13 21:56	CDR	TOC2	1	BWC0107



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-08	Client Sample Name:	0752, MW-7-W-130227, 2/27/2013 7:15:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	1000	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	EPA-6010B	02/28/13	03/04/13 09:09	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-09	Client Sample Name:	0752, MW-8-W-130227, 2/27/2013 6:35:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	96.1	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	04:54	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-09	Client Sample Name: 0752, MW-8-W-130227, 2/27/2013 6:35:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	95.1	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/05/13	03/06/13 22:51	jjh	GC-V9	1	BWC0214



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-09	Client Sample Name: 0752, MW-8-W-130227, 2/27/2013 6:35:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.0027	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	03/06/13	03/06/13 15:32	EAR	GC-V1	1	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-09	Client Sample Name:	0752, MW-8-W-130227, 2/27/2013 6:35:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	190	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	49	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	2.7	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 12:21	RML	MET-1	1	BWC0033
2	EPA-300.0	02/28/13	02/28/13 16:46	LS1	IC1	1	BWB2007
3	EPA-353.2	02/28/13	02/28/13 15:59	TMS	KONE-1	1	BWC0122
4	EPA-415.1	03/04/13	03/04/13 22:50	CDR	TOC2	1	BWC0107



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-09	Client Sample Name:	0752, MW-8-W-130227, 2/27/2013 6:35:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	1400	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:11	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-10	Client Sample Name:	0752, A-MW-2-W-130227, 2/27/2013 11:40:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Benzene	1700	ug/L	12	EPA-8260B	ND	A01	1	
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		2	
1,2-Dichloroethane	1.0	ug/L	0.50	EPA-8260B	ND		2	
Ethylbenzene	1200	ug/L	12	EPA-8260B	ND	A01	1	
Methyl t-butyl ether	2700	ug/L	25	EPA-8260B	ND	A01	3	
Toluene	2500	ug/L	25	EPA-8260B	ND	A01	3	
Total Xylenes	4900	ug/L	25	EPA-8260B	ND	A01	1	
Ethanol	ND	ug/L	250	EPA-8260B	ND		2	
1,2-Dichloroethane-d4 (Surrogate)	93.1	%	75 - 125 (LCL - UCL)	EPA-8260B			1	
1,2-Dichloroethane-d4 (Surrogate)	115	%	75 - 125 (LCL - UCL)	EPA-8260B			2	
1,2-Dichloroethane-d4 (Surrogate)	84.8	%	75 - 125 (LCL - UCL)	EPA-8260B			3	
Toluene-d8 (Surrogate)	94.9	%	80 - 120 (LCL - UCL)	EPA-8260B			1	
Toluene-d8 (Surrogate)	106	%	80 - 120 (LCL - UCL)	EPA-8260B			2	
Toluene-d8 (Surrogate)	94.3	%	80 - 120 (LCL - UCL)	EPA-8260B			3	
4-Bromofluorobenzene (Surrogate)	109	%	80 - 120 (LCL - UCL)	EPA-8260B			1	
4-Bromofluorobenzene (Surrogate)	124	%	80 - 120 (LCL - UCL)	EPA-8260B	S09		2	
4-Bromofluorobenzene (Surrogate)	106	%	80 - 120 (LCL - UCL)	EPA-8260B			3	

Run #	Method	Prep Date	Run			QC	
			Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-8260B	03/04/13	03/04/13 12:36	EAR	MS-V12	25	BWB1884
2	EPA-8260B	02/28/13	03/01/13 05:12	EAR	MS-V12	1	BWB1884
3	EPA-8260B	03/05/13	03/05/13 16:05	EAR	MS-V12	50	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-10	Client Sample Name: 0752, A-MW-2-W-130227, 2/27/2013 11:40:00AM						
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Gasoline Range Organics (C6 - C12)	45000	ug/L	2500	EPA-8015B	ND	A01	1	
a,a,a-Trifluorotoluene (FID Surrogate)	105	%	70 - 130 (LCL - UCL)	EPA-8015B			1	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 11:38	jjh	GC-V9	50	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-10	Client Sample Name: 0752, A-MW-2-W-130227, 2/27/2013 11:40:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	4.9	mg/L	0.050	RSK-175M	ND	A01	1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/07/13	03/07/13 12:26	EAR	GC-V1	50	BWC0320



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-10	Client Sample Name: 0752, A-MW-2-W-130227, 2/27/2013 11:40:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	530	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	4.1	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	16	mg/L	6.0	EPA-415.1	ND	A10	4

Run #	Method	Prep Date	Run		Instrument	Dilution	QC	Batch ID
			Date/Time	Analyst				
1	EPA-310.1	03/01/13	03/01/13 12:28	RML	MET-1	1	BWC0033	
2	EPA-300.0	02/28/13	02/28/13 16:57	LS1	IC1	1	BWB2007	
3	EPA-353.2	02/28/13	02/28/13 15:59	TMS	KONE-1	1	BWC0122	
4	EPA-415.1	03/04/13	03/05/13 15:40	CDR	TOC2	20	BWC0107	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-10	Client Sample Name:	0752, A-MW-2-W-130227, 2/27/2013 11:40:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	9500	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:13	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-11	Client Sample Name:	0752, A-MW-3-W-130227, 2/27/2013 12:25:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	1.2	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	120	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	17:10	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-11	Client Sample Name:	0752, A-MW-3-W-130227, 2/27/2013 12:25:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	97.6	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 11:17	jjh	GC-V9	1	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-11	Client Sample Name: 0752, A-MW-3-W-130227, 2/27/2013 12:25:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.0029	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/06/13	03/06/13 15:50	EAR	GC-V1	1	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-11	Client Sample Name:	0752, A-MW-3-W-130227, 2/27/2013 12:25:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	130	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	39	mg/L	0.44	EPA-300.0	ND		2
Sulfate	52	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	1.1	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run		Instrument	Dilution	QC	Batch ID
			Date/Time	Analyst				
1	EPA-310.1	03/01/13	03/01/13 12:38	RML	MET-1	1	BWC0033	
2	EPA-300.0	02/28/13	02/28/13 17:09	LS1	IC1	1	BWB2007	
3	EPA-353.2	02/28/13	02/28/13 15:59	TMS	KONE-1	1	BWC0123	
4	EPA-415.1	03/04/13	03/04/13 23:17	CDR	TOC2	1	BWC0107	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-11	Client Sample Name:	0752, A-MW-3-W-130227, 2/27/2013 12:25:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	ND	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:15	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-12	Client Sample Name:	0752, A-MW-5-W-130227, 2/27/2013 9:37:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	05:47	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-12	Client Sample Name: 0752, A-MW-5-W-130227, 2/27/2013 9:37:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	96.1	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 10:57	jjh	GC-V9	1	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-12	Client Sample Name: 0752, A-MW-5-W-130227, 2/27/2013 9:37:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.0026	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	03/07/13	03/07/13 12:32	EAR	GC-V1	1	BWC0320



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-12	Client Sample Name:	0752, A-MW-5-W-130227, 2/27/2013 9:37:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	150	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	17	mg/L	0.44	EPA-300.0	ND		2
Sulfate	46	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	2.1	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 12:45	RML	MET-1	1	BWC0033
2	EPA-300.0	02/28/13	02/28/13 17:43	LS1	IC1	1	BWB2008
3	EPA-353.2	02/28/13	02/28/13 16:04	TMS	KONE-1	1	BWC0123
4	EPA-415.1	03/04/13	03/04/13 23:56	CDR	TOC2	1	BWC0107



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-12	Client Sample Name:	0752, A-MW-5-W-130227, 2/27/2013 9:37:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	ND	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	EPA-6010B	02/28/13	03/04/13 09:16	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-13	Client Sample Name:	0752, A-MW-6-W-130227, 2/27/2013 8:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	06:04	EAR	MS-V12	1	BWB1884



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-13	Client Sample Name:	0752, A-MW-6-W-130227, 2/27/2013 8:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	95.9	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 00:14	jjh	GC-V9	1	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-13	Client Sample Name: 0752, A-MW-6-W-130227, 2/27/2013 8:50:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.0019	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	03/07/13	03/07/13 15:24	EAR	GC-V1	1	BWC0320



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-13	Client Sample Name:	0752, A-MW-6-W-130227, 2/27/2013 8:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	190	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	60	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	2.4	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 12:51	RML	MET-1	1	BWC0033
2	EPA-300.0	02/28/13	02/28/13 18:52	LS1	IC1	1	BWB2008
3	EPA-353.2	02/28/13	02/28/13 16:04	TMS	KONE-1	1	BWC0123
4	EPA-415.1	03/04/13	03/05/13 00:10	CDR	TOC2	1	BWC0107



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-13	Client Sample Name:	0752, A-MW-6-W-130227, 2/27/2013 8:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	94	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:18	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-14	Client Sample Name:	0752, A-MW-7-W-130227, 2/27/2013 10:38:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	06:22	EAR	MS-V12	1	BWB1935



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-14	Client Sample Name:	0752, A-MW-7-W-130227, 2/27/2013 10:38:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	96.5	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 00:35	jjh	GC-V9	1	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-14	Client Sample Name: 0752, A-MW-7-W-130227, 2/27/2013 10:38:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.0012	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	03/06/13	03/06/13 16:11	EAR	GC-V1	1	BWC0167



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-14	Client Sample Name:	0752, A-MW-7-W-130227, 2/27/2013 10:38:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	260	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	56	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	3.4	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 12:58	RML	MET-1	1	BWC0033
2	EPA-300.0	02/28/13	02/28/13 19:04	LS1	IC1	1	BWB2008
3	EPA-353.2	02/28/13	02/28/13 16:04	TMS	KONE-1	1	BWC0123
4	EPA-415.1	03/04/13	03/05/13 00:23	CDR	TOC2	1	BWC0107



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-14	Client Sample Name:	0752, A-MW-7-W-130227, 2/27/2013 10:38:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	2600	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:20	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-15	Client Sample Name: 0752, S-MW-1-W-130227, 2/27/2013 9:00:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	480	ug/L	12	EPA-8260B	ND	A01	1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		2
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		2
Ethylbenzene	52	ug/L	0.50	EPA-8260B	ND		2
Methyl t-butyl ether	2600	ug/L	25	EPA-8260B	ND	A01	3
Toluene	26	ug/L	0.50	EPA-8260B	ND		2
Total Xylenes	56	ug/L	1.0	EPA-8260B	ND		2
Ethanol	ND	ug/L	250	EPA-8260B	ND		2
1,2-Dichloroethane-d4 (Surrogate)	91.7	%	75 - 125 (LCL - UCL)	EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			2
1,2-Dichloroethane-d4 (Surrogate)	86.3	%	75 - 125 (LCL - UCL)	EPA-8260B			3
Toluene-d8 (Surrogate)	95.9	%	80 - 120 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)	EPA-8260B			2
Toluene-d8 (Surrogate)	92.8	%	80 - 120 (LCL - UCL)	EPA-8260B			3
4-Bromofluorobenzene (Surrogate)	107	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	108	%	80 - 120 (LCL - UCL)	EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)	EPA-8260B			3

Run #	Method	Prep Date	Run			QC	
			Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-8260B	03/04/13	03/04/13 12:54	EAR	MS-V12	25	BWB1935
2	EPA-8260B	02/28/13	03/01/13 06:39	EAR	MS-V12	1	BWB1935
3	EPA-8260B	03/05/13	03/05/13 16:23	EAR	MS-V12	50	BWB1935



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-15	Client Sample Name: 0752, S-MW-1-W-130227, 2/27/2013 9:00:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	3000	ug/L	500	EPA-8015B	ND	A01	1
a,a,a-Trifluorotoluene (FID Surrogate)	101	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 11:58	jjh	GC-V9	10	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-15	Client Sample Name: 0752, S-MW-1-W-130227, 2/27/2013 9:00:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.51	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/07/13	03/07/13 12:42	EAR	GC-V1	1	BWC0320



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-15	Client Sample Name:	0752, S-MW-1-W-130227, 2/27/2013 9:00:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	230	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	14	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	6.4	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run		Instrument	Dilution	QC	Batch ID
			Date/Time	Analyst				
1	EPA-310.1	03/01/13	03/01/13 13:05	RML	MET-1	1	BWC0033	
2	EPA-300.0	02/28/13	02/28/13 19:15	LS1	IC1	1	BWB2008	
3	EPA-353.2	02/28/13	02/28/13 16:04	TMS	KONE-1	1	BWC0123	
4	EPA-415.1	03/04/13	03/05/13 00:37	CDR	TOC2	1	BWC0107	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-15	Client Sample Name:	0752, S-MW-1-W-130227, 2/27/2013 9:00:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	2000	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:21	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-16	Client Sample Name:	0752, S-MW-2-W-130227, 2/27/2013 10:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	1.7	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	96.8	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	94.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	06:57	EAR	MS-V12	1	BWB1935



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-16	Client Sample Name:	0752, S-MW-2-W-130227, 2/27/2013 10:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	96.6	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 01:16	jjh	GC-V9	1	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-16	Client Sample Name: 0752, S-MW-2-W-130227, 2/27/2013 10:50:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	ND	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/07/13	03/07/13 15:29	EAR	GC-V1	1	BWC0320



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-16	Client Sample Name:	0752, S-MW-2-W-130227, 2/27/2013 10:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	82	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	66	mg/L	0.44	EPA-300.0	ND		2
Sulfate	27	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	1.1	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run		Instrument	Dilution	QC	Batch ID
			Date/Time	Analyst				
1	EPA-310.1	03/01/13	03/01/13 13:13	RML	MET-1	1	BWC0033	
2	EPA-300.0	02/28/13	02/28/13 19:27	LS1	IC1	1	BWB2008	
3	EPA-353.2	02/28/13	02/28/13 16:04	TMS	KONE-1	1	BWC0123	
4	EPA-415.1	03/04/13	03/05/13 00:50	CDR	TOC2	1	BWC0107	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-16	Client Sample Name:	0752, S-MW-2-W-130227, 2/27/2013 10:50:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	ND	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:28	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-17	Client Sample Name:	0752, S-MW-3-W-130227, 2/27/2013 7:40:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	2.8	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.1	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	07:14	EAR	MS-V12	1	BWB1935



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-17	Client Sample Name: 0752, S-MW-3-W-130227, 2/27/2013 7:40:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	96.7	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 01:37	jjh	GC-V9	1	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-17	Client Sample Name: 0752, S-MW-3-W-130227, 2/27/2013 7:40:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.0012	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/07/13	03/07/13 15:33	EAR	GC-V1	1	BWC0320



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-17	Client Sample Name:	0752, S-MW-3-W-130227, 2/27/2013 7:40:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	160	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	22	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	2.0	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 13:34	RML	MET-1	1	BWC0034
2	EPA-300.0	02/28/13	02/28/13 19:38	LS1	IC1	1	BWB2008
3	EPA-353.2	02/28/13	02/28/13 16:04	TMS	KONE-1	1	BWC0123
4	EPA-415.1	03/04/13	03/05/13 01:03	CDR	TOC2	1	BWC0107



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-17	Client Sample Name:	0752, S-MW-3-W-130227, 2/27/2013 7:40:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	ND	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	EPA-6010B	02/28/13	03/04/13 09:29	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-18	Client Sample Name:	0752, S-MW-4-W-130227, 2/27/2013 7:00:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	1.8	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	22	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	02/28/13	03/01/13	07:32	EAR	MS-V12	1	BWB1935



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-18	Client Sample Name:	0752, S-MW-4-W-130227, 2/27/2013 7:00:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	170	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	107	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 01:57	jjh	GC-V9	1	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-18	Client Sample Name: 0752, S-MW-4-W-130227, 2/27/2013 7:00:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.32	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/07/13	03/07/13 14:36	EAR	GC-V1	1	BWC0320



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-18	Client Sample Name:	0752, S-MW-4-W-130227, 2/27/2013 7:00:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	400	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	13	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	4.8	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 13:48	RML	MET-1	1	BWC0034
2	EPA-300.0	02/28/13	02/28/13 19:50	LS1	IC1	1	BWB2008
3	EPA-353.2	02/28/13	02/28/13 16:04	TMS	KONE-1	1	BWC0123
4	EPA-415.1	03/04/13	03/05/13 01:44	CDR	TOC2	1	BWC0108



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-18	Client Sample Name:	0752, S-MW-4-W-130227, 2/27/2013 7:00:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	4300	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:31	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-19	Client Sample Name:	0752, S-MW-6-W-130227, 2/27/2013 8:20:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	0.70	ug/L	0.50	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	970	ug/L	5.0	EPA-8260B	ND	A01	2
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)	EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	90.6	%	75 - 125 (LCL - UCL)	EPA-8260B			2
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)	EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC
			Date	Time				Batch ID
1	EPA-8260B	02/28/13	03/01/13	07:49	EAR	MS-V12	1	BWB1935
2	EPA-8260B	03/04/13	03/04/13	13:11	EAR	MS-V12	10	BWB1935



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-19	Client Sample Name: 0752, S-MW-6-W-130227, 2/27/2013 8:20:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	102	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 12:39	jjh	GC-V9	1	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-19	Client Sample Name: 0752, S-MW-6-W-130227, 2/27/2013 8:20:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.0033	mg/L	0.0010	RSK-175M	ND		1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/07/13	03/07/13 14:53	EAR	GC-V1	1	BWC0320



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-19	Client Sample Name: 0752, S-MW-6-W-130227, 2/27/2013 8:20:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	170	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	6.2	mg/L	0.44	EPA-300.0	ND		2
Sulfate	25	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	0.70	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 13:57	RML	MET-1	1	BWC0034
2	EPA-300.0	02/28/13	02/28/13 20:01	LS1	IC1	1	BWB2008
3	EPA-353.2	02/28/13	02/28/13 16:04	TMS	KONE-1	1	BWC0123
4	EPA-415.1	03/04/13	03/05/13 03:04	CDR	TOC2	1	BWC0108



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-19	Client Sample Name:	0752, S-MW-6-W-130227, 2/27/2013 8:20:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	ND	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC Batch ID
			Date/Time				
1	EPA-6010B	02/28/13	03/04/13 09:33	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1304072-20	Client Sample Name:	0752, S-EW-1-W-130227, 2/27/2013 10:05:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	180	ug/L	2.5	EPA-8260B	ND	A01	1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		2
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		2
Ethylbenzene	3.6	ug/L	0.50	EPA-8260B	ND		2
Methyl t-butyl ether	170	ug/L	2.5	EPA-8260B	ND	A01	1
Toluene	6.0	ug/L	0.50	EPA-8260B	ND		2
Total Xylenes	12	ug/L	1.0	EPA-8260B	ND		2
Ethanol	ND	ug/L	250	EPA-8260B	ND		2
1,2-Dichloroethane-d4 (Surrogate)	91.8	%	75 - 125 (LCL - UCL)	EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			2
Toluene-d8 (Surrogate)	91.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	107	%	80 - 120 (LCL - UCL)	EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	03/04/13	03/04/13 13:29	EAR	MS-V12	5	BWB1935
2	EPA-8260B	02/28/13	03/01/13 08:07	EAR	MS-V12	1	BWB1935



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1304072-20	Client Sample Name: 0752, S-EW-1-W-130227, 2/27/2013 10:05:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	960	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	117	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	03/06/13	03/07/13 13:00	jjh	GC-V9	1	BWC0299



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID:	1304072-20	Client Sample Name: 0752, S-EW-1-W-130227, 2/27/2013 10:05:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	0.91	mg/L	0.0050	RSK-175M	ND	A01	1

Run #	Method	Prep Date	Run		Instrument	Dilution	QC Batch ID
			Date/Time	Analyst			
1	RSK-175M	03/07/13	03/07/13 15:38	EAR	GC-V1	5	BWC0320



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID:	1304072-20	Client Sample Name: 0752, S-EW-1-W-130227, 2/27/2013 10:05:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO ₃	210	mg/L	4.1	EPA-310.1	ND		1
Nitrate as NO ₃	0.50	mg/L	0.44	EPA-300.0	ND		2
Sulfate	10	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO ₂	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	3.2	mg/L	0.30	EPA-415.1	ND		4

Run #	Method	Prep Date	Run	Analyst	Instrument	Dilution	QC
			Date/Time				
1	EPA-310.1	03/01/13	03/01/13 14:03	RML	MET-1	1	BWC0034
2	EPA-300.0	02/28/13	02/28/13 20:13	LS1	IC1	1	BWB2008
3	EPA-353.2	02/28/13	02/28/13 16:04	TMS	KONE-1	1	BWC0123
4	EPA-415.1	03/04/13	03/05/13 03:19	CDR	TOC2	1	BWC0108



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

BCL Sample ID:	1304072-20	Client Sample Name:	0752, S-EW-1-W-130227, 2/27/2013 10:05:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	3100	ug/L	50	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	02/28/13	03/04/13 09:34	ARD	PE-OP1	1	BWC0086



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWB1884						
Benzene	BWB1884-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BWB1884-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BWB1884-BLK1	ND	ug/L	0.50		
Ethylbenzene	BWB1884-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BWB1884-BLK1	ND	ug/L	0.50		
Toluene	BWB1884-BLK1	ND	ug/L	0.50		
Total Xylenes	BWB1884-BLK1	ND	ug/L	1.0		
Ethanol	BWB1884-BLK1	ND	ug/L	250		
1,2-Dichloroethane-d4 (Surrogate)	BWB1884-BLK1	102	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWB1884-BLK1	106	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWB1884-BLK1	94.4	%	80 - 120 (LCL - UCL)		
QC Batch ID: BWB1935						
Benzene	BWB1935-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BWB1935-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BWB1935-BLK1	ND	ug/L	0.50		
Ethylbenzene	BWB1935-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BWB1935-BLK1	ND	ug/L	0.50		
Toluene	BWB1935-BLK1	ND	ug/L	0.50		
Total Xylenes	BWB1935-BLK1	ND	ug/L	1.0		
Ethanol	BWB1935-BLK1	ND	ug/L	250		
1,2-Dichloroethane-d4 (Surrogate)	BWB1935-BLK1	106	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWB1935-BLK1	102	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWB1935-BLK1	96.4	%	80 - 120 (LCL - UCL)		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
QC Batch ID: BWB1884									
Benzene	BWB1884-BS1	LCS	28.380	25.000	ug/L	114		70 - 130	
Toluene	BWB1884-BS1	LCS	26.080	25.000	ug/L	104		70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BWB1884-BS1	LCS	9.7000	10.000	ug/L	97.0		75 - 125	
Toluene-d8 (Surrogate)	BWB1884-BS1	LCS	10.270	10.000	ug/L	103		80 - 120	
4-Bromofluorobenzene (Surrogate)	BWB1884-BS1	LCS	10.310	10.000	ug/L	103		80 - 120	
QC Batch ID: BWB1935									
Benzene	BWB1935-BS1	LCS	23.850	25.000	ug/L	95.4		70 - 130	
Toluene	BWB1935-BS1	LCS	22.360	25.000	ug/L	89.4		70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BWB1935-BS1	LCS	10.330	10.000	ug/L	103		75 - 125	
Toluene-d8 (Surrogate)	BWB1935-BS1	LCS	10.060	10.000	ug/L	101		80 - 120	
4-Bromofluorobenzene (Surrogate)	BWB1935-BS1	LCS	10.810	10.000	ug/L	108		80 - 120	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
QC Batch ID: BWB1884		Used client sample: N									
Benzene	MS	1303847-02	ND	27.190	25.000	ug/L		109		70 - 130	
	MSD	1303847-02	ND	27.250	25.000	ug/L	0.2	109	20	70 - 130	
Toluene	MS	1303847-02	ND	24.350	25.000	ug/L		97.4		70 - 130	
	MSD	1303847-02	ND	24.180	25.000	ug/L	0.7	96.7	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1303847-02	ND	10.210	10.000	ug/L		102		75 - 125	
	MSD	1303847-02	ND	9.9100	10.000	ug/L	3.0	99.1		75 - 125	
Toluene-d8 (Surrogate)	MS	1303847-02	ND	10.240	10.000	ug/L		102		80 - 120	
	MSD	1303847-02	ND	9.7100	10.000	ug/L	5.3	97.1		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1303847-02	ND	10.110	10.000	ug/L		101		80 - 120	
	MSD	1303847-02	ND	10.270	10.000	ug/L	1.6	103		80 - 120	
QC Batch ID: BWB1935		Used client sample: N									
Benzene	MS	1303968-03	ND	25.010	25.000	ug/L		100		70 - 130	
	MSD	1303968-03	ND	27.580	25.000	ug/L	9.8	110	20	70 - 130	
Toluene	MS	1303968-03	ND	23.250	25.000	ug/L		93.0		70 - 130	
	MSD	1303968-03	ND	25.420	25.000	ug/L	8.9	102	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1303968-03	ND	10.300	10.000	ug/L		103		75 - 125	
	MSD	1303968-03	ND	10.620	10.000	ug/L	3.1	106		75 - 125	
Toluene-d8 (Surrogate)	MS	1303968-03	ND	9.8500	10.000	ug/L		98.5		80 - 120	
	MSD	1303968-03	ND	9.9500	10.000	ug/L	1.0	99.5		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1303968-03	ND	10.250	10.000	ug/L		102		80 - 120	
	MSD	1303968-03	ND	10.640	10.000	ug/L	3.7	106		80 - 120	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWC0304						
Acenaphthene	BWC0304-BLK1	ND	ug/L	2.0		
Acenaphthylene	BWC0304-BLK1	ND	ug/L	2.0		
Aldrin	BWC0304-BLK1	ND	ug/L	2.0		
Aniline	BWC0304-BLK1	ND	ug/L	5.0		
Anthracene	BWC0304-BLK1	ND	ug/L	2.0		
Benzidine	BWC0304-BLK1	ND	ug/L	20		
Benzo[a]anthracene	BWC0304-BLK1	ND	ug/L	2.0		
Benzo[b]fluoranthene	BWC0304-BLK1	ND	ug/L	2.0		
Benzo[k]fluoranthene	BWC0304-BLK1	ND	ug/L	2.0		
Benzo[a]pyrene	BWC0304-BLK1	ND	ug/L	2.0		
Benzo[g,h,i]perylene	BWC0304-BLK1	ND	ug/L	2.0		
Benzoic acid	BWC0304-BLK1	ND	ug/L	10		
Benzyl alcohol	BWC0304-BLK1	ND	ug/L	2.0		
Benzyl butyl phthalate	BWC0304-BLK1	ND	ug/L	2.0		
alpha-BHC	BWC0304-BLK1	ND	ug/L	2.0		
beta-BHC	BWC0304-BLK1	ND	ug/L	2.0		
delta-BHC	BWC0304-BLK1	ND	ug/L	2.0		
gamma-BHC (Lindane)	BWC0304-BLK1	ND	ug/L	2.0		
bis(2-Chloroethoxy)methane	BWC0304-BLK1	ND	ug/L	2.0		
bis(2-Chloroethyl) ether	BWC0304-BLK1	ND	ug/L	2.0		
bis(2-Chloroisopropyl)ether	BWC0304-BLK1	ND	ug/L	2.0		
bis(2-Ethylhexyl)phthalate	BWC0304-BLK1	ND	ug/L	5.0		
4-Bromophenyl phenyl ether	BWC0304-BLK1	ND	ug/L	2.0		
4-Chloroaniline	BWC0304-BLK1	ND	ug/L	2.0		
2-Chloronaphthalene	BWC0304-BLK1	ND	ug/L	2.0		
4-Chlorophenyl phenyl ether	BWC0304-BLK1	ND	ug/L	2.0		
Chrysene	BWC0304-BLK1	ND	ug/L	2.0		
4,4'-DDD	BWC0304-BLK1	ND	ug/L	2.0		
4,4'-DDE	BWC0304-BLK1	ND	ug/L	3.0		
4,4'-DDT	BWC0304-BLK1	ND	ug/L	2.0		
Dibenzo[a,h]anthracene	BWC0304-BLK1	ND	ug/L	3.0		
Dibenzofuran	BWC0304-BLK1	ND	ug/L	2.0		
1,2-Dichlorobenzene	BWC0304-BLK1	ND	ug/L	2.0		
1,3-Dichlorobenzene	BWC0304-BLK1	ND	ug/L	2.0		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWC0304						
1,4-Dichlorobenzene	BWC0304-BLK1	ND	ug/L	2.0		
3,3-Dichlorobenzidine	BWC0304-BLK1	ND	ug/L	10		
Dieldrin	BWC0304-BLK1	ND	ug/L	3.0		
Diethyl phthalate	BWC0304-BLK1	ND	ug/L	2.0		
Dimethyl phthalate	BWC0304-BLK1	ND	ug/L	2.0		
Di-n-butyl phthalate	BWC0304-BLK1	ND	ug/L	2.0		
2,4-Dinitrotoluene	BWC0304-BLK1	ND	ug/L	2.0		
2,6-Dinitrotoluene	BWC0304-BLK1	ND	ug/L	2.0		
Di-n-octyl phthalate	BWC0304-BLK1	ND	ug/L	2.0		
1,2-Diphenylhydrazine	BWC0304-BLK1	ND	ug/L	2.0		
Endosulfan I	BWC0304-BLK1	ND	ug/L	10		
Endosulfan II	BWC0304-BLK1	ND	ug/L	10		
Endosulfan sulfate	BWC0304-BLK1	ND	ug/L	3.0		
Endrin	BWC0304-BLK1	ND	ug/L	2.0		
Endrin aldehyde	BWC0304-BLK1	ND	ug/L	10		
Fluoranthene	BWC0304-BLK1	ND	ug/L	2.0		
Fluorene	BWC0304-BLK1	ND	ug/L	2.0		
Heptachlor	BWC0304-BLK1	ND	ug/L	2.0		
Heptachlor epoxide	BWC0304-BLK1	ND	ug/L	2.0		
Hexachlorobenzene	BWC0304-BLK1	ND	ug/L	2.0		
Hexachlorobutadiene	BWC0304-BLK1	ND	ug/L	2.0		
Hexachlorocyclopentadiene	BWC0304-BLK1	ND	ug/L	2.0		
Hexachloroethane	BWC0304-BLK1	ND	ug/L	2.0		
Indeno[1,2,3-cd]pyrene	BWC0304-BLK1	ND	ug/L	2.0		
Isophorone	BWC0304-BLK1	ND	ug/L	2.0		
2-Methylnaphthalene	BWC0304-BLK1	ND	ug/L	2.0		
Naphthalene	BWC0304-BLK1	ND	ug/L	2.0		
2-Naphthylamine	BWC0304-BLK1	ND	ug/L	20		
2-Nitroaniline	BWC0304-BLK1	ND	ug/L	2.0		
3-Nitroaniline	BWC0304-BLK1	ND	ug/L	2.0		
4-Nitroaniline	BWC0304-BLK1	ND	ug/L	5.0		
Nitrobenzene	BWC0304-BLK1	ND	ug/L	2.0		
N-Nitrosodimethylamine	BWC0304-BLK1	ND	ug/L	2.0		
N-Nitrosodi-N-propylamine	BWC0304-BLK1	ND	ug/L	2.0		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWC0304						
N-Nitrosodiphenylamine	BWC0304-BLK1	ND	ug/L	2.0		
Phenanthrene	BWC0304-BLK1	ND	ug/L	2.0		
Pyrene	BWC0304-BLK1	ND	ug/L	2.0		
1,2,4-Trichlorobenzene	BWC0304-BLK1	ND	ug/L	2.0		
4-Chloro-3-methylphenol	BWC0304-BLK1	ND	ug/L	5.0		
2-Chlorophenol	BWC0304-BLK1	ND	ug/L	2.0		
2,4-Dichlorophenol	BWC0304-BLK1	ND	ug/L	2.0		
2,4-Dimethylphenol	BWC0304-BLK1	ND	ug/L	2.0		
4,6-Dinitro-2-methylphenol	BWC0304-BLK1	ND	ug/L	10		
2,4-Dinitrophenol	BWC0304-BLK1	ND	ug/L	10		
2-Methylphenol	BWC0304-BLK1	ND	ug/L	2.0		
3- & 4-Methylphenol	BWC0304-BLK1	ND	ug/L	2.0		
2-Nitrophenol	BWC0304-BLK1	ND	ug/L	2.0		
4-Nitrophenol	BWC0304-BLK1	ND	ug/L	2.0		
Pentachlorophenol	BWC0304-BLK1	ND	ug/L	10		
Phenol	BWC0304-BLK1	ND	ug/L	2.0		
2,4,5-Trichlorophenol	BWC0304-BLK1	ND	ug/L	5.0		
2,4,6-Trichlorophenol	BWC0304-BLK1	ND	ug/L	5.0		
2-Fluorophenol (Surrogate)	BWC0304-BLK1	46.8	%	30 - 120 (LCL - UCL)		
Phenol-d5 (Surrogate)	BWC0304-BLK1	34.0	%	12 - 110 (LCL - UCL)		
Nitrobenzene-d5 (Surrogate)	BWC0304-BLK1	83.4	%	60 - 130 (LCL - UCL)		
2-Fluorobiphenyl (Surrogate)	BWC0304-BLK1	87.7	%	55 - 125 (LCL - UCL)		
2,4,6-Tribromophenol (Surrogate)	BWC0304-BLK1	102	%	40 - 150 (LCL - UCL)		
p-Terphenyl-d14 (Surrogate)	BWC0304-BLK1	71.6	%	40 - 150 (LCL - UCL)		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
QC Batch ID: BWC0304									
Acenaphthene	BWC0304-BS1	LCS	40.700	50.000	ug/L	81.4		50 - 120	
1,4-Dichlorobenzene	BWC0304-BS1	LCS	35.960	50.000	ug/L	71.9		50 - 120	
2,4-Dinitrotoluene	BWC0304-BS1	LCS	42.070	50.000	ug/L	84.1		50 - 120	
Hexachlorobenzene	BWC0304-BS1	LCS	51.030	50.000	ug/L	102		60 - 120	
Hexachlorobutadiene	BWC0304-BS1	LCS	31.480	50.000	ug/L	63.0		40 - 110	
Hexachloroethane	BWC0304-BS1	LCS	34.810	50.000	ug/L	69.6		40 - 120	
Nitrobenzene	BWC0304-BS1	LCS	40.030	50.000	ug/L	80.1		50 - 120	
N-Nitrosodi-N-propylamine	BWC0304-BS1	LCS	33.020	50.000	ug/L	66.0		50 - 120	
Pyrene	BWC0304-BS1	LCS	31.370	50.000	ug/L	62.7		40 - 140	
1,2,4-Trichlorobenzene	BWC0304-BS1	LCS	42.640	50.000	ug/L	85.3		45 - 120	
4-Chloro-3-methylphenol	BWC0304-BS1	LCS	39.260	50.000	ug/L	78.5		50 - 120	
2-Chlorophenol	BWC0304-BS1	LCS	32.800	50.000	ug/L	65.6		50 - 120	
2-Methylphenol	BWC0304-BS1	LCS	30.790	50.000	ug/L	61.6		40 - 110	
3- & 4-Methylphenol	BWC0304-BS1	LCS	56.930	100.00	ug/L	56.9		40 - 110	
4-Nitrophenol	BWC0304-BS1	LCS	4.5400	50.000	ug/L	9.1		10 - 110	L01
Pentachlorophenol	BWC0304-BS1	LCS	41.120	50.000	ug/L	82.2		30 - 120	
Phenol	BWC0304-BS1	LCS	16.660	50.000	ug/L	33.3		20 - 110	
2,4,6-Trichlorophenol	BWC0304-BS1	LCS	43.550	50.000	ug/L	87.1		54 - 120	
2-Fluorophenol (Surrogate)	BWC0304-BS1	LCS	38.360	80.000	ug/L	48.0		30 - 120	
Phenol-d5 (Surrogate)	BWC0304-BS1	LCS	28.000	80.000	ug/L	35.0		12 - 110	
Nitrobenzene-d5 (Surrogate)	BWC0304-BS1	LCS	68.240	80.000	ug/L	85.3		60 - 130	
2-Fluorobiphenyl (Surrogate)	BWC0304-BS1	LCS	71.180	80.000	ug/L	89.0		55 - 125	
2,4,6-Tribromophenol (Surrogate)	BWC0304-BS1	LCS	84.500	80.000	ug/L	106		40 - 150	
p-Terphenyl-d14 (Surrogate)	BWC0304-BS1	LCS	25.850	40.000	ug/L	64.6		40 - 150	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
QC Batch ID: BWC0304		Used client sample: N									
Acenaphthene	MS	1302378-73	ND	39.081	50.000	ug/L		78.2		50 - 120	
	MSD	1302378-73	ND	39.420	50.000	ug/L	0.9	78.8	30	50 - 120	
1,4-Dichlorobenzene	MS	1302378-73	ND	36.055	50.000	ug/L		72.1		47 - 120	
	MSD	1302378-73	ND	34.490	50.000	ug/L	4.4	69.0	30	47 - 120	
2,4-Dinitrotoluene	MS	1302378-73	ND	41.118	50.000	ug/L		82.2		50 - 130	
	MSD	1302378-73	ND	39.610	50.000	ug/L	3.7	79.2	30	50 - 130	
Hexachlorobenzene	MS	1302378-73	ND	47.317	50.000	ug/L		94.6		62 - 120	
	MSD	1302378-73	ND	47.290	50.000	ug/L	0.1	94.6	30	62 - 120	
Hexachlorobutadiene	MS	1302378-73	ND	31.457	50.000	ug/L		62.9		40 - 110	
	MSD	1302378-73	ND	32.330	50.000	ug/L	2.7	64.7	30	40 - 110	
Hexachloroethane	MS	1302378-73	ND	33.465	50.000	ug/L		66.9		40 - 120	
	MSD	1302378-73	ND	32.390	50.000	ug/L	3.3	64.8	30	40 - 120	
Nitrobenzene	MS	1302378-73	ND	38.722	50.000	ug/L		77.4		50 - 120	
	MSD	1302378-73	ND	39.060	50.000	ug/L	0.9	78.1	30	50 - 120	
N-Nitrosodi-N-propylamine	MS	1302378-73	ND	30.516	50.000	ug/L		61.0		50 - 120	
	MSD	1302378-73	ND	30.320	50.000	ug/L	0.6	60.6	30	50 - 120	
Pyrene	MS	1302378-73	ND	31.428	50.000	ug/L		62.9		40 - 140	
	MSD	1302378-73	ND	27.890	50.000	ug/L	11.9	55.8	30	40 - 140	
1,2,4-Trichlorobenzene	MS	1302378-73	ND	41.526	50.000	ug/L		83.1		43 - 120	
	MSD	1302378-73	ND	42.350	50.000	ug/L	2.0	84.7	30	43 - 120	
4-Chloro-3-methylphenol	MS	1302378-73	ND	38.034	50.000	ug/L		76.1		50 - 120	
	MSD	1302378-73	ND	39.720	50.000	ug/L	4.3	79.4	30	50 - 120	
2-Chlorophenol	MS	1302378-73	ND	32.427	50.000	ug/L		64.9		50 - 120	
	MSD	1302378-73	ND	31.390	50.000	ug/L	3.3	62.8	30	50 - 120	
2-Methylphenol	MS	1302378-73	ND	30.080	50.000	ug/L		60.2		40 - 110	
	MSD	1302378-73	ND	29.150	50.000	ug/L	3.1	58.3	30	40 - 110	
3- & 4-Methylphenol	MS	1302378-73	ND	54.485	100.00	ug/L		54.5		40 - 110	
	MSD	1302378-73	ND	54.300	100.00	ug/L	0.3	54.3	30	40 - 110	
4-Nitrophenol	MS	1302378-73	ND	4.7724	50.000	ug/L		9.5		10 - 110	Q03
	MSD	1302378-73	ND	4.0900	50.000	ug/L	15.4	8.2	30	10 - 110	Q03
Pentachlorophenol	MS	1302378-73	ND	41.080	50.000	ug/L		82.2		30 - 120	
	MSD	1302378-73	ND	40.280	50.000	ug/L	2.0	80.6	30	30 - 120	
Phenol	MS	1302378-73	ND	16.277	50.000	ug/L		32.6		20 - 110	
	MSD	1302378-73	ND	16.330	50.000	ug/L	0.3	32.7	30	20 - 110	
2,4,6-Trichlorophenol	MS	1302378-73	ND	41.138	50.000	ug/L		82.3		50 - 120	
	MSD	1302378-73	ND	42.620	50.000	ug/L	3.5	85.2	30	50 - 120	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
QC Batch ID: BWC0304		Used client sample: N								
2-Fluorophenol (Surrogate)	MS	1302378-73	ND	37.374	80.000	ug/L		46.7	30 - 120	
	MSD	1302378-73	ND	36.700	80.000	ug/L	1.8	45.9	30 - 120	
Phenol-d5 (Surrogate)	MS	1302378-73	ND	28.072	80.000	ug/L		35.1	12 - 110	
	MSD	1302378-73	ND	27.470	80.000	ug/L	2.2	34.3	12 - 110	
Nitrobenzene-d5 (Surrogate)	MS	1302378-73	ND	65.300	80.000	ug/L		81.6	60 - 130	
	MSD	1302378-73	ND	62.810	80.000	ug/L	3.9	78.5	60 - 130	
2-Fluorobiphenyl (Surrogate)	MS	1302378-73	ND	66.833	80.000	ug/L		83.5	55 - 125	
	MSD	1302378-73	ND	69.560	80.000	ug/L	4.0	87.0	55 - 125	
2,4,6-Tribromophenol (Surrogate)	MS	1302378-73	ND	78.735	80.000	ug/L		98.4	40 - 150	
	MSD	1302378-73	ND	79.300	80.000	ug/L	0.7	99.1	40 - 150	
p-Terphenyl-d14 (Surrogate)	MS	1302378-73	ND	26.520	40.000	ug/L		66.3	40 - 150	
	MSD	1302378-73	ND	23.940	40.000	ug/L	10.2	59.8	40 - 150	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWC0214						
Gasoline Range Organics (C6 - C12)	BWC0214-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BWC0214-BLK1	96.8	%	70 - 130 (LCL - UCL)		
QC Batch ID: BWC0299						
Gasoline Range Organics (C6 - C12)	BWC0299-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BWC0299-BLK1	105	%	70 - 130 (LCL - UCL)		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BWC0214										
Gasoline Range Organics (C6 - C12)	BWC0214-BS1	LCS	1029.5	1000.0	ug/L	103		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BWC0214-BS1	LCS	42.093	40.000	ug/L	105		70 - 130		
QC Batch ID: BWC0299										
Gasoline Range Organics (C6 - C12)	BWC0299-BS1	LCS	895.88	1000.0	ug/L	89.6		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BWC0299-BS1	LCS	44.773	40.000	ug/L	112		70 - 130		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
QC Batch ID: BWC0214 Used client sample: N										
Gasoline Range Organics (C6 - C12)	MS	1302378-66	ND	1002.9	1000.0	ug/L		100		70 - 130
	MSD	1302378-66	ND	992.48	1000.0	ug/L	1.0	99.2	20	70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1302378-66	ND	40.963	40.000	ug/L		102		70 - 130
	MSD	1302378-66	ND	41.338	40.000	ug/L	0.9	103		70 - 130
QC Batch ID: BWC0299 Used client sample: N										
Gasoline Range Organics (C6 - C12)	MS	1302378-67	ND	953.30	1000.0	ug/L		95.3		70 - 130
	MSD	1302378-67	ND	1041.6	1000.0	ug/L	8.9	104	20	70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1302378-67	ND	44.098	40.000	ug/L		110		70 - 130
	MSD	1302378-67	ND	38.979	40.000	ug/L	12.3	97.4		70 - 130



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWC0167						
Methane	BWC0167-BLK1	ND	mg/L	0.0010		
QC Batch ID: BWC0320						
Methane	BWC0320-BLK1	ND	mg/L	0.0010		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
QC Batch ID: BWC0167									
Methane	BWC0167-BS1	LCS	0.010234	0.010843	mg/L	94.4		80 - 120	
	BWC0167-BSD1	LCSD	0.010216	0.010843	mg/L	94.2	0.2	80 - 120	20
QC Batch ID: BWC0320									
Methane	BWC0320-BS1	LCS	0.0096391	0.010843	mg/L	88.9		80 - 120	
	BWC0320-BSD1	LCSD	0.0097088	0.010843	mg/L	89.5	0.7	80 - 120	20



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWB2007						
Nitrate as NO ₃	BWB2007-BLK1	ND	mg/L	0.44		
Sulfate	BWB2007-BLK1	ND	mg/L	1.0		
QC Batch ID: BWB2008						
Nitrate as NO ₃	BWB2008-BLK1	ND	mg/L	0.44		
Sulfate	BWB2008-BLK1	ND	mg/L	1.0		
QC Batch ID: BWC0032						
Total Alkalinity as CaCO ₃	BWC0032-BLK1	ND	mg/L	4.1		
QC Batch ID: BWC0033						
Total Alkalinity as CaCO ₃	BWC0033-BLK1	ND	mg/L	4.1		
QC Batch ID: BWC0034						
Total Alkalinity as CaCO ₃	BWC0034-BLK1	ND	mg/L	4.1		
QC Batch ID: BWC0106						
Non-Volatile Organic Carbon	BWC0106-BLK1	ND	mg/L	0.30		
QC Batch ID: BWC0107						
Non-Volatile Organic Carbon	BWC0107-BLK1	ND	mg/L	0.30		
QC Batch ID: BWC0108						
Non-Volatile Organic Carbon	BWC0108-BLK1	ND	mg/L	0.30		
QC Batch ID: BWC0122						
Nitrite as NO ₂	BWC0122-BLK1	ND	mg/L	0.17		
QC Batch ID: BWC0123						
Nitrite as NO ₂	BWC0123-BLK1	ND	mg/L	0.17		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
QC Batch ID: BWB2007									
Nitrate as NO ₃	BWB2007-BS1	LCS	22.400	22.134	mg/L	101		90 - 110	
Sulfate	BWB2007-BS1	LCS	101.22	100.00	mg/L	101		90 - 110	
QC Batch ID: BWB2008									
Nitrate as NO ₃	BWB2008-BS1	LCS	21.864	22.134	mg/L	98.8		90 - 110	
Sulfate	BWB2008-BS1	LCS	100.42	100.00	mg/L	100		90 - 110	
QC Batch ID: BWC0032									
Total Alkalinity as CaCO ₃	BWC0032-BS3	LCS	100.71	100.00	mg/L	101		90 - 110	
QC Batch ID: BWC0033									
Total Alkalinity as CaCO ₃	BWC0033-BS3	LCS	98.280	100.00	mg/L	98.3		90 - 110	
QC Batch ID: BWC0034									
Total Alkalinity as CaCO ₃	BWC0034-BS3	LCS	99.650	100.00	mg/L	99.6		90 - 110	
QC Batch ID: BWC0106									
Non-Volatile Organic Carbon	BWC0106-BS1	LCS	5.1420	5.0000	mg/L	103		85 - 115	
QC Batch ID: BWC0107									
Non-Volatile Organic Carbon	BWC0107-BS1	LCS	5.1700	5.0000	mg/L	103		85 - 115	
QC Batch ID: BWC0108									
Non-Volatile Organic Carbon	BWC0108-BS1	LCS	5.1570	5.0000	mg/L	103		85 - 115	
QC Batch ID: BWC0122									
Nitrite as NO ₂	BWC0122-BS1	LCS	1.6767	1.6425	mg/L	102		90 - 110	
QC Batch ID: BWC0123									
Nitrite as NO ₂	BWC0123-BS1	LCS	1.6265	1.6425	mg/L	99.0		90 - 110	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
QC Batch ID: BWB2007		Used client sample: Y - Description: MW-1-W-130227, 02/27/2013 13:15								
Nitrate as NO3	DUP	1304072-02	1.2085	1.1775		mg/L	2.6		10	
	MS	1304072-02	1.2085	23.543	22.358	mg/L		99.9		80 - 120
	MSD	1304072-02	1.2085	23.198	22.358	mg/L	1.5	98.4	10	80 - 120
Sulfate	DUP	1304072-02	8.9790	9.0380		mg/L	0.7		10	
	MS	1304072-02	8.9790	112.99	101.01	mg/L		103		80 - 120
	MSD	1304072-02	8.9790	112.95	101.01	mg/L	0.0	103	10	80 - 120
QC Batch ID: BWB2008		Used client sample: Y - Description: A-MW-5-W-130227, 02/27/2013 09:37								
Nitrate as NO3	DUP	1304072-12	16.716	16.764		mg/L	0.3		10	
	MS	1304072-12	16.716	40.186	22.358	mg/L		105		80 - 120
	MSD	1304072-12	16.716	40.132	22.358	mg/L	0.1	105	10	80 - 120
Sulfate	DUP	1304072-12	45.640	45.640		mg/L	0		10	
	MS	1304072-12	45.640	155.81	101.01	mg/L		109		80 - 120
	MSD	1304072-12	45.640	155.52	101.01	mg/L	0.2	109	10	80 - 120
QC Batch ID: BWC0032		Used client sample: N								
Total Alkalinity as CaCO3	DUP	1304160-01	198.08	197.77		mg/L	0.2		10	
QC Batch ID: BWC0033		Used client sample: Y - Description: MW-6-W-130227, 02/27/2013 13:40								
Total Alkalinity as CaCO3	DUP	1304072-07	98.890	98.730		mg/L	0.2		10	
QC Batch ID: BWC0034		Used client sample: Y - Description: S-MW-3-W-130227, 02/27/2013 07:40								
Total Alkalinity as CaCO3	DUP	1304072-17	164.91	164.91		mg/L	0		10	
QC Batch ID: BWC0106		Used client sample: N								
Non-Volatile Organic Carbon	DUP	1303971-01	1.7680	1.7390		mg/L	1.7		10	
	MS	1303971-01	1.7680	6.7859	5.0251	mg/L		99.9		80 - 120
	MSD	1303971-01	1.7680	6.9427	5.0251	mg/L	2.3	103	10	80 - 120
QC Batch ID: BWC0107		Used client sample: Y - Description: MW-7-W-130227, 02/27/2013 07:15								
Non-Volatile Organic Carbon	DUP	1304072-08	1.1320	1.1390		mg/L	0.6		10	
	MS	1304072-08	1.1320	6.3779	5.0251	mg/L		104		80 - 120
	MSD	1304072-08	1.1320	6.3829	5.0251	mg/L	0.1	104	10	80 - 120
QC Batch ID: BWC0108		Used client sample: Y - Description: S-MW-4-W-130227, 02/27/2013 07:00								
Non-Volatile Organic Carbon	DUP	1304072-18	4.8150	4.8700		mg/L	1.1		10	
	MS	1304072-18	4.8150	9.9035	5.0251	mg/L		101		80 - 120
	MSD	1304072-18	4.8150	9.8905	5.0251	mg/L	0.1	101	10	80 - 120
QC Batch ID: BWC0122		Used client sample: Y - Description: MW-1-W-130227, 02/27/2013 13:15								
Nitrite as NO2	DUP	1304072-02	ND	ND		mg/L			10	
	MS	1304072-02	ND	1.7151	1.7289	mg/L		99.2		90 - 110
	MSD	1304072-02	ND	1.7475	1.7289	mg/L	1.9	101	10	90 - 110
QC Batch ID: BWC0123		Used client sample: Y - Description: A-MW-3-W-130227, 02/27/2013 12:25								

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

Page 137 of 142



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
QC Batch ID: BWC0123		Used client sample: Y - Description: A-MW-3-W-130227, 02/27/2013 12:25								
Nitrite as NO ₂	DUP	1304072-11	ND	ND		mg/L			10	
	MS	1304072-11	ND	1.7429	1.7289	mg/L		101	90 - 110	
	MSD	1304072-11	ND	1.7748	1.7289	mg/L	1.8	103	10	90 - 110



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWC0086						
Dissolved Cadmium	BWC0086-BLK1	ND	ug/L	10		
Dissolved Chromium	BWC0086-BLK1	ND	ug/L	10		
Dissolved Iron	BWC0086-BLK1	ND	ug/L	50		
Dissolved Lead	BWC0086-BLK1	ND	ug/L	50		
Dissolved Nickel	BWC0086-BLK1	ND	ug/L	10		
Dissolved Zinc	BWC0086-BLK1	ND	ug/L	10		



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
QC Batch ID: BWC0086									
Dissolved Cadmium	BWC0086-BS1	LCS	187.83	200.00	ug/L	93.9		85 - 115	
Dissolved Chromium	BWC0086-BS1	LCS	197.11	200.00	ug/L	98.6		85 - 115	
Dissolved Iron	BWC0086-BS1	LCS	1027.1	1000.0	ug/L	103		85 - 115	
Dissolved Lead	BWC0086-BS1	LCS	416.85	400.00	ug/L	104		85 - 115	
Dissolved Nickel	BWC0086-BS1	LCS	381.42	400.00	ug/L	95.4		85 - 115	
Dissolved Zinc	BWC0086-BS1	LCS	515.10	500.00	ug/L	103		85 - 115	



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
QC Batch ID: BWC0086		Used client sample: Y - Description: MW-1-W-130227, 02/27/2013 13:15								
Dissolved Cadmium	DUP	1304072-02	ND	ND		ug/L			20	
	MS	1304072-02	ND	201.85	204.08	ug/L		98.9		75 - 125
	MSD	1304072-02	ND	193.24	204.08	ug/L	4.4	94.7	20	75 - 125
Dissolved Chromium	DUP	1304072-02	ND	ND		ug/L			20	
	MS	1304072-02	ND	205.06	204.08	ug/L		100		75 - 125
	MSD	1304072-02	ND	196.69	204.08	ug/L	4.2	96.4	20	75 - 125
Dissolved Iron	DUP	1304072-02	45.254	ND		ug/L			20	A02
	MS	1304072-02	45.254	1065.4	1020.4	ug/L		100		75 - 125
	MSD	1304072-02	45.254	1043.1	1020.4	ug/L	2.1	97.8	20	75 - 125
Dissolved Lead	DUP	1304072-02	ND	ND		ug/L			20	
	MS	1304072-02	ND	435.90	408.16	ug/L		107		75 - 125
	MSD	1304072-02	ND	423.07	408.16	ug/L	3.0	104	20	75 - 125
Dissolved Nickel	DUP	1304072-02	3.5885	ND		ug/L			20	
	MS	1304072-02	3.5885	399.23	408.16	ug/L		96.9		75 - 125
	MSD	1304072-02	3.5885	380.04	408.16	ug/L	4.9	92.2	20	75 - 125
Dissolved Zinc	DUP	1304072-02	ND	ND		ug/L			20	
	MS	1304072-02	ND	551.40	510.20	ug/L		108		75 - 125
	MSD	1304072-02	ND	530.07	510.20	ug/L	3.9	104	20	75 - 125



Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 03/08/2013 15:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A02	The difference between duplicate readings is less than the PQL.
A10	PQL's and MDL's were raised due to matrix interference.
L01	The Laboratory Control Sample Water (LCSW) recovery is not within laboratory established control limits.
Q03	Matrix spike recovery(s) is(are) not within the control limits.
S09	The surrogate recovery on the sample for this compound was not within the control limits.