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

October 3, 2012

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

RE: Third Quarter 2012 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
Third Quarter 2012 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

ENVIRONMENT

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

Subject:
Third Quarter 2012 Semi-Annually Groundwater Monitoring Report Submittal

Date:
October 3, 2012

Contact:
Katherine Brandt

Phone:
510.596.9675

Email:
Katherine.Brandt@arcadis-us.com

Our ref:
B0047339.2012

Dear Mr. Wickham:

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:

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

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.

Sincerely,

ARCADIS

Katherine Brandt
Certified Project Manager

David Lay
Professional Geologist

PROFESSIONAL GEOLOGIST
DAVID LAY
No.8545
STATE OF CALIFORNIA

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
THIRD QUARTER 2012
October 3, 2012

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 – 2012) :

1. TRC Solutions (TRC) and AquaScience Engineers (AquaScience) conducted groundwater monitoring and sampling on August 9, 2012. 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) groundwater monitoring wells associated with 706 Harrison Street (GIN), and six (6) groundwater monitoring wells associated with 726 Harrison Street (YEE) were gauged and sampled during this monitoring event. ARCADIS collected split samples from AquaScience during the sampling event completed on 726 Harrison Street (GIN) property.

   Groundwater samples were analyzed for total purgeable petroleum hydrocarbons (TPPH) by Environmental Protection Agency (EPA) Method 8015B-GC/MS and EPA Method 8260 (726 Harrison); 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. 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** and **1b**, Historical Groundwater Gauging and Analytical Results are summarized in **Table 2**, Additional Historical Groundwater Analytical Results are summarized in **Tables 2a** and **2b**,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 (First Quarter – 2013):

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

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

UNION OIL OF CALIFORNIA
SEMI-ANNUALLY MONITORING REPORT
THIRD QUARTER 2012
October 3, 2012

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

Permits for Discharge (No.): None

Approximate Depth to Groundwater (at Unocal 0752): 17.17 (MW-6) – 19.14 (MW-1) feet below top of casing

Measured X Estimated

Approximate Groundwater Elevation (at Unocal 0752): 14.69 (MW-7) – 15.85 (MW-2) feet relative to mean sea level

Measured X Estimated

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

DISCUSSION:

Groundwater conditions during the third quarter 2012 remained generally consistent with previous quarters.

706 Harrison Street:

The maximum dissolved concentrations of TPPH (2,200 µg/L) and benzene (850 µg/L) were detected in the samples collected from MW-1. The maximum dissolved concentrations of toluene (1,800 µg/L), ethylbenzene (440 µg/L), total xylenes (1,900 µg/L), and MTBE (4,100 µg/L) were also detected in the samples collected from MW-2. EDB, EDC, and ethanol were not detected above the laboratory reporting limits for all wells sampled.

726 Harrison Street:

Split samples were collected on 726 Harrison Street between ARCADIS and AquaScience. The maximum dissolved concentrations from the AquaScience samples were TPPH (16,000 µg/L) benzene (1,400 µg/L) and MTBE (16,000 µg/L) were detected in the samples collected from MW-5. The maximum dissolved concentrations of toluene (5,800 µg/L), ethylbenzene (4,700 µg/L), and total xylenes (9,600 µg/L), were also detected in the samples collected from MW-5. EDB, EDC, and ethanol were not detected above the laboratory reporting limits for all wells sampled with the exception of MW-6; EDC was detected at 1.2 µg/L. Split sample results collected by ARCADIS were similar to the above concentrations and are presented on **Table 1**.

800 Harrison Street:

The maximum dissolved concentrations of (1,900 µg/L), benzene (81 µg/L), toluene (18 µg/L), ethylbenzene (10 µg/L), and total xylenes (22 µg/L) were detected in the samples collected from MW-5. The maximum dissolved concentration of MTBE (370 µg/L) were detected in the samples collected from MW-3. EDB, EDC, and ethanol were not detected above the laboratory reporting limits for all wells sampled. No additional VOCs or dissolved metals were detected this sampling event.

Groundwater elevations at the site vary by approximately three 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
THIRD QUARTER 2012
October 3, 2012

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

ATTACHMENTS:

Figure 1: Site Location Map
Figure 2: Site Plan
Figure 3: Groundwater Contour Map
Figure 4: TPPH Concentration Map
Figure 5: Benzene Concentration Map
Figure 6: MTBE Concentration Map

Table 1: Current Groundwater Gauging and Analytical Results
Table 2: Additional Groundwater Analytical Results - VOCs
Table 3: 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. QUAD., OAKLAND WEST, CALIFORNIA, 1993.

0 2000' 4000'

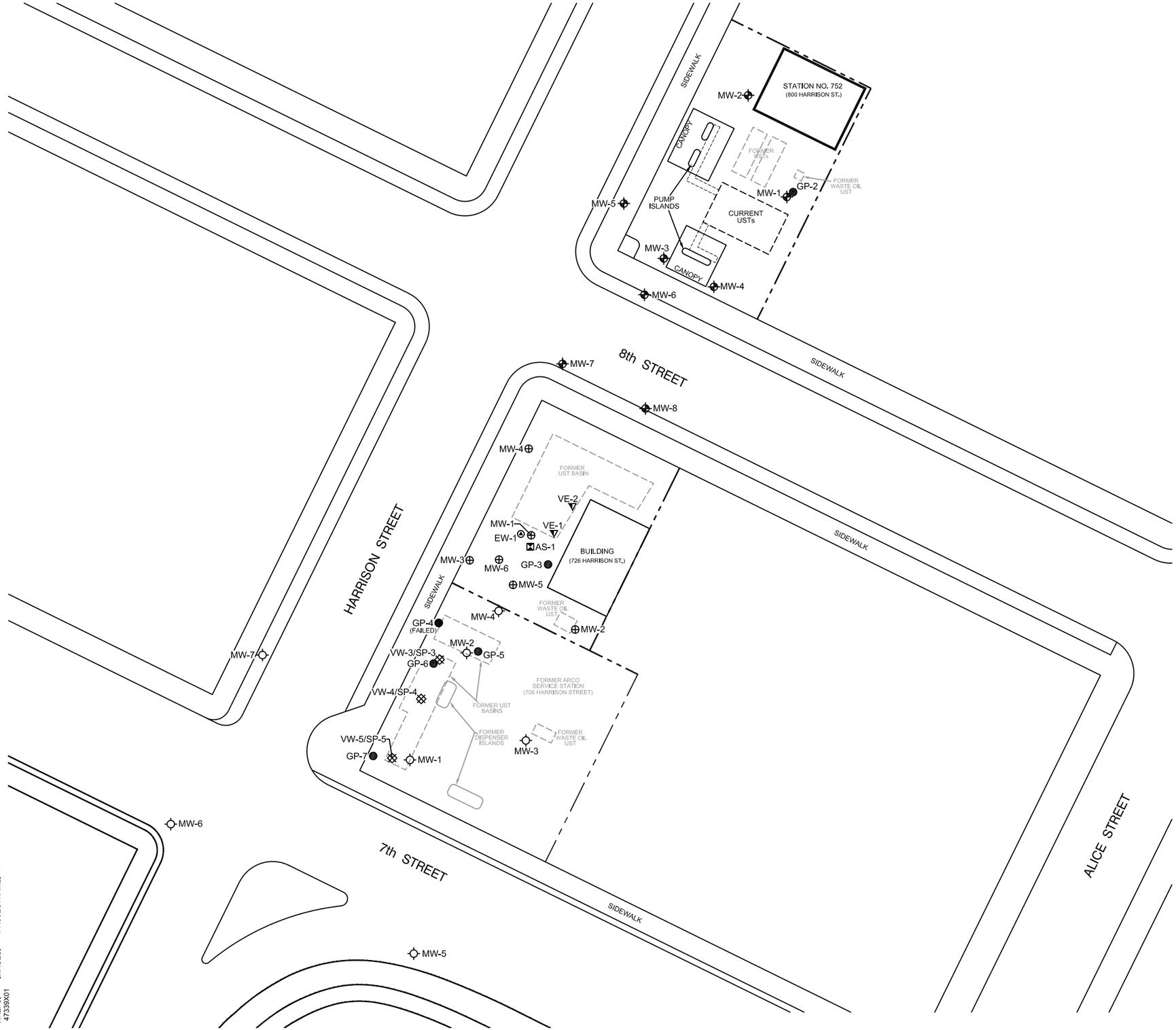
Approximate Scale: 1 in. = 2000 ft.

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)
- MW-1 GROUNDWATER MONITORING WELL (GIN)
- VW-3/SP-3 SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
- MW-1 GROUNDWATER MONITORING WELL (YEE)
- AS-1 AIR SPARGE WELL (YEE)
- EW-1 EXTRACTION WELL (YEE)
- VE-1 DESTROYED WELL (YEE)
- GP-2 GEOPROBE™ (JUNE 2011)

NOTE:

1. 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'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

0 50' 100'

GRAPHIC SCALE

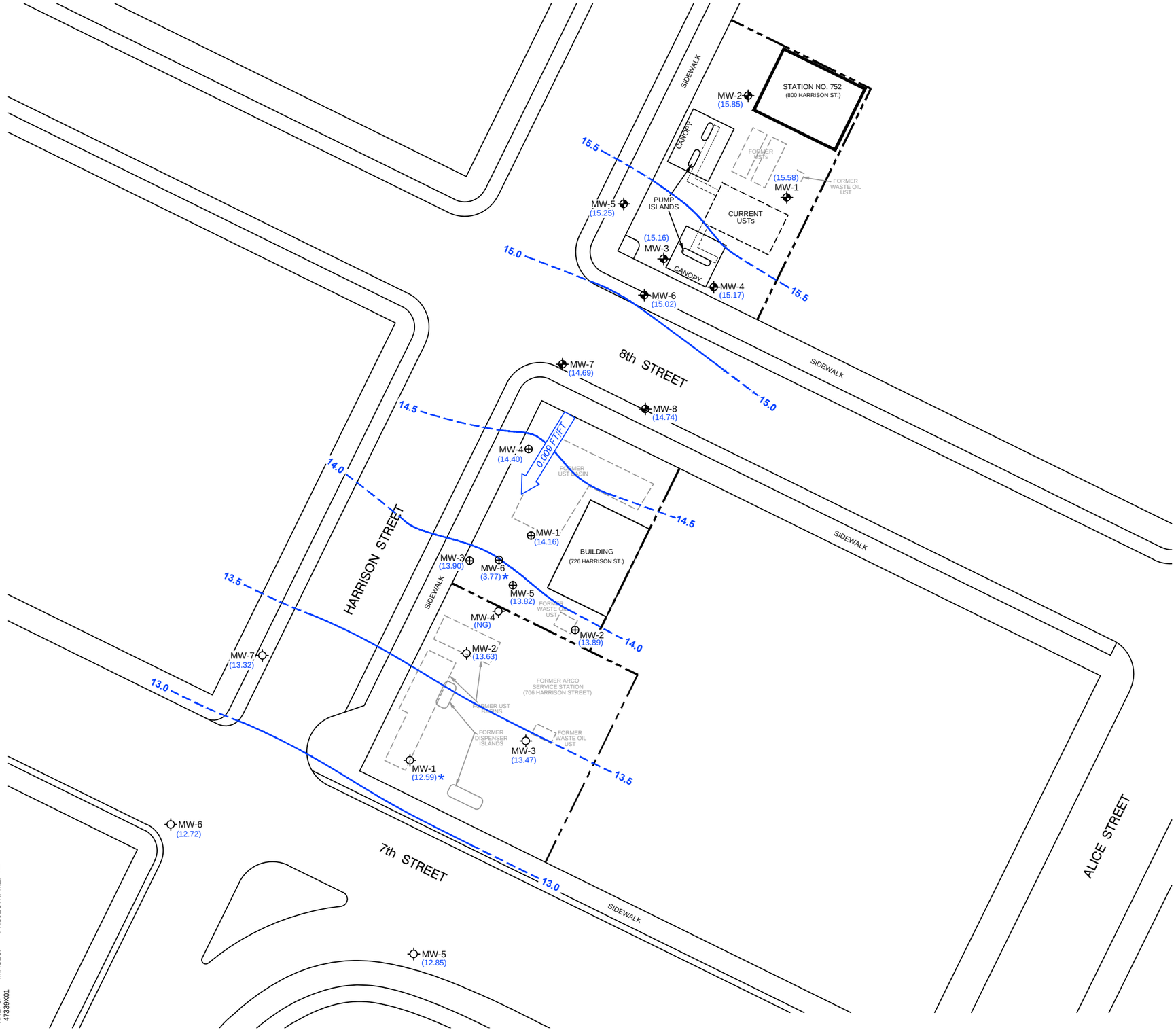
UNION OIL OF CALIFORNIA
STATION NO. 0752/YEE/GIN COMMINGLED
706/726/800 HARRISON STREET
OAKLAND, CALIFORNIA

SITE PLAN

ARCADIS

FIGURE 2

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
C:\Users\jharris\Desktop\ENVCAD\B0047339\2012\000021\Q12\DWG\47339B01.dwg LAYOUT: 2 SAVED: 3/9/2012 1:34 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 3/9/2012 1:34 PM BY: HARRIS, JESSICA
XREFS: IMAGES: PROJECTNAME: —
47339X01



LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
- MW-1 ○ GROUNDWATER MONITORING WELL (GIN SITE)
- (15.02) GROUNDWATER ELEVATION CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL (FT MSL)
- 15.0 GROUNDWATER ELEVATION CONTOUR (FT MSL; DASHED WHERE INFERRED)
- 0.009 FT/FT APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FOOT PER FOOT)
- (NG) NOT GAUGED
- * NOT USED IN GROUNDWATER CONTOURING AND GRADIENT CALCULATION

NOTES:

1. 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'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
3. MW-1, MW-2 AND MW-4 ON THE GIN SITE ARE NOT USED IN THE GROUNDWATER CONTOURS DUE TO EXCAVATION WORK IN THE AREA.
4. MW-6 IS NOT USED IN THE GROUNDWATER CONTOURS BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.

0 50' 100'
GRAPHIC SCALE

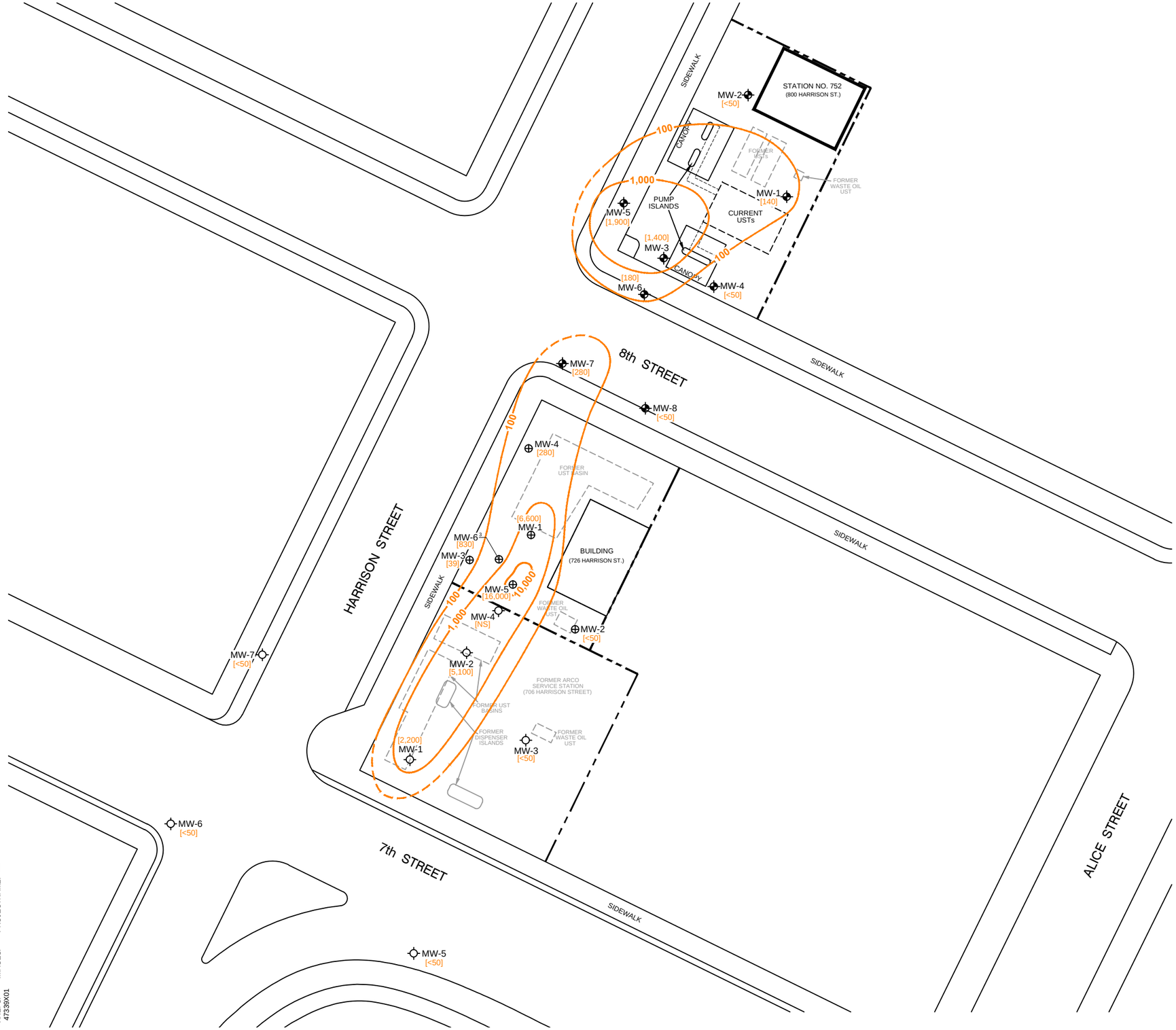
UNION OIL OF CALIFORNIA
STATION NO. 0752/YEE/GIN COMMINGLED
706/726/800 HARRISON STREET
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP

ARCADIS

FIGURE 3

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
C:\Users\jharris\Desktop\ENV\CAD\B0047339\2012\0000213\Q12\DWG\47339W01.dwg LAYOUT: 3 SAVED: 9/25/2012 3:00 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 10/2/2012 1:48 PM BY: HARRIS, JESSICA
XREFS: IMAGES: PROJECTNAME: ---
47339X01



LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1 GROUNDWATER MONITORING WELL (YEE SITE)
- MW-1 GROUNDWATER MONITORING WELL (GIN SITE)
- [TPPH] TOTAL PURGEABLE PETROLEUM HYDROCARBONS CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 100 TPPH ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- [NS] NOT SAMPLED; CAR PARKED AT TIME OF SAMPLING EVENT

NOTES:

1. 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'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
3. MW-6 IS NOT USED IN CONTOURING BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.

0 50' 100'

GRAPHIC SCALE

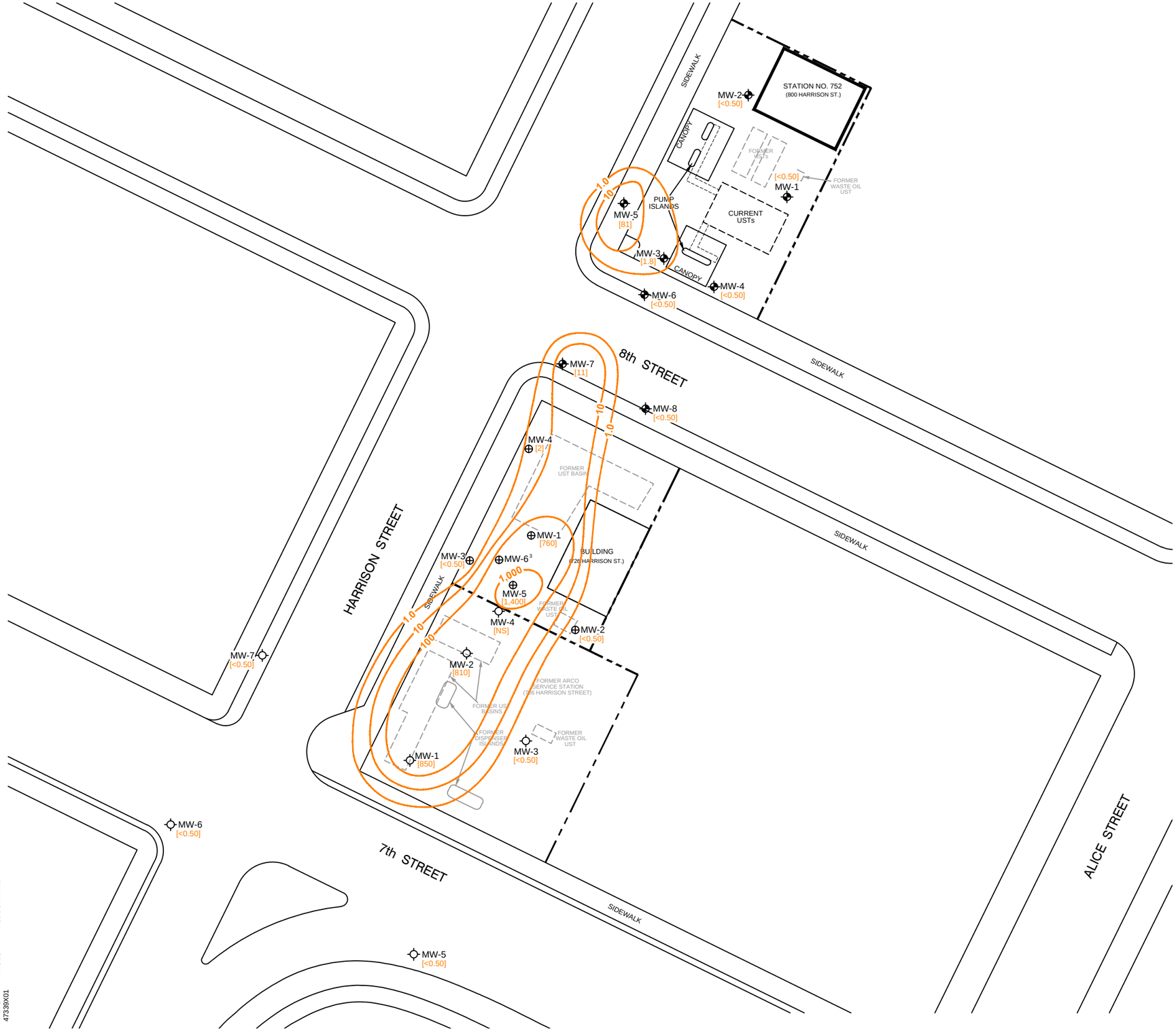
UNION OIL OF CALIFORNIA
STATION NO. 0752/YEE/GIN COMMINGLED
706/726/800 HARRISON STREET
OAKLAND, CALIFORNIA

TPPH ISOCONCENTRATION CONTOUR MAP

ARCADIS

FIGURE 4

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
C:\Users\jharris\Desktop\ENVCAD\B0047339\2012\0000023Q12\DWG\47339C01.dwg LAYOUT: 4 SAVED: 9/24/2012 2:36 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 10/1/2012 1:36 PM BY: HARRIS, JESSICA
XREFS: IMAGES: PROJECTNAME: ----
47338X01



LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
- MW-1 ○ GROUNDWATER MONITORING WELL (GIN SITE)
- [BENZ] BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 100 BENZENE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- [NS] NOT SAMPLED; CAR PARKED AT TIME OF SAMPLING EVENT

NOTES:

1. 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'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
3. MW-6 IS NOT USED IN CONTOURING BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.

0 50' 100'

GRAPHIC SCALE

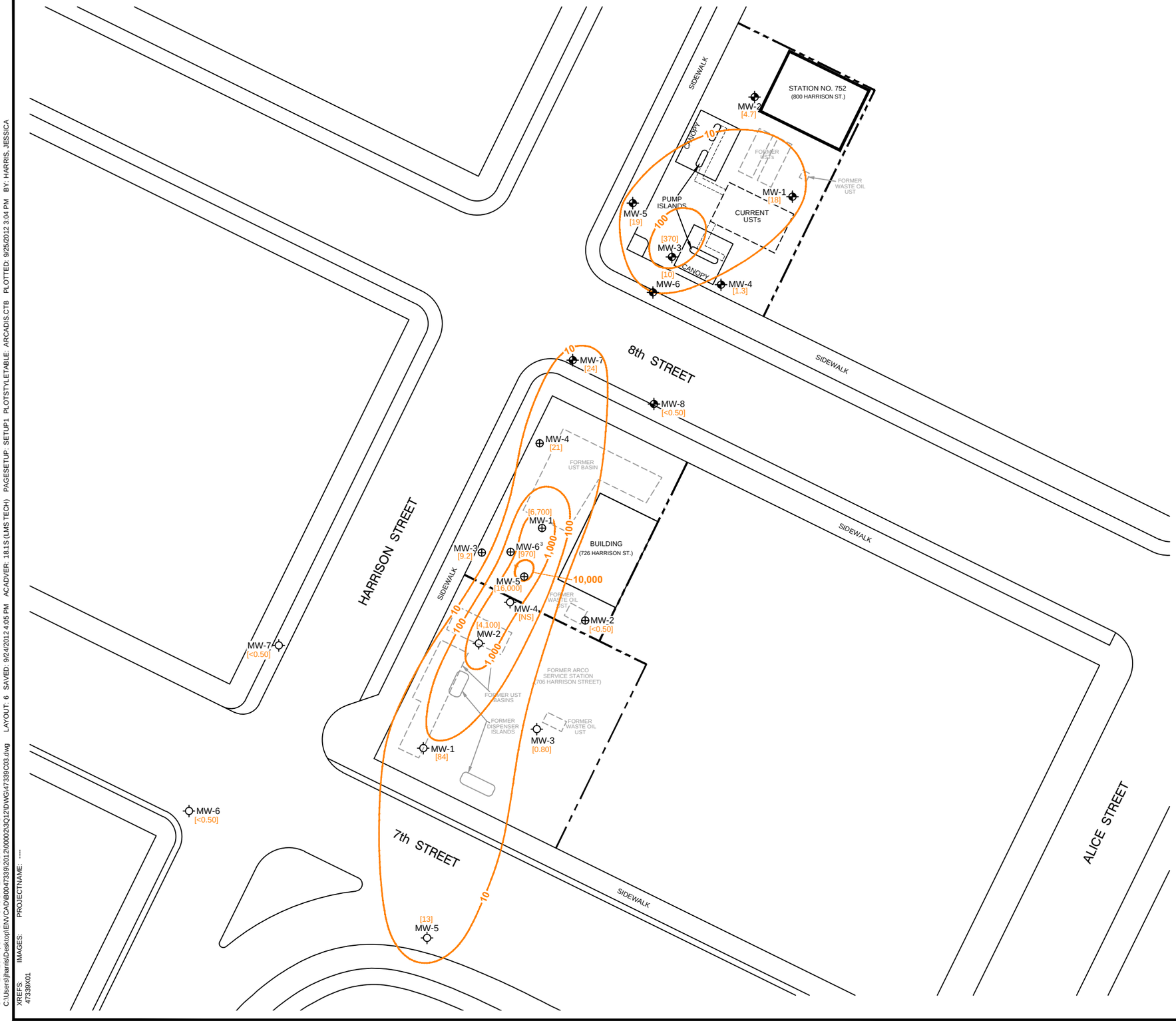
UNION OIL OF CALIFORNIA
STATION NO. 0752/YEE/GIN COMMINGLED
706/726/800 HARRISON STREET
OAKLAND, CALIFORNIA

BENZENE ISOCONCENTRATION CONTOUR MAP

ARCADIS

FIGURE 5

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
C:\Users\jharris\Desktop\ENVCAD\B00\47339\2012\000023Q12\DWG\47339C02.dwg LAYOUT: 5 SAVED: 9/24/2012 3:52 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 9/25/2012 3:01 PM BY: HARRIS, JESSICA
XREFS: PROJECTNAME: ----
IMAGES: 47338X01



LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
- MW-1 ⊖ GROUNDWATER MONITORING WELL (GIN SITE)
- [MTBE] METHYL TERTIARY BUTYL ETHER CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 100 MTBE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- [NS] NOT SAMPLED; CAR PARKED AT TIME OF SAMPLING EVENT

NOTES:

1. 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'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
3. MW-6 IS NOT USED IN CONTOURING BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.

0 50' 100'
GRAPHIC SCALE

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

MTBE CONCENTRATION MAP

ARCADIS

FIGURE 6

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
C:\Users\jharris\Desktop\ENVCADB\00473392012\000023Q124DWG\47339C03.dwg LAYOUT: 6 SAVED: 9/24/2012 4:05 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 9/25/2012 3:04 PM BY: HARRIS, JESSICA
XREFS: 47338X01 IMAGES: PROJECTNAME: ----

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 AMSL)	DTW (feet bgs)	LPH Thickness (feet)	GW Elevation (feet	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8015B-GC/MC)	TPPH (8260B)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
800 Harrison Street																		
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-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-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-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-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-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-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-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	
706 Harrison Street																		
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-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
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-4	8/9/2012	31.20	--	--	--	12.77	--	--	--	--	--	--	--	--	--	--	--	Parked Car
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-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-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	
726 Harrison Street																		
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*		--	--	--	--	--	--	4000	--	1000	66	90	150	16,000	<0.50	<0.50	<250	A01
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*		--	--	--	--	--	--	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
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*		--	--	--	--	--	--	<50	--	<0.50	<0.50	<0.50	<1.0	6.9	<0.50	<0.50	<250	
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*		--	--	--	--	--	--	480	--	6.4	<0.50	<0.50	1.1	32	<0.50	<0.50	<250	
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*		--	--	--	--	--	--	16,000	--	1,800	500	390	830	14,000	<6.2	<6.2	<3,100	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*		--	--	--	--	--	--	<50	--	<0.50	<0.50	<0.50	<1.0	940	<0.50	1	<250	A01

Note

Analytical results given in micrograms per liter (µg/l)
* ARCADIS Split Samples 8/9/12

Standard Abbreviations

--	not analyzed, measured, or collected
<	not detected at or above laboratory detection limit
TOC	top of casing (surveyed reference elevation)
AMSL	above mean sealevel
DTW	depth to water
bgs	below ground surface
LPH	liquid-phase hydrocarbons
GW	groundwater
µg/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 2
Additional Groundwater Analytical Results - VOCs
76 Station 0752
800 Harrison Street Oakland, California

Well ID	Date Sampled	Acenaph-thene	Acenaph-thylene	Aldrin	Aniline (Benze-neamine)	Anthra-cene	Benzidin e	Benzo (a) Anthra-cene	Benzo (b) Fluoran-	Benzo (k) Fluoran-	Benzo (a) Pyrene	Benzo (g,h,i) Perylene	Benzoic Acid	Benzyl Alcohol	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC (Lindane)	bis (2-Chloro-ethoxy)	bis (2-Chloroethyl) ether	bis (2-Ethylhexyl) phthalate	4-Bromo-phenyl-phenylether	4-Chloro-aniline
800 Harrison Street																							
MW-1	8/9/2012	<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
MW-2	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
706 Harrison Street																							
MW-1	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
726 Harrison Street																							
MW-1	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	8/9/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 2
Additional Groundwater Analytical Results - VOCs
76 Station 0752
800 Harrison Street Oakland, California

2-Chloro-naph-thalene	4-Chloro-phenyl phenyl ether	Chrysene	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dibenz (a,h) anthracen	Dibenzo-furan	1,2-Dichloro-benzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene	Dieldrin	Diethyl-phthalate	Dimethyl-phthalate	Di-n-butyl-phthalate	2,4-Dinitro-toluene	2,6-Dinitro-toluene	Di-n-octyl-phthalate	1,2-Diphenyl-hydrazine	Endosulfan I (alpha-Endosulfa	Endo-sulfan II	Endo-sulfan Sulfate	Endrin	Endrin Aldehyde	Fluor-anthene
<2.0	<2.0	<2.0	<2.0	<3.0	<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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 2
Additional Groundwater Analytical Results - VOCs
76 Station 0752
800 Harrison Street Oakland, California

Fluorene	Hepta-chlor	Hepta-chlor Epoxide	Hexa-chloro-benzene	Hexa-chloro-butadiene	Hexachloro-cyclo-pentadiene	Hexa-chloro-ethane	Indeno (1,2,3-cd)	Iso-phorone	2-Methyl-naph-thlalene	Naph-thalene	2-Naph-thalene-amine	2-Nitro-aniline	3-Nitro-aniline	4-Nitro-aniline	Nitro-benzene	N-Nitro-sodimethyl-amine	N-Nitro-sodi-n-propylamine	N-Nitrosodi-phenylamine	Phenan-threne	Pyrene	1,2,4-Trichloro-benzene	p-Chloro-m-cresol	2-Chloro-phenol	2,4-Dichloro-phenol
<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 2
Additional Groundwater Analytical Results - VOCs
76 Station 0752
800 Harrison Street Oakland, California

2,4-Dimethyl-phenol	4,6-Dinitro-2-methyl-phenol	2,4-Dinitro-phenol	2-Methyl-phenol	3-/4-Methyl-phenol	2-Nitro-phenol	4-Nitro-phenol	Penta-chloro-phenol	Phenol
<2.0	<10	<10	<2.0	<2.0	<2.0	<2.0	<10	<2.0
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Note

Analytical results given in micrograms per liter (µg/l)

Standard Abbreviations

-- not analyzed, measured, or collected
< not detected at or above laboratory detection limit

Analytes

BHC
DDD
DDE
DDT

Table 3
Additional Groundwater Analytical Results - Metals
76 Station 0752
800 Harrison Street Oakland, California

Well ID	Date Sampled	Dissolved Cadmium	Dissolved Chromium	Dissolved Iron	Dissolved Lead	Dissolved Nickel	Dissolve d Zinc	Comments
800 Harrison Street								
MW-1	8/9/2012	<10	<10	<50	<50	<10	<10	
MW-2	8/9/2012	--	--	2,200	--	--	--	
MW-3	8/9/2012	--	--	5,700	--	--	--	
MW-4	8/9/2012	--	--	<50	--	--	--	
MW-5	8/9/2012	--	--	860	--	--	--	
MW-6	8/9/2012	--	--	160	--	--	--	
MW-7	8/9/2012	--	--	670	--	--	--	
MW-8	8/9/2012	--	--	680	--	--	--	
706 Harrison Street								
MW-1	8/9/2012	--	--	830	--	--	--	
MW-2	8/9/2012	--	--	6,900	--	--	--	
MW-3	8/9/2012	--	--	<50	--	--	--	
MW-4	8/9/2012	--	--	--	--	--	--	
MW-5	8/9/2012	--	--	<50	--	--	--	
MW-6	8/9/2012	--	--	<50	--	--	--	
MW-7	8/9/2012	--	--	860	--	--	--	
726 Harrison Street								
MW-1	8/9/2012	--	--	830	--	--	--	
MW-2	8/9/2012	--	--	<50	--	--	--	
MW-3	8/9/2012	--	--	<50	--	--	--	
MW-4	8/9/2012	--	--	2,700	--	--	--	
MW-5	8/9/2012	--	--	4,400	--	--	--	
MW-6	8/9/2012	--	--	<50	--	--	--	

Note

Analytical results given in micrograms per liter (µg/l)

Standard Abbreviations

--	not analyzed, measured, or collected
<	not detected at or above laboratory detection limit
µg/l	micrograms per liter (approx. equivalent to parts per billion, ppb)

ARCADIS

Attachment A

Field Data Sheets and General Procedures

123 Technology Drive West
Irvine, CA 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

DATE: August 22, 2012

TO: Katherine Brandt, ARCADIS
CC: Andrea Valdivia, ARCADIS
Tamera Rogers, ARCADIS
Angeline Tan, ARCADIS

SITE: Unocal Site 0752
Facility 351646
800 Harrison Street, Oakland CA

RE: Transmittal of Groundwater Monitoring Data

Dear Ms. Brandt,

Please find attached the field data sheets, chain of custody (COC) forms, and technical services request (TSR) form for the monitoring event that was completed on August 9, 2012. Field measurements and collection of samples submitted to the laboratory were completed in general accordance with our usual groundwater monitoring protocol which is also attached for your reference.

Please call me at 949-727-7345 if you have questions.

Sincerely,

TRC

Christina Carrillo
Groundwater Program Coordinator

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME YEE

JOB NUMBER 3412 DATE OF SAMPLING 08.09.12

WELL ID. MW-1 SAMPLER DA

TOTAL DEPTH OF WELL 27.2 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 17.82 TIME OF MEASUREMENT 6.36

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 9.38

NUMBER OF GALLONS PER WELL CASING VOLUME 1.5

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 4.5

EQUIPMENT USED TO PURGE WELL (NEW DISPOSABLE BAILER)

TIME EVACUATION STARTED 0650 TIME EVACUATION COMPLETED 0701

TIME SAMPLES WERE COLLECTED 0702

DID WELL GO DRY NO AFTER HOW MANY GALLONS ---

VOLUME OF GROUNDWATER PURGED 4.5

SAMPLING DEVICE (NEW DISPOSABLE BAILER)

SAMPLE COLOR Lt Gray ODOR/SEDIMENT None

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	19.0	7.3	620
2	19.1	7.0	540
3	19.1	7.0	530

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-1	3	40ml VOA	8260 B	✓

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME YEE

JOB NUMBER 3412 DATE OF SAMPLING 08.09.12

WELL ID. MW-2 SAMPLER DA

TOTAL DEPTH OF WELL 28.10 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 18.55 TIME OF MEASUREMENT 0628

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 9.45

NUMBER OF GALLONS PER WELL CASING VOLUME 1.51

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 4.5

EQUIPMENT USED TO PURGE WELL NEW DISPOSABLE BAILER

TIME EVACUATION STARTED 0725 TIME EVACUATION COMPLETED

TIME SAMPLES WERE COLLECTED 0730

DID WELL GO DRY NO AFTER HOW MANY GALLONS

VOLUME OF GROUNDWATER PURGED 4.5

SAMPLING DEVICE NEW DISPOSABLE BAILER

SAMPLE COLOR CLR ODOR/SEDIMENT

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	19.3	7.2	360
2	19.2	7.0	350
3	19.1	6.9	350

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-2	3	40 ml VOA	8260 B	✓

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME YEE

JOB NUMBER 3412 DATE OF SAMPLING 08.09.12

WELL ID. MW-3 SAMPLER ~~DA~~

TOTAL DEPTH OF WELL 29.2 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 17.74 TIME OF MEASUREMENT 0630

PRODUCT THICKNESS ~~0~~

DEPTH OF WELL CASING IN WATER 11.46

NUMBER OF GALLONS PER WELL CASING VOLUME 1.83

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 5.5

EQUIPMENT USED TO PURGE WELL NEW DISPOSABLE BAILER

TIME EVACUATION STARTED TIME EVACUATION COMPLETED

TIME SAMPLES WERE COLLECTED

DID WELL GO DRY AFTER HOW MANY GALLONS

VOLUME OF GROUNDWATER PURGED

SAMPLING DEVICE NEW DISPOSABLE BAILER

SAMPLE COLOR ODOR/SEDIMENT

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1			
2			
3			

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-3	3	40 ml VOA	8260 B	✓

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME YEE

JOB NUMBER 3412 DATE OF SAMPLING 08.09.12

WELL ID. MW-4 SAMPLER DA

TOTAL DEPTH OF WELL 29.7 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 18.16 TIME OF MEASUREMENT 0632

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 11.54

NUMBER OF GALLONS PER WELL CASING VOLUME 1.84

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 5.5

EQUIPMENT USED TO PURGE WELL NEW DISPOSABLE BAILER

TIME EVACUATION STARTED 0709 TIME EVACUATION COMPLETED

TIME SAMPLES WERE COLLECTED

DID WELL GO DRY NO AFTER HOW MANY GALLONS

VOLUME OF GROUNDWATER PURGED 5.5

SAMPLING DEVICE NEW DISPOSABLE BAILER

SAMPLE COLOR Light Brown ODOR/SEDIMENT None

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	P.H	CONDUCTIVITY
1	19.3	7.0	600
2	19.3	6.9	
3	19.3	6.9	

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-4	3	40 ml VOA	8260 B	✓

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME YEE

JOB NUMBER 3412 DATE OF SAMPLING 08.09.12

WELL ID. MW-5 SAMPLER DA

TOTAL DEPTH OF WELL 28.5 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING TIME OF MEASUREMENT 0820

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 10.24

NUMBER OF GALLONS PER WELL CASING VOLUME 1.64

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 5

EQUIPMENT USED TO PURGE WELL (NEW DISPOSABLE BAILER)

TIME EVACUATION STARTED TIME EVACUATION COMPLETED 0825

TIME SAMPLES WERE COLLECTED 0840

DID WELL GO DRY NO AFTER HOW MANY GALLONS ——

VOLUME OF GROUNDWATER PURGED 5

SAMPLING DEVICE (NEW DISPOSABLE BAILER)

SAMPLE COLOR CLEAR ODOR/SEDIMENT

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	18.4	7.2	20
2			
3			

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-5	3	40 ml VOA	8260 B	✓

AQUA SCIENCE ENGINEERS

WELL SAMPLING FIELD LOG

PROJECT NAME YEE

JOB NUMBER 3412 DATE OF SAMPLING 08.09.12

WELL ID. MW-6 SAMPLER ~~DA~~

TOTAL DEPTH OF WELL 47.1 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING TIME OF MEASUREMENT

PRODUCT THICKNESS

DEPTH OF WELL CASING IN WATER 30.23

NUMBER OF GALLONS PER WELL CASING VOLUME

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING

EQUIPMENT USED TO PURGE WELL (NEW DISPOSABLE BAILER)

TIME EVACUATION STARTED TIME EVACUATION COMPLETED

TIME SAMPLES WERE COLLECTED

DID WELL GO DRY AFTER HOW MANY GALLONS

VOLUME OF GROUNDWATER PURGED

SAMPLING DEVICE (NEW DISPOSABLE BAILER)

SAMPLE COLOR ODOR/SEDIMENT

CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	P.H	CONDUCTIVITY
1			
2			
3			

SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-6	3	40 ml VOA	8260 B	✓

GENERAL FIELD PROCEDURES

Groundwater Gauging and Sampling Assignments

For each site, TRC technicians are provided with a Technical Service Request (TSR) that specifies activities required to complete the groundwater gauging and sampling assignment for the site. TSRs are based on client directives, instructions from the primary environmental consultant for the site, regulatory requirements, and TRC's previous experience with the site.

Fluid Level Measurements (Gauging)

Initial site activities include determination of well locations based on a site map provided with the TSR. Well boxes are opened and caps are removed. Indications of well or well box damage or of pressure buildup in the well are noted.

Fluid levels in each well are measured using a coated cloth tape equipped with an electronic interface probe, which distinguishes between liquid phase hydrocarbon (LPH) and water. The depth to LPH (if it is present), to water, and to the bottom of the well are measured from the top of the well casing (surveyors mark or notch if present) to the nearest 0.01 foot. Unless otherwise instructed, a well with less than 0.67 foot between the measured top of water and the measured bottom of the well casing is considered dry, and is not sampled. If the well contains 0.67 foot or more of water, an attempt is made to bail and/or sample as specified on the TSR.

Unless otherwise instructed, a well that is found to contain a measureable amount of LPH (0.01 foot) is not purged or sampled. Instead, one casing volume of fluid is bailed from the well and the well is re-sealed.

Purging and Groundwater Parameter Measurement

TSR instructions may specify that a well not be purged (no-purge sampling), be purged using low-flow methods, or be purged using conventional pump and/or bail methods. Conventional purging generally consists of pumping or bailing until a minimum of three casing volumes of water have been removed or until the well has been pumped dry. Pumping is generally accomplished using submersible electric or pneumatic diaphragm pumps. The pump intake is initially set at about 5 feet below the level of water in the casing, and is lowered as needed to compensate for falling water level. Pump depths are recorded in Field Notes.

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurements are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate. Groundwater parameters specified by the TSR are measured continuously, using a flow cell, until they become stable in general accordance with EPA guidelines.

Groundwater Sample Collection

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled.

GENERAL FIELD PROCEDURES

Samples are collected by lowering a new, disposable polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

Sample containers are labeled with project number (or site number), well designation, sample date, sample time, and the sampler's initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

Sequence of Gauging, Purging and Sampling

The sequence in which monitoring activities are conducted is specified on the TSR. In general, wells are gauged beginning with the least affected well and ending with the well that has the highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected to the most-affected well. If wells must be gauged or sampled out of order, alternate interface probes and/or pumps are utilized and are noted in field documentation.

Decontamination

In order to reduce the possibility of cross contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging, and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liquinox and water and rinsing twice. The final rinse is in deionized water.

Purge Water Disposal

Purge water is generally collected in labeled drums for disposal as non-hazardous waste. Drums may be left on site for disposal by others, or transported to a collection location at a TRC field office, in either Fullerton, California or Concord, California, for eventual transfer to a licensed treatment or recycling facility. Alternatively, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

Exceptions

Additional tasks or non-standard procedures, if any, that may be requested or required for a particular site, are documented in field notes on the following pages.

FIELD MONITORING DATA SHEET

Technician: A. Vidvers Job #/Task #: 189791.0035.1646 Date: 8/9/12

Site # 0752 Project Manager AF Page 1 of 2

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
MW-2	✓	0602	30.77	18.89	—	—	0800	2"
MW-8	✓	0614	28.42	17.29	—	—	0838	2"
MW-4	✓	0628	32.27	17.55	—	—	0916	2"
MW-1	✓	0632	33.59	19.14	—	—	1003	2"
MW-6	✓	0643	30.91	17.17	—	—	1041	2"
MW-3	✓	0652	30.53	18.02	—	—	1201	2"
MW-7	✓	0658	31.39	17.53	—	—	1238	2"
MW-5	✓	0706	31.66	17.73	—	—	1320	2"

FIELD DATA COMPLETE QA/QC COC WELL BOX CONDITION SHEETS

MANIFEST DRUM INVENTORY TRAFFIC CONTROL

TRC

FIELD MONITORING DATA SHEET

Technician: Basilio Job #/Task #: 189791.8035.1646 Date: 8-9-12

Site # 0752 Project Manager AF. Page 2 of 2

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
A-MW-6	✓	0605	25.90	16.41	—	—	0820	2"
A-MW-7	✓	0612	27.75	16.38	—	—	0900	2"
A-MW-3	✓	0621	27.50	16.32	—	—	0944	2"
A-MW-5	✓	1107	28.10	15.22	—	—	1130	2" sampled out of order due traffic control
A-MW-4	—	—	—	—	—	—	N/S	car parked Top of well
A-MW-1	✓	0627	24.38	16.58	—	—	1030	2"
A-MW-2	✓	0631	24.84	16.90	—	—	1230	2"
SP-4	—	—	—	—	—	—	N/S	unable to Locate
SP-3	—	—	—	—	—	—	N/S	↓
SP-5	—	—	—	—	—	—	N/S	↓

FIELD DATA COMPLETE QA/QC COC WELL BOX CONDITION SHEETS

MANIFEST DRUM INVENTORY TRAFFIC CONTROL

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: A. Vidvers

Site: 0752 Project No.: 189791.0035.1646 Date: 8/9/12

Well No. MW-6 Purge Method: Sub

Depth to Water (feet): 17.17 Depth to Product (feet): —

Total Depth (feet) 30.91 LPH & Water Recovered (gallons): —

Water Column (feet): 13.74 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 19.92 1 Well Volume (gallons): 3

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.277 mS	21.35	6.59	8.86	-9	229
1019		22	3	0.257	21.18	6.71	8.22	-47	51.4
		↓	6	0.241	21.19	6.74	7.50	-56	22.8
			9	0.239	21.22	6.76	6.99	-58	15.4
			12	0.239	21.24	6.76	6.51	-60	12.2
	1031	↓	15	0.238	21.24	6.77	6.25	-60	9.6

Static at Time Sampled	Total Gallons Purged	Sample Time
17.38	15	1041

Comments:

Well No. MW-3 Purge Method: Sub

Depth to Water (feet): 18.02 Depth to Product (feet): —

Total Depth (feet) 30.53 LPH & Water Recovered (gallons): —

Water Column (feet): 12.51 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 20.52 1 Well Volume (gallons): 3

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.721 mS	21.98	6.55	8.85	-90	111
1143		23	3	0.644	21.36	6.62	7.16	-91	14.9
		↓	6	0.566	21.20	6.63	6.24	-89	10.5
			9	0.547	21.11	6.64	5.93	-88	10.1
	1153	↓	12	0.559	21.05	6.64	5.61	-89	9.8

Static at Time Sampled	Total Gallons Purged	Sample Time
18.38	12	1201

Comments:

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: A. Vickers

Site: 6752 Project No.: 89791.0035.1646 Date: 8/9/12

Well No. MW-7 Purge Method: Sub

Depth to Water (feet): 12.53 Depth to Product (feet): —

Total Depth (feet) 31.39 LPH & Water Recovered (gallons): —

Water Column (feet): 18.86 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 20.30 1 Well Volume (gallons): 3

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F , C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.428 mS	21.92	6.84	6.89	-68	102
1220		23	3	0.448	21.42	6.83	6.59	-69	22.5
		↓	6	0.402	21.30	6.83	6.46	-76	13.1
			9	0.407	21.28	6.82	5.78	-79	16.6
			12	0.413	21.30	6.82	5.06	-80	9.7
	1231	↓	15	0.418	21.29	6.82	4.32	-81	7.1

Static at Time Sampled	Total Gallons Purged	Sample Time
18.16	15	1238

Comments:

Well No. MW-5 Purge Method: Sub

Depth to Water (feet): 12.73 Depth to Product (feet): —

Total Depth (feet) 31.66 LPH & Water Recovered (gallons): —

Water Column (feet): 18.93 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 20.52 1 Well Volume (gallons): 3

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F , C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.480 mS	22.71	6.67	8.42	-74	112
1258		23	3	0.461	21.89	6.71	7.72	-89	90.7
		↓	6	0.387	21.60	6.75	6.74	-89	31.9
			9	0.364	21.55	6.76	6.01	-87	23.3
			12	0.356	21.54	6.78	5.38	-88	14.6
	1309	↓	15	0.345	21.54	6.78	5.09	-88	12.2

Static at Time Sampled	Total Gallons Purged	Sample Time
18.07	15	1320

Comments:

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: A. Vickers

Site: 0752 Project No.: 189791.0035.1646 Date: 8/9/12

Well No. MW-2 Purge Method: Sub

Depth to Water (feet): 18.89 Depth to Product (feet): —

Total Depth (feet) 30.77 LPH & Water Recovered (gallons): —

Water Column (feet): 11.88 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 21.27 1 Well Volume (gallons): 3

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.693 mS	19.64	6.23	4.37	-44	358
0738		24	3	0.547	20.03	6.33	4.44	-52	126
		↓	6	0.422	20.11	6.42	4.18	-52	41.8
			9	0.391	20.16	6.47	3.94	-49	28.5
			12	0.371	20.19	6.50	3.63	-44	23.5
	0752	↓	15	0.367	20.22	6.55	3.30	-45	26.4

Static at Time Sampled	Total Gallons Purged	Sample Time
19.18	15	0800

Comments:

Well No. MW-8 Purge Method: Sub

Depth to Water (feet): 17.29 Depth to Product (feet): —

Total Depth (feet) 28.42 LPH & Water Recovered (gallons): —

Water Column (feet): 11.13 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 19.52 1 Well Volume (gallons): 2

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.501 mS	19.21	6.42	1.01	-14	618
0823		22	2	0.525 mS	19.76	6.57	0.51	-38	OR
		↓	4	0.498	20.10	6.58	0.07	-35	673
			6	0.416	20.47	6.58	0.05	-34	215
			8	0.385	20.57	6.57	0.01	-33	99.8
	0931	↓	10	0.378	20.64	6.57	0.01	-33	80.9

Static at Time Sampled	Total Gallons Purged	Sample Time
17.51	10	0838

Comments:

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: A. Vidmers

Site: 0752 Project No.: 189791.0035.1646 Date: 8/9/12

Well No. MW-4 Purge Method: Sub

Depth to Water (feet): 17.55 Depth to Product (feet): —

Total Depth (feet) 32.27 LPH & Water Recovered (gallons): —

Water Column (feet): 14.72 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 20.49 1 Well Volume (gallons): 3

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F , C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.374 mS	20.10	6.61	0.93	30	902
0855		23	3	0.316	20.54	6.50	0.84	61	233
		↓	6	0.287	20.68	6.49	0.90	78	134
			9	0.289	20.66	6.50	0.95	81	94.2
			12	0.272	20.67	6.51	0.87	73	57.0
	0907	↓	15	0.268	20.69	6.52	0.82	66	45.8

Static at Time Sampled	Total Gallons Purged	Sample Time
18.08	15	0916

Comments:

Well No. MW-1 Purge Method: Sub

Depth to Water (feet): 19.14 Depth to Product (feet): —

Total Depth (feet) 33.59 LPH & Water Recovered (gallons): —

Water Column (feet): 14.45 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 22.03 1 Well Volume (gallons): 3

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F , C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.190 mS	21.34	6.67	0.96	80	172
0943		24	3	0.172	20.52	6.58	0.59	6	24.7
		↓	6	0.164	20.41	6.62	0.68	-5	12.4
			9	0.160	20.39	6.62	0.66	3	7.6
			12	0.164	20.37	6.62	0.62	9	8.2
	0954	↓	15	0.171	20.37	6.62	0.62	9	5.9

Static at Time Sampled	Total Gallons Purged	Sample Time
19.62	15	1003

Comments:

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: Basilio

Site: 0752 Project No.: 189791.0035.1646 Date: 8-9-12

Well No. A-MW-6 Purge Method: Sub

Depth to Water (feet): 16.41 Depth to Product (feet): —

Total Depth (feet) 25.90 LPH & Water Recovered (gallons): —

Water Column (feet): 9.49 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 18.30 1 Well Volume (gallons): 2

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.513	17.9	7.22	2.40	44	1000
0759			2	0.511	19.6	6.76	2.46	41	1000
			4	0.493	20.4	6.74	2.52	30	620
			6	0.490	20.6	6.73	2.23	10	437
			8	0.488	20.7	6.73	2.15	7	420
	0808		10	0.482	20.7	6.72	2.09	5	120

Static at Time Sampled	Total Gallons Purged	Sample Time
17.75	10	0820

Comments:

Well No. A-MW-7 Purge Method: Sub

Depth to Water (feet): 16.38 Depth to Product (feet): —

Total Depth (feet) 27.75 LPH & Water Recovered (gallons): —

Water Column (feet): 11.37 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 18.65 1 Well Volume (gallons): 2

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.925	20.0	6.66	3.79	-15	1000
0841			2	0.938	20.4	6.71	3.63	-25	1000
			4	0.942	21.6	6.73	3.73	-32	1000
			6	0.913	21.3	6.75	3.73	-61	657
			8	0.892	21.4	6.76	3.68	-64	442
	0852		10	0.888	21.5	6.77	3.70	-66	241

Static at Time Sampled	Total Gallons Purged	Sample Time
18.18	10	0900

Comments:

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: Basilio

Site: 0752 Project No.: 189791.0035 Date: 8-9-12

Well No. A-MW-3 Purge Method: Sub

Depth to Water (feet): 16.32 Depth to Product (feet): —

Total Depth (feet) 27.50 LPH & Water Recovered (gallons): —

Water Column (feet): 11.18 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 18.55 1 Well Volume (gallons): 2

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F , C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.502	20.88	6.83	2.01	10	1000
0926			2	0.477	20.37	6.64	1.34	34	1000
			4	0.457	20.2	6.60	1.30	55	501
			6	0.453	20.2	6.60	1.20	60	239
	0935		8	0.453	20.2	6.60	1.18	61	201

Static at Time Sampled	Total Gallons Purged	Sample Time
16.86	8	0944

Comments:

Well No. A-MW-1 Purge Method: Sub

Depth to Water (feet): 16.58 Depth to Product (feet): —

Total Depth (feet) 24.38 LPH & Water Recovered (gallons): —

Water Column (feet): 7.80 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 18.14 1 Well Volume (gallons): 2

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F , C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.809	21.3	6.59	3.96	-31	444
1010			2	0.899	20.6	6.57	3.60	-58	171
			4	0.971	20.4	6.56	3.90	-76	52
			6	0.947	20.4	6.57	3.85	-83	33
	1019		8	0.944	20.4	6.58	3.79	-87	25

Static at Time Sampled	Total Gallons Purged	Sample Time
17.40	8	1030

Comments:

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: Basilio

Site: 0752 Project No.: 189791.0035.1646 Date: 8/9/12

Well No. AMW-2 Purge Method: SUS

Depth to Water (feet): 16.90 Depth to Product (feet): —

Total Depth (feet) 24.84 LPH & Water Recovered (gallons): —

Water Column (feet): 7.94 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 18.48 1 Well Volume (gallons): 2

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.956	23.4	6.56	4.50	-70	1000
1205			2	0.960	22.5	6.58	4.23	-77	1000
			4	0.967	22.1	6.57	4.11	-84	672
			6	0.963	21.8	6.61	4.46	-96	947
			8	0.963	21.7	6.62	4.47	-99	839
	1216		10	0.960	21.7	6.62	4.41	-101	551

Static at Time Sampled	Total Gallons Purged	Sample Time
18.32	10	1230

Comments:

Well No. AMW-5 Purge Method: SUS

Depth to Water (feet): 15.22 Depth to Product (feet): —

Total Depth (feet) 28.10 LPH & Water Recovered (gallons): —

Water Column (feet): 12.88 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 17.79 1 Well Volume (gallons): 3

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge				0.488	21.5	6.87	2.57	-22	1000
1111			3	0.428	20.9	6.73	1.73	9	1000
			6	0.466	20.8	6.68	1.17	30	571
			9	0.469	20.9	6.66	1.10	34	130
	1124		12	0.472	20.9	6.65	1.11	40	61

Static at Time Sampled	Total Gallons Purged	Sample Time
17.42	12	1130

Comments:

TRC

FIELD MONITORING DATA SHEET

Technician: R. RODRIGUEZ Job #/Task #: 351646 Date: 8/09/12

Site # 0752 Project Manager A. F Page 1 of 1

726 HARRISON

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	DO Misc.	ORP Well Notes
MW-1	—	—	—	—	—	—	0702	1.40	24
MW-4	—	—	—	—	—	—	0721	1.64	-47
MW-2	—	—	—	—	—	—	0742	2.14	90
MW-6	—	—	—	—	—	—	0805	1.44	76
MW-3	—	—	—	—	—	—	0820	1.20	67
MW-5	—	—	—	—	—	—	0843	1.49	-63

FIELD DATA COMPLETE QA/QC COC WELL BOX CONDITION SHEETS

MANIFEST DRUM INVENTORY TRAFFIC CONTROL

TRC

STATEMENT OF NON-COMPLETION OF JOB

DATE OF EVENT: 8-9-12 SITE ID: 0752

TECH: Banks CALLED SUPERVISOR: (YES) / NO

CALLED PM: ~~YES~~ / NO NAME OF PM: Anju P.

WELL ID: A-MW-4 Car parked on top of well.

SP-4 unable to Locate

SP-3 ↓

SP-5

WELL ID:

WELL ID:

TRC

WELL BOX CONDITION REPORT

SITE NO. 0752

ADDRESS 800 Harrison st. Oakland, CA

DATE 8/9/12

PERFOMED BY: A. Vidaurs

Well Name	Current Well Box Size	# of Ears	# of Stripped Ears	# of Broken Ears	# of Broken Bolts	# of Missing Bolts	Seal Damaged	Missing Lid	Broken Lid	Well Box is Exposed	Well Box Is Below Grade	Unable to Access	Unable to Locate	Foundation Damaged	Paved Over	Street Well	Saw Cut Needed	System Well	USA Marked Well	Comments
MW-8	8"	3														X				ok
MW-2	8"	2	1																	
MW-4	12"	2																		ok
MW-1	12"	2																		ok
MW-6	8"	3														X				ok
MW-3	12"	2																		ok
MW-7	12"	2														X				ok
MW-5	12"	2																		ok

TRC

WELL BOX CONDITION REPORT

SITE NO. 0752

ADDRESS 800 Harrison St.

DATE 8/9/12

PERFOMED BY: Basilio

Well Name	Current Well Box Size	# of Ears	# of Stripped Ears	# of Broken Ears	# of Broken Bolts	# of Missing Bolts	Seal Damaged	Missing Lid	Broken Lid	Well Box is Exposed	Well Box Is Below Grade	Unable to Access	Unable to Locate	Foundation Damaged	Paved Over	Street Well	Saw Cut Needed	System Well	USA Marked Well	Comments
A-MW-6	8"	0																		christy Lid
A-MW-7	8"	0																		christy Lid
A-MW-3	8"	3			1	2														
A-MW 4												X								car parked Top of well.
A-MW 1	8"	2																		
A-MW 2	8"	3																		
SP-8R																				
A-MW 5	8"	0														X				christy Lid
SP-4													X							
SP-3													X							
SP-5													X							

TRC

CHAIN OF CUSTODY FORM

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

Union Oil Site ID:	Union Oil Consultant:
Site Global ID:	Consultant Contact:
Site Address:	Consultant Phone No.:
	Sampling Company: TRC
Union Oil PM:	Sampled By (PRINT):
Union Oil PM Phone No.:	
Charge Code: NWRTB- 0 _ _ _ _ _ _ -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

Turnaround Time (TAT):
Standard ☐ 24 Hours ☐
48 Hours ☐ 72 Hours ☐

Special Instructions

SAMPLE ID						ANALYSES REQUIRED											
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015	TPH - G by GC/MS	BTEX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS							Notes / Comments
	W-S-A						X	X	X		X	X	X	X	X		
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	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:
Received By	Company	Date / Time:	Received By	Company	Date / Time :	Received By	Company	Date / Time:

CHAIN OF CUSTODY FORM

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

COC _____ of _____

Union Oil Site ID: 7752	Union Oil Consultant: [illegible]
Site Global ID: T0600 21756	Consultant Contact: [illegible]
Site Address: [illegible] Oakland	Consultant Phone No.: [illegible]
Union Oil PM: [illegible]	Sampling Company: TRC
Union Oil PM Phone No.: [illegible]	Sampled By (PRINT): [illegible]
Charge Code: NWRTB- 0 [illegible] -0- LAB	Sampler Signature: [illegible]
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

Turnaround Time (TAT): Standard ☑ 24 Hours ☐ 48 Hours ☐ 72 Hours ☐

Special Instructions

SAMPLE ID						ANALYSES REQUIRED										
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015	TPH - G by GC/MS	BTEX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS						Notes / Comments
[illegible]	W-S-A		[illegible]	[illegible]	12		X	X	X		X	X	X			
[illegible]	W-S-A		√	[illegible]	10		X	X	X		X	X	X			
	W-S-A															
	W-S-A															
	W-S-A															
	W-S-A															
	W-S-A															
	W-S-A															
	W-S-A															
	W-S-A															
	W-S-A															
	W-S-A															

Relinquished By: [illegible]	Company: TC	Date / Time: [illegible]
Received By: [illegible]	Company: Federal Express	Date / Time: [illegible]
Relinquished By	Company	Date / Time :
Received By	Company	Date / Time :
Relinquished By	Company	Date / Time:
Received By	Company	Date / Time:

CHAIN OF CUSTODY FORM

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

COC ____ of ____

Union Oil Site ID:	Union Oil Consultant:
Site Global ID:	Consultant Contact:
Site Address:	Consultant Phone No.:
Union Oil PM:	Sampling Company: TRC
Union Oil PM Phone No.:	Sampled By (PRINT):
Charge Code: NWRTB- 0 ____-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

Turnaround Time (TAT):
Standard ☐ 24 Hours ☐
48 Hours ☐ 72 Hours ☐

Special Instructions

SAMPLE ID						ANALYSES REQUIRED										
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015	TPH - G by GC/MS	BTEX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS						Notes / Comments
MW-1	W-S-A			1345	10		X	X	X		X	X	X	X		
MW-4	W-S-A			1321												
MW-2	W-S-A			1342												
MW-6	W-S-A			1325												
MW-3	W-S-A			1330												
MW-5	W-S-A		↓	1343	↓		↓	↓	↓		↓	↓	↓	↓		
	W-S-A															
	W-S-A															
	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:
Received By	Company	Date / Time:	Received By	Company	Date / Time :	Received By	Company	Date / Time:

TRC SOLUTIONS

TECHNICAL SERVICES REQUEST FORM

06-Aug-12

Site ID:	0752	**Project No.:**	189791.0035.1646 / 00TA01
Address	800 Harrison Street	**Client:**	Roya Kambin
City:	Oakland	**Contact #:**	925-790-6270
Cross Street	8th Street	**PM:**	Kathy Brandt Arcadis
		PM Contact #:	510-596-9675

Total number of wells:	18	**Min. Well Diameter (in.):**	2	**# of Techs, # of Hrs:**	2, 6
Depth to Water (ft.):	16	**Max. Well Diameter (in.):**	2	**Travel Time (hrs):**	
		Max. Well Depth (ft):	33	**Hotel PO#:**	

ACTIVITIES:		**Frequency**	**Notes**
Gauging:	☑	Semi Q1/Q3	
Purge/Sampling:	☑	Semi Q1/Q3	
No Purge/Sampl	☐		

RELATED ACTIVITIES		**Note**
Drums:	☑	
Other Activities:	☑	No Parking signs
Traffic Control:	☑	City of Oakland

PERMIT INFORMATION:

No parking signs to be posted 48 hours before event.

NOTIFICATIONS:

Chinatown 76: 510-893-2356

SITE INFORMATION:

Coordinated event with 726 Harrison St.

3Q12: Split samples will be collected from the samplers at 726 Harrison. List these wells on a separate COC. Request a 5-day TAT*

Well MW-8 is in front of a driveway to a business. Try to finish well before 6AM.

Purging cannot begin until all sites in the coordinated event have finished gauging. Gauging should be complete before 6:30 AM.

Fromer ARCO wells incorported into the 76 Station 3Q11.

Field parameter collection requirements with multi-meter - must collect Pre-Purge, After each purge volume and Post-Purge:
Dissolved Oxygen
Conductivity
Turbidity
pH
Tempature
ORP

Christina - remove DO/ORP from well list after 3Q12 event

TRC SOLUTIONS

TECHNICAL SERVICES REQUEST FORM

06-Aug-12

Site ID:	0752	**Project No.:**	189791.0035.1646 / 00TA01	
Address	800 Harrison Street	**Client:**	Roya Kambin	
City:	Oakland	**Contact #:**	925-790-6270	
Cross Street	8th Street	**PM:**	Kathy Brandt	Arcadis
		PM Contact #:	510-596-9675	

LAB INFORMATION:

Global ID: T0600101486

Lab WO: 351646

Lab Used: BC

Lab Notes: Lab Analyses:
TPH-G by 8015B (C6 - C12), BTEX/MTBE by 8260B, EDC/EDB by 8260B, Ethanol by 8260B [Containers: 6 voas w/HCl]

Additional analyses for well MW-1:
SVOCs by 8720 [Containers: two 1L ambers unpreserved]
Dissolved metals (Cd, Cr, Pb, Ni, Zn) by 6010 [Container: one 500 mL poly unpreserved]

3Q12 Additional Analyses for all wells:
Dissolved Iron, Sulfate, Nitrate, Nitrite, Alkalinity [Containers: one 1L poly unpreserved]
Methane [Container: 2 voas unpreserved]
TOC [Container: one 500ml amber w/H2SO4]

TRC SOLUTIONS

TECHNICAL SERVICES REQUEST FORM

06-Aug-12

Site ID.: 0752
Address 800 Harrison Street
City: Oakland
Cross Street 8th Street

Well IDs	Benz.	MTBE	Gauging Q1	Gauging Q2	Gauging Q3	Gauging Q4	Sampling Q1	Sampling Q2	Sampling Q3	Sampling Q4	Field Measurements Pre-Purge	Field Measurements Post-Purge	Type	Comments
SP-4			☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	
SP-3			☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	
SP-5			☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	
MW-2	0	0	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	2" casing
A-MW-6	0	0	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	
A-MW-7	0	0	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	
MW-8	0	0.75	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	2" casing
MW-4	0	1.5	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	2" casing
MW-1	0	8.6	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	2" casing
MW-6	0	29	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	2" casing
A-MW-3	0	110	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	
A-MW-5	0	190	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	
MW-3	6.7	1600	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	2" casing
MW-7	25	9	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	2" casing
MW-5	58	10	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	2" casing
~~A-MW-4~~	140	430	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	
A-MW-1	1000	420	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	
A-MW-2	1100	1600	☑	☐	☑	☐	☑	☐	☑	☐	☑	☑	D.O. , ORP	

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 (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
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)	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
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)	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
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)	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
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)	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
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
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)	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
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
7/30/2001	32.20	16.79	--	15.41	0.02	<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	<5.0	--	
1/14/2002	32.20	14.85	--	17.35	2.13	<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	0.70	<5.0	--	
7/15/2002	32.20	15.92	--	16.28	-0.63	<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	<1.0	<2.0	--	
7/11/2003	32.20	15.89	--	16.31	-0.78	--	<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	<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)	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
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 (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
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

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 08/24/2012

Kathy Brandt

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Project:	0752
BC Work Order:	1214939
Invoice ID:	B128536

Enclosed are the results of analyses for samples received by the laboratory on 8/9/2012. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Table of Contents

Sample Information

Chain of Custody and Cooler Receipt form 5
Laboratory / Client Sample Cross Reference 9

Miscellaneous Reports

WO_1214939_MISC_EDT.pdf 14

Sample Results

1214939-01 - MW-1-W-120809

Volatile Organic Analysis (EPA Method 8260) 16
Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C) 17
Purgeable Aromatics and Total Petroleum Hydrocarbons 20
Gas Testing in Water 21
Water Analysis (General Chemistry) 22
Water Analysis (Metals) 23

1214939-02 - MW-2-W-120809

Volatile Organic Analysis (EPA Method 8260) 24
Purgeable Aromatics and Total Petroleum Hydrocarbons 25
Gas Testing in Water 26
Water Analysis (General Chemistry) 27
Water Analysis (Metals) 28

1214939-03 - MW-3-W-120809

Volatile Organic Analysis (EPA Method 8260) 29
Purgeable Aromatics and Total Petroleum Hydrocarbons 30
Gas Testing in Water 31
Water Analysis (General Chemistry) 32
Water Analysis (Metals) 33

1214939-04 - MW-4-W-120809

Volatile Organic Analysis (EPA Method 8260) 34
Purgeable Aromatics and Total Petroleum Hydrocarbons 35
Gas Testing in Water 36
Water Analysis (General Chemistry) 37
Water Analysis (Metals) 38

1214939-05 - MW-5-W-120809

Volatile Organic Analysis (EPA Method 8260) 39
Purgeable Aromatics and Total Petroleum Hydrocarbons 40
Gas Testing in Water 41
Water Analysis (General Chemistry) 42
Water Analysis (Metals) 43

1214939-06 - MW-6-W-120809

Volatile Organic Analysis (EPA Method 8260) 44
Purgeable Aromatics and Total Petroleum Hydrocarbons 45
Gas Testing in Water 46
Water Analysis (General Chemistry) 47
Water Analysis (Metals) 48

1214939-07 - MW-7-W-120809

Volatile Organic Analysis (EPA Method 8260) 49
Purgeable Aromatics and Total Petroleum Hydrocarbons 50
Gas Testing in Water 51
Water Analysis (General Chemistry) 52
Water Analysis (Metals) 53

1214939-08 - MW-8-W-120809

Volatile Organic Analysis (EPA Method 8260) 54
Purgeable Aromatics and Total Petroleum Hydrocarbons 55
Gas Testing in Water 56
Water Analysis (General Chemistry) 57

Table of Contents

Water Analysis (Metals)..... 58
1214939-09 - A-MW-1-W-120809
Volatile Organic Analysis (EPA Method 8260)..... 59
Purgeable Aromatics and Total Petroleum Hydrocarbons..... 60
Gas Testing in Water..... 61
Water Analysis (General Chemistry)..... 62
Water Analysis (Metals)..... 63
1214939-10 - A-MW-2-W-120809
Volatile Organic Analysis (EPA Method 8260)..... 64
Purgeable Aromatics and Total Petroleum Hydrocarbons..... 65
Gas Testing in Water..... 66
Water Analysis (General Chemistry)..... 67
Water Analysis (Metals)..... 68
1214939-11 - A-MW-3-W-120809
Volatile Organic Analysis (EPA Method 8260)..... 69
Purgeable Aromatics and Total Petroleum Hydrocarbons..... 70
Gas Testing in Water..... 71
Water Analysis (General Chemistry)..... 72
Water Analysis (Metals)..... 73
1214939-12 - A-MW-5-W-120809
Volatile Organic Analysis (EPA Method 8260)..... 74
Purgeable Aromatics and Total Petroleum Hydrocarbons..... 75
Gas Testing in Water..... 76
Water Analysis (General Chemistry)..... 77
Water Analysis (Metals)..... 78
1214939-13 - A-MW-6-W-120809
Volatile Organic Analysis (EPA Method 8260)..... 79
Purgeable Aromatics and Total Petroleum Hydrocarbons..... 80
Gas Testing in Water..... 81
Water Analysis (General Chemistry)..... 82
Water Analysis (Metals)..... 83
1214939-14 - A-MW-7-W-120809
Volatile Organic Analysis (EPA Method 8260)..... 84
Purgeable Aromatics and Total Petroleum Hydrocarbons..... 85
Gas Testing in Water..... 86
Water Analysis (General Chemistry)..... 87
Water Analysis (Metals)..... 88

Quality Control Reports

Volatile Organic Analysis (EPA Method 8260)
Method Blank Analysis..... 89
Laboratory Control Sample..... 90
Precision and Accuracy..... 91
Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)
Method Blank Analysis..... 92
Laboratory Control Sample..... 95
Precision and Accuracy..... 96
Purgeable Aromatics and Total Petroleum Hydrocarbons
Method Blank Analysis..... 98
Laboratory Control Sample..... 99
Precision and Accuracy..... 100
Gas Testing in Water
Method Blank Analysis..... 101
Laboratory Control Sample..... 102
Water Analysis (General Chemistry)

Table of Contents

Method Blank Analysis..... 103
Laboratory Control Sample..... 104
Precision and Accuracy..... 105
Water Analysis (Metals)
Method Blank Analysis..... 106
Laboratory Control Sample..... 107
Precision and Accuracy..... 108
Notes
Notes and Definitions..... 109

12-1414939

CHAIN OF CUSTODY FORM

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

COC 1 of 1

Union Oil Site ID: 0752	Union Oil Consultant: Accadis
Site Global ID: T0600101486	Consultant Contact: Kathy Bramlett
Site Address: 800 Harrison Street Oakland	Consultant Phone No.: 510-596-9675
	Sampling Company: TRC
Union Oil PM: Raya Kambin	Sampled By (PRINT): Daniels/Drew
Union Oil PM Phone No.: 925-790-6270	Sampler Signature:
Charge Code: NWRTB-0 351646 -0- LAB	BC Laboratories, Inc.
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.	Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911

Turnaround Time (TAT): Standard ☑ 24 Hours ☐ 48 Hours ☐ 72 Hours ☐

Special Instructions

SAMPLE ID						ANALYSES REQUIRED										
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015	TPH - G by ~~GCFID~~ 8015B (C6-C12)	BTEX/MTBE/~~GCMS~~ by EPA 8260B	Ethanol by EPA 8260B, EDB/EDC by 8260B	EPA 8260B Full List with OXYS	Dissolved Iron, Sulfate, Nitrate	Nitrite, Alkalinity	Methane, TOC	5 VOCs by 8720	Dissolved Metals (Ca, Cr, B6, Ni, Zn) by 6010		Notes / Comments
MW-1	W-S-A	-1	120809	1003	13		X	X	X		X	X	X	X	X		
MW-2	W-S-A	-2		0800	10												
MW-3	W-S-A	-3		1201	10												
MW-4	W-S-A	-4		0916	10												
MW-5	W-S-A	-5		1320	10												
MW-6	W-S-A	-6		1041	10												
MW-7	W-S-A	-7		1238	10												
MW-8	W-S-A	-8		0838	10												
A-MW-1	W-S-A	-9		1030	~~1030~~ 10												
A-MW-2	W-S-A	-10		1230	~~1230~~ 10												
A-MW-3	W-S-A	-11		0944	10												
A-MW-5	W-S-A	-12	✓	1130	10		✓	✓	✓		✓	✓	✓				

Relinquished By	Company	Date / Time:	Relinquished By	Company	Date / Time:	Relinquished By	Company	Date / Time:
	TRC	8/9/12 1400	Daniel Bogan	BCLab	8-9-12 2015		BCL	8-9-12 2250
Received By	**Company**	**Date / Time:**	**Received By**	**Company**	**Date / Time:**	**Received By**	**Company**	**Date / Time:**
Daniel Bogan	BCLab	8-9-12 1405		BCL	8-9-12 2015		BCL	8-9-12 2250

12-14939

CHAIN OF CUSTODY FORM

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

COC 1 of 1

Union Oil Site ID: 0752	Union Oil Consultant: ARCadis
Site Global ID: T0600101486	Consultant Contact: Kathy Brandt
Site Address: 800 Harrison St. Oakland	Consultant Phone No.: 510-596-9675
	Sampling Company: TRC
Union Oil PM: Roya Kambin	Sampled By (PRINT): Basilio
Union Oil PM Phone No.: 925-790-6270	Sampler Signature: [signature]
Charge Code: NWRTB- 0 351646 -0- LAB	BC Laboratories, Inc. Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911

This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.

ANALYSES REQUIRED

Turnaround Time (TAT): Standard ☑ 24 Hours ☐ 48 Hours ☐ 72 Hours ☐

Special Instructions

SAMPLE ID

Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015	TPH - G by ~~GC/MS~~ 8015B (C6-C12)	BTEX/MTBE/~~OXYS~~ by EPA 8260B	Ethanol by EPA 8260B, EXB/EXE by 8260B	EPA 8260B Full List with OXYS	Dissolved Iron, Sulfate, Nitrate,	Nitrite, Alkalinity	Methane, TOC				Notes / Comments
A-MW-6	(W)-S-A	-13	120809	0820	10		X	X	X		X	X	X				
A-MW-7	(W)-S-A	-14	✓	0900	10		X	X	X		X	X	X				
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																

CHK BY: KIQ | DISTRIBUTION: [initials] | SUB-OUT ☐

SHORT HOLDING TIME: Cr^{+6} (NO₂) (NO₃) OP SS DO Cl_2 BOD MBAS COT

Relinquished By	Company	Date / Time	Relinquished By	Company	Date / Time	Relinquished By	Company	Date / Time
[signature]	TRC	8/9/12 1400	Harry Bogan	BcLab	8-9-12 2015	[signature]	BCL	8-9-12 2250
Received By	**Company**	**Date / Time**	**Received By**	**Company**	**Date / Time**	**Received By**	**Company**	**Date / Time**
Harry Bogan	BcLab	8-9-12 1405	[signature]	BCL	8-9-12 2015	KOM	BCL	8-9-12 2250

Chain of Custody and Cooler Receipt Form for 1214939 Page 3 of 4

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 12 12/30/10 Page 1 Of 2

Submission #: 12-14939

SHIPPING INFORMATION	SHIPPING CONTAINER
Federal Express ☐ UPS ☐ Hand Delivery ☐	Ice Chest ☑ None ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____	Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: Qtpe Thermometer ID: 207

Temperature: (A) 3.3 °C / (C) 3.5 °C

Date/Time 8-9-12 2250

Analyst Init JNW

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL	C	C	C	C	C	C	C	C		
PT PE UNPRESERVED	D									
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON	E	D	D	D	D	D	D	D		
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A/G	A/G	A/G	A/G	A/G	A/G	A/G	A/G		
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 50% Methanol	B2	B2	B2	B2	B2	B2	B2	B2		
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	Fe									
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:

Sample Numbering Completed By: JNW Date/Time: 8/9/12 2355

A = Actual / C = Corrected

I:\MyDOCS\WordPerfect\LAB_DOCS\FORMS\SAMREC2I

Chain of Custody and Cooler Receipt Form for 1214939 Page 4 of 4

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 12 12/30/10 Page 2 Of 2

Submission #: 12-149 39

SHIPPING INFORMATION	SHIPPING CONTAINER
Federal Express ☐ UPS ☐ Hand Delivery ☐	Ice Chest ☑ None ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____	Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: Other Thermometer ID: 207

Temperature: (A) 3.7 °C / (C) 3.9 °C

Date/Time 8-9-12 2250

Analyst Init JNW

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL	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	D	D	D	D					D	D
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A6	A6	A6	A6	( )	( )	( )	( )	A6	A6
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL-~~504~~ Methane	B2	B2	B2	B2					B2	B2
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										

Comments:

Sample Numbering Completed By: JNW Date/Time: 8/9/12 2355

A = Actual / C = Corrected

IC:\MyDOCS\WordPerfect\LAB_DOCS\FORMS\SAMREC2I

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1214939-01	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 10:03
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-1-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:
1214939-02	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 08:00
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-2-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:
1214939-03	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 12:01
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-3-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information

1214939-04

COC Number: ---
Project Number: 0752
Sampling Location: ---
Sampling Point: MW-4-W-120809
Sampled By: TRCI

Receive Date: 08/09/2012 22:50
Sampling Date: 08/09/2012 09:16
Sample Depth: ---
Lab Matrix: Water
Sample Type: Groundwater
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:

1214939-05

COC Number: ---
Project Number: 0752
Sampling Location: ---
Sampling Point: MW-5-W-120809
Sampled By: TRCI

Receive Date: 08/09/2012 22:50
Sampling Date: 08/09/2012 13:20
Sample Depth: ---
Lab Matrix: Water
Sample Type: Groundwater
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:

1214939-06

COC Number: ---
Project Number: 0752
Sampling Location: ---
Sampling Point: MW-6-W-120809
Sampled By: TRCI

Receive Date: 08/09/2012 22:50
Sampling Date: 08/09/2012 10:41
Sample Depth: ---
Lab Matrix: Water
Sample Type: Groundwater
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:

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information

1214939-07

COC Number: ---
Project Number: 0752
Sampling Location: ---
Sampling Point: MW-7-W-120809
Sampled By: TRCI

Receive Date: 08/09/2012 22:50
Sampling Date: 08/09/2012 12:38
Sample Depth: ---
Lab Matrix: Water
Sample Type: Groundwater
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:

1214939-08

COC Number: ---
Project Number: 0752
Sampling Location: ---
Sampling Point: MW-8-W-120809
Sampled By: TRCI

Receive Date: 08/09/2012 22:50
Sampling Date: 08/09/2012 08:38
Sample Depth: ---
Lab Matrix: Water
Sample Type: Groundwater
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:

1214939-09

COC Number: ---
Project Number: 0752
Sampling Location: ---
Sampling Point: A-MW-1-W-120809
Sampled By: TRCI

Receive Date: 08/09/2012 22:50
Sampling Date: 08/09/2012 10:30
Sample Depth: ---
Lab Matrix: Water
Sample Type: Groundwater
Metal Analysis: 2-Lab Filtered and Acidified
Delivery Work Order:
Global ID: T0600101486
Location ID (FieldPoint): A-MW-1
Matrix: W
Sample QC Type (SACode): CS
Cooler ID:

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1214939-10	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 12:30
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	A-MW-2-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:
1214939-11	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 09:44
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	A-MW-3-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:
1214939-12	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 11:30
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	A-MW-5-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1214939-13	**COC Number:**	---	**Receive Date:**	08/09/2012 22:50
	Project Number:	0752	**Sampling Date:**	08/09/2012 08:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	A-MW-6-W-120809	**Lab Matrix:**	Water
	Sampled By:	TRCI	**Sample Type:**	Groundwater
	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:			
1214939-14	**COC Number:**	---	**Receive Date:**	08/09/2012 22:50
	Project Number:	0752	**Sampling Date:**	08/09/2012 09:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	A-MW-7-W-120809	**Lab Matrix:**	Water
	Sampled By:	TRCI	**Sample Type:**	Groundwater
	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:			

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (9/99)

Date of Report: 12/08/15 Sample ID No.1214393-01

Laboratory Signature Lab

Name: BC LABORATORIES Director: _____

Name of Sampler:Paul Rocha Jr. Employed By: BSKF

Date/Time Sample Collected:12/07/30/1000 | Date/Time Sample Received @ Lab:12/08/03/1010 | Date Analyses Completed:12/08/15

System Name:CWS - NORTH GARDEN | System Number: 1510055

Name or Number of Sample Source:WELL 220-01 - BEFORE GAC H2S

* User ID: CYA Station Number: 1510055-031 *

* Date/Time of Sample: |12|07|30|1000| YY MM DD TTTT Laboratory Code: 5806 *

* YY MM DD *

* Date Analysis completed: |12|08|15| *

* Submitted by: _____ Phone #: _____ *

PAGE 1 OF 1 ADDITIONAL ANALYSES

MCL	REPORTING UNITS	CHEMICAL	ENTRY #	ANALYSES RESULTS	DLR
	mg/L	Sulfide (mg/L)	00745	< 0.10	

\+ Indicates Secondary Drinking Water Standards

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (9/99)

Date of Report: 12/08/15 Sample ID No.1214393-02

Laboratory Signature Lab

Name: BC LABORATORIES Director:

Name of Sampler:Paul Rocha Jr. Employed By: BSKF

Date/Time Sample Collected:12/07/30/1001 | Date/Time Sample Received @ Lab:12/08/03/1010 | Date Analyses Completed:12/08/15

System Name:CWS - NORTH GARDEN | System Number: 1510055

Name or Number of Sample Source:WELL 220-01 GAC EFF (H2S)

* User ID: CYA Station Number: 1510055-036 *

* Date/Time of Sample: |12|07|30|1001| (YY MM DD TTTT) Laboratory Code: 5806 * (YY MM DD)

* Date Analysis completed: |12|08|15| *

* Submitted by:_____ Phone #:_____ *

PAGE 1 OF 1 INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY #	ANALYSES RESULTS	DLR
	mg/L	Sulfide (mg/L)	00745	< 0.10	

+ Indicates Secondary Drinking Water Standards

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-01 | **Client Sample Name:** 0752, MW-1-W-120809, 8/9/2012 10:03:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**18**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.5	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	108	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 21:25	JMC	MS-V12	1	BVH0993

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

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

BCL Sample ID: 1214939-01 | **Client Sample Name:** 0752, MW-1-W-120809, 8/9/2012 10:03:00AM

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

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

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

BCL Sample ID: 1214939-01 | **Client Sample Name:** 0752, MW-1-W-120809, 8/9/2012 10:03:00AM

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

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

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

BCL Sample ID: 1214939-01 | **Client Sample Name:** 0752, MW-1-W-120809, 8/9/2012 10:03:00AM

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)	27.3	%	30 - 120 (LCL - UCL)	EPA-8270C		S09	1
Phenol-d5 (Surrogate)	18.2	%	12 - 110 (LCL - UCL)	EPA-8270C			1
Nitrobenzene-d5 (Surrogate)	71.8	%	60 - 130 (LCL - UCL)	EPA-8270C			1
2-Fluorobiphenyl (Surrogate)	74.6	%	55 - 125 (LCL - UCL)	EPA-8270C			1
2,4,6-Tribromophenol (Surrogate)	73.2	%	40 - 150 (LCL - UCL)	EPA-8270C			1
p-Terphenyl-d14 (Surrogate)	55.6	%	40 - 150 (LCL - UCL)	EPA-8270C			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C	08/13/12	08/16/12 23:05	SKC	MS-B2	1	BVH1240

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-01 | **Client Sample Name:** 0752, MW-1-W-120809, 8/9/2012 10:03:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**140**	**ug/L**	**50**	**EPA-8015B**	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	97.5	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 00:31	jjh	GC-V4	1	BVH0929

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-01 | **Client Sample Name:** 0752, MW-1-W-120809, 8/9/2012 10:03:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.026**	**mg/L**	**0.0010**	**RSK-175M**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 12:37	JMC	GC-V1	1	BVH1157

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-01 | **Client Sample Name:** 0752, MW-1-W-120809, 8/9/2012 10:03:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**69**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	**1.9**	**mg/L**	**0.44**	**EPA-300.0**	ND		2
Sulfate	**10**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**1.6**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 18:24	RML	MET-1	1	BVH1024
2	EPA-300.0	08/09/12	08/10/12 03:15	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:00	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 06:18	CDR	TOC2	1	BVH0937

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-01 | **Client Sample Name:** 0752, MW-1-W-120809, 8/9/2012 10:03:00AM

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	08/10/12	08/13/12 12:25	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-02 | **Client Sample Name:** 0752, MW-2-W-120809, 8/9/2012 8:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**4.7**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.6	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 21:07	JMC	MS-V12	1	BVH0993

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-02 | **Client Sample Name:** 0752, MW-2-W-120809, 8/9/2012 8:00:00AM

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)	89.9	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 00:54	jjh	GC-V4	1	BVH0929

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-02 | **Client Sample Name:** 0752, MW-2-W-120809, 8/9/2012 8:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.076**	**mg/L**	**0.0010**	**RSK-175M**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 12:33	JMC	GC-V1	1	BVH1157

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-02 | **Client Sample Name:** 0752, MW-2-W-120809, 8/9/2012 8:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**190**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	**19**	**mg/L**	**0.44**	**EPA-300.0**	ND		2
Sulfate	**130**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	**0.38**	**mg/L**	**0.17**	**EPA-353.2**	ND		3
Non-Volatile Organic Carbon	**1.4**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 18:30	RML	MET-1	1	BVH1024
2	EPA-300.0	08/09/12	08/10/12 01:49	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:00	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 07:53	CDR	TOC2	1	BVH0937

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-02 | **Client Sample Name:** 0752, MW-2-W-120809, 8/9/2012 8:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**2200**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:20	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-03 | **Client Sample Name:** 0752, MW-3-W-120809, 8/9/2012 12:01:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**1.8**	**ug/L**	**0.50**	**EPA-8260**	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	**1.5**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Methyl t-butyl ether	**370**	**ug/L**	**5.0**	**EPA-8260**	ND	**A01**	2
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	106	%	80 - 120 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	93.6	%	80 - 120 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	120	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.8	%	80 - 120 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 20:49	JMC	MS-V12	1	BVH0993
2	EPA-8260	08/13/12	08/14/12 13:42	JMC	MS-V12	10	BVH0993

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-03 | **Client Sample Name:** 0752, MW-3-W-120809, 8/9/2012 12:01:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**1400**	**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	08/12/12	08/22/12 19:01	jjh	GC-V4	10	BVH1275

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-03 | **Client Sample Name:** 0752, MW-3-W-120809, 8/9/2012 12:01:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**6.3**	**mg/L**	**0.050**	**RSK-175M**	ND	**A01,S01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 12:30	JMC	GC-V1	50	BVH1157

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-03 | **Client Sample Name:** 0752, MW-3-W-120809, 8/9/2012 12:01:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**290**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**3.5**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**2.9**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 18:37	RML	MET-1	1	BVH1024
2	EPA-300.0	08/09/12	08/10/12 04:41	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:00	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 08:06	CDR	TOC2	1	BVH0937

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-03 | **Client Sample Name:** 0752, MW-3-W-120809, 8/9/2012 12:01:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**5700**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:34	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-04 | **Client Sample Name:** 0752, MW-4-W-120809, 8/9/2012 9:16:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**1.3**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 20:30	JMC	MS-V12	1	BVH0993

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-04 | **Client Sample Name:** 0752, MW-4-W-120809, 8/9/2012 9:16:00AM

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)	93.5	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 01:43	jjh	GC-V4	1	BVH0929

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-04 | **Client Sample Name:** 0752, MW-4-W-120809, 8/9/2012 9:16:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.0031**	**mg/L**	**0.0010**	**RSK-175M**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 12:22	JMC	GC-V1	1	BVH1157

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-04 | **Client Sample Name:** 0752, MW-4-W-120809, 8/9/2012 9:16:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**98**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	**4.3**	**mg/L**	**0.44**	**EPA-300.0**	ND		2
Sulfate	**22**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**0.90**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 18:46	RML	MET-1	1	BVH1024
2	EPA-300.0	08/09/12	08/10/12 02:46	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:00	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 08:19	CDR	TOC2	1	BVH0937

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-04 | **Client Sample Name:** 0752, MW-4-W-120809, 8/9/2012 9:16:00AM

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	08/10/12	08/13/12 12:35	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-05 | **Client Sample Name:** 0752, MW-5-W-120809, 8/9/2012 1:20:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**81**	**ug/L**	**0.50**	**EPA-8260**	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	**9.6**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Methyl t-butyl ether	**19**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	**18**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Total Xylenes	**22**	**ug/L**	**1.0**	**EPA-8260**	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	94.8	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	118	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 17:47	JMC	MS-V12	1	BVH0993

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-05 | **Client Sample Name:** 0752, MW-5-W-120809, 8/9/2012 1:20:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**1900**	**ug/L**	**500**	**EPA-8015B**	ND	**A01**	1
a,a,a-Trifluorotoluene (FID Surrogate)	103	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/22/12 19:25	jjh	GC-V4	10	BVH1275

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-05 | **Client Sample Name:** 0752, MW-5-W-120809, 8/9/2012 1:20:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**2.9**	**mg/L**	**0.050**	**RSK-175M**	ND	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 12:19	JMC	GC-V1	50	BVH1157

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-05 | **Client Sample Name:** 0752, MW-5-W-120809, 8/9/2012 1:20:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**140**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**2.5**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**1.7**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 18:53	RML	MET-1	1	BVH1024
2	EPA-300.0	08/09/12	08/10/12 05:25	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:00	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 08:33	CDR	TOC2	1	BVH0937

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-05 | **Client Sample Name:** 0752, MW-5-W-120809, 8/9/2012 1:20:00PM

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	08/10/12	08/13/12 12:37	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-06 | **Client Sample Name:** 0752, MW-6-W-120809, 8/9/2012 10:41:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**10**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.1	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 17:29	JMC	MS-V12	1	BVH0993

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-06 | **Client Sample Name:** 0752, MW-6-W-120809, 8/9/2012 10:41:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**180**	**ug/L**	**50**	**EPA-8015B**	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	96.4	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 02:33	jjh	GC-V4	1	BVH0929

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-06 | **Client Sample Name:** 0752, MW-6-W-120809, 8/9/2012 10:41:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.18**	**mg/L**	**0.0050**	**RSK-175M**	ND	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 12:11	JMC	GC-V1	5	BVH1157

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-06 | **Client Sample Name:** 0752, MW-6-W-120809, 8/9/2012 10:41:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**130**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**16**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**1.0**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 19:00	RML	MET-1	1	BVH1024
2	EPA-300.0	08/09/12	08/10/12 03:44	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:05	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 08:46	CDR	TOC2	1	BVH0937

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-06 | **Client Sample Name:** 0752, MW-6-W-120809, 8/9/2012 10:41:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**160**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:38	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-07 | **Client Sample Name:** 0752, MW-7-W-120809, 8/9/2012 12:38:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**11**	**ug/L**	**0.50**	**EPA-8260**	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**24**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	**1.2**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.6	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 17:12	JMC	MS-V12	1	BVH0993

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-07 | **Client Sample Name:** 0752, MW-7-W-120809, 8/9/2012 12:38:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**280**	**ug/L**	**50**	**EPA-8015B**	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	98.4	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 04:59	jjh	GC-V4	1	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-07 | **Client Sample Name:** 0752, MW-7-W-120809, 8/9/2012 12:38:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.43**	**mg/L**	**0.0050**	**RSK-175M**	ND	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 12:04	JMC	GC-V1	5	BVH1156

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-07 | **Client Sample Name:** 0752, MW-7-W-120809, 8/9/2012 12:38:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**180**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**17**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	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 Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 19:24	RML	MET-1	1	BVH1025
2	EPA-300.0	08/09/12	08/10/12 05:10	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:05	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 09:00	CDR	TOC2	1	BVH0937

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-07 | **Client Sample Name:** 0752, MW-7-W-120809, 8/9/2012 12:38:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**670**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:40	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-08 | **Client Sample Name:** 0752, MW-8-W-120809, 8/9/2012 8:38:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	96.1	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 16:54	JMC	MS-V12	1	BVH0993

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-08 | **Client Sample Name:** 0752, MW-8-W-120809, 8/9/2012 8:38:00AM

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)	92.4	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 05:23	jjh	GC-V4	1	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-08 | **Client Sample Name:** 0752, MW-8-W-120809, 8/9/2012 8:38:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.0041**	**mg/L**	**0.0010**	**RSK-175M**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 11:57	JMC	GC-V1	1	BVH1156

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-08 | **Client Sample Name:** 0752, MW-8-W-120809, 8/9/2012 8:38:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**130**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	**1.3**	**mg/L**	**0.44**	**EPA-300.0**	ND		2
Sulfate	**37**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**1.6**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 19:39	RML	MET-1	1	BVH1025
2	EPA-300.0	08/09/12	08/10/12 02:17	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:05	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 09:13	CDR	TOC2	1	BVH0937

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-08 | **Client Sample Name:** 0752, MW-8-W-120809, 8/9/2012 8:38:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**660**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:45	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-09 | **Client Sample Name:** 0752, A-MW-1-W-120809, 8/9/2012 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**850**	**ug/L**	**5.0**	**EPA-8260**	ND	**A01**	1
1,2-Dibromoethane	ND	ug/L	5.0	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	ug/L	5.0	EPA-8260	ND	A01	1
Ethylbenzene	**42**	**ug/L**	**5.0**	**EPA-8260**	ND	**A01**	1
Methyl t-butyl ether	**84**	**ug/L**	**5.0**	**EPA-8260**	ND	**A01**	1
Toluene	**110**	**ug/L**	**5.0**	**EPA-8260**	ND	**A01**	1
Total Xylenes	**120**	**ug/L**	**10**	**EPA-8260**	ND	**A01**	1
Ethanol	ND	ug/L	2500	EPA-8260	ND	A01	1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	90.8	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	93.8	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/14/12 13:24	JMC	MS-V12	10	BVH0993

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-09 | **Client Sample Name:** 0752, A-MW-1-W-120809, 8/9/2012 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**2200**	**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	08/12/12	08/22/12 19:49	jjh	GC-V4	10	BVH1275

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-09 | **Client Sample Name:** 0752, A-MW-1-W-120809, 8/9/2012 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.28**	**mg/L**	**0.0050**	**RSK-175M**	ND	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 11:53	JMC	GC-V1	5	BVH1156

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-09 | **Client Sample Name:** 0752, A-MW-1-W-120809, 8/9/2012 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**250**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**51**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**7.3**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 19:46	RML	MET-1	1	BVH1025
2	EPA-300.0	08/09/12	08/10/12 03:29	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:05	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 09:54	CDR	TOC2	1	BVH0937

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-09 | **Client Sample Name:** 0752, A-MW-1-W-120809, 8/9/2012 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**830**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:48	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-10 | **Client Sample Name:** 0752, A-MW-2-W-120809, 8/9/2012 12:30:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**810**	**ug/L**	**50**	**EPA-8260**	ND	**A01**	1
1,2-Dibromoethane	ND	ug/L	50	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	ug/L	50	EPA-8260	ND	A01	1
Ethylbenzene	**440**	**ug/L**	**50**	**EPA-8260**	ND	**A01**	1
Methyl t-butyl ether	**4100**	**ug/L**	**50**	**EPA-8260**	ND	**A01**	1
Toluene	**1800**	**ug/L**	**50**	**EPA-8260**	ND	**A01**	1
Total Xylenes	**1900**	**ug/L**	**100**	**EPA-8260**	ND	**A01**	1
Ethanol	ND	ug/L	25000	EPA-8260	ND	A01	1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	105	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	105	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/14/12 13:06	JMC	MS-V12	100	BVH0912

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-10 | **Client Sample Name:** 0752, A-MW-2-W-120809, 8/9/2012 12:30:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**5100**	**ug/L**	**1000**	**EPA-8015B**	ND	**A01**	1
a,a,a-Trifluorotoluene (FID Surrogate)	96.9	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 06:10	jjh	GC-V4	20	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-10 | **Client Sample Name:** 0752, A-MW-2-W-120809, 8/9/2012 12:30:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**6.8**	**mg/L**	**0.050**	**RSK-175M**	ND	**A01,S01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 11:45	JMC	GC-V1	50	BVH1156

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-10 | **Client Sample Name:** 0752, A-MW-2-W-120809, 8/9/2012 12:30:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**500**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	ND	mg/L	1.0	EPA-300.0	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**15**	**mg/L**	**1.5**	**EPA-415.1**	ND	**A01**	4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 19:54	RML	MET-1	1	BVH1025
2	EPA-300.0	08/09/12	08/10/12 04:56	LD1	IC5	1	BVH0797
3	EPA-353.2	08/10/12	08/10/12 01:05	AKB	KONE-1	1	BVH0855
4	EPA-415.1	08/13/12	08/14/12 20:44	CDR	TOC2	5	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-10 | **Client Sample Name:** 0752, A-MW-2-W-120809, 8/9/2012 12:30:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**6900**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:50	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-11 | **Client Sample Name:** 0752, A-MW-3-W-120809, 8/9/2012 9:44:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**0.80**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.1	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 15:59	JMC	MS-V12	1	BVH0912

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-11 | **Client Sample Name:** 0752, A-MW-3-W-120809, 8/9/2012 9:44:00AM

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)	92.0	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 06:33	jjh	GC-V4	1	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-11 | **Client Sample Name:** 0752, A-MW-3-W-120809, 8/9/2012 9:44:00AM

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 Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 11:30	JMC	GC-V1	1	BVH1156

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-11 | **Client Sample Name:** 0752, A-MW-3-W-120809, 8/9/2012 9:44:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**130**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	**43**	**mg/L**	**0.44**	**EPA-300.0**	ND		2
Sulfate	**61**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**1.4**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 20:05	RML	MET-1	1	BVH1025
2	EPA-300.0	08/09/12	08/10/12 03:01	LD1	IC5	1	BVH0798
3	EPA-353.2	08/10/12	08/10/12 01:05	AKB	KONE-1	1	BVH0856
4	EPA-415.1	08/13/12	08/14/12 11:32	CDR	TOC2	1	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-11 | **Client Sample Name:** 0752, A-MW-3-W-120809, 8/9/2012 9:44:00AM

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	08/10/12	08/13/12 12:51	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-12 | **Client Sample Name:** 0752, A-MW-5-W-120809, 8/9/2012 11:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**13**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.4	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 15:41	JMC	MS-V12	1	BVH0912

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-12 | **Client Sample Name:** 0752, A-MW-5-W-120809, 8/9/2012 11:30:00AM

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)	89.6	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 06:55	jjh	GC-V4	1	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-12 | **Client Sample Name:** 0752, A-MW-5-W-120809, 8/9/2012 11:30:00AM

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 Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 11:27	JMC	GC-V1	1	BVH1156

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-12 | **Client Sample Name:** 0752, A-MW-5-W-120809, 8/9/2012 11:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**150**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	**19**	**mg/L**	**0.44**	**EPA-300.0**	ND		2
Sulfate	**49**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	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 Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 20:12	RML	MET-1	1	BVH1025
2	EPA-300.0	08/09/12	08/10/12 03:58	LD1	IC5	1	BVH0798
3	EPA-353.2	08/10/12	08/10/12 01:09	AKB	KONE-1	1	BVH0856
4	EPA-415.1	08/13/12	08/14/12 11:46	CDR	TOC2	1	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-12 | **Client Sample Name:** 0752, A-MW-5-W-120809, 8/9/2012 11:30:00AM

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	08/10/12	08/13/12 12:53	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-13 | **Client Sample Name:** 0752, A-MW-6-W-120809, 8/9/2012 8:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.9	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.3	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.2	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 15:23	JMC	MS-V12	1	BVH0912

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-13 | **Client Sample Name:** 0752, A-MW-6-W-120809, 8/9/2012 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)	92.0	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 07:17	jjh	GC-V4	1	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-13 | **Client Sample Name:** 0752, A-MW-6-W-120809, 8/9/2012 8:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.0082**	**mg/L**	**0.0010**	**RSK-175M**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 11:23	JMC	GC-V1	1	BVH1156

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-13 | **Client Sample Name:** 0752, A-MW-6-W-120809, 8/9/2012 8:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**140**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**27**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**1.9**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 20:19	RML	MET-1	1	BVH1025
2	EPA-300.0	08/09/12	08/10/12 02:03	LD1	IC5	1	BVH0798
3	EPA-353.2	08/10/12	08/10/12 01:09	AKB	KONE-1	1	BVH0856
4	EPA-415.1	08/13/12	08/14/12 11:59	CDR	TOC2	1	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-13 | **Client Sample Name:** 0752, A-MW-6-W-120809, 8/9/2012 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 Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:55	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214939-14 | **Client Sample Name:** 0752, A-MW-7-W-120809, 8/9/2012 9:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	111	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.2	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.5	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 15:05	JMC	MS-V12	1	BVH0912

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214939-14 | **Client Sample Name:** 0752, A-MW-7-W-120809, 8/9/2012 9:00:00AM

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)	91.7	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/15/12 07:39	jjh	GC-V4	1	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214939-14 | **Client Sample Name:** 0752, A-MW-7-W-120809, 8/9/2012 9:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.0045**	**mg/L**	**0.0010**	**RSK-175M**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/15/12	08/15/12 11:20	JMC	GC-V1	1	BVH1156

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214939-14 | **Client Sample Name:** 0752, A-MW-7-W-120809, 8/9/2012 9:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**230**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**49**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**3.0**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 20:26	RML	MET-1	1	BVH1025
2	EPA-300.0	08/09/12	08/10/12 02:32	LD1	IC5	1	BVH0798
3	EPA-353.2	08/10/12	08/10/12 01:09	AKB	KONE-1	1	BVH0856
4	EPA-415.1	08/13/12	08/14/12 12:39	CDR	TOC2	1	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214939-14 | **Client Sample Name:** 0752, A-MW-7-W-120809, 8/9/2012 9:00:00AM

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	08/10/12	08/13/12 12:56	ARD	PE-OP1	1	BVH0905

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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: BVH0912						
Benzene	BVH0912-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BVH0912-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BVH0912-BLK1	ND	ug/L	0.50		
Ethylbenzene	BVH0912-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BVH0912-BLK1	ND	ug/L	0.50		
Toluene	BVH0912-BLK1	ND	ug/L	0.50		
Total Xylenes	BVH0912-BLK1	ND	ug/L	1.0		
Ethanol	BVH0912-BLK1	ND	ug/L	250		
1,2-Dichloroethane-d4 (Surrogate)	BVH0912-BLK1	104	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BVH0912-BLK1	105	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BVH0912-BLK1	98.9	%	80 - 120 (LCL - UCL)		
QC Batch ID: BVH0993						
Benzene	BVH0993-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BVH0993-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BVH0993-BLK1	ND	ug/L	0.50		
Ethylbenzene	BVH0993-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BVH0993-BLK1	ND	ug/L	0.50		
Toluene	BVH0993-BLK1	ND	ug/L	0.50		
Total Xylenes	BVH0993-BLK1	ND	ug/L	1.0		
Ethanol	BVH0993-BLK1	ND	ug/L	250		
1,2-Dichloroethane-d4 (Surrogate)	BVH0993-BLK1	98.7	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BVH0993-BLK1	107	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BVH0993-BLK1	102	%	80 - 120 (LCL - UCL)		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0912										
Benzene	BVH0912-BS1	LCS	30.200	25.000	ug/L	121		70 - 130		
Toluene	BVH0912-BS1	LCS	26.410	25.000	ug/L	106		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BVH0912-BS1	LCS	10.300	10.000	ug/L	103		75 - 125		
Toluene-d8 (Surrogate)	BVH0912-BS1	LCS	10.340	10.000	ug/L	103		80 - 120		
4-Bromofluorobenzene (Surrogate)	BVH0912-BS1	LCS	10.610	10.000	ug/L	106		80 - 120		
QC Batch ID: BVH0993										
Benzene	BVH0993-BS1	LCS	30.140	25.000	ug/L	121		70 - 130		
Toluene	BVH0993-BS1	LCS	26.120	25.000	ug/L	104		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BVH0993-BS1	LCS	9.6400	10.000	ug/L	96.4		75 - 125		
Toluene-d8 (Surrogate)	BVH0993-BS1	LCS	10.090	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BVH0993-BS1	LCS	10.370	10.000	ug/L	104		80 - 120		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH0912	Used client sample: N										
Benzene	MS	1213312-46	ND	30.850	25.000	ug/L		123		70 - 130	
	MSD	1213312-46	ND	28.690	25.000	ug/L	7.3	115	20	70 - 130	
Toluene	MS	1213312-46	ND	26.610	25.000	ug/L		106		70 - 130	
	MSD	1213312-46	ND	25.770	25.000	ug/L	3.2	103	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1213312-46	ND	9.8100	10.000	ug/L		98.1		75 - 125	
	MSD	1213312-46	ND	9.3300	10.000	ug/L	5.0	93.3		75 - 125	
Toluene-d8 (Surrogate)	MS	1213312-46	ND	10.190	10.000	ug/L		102		80 - 120	
	MSD	1213312-46	ND	9.8100	10.000	ug/L	3.8	98.1		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1213312-46	ND	10.690	10.000	ug/L		107		80 - 120	
	MSD	1213312-46	ND	10.980	10.000	ug/L	2.7	110		80 - 120	
QC Batch ID: BVH0993	Used client sample: N										
Benzene	MS	1215016-04	ND	30.640	25.000	ug/L		123		70 - 130	
	MSD	1215016-04	ND	29.950	25.000	ug/L	2.3	120	20	70 - 130	
Toluene	MS	1215016-04	ND	25.370	25.000	ug/L		101		70 - 130	
	MSD	1215016-04	ND	25.140	25.000	ug/L	0.9	101	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1215016-04	ND	10.380	10.000	ug/L		104		75 - 125	
	MSD	1215016-04	ND	9.8100	10.000	ug/L	5.6	98.1		75 - 125	
Toluene-d8 (Surrogate)	MS	1215016-04	ND	10.040	10.000	ug/L		100		80 - 120	
	MSD	1215016-04	ND	9.7400	10.000	ug/L	3.0	97.4		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1215016-04	ND	10.370	10.000	ug/L		104		80 - 120	
	MSD	1215016-04	ND	10.580	10.000	ug/L	2.0	106		80 - 120	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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: BVH1240						
Acenaphthene	BVH1240-BLK1	ND	ug/L	2.0		
Acenaphthylene	BVH1240-BLK1	ND	ug/L	2.0		
Aldrin	BVH1240-BLK1	ND	ug/L	2.0		
Aniline	BVH1240-BLK1	ND	ug/L	5.0		
Anthracene	BVH1240-BLK1	ND	ug/L	2.0		
Benzidine	BVH1240-BLK1	ND	ug/L	20		
Benzo[a]anthracene	BVH1240-BLK1	ND	ug/L	2.0		
Benzo[b]fluoranthene	BVH1240-BLK1	ND	ug/L	2.0		
Benzo[k]fluoranthene	BVH1240-BLK1	ND	ug/L	2.0		
Benzo[a]pyrene	BVH1240-BLK1	ND	ug/L	2.0		
Benzo[g,h,i]perylene	BVH1240-BLK1	ND	ug/L	2.0		
Benzoic acid	BVH1240-BLK1	ND	ug/L	10		
Benzyl alcohol	BVH1240-BLK1	ND	ug/L	2.0		
Benzyl butyl phthalate	BVH1240-BLK1	ND	ug/L	2.0		
alpha-BHC	BVH1240-BLK1	ND	ug/L	2.0		
beta-BHC	BVH1240-BLK1	ND	ug/L	2.0		
delta-BHC	BVH1240-BLK1	ND	ug/L	2.0		
gamma-BHC (Lindane)	BVH1240-BLK1	ND	ug/L	2.0		
bis(2-Chloroethoxy)methane	BVH1240-BLK1	ND	ug/L	2.0		
bis(2-Chloroethyl) ether	BVH1240-BLK1	ND	ug/L	2.0		
bis(2-Chloroisopropyl)ether	BVH1240-BLK1	ND	ug/L	2.0		
bis(2-Ethylhexyl)phthalate	BVH1240-BLK1	ND	ug/L	5.0		
4-Bromophenyl phenyl ether	BVH1240-BLK1	ND	ug/L	2.0		
4-Chloroaniline	BVH1240-BLK1	ND	ug/L	2.0		
2-Chloronaphthalene	BVH1240-BLK1	ND	ug/L	2.0		
4-Chlorophenyl phenyl ether	BVH1240-BLK1	ND	ug/L	2.0		
Chrysene	BVH1240-BLK1	ND	ug/L	2.0		
4,4'-DDD	BVH1240-BLK1	ND	ug/L	2.0		
4,4'-DDE	BVH1240-BLK1	ND	ug/L	3.0		
4,4'-DDT	BVH1240-BLK1	ND	ug/L	2.0		
Dibenzo[a,h]anthracene	BVH1240-BLK1	ND	ug/L	3.0		
Dibenzofuran	BVH1240-BLK1	ND	ug/L	2.0		
1,2-Dichlorobenzene	BVH1240-BLK1	ND	ug/L	2.0		
1,3-Dichlorobenzene	BVH1240-BLK1	ND	ug/L	2.0		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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: BVH1240						
1,4-Dichlorobenzene	BVH1240-BLK1	ND	ug/L	2.0		
3,3-Dichlorobenzidine	BVH1240-BLK1	ND	ug/L	10		
Dieldrin	BVH1240-BLK1	ND	ug/L	3.0		
Diethyl phthalate	BVH1240-BLK1	ND	ug/L	2.0		
Dimethyl phthalate	BVH1240-BLK1	ND	ug/L	2.0		
Di-n-butyl phthalate	BVH1240-BLK1	ND	ug/L	2.0		
2,4-Dinitrotoluene	BVH1240-BLK1	ND	ug/L	2.0		
2,6-Dinitrotoluene	BVH1240-BLK1	ND	ug/L	2.0		
Di-n-octyl phthalate	BVH1240-BLK1	ND	ug/L	2.0		
1,2-Diphenylhydrazine	BVH1240-BLK1	ND	ug/L	2.0		
Endosulfan I	BVH1240-BLK1	ND	ug/L	10		
Endosulfan II	BVH1240-BLK1	ND	ug/L	10		
Endosulfan sulfate	BVH1240-BLK1	ND	ug/L	3.0		
Endrin	BVH1240-BLK1	ND	ug/L	2.0		
Endrin aldehyde	BVH1240-BLK1	ND	ug/L	10		
Fluoranthene	BVH1240-BLK1	ND	ug/L	2.0		
Fluorene	BVH1240-BLK1	ND	ug/L	2.0		
Heptachlor	BVH1240-BLK1	ND	ug/L	2.0		
Heptachlor epoxide	BVH1240-BLK1	ND	ug/L	2.0		
Hexachlorobenzene	BVH1240-BLK1	ND	ug/L	2.0		
Hexachlorobutadiene	BVH1240-BLK1	ND	ug/L	2.0		
Hexachlorocyclopentadiene	BVH1240-BLK1	ND	ug/L	2.0		
Hexachloroethane	BVH1240-BLK1	ND	ug/L	2.0		
Indeno[1,2,3-cd]pyrene	BVH1240-BLK1	ND	ug/L	2.0		
Isophorone	BVH1240-BLK1	ND	ug/L	2.0		
2-Methylnaphthalene	BVH1240-BLK1	ND	ug/L	2.0		
Naphthalene	BVH1240-BLK1	ND	ug/L	2.0		
2-Naphthylamine	BVH1240-BLK1	ND	ug/L	20		
2-Nitroaniline	BVH1240-BLK1	ND	ug/L	2.0		
3-Nitroaniline	BVH1240-BLK1	ND	ug/L	2.0		
4-Nitroaniline	BVH1240-BLK1	ND	ug/L	5.0		
Nitrobenzene	BVH1240-BLK1	ND	ug/L	2.0		
N-Nitrosodimethylamine	BVH1240-BLK1	ND	ug/L	2.0		
N-Nitrosodi-N-propylamine	BVH1240-BLK1	ND	ug/L	2.0		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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: BVH1240						
N-Nitrosodiphenylamine	BVH1240-BLK1	ND	ug/L	2.0		
Phenanthrene	BVH1240-BLK1	ND	ug/L	2.0		
Pyrene	BVH1240-BLK1	ND	ug/L	2.0		
1,2,4-Trichlorobenzene	BVH1240-BLK1	ND	ug/L	2.0		
4-Chloro-3-methylphenol	BVH1240-BLK1	ND	ug/L	5.0		
2-Chlorophenol	BVH1240-BLK1	ND	ug/L	2.0		
2,4-Dichlorophenol	BVH1240-BLK1	ND	ug/L	2.0		
2,4-Dimethylphenol	BVH1240-BLK1	ND	ug/L	2.0		
4,6-Dinitro-2-methylphenol	BVH1240-BLK1	ND	ug/L	10		
2,4-Dinitrophenol	BVH1240-BLK1	ND	ug/L	10		
2-Methylphenol	BVH1240-BLK1	ND	ug/L	2.0		
3- & 4-Methylphenol	BVH1240-BLK1	ND	ug/L	2.0		
2-Nitrophenol	BVH1240-BLK1	ND	ug/L	2.0		
4-Nitrophenol	BVH1240-BLK1	ND	ug/L	2.0		
Pentachlorophenol	BVH1240-BLK1	ND	ug/L	10		
Phenol	BVH1240-BLK1	ND	ug/L	2.0		
2,4,5-Trichlorophenol	BVH1240-BLK1	ND	ug/L	5.0		
2,4,6-Trichlorophenol	BVH1240-BLK1	ND	ug/L	5.0		
2-Fluorophenol (Surrogate)	BVH1240-BLK1	49.5	%	30 - 120 (LCL - UCL)		
Phenol-d5 (Surrogate)	BVH1240-BLK1	31.8	%	12 - 110 (LCL - UCL)		
Nitrobenzene-d5 (Surrogate)	BVH1240-BLK1	80.3	%	60 - 130 (LCL - UCL)		
2-Fluorobiphenyl (Surrogate)	BVH1240-BLK1	78.5	%	55 - 125 (LCL - UCL)		
2,4,6-Tribromophenol (Surrogate)	BVH1240-BLK1	86.1	%	40 - 150 (LCL - UCL)		
p-Terphenyl-d14 (Surrogate)	BVH1240-BLK1	56.0	%	40 - 150 (LCL - UCL)		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH1240										
Acenaphthene	BVH1240-BS1	LCS	40.739	50.000	ug/L	81.5		50 - 120		
1,4-Dichlorobenzene	BVH1240-BS1	LCS	34.947	50.000	ug/L	69.9		50 - 120		
2,4-Dinitrotoluene	BVH1240-BS1	LCS	40.621	50.000	ug/L	81.2		50 - 120		
Hexachlorobenzene	BVH1240-BS1	LCS	50.911	50.000	ug/L	102		60 - 120		
Hexachlorobutadiene	BVH1240-BS1	LCS	31.497	50.000	ug/L	63.0		40 - 110		
Hexachloroethane	BVH1240-BS1	LCS	33.869	50.000	ug/L	67.7		40 - 120		
Nitrobenzene	BVH1240-BS1	LCS	38.083	50.000	ug/L	76.2		50 - 120		
N-Nitrosodi-N-propylamine	BVH1240-BS1	LCS	32.585	50.000	ug/L	65.2		50 - 120		
Pyrene	BVH1240-BS1	LCS	26.421	50.000	ug/L	52.8		40 - 140		
1,2,4-Trichlorobenzene	BVH1240-BS1	LCS	34.075	50.000	ug/L	68.1		45 - 120		
4-Chloro-3-methylphenol	BVH1240-BS1	LCS	39.092	50.000	ug/L	78.2		50 - 120		
2-Chlorophenol	BVH1240-BS1	LCS	35.682	50.000	ug/L	71.4		50 - 120		
2-Methylphenol	BVH1240-BS1	LCS	33.075	50.000	ug/L	66.2		40 - 110		
3- & 4-Methylphenol	BVH1240-BS1	LCS	61.064	100.00	ug/L	61.1		40 - 110		
4-Nitrophenol	BVH1240-BS1	LCS	24.020	50.000	ug/L	48.0		10 - 110		
Pentachlorophenol	BVH1240-BS1	LCS	43.659	50.000	ug/L	87.3		30 - 120		
Phenol	BVH1240-BS1	LCS	16.395	50.000	ug/L	32.8		20 - 110		
2,4,6-Trichlorophenol	BVH1240-BS1	LCS	39.386	50.000	ug/L	78.8		54 - 120		
2-Fluorophenol (Surrogate)	BVH1240-BS1	LCS	42.973	80.000	ug/L	53.7		30 - 120		
Phenol-d5 (Surrogate)	BVH1240-BS1	LCS	27.430	80.000	ug/L	34.3		12 - 110		
Nitrobenzene-d5 (Surrogate)	BVH1240-BS1	LCS	62.299	80.000	ug/L	77.9		60 - 130		
2-Fluorobiphenyl (Surrogate)	BVH1240-BS1	LCS	60.936	80.000	ug/L	76.2		55 - 125		
2,4,6-Tribromophenol (Surrogate)	BVH1240-BS1	LCS	70.619	80.000	ug/L	88.3		40 - 150		
p-Terphenyl-d14 (Surrogate)	BVH1240-BS1	LCS	23.442	40.000	ug/L	58.6		40 - 150		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH1240	Used client sample: N										
Acenaphthene	MS	1210608-46	ND	43.370	50.000	ug/L		86.7		50 - 120	
	MSD	1210608-46	ND	42.360	50.000	ug/L	2.4	84.7	30	50 - 120	
1,4-Dichlorobenzene	MS	1210608-46	ND	35.850	50.000	ug/L		71.7		47 - 120	
	MSD	1210608-46	ND	35.280	50.000	ug/L	1.6	70.6	30	47 - 120	
2,4-Dinitrotoluene	MS	1210608-46	ND	43.530	50.000	ug/L		87.1		50 - 130	
	MSD	1210608-46	ND	41.970	50.000	ug/L	3.6	83.9	30	50 - 130	
Hexachlorobenzene	MS	1210608-46	ND	52.790	50.000	ug/L		106		62 - 120	
	MSD	1210608-46	ND	51.310	50.000	ug/L	2.8	103	30	62 - 120	
Hexachlorobutadiene	MS	1210608-46	ND	32.990	50.000	ug/L		66.0		40 - 110	
	MSD	1210608-46	ND	31.960	50.000	ug/L	3.2	63.9	30	40 - 110	
Hexachloroethane	MS	1210608-46	ND	35.720	50.000	ug/L		71.4		40 - 120	
	MSD	1210608-46	ND	35.420	50.000	ug/L	0.8	70.8	30	40 - 120	
Nitrobenzene	MS	1210608-46	ND	40.790	50.000	ug/L		81.6		50 - 120	
	MSD	1210608-46	ND	38.350	50.000	ug/L	6.2	76.7	30	50 - 120	
N-Nitrosodi-N-propylamine	MS	1210608-46	ND	34.790	50.000	ug/L		69.6		50 - 120	
	MSD	1210608-46	ND	34.210	50.000	ug/L	1.7	68.4	30	50 - 120	
Pyrene	MS	1210608-46	ND	28.200	50.000	ug/L		56.4		40 - 140	
	MSD	1210608-46	ND	26.890	50.000	ug/L	4.8	53.8	30	40 - 140	
1,2,4-Trichlorobenzene	MS	1210608-46	ND	36.450	50.000	ug/L		72.9		43 - 120	
	MSD	1210608-46	ND	34.760	50.000	ug/L	4.7	69.5	30	43 - 120	
4-Chloro-3-methylphenol	MS	1210608-46	ND	40.800	50.000	ug/L		81.6		50 - 120	
	MSD	1210608-46	ND	38.460	50.000	ug/L	5.9	76.9	30	50 - 120	
2-Chlorophenol	MS	1210608-46	ND	36.920	50.000	ug/L		73.8		50 - 120	
	MSD	1210608-46	ND	36.450	50.000	ug/L	1.3	72.9	30	50 - 120	
2-Methylphenol	MS	1210608-46	ND	33.700	50.000	ug/L		67.4		40 - 110	
	MSD	1210608-46	ND	34.490	50.000	ug/L	2.3	69.0	30	40 - 110	
3- & 4-Methylphenol	MS	1210608-46	ND	62.410	100.00	ug/L		62.4		40 - 110	
	MSD	1210608-46	ND	63.620	100.00	ug/L	1.9	63.6	30	40 - 110	
4-Nitrophenol	MS	1210608-46	ND	23.560	50.000	ug/L		47.1		10 - 110	
	MSD	1210608-46	ND	23.990	50.000	ug/L	1.8	48.0	30	10 - 110	
Pentachlorophenol	MS	1210608-46	ND	43.720	50.000	ug/L		87.4		30 - 120	
	MSD	1210608-46	ND	42.110	50.000	ug/L	3.8	84.2	30	30 - 120	
Phenol	MS	1210608-46	ND	16.400	50.000	ug/L		32.8		20 - 110	
	MSD	1210608-46	ND	16.250	50.000	ug/L	0.9	32.5	30	20 - 110	
2,4,6-Trichlorophenol	MS	1210608-46	ND	42.360	50.000	ug/L		84.7		50 - 120	
	MSD	1210608-46	ND	41.900	50.000	ug/L	1.1	83.8	30	50 - 120	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH1240	Used client sample: N										
2-Fluorophenol (Surrogate)	MS	1210608-46	ND	39.700	80.000	ug/L		49.6		30 - 120	
	MSD	1210608-46	ND	41.670	80.000	ug/L	4.8	52.1		30 - 120	
Phenol-d5 (Surrogate)	MS	1210608-46	ND	25.600	80.000	ug/L		32.0		12 - 110	
	MSD	1210608-46	ND	26.580	80.000	ug/L	3.8	33.2		12 - 110	
Nitrobenzene-d5 (Surrogate)	MS	1210608-46	ND	62.680	80.000	ug/L		78.4		60 - 130	
	MSD	1210608-46	ND	60.340	80.000	ug/L	3.8	75.4		60 - 130	
2-Fluorobiphenyl (Surrogate)	MS	1210608-46	ND	63.950	80.000	ug/L		79.9		55 - 125	
	MSD	1210608-46	ND	65.830	80.000	ug/L	2.9	82.3		55 - 125	
2,4,6-Tribromophenol (Surrogate)	MS	1210608-46	ND	68.440	80.000	ug/L		85.6		40 - 150	
	MSD	1210608-46	ND	69.300	80.000	ug/L	1.2	86.6		40 - 150	
p-Terphenyl-d14 (Surrogate)	MS	1210608-46	ND	22.430	40.000	ug/L		56.1		40 - 150	
	MSD	1210608-46	ND	22.560	40.000	ug/L	0.6	56.4		40 - 150	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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: BVH0929						
Gasoline Range Organics (C6 - C12)	BVH0929-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH0929-BLK1	93.6	%	70 - 130 (LCL - UCL)		
QC Batch ID: BVH1269						
Gasoline Range Organics (C6 - C12)	BVH1269-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH1269-BLK1	92.2	%	70 - 130 (LCL - UCL)		
QC Batch ID: BVH1275						
Gasoline Range Organics (C6 - C12)	BVH1275-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH1275-BLK1	105	%	70 - 130 (LCL - UCL)		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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 Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0929										
Gasoline Range Organics (C6 - C12)	BVH0929-BS1	LCS	1130.8		ug/L			85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH0929-BS1	LCS	38.473	40.000	ug/L	96.2		70 - 130		
QC Batch ID: BVH1269										
Gasoline Range Organics (C6 - C12)	BVH1269-BS1	LCS	1061.8		ug/L			85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH1269-BS1	LCS	36.995	40.000	ug/L	92.5		70 - 130		
QC Batch ID: BVH1275										
Gasoline Range Organics (C6 - C12)	BVH1275-BS1	LCS	1123.4		ug/L			85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH1275-BS1	LCS	40.167	40.000	ug/L	100		70 - 130		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH0929	Used client sample: N										
Gasoline Range Organics (C6 - C12)	MS	1213312-70	ND	1091.6		ug/L				70 - 130	
	MSD	1213312-70	ND	1113.9		ug/L	2.0		20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1213312-70	ND	38.277	40.000	ug/L		95.7		70 - 130	
	MSD	1213312-70	ND	37.454	40.000	ug/L	2.2	93.6		70 - 130	
QC Batch ID: BVH1269	Used client sample: N										
Gasoline Range Organics (C6 - C12)	MS	1213312-71	ND	1109.9		ug/L				70 - 130	
	MSD	1213312-71	ND	1092.8		ug/L	1.6		20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1213312-71	ND	36.730	40.000	ug/L		91.8		70 - 130	
	MSD	1213312-71	ND	37.641	40.000	ug/L	2.4	94.1		70 - 130	
QC Batch ID: BVH1275	Used client sample: N										
Gasoline Range Organics (C6 - C12)	MS	1213312-72	ND	1070.8		ug/L				70 - 130	
	MSD	1213312-72	ND	1113.2		ug/L	3.9		20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1213312-72	ND	40.836	40.000	ug/L		102		70 - 130	
	MSD	1213312-72	ND	37.263	40.000	ug/L	9.1	93.2		70 - 130	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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: BVH1156						
Methane	BVH1156-BLK1	ND	mg/L	0.0010		
QC Batch ID: BVH1157						
Methane	BVH1157-BLK1	ND	mg/L	0.0010		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH1156										
Methane	BVH1156-BS1	LCS	0.0098858	0.010843	mg/L	91.2		80 - 120		
	BVH1156-BSD1	LCSD	0.0099487	0.010843	mg/L	91.8	0.6	80 - 120	20	
QC Batch ID: BVH1157										
Methane	BVH1157-BS1	LCS	0.010052	0.010843	mg/L	92.7		80 - 120		
	BVH1157-BSD1	LCSD	0.0098489	0.010843	mg/L	90.8	2.0	80 - 120	20	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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: BVH0797						
Nitrate as NO3	BVH0797-BLK1	ND	mg/L	0.44		
Sulfate	BVH0797-BLK1	ND	mg/L	1.0		
QC Batch ID: BVH0798						
Nitrate as NO3	BVH0798-BLK1	ND	mg/L	0.44		
Sulfate	BVH0798-BLK1	ND	mg/L	1.0		
QC Batch ID: BVH0855						
Nitrite as NO2	BVH0855-BLK1	ND	mg/L	0.17		
QC Batch ID: BVH0856						
Nitrite as NO2	BVH0856-BLK1	ND	mg/L	0.17		
QC Batch ID: BVH0937						
Non-Volatile Organic Carbon	BVH0937-BLK1	ND	mg/L	0.30		
QC Batch ID: BVH0938						
Non-Volatile Organic Carbon	BVH0938-BLK1	ND	mg/L	0.30		
QC Batch ID: BVH1024						
Total Alkalinity as CaCO3	BVH1024-BLK1	ND	mg/L	4.1		
QC Batch ID: BVH1025						
Total Alkalinity as CaCO3	BVH1025-BLK1	ND	mg/L	4.1		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0797										
Nitrate as NO3	BVH0797-BS1	LCS	23.258	22.134	mg/L	105		90 - 110		
Sulfate	BVH0797-BS1	LCS	101.68	100.00	mg/L	102		90 - 110		
QC Batch ID: BVH0798										
Nitrate as NO3	BVH0798-BS1	LCS	22.404	22.134	mg/L	101		90 - 110		
Sulfate	BVH0798-BS1	LCS	100.72	100.00	mg/L	101		90 - 110		
QC Batch ID: BVH0855										
Nitrite as NO2	BVH0855-BS1	LCS	1.6383	1.6425	mg/L	99.7		90 - 110		
QC Batch ID: BVH0856										
Nitrite as NO2	BVH0856-BS1	LCS	1.6263	1.6425	mg/L	99.0		90 - 110		
QC Batch ID: BVH0937										
Non-Volatile Organic Carbon	BVH0937-BS1	LCS	4.9420	5.0000	mg/L	98.8		85 - 115		
QC Batch ID: BVH0938										
Non-Volatile Organic Carbon	BVH0938-BS1	LCS	4.9600	5.0000	mg/L	99.2		85 - 115		
QC Batch ID: BVH1024										
Total Alkalinity as CaCO3	BVH1024-BS3	LCS	102.08	100.00	mg/L	102		90 - 110		
QC Batch ID: BVH1025										
Total Alkalinity as CaCO3	BVH1025-BS3	LCS	97.670	100.00	mg/L	97.7		90 - 110		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH0797	Used client sample: Y - Description: MW-1-W-120809, 08/09/2012 10:03										
Nitrate as NO3	DUP	1214939-01	1.8858	1.9035		mg/L	0.9		10		
	MS	1214939-01	1.8858	24.535	22.358	mg/L		101		80 - 120	
	MSD	1214939-01	1.8858	24.634	22.358	mg/L	0.4	102	10	80 - 120	
Sulfate	DUP	1214939-01	10.299	10.263		mg/L	0.4		10		
	MS	1214939-01	10.299	113.59	101.01	mg/L		102		80 - 120	
	MSD	1214939-01	10.299	113.33	101.01	mg/L	0.2	102	10	80 - 120	
QC Batch ID: BVH0798	Used client sample: N										
Nitrate as NO3	DUP	1214940-01	3.9974	4.0727		mg/L	1.9		10		
	MS	1214940-01	3.9974	25.582	22.358	mg/L		96.5		80 - 120	
	MSD	1214940-01	3.9974	23.717	22.358	mg/L	7.6	88.2	10	80 - 120	
Sulfate	DUP	1214940-01	40.592	40.491		mg/L	0.2		10		
	MS	1214940-01	40.592	141.15	101.01	mg/L		99.6		80 - 120	
	MSD	1214940-01	40.592	131.11	101.01	mg/L	7.4	89.6	10	80 - 120	
QC Batch ID: BVH0855	Used client sample: Y - Description: MW-1-W-120809, 08/09/2012 10:03										
Nitrite as NO2	DUP	1214939-01	0.034021	ND		mg/L			10		A02
	MS	1214939-01	0.034021	1.6892	1.7289	mg/L		95.7		90 - 110	
	MSD	1214939-01	0.034021	1.6891	1.7289	mg/L	0.0	95.7	10	90 - 110	
QC Batch ID: BVH0856	Used client sample: Y - Description: A-MW-3-W-120809, 08/09/2012 09:44										
Nitrite as NO2	DUP	1214939-11	0.037424	ND		mg/L			10		
	MS	1214939-11	0.037424	1.7384	1.7289	mg/L		98.4		90 - 110	
	MSD	1214939-11	0.037424	1.7419	1.7289	mg/L	0.2	98.6	10	90 - 110	
QC Batch ID: BVH0937	Used client sample: Y - Description: MW-1-W-120809, 08/09/2012 10:03										
Non-Volatile Organic Carbon	DUP	1214939-01	1.6130	1.5820		mg/L	1.9		10		
	MS	1214939-01	1.6130	6.6482	5.0251	mg/L		100		80 - 120	
	MSD	1214939-01	1.6130	6.6241	5.0251	mg/L	0.4	99.7	10	80 - 120	
QC Batch ID: BVH0938	Used client sample: Y - Description: A-MW-2-W-120809, 08/09/2012 12:30										
Non-Volatile Organic Carbon	DUP	1214939-10	15.035	15.050		mg/L	0.1		10		
	MS	1214939-10	15.035	40.563	25.126	mg/L		102		80 - 120	
	MSD	1214939-10	15.035	40.734	25.126	mg/L	0.4	102	10	80 - 120	
QC Batch ID: BVH1024	Used client sample: N										
Total Alkalinity as CaCO3	DUP	1214919-07	455.79	457.01		mg/L	0.3		10		
QC Batch ID: BVH1025	Used client sample: Y - Description: MW-7-W-120809, 08/09/2012 12:38										
Total Alkalinity as CaCO3	DUP	1214939-07	179.82	179.97		mg/L	0.1		10		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BVH0905						
Dissolved Cadmium	BVH0905-BLK1	ND	ug/L	10		
Dissolved Chromium	BVH0905-BLK1	ND	ug/L	10		
Dissolved Iron	BVH0905-BLK1	ND	ug/L	50		
Dissolved Lead	BVH0905-BLK1	ND	ug/L	50		
Dissolved Nickel	BVH0905-BLK1	ND	ug/L	10		
Dissolved Zinc	BVH0905-BLK1	ND	ug/L	10		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0905										
Dissolved Cadmium	BVH0905-BS1	LCS	203.19	200.00	ug/L	102		85 - 115		
Dissolved Chromium	BVH0905-BS1	LCS	205.76	200.00	ug/L	103		85 - 115		
Dissolved Iron	BVH0905-BS1	LCS	1054.8	1000.0	ug/L	105		85 - 115		
Dissolved Lead	BVH0905-BS1	LCS	418.56	400.00	ug/L	105		85 - 115		
Dissolved Nickel	BVH0905-BS1	LCS	427.38	400.00	ug/L	107		85 - 115		
Dissolved Zinc	BVH0905-BS1	LCS	539.72	500.00	ug/L	108		85 - 115		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH0905	Used client sample: Y - Description: MW-1-W-120809, 08/09/2012 10:03										
Dissolved Cadmium	DUP	1214939-01	ND	ND		ug/L			20		
	MS	1214939-01	ND	210.80	204.08	ug/L		103		75 - 125	
	MSD	1214939-01	ND	209.69	204.08	ug/L	0.5	103	20	75 - 125	
Dissolved Chromium	DUP	1214939-01	ND	ND		ug/L			20		
	MS	1214939-01	ND	207.79	204.08	ug/L		102		75 - 125	
	MSD	1214939-01	ND	209.55	204.08	ug/L	0.8	103	20	75 - 125	
Dissolved Iron	DUP	1214939-01	5.0502	ND		ug/L			20		
	MS	1214939-01	5.0502	1079.6	1020.4	ug/L		105		75 - 125	
	MSD	1214939-01	5.0502	1086.1	1020.4	ug/L	0.6	106	20	75 - 125	
Dissolved Lead	DUP	1214939-01	ND	ND		ug/L			20		
	MS	1214939-01	ND	428.21	408.16	ug/L		105		75 - 125	
	MSD	1214939-01	ND	428.58	408.16	ug/L	0.1	105	20	75 - 125	
Dissolved Nickel	DUP	1214939-01	2.8842	ND		ug/L			20		
	MS	1214939-01	2.8842	431.32	408.16	ug/L		105		75 - 125	
	MSD	1214939-01	2.8842	430.82	408.16	ug/L	0.1	105	20	75 - 125	
Dissolved Zinc	DUP	1214939-01	8.6512	ND		ug/L			20		
	MS	1214939-01	8.6512	563.15	510.20	ug/L		109		75 - 125	
	MSD	1214939-01	8.6512	565.26	510.20	ug/L	0.4	109	20	75 - 125	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:29
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.
S01	Sample result is not within the quantitation range of the method.
S09	The surrogate recovery on the sample for this compound was not within the control limits.

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 08/24/2012

Kathy Brandt

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Project:	0752
BC Work Order:	1214941
Invoice ID:	B128537

Enclosed are the results of analyses for samples received by the laboratory on 8/9/2012. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Table of Contents

Sample Information

Chain of Custody and Cooler Receipt form 4
Laboratory / Client Sample Cross Reference 6

Sample Results

1214941-01 - 726-MW-1-W-120809

Volatile Organic Analysis (EPA Method 8260) 8
Purgeable Aromatics and Total Petroleum Hydrocarbons 9
Gas Testing in Water 10
Water Analysis (General Chemistry) 11
Water Analysis (Metals) 12

1214941-02 - 726-MW-4-W-120809

Volatile Organic Analysis (EPA Method 8260) 13
Purgeable Aromatics and Total Petroleum Hydrocarbons 14
Gas Testing in Water 15
Water Analysis (General Chemistry) 16
Water Analysis (Metals) 17

1214941-03 - 726-MW-2-W-120809

Volatile Organic Analysis (EPA Method 8260) 18
Purgeable Aromatics and Total Petroleum Hydrocarbons 19
Gas Testing in Water 20
Water Analysis (General Chemistry) 21
Water Analysis (Metals) 22

1214941-04 - 726-MW-6-W-120809

Volatile Organic Analysis (EPA Method 8260) 23
Purgeable Aromatics and Total Petroleum Hydrocarbons 24
Gas Testing in Water 25
Water Analysis (General Chemistry) 26
Water Analysis (Metals) 27

1214941-05 - 726-MW-3-W-120809

Volatile Organic Analysis (EPA Method 8260) 28
Purgeable Aromatics and Total Petroleum Hydrocarbons 29
Gas Testing in Water 30
Water Analysis (General Chemistry) 31
Water Analysis (Metals) 32

1214941-06 - 726-MW-5-W-120809

Volatile Organic Analysis (EPA Method 8260) 33
Purgeable Aromatics and Total Petroleum Hydrocarbons 34
Gas Testing in Water 35
Water Analysis (General Chemistry) 36
Water Analysis (Metals) 37

Quality Control Reports

Volatile Organic Analysis (EPA Method 8260)

Method Blank Analysis 38
Laboratory Control Sample 39
Precision and Accuracy 40

Purgeable Aromatics and Total Petroleum Hydrocarbons

Method Blank Analysis 41
Laboratory Control Sample 42
Precision and Accuracy 43

Gas Testing in Water

Method Blank Analysis 44
Laboratory Control Sample 45

Water Analysis (General Chemistry)

Method Blank Analysis 46

Table of Contents

Laboratory Control Sample..... 47
Precision and Accuracy..... 48
Water Analysis (Metals)
Method Blank Analysis..... 49
Laboratory Control Sample..... 50
Precision and Accuracy..... 51

Notes
Notes and Definitions..... 52

12-14941

CHAIN OF CUSTODY FORM

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

COC 1 of 1

Union Oil Site ID: ~~0752~~ ER 726 HARRISON ST	Union Oil Consultant: ARCADIS
Site Global ID: T0600101486	Consultant Contact: KATHY BRANCH
Site Address: 726 HARRISON ST, OAKLAND	Consultant Phone No.: 510-596-9675
Union Oil PM: HOYA KAMBIN	Sampling Company: TRC
Union Oil PM Phone No.: 925-790-6270	Sampled By (PRINT): R. RODRIGUEZ
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

ANALYSES REQUIRED

Turnaround Time (TAT): Standard ☐ 24 Hours ☐ 48 Hours ☐ 72 Hours ☐

Special Instructions: -5 DAY (TAT)

SAMPLE ID						TPH - Diesel by EPA 8015	TPH - G by ~~GCMS~~ by 8015B	BTEX/MTBE/~~8260~~ by EPA 8260B	Ethanol by EPA 8260B / Ethanol by 8260B	EPA 8260B Full List with OXYS	Dissolved Iron, Sulfate	Nitrate, Nitrite, Alkalinity	METHANE	TOC			Notes / Comments
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers												
MW-1	W-S-A	-1	120809	0702	10		X	X	X		X	X	X	X			
MW-4	W-S-A	-2		0721													
MW-2	W-S-A	-3		0742													
MW-6	W-S-A	-4		0805													
MW-3	W-S-A	-5		0820													
MW-5	W-S-A	-6		0843													
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																

CHK BY: JWW

DISTRIBUTION: WHITE PINK

SUB-OUT ☐

SHORT HOLDING TIME: Cr^{+6} NO_2 NO_3 OP SS DO Cl_2 BOD MBAS COT

Relinquished By	Company	Date / Time:
[signature]	TRC	8/09/12 - 1405
Received By	Company	Date / Time:
J Gary Bogan	BC LAB	8-9-12 1405
Relinquished By	Company	Date / Time:
Gary Bogan	BC Lab	8-9-12 2015
Received By	Company	Date / Time:
[signature]	BCL	8-9-12 2015
Relinquished By	Company	Date / Time:
[signature]	BCL	8-9-12 2250
Received By	Company	Date / Time:
KOM	BCL	8-9-12 2250

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

Chain of Custody and Cooler Receipt Form for 1214941 Page 2 of 2

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 12 12/30/10 Page 1 Of 1

Submission #: 12-14941

SHIPPING INFORMATION	SHIPPING CONTAINER
Federal Express ☐ UPS ☐ Hand Delivery ☐	Ice Chest ☑ None ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____	Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ (Intact? Yes ☐ No ☐) Containers ☐ (Intact? Yes ☐ No ☐) None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: Qt PE Thermometer ID: 207

Temperature: (A) 1.9 °C / (C) 2.1 °C

Date/Time 8-9-12 2250

Analyst Init JNW

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL	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	D	D	D	D	D	D				
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A-G	A-G	A-G	A-G	A-G	A-G				
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- ~~504~~ Methane	B2	B2	B2	B2	B2	B2				
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										

Comments:

Sample Numbering Completed By: JNW Date/Time: ~~8/10/12~~ JNW 8/10/12 0010

A = Actual / C = Corrected

I:\MyDOCS\WordPerfect\LAB_DOCS\FORMS\SAMREC2)

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1214941-01	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 07:02
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	726-MW-1-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:
1214941-02	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 07:21
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	726-MW-4-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:
1214941-03	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 07:42
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	726-MW-2-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1214941-04	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 08:05
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	726-MW-6-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:
1214941-05	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 08:20
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	726-MW-3-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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:
1214941-06	**COC Number:**	---	**Receive Date:** 08/09/2012 22:50
	Project Number:	0752	**Sampling Date:** 08/09/2012 08:43
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	726-MW-5-W-120809	**Lab Matrix:** Water
	Sampled By:	TRCI	**Sample Type:** Groundwater
			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: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214941-01 | **Client Sample Name:** 0752, 726-MW-1-W-120809, 8/9/2012 7:02:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**1000**	**ug/L**	**25**	**EPA-8260**	ND	**A01**	1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		2
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		2
Ethylbenzene	**90**	**ug/L**	**6.2**	**EPA-8260**	ND	**A01**	3
Methyl t-butyl ether	**16000**	**ug/L**	**100**	**EPA-8260**	ND	**A01**	4
Toluene	**66**	**ug/L**	**0.50**	**EPA-8260**	ND		2
Total Xylenes	**150**	**ug/L**	**1.0**	**EPA-8260**	ND		2
Ethanol	ND	ug/L	250	EPA-8260	ND		2
1,2-Dichloroethane-d4 (Surrogate)	99.1	%	75 - 125 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)	EPA-8260			2
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)	EPA-8260			3
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)	EPA-8260			4
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	96.0	%	80 - 120 (LCL - UCL)	EPA-8260			3
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260			4
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	119	%	80 - 120 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	105	%	80 - 120 (LCL - UCL)	EPA-8260			3
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260			4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/10/12	08/13/12 14:10	JMC	MS-V12	50	BVH0911
2	EPA-8260	08/10/12	08/10/12 11:23	JMC	MS-V12	1	BVH0911
3	EPA-8260	08/10/12	08/13/12 13:33	JMC	MS-V12	12.500	BVH0911
4	EPA-8260	08/10/12	08/13/12 23:47	JMC	MS-V12	200	BVH0911

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214941-01 | **Client Sample Name:** 0752, 726-MW-1-W-120809, 8/9/2012 7:02:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**4000**	**ug/L**	**1000**	**EPA-8015B**	ND	**A01**	1
a,a,a-Trifluorotoluene (FID Surrogate)	98.1	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/22/12 20:11	jjh	GC-V4	20	BVH1275

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214941-01 | **Client Sample Name:** 0752, 726-MW-1-W-120809, 8/9/2012 7:02:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**1.4**	**mg/L**	**0.025**	**RSK-175M**	ND	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/13/12	08/13/12 10:20	JMC	GC-V1	25	BVH0909

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214941-01 | **Client Sample Name:** 0752, 726-MW-1-W-120809, 8/9/2012 7:02:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**290**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**16**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**5.8**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 14:54	RML	MET-1	1	BVH1022
2	EPA-300.0	08/10/12	08/10/12 17:32	AKB	IC1	1	BVH0847
3	EPA-353.2	08/10/12	08/10/12 08:03	TDC	KONE-1	1	BVH0852
4	EPA-415.1	08/13/12	08/14/12 12:53	CDR	TOC2	1	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214941-01 | **Client Sample Name:** 0752, 726-MW-1-W-120809, 8/9/2012 7:02:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**830**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:06	ARD	PE-OP1	1	BVH0904

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214941-02 | **Client Sample Name:** 0752, 726-MW-4-W-120809, 8/9/2012 7:21:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**6.4**	**ug/L**	**0.50**	**EPA-8260**	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**32**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	**1.1**	**ug/L**	**1.0**	**EPA-8260**	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	109	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/10/12	08/10/12 11:06	JMC	MS-V12	1	BVH0911

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214941-02 | **Client Sample Name:** 0752, 726-MW-4-W-120809, 8/9/2012 7:21:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**480**	**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	08/12/12	08/14/12 18:23	jjh	GC-V4	1	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214941-02 | **Client Sample Name:** 0752, 726-MW-4-W-120809, 8/9/2012 7:21:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.48**	**mg/L**	**0.012**	**RSK-175M**	ND	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/13/12	08/13/12 10:13	JMC	GC-V1	12.500	BVH0908

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214941-02 | **Client Sample Name:** 0752, 726-MW-4-W-120809, 8/9/2012 7:21:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**320**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**13**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**3.8**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 15:13	RML	MET-1	1	BVH1022
2	EPA-300.0	08/10/12	08/10/12 18:26	AKB	IC1	1	BVH0847
3	EPA-353.2	08/10/12	08/10/12 08:15	TDC	KONE-1	1	BVH0852
4	EPA-415.1	08/13/12	08/14/12 13:06	CDR	TOC2	1	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214941-02 | **Client Sample Name:** 0752, 726-MW-4-W-120809, 8/9/2012 7:21:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**2700**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:08	ARD	PE-OP1	1	BVH0904

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214941-03 | **Client Sample Name:** 0752, 726-MW-2-W-120809, 8/9/2012 7:42:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/10/12	08/10/12 10:48	JMC	MS-V12	1	BVH0910

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214941-03 | **Client Sample Name:** 0752, 726-MW-2-W-120809, 8/9/2012 7:42:00AM

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)	93.5	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/13/12	08/14/12 07:14	jjh	GC-V4	1	BVH0586

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214941-03 | **Client Sample Name:** 0752, 726-MW-2-W-120809, 8/9/2012 7:42:00AM

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	08/13/12	08/13/12 10:05	JMC	GC-V1	1	BVH0908

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214941-03 | **Client Sample Name:** 0752, 726-MW-2-W-120809, 8/9/2012 7:42:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**100**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	**66**	**mg/L**	**0.44**	**EPA-300.0**	ND		2
Sulfate	**33**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**0.94**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 15:22	RML	MET-1	1	BVH1022
2	EPA-300.0	08/10/12	08/10/12 18:40	AKB	IC1	1	BVH0847
3	EPA-353.2	08/10/12	08/10/12 08:15	TDC	KONE-1	1	BVH0852
4	EPA-415.1	08/13/12	08/14/12 13:20	CDR	TOC2	1	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214941-03 | **Client Sample Name:** 0752, 726-MW-2-W-120809, 8/9/2012 7:42:00AM

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	08/10/12	08/13/12 12:10	ARD	PE-OP1	1	BVH0904

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214941-04 | **Client Sample Name:** 0752, 726-MW-6-W-120809, 8/9/2012 8:05:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	**1.0**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**940**	**ug/L**	**50**	**EPA-8260**	ND	**A01**	2
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/10/12	08/10/12 10:31	JMC	MS-V12	1	BVH0910
2	EPA-8260	08/10/12	08/13/12 13:15	JMC	MS-V12	100	BVH0910

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214941-04 | **Client Sample Name:** 0752, 726-MW-6-W-120809, 8/9/2012 8:05:00AM

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)	94.2	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/13/12	08/14/12 07:36	jjh	GC-V4	1	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214941-04 | **Client Sample Name:** 0752, 726-MW-6-W-120809, 8/9/2012 8:05:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.0048**	**mg/L**	**0.0010**	**RSK-175M**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/13/12	08/13/12 10:01	JMC	GC-V1	1	BVH0908

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214941-04 | **Client Sample Name:** 0752, 726-MW-6-W-120809, 8/9/2012 8:05:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**190**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	**10**	**mg/L**	**0.44**	**EPA-300.0**	ND		2
Sulfate	**27**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**0.64**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 15:29	RML	MET-1	1	BVH1022
2	EPA-300.0	08/10/12	08/10/12 18:53	AKB	IC1	1	BVH0847
3	EPA-353.2	08/10/12	08/10/12 08:15	TDC	KONE-1	1	BVH0852
4	EPA-415.1	08/13/12	08/14/12 13:33	CDR	TOC2	1	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214941-04 | **Client Sample Name:** 0752, 726-MW-6-W-120809, 8/9/2012 8:05:00AM

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	08/10/12	08/13/12 12:11	ARD	PE-OP1	1	BVH0904

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214941-05 | **Client Sample Name:** 0752, 726-MW-3-W-120809, 8/9/2012 8:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**6.9**	**ug/L**	**0.50**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	92.8	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	94.5	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/10/12	08/13/12 12:40	JMC	MS-V12	1	BVH0910

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214941-05 | **Client Sample Name:** 0752, 726-MW-3-W-120809, 8/9/2012 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)	99.8	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/13/12	08/14/12 18:47	jjh	GC-V4	1	BVH1269

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214941-05 | **Client Sample Name:** 0752, 726-MW-3-W-120809, 8/9/2012 8:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methane	**0.011**	**mg/L**	**0.0010**	**RSK-175M**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/13/12	08/13/12 09:57	JMC	GC-V1	1	BVH0908

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214941-05 | **Client Sample Name:** 0752, 726-MW-3-W-120809, 8/9/2012 8:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**150**	**mg/L**	**4.1**	**EPA-310.1**	ND		1
Nitrate as NO3	**0.56**	**mg/L**	**0.44**	**EPA-300.0**	ND		2
Sulfate	**18**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**1.4**	**mg/L**	**0.30**	**EPA-415.1**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 15:36	RML	MET-1	1	BVH1022
2	EPA-300.0	08/10/12	08/10/12 19:07	AKB	IC1	1	BVH0847
3	EPA-353.2	08/10/12	08/10/12 08:15	TDC	KONE-1	1	BVH0852
4	EPA-415.1	08/13/12	08/14/12 13:46	CDR	TOC2	1	BVH0938

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214941-05 | **Client Sample Name:** 0752, 726-MW-3-W-120809, 8/9/2012 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 Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:13	ARD	PE-OP1	1	BVH0904

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1214941-06 | **Client Sample Name:** 0752, 726-MW-5-W-120809, 8/9/2012 8:43:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**1800**	**ug/L**	**25**	**EPA-8260**	ND	**A01**	1
1,2-Dibromoethane	ND	ug/L	6.2	EPA-8260	ND	A01	2
1,2-Dichloroethane	ND	ug/L	6.2	EPA-8260	ND	A01	2
Ethylbenzene	**390**	**ug/L**	**6.2**	**EPA-8260**	ND	**A01**	2
Methyl t-butyl ether	**14000**	**ug/L**	**100**	**EPA-8260**	ND	**A01**	3
Toluene	**500**	**ug/L**	**6.2**	**EPA-8260**	ND	**A01**	2
Total Xylenes	**830**	**ug/L**	**12**	**EPA-8260**	ND	**A01**	2
Ethanol	ND	ug/L	3100	EPA-8260	ND	A01	2
1,2-Dichloroethane-d4 (Surrogate)	99.9	%	75 - 125 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	97.2	%	75 - 125 (LCL - UCL)	EPA-8260			2
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)	EPA-8260			3
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	95.5	%	80 - 120 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)	EPA-8260			3
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	107	%	80 - 120 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/10/12	08/13/12 14:47	JMC	MS-V12	50	BVH0910
2	EPA-8260	08/10/12	08/13/12 12:58	JMC	MS-V12	12.500	BVH0910
3	EPA-8260	08/10/12	08/14/12 00:05	JMC	MS-V12	200	BVH0910

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1214941-06 | **Client Sample Name:** 0752, 726-MW-5-W-120809, 8/9/2012 8:43:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C6 - C12)	**16000**	**ug/L**	**500**	**EPA-8015B**	ND	**A01**	1
a,a,a-Trifluorotoluene (FID Surrogate)	113	%	70 - 130 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	08/12/12	08/22/12 20:35	jjh	GC-V4	10	BVH1275

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Gas Testing in Water

BCL Sample ID: 1214941-06 | **Client Sample Name:** 0752, 726-MW-5-W-120809, 8/9/2012 8:43:00AM

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 Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	08/13/12	08/13/12 09:53	JMC	GC-V1	50	BVH0908

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (General Chemistry)

BCL Sample ID: 1214941-06 | **Client Sample Name:** 0752, 726-MW-5-W-120809, 8/9/2012 8:43:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Alkalinity as CaCO3	**570**	**mg/L**	**8.2**	**EPA-310.1**	ND		1
Nitrate as NO3	ND	mg/L	0.44	EPA-300.0	ND		2
Sulfate	**4.6**	**mg/L**	**1.0**	**EPA-300.0**	ND		2
Nitrite as NO2	ND	mg/L	0.17	EPA-353.2	ND		3
Non-Volatile Organic Carbon	**21**	**mg/L**	**3.0**	**EPA-415.1**	ND	**A01**	4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-310.1	08/13/12	08/13/12 15:43	RML	MET-1	2	BVH1022
2	EPA-300.0	08/10/12	08/10/12 19:47	AKB	IC1	1	BVH0847
3	EPA-353.2	08/10/12	08/10/12 08:15	TDC	KONE-1	1	BVH0852
4	EPA-415.1	08/13/12	08/14/12 21:38	CDR	TOC2	10	BVH0939

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

BCL Sample ID: 1214941-06 | **Client Sample Name:** 0752, 726-MW-5-W-120809, 8/9/2012 8:43:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Dissolved Iron	**4400**	**ug/L**	**50**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	08/10/12	08/13/12 12:15	ARD	PE-OP1	1	BVH0904

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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: BVH0910						
Benzene	BVH0910-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BVH0910-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BVH0910-BLK1	ND	ug/L	0.50		
Ethylbenzene	BVH0910-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BVH0910-BLK1	ND	ug/L	0.50		
Toluene	BVH0910-BLK1	ND	ug/L	0.50		
Total Xylenes	BVH0910-BLK1	ND	ug/L	1.0		
Ethanol	BVH0910-BLK1	ND	ug/L	250		
1,2-Dichloroethane-d4 (Surrogate)	BVH0910-BLK1	100	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BVH0910-BLK1	104	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BVH0910-BLK1	89.2	%	80 - 120 (LCL - UCL)		
QC Batch ID: BVH0911						
Benzene	BVH0911-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BVH0911-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BVH0911-BLK1	ND	ug/L	0.50		
Ethylbenzene	BVH0911-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BVH0911-BLK1	ND	ug/L	0.50		
Toluene	BVH0911-BLK1	ND	ug/L	0.50		
Total Xylenes	BVH0911-BLK1	ND	ug/L	1.0		
Ethanol	BVH0911-BLK1	ND	ug/L	250		
1,2-Dichloroethane-d4 (Surrogate)	BVH0911-BLK1	102	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BVH0911-BLK1	101	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BVH0911-BLK1	98.4	%	80 - 120 (LCL - UCL)		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0910										
Benzene	BVH0910-BS1	LCS	29.490	25.000	ug/L	118		70 - 130		
Toluene	BVH0910-BS1	LCS	25.190	25.000	ug/L	101		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BVH0910-BS1	LCS	9.9200	10.000	ug/L	99.2		75 - 125		
Toluene-d8 (Surrogate)	BVH0910-BS1	LCS	9.8900	10.000	ug/L	98.9		80 - 120		
4-Bromofluorobenzene (Surrogate)	BVH0910-BS1	LCS	10.670	10.000	ug/L	107		80 - 120		
QC Batch ID: BVH0911										
Benzene	BVH0911-BS1	LCS	29.520	25.000	ug/L	118		70 - 130		
Toluene	BVH0911-BS1	LCS	26.650	25.000	ug/L	107		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BVH0911-BS1	LCS	9.8000	10.000	ug/L	98.0		75 - 125		
Toluene-d8 (Surrogate)	BVH0911-BS1	LCS	10.030	10.000	ug/L	100		80 - 120		
4-Bromofluorobenzene (Surrogate)	BVH0911-BS1	LCS	10.500	10.000	ug/L	105		80 - 120		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH0910	Used client sample: N										
Benzene	MS	1214932-17	ND	30.890	25.000	ug/L		124		70 - 130	
	MSD	1214932-17	ND	31.130	25.000	ug/L	0.8	125	20	70 - 130	
Toluene	MS	1214932-17	ND	26.910	25.000	ug/L		108		70 - 130	
	MSD	1214932-17	ND	26.390	25.000	ug/L	2.0	106	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1214932-17	ND	10.150	10.000	ug/L		102		75 - 125	
	MSD	1214932-17	ND	10.300	10.000	ug/L	1.5	103		75 - 125	
Toluene-d8 (Surrogate)	MS	1214932-17	ND	10.190	10.000	ug/L		102		80 - 120	
	MSD	1214932-17	ND	10.120	10.000	ug/L	0.7	101		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1214932-17	ND	10.740	10.000	ug/L		107		80 - 120	
	MSD	1214932-17	ND	10.400	10.000	ug/L	3.2	104		80 - 120	
QC Batch ID: BVH0911	Used client sample: N										
Benzene	MS	1214932-14	ND	30.260	25.000	ug/L		121		70 - 130	
	MSD	1214932-14	ND	30.830	25.000	ug/L	1.9	123	20	70 - 130	
Toluene	MS	1214932-14	ND	25.390	25.000	ug/L		102		70 - 130	
	MSD	1214932-14	ND	26.690	25.000	ug/L	5.0	107	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1214932-14	ND	9.9200	10.000	ug/L		99.2		75 - 125	
	MSD	1214932-14	ND	10.070	10.000	ug/L	1.5	101		75 - 125	
Toluene-d8 (Surrogate)	MS	1214932-14	ND	9.7500	10.000	ug/L		97.5		80 - 120	
	MSD	1214932-14	ND	10.150	10.000	ug/L	4.0	102		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1214932-14	ND	10.160	10.000	ug/L		102		80 - 120	
	MSD	1214932-14	ND	10.080	10.000	ug/L	0.8	101		80 - 120	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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: BVH0586						
Gasoline Range Organics (C6 - C12)	BVH0586-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH0586-BLK1	88.7	%	70 - 130 (LCL - UCL)		
QC Batch ID: BVH1269						
Gasoline Range Organics (C6 - C12)	BVH1269-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH1269-BLK1	92.2	%	70 - 130 (LCL - UCL)		
QC Batch ID: BVH1275						
Gasoline Range Organics (C6 - C12)	BVH1275-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH1275-BLK1	105	%	70 - 130 (LCL - UCL)		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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 Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0586										
Gasoline Range Organics (C6 - C12)	BVH0586-BS1	LCS	884.44		ug/L			85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH0586-BS1	LCS	35.899	40.000	ug/L	89.7		70 - 130		
QC Batch ID: BVH1269										
Gasoline Range Organics (C6 - C12)	BVH1269-BS1	LCS	1061.8		ug/L			85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH1269-BS1	LCS	36.995	40.000	ug/L	92.5		70 - 130		
QC Batch ID: BVH1275										
Gasoline Range Organics (C6 - C12)	BVH1275-BS1	LCS	1123.4		ug/L			85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BVH1275-BS1	LCS	40.167	40.000	ug/L	100		70 - 130		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH0586	Used client sample: N										
Gasoline Range Organics (C6 - C12)	MS	1213312-33	ND	881.77		ug/L				70 - 130	
	MSD	1213312-33	ND	859.47		ug/L	2.6		20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1213312-33	ND	37.509	40.000	ug/L		93.8		70 - 130	
	MSD	1213312-33	ND	34.319	40.000	ug/L	8.9	85.8		70 - 130	
QC Batch ID: BVH1269	Used client sample: N										
Gasoline Range Organics (C6 - C12)	MS	1213312-71	ND	1109.9		ug/L				70 - 130	
	MSD	1213312-71	ND	1092.8		ug/L	1.6		20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1213312-71	ND	36.730	40.000	ug/L		91.8		70 - 130	
	MSD	1213312-71	ND	37.641	40.000	ug/L	2.4	94.1		70 - 130	
QC Batch ID: BVH1275	Used client sample: N										
Gasoline Range Organics (C6 - C12)	MS	1213312-72	ND	1070.8		ug/L				70 - 130	
	MSD	1213312-72	ND	1113.2		ug/L	3.9		20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1213312-72	ND	40.836	40.000	ug/L		102		70 - 130	
	MSD	1213312-72	ND	37.263	40.000	ug/L	9.1	93.2		70 - 130	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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: BVH0908						
Methane	BVH0908-BLK1	ND	mg/L	0.0010		
QC Batch ID: BVH0909						
Methane	BVH0909-BLK1	ND	mg/L	0.0010		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0908										
Methane	BVH0908-BS1	LCS	0.011136	0.010843	mg/L	103		80 - 120		
	BVH0908-BSD1	LCSD	0.011385	0.010843	mg/L	105	2.2	80 - 120	20	
QC Batch ID: BVH0909										
Methane	BVH0909-BS1	LCS	0.011138	0.010843	mg/L	103		80 - 120		
	BVH0909-BSD1	LCSD	0.011225	0.010843	mg/L	104	0.8	80 - 120	20	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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: BVH0847						
Nitrate as NO3	BVH0847-BLK1	ND	mg/L	0.44		
Sulfate	BVH0847-BLK1	ND	mg/L	1.0		
QC Batch ID: BVH0852						
Nitrite as NO2	BVH0852-BLK1	ND	mg/L	0.17		
QC Batch ID: BVH0938						
Non-Volatile Organic Carbon	BVH0938-BLK1	ND	mg/L	0.30		
QC Batch ID: BVH0939						
Non-Volatile Organic Carbon	BVH0939-BLK1	ND	mg/L	0.30		
QC Batch ID: BVH1022						
Total Alkalinity as CaCO3	BVH1022-BLK1	ND	mg/L	4.1		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0847										
Nitrate as NO3	BVH0847-BS1	LCS	22.076	22.134	mg/L	99.7		90 - 110		
Sulfate	BVH0847-BS1	LCS	100.50	100.00	mg/L	100		90 - 110		
QC Batch ID: BVH0852										
Nitrite as NO2	BVH0852-BS1	LCS	1.5917	1.6425	mg/L	96.9		90 - 110		
QC Batch ID: BVH0938										
Non-Volatile Organic Carbon	BVH0938-BS1	LCS	4.9600	5.0000	mg/L	99.2		85 - 115		
QC Batch ID: BVH0939										
Non-Volatile Organic Carbon	BVH0939-BS1	LCS	4.8300	5.0000	mg/L	96.6		85 - 115		
QC Batch ID: BVH1022										
Total Alkalinity as CaCO3	BVH1022-BS3	LCS	97.970	100.00	mg/L	98.0		90 - 110		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH0847	Used client sample: Y - Description: 726-MW-1-W-120809, 08/09/2012 07:02										
Nitrate as NO3	DUP	1214941-01	0.32758	ND		mg/L			10		
	MS	1214941-01	0.32758	22.912	22.358	mg/L		101		80 - 120	
	MSD	1214941-01	0.32758	22.948	22.358	mg/L	0.2	101	10	80 - 120	
Sulfate	DUP	1214941-01	15.570	15.436		mg/L	0.9		10		
	MS	1214941-01	15.570	121.73	101.01	mg/L		105		80 - 120	
	MSD	1214941-01	15.570	121.71	101.01	mg/L	0.0	105	10	80 - 120	
QC Batch ID: BVH0852	Used client sample: Y - Description: 726-MW-1-W-120809, 08/09/2012 07:02										
Nitrite as NO2	DUP	1214941-01	0.036694	ND		mg/L			10		
	MS	1214941-01	0.036694	1.7496	1.7289	mg/L		99.1		90 - 110	
	MSD	1214941-01	0.036694	1.7508	1.7289	mg/L	0.1	99.1	10	90 - 110	
QC Batch ID: BVH0938	Used client sample: Y - Description: A-MW-2-W-120809, 08/09/2012 12:30										
Non-Volatile Organic Carbon	DUP	1214939-10	15.035	15.050		mg/L	0.1		10		
	MS	1214939-10	15.035	40.563	25.126	mg/L		102		80 - 120	
	MSD	1214939-10	15.035	40.734	25.126	mg/L	0.4	102	10	80 - 120	
QC Batch ID: BVH0939	Used client sample: Y - Description: 726-MW-5-W-120809, 08/09/2012 08:43										
Non-Volatile Organic Carbon	DUP	1214941-06	21.320	21.420		mg/L	0.5		10		
	MS	1214941-06	21.320	73.548	50.251	mg/L		104		80 - 120	
	MSD	1214941-06	21.320	73.286	50.251	mg/L	0.4	103	10	80 - 120	
QC Batch ID: BVH1022	Used client sample: Y - Description: 726-MW-1-W-120809, 08/09/2012 07:02										
Total Alkalinity as CaCO3	DUP	1214941-01	286.47	286.77		mg/L	0.1		10		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BVH0904						
Dissolved Iron	BVH0904-BLK1	ND	ug/L	50		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0904										
Dissolved Iron	BVH0904-BS1	LCS	1022.2	1000.0	ug/L	102		85 - 115		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
Project: 0752
Project Number: 351646
Project Manager: Kathy Brandt

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH0904	Used client sample: N										
Dissolved Iron	DUP	1214929-07	101.68	101.96		ug/L	0.3		20		
	MS	1214929-07	101.68	1185.3	1020.4	ug/L		106		75 - 125	
	MSD	1214929-07	101.68	1188.5	1020.4	ug/L	0.3	107	20	75 - 125	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 08/24/2012 13:30
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.

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 08/16/2012

Robert Kitay

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Project:	Yee
BC Work Order:	1215020
Invoice ID:	B128032

Enclosed are the results of analyses for samples received by the laboratory on 8/10/2012. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Kerrie Vaughan
Client Services

Authorized Signature

Table of Contents

Sample Information

Chain of Custody and Cooler Receipt form 3
Laboratory / Client Sample Cross Reference 5

Sample Results

1215020-01 - MW-1

Volatile Organic Analysis (EPA Method 8260) 7

1215020-02 - MW-2

Volatile Organic Analysis (EPA Method 8260) 8

1215020-03 - MW-3

Volatile Organic Analysis (EPA Method 8260) 9

1215020-04 - MW-4

Volatile Organic Analysis (EPA Method 8260) 10

1215020-05 - MW-5

Volatile Organic Analysis (EPA Method 8260) 11

1215020-06 - MW-6

Volatile Organic Analysis (EPA Method 8260) 12

Quality Control Reports

Volatile Organic Analysis (EPA Method 8260)

Method Blank Analysis 13
Laboratory Control Sample 14
Precision and Accuracy 15

Notes

Notes and Definitions 16

12-15020

Aqua Science Engineers, Inc.
55 Oak Court, Suite 220
Danville, CA 94526
(925) 820-9391
FAX (925) 837-4853

Chain of Custody

PAGE 1 of 1

SAMPLER (SIGNATURE) David Allen

PROJECT NAME YEE JOB NO. 3412

ADDRESS 726 HARRISON ST. OAKLAND

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	CAM 17 METALS (EPA 6010+7000)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	Pb (TOTAL or DISSOLVED) (EPA 6010)	PESTICIDES (EPA 8081)	FUEL OXYGENATES (EPA 8260)	PURGEABLE HALOCARBONS (EPA 601/8010)	TPH-G/BTEX/5 OXYS (EPA METHOD 8260)	MULTI-RANGE HYDROCARBONS WITH SILICA GEL CLEANUP (EPA 8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	LUFT METALS (5) (EPA 6010+7000)	COMPOSITE 4:1	EDF	TPH-G/BTEX/MTBE 1,2-DCA, EDB by EPA 8260B
MW-1 -1	8/9/12	0702	W	3															Y	X
MW-2 -2		0732																	Y	X
MW-3 -3		0815																	Y	X
MW-4 -4		0718																	Y	X
MW-5 -5		0840																	Y	X
MW-6 -6		0802																	Y	X

CHK BY JWP DISTRIBUTION JWP SUB-OUT

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:
(signature) David Allen (time) 1150	(signature) Gary Bogan (time) 1150	(signature) Gary Bogan (time)	(signature) (time)
(printed name) DAVID ALLEN (date)	(printed name) GARY BOGAN (date)	(printed name) GARY BOGAN 1555 (date)	(printed name) Jerry Mason 1555 (date)
Company-ASE, INC. 8-10-12	Company- BCLAB 8-10-12	Company BCLAB 8-10-12	Company- BCL 8-10-12

COMMENTS:

TURN AROUND TIME
STANDARD 24Hr 48Hr 72Hr
OTHER:

Rel - Jerry Mason Jerry Mason 8-10-12 1850 KCM 8-10-12 1850

Chain of Custody and Cooler Receipt Form for 1215020 Page 2 of 2

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 12 12/30/10 Page 1 Of 1

Submission #: 12-15020

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ (Intact? Yes ☐ No ☐) Containers ☐ (Intact? Yes ☐ No ☐) None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: 04A Thermometer ID: 207

Temperature: (A) 2.1 °C / (C) 2.1 °C

Date/Time 5-10-12 1850

Analyst Init JNW

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										
40ml VOA VIAL	A,3	A,3	A,3	A,3	A,3	A,3	( )	( )	( )	( )
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										

Comments:
Sample Numbering Completed By: KIQ Date/Time: 8/10/12 2210
A = Actual / C = Corrected

I:\MyDOCS\WordPerfect\LAB_DOCS\FORMS\SAMREC2I

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1215020-01	**COC Number:**	---	**Receive Date:**	08/10/2012 18:50
	Project Number:	YEE	**Sampling Date:**	08/09/2012 07:02
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-1	**Lab Matrix:**	Water
	Sampled By:	ASED	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600102122			
	Location ID (FieldPoint):			
	Matrix: WX			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1215020-02	**COC Number:**	---	**Receive Date:**	08/10/2012 18:50
	Project Number:	YEE	**Sampling Date:**	08/09/2012 07:32
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-2	**Lab Matrix:**	Water
	Sampled By:	ASED	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600102122			
	Location ID (FieldPoint):			
	Matrix: WX			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1215020-03	**COC Number:**	---	**Receive Date:**	08/10/2012 18:50
	Project Number:	YEE	**Sampling Date:**	08/09/2012 08:15
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-3	**Lab Matrix:**	Water
	Sampled By:	ASED	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600102122			
	Location ID (FieldPoint):			
	Matrix: WX			
	Sample QC Type (SACode): CS			
	Cooler ID:			

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1215020-04	**COC Number:**	---	**Receive Date:**	08/10/2012 18:50
	Project Number:	YEE	**Sampling Date:**	08/09/2012 07:18
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-4	**Lab Matrix:**	Water
	Sampled By:	ASED	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600102122	
			Location ID (FieldPoint):	
			Matrix: WX	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1215020-05	**COC Number:**	---	**Receive Date:**	08/10/2012 18:50
	Project Number:	YEE	**Sampling Date:**	08/09/2012 08:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-5	**Lab Matrix:**	Water
	Sampled By:	ASED	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600102122	
			Location ID (FieldPoint):	
			Matrix: WX	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1215020-06	**COC Number:**	---	**Receive Date:**	08/10/2012 18:50
	Project Number:	YEE	**Sampling Date:**	08/09/2012 08:02
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-6	**Lab Matrix:**	Water
	Sampled By:	ASED	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600102122	
			Location ID (FieldPoint):	
			Matrix: WX	
			Sample QC Type (SACode): CS	
			Cooler ID:	

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1215020-01 | **Client Sample Name:** YEE, MW-1, 8/9/2012 7:02:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**760**	**ug/L**	**6.2**	**1.0**	**EPA-8260**	ND	**A01**	1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-8260	ND		2
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-8260	ND		2
Ethylbenzene	**58**	**ug/L**	**0.50**	**0.098**	**EPA-8260**	ND		2
Methyl t-butyl ether	**6700**	**ug/L**	**50**	**11**	**EPA-8260**	ND	**A01**	3
Toluene	**27**	**ug/L**	**0.50**	**0.093**	**EPA-8260**	ND		2
Total Xylenes	**60**	**ug/L**	**1.0**	**0.36**	**EPA-8260**	ND		2
p- & m-Xylenes	**52**	**ug/L**	**0.50**	**0.28**	**EPA-8260**	ND		2
o-Xylene	**8.2**	**ug/L**	**0.50**	**0.082**	**EPA-8260**	ND		2
Total Purgeable Petroleum Hydrocarbons	**6600**	**ug/L**	**620**	**90**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	98.0	%	75 - 125 (LCL - UCL)		EPA-8260			2
1,2-Dichloroethane-d4 (Surrogate)	97.1	%	75 - 125 (LCL - UCL)		EPA-8260			3
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	94.0	%	80 - 120 (LCL - UCL)		EPA-8260			2
Toluene-d8 (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-8260			3
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	125	%	80 - 120 (LCL - UCL)		EPA-8260		S09	2
4-Bromofluorobenzene (Surrogate)	98.4	%	80 - 120 (LCL - UCL)		EPA-8260			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/14/12 14:36	JMC	MS-V12	12.500	BVH0912
2	EPA-8260	08/13/12	08/13/12 23:30	JMC	MS-V12	1	BVH0912
3	EPA-8260	08/13/12	08/14/12 14:54	JMC	MS-V12	100	BVH0912

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1215020-02 | **Client Sample Name:** YEE, MW-2, 8/9/2012 7:32:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	7.2	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.0	%	75 - 125 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	91.7	%	80 - 120 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.0	%	80 - 120 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 23:12	JMC	MS-V12	1	BVH0912

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1215020-03 | **Client Sample Name:** YEE, MW-3, 8/9/2012 8:15:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260	ND		1
Methyl t-butyl ether	**9.2**	**ug/L**	**0.50**	**0.11**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**39**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND	**J**	1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	94.8	%	80 - 120 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.0	%	80 - 120 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 22:54	JMC	MS-V12	1	BVH0912

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1215020-04 | **Client Sample Name:** YEE, MW-4, 8/9/2012 7:18:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**2.0**	**ug/L**	**0.50**	**0.083**	**EPA-8260**	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260	ND		1
Methyl t-butyl ether	**21**	**ug/L**	**0.50**	**0.11**	**EPA-8260**	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**280**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 22:36	JMC	MS-V12	1	BVH0912

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1215020-05 | **Client Sample Name:** YEE, MW-5, 8/9/2012 8:40:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**1400**	**ug/L**	**50**	**8.3**	**EPA-8260**	ND	**A01**	1
1,2-Dibromoethane	ND	ug/L	5.0	1.6	EPA-8260	ND	A01	2
1,2-Dichloroethane	ND	ug/L	5.0	1.7	EPA-8260	ND	A01	2
Ethylbenzene	**470**	**ug/L**	**5.0**	**0.98**	**EPA-8260**	ND	**A01**	2
Methyl t-butyl ether	**16000**	**ug/L**	**250**	**55**	**EPA-8260**	ND	**A01**	3
Toluene	**580**	**ug/L**	**5.0**	**0.93**	**EPA-8260**	ND	**A01**	2
Total Xylenes	**960**	**ug/L**	**10**	**3.6**	**EPA-8260**	ND	**A01**	2
p- & m-Xylenes	**730**	**ug/L**	**5.0**	**2.8**	**EPA-8260**	ND	**A01**	2
o-Xylene	**220**	**ug/L**	**5.0**	**0.82**	**EPA-8260**	ND	**A01**	2
Total Purgeable Petroleum Hydrocarbons	**16000**	**ug/L**	**5000**	**720**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-8260			2
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-8260			3
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-8260			2
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-8260			3
4-Bromofluorobenzene (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	110	%	80 - 120 (LCL - UCL)		EPA-8260			2
4-Bromofluorobenzene (Surrogate)	96.9	%	80 - 120 (LCL - UCL)		EPA-8260			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/14/12 14:18	JMC	MS-V12	100	BVH0912
2	EPA-8260	08/13/12	08/13/12 22:18	JMC	MS-V12	10	BVH0912
3	EPA-8260	08/13/12	08/15/12 10:22	JMC	MS-V12	500	BVH0912

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1215020-06 | **Client Sample Name:** YEE, MW-6, 8/9/2012 8:02:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-8260	ND		1
1,2-Dichloroethane	**1.2**	**ug/L**	**0.50**	**0.17**	**EPA-8260**	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260	ND		1
Methyl t-butyl ether	**970**	**ug/L**	**25**	**5.5**	**EPA-8260**	ND	**A01**	2
Toluene	ND	ug/L	0.50	0.093	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**830**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND	**A90**	1
1,2-Dichloroethane-d4 (Surrogate)	98.0	%	75 - 125 (LCL - UCL)		EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	99.6	%	75 - 125 (LCL - UCL)		EPA-8260			2
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260			2
4-Bromofluorobenzene (Surrogate)	95.9	%	80 - 120 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	94.7	%	80 - 120 (LCL - UCL)		EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	08/13/12	08/13/12 22:01	JMC	MS-V12	1	BVH0993
2	EPA-8260	08/13/12	08/14/12 14:00	JMC	MS-V12	50	BVH0993

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

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: BVH0912						
Benzene	BVH0912-BLK1	ND	ug/L	0.50	0.083	
1,2-Dibromoethane	BVH0912-BLK1	ND	ug/L	0.50	0.16	
1,2-Dichloroethane	BVH0912-BLK1	ND	ug/L	0.50	0.17	
Ethylbenzene	BVH0912-BLK1	ND	ug/L	0.50	0.098	
Methyl t-butyl ether	BVH0912-BLK1	ND	ug/L	0.50	0.11	
Toluene	BVH0912-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BVH0912-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BVH0912-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BVH0912-BLK1	ND	ug/L	0.50	0.082	
Total Purgeable Petroleum Hydrocarbons	BVH0912-BLK1	ND	ug/L	50	7.2	
1,2-Dichloroethane-d4 (Surrogate)	BVH0912-BLK1	104	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BVH0912-BLK1	105	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BVH0912-BLK1	98.9	%	80 - 120 (LCL - UCL)		
QC Batch ID: BVH0993						
Benzene	BVH0993-BLK1	ND	ug/L	0.50	0.083	
1,2-Dibromoethane	BVH0993-BLK1	ND	ug/L	0.50	0.16	
1,2-Dichloroethane	BVH0993-BLK1	ND	ug/L	0.50	0.17	
Ethylbenzene	BVH0993-BLK1	ND	ug/L	0.50	0.098	
Methyl t-butyl ether	BVH0993-BLK1	ND	ug/L	0.50	0.11	
Toluene	BVH0993-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BVH0993-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BVH0993-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BVH0993-BLK1	ND	ug/L	0.50	0.082	
Total Purgeable Petroleum Hydrocarbons	BVH0993-BLK1	ND	ug/L	50	7.2	
1,2-Dichloroethane-d4 (Surrogate)	BVH0993-BLK1	98.7	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BVH0993-BLK1	107	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BVH0993-BLK1	102	%	80 - 120 (LCL - UCL)		

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BVH0912										
Benzene	BVH0912-BS1	LCS	30.200	25.000	ug/L	121		70 - 130		
Toluene	BVH0912-BS1	LCS	26.410	25.000	ug/L	106		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BVH0912-BS1	LCS	10.300	10.000	ug/L	103		75 - 125		
Toluene-d8 (Surrogate)	BVH0912-BS1	LCS	10.340	10.000	ug/L	103		80 - 120		
4-Bromofluorobenzene (Surrogate)	BVH0912-BS1	LCS	10.610	10.000	ug/L	106		80 - 120		
QC Batch ID: BVH0993										
Benzene	BVH0993-BS1	LCS	30.140	25.000	ug/L	121		70 - 130		
Toluene	BVH0993-BS1	LCS	26.120	25.000	ug/L	104		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BVH0993-BS1	LCS	9.6400	10.000	ug/L	96.4		75 - 125		
Toluene-d8 (Surrogate)	BVH0993-BS1	LCS	10.090	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BVH0993-BS1	LCS	10.370	10.000	ug/L	104		80 - 120		

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BVH0912	Used client sample: N										
Benzene	MS	1213312-46	ND	30.850	25.000	ug/L		123		70 - 130	
	MSD	1213312-46	ND	28.690	25.000	ug/L	7.3	115	20	70 - 130	
Toluene	MS	1213312-46	ND	26.610	25.000	ug/L		106		70 - 130	
	MSD	1213312-46	ND	25.770	25.000	ug/L	3.2	103	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1213312-46	ND	9.8100	10.000	ug/L		98.1		75 - 125	
	MSD	1213312-46	ND	9.3300	10.000	ug/L	5.0	93.3		75 - 125	
Toluene-d8 (Surrogate)	MS	1213312-46	ND	10.190	10.000	ug/L		102		80 - 120	
	MSD	1213312-46	ND	9.8100	10.000	ug/L	3.8	98.1		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1213312-46	ND	10.690	10.000	ug/L		107		80 - 120	
	MSD	1213312-46	ND	10.980	10.000	ug/L	2.7	110		80 - 120	
QC Batch ID: BVH0993	Used client sample: N										
Benzene	MS	1215016-04	ND	30.640	25.000	ug/L		123		70 - 130	
	MSD	1215016-04	ND	29.950	25.000	ug/L	2.3	120	20	70 - 130	
Toluene	MS	1215016-04	ND	25.370	25.000	ug/L		101		70 - 130	
	MSD	1215016-04	ND	25.140	25.000	ug/L	0.9	101	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1215016-04	ND	10.380	10.000	ug/L		104		75 - 125	
	MSD	1215016-04	ND	9.8100	10.000	ug/L	5.6	98.1		75 - 125	
Toluene-d8 (Surrogate)	MS	1215016-04	ND	10.040	10.000	ug/L		100		80 - 120	
	MSD	1215016-04	ND	9.7400	10.000	ug/L	3.0	97.4		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1215016-04	ND	10.370	10.000	ug/L		104		80 - 120	
	MSD	1215016-04	ND	10.580	10.000	ug/L	2.0	106		80 - 120	

Aqua Science Engineers, Inc.
55 Oak Court, Ste. 220
Danville, CA 94526

Reported: 08/16/2012 15:00
Project: Yee
Project Number: 3412
Project Manager: Robert Kitay

Notes And Definitions

J	Estimated Value (CLP Flag)
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.
A90	TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.
S09	The surrogate recovery on the sample for this compound was not within the control limits.