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

January 3, 2012

Ms. Barbara Jakub
Alameda County Health Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

RE: Fourth Quarter 2011 Groundwater Monitoring Report
10151 International Blvd, Oakland, California
Fuel Leak Case No.: RO0002444

Dear Ms. Jakub,

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
Fourth Quarter 2011 Monitoring Report

ARCADIS
Infrastructure · Water · Environment · Buildings

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

Ms. Barbara Jakub
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

ENVIRONMENT

Subject:
Fourth Quarter 2011 Semi-Annually Groundwater Monitoring Report Submittal

Dear Ms. Jakub:

Date:
January 3, 2012

Contact:
Katherine Brandt

Phone:
510.596.9675

Email:
Katherine.brandt@arcadis-us.com

Our ref:
B0047297.0001

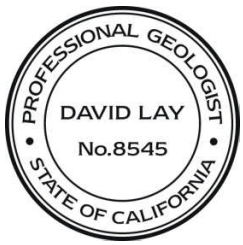
On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California (hereinafter "EMC"), ARCADIS U.S., Inc (ARCADIS) is pleased to submit the enclosed Quarterly Groundwater Monitoring Report for the following facility:

Facility No.	**Case No.**	**Location**
7124	RO0002444	10151 International Boulevard Oakland, California

If you have any questions, please contact Katherine Brandt at 510.596.9675.

Sincerely,

ARCADIS



Katherine Brandt
Certified Project Manager

David Lay
Professional Geologist

Copies:
Ms. Cherie McCaulou, CRWQCB – San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612 (CD)
Ms. Roya Kambin, Union Oil (electronic copy only)
Mr. Norman Alberts, Mercantile Finance Company, 321 Hartz Avenue #200, Danville, CA 94526
Geotracker

UNION OIL OF CALIFORNIA
SEMI-ANNUALLY MONITORING REPORT
FOURTH QUARTER 2011
January 30, 2012

Facility No.: 7124 Address: 10151 International Boulevard, Oakland, California

Consulting Company/Contact Person/Phone No.:	ARCADIS / Katherine Brandt / 510.596.9675
Primary Agency/Contact Person/Regulatory ID No.:	Alameda County Health Agency / Ms. Barbara Jakub / Case No. RO0002444

WORK PERFORMED DURING THIS REPORTING PERIOD (Fourth Quarter – 2011) :

1. TRC Solutions (TRC) conducted groundwater monitoring and sampling on November 2, 2011. Field data sheets and general procedures are included as **Attachment A**. Four (4) groundwater monitoring wells (MW-1 through MW-4) were gauged and sampled during this monitoring event.

   Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g; C6-C12) by Luft Method GC/MS; benzene, toluene, ethylbenzene, and total xylenes (BTEX, collectively), oxygenates (methyl tertiary butyl ether [MTBE], tertiary butyl alcohol [TBA], ethyl tertiary butyl ether [ETBE], di-isopropyl ether [DIPE], and tertiary amyl methyl ether [TAME]), ethanol, 1,2-dibromoethane (EDB), and 1,2-dichloroethane (EDC) by Environmental Protection Agency (EPA) Method 8260B. The site location map, the site plan, and the groundwater contour map are presented on **Figures 1** through **3**. Concentration maps for TPH-g and MTBE are on **Figures 4** and **5**. Current Groundwater Gauging and Analytical Results are summarized in **Table 1** 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 (Second Quarter – 2012):

1. Perform groundwater monitoring and related reporting during second quarter 2012.

Current Phase of Project:		Groundwater Monitoring		
Site Use:		Active 76 branded service station		
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:		None		
Groundwater Use Designation:		Municipal and Domestic Water Supply		
Current Remediation Techniques:		None		
Permits for Discharge (No.):		None		
Approximate Depth to Groundwater:		16.38 (MW-1) – 18.27 (MW-4) feet below top of casing		
		Measured X Estimated		
Groundwater Gradient:	0.009 ft/ft	(Magnitude)	West-northwest	(Direction)

UNION OIL OF CALIFORNIA
SEMI-ANNUALLY MONITORING REPORT
FOURTH QUARTER 2011
January 30, 2012

Facility No.: 7124 Address: 10151 International Boulevard, Oakland, California

DISCUSSION:

Groundwater conditions during the fourth quarter 2011 remained generally consistent with previous quarters. The maximum dissolved concentrations of TPH-g (880 micrograms per liter [µg/L]) and MTBE (35 µg/L) were detected in well MW-3. BTEX, TBA, DIPE, ETBE, TAME, ethanol, EDB, and EDC were not detected above the laboratory reporting limits for all wells sampled.

Groundwater elevations at the service station vary by less than a foot, creating a gentle hydraulic gradient of 0.009 foot per foot in the west-northwest direction.

CONCLUSIONS AND RECOMMENDATIONS:

Dissolved hydrocarbon constituent concentrations have remained consistent or decreasing compared with previous quarters. ARCADIS recommends continued groundwater monitoring.

ATTACHMENTS:

Figure 1: Site Location Map
Figure 2: Site Plan
Figure 3: Groundwater Contour Map
Figure 4: TPH-g Concentration Map
Figure 5: MTBE Concentration Map

Table 1: Current Groundwater Gauging and Analytical Results

Attachment A: Field Data Sheets and General Procedures
Attachment B: Historical Groundwater Results from TRC
Attachment C: Laboratory Report and Chain-of-Custody Documentation

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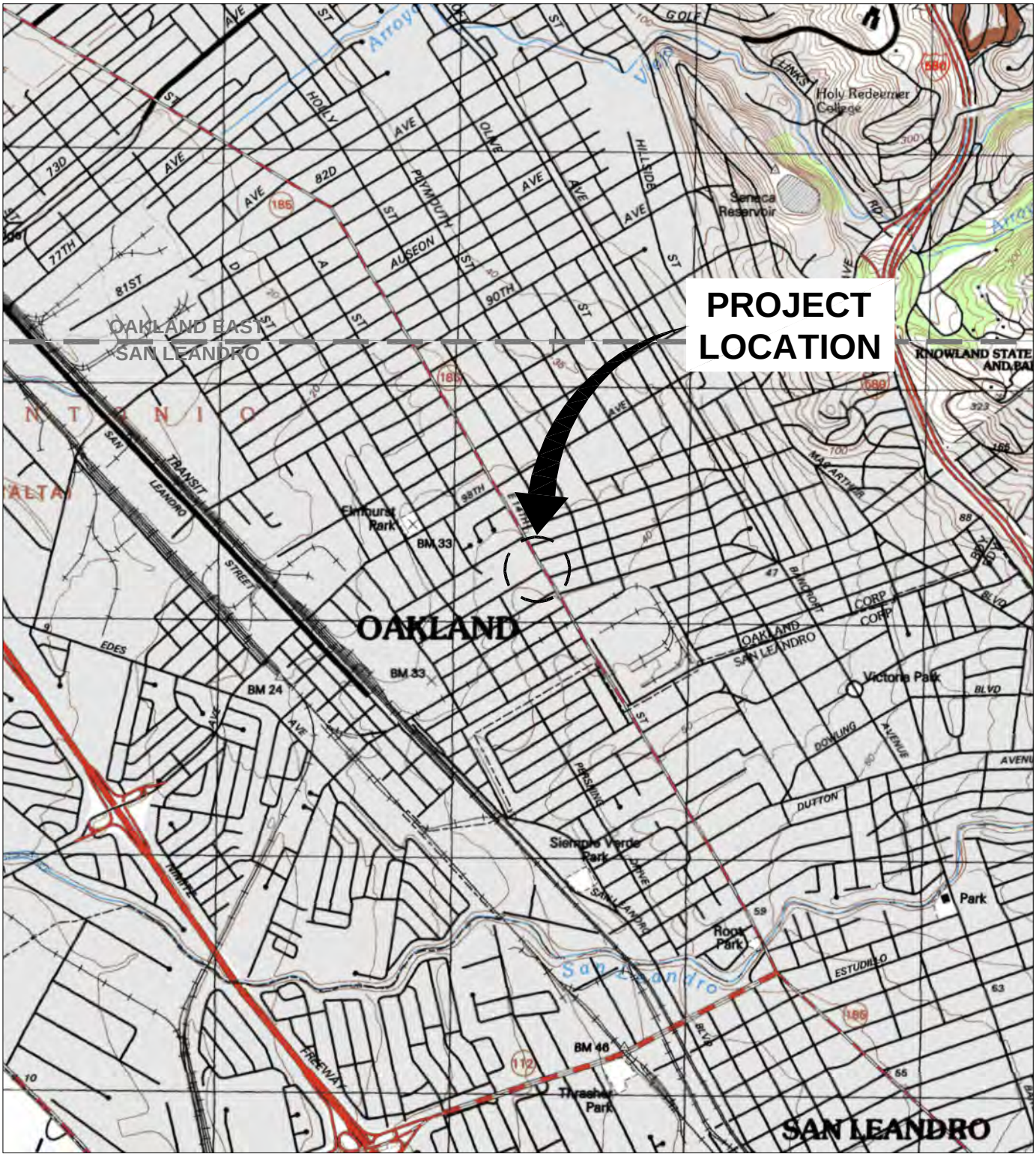
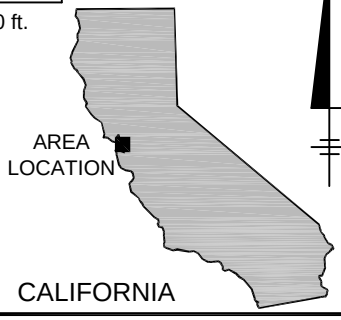
Figures



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., SAN LEANDRO, CALIFORNIA, 1993, AND OAKLAND EAST, CALIFORNIA, 1997.

0 2000' 4000'

Approximate Scale: 1 in. = 2000 ft.



UNION OIL
STATION NO. 7124
10151 INTERNATIONAL BOULEVARD
OAKLAND, CALIFORNIA

SITE LOCATION MAP

ARCADIS

FIGURE 1

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS LD: J. HARRIS PIC: J. VOGELEY PM: K. ABBOTT TM: K. ABBOTT LYR:(Opt)ON=*;OFF=*REF*
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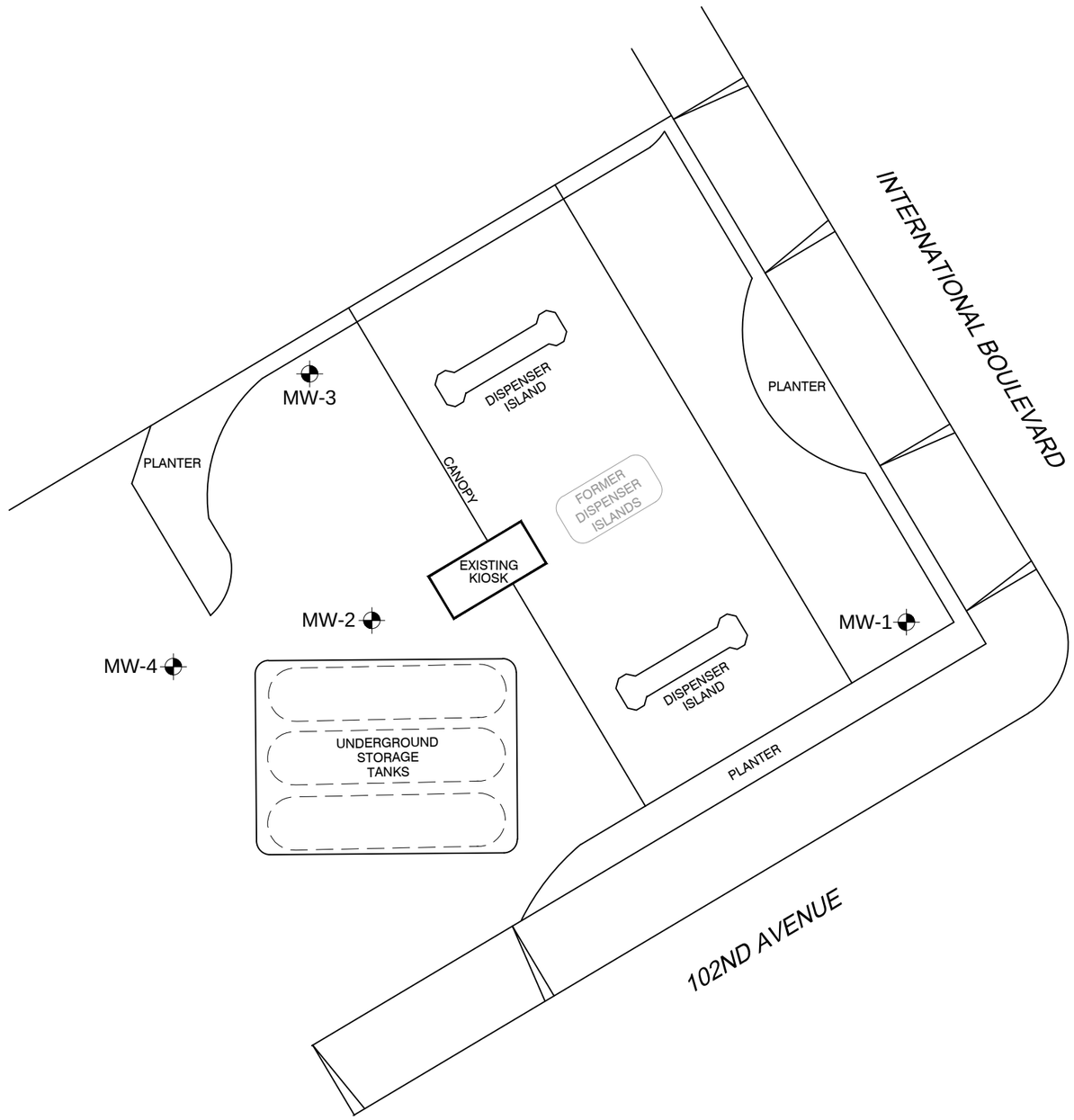
San Leandro.jpg



LEGEND

MW-1 GROUNDWATER MONITORING WELL

NOTES:

1. BASE MAP PROVIDED BY TRC, DATED JANUARY 2010, AT A SCALE OF 1"=20'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 20' 40'

GRAPHIC SCALE

UNION OIL
STATION NO. 7124
10151 INTERNATIONAL BOULEVARD
OAKLAND, CALIFORNIA

SITE PLAN

ARCADIS

FIGURE
2

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS LD: J. HARRIS PIC: J. VOGELEY PM: K. ABBOTT TM: K. ABBOTT LYR:(Opt)ON=*;OFF=*REF*
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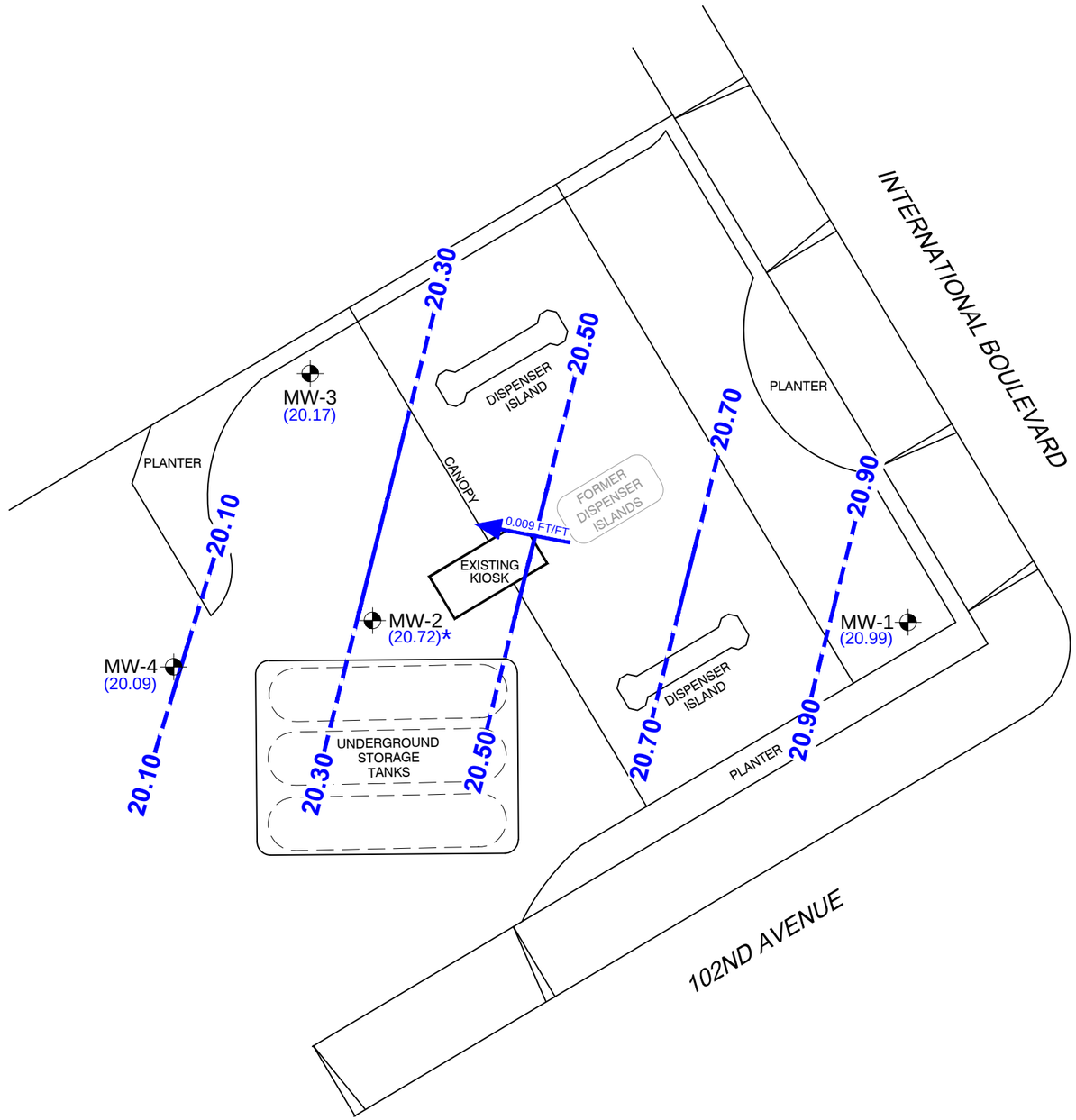

LEGEND

MW-1 ⊕	GROUNDWATER MONITORING WELL
(19.77)	GROUNDWATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL (FT MSL)
20.90 – – –	GROUNDWATER ELEVATION CONTOUR (FT MSL; DASHED WHERE INFERRED)
0.009 FT/FT ◀	APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FOOT PER FOOT)
*	NOT USED IN CONTOURING; ANOMALY

NOTES:

1. BASE MAP PROVIDED BY TRC, DATED JANUARY 2010, AT A SCALE OF 1"=20'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 20' 40'

GRAPHIC SCALE

UNION OIL
STATION NO. 7124
10151 INTERNATIONAL BOULEVARD
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP NOVEMBER 2, 2011

ARCADIS

FIGURE 3

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS LD: J. HARRIS PIC: J. VOGELEY PM: K. ABBOTT TM: K. ABBOTT LYR:(Opt)ON=*;OFF=*REF*
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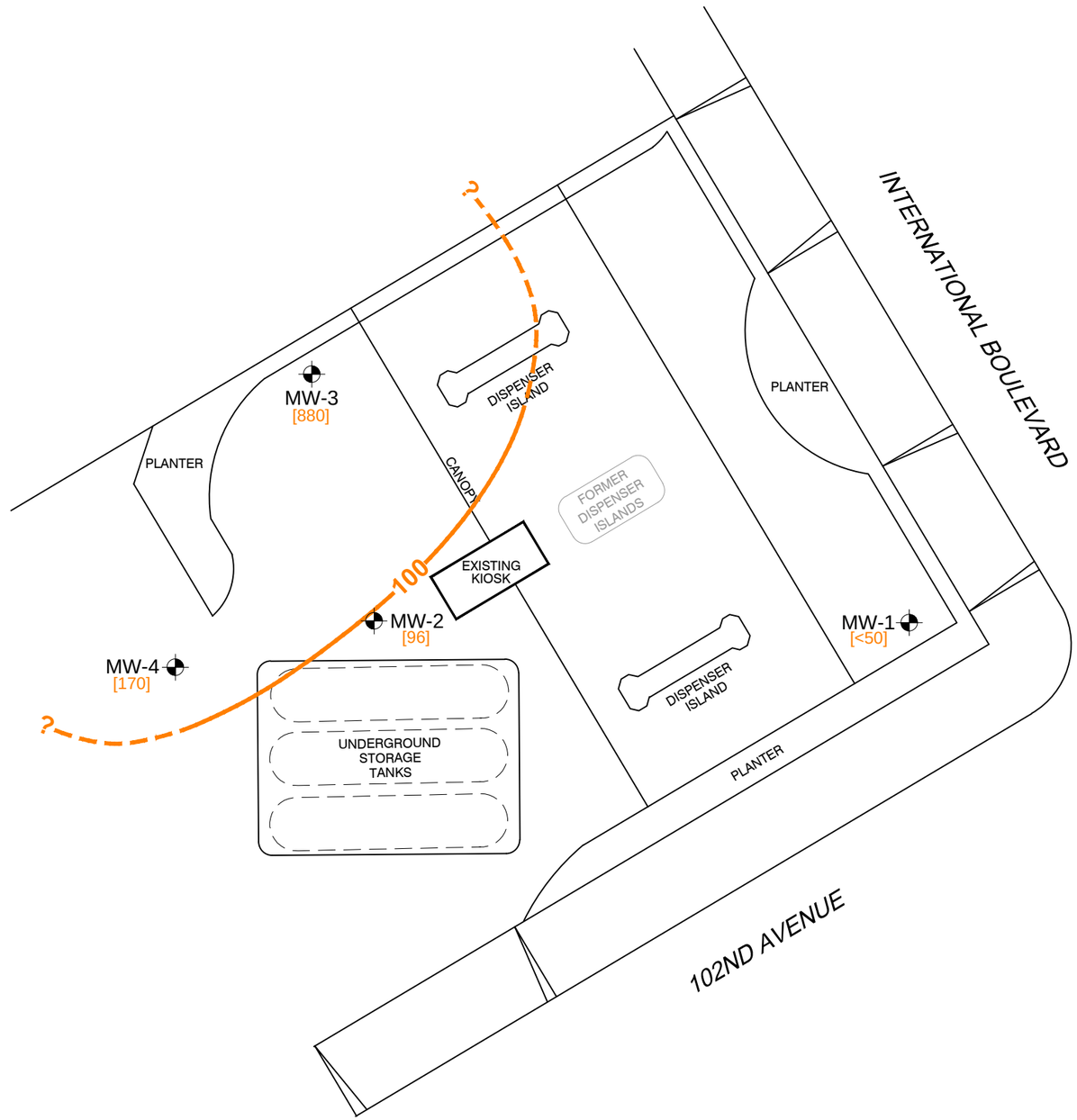

LEGEND

MW-1 — GROUNDWATER MONITORING WELL

[TPH-g] — TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (C6-C12) CONCENTRATION IN MICROGRAMS PER LITER (µg/L)

100 — TPH-g ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)

< — DENOTES LESS THAN LABORATORY REPORTING LIMIT

NOTES:

1. BASE MAP PROVIDED BY TRC, DATED JANUARY 2010, AT A SCALE OF 1"=20'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 20' 40'

GRAPHIC SCALE

UNION OIL
STATION NO. 7124
10151 INTERNATIONAL BOULEVARD
OAKLAND, CALIFORNIA

TPH-g CONCENTRATION MAP NOVEMBER 2, 2011

ARCADIS

FIGURE 4

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS LD: J. HARRIS PIC: J. VOGELEY PM: K. ABBOTT TM: K. ABBOTT LYR:(Opt)ON=*;OFF=*REF*
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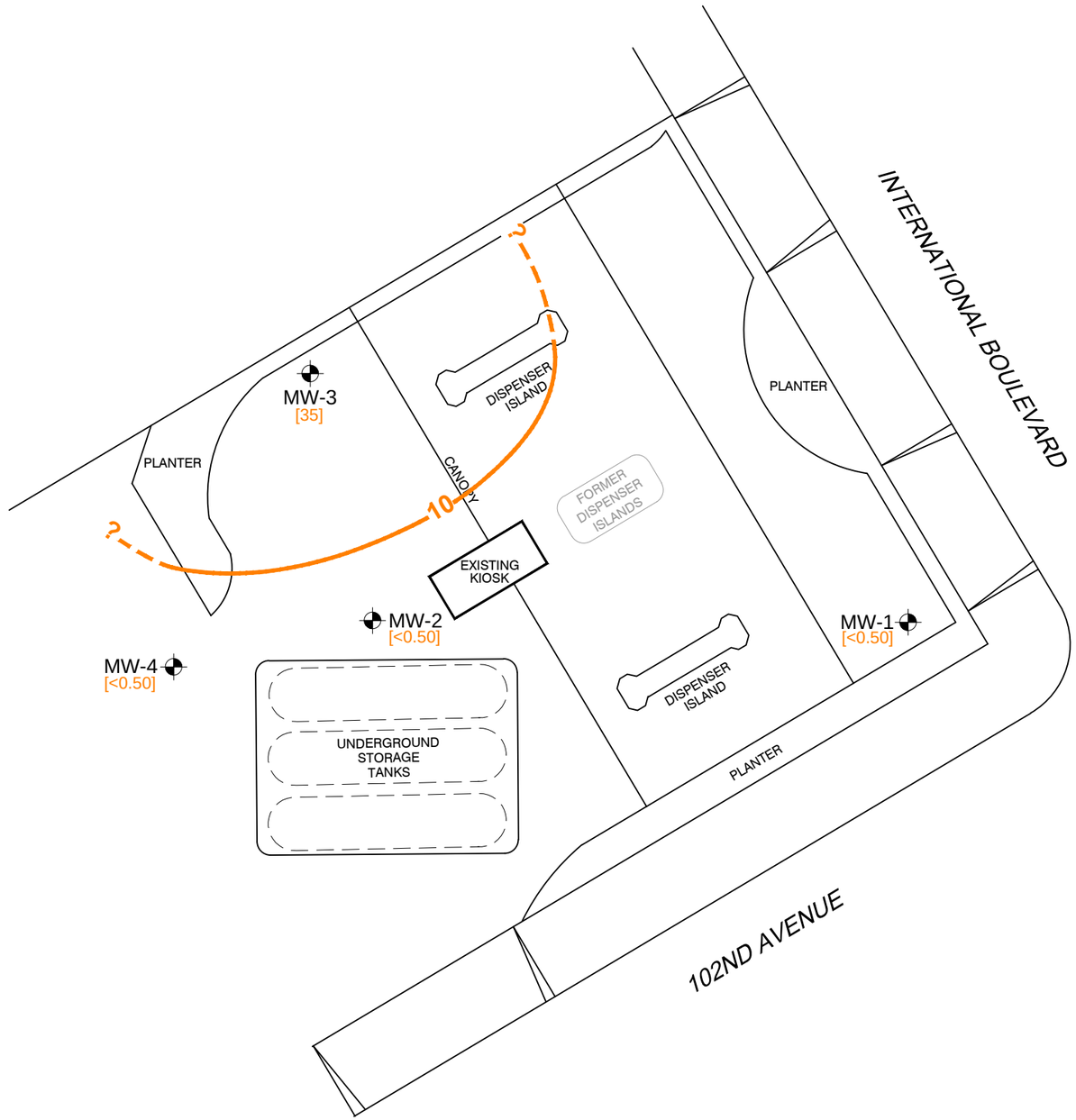

LEGEND

MW-1 GROUNDWATER MONITORING WELL

[MTBE] METHYL TERTIARY BUTYL ETHER CONCENTRATION IN MICROGRAMS PER LITER (µg/L)

10 MTBE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)

< DENOTES LESS THAN LABORATORY REPORTING LIMIT

NOTES:

1. BASE MAP PROVIDED BY TRC, DATED JANUARY 2010, AT A SCALE OF 1"=20'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 20' 40'

GRAPHIC SCALE

UNION OIL
STATION NO. 7124
10151 INTERNATIONAL BOULEVARD
OAKLAND, CALIFORNIA

MTBE CONCENTRATION MAP NOVEMBER 2, 2011

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FIGURE 5

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS LD: J. HARRIS PIC: J. VOGELEY PM: K. ABBOTT TM: K. ABBOTT LYR:(Opt)ON=*;OFF=*REF*
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XREFS: IMAGES: PROJECTNAME: ---
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Tables

Table 1
Current Groundwater Gauging and Analytical Results
76 Station 7124
10151 International Boulevard, Oakland, California

Well ID	Date Sampled	TOC Elevation (feet MSL)	DTW (feet bTOC)	LPH Thickness (feet)	GW Elevation (feet MSL)	Previous Quarter GWE (feet MSL)	Change in Elevation (feet)	TPH-g Luft GC/MS	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE	Ethanol	EDB	EDC	Comments
MW-1	11/2/2011	37.37	16.38	0.00	20.99	21.02	-0.03	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<250	<0.50	<0.50	
MW-2	11/2/2011	37.87	17.15	0.00	20.72	20.19	0.53	96	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<250	<0.50	<0.50	
MW-3	11/2/2011	37.72	17.55	0.00	20.17	20.07	0.10	880	<0.50	<0.50	<0.50	<1.0	35	<10	<0.50	<0.50	<0.50	<250	<0.50	<0.50	
MW-4	11/2/2011	38.36	18.27	0.00	20.09	20.08	0.01	170	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<250	<0.50	<0.50	

Note

Analytical results given in micrograms per liter (µg/l), unless otherwise stated

Standard Abbreviations

TOC	top of casing (surveyed reference elevation)
feet MSL	feet relative to mean sea level
DTW	depth to water
bTOC	below top of casing
LPH	liquid-phase hydrocarbons
GW	groundwater
mg/l	milligrams per liter (approx. equivalent to parts per million, ppm)
µg/l	micrograms per liter (approx. equivalent to parts per billion, ppb)

Analytes

TPH-g	total petroleum hydrocarbons with gasoline (C6-C12)
MTBE	methyl tertiary butyl ether
TBA	tertiary butyl alcohol
DIPE	di-isopropyl ether
TAME	tertiary amyl methyl ether
ETBE	ethyl tertiary butyl ether
EDB	1,2-dibromoethane (same as ethylene dibromide)
EDC	1,2-dichloroethane (same ethylene dichloride)
Luft GC/MS	Luft Method GC/MS for TPH-g (C6-C12)
GC/MS	gas chromatography/mass spectrography
8260B	EPA Method 8260B for BTEX/MTBE, Oxygenates, EDB, EDC, and ethanol

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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: November 11, 2011

TO: Katherine Brandt
ARCADIS U.S., Inc.
1900 Powell Street, 12th Floor
Emeryville, California 94608

SITE: Unocal Site 7124
Facility 351638
10151 International Blvd, Oakland, CA

RE: Transmittal of Groundwater Monitoring Data

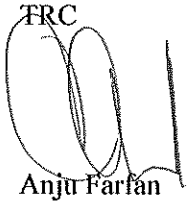
Dear Ms. Brandt,

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 November 2, 2011. 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 949-341-7440 if you have questions.

Sincerely,

TRC



Anju Farfan
Groundwater Program Operations Manager

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: JOE Job #/Task #: 183487.0035.1638 Date: 11/02/11

Site # 7124 Project Manager A. Farfan Page 1 of 1

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
MW-1	X	1030	24.76	16.38	—	—	1150	4"
MW-2	X	1036	25.15	17.15	—	—	1213	4"
MW-4	X	1041	24.91	18.27	—	—	1235	4"
MW-3	X	1046	25.13	17.55	—	—	1300	4"

FIELD DATA COMPLETE QA/QC COC WELL BOX CONDITION SHEETS

MANIFEST DRUM INVENTORY TRAFFIC CONTROL

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: JOE

Site: 712 4 Project No.: 183487.0035.1638 Date: 11/02/11

Well No. MW-1 Purge Method: _____

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

Total Depth (feet) 24.76 LPH & Water Recovered (gallons): _____

Water Column (feet): 8.38 Casing Diameter (Inches): 4"

80% Recharge Depth(feet): 18.05 1 Well Volume (gallons): 6

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
1135			6	424.0	22.1	7.52			
			12	422.4	20.9	7.24			
	1141		18	421.6	20.9	7.25			

Static at Time Sampled	Total Gallons Purged	Sample Time
17.13	18	1150

Comments:

Well No. MW-2 Purge Method: SUB

Depth to Water (feet): 17.15 Depth to Product (feet): _____

Total Depth (feet) 25.15 LPH & Water Recovered (gallons): _____

Water Column (feet): 8.00 Casing Diameter (Inches): 4"

80% Recharge Depth(feet): 18.75 1 Well Volume (gallons): 6

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
1201			6	427.3	23.7	7.61			
			12	433.1	22.2	7.28			
	1206		18	434.1	22.2	7.24			

Static at Time Sampled	Total Gallons Purged	Sample Time
18.38	18	1213

Comments:

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: JOE

Site: 7124 Project No.: 183487.0035.1638 Date: 11/02/11

Well No. MW-4 Purge Method: SUB

Depth to Water (feet): 18.27 Depth to Product (feet): —

Total Depth (feet) 24.91 LPH & Water Recovered (gallons): —

Water Column (feet): 6.64 Casing Diameter (Inches): 4"

80% Recharge Depth(feet): 19.59 1 Well Volume (gallons): 5

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
1219			5	481.6	23.1	7.43			
			10	450.0	22.7	7.24			
	1227		15	443.8	22.6	7.29			

Static at Time Sampled	Total Gallons Purged	Sample Time
18.60	15	1235

Comments:

Well No. MW-3 Purge Method: SUB

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

Total Depth (feet) 25.13 LPH & Water Recovered (gallons): —

Water Column (feet): 7.58 Casing Diameter (Inches): 4"

80% Recharge Depth(feet): 18.85 1 Well Volume (gallons): 5

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
1245			5	532.1	23.5	7.56			
			10	538.3	21.7	7.19			
	1249		15	538.0	21.2	7.04			

Static at Time Sampled	Total Gallons Purged	Sample Time
17.60	15	1300

Comments:

TRC

WELL BOX CONDITION REPORT

SITE NO. 7124

ADDRESS 10151 Interration Blvd.

DATE 11/02/11

PERFOMED BY: JOE

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-1	12"	2	N																→	
MW-2	12"	2	N																→	
MW-4	12"	2	N																→	
MW-3	12"	2	N																→	

TRC

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: 7124	Union Oil Consultant: Arcadis
Site Global ID: T0600173591	Consultant Contact: Kathy Brandt
Site Address: 10151 International Blvd. Oakland, CA	Consultant Phone No.: 510 596-9675
	Sampling Company: TRC
Union Oil PM: Roya Kambin	Sampled By (PRINT): JOE D. LEWIS
Union Oil PM Phone No.: 925-790-6270	Sampler Signature: [signature]
Charge Code: NWRTB- 0 351638 -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

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 (C6-C12)	BTEX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	EDB/1,2 DCA by 8260B						Notes / Comments
MW-1	W-S-A		11/11/02	1150	3		X	X	X		X						
MW-2	W-S-A		↓	12.3	↓		↓	↓	↓		↓						
MW-4	W-S-A		↓	1235	↓		↓	↓	↓		↓						
MW-3	W-S-A		↓	1300	↓		↓	↓	↓		↓						
	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:
[signature]	TRC	11/02/11 1425						
Received By	**Company**	**Date / Time:**	**Received By**	**Company**	**Date / Time :**	**Received By**	**Company**	**Date / Time:**
[illegible]	BC LABS	[illegible]						

TRC SOLUTIONS

TECHNICAL SERVICES REQUEST FORM

24-Oct-11

Site ID:	7124	**Project No.:**	183487.0035.1638 / 00TA01
Address	10151 International Boulevard	**Client:**	Roya Kambin
City:	Oakland	**Contact #:**	925-790-6270
Cross Street:	102nd Street	**PM:**	Kathy Brandt Arcadis
		PM Contact #:	510-596-9675

Total number of wells:	4	**Min. Well Diameter (in.):**	4	**# of Techs, # of Hrs:**	1, 4
Depth to Water (ft.):	16	**Max. Well Diameter (in.):**	4	**Travel Time (hrs):**	0.5
		Max. Well Depth (ft):	25		

ACTIVITIES:		Frequency	Notes
Gauging:	☑	Quarterly	
Purge/Sampling:	☑	Quarterly	
No Purge/Sample	☐		

RELATED ACTIVITIES		Notes
Drums:	☑	
Other Activities:	☐	
Traffic Control:	☐	

PERMIT INFORMATION:

NOTIFICATIONS:

Royal Ex Gas: 510-430-9096

SITE INFORMATION:

Must coordinate with station owner to have gate opened.

TRC SOLUTIONS

TECHNICAL SERVICES REQUEST FORM

24-Oct-11

Site ID:	7124	**Project No.:**	183487.0035.1638 / 00TA01
Address	10151 International Boulevard	**Client:**	Roya Kambin
City:	Oakland	**Contact #:**	925-790-6270
Cross Street:	102nd Street	**PM:**	Kathy Brandt Arcadis
		PM Contact #:	510-596-9675

LAB INFORMATION:

Global ID: T0600173591

Lab WO: 351638

Lab Used: BC Labs

Lab Notes: Lab Analyses:
TPH-G by GC/MS (C6 - C12), BTEX/MTBE/OXYS by 8260B, EDB/EDC by 8260B, Ethanol by 8260B [Containers: 3 voas w/HCl]

TRC SOLUTIONS

TECHNICAL SERVICES REQUEST FORM

24-Oct-11

Site ID.: 7124
Address 10151 International Boulevard
City: Oakland
Cross Street 102nd Street

			Gauging				Sampling				Field Measurements			
Well IDs	Benz.	MTBE	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Pre-Purge	Post-Purge	Type	**Comments**
MW-1	0	0	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐		4" casing
MW-2	0	2	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐		4" casing
MW-4	0	2.4	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐		4" casing
MW-3	0	1300	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐		4" casing

ARCADIS

Attachment B

Historical Groundwater Results from TRC

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

76 Station 7124

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														
4/8/2002	37.37	14.27	0.00	23.10	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	ND<2.0	
7/28/2002	37.37	15.88	0.00	21.49	-1.61	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
11/3/2002	37.37	16.75	0.00	20.62	-0.87	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/24/2003	37.37	13.94	0.00	23.43	2.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/2/2003	37.37	14.99	0.00	22.38	-1.05	--	460	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
7/1/2003	37.37	15.48	0.00	21.89	-0.49	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/2/2003	37.37	16.68	0.00	20.69	-1.20	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/9/2004	37.37	13.79	0.00	23.58	2.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
4/26/2004	37.37	15.21	0.00	22.16	-1.42	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
7/22/2004	37.37	16.43	0.00	20.94	-1.22	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/29/2004	37.37	16.14	0.00	21.23	0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.51	
1/12/2005	37.37	12.83	0.00	24.54	3.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.52	
6/20/2005	37.37	14.38	0.00	22.99	-1.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.53	
9/23/2005	37.37	15.92	0.00	21.45	-1.54	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.54	
12/13/2005	37.37	16.09	0.00	21.28	-0.17	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.55	
3/24/2006	37.37	11.85	0.00	25.52	4.24	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.56	
5/30/2006	37.37	13.30	0.00	24.07	-1.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.57	
8/22/2006	37.37	15.11	0.00	22.26	-1.81	--	ND<50	ND<0.50		ND<0.50	ND<0.50	--	ND<0.58	
10/31/2006	37.37	16.11	0.00	21.26	-1.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.59	
1/12/2007	37.37	15.55	0.00	21.82	0.56	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.60	
4/4/2007	37.37	15.31	0.00	22.06	0.24	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.61	
7/5/2007	37.37	16.21	0.00	21.16	-0.90	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.62	
10/1/2007	37.37	17.13	0.00	20.24	-0.92	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.63	
1/11/2008	37.37	14.48	0.00	22.89	2.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.64	
4/4/2008	37.37	16.17	0.00	21.20	-1.69	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.65	Gauged on 5-22-08
7/2/2008	37.37	16.70	0.00	20.67	-0.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.66	
10/2/2008	37.37	17.50	0.00	19.87	-0.80	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.67	
1/14/2009	37.37	17.30	0.00	20.07	0.20	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.68	
4/16/2009	37.37	15.60	0.00	21.77	1.70	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.69	
7/16/2009	37.37	16.90	0.00	20.47	-1.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.70	
1/6/2010	37.37	16.35	0.00	21.02	0.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.71	
MW-2														
4/8/2002	37.87	15.86	0.00	22.01	--	4400	--	ND<2.5	ND<2.5	6.4	ND<2.5	380	490	
7/28/2002	37.87	17.28	0.00	20.59	-1.42	--	3200	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	170	
11/3/2002	37.87	18.03	0.00	19.84	-0.75	--	3800	ND<5.0	ND<5.0	ND<5.0	ND<10	--	72	
1/24/2003	37.87	15.59	0.00	22.28	2.44	--	410	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	490	
4/2/2003	37.87	16.50	0.00	21.37	-0.91	--	1000	ND<5.0	ND<5.0	ND<5.0	ND<10	--	180	
7/1/2003	37.87	16.94	0.00	20.93	-0.44	--	1900	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	120	
10/2/2003	37.87	17.93	0.00	19.94	-0.99	--	6900	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	32	
1/9/2004	37.87	15.42	0.00	22.45	2.51	--	1000	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	300	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

76 Station 7124

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
4/26/2004	37.87	--	--	--	--	--	--	--	--	--	--	--	--	Covered with asphalt
7/22/2004	37.87	--	--	--	--	--	--	--	--	--	--	--	--	Covered with asphalt
10/29/2004	37.87	--	0.00	--	--	--	--	--	--	--	--	--	--	Well is paved over.
1/12/2005	37.87	--	--	--	--	--	--	--	--	--	--	--	--	Well was paved over.
6/20/2005	37.87	15.94	0.00	21.93	--	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	46	
9/23/2005	37.87	17.29	0.00	20.58	-1.35	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	10	
12/13/2005	37.87	17.41	0.00	20.46	-0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	11	
3/24/2006	37.87	13.77	0.00	24.10	3.64	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	15	
5/30/2006	37.87	15.16	0.00	22.71	-1.39	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.6	
8/22/2006	37.87	16.49	0.00	21.38	-1.33	--	81	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	3.0	
10/31/2006	37.87	17.15	0.00	20.72	-0.66	--	93	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.0	
1/12/2007	37.87	17.07	0.00	20.80	0.08	--	230	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	4.3	
4/4/2007	37.87	17.84	0.00	20.03	-0.77	--	110	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.5	
7/5/2007	37.87	17.51	0.00	20.36	0.33	--	150	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.6	
10/1/2007	37.87	18.25	0.00	19.62	-0.74	--	160	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.0	
1/11/2008	37.87	16.80	0.00	21.07	1.45	--	130	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	7.7	
5/22/2008	37.87	17.46	0.00	20.41	-0.66	--	140	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.2	Gauged and sampled on 5-22-08
7/2/2008	37.87	17.94	0.00	19.93	-0.48	--	75	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	
10/2/2008	37.87	18.65	0.00	19.22	-0.71	--	130	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.1	
1/14/2009	37.87	18.40	0.00	19.47	0.25	--	66	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.5	
4/16/2009	37.87	16.94	0.00	20.93	1.46	--	93	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.2	
7/16/2009	37.87	18.15	0.00	19.72	-1.21	--	92	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.6	
1/6/2010	37.87	17.68	0.00	20.19	0.47	--	150	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.0	
MW-3														
4/8/2002	37.72	15.86	0.00	21.86	--	8700	--	65	ND<25	400	ND<25	6500	8300	
7/28/2002	37.72	17.22	0.00	20.50	-1.36	--	4500	ND<25	ND<25	ND<25	ND<50	--	1100	
11/3/2002	37.72	17.90	0.00	19.82	-0.68	--	25000	ND<5.0	ND<5.0	25	ND<10	--	470	
1/24/2003	37.72	15.57	0.00	22.15	2.33	--	6000	ND<25	ND<25	94	ND<50	--	10000	
4/2/2003	37.72	16.45	0.00	21.27	-0.88	--	130000	ND<100	ND<100	ND<100	ND<200	--	4400	
7/1/2003	37.72	16.88	0.00	20.84	-0.43	--	9400	ND<10	ND<10	ND<10	ND<20	--	2200	
10/2/2003	37.72	17.85	0.00	19.87	-0.97	--	73000	ND<50	ND<50	ND<50	ND<100	--	460	
1/9/2004	37.72	15.31	0.00	22.41	2.54	--	8700	ND<25	ND<25	98	ND<50	--	3800	
4/26/2004	37.72	16.62	0.00	21.10	-1.31	--	6700	ND<25	ND<25	ND<25	ND<50	--	3900	
7/22/2004	37.72	17.62	0.00	20.10	-1.00	--	13000	ND<25	ND<25	ND<25	ND<50	--	980	
10/29/2004	37.72	17.29	0.00	20.43	0.33	--	4600	ND<5.0	ND<5.0	13	ND<10	--	640	
1/12/2005	37.72	14.64	0.00	23.08	2.65	--	6100	0.88	0.99	30	2.2	--	6900	
6/20/2005	37.72	15.91	0.00	21.81	-1.27	--	1900	ND<0.50	0.21J	0.52	0.46J	--	960	
9/23/2005	37.72	17.20	0.00	20.52	-1.29	--	2400	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	160	
12/13/2005	37.72	17.32	0.00	20.40	-0.12	--	2100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	340	
3/24/2006	37.72	13.86	0.00	23.86	3.46	--	2200	ND<5.0	ND<5.0	ND<5.0	ND<10	--	970	
5/30/2006	37.72	15.69	0.00	22.03	-1.83	--	1500	ND<12	ND<12	ND<12	ND<25	--	760	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

76 Station 7124

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
8/22/2006	37.72	16.51	0.00	21.21	-0.82	--	1900	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	160	
10/31/2006	37.72	17.36	0.00	20.36	-0.85	--	2200	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	58	
1/12/2007	37.72	16.85	0.00	20.87	0.51	--	2600	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	680	
4/4/2007	37.72	16.62	0.00	21.10	0.23	--	1700	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	650	
7/5/2007	37.72	17.42	0.00	20.30	-0.80	--	2400	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	160	
10/1/2007	37.72	18.16	0.00	19.56	-0.74	--	1700	ND<1.0	ND<1.0	ND<1.0	ND<1.0	--	87	
1/11/2008	37.72	15.84	0.00	21.88	2.32	--	2200	ND<0.50	ND<0.50	1.6	ND<1.0	--	1300	
4/4/2008	37.72	17.30	0.00	20.42	-1.46	--	1600	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	470	Gauged on 5-22-08
7/2/2008	37.72	17.84	0.00	19.88	-0.54	--	1200	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	91	
10/2/2008	37.72	18.50	0.00	19.22	-0.66	--	2100	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	84	
1/14/2009	37.72	18.33	0.00	19.39	0.17	--	2000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	320	
4/16/2009	37.72	16.92	0.00	20.80	1.41	--	1800	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	560	
7/16/2009	37.72	18.05	0.00	19.67	-1.13	--	1900	ND<5.0	ND<5.0	ND<5.0	ND<10	--	100	
1/6/2010	37.72	17.65	0.00	20.07	0.40	--	2200	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1300	
MW-4														
4/8/2002	38.36	16.59	0.00	21.77	--	13000	--	ND<5.0	ND<5.0	28	ND<5.0	790	980	
7/28/2002	38.36	17.93	0.00	20.43	-1.34	--	18000	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	170	
11/3/2002	38.36	18.66	0.00	19.70	-0.73	--	220	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.7	
1/24/2003	38.36	16.27	0.00	22.09	2.39	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	1000	
4/2/2003	38.36	17.19	0.00	21.17	-0.92	--	130000	ND<100	ND<100	ND<100	ND<200	--	ND<400	
7/1/2003	38.36	17.61	0.00	20.75	-0.42	--	15000	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	170	
10/2/2003	38.36	18.58	0.00	19.78	-0.97	--	7100	ND<10	ND<10	ND<10	ND<20	--	70	
1/9/2004	38.36	16.15	0.00	22.21	2.43	--	18000	ND<10	ND<10	ND<10	ND<20	--	530	
4/26/2004	38.36	17.20	0.00	21.16	-1.05	--	6500	ND<10	ND<10	ND<10	ND<20	--	240	
7/22/2004	38.36	18.34	0.00	20.02	-1.14	--	18000	ND<10	ND<10	ND<10	ND<20	--	48	
10/29/2004	38.36	18.13	0.00	20.23	0.21	--	2700	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	76	
1/12/2005	38.36	15.22	0.00	23.14	2.91	--	1300	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	620	
6/20/2005	38.36	16.63	0.00	21.73	-1.41	--	980	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	110	
9/23/2005	38.36	17.93	0.00	20.43	-1.30	--	1500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	34	
12/13/2005	38.36	18.04	0.00	20.32	-0.11	--	3900	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	36	
3/24/2006	38.36	14.48	0.00	23.88	3.56	--	1500	ND<12	ND<12	ND<12	ND<25	--	200	
5/30/2006	38.36	15.79	0.00	22.57	-1.31	--	1200	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	130	
8/22/2006	38.36	17.26	0.00	21.10	-1.47	--	980	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	33	
10/31/2006	38.36	18.08	0.00	20.28	-0.82	--	1300	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	10	
1/12/2007	38.36	17.57	0.00	20.79	0.51	--	820	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	28	
4/4/2007	38.36	17.40	0.00	20.96	0.17	--	460	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	41	
7/5/2007	38.36	18.02	0.00	20.34	-0.62	--	920	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	7.0	
10/1/2007	38.36	18.89	0.00	19.47	-0.87	--	560	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	3.0	
1/11/2008	38.36	16.56	0.00	21.80	2.33	--	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	21	
5/22/2008	38.36	18.10	0.00	20.26	-1.54	--	520	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	Gauged and sampled on 5-22-08
7/2/2008	38.36	18.55	0.00	19.81	-0.45	--	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.3	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

76 Station 7124

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
10/2/2008	38.36	19.25	0.00	19.11	-0.70	--	790	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	
1/14/2009	38.36	19.10	0.00	19.26	0.15	--	430	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	
4/16/2009	38.36	17.61	0.00	20.75	1.49	--	390	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	16	
7/16/2009	38.36	18.70	0.00	19.66	-1.09	--	310	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.2	
1/6/2010	38.36	18.28	0.00	20.08	0.42	--	380	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	

Table 2a
ADDITIONAL HISTORIC ANALYTICAL RESULTS

76 Station 7124

Date Sampled	TBA (µg/l)	Ethanol (8015B) (mg/l)	Ethanol (8260B) (µg/l)	Ethylene-dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Comments
MW-1									
7/28/2002	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
11/3/2002	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
1/24/2003	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
4/2/2003	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
7/1/2003	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
10/2/2003	ND<100	--	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
1/9/2004	ND<100	--	ND<500	ND<2	ND<2.0	ND<2	ND<2	ND<2	
4/26/2004	ND<5.0	--	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	
7/22/2004	ND<5.0	--	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	
10/29/2004	ND<5.0	--	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	
1/12/2005	ND<5.0	--	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	
6/20/2005	ND<10	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
9/23/2005	ND<10	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
12/13/2005	ND<10	--	ND<250	21.449999	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
3/24/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
5/30/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
8/22/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/31/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/12/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/4/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/5/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/1/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/11/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/4/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/2/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/2/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/14/2009	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/16/2009	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/16/2009	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/6/2010	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
MW-2									
4/8/2002	ND<2000	ND<10000	--	ND<40	ND<40	ND<40	ND<40	ND<40	
7/28/2002	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10	
11/3/2002	ND<1000	ND<5000	--	ND<20	ND<20	ND<20	ND<20	ND<20	

Table 2a
ADDITIONAL HISTORIC ANALYTICAL RESULTS

76 Station 7124

Date Sampled	TBA (µg/l)	Ethanol (8015B) (mg/l)	Ethanol (8260B) (µg/l)	Ethylene-dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Comments
1/24/2003	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10	
4/2/2003	ND<1000	ND<5000	--	ND<20	ND<20	ND<20	ND<20	ND<20	
7/1/2003	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10	
10/2/2003	ND<100	--	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
1/9/2004	ND<500	--	ND<2500	ND<10	ND<10	ND<10	ND<10	ND<10	
6/20/2005	25	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
9/23/2005	ND<10	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
12/13/2005	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
3/24/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
5/30/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
8/22/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/31/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/12/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/4/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/5/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/1/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/11/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
5/22/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/2/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/2/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/14/2009	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/16/2009	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/16/2009	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/6/2010	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
MW-3									
10/2/2003	ND<10000	--	ND<50000	ND<200	ND<200	ND<200	ND<200	ND<200	
1/9/2004	ND<5000	--	ND<25000	ND<100	ND<100	ND<100	ND<100	ND<100	
4/26/2004	ND<250	--	ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25	
7/22/2004	ND<250	--	ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25	
10/29/2004	ND<50	--	ND<500	ND<5.0	ND<5.0	ND<10	ND<5.0	ND<5.0	
1/12/2005	1300	--	ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25	
6/20/2005	39	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.31J	
9/23/2005	ND<10	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
12/13/2005	ND<50	--	ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	
3/24/2006	ND<100	--	ND<2500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	

Table 2a
ADDITIONAL HISTORIC ANALYTICAL RESULTS

76 Station 7124

Date Sampled	TBA (µg/l)	Ethanol (8015B) (mg/l)	Ethanol (8260B) (µg/l)	Ethylene-dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Comments
5/30/2006	ND<250	--	ND<6200	ND<12	ND<12	ND<12	ND<12	ND<12	
8/22/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/31/2006	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/12/2007	43	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/4/2007	130	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/5/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/1/2007	ND<20	--	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	
1/11/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/4/2008	ND<20	--	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	
7/2/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/2/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/14/2009	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/16/2009	ND<50	--	ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	
7/16/2009	ND<100	--	ND<2500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
1/6/2010	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
MW-4									
4/8/2002	ND<5000	ND<25000	--	ND<100	ND<100	ND<100	ND<100	ND<100	
7/28/2002	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10	
11/3/2002	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
1/24/2003	ND<2000	ND<10000	--	ND<40	ND<40	ND<40	ND<40	ND<40	
4/2/2003	ND<20000	ND<100000	--	ND<400	ND<400	ND<400	ND<400	ND<400	
7/1/2003	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10	
10/2/2003	ND<2000	--	ND<10000	ND<40	ND<40	ND<40	ND<40	ND<40	
1/9/2004	ND<2000	--	ND<10000	ND<40	ND<40	ND<40	ND<40	ND<40	
4/26/2004	430	--	ND<1000	ND<10	ND<10	ND<20	ND<10	ND<10	
7/22/2004	ND<100	--	ND<1000	ND<10	ND<10	ND<20	ND<10	ND<10	
10/29/2004	63	--	ND<250	ND<2.5	ND<2.5	ND<5.0	ND<2.5	ND<2.5	
1/12/2005	1300	--	ND<250	ND<10	ND<2.5	ND<5.0	ND<2.5	ND<2.5	
6/20/2005	580	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
9/23/2005	92	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
12/13/2005	50	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
3/24/2006	1900	--	ND<6200	ND<12	ND<12	ND<12	ND<12	ND<12	
5/30/2006	ND<50	--	ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	
8/22/2006	150	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/31/2006	43	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	

Table 2a
ADDITIONAL HISTORIC ANALYTICAL RESULTS

76 Station 7124

Date Sampled	TBA (µg/l)	Ethanol (8015B) (mg/l)	Ethanol (8260B) (µg/l)	Ethylene-dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Comments
1/12/2007	72	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/4/2007	260	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/5/2007	18	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/1/2007	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/11/2008	140	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
5/22/2008	52	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/2/2008	15	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
10/2/2008	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/14/2009	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
4/16/2009	170	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
7/16/2009	20	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
1/6/2010	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	

ARCADIS

Attachment C

Laboratory Report and Chain-of-Custody Documentation

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 11/14/2011

Kathy Brandt

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Project:	7124
BC Work Order:	1118162
Invoice ID:	B111258

Enclosed are the results of analyses for samples received by the laboratory on 11/2/2011. 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

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1118162 Page 1 of 2

11-18162

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: 7124	Union Oil Consultant: Arcadis
Site Global ID: T0600173591	Consultant Contact: Kathy Brandt
Site Address: 10151 International Blvd. Oakland, CA	Consultant Phone No.: 510-596-9675
	Sampling Company: TRC
Union Oil PM: Roya Kambin	Sampled By (PRINT): JOE D. LEWIS
Union Oil PM Phone No.: 925-790-6270	Sampler Signature: Joe D. Lewis
Charge Code: NWRTB-0 351638 -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 (C6-C12)	BTEX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	EDB/EDC by 8260B						Notes / Comments
MW-1	(W)-S-A	-1	11/11/02	1150	3		X	X	X		X						
MW-2	W-S-A	-2	↓	1213	↓		↓	↓	↓		↓						
MW-4	W-S-A	-3	↓	1235	↓		↓	↓	↓		↓						
MW-3	W-S-A	-4	↓	1300	↓		↓	↓	↓		↓						
	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 [initials] DISTRIBUTION [initials] ☐ ☐ ☐ SUB-OUT ☐

Relinquished By	Company	Date / Time:	Relinquished By	Company	Date / Time:	Relinquished By	Company	Date / Time:
Joe D. Lewis	TRC	11/02/11 1425	Gary Bogan	BcLabs	11-2-11 1900	R. [signature]	BCL	11-2-11 2120
Received By	**Company**	**Date / Time:**	**Received By**	**Company**	**Date / Time:**	**Received By**	**Company**	**Date / Time:**
Gary Bogan	BcLabs	11-2-11 1430	R. [signature]	BCL	11-2-11 1900	[signature]	BCL	11-2-11 2120

Chain of Custody and Cooler Receipt Form for 1118162 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 11-18162

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: 0.97 Container: VOA Thermometer ID: 177

Temperature: A 1.4 °C / C 1.4 °C

Date/Time 11-2-11

Analyst Init JDW 2155

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	( )	( )	( )	( )	( )	( )
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: JDW Date/Time: 11-3-11 2106

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1118162-01	**COC Number:**	---	**Receive Date:**	11/02/2011 21:20
	Project Number:	7124	**Sampling Date:**	11/02/2011 11:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-1-W-111102	**Lab Matrix:**	Water
	Sampled By:	TRCI	**Sample Type:**	Groundwater
			Delivery Work Order:	
			Global ID: T0600173591	
			Location ID (FieldPoint): MW-1	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1118162-02	**COC Number:**	---	**Receive Date:**	11/02/2011 21:20
	Project Number:	7124	**Sampling Date:**	11/02/2011 12:13
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-2-W-111102	**Lab Matrix:**	Water
	Sampled By:	TRCI	**Sample Type:**	Groundwater
			Delivery Work Order:	
			Global ID: T0600173591	
			Location ID (FieldPoint): MW-2	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1118162-03	**COC Number:**	---	**Receive Date:**	11/02/2011 21:20
	Project Number:	7124	**Sampling Date:**	11/02/2011 12:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-4-W-111102	**Lab Matrix:**	Water
	Sampled By:	TRCI	**Sample Type:**	Groundwater
			Delivery Work Order:	
			Global ID: T0600173591	
			Location ID (FieldPoint): MW-4	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
Project Manager: Kathy Brandt

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1118162-04	**COC Number:**	---	**Receive Date:**	11/02/2011 21:20
	Project Number:	7124	**Sampling Date:**	11/02/2011 13:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-3-W-111102	**Lab Matrix:**	Water
	Sampled By:	TRCI	**Sample Type:**	Groundwater

Delivery Work Order:
Global ID: T0600173591
Location ID (FieldPoint): MW-3
Matrix: W
Sample QC Type (SACode): CS
Cooler ID:

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1118162-01 | **Client Sample Name:** 7124, MW-1-W-111102, 11/2/2011 11:50:00AM

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
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons (C6-C12)	ND	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.3	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	88.6	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	11/11/11	11/12/11 03:22	JMC	MS-V12	1	BUK0929

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1118162-02 | **Client Sample Name:** 7124, MW-2-W-111102, 11/2/2011 12:13:00PM

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
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons (C6-C12)	**96**	**ug/L**	**50**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.7	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	104	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.6	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	11/11/11	11/12/11 03:03	JMC	MS-V12	1	BUK0929

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1118162-03 | **Client Sample Name:** 7124, MW-4-W-111102, 11/2/2011 12:35:00PM

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
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons (C6-C12)	**170**	**ug/L**	**50**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	94.1	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	94.7	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	11/11/11	11/12/11 02:45	JMC	MS-V12	1	BUK0928

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
Project Manager: Kathy Brandt

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1118162-04 | **Client Sample Name:** 7124, MW-3-W-111102, 11/2/2011 1:00:00PM

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	**35**	**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
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons (C6-C12)	**880**	**ug/L**	**50**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	105	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.3	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	11/11/11	11/12/11 02:27	JMC	MS-V12	1	BUK0928

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
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: BUK0928						
Benzene	BUK0928-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BUK0928-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BUK0928-BLK1	ND	ug/L	0.50		
Ethylbenzene	BUK0928-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BUK0928-BLK1	ND	ug/L	0.50		
Toluene	BUK0928-BLK1	ND	ug/L	0.50		
Total Xylenes	BUK0928-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BUK0928-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BUK0928-BLK1	ND	ug/L	10		
Diisopropyl ether	BUK0928-BLK1	ND	ug/L	0.50		
Ethanol	BUK0928-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BUK0928-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons (C6-(	BUK0928-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BUK0928-BLK1	102	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUK0928-BLK1	102	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BUK0928-BLK1	91.0	%	86 - 115 (LCL - UCL)		
QC Batch ID: BUK0929						
Benzene	BUK0929-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BUK0929-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BUK0929-BLK1	ND	ug/L	0.50		
Ethylbenzene	BUK0929-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BUK0929-BLK1	ND	ug/L	0.50		
Toluene	BUK0929-BLK1	ND	ug/L	0.50		
Total Xylenes	BUK0929-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BUK0929-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BUK0929-BLK1	ND	ug/L	10		
Diisopropyl ether	BUK0929-BLK1	ND	ug/L	0.50		
Ethanol	BUK0929-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BUK0929-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons (C6-(	BUK0929-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BUK0929-BLK1	103	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUK0929-BLK1	102	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BUK0929-BLK1	100	%	86 - 115 (LCL - UCL)		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
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: BUK0928										
Benzene	BUK0928-BS1	LCS	25.040	25.000	ug/L	100		70 - 130		
Toluene	BUK0928-BS1	LCS	31.430	25.000	ug/L	126		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUK0928-BS1	LCS	9.2600	10.000	ug/L	92.6		76 - 114		
Toluene-d8 (Surrogate)	BUK0928-BS1	LCS	10.340	10.000	ug/L	103		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUK0928-BS1	LCS	10.520	10.000	ug/L	105		86 - 115		
QC Batch ID: BUK0929										
Benzene	BUK0929-BS1	LCS	26.530	25.000	ug/L	106		70 - 130		
Toluene	BUK0929-BS1	LCS	28.070	25.000	ug/L	112		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUK0929-BS1	LCS	9.8000	10.000	ug/L	98.0		76 - 114		
Toluene-d8 (Surrogate)	BUK0929-BS1	LCS	10.280	10.000	ug/L	103		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUK0929-BS1	LCS	10.810	10.000	ug/L	108		86 - 115		

Arcadis
1900 Powell Street 12th Floor
Emeryville, CA 94608

Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
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: BUK0928	Used client sample: N										
Benzene	MS	1118152-04	ND	27.990	25.000	ug/L		112		70 - 130	
	MSD	1118152-04	ND	27.500	25.000	ug/L	1.8	110	20	70 - 130	
Toluene	MS	1118152-04	ND	29.840	25.000	ug/L		119		70 - 130	
	MSD	1118152-04	ND	29.850	25.000	ug/L	0.0	119	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1118152-04	ND	9.2400	10.000	ug/L		92.4		76 - 114	
	MSD	1118152-04	ND	9.5600	10.000	ug/L	3.4	95.6		76 - 114	
Toluene-d8 (Surrogate)	MS	1118152-04	ND	9.4600	10.000	ug/L		94.6		88 - 110	
	MSD	1118152-04	ND	9.7400	10.000	ug/L	2.9	97.4		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1118152-04	ND	9.8800	10.000	ug/L		98.8		86 - 115	
	MSD	1118152-04	ND	10.310	10.000	ug/L	4.3	103		86 - 115	
QC Batch ID: BUK0929	Used client sample: N										
Benzene	MS	1117914-41	ND	28.410	25.000	ug/L		114		70 - 130	
	MSD	1117914-41	ND	25.030	25.000	ug/L	12.6	100	20	70 - 130	
Toluene	MS	1117914-41	ND	29.660	25.000	ug/L		119		70 - 130	
	MSD	1117914-41	ND	29.660	25.000	ug/L	0	119	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1117914-41	ND	10.150	10.000	ug/L		102		76 - 114	
	MSD	1117914-41	ND	9.5800	10.000	ug/L	5.8	95.8		76 - 114	
Toluene-d8 (Surrogate)	MS	1117914-41	ND	10.030	10.000	ug/L		100		88 - 110	
	MSD	1117914-41	ND	10.150	10.000	ug/L	1.2	102		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1117914-41	ND	9.5900	10.000	ug/L		95.9		86 - 115	
	MSD	1117914-41	ND	9.2400	10.000	ug/L	3.7	92.4		86 - 115	

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Reported: 11/14/2011 17:09
Project: 7124
Project Number: 351638
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