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January 31, 2014

Mr. Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Facility No. 9-9708
5910 MacArthur Boulevard, Oakland, California

Dear Mr. Detterman:

Attached for your review is the *Second Semiannual 2013 Groundwater Monitoring Report* for the above-referenced site. This report was prepared by ARCADIS, upon whose assistance and advice I have relied. I declare under penalty of perjury that the information and/or recommendations contained in the attached report are true and correct to the best of my knowledge. Should you have any further questions, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in blue ink that reads "Kelly C. York".

Kelly C. York
Project Manager

KCY:st
Encl.



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Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Department
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ENVIRONMENT

Subject:

Second Semiannual 2013 Groundwater Monitoring Report
Former Chevron Service Station No. 9-9708
5910 MacArthur Boulevard
Oakland, California
Fuel Leak Case No. RO0000124

Date:
January 30, 2014

Contact:
Toni DeMayo

Dear Mr. Detterman:

Phone:
714.508.2657

ARCADIS has prepared this *Second Semiannual 2013 Groundwater Monitoring Report* on behalf of Chevron Environmental Management Company (Chevron) to document the results of groundwater monitoring and sampling at former Chevron Station No. 9-9708, located at 5910 MacArthur Boulevard in Oakland, California (Figure 1).

Email:

Toni.DeMayo@
arcadis-us.com

Groundwater Monitoring and Sampling

Our ref:
B0060901.9708

Groundwater monitoring and sampling was performed by Blaine Tech Services, Inc. (BTS) of San Jose, California on December 12, 2013. The groundwater monitoring and sampling program consists of water level elevation monitoring, sample collection, and chemical analysis of samples for six monitoring wells (MW-1 through MW-6). Monitoring well MW-3 was not monitored as it was inaccessible during this event. BTS revisited the site at a later date and the well was still inaccessible due to a car that is unable to start and parked over the monitoring well. Monitoring well MW-4 requires a City of Oakland encroachment permit to set up traffic control and access the well. The BTS groundwater monitoring and sample package is presented in Attachment 1. Separate phase hydrocarbons (SPH) were not observed during the second semiannual 2013 monitoring event, nor have they historically been observed at the site.

Groundwater Flow

Depth-to-water measurements were subtracted from surveyed top of casing elevations to calculate the groundwater elevation at each monitoring well. Depth-to-water measurements and calculated groundwater elevations are presented in Table 1. Calculated groundwater elevation data was used to construct a groundwater elevation contour map of the site, presented as Figure 2.

Laboratory Analysis

Subsequent to collection, samples were packed on ice, cooled to approximately 4 degrees Celsius (°C) and shipped under appropriate chain-of-custody protocols for analysis to Test America Laboratories, Inc. of Irvine, California, a California Department of Public Health certified analytical laboratory. Groundwater samples were screened for the following analytes per the parameters listed:

- Total petroleum hydrocarbons as motor oil (TPH-MO) [C₂₉-C₄₀] and total petroleum hydrocarbons as diesel (TPH-DRO) [C₁₀-C₂₈] by United States Environmental Protection Agency (USEPA) Method 8015B, with silica gel clean-up
- Total petroleum hydrocarbons as gasoline (TPH-GRO) [C₄-C₁₂] by USEPA Method 8015B
- Benzene, toluene, ethylbenzene and total xylenes (BTEX) by USEPA Method 8260B
- Methyl tertiary butyl ether (MTBE) and ethanol by USEPA Method 8260B

A quality assurance/quality control (QA/QC) sample, inclusive of a trip blank, was submitted for laboratory analysis. The trip blank sample was analyzed for TPH-GRO, BTEX, MTBE and ethanol.

The analytical results of the groundwater samples collected during the second semiannual 2013 sampling event are consistent with the results of recent semiannual groundwater sampling events. The analytical sample concentrations are summarized in Table 1. A concentration map of TPH-MO, TPH-DRO and TPH-GRO is presented as Figure 3. The laboratory analytical report and chain-of-custody record for the

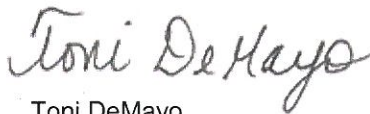
semiannual groundwater sampling event are included in Attachment 2. The historical waste oil groundwater sampling data is included in Table 2.

Summary and Conclusions

- Groundwater flowed to the north-northeast across the site, at an approximate horizontal hydraulic gradient of 0.007 feet per foot (ft/ft); the groundwater flow during this event may be affected by data not collected from monitoring well MW-3 due to inaccessibility
- Concentrations of petroleum hydrocarbon constituents detected in groundwater samples collected from the well network were consistent with the results of recent sampling events

Sincerely,

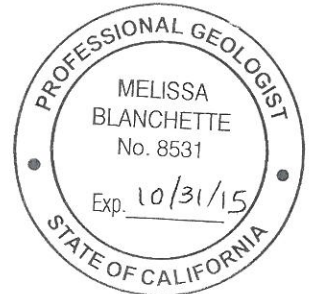
ARCADIS U.S., Inc.



Toni DeMayo
Project Manager



Melissa Blanchette, PG
Principal Geologist



Enclosures:

- Figure 1 Site Plan
- Figure 2 Groundwater Elevation Contour Map - Second Semiannual 2013
- Figure 3 Concentration Map - Second Semiannual 2013

- Table 1 Groundwater Monitoring Data and Analytical Results

- Attachment 1 Groundwater Monitoring and Sampling Field Data Sheets
- Attachment 2 Laboratory Analytical Report and Chain-of-Custody Record

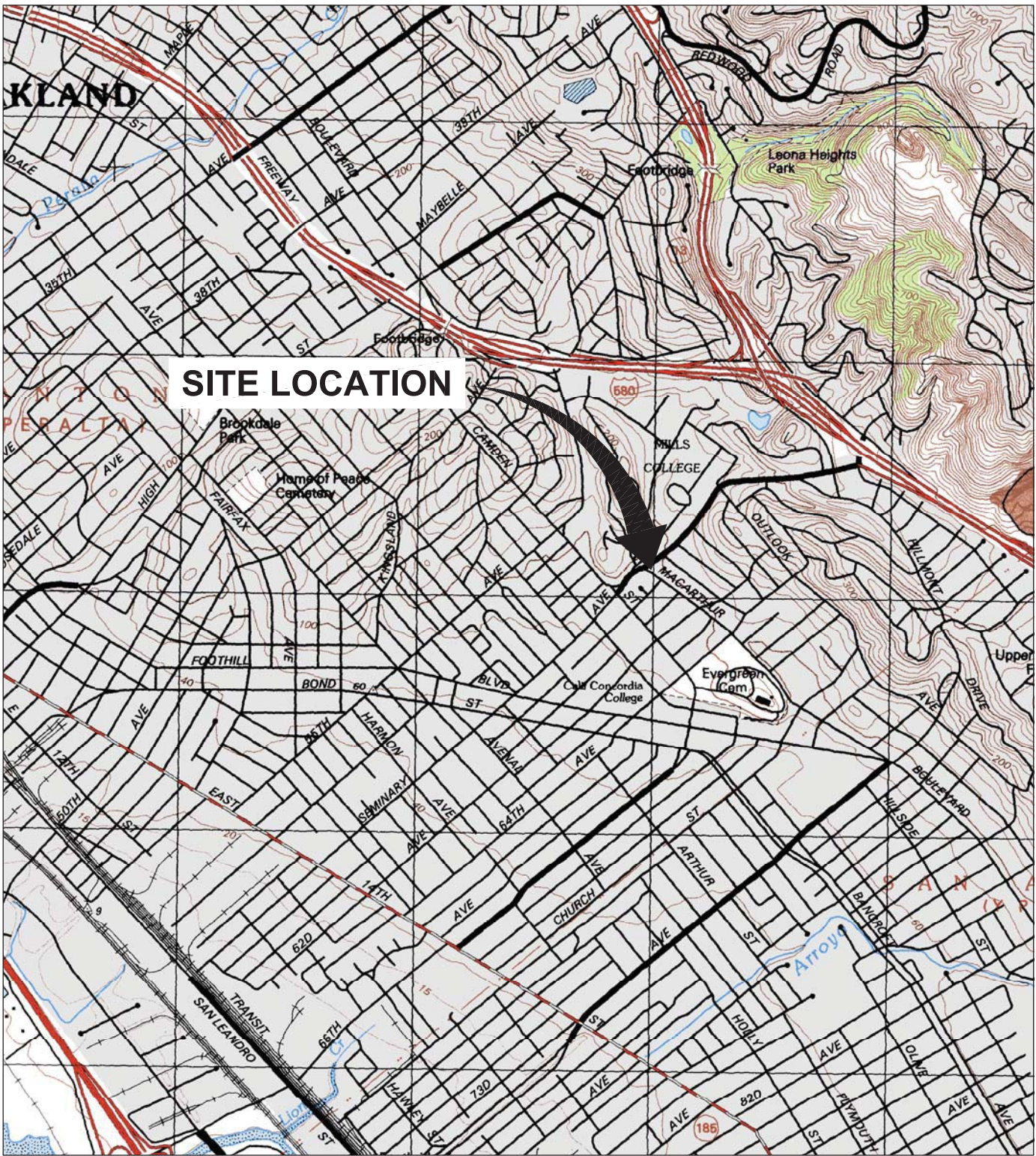
Copies:

- Ms. Kelly York – Chevron, electronic copy
- Mr. Nisson Saidon, Property Owner

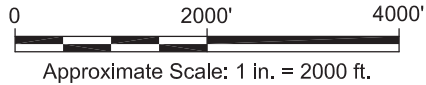
ARCADIS

Figures

CITY:(SYRACUSE) DIV:(GROUP:ENV/IN4-DV) DB:(HOWES) LD:(Opt) PIC:(NA) PM:(B/WALL) TM:(Opt) LY:(Opt) OFF=REF
 G:\ENV\CAD\STRACUSE\ACT\B00609019708\0000\IND\DWG\60901\IND.dwg LAYOUT: 1 SAVED: 1/12/2012 8:12 AM ACADVER: 18.15 (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/12/2012 8:13 AM BY: HOWES, DAVID
 XREFS: IMAGES: PROJECTNAME: CA_Oakland_East.tif CA_Oakland_East.tif



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., OAKLAND EAST, CA, 1997.



FORMER CHEVRON SERVICE STATION NO. 9-9708 5910 MACARTHUR BOULEVARD, OAKLAND, CA	
SITE LOCATION MAP	
	FIGURE 1

Tables

TABLE 1

**GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 9-9708
5910 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA**

Location	Date	TOC	DTW	GWE	TPH-MO	TPH-DRO	TPH-GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Ethanol
	Units	(ft amsl)	(ft)	(ft amsl)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-1	06/13/11	97.52	11.25	86.27	<41	75	<50	<0.5	<0.5	<0.5	<0.5	13	<50
MW-1	12/02/11	97.52	12.82	84.70	<520	<520	140	1.7	<0.50	<0.50	<1.5	14	<150
MW-1	06/21/12	97.52	13.27	84.25	<470	<470	130	<0.50	<0.50	<0.50	<1.0	11	<150
MW-1	12/18/12	97.52	10.62	86.90	<48	94	70	0.79	<0.50	<0.50	<1.0	10	<150
MW-1	06/11/13	97.52	12.26	85.26	<48	120	820	17	0.87	0.67	<1.0	22	<150
MW-1	12/12/13	97.52	12.10	85.42	<49	120	480	2.9	<0.50	<0.50	<1.0	12	<150
MW-2	06/13/11	97.81	14.06	83.75	<41	<50	<50	<0.5	<0.5	<0.5	<0.5	1	<50
MW-2	12/02/11	97.81	13.42	84.39	<520	<520	<50	<0.50	<0.50	<0.50	<1.5	3.8	<150
MW-2	06/21/12	97.81	13.90	83.91	<480	<480	<50	<0.50	<0.50	<0.50	<1.0	15	<150
MW-2	12/18/12	97.81	12.97	84.84	<48	130	<50	2.4	<0.50	<0.50	<1.0	2.9	<150
MW-2	06/11/13	97.81	14.88	82.93	<51	<51	<50	<0.50	<0.50	<0.50	<1.0	18	<150
MW-2	12/12/13	97.81	13.50	84.31	<49	<49	<50	<0.50	<0.50	<0.50	<1.0	2.7	<150
MW-3	06/13/11	98.78	11.69	87.09	38,000	19,000	<50	<0.5	2	<0.5	<0.5	<0.5	<50
MW-3	12/02/11	98.78	11.44	87.34	4,100	2,000	<50	<0.50	<0.50	<0.50	<1.5	<0.50	<150
MW-3	06/21/12	98.78	11.80	86.98	1,500	6,800	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150
MW-3	12/18/12	98.78	10.21	88.57	570	1,800	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150
MW-3	06/11/13	98.78	12.20	86.58	860	4,100	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150
MW-3	12/12/13	98.78	INACCESSIBLE		--	--	--	--	--	--	--	--	--
MW-4	06/13/11	97.14	13.07	84.07	1,900	2,000	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50
MW-4	12/02/11	97.14	INACCESSIBLE		--	--	--	--	--	--	--	--	--
MW-4	06/21/12	97.14	14.43	82.71	620	1,900	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 9-9708
5910 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	TPH-MO	TPH-DRO	TPH-GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Ethanol
	Units	(ft amsl)	(ft)	(ft amsl)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-4	12/18/12	97.14	12.68	84.46	1,400	3,100	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150
MW-4	06/11/13	97.14	14.20	82.94	120	590	<50	<0.50	1.8	<0.50	<1.0	<0.50	<150
MW-4	12/12/13	97.14	12.89	84.25	100	180	<50	<0.50	21	<0.50	<1.0	<0.50	<150
MW-5	06/13/11	95.71	11.58	84.13	<42	240	240	<0.5	<0.5	<0.5	<0.5	0.9	<50
MW-5	12/02/11	95.71	11.68	84.03	<500	<500	180	<0.50	<0.50	<0.50	<1.5	1.4	<150
MW-5	06/21/12	95.71	12.22	83.49	<510	<510	200	<0.50	<0.50	<0.50	<1.0	0.68	<150
MW-5	12/18/12	95.71	10.32	85.39	<47	290	280	<0.50	<0.50	<0.50	<1.0	0.98	<150
MW-5	06/11/13	95.71	12.13	83.58	<47	190	170	<0.50	<0.50	<0.50	<1.0	0.64	<150
MW-5	12/12/13	95.71	10.94	84.77	<47	160	290	<0.50	<0.50	<0.50	<1.0	1.2	<150
MW-6	06/13/11	95.84	10.59	85.25	<40	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50
MW-6	12/02/11	95.84	INACCESSIBLE		--	--	--	--	--	--	--	--	--
MW-6	06/21/12	95.84	INACCESSIBLE		--	--	--	--	--	--	--	--	--
MW-6	12/18/12	95.84	9.17	86.67	<47	<47	<50	<0.50	<0.50	<0.50	<1.0	2.2	<150
MW-6	06/11/13	95.84	10.90	84.94	<47	<47	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150
MW-6	12/12/13	95.84	10.73	85.11	<51	<51	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150
QA	06/13/11	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
QA	12/02/11	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<0.50	<150
QA	06/21/12	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150
QA	12/18/12	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150
QA	06/11/13	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150
QA	12/12/13	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<150

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 9-9708
5910 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	TPH-MO	TPH-DRO	TPH-GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Ethanol
Units		(ft amsl)	(ft)	(ft amsl)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)

Abbreviations and Notes:

TOC = Top of casing

DTW = Depth to Water (measured from top of casing)

GWE = Groundwater elevation

TPH-MO = Total petroleum hydrocarbons as motor oil range organics

TPH-DRO = Total petroleum hydrocarbons as diesel range organics

TPH-GRO = Total petroleum hydrocarbons as gasoline range organics

MTBE = Methyl tertiary butyl ether

Ft amsl = Feet above mean sea level

Ft = Feet

µg/l = micrograms per liter

< = Not detected above detection limit indicated

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Attachment 1

Groundwater Monitoring and
Sampling Field Data Sheets

WELL GAUGING DATA

Project # 131212-J01 Date 12-12-13 Client Cherwin

Site 590 NewArthur Blvd Oakland CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes	
MW-1	0830	2					12.10	19.90	↓		
MW-2	0835	2				13.50	20.00				
MW-3	2	2	well perted over								
MW-4	0840	2				12.89	19.50				
MW-5	0850	2				10.94	18.61				
MW-6	0856	2				10.73	18.70				

CHEVRON WELL MONITORING DATA SHEET

Project #: 131212-101	Station #: 9-9709
Sampler: Jo	Date: 12-12-13
Weather: clear	Ambient Air Temperature: 60°F
Well I.D.: MW -1	Well Diameter: 2 3 4 6 8 _____
Total Well Depth: 19.90	Depth to Water: 12.10
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.66	

Purge Method:

- Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible
- Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method:

- Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

12	(Gals.) X	3	=	3.6	Gals.
I Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
0946	60.5	7.37	853	376	1.2	
0948	60.6	7.38	854	379	2.4	
0950	60.6	7.36	856	386	3.6	

Did well dewater? Yes No Gallons actually evacuated: 3.6

Sampling Date: 12-12-13 Sampling Time: 0955 Depth to Water: 13.52

Sample I.D.: MW-1 Laboratory: Lancaster Other: NA

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COE

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd): Pre-purge: _____ mg/L Post-purge: _____ mg/L

O.R.P. (if req'd): Pre-purge: _____ mV Post-purge: _____ mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 131212-1A	Station #: 9-9708
Sampler: JD	Date: 12-12-13
Weather: clear	Ambient Air Temperature: 53°F
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8
Total Well Depth: 20.00	Depth to Water: 13.49
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.92	

Purge Method:

- Bailer
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Watterra
- Peristaltic
- Extraction Pump
- Other _____

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

1.0	(Gals.) X	3	=	3.0	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
1010	60.7	7.24	887	>1000	1.0	
1012	60.7	7.24	889	>1000	2.0	
1014	60.7	7.23	892	>1000	3.0	

Did well dewater? Yes No Gallons actually evacuated: 3.0

Sampling Date: 12-12-13 Sampling Time: 1020 Depth to Water: 13.92

Sample I.D.: MW-2 Laboratory: Lancaster Other _____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 131212-J01	Station #: 9-9708
Sampler: JO	Date: 12-12-13
Weather: CLEAR	Ambient Air Temperature: _____
Well I.D.: MW -3	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth:	Depth to Water:
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:

- Bailer
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other _____

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

	(Gals.) X	<u>3</u>	=		Gals.
I Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
						Well parked over NO Access, NO Sample taken

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 12-12-13 Sampling Time: _____ Depth to Water: _____

Sample I.D.: MW-3 Laboratory: Lancaster Other VA

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: _____ Analyzed for: TPH-G BTEX MTBE OXYS Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 131212-201	Station #: 9-9708
Sampler: J0	Date: 12-12-13
Weather: clear	Ambient Air Temperature: 55°
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth: 19.50	Depth to Water: 12.89
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.21	

Purge Method:

- Bailer
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other _____

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

1.0	(Gals.) X	3	=	3.0	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (μS))	Turbidity (NTUs)	Gals. Removed	Observations
1040	60.0	7.18	5124	>1000	1.0	
1042	60.0	7.17	5129	>1000	2.0	
1044	60.0	7.13	5129	>1000	3.0	

Did well dewater? Yes No Gallons actually evacuated: 3.0

Sampling Date: 12-12-13 Sampling Time: 1055 Depth to Water: 12.99

Sample I.D.: MW-4 Laboratory: Lancaster Other: NA

Analyzed for: TPH-G BTEX MTBE OXYS Other: SEE COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd): Pre-purge: _____ mg/L Post-purge: _____ mg/L

O.R.P. (if req'd): Pre-purge: _____ mV Post-purge: _____ mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 9-9708 13/212-101	Station #: 9-9708
Sampler: 10	Date: 12-12-13
Weather: clear	Ambient Air Temperature: 59°F
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth: 18.61	Depth to Water: 10.94
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.47	

Purge Method:

- Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible
- Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method:

Bailer

Disposable Bailer

Extraction Port

Dedicated Tubing

Other: _____

1.2	(Gals.) X	3	=	3.6	Gals.
I Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
0924	59.9	7.39	911	137	1.2	
0927	59.9	7.31	912	150	2.4	
0930	59.8	7.30	915	156	3.6	

Did well dewater? Yes No Gallons actually evacuated: 3.6

Sampling Date: 12-12-13 Sampling Time: 0935 Depth to Water: 12.40

Sample I.D.: MW-5 Laboratory: Lancaster Other: ~~LA~~

Analyzed for: TPH-G BTEX MTBE OXYS Other: 700 100

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: Q-9708 131212-501	Station #: Q-9708
Sampler: 20	Date: 12-12-13
Weather: Clear	Ambient Air Temperature: 50°F
Well I.D.: MW -6	Well Diameter: (2) 3 4 6 8
Total Well Depth: 18.70	Depth to Water: 10.73
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.32	

Purge Method:

Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible
 Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method:

Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

1.2 (Gals.) X	3	= 3.6 Gals.
I Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0901	60.0	7.55	5569	>1000	1.2	
0904	60.1	7.49	5562	>1000	2.4	
0907	60.1	7.47	5570	>1000	3.6	

Did well dewater? Yes No Gallons actually evacuated: 3.6

Sampling Date: 12-12-13 Sampling Time: 0915 Depth to Water: 10.96

Sample I.D.: MW -6 Laboratory: Lancaster Other: TA

Analyzed for: TPH-G BTEX MTBE OXYS Other: See CO

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd): Pre-purge: _____ mg/L Post-purge: _____ mg/L

O.R.P. (if req'd): Pre-purge: _____ mV Post-purge: _____ mV

SOURCE RECORD **BILL OF LADING**

FOR PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT CHEVRON FACILITIES IN THE STATE OF CALIFORNIA. THE PURGE-WATER WHICH HAS BEEN RECOVERED FROM GROUNDWATER WELLS IS COLLECTED BY THE CONTRACTOR AND HAULED TO THEIR FACILITY IN SAN JOSE, CALIFORNIA FOR TEMPORARILY HOLDING PENDING TRANSPORT BY OTHERS TO FINAL DESTINATION.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 1680 Rogers Ave. San Jose CA (408) 573-0555). BLAINE TECH. is authorized by Chevron Environmental Management Company (CHEVRON EMC) to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the CHEVRON EMC facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one CHEVRON EMC facility to BLAINE TECH; from one CHEVRON EMC facility to BLAINE TECH via another CHEVRON EMC facility; or any combination thereof. The well purgewater is and remains the property of CHEVRON EMC.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Chevron facility described below:

9-9708
CHEVRON #

Rob Spear
Chevron Engineer

5910 MacArthur Blvd Oakland CA
street number street name city state

WELL I.D.	GALS.	WELL I.D.	GALS.
<u>MW-1</u>	<u>3.6</u>	<u>/</u>	<u>/</u>
<u>MW-2</u>	<u>3.0</u>	<u>/</u>	<u>/</u>
<u>MW-4</u>	<u>3.0</u>	<u>/</u>	<u>/</u>
<u>MW-5</u>	<u>3.6</u>	<u>/</u>	<u>/</u>
<u>MW-6</u>	<u>3.6</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
added equip.	<u>1.4</u>	any other	<u>/</u>
rinse water	<u>1.0</u>	adjustments	<u>/</u>
TOTAL GALS.	<u>18</u>	loaded onto	<u>/</u>
RECOVERED	<u>17.6</u>	BTS vehicle #	<u>85</u>

BTS event #	time	date	
<u>131212-101</u>	<u>1100</u>	<u>12/12/13</u>	
Transporter signature <u>[Signature]</u>			

REC'D AT	time	date	
<u>[Signature]</u>	<u>[Signature]</u>	<u>12/12/13</u>	
Unloaded/received by signature <u>[Signature]</u>			

ARCADIS

Attachment 2

Laboratory Analytical Report and
Chain-of-Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-65210-1

Client Project/Site: Chevron - 9-9708

For:

ARCADIS U.S., Inc.

320 Commerce, Suite 200

Irvine, California 92602

Attn: Toni DeMayo



Authorized for release by:

12/24/2013 9:58:22 AM

Philip Sanelle, Project Manager I

(949)261-1022

philip.sanelle@testamericainc.com

LINKS

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results through
TotalAccess

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

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Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-65210-1	MW-1	Water	12/12/13 09:55	12/14/13 10:25
440-65210-2	MW-2	Water	12/12/13 10:20	12/14/13 10:25
440-65210-3	MW-4	Water	12/12/13 10:55	12/14/13 10:25
440-65210-4	MW-5	Water	12/12/13 09:35	12/14/13 10:25
440-65210-5	MW-6	Water	12/12/13 09:15	12/14/13 10:25
440-65210-6	TB-20131212	Water	12/12/13 09:00	12/14/13 10:25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Job ID: 440-65210-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-65210-1

Comments

No additional comments.

Receipt

The samples were received on 12/14/2013 10:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2° C and 4.4° C.

GC/MS VOA

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch <<150923>> were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No other analytical or quality issues were noted.

GC VOA

No analytical or quality issues were noted.

GC Semi VOA

Method(s) 8015B: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 150842. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. (LCS 440-150842/2-A)

Method(s) 8015B: Surrogate recovery for the following sample was outside control limits: MW-4 (440-65210-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Client Sample ID: MW-1
Date Collected: 12/12/13 09:55
Date Received: 12/14/13 10:25

Lab Sample ID: 440-65210-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.9		0.50		ug/L			12/17/13 00:57	1
Ethanol	ND		150		ug/L			12/17/13 00:57	1
Ethylbenzene	ND		0.50		ug/L			12/17/13 00:57	1
Methyl-t-Butyl Ether (MTBE)	12		0.50		ug/L			12/17/13 00:57	1
m,p-Xylene	ND		1.0		ug/L			12/17/13 00:57	1
o-Xylene	ND		0.50		ug/L			12/17/13 00:57	1
Toluene	ND		0.50		ug/L			12/17/13 00:57	1
Xylenes, Total	ND		1.0		ug/L			12/17/13 00:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		80 - 120					12/17/13 00:57	1
Dibromofluoromethane (Surr)	101		76 - 132					12/17/13 00:57	1
Toluene-d8 (Surr)	112		80 - 128					12/17/13 00:57	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	480		50		ug/L			12/16/13 14:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		65 - 140					12/16/13 14:13	1

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	0.12		0.049		mg/L		12/16/13 13:09	12/17/13 14:51	1
C29-C40	ND		0.049		mg/L		12/16/13 13:09	12/17/13 14:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	69		45 - 120				12/16/13 13:09	12/17/13 14:51	1

Client Sample ID: MW-2
Date Collected: 12/12/13 10:20
Date Received: 12/14/13 10:25

Lab Sample ID: 440-65210-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/17/13 01:27	1
Ethanol	ND		150		ug/L			12/17/13 01:27	1
Ethylbenzene	ND		0.50		ug/L			12/17/13 01:27	1
Methyl-t-Butyl Ether (MTBE)	2.7		0.50		ug/L			12/17/13 01:27	1
m,p-Xylene	ND		1.0		ug/L			12/17/13 01:27	1
o-Xylene	ND		0.50		ug/L			12/17/13 01:27	1
Toluene	ND		0.50		ug/L			12/17/13 01:27	1
Xylenes, Total	ND		1.0		ug/L			12/17/13 01:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		80 - 120					12/17/13 01:27	1
Dibromofluoromethane (Surr)	102		76 - 132					12/17/13 01:27	1
Toluene-d8 (Surr)	114		80 - 128					12/17/13 01:27	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Client Sample ID: MW-2

Lab Sample ID: 440-65210-2

Date Collected: 12/12/13 10:20

Matrix: Water

Date Received: 12/14/13 10:25

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		50		ug/L			12/16/13 14:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		65 - 140					12/16/13 14:42	1

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		0.049		mg/L		12/16/13 13:09	12/17/13 13:51	1
C29-C40	ND		0.049		mg/L		12/16/13 13:09	12/17/13 13:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	64		45 - 120				12/16/13 13:09	12/17/13 13:51	1

Client Sample ID: MW-4

Lab Sample ID: 440-65210-3

Date Collected: 12/12/13 10:55

Matrix: Water

Date Received: 12/14/13 10:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/17/13 01:57	1
Ethanol	ND		150		ug/L			12/17/13 01:57	1
Ethylbenzene	ND		0.50		ug/L			12/17/13 01:57	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/17/13 01:57	1
m,p-Xylene	ND		1.0		ug/L			12/17/13 01:57	1
o-Xylene	ND		0.50		ug/L			12/17/13 01:57	1
Toluene	21		0.50		ug/L			12/17/13 01:57	1
Xylenes, Total	ND		1.0		ug/L			12/17/13 01:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		80 - 120					12/17/13 01:57	1
Dibromofluoromethane (Surr)	105		76 - 132					12/17/13 01:57	1
Toluene-d8 (Surr)	114		80 - 128					12/17/13 01:57	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		50		ug/L			12/16/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		65 - 140					12/16/13 15:11	1

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	1.8		0.048		mg/L		12/16/13 13:09	12/17/13 15:31	1
C29-C40	1.0		0.048		mg/L		12/16/13 13:09	12/17/13 15:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	41	X	45 - 120				12/16/13 13:09	12/17/13 15:31	1

TestAmerica Irvine

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Client Sample ID: MW-5

Lab Sample ID: 440-65210-4

Date Collected: 12/12/13 09:35

Matrix: Water

Date Received: 12/14/13 10:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/17/13 02:27	1
Ethanol	ND		150		ug/L			12/17/13 02:27	1
Ethylbenzene	ND		0.50		ug/L			12/17/13 02:27	1
Methyl-t-Butyl Ether (MTBE)	1.2		0.50		ug/L			12/17/13 02:27	1
m,p-Xylene	ND		1.0		ug/L			12/17/13 02:27	1
o-Xylene	ND		0.50		ug/L			12/17/13 02:27	1
Toluene	ND		0.50		ug/L			12/17/13 02:27	1
Xylenes, Total	ND		1.0		ug/L			12/17/13 02:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		80 - 120					12/17/13 02:27	1
Dibromofluoromethane (Surr)	104		76 - 132					12/17/13 02:27	1
Toluene-d8 (Surr)	115		80 - 128					12/17/13 02:27	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	290		50		ug/L			12/19/13 09:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		65 - 140					12/19/13 09:40	1

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	0.16		0.047		mg/L		12/16/13 13:09	12/17/13 14:51	1
C29-C40	ND		0.047		mg/L		12/16/13 13:09	12/17/13 14:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	69		45 - 120				12/16/13 13:09	12/17/13 14:51	1

Client Sample ID: MW-6

Lab Sample ID: 440-65210-5

Date Collected: 12/12/13 09:15

Matrix: Water

Date Received: 12/14/13 10:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/17/13 02:57	1
Ethanol	ND		150		ug/L			12/17/13 02:57	1
Ethylbenzene	ND		0.50		ug/L			12/17/13 02:57	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/17/13 02:57	1
m,p-Xylene	ND		1.0		ug/L			12/17/13 02:57	1
o-Xylene	ND		0.50		ug/L			12/17/13 02:57	1
Toluene	ND		0.50		ug/L			12/17/13 02:57	1
Xylenes, Total	ND		1.0		ug/L			12/17/13 02:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		80 - 120					12/17/13 02:57	1
Dibromofluoromethane (Surr)	109		76 - 132					12/17/13 02:57	1
Toluene-d8 (Surr)	115		80 - 128					12/17/13 02:57	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Client Sample ID: MW-6

Lab Sample ID: 440-65210-5

Date Collected: 12/12/13 09:15

Matrix: Water

Date Received: 12/14/13 10:25

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		50		ug/L			12/19/13 10:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		65 - 140					12/19/13 10:10	1

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		0.051		mg/L		12/16/13 13:09	12/17/13 14:11	1
C29-C40	ND		0.051		mg/L		12/16/13 13:09	12/17/13 14:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	65		45 - 120				12/16/13 13:09	12/17/13 14:11	1

Client Sample ID: TB-20131212

Lab Sample ID: 440-65210-6

Date Collected: 12/12/13 09:00

Matrix: Water

Date Received: 12/14/13 10:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/17/13 03:26	1
Ethanol	ND		150		ug/L			12/17/13 03:26	1
Ethylbenzene	ND		0.50		ug/L			12/17/13 03:26	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/17/13 03:26	1
m,p-Xylene	ND		1.0		ug/L			12/17/13 03:26	1
o-Xylene	ND		0.50		ug/L			12/17/13 03:26	1
Toluene	ND		0.50		ug/L			12/17/13 03:26	1
Xylenes, Total	ND		1.0		ug/L			12/17/13 03:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		80 - 120					12/17/13 03:26	1
Dibromofluoromethane (Surr)	108		76 - 132					12/17/13 03:26	1
Toluene-d8 (Surr)	112		80 - 128					12/17/13 03:26	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		50		ug/L			12/19/13 09:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		65 - 140					12/19/13 09:11	1

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022



Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Client Sample ID: MW-1

Date Collected: 12/12/13 09:55

Date Received: 12/14/13 10:25

Lab Sample ID: 440-65210-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	150923	12/17/13 00:57	WC	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	150804	12/16/13 14:13	AK	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1030 mL	1 mL	150842	12/16/13 13:09	LBP	TAL IRV
Silica Gel Cleanup	Analysis	8015B		1	1030 mL	1 mL	151123	12/17/13 14:51	KW	TAL IRV

Client Sample ID: MW-2

Date Collected: 12/12/13 10:20

Date Received: 12/14/13 10:25

Lab Sample ID: 440-65210-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	150923	12/17/13 01:27	WC	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	150804	12/16/13 14:42	AK	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1020 mL	1 mL	150842	12/16/13 13:09	LBP	TAL IRV
Silica Gel Cleanup	Analysis	8015B		1	1020 mL	1 mL	151121	12/17/13 13:51	KW	TAL IRV

Client Sample ID: MW-4

Date Collected: 12/12/13 10:55

Date Received: 12/14/13 10:25

Lab Sample ID: 440-65210-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	150923	12/17/13 01:57	WC	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	150804	12/16/13 15:11	AK	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1045 mL	1 mL	150842	12/16/13 13:09	LBP	TAL IRV
Silica Gel Cleanup	Analysis	8015B		1	1045 mL	1 mL	151123	12/17/13 15:31	KW	TAL IRV

Client Sample ID: MW-5

Date Collected: 12/12/13 09:35

Date Received: 12/14/13 10:25

Lab Sample ID: 440-65210-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	150923	12/17/13 02:27	WC	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	151416	12/19/13 09:40	IM	TAL IRV
Silica Gel Cleanup	Prep	3510C SGC			1055 mL	1 mL	150842	12/16/13 13:09	LBP	TAL IRV
Silica Gel Cleanup	Analysis	8015B		1	1055 mL	1 mL	151121	12/17/13 14:51	KW	TAL IRV

Client Sample ID: MW-6

Date Collected: 12/12/13 09:15

Date Received: 12/14/13 10:25

Lab Sample ID: 440-65210-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	150923	12/17/13 02:57	WC	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	151416	12/19/13 10:10	IM	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Client Sample ID: MW-6

Date Collected: 12/12/13 09:15

Date Received: 12/14/13 10:25

Lab Sample ID: 440-65210-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			990 mL	1 mL	150842	12/16/13 13:09	LBP	TAL IRV
Silica Gel Cleanup	Analysis	8015B		1	990 mL	1 mL	151121	12/17/13 14:11	KW	TAL IRV

Client Sample ID: TB-20131212

Date Collected: 12/12/13 09:00

Date Received: 12/14/13 10:25

Lab Sample ID: 440-65210-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	150923	12/17/13 03:26	WC	TAL IRV
Total/NA	Analysis	8015B		1	10 mL	10 mL	151416	12/19/13 09:11	IM	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-150923/3

Matrix: Water

Analysis Batch: 150923

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/16/13 19:27	1
Ethanol	ND		150		ug/L			12/16/13 19:27	1
Ethylbenzene	ND		0.50		ug/L			12/16/13 19:27	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/16/13 19:27	1
m,p-Xylene	ND		1.0		ug/L			12/16/13 19:27	1
o-Xylene	ND		0.50		ug/L			12/16/13 19:27	1
Toluene	ND		0.50		ug/L			12/16/13 19:27	1
Xylenes, Total	ND		1.0		ug/L			12/16/13 19:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		80 - 120		12/16/13 19:27	1
Dibromofluoromethane (Surr)	106		76 - 132		12/16/13 19:27	1
Toluene-d8 (Surr)	114		80 - 128		12/16/13 19:27	1

Lab Sample ID: LCS 440-150923/4

Matrix: Water

Analysis Batch: 150923

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	21.9		ug/L		88	68 - 130
Ethanol	250	234		ug/L		94	50 - 149
Ethylbenzene	25.0	23.9		ug/L		96	70 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	23.6		ug/L		94	63 - 131
m,p-Xylene	50.0	47.1		ug/L		94	70 - 130
o-Xylene	25.0	23.6		ug/L		94	70 - 130
Toluene	25.0	23.5		ug/L		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		80 - 120
Dibromofluoromethane (Surr)	110		76 - 132
Toluene-d8 (Surr)	114		80 - 128

Lab Sample ID: 440-64676-E-19 MS

Matrix: Water

Analysis Batch: 150923

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	45		25.0	64.0		ug/L		77	66 - 130
Ethanol	ND		250	256		ug/L		103	54 - 150
Ethylbenzene	4.0		25.0	28.9		ug/L		99	70 - 130
Methyl-t-Butyl Ether (MTBE)	12		25.0	37.9		ug/L		103	70 - 130
m,p-Xylene	7.9		50.0	56.8		ug/L		98	70 - 133
o-Xylene	2.6		25.0	27.1		ug/L		98	70 - 133
Toluene	5.6		25.0	30.1		ug/L		98	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		80 - 120

TestAmerica Irvine

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-64676-E-19 MS

Matrix: Water

Analysis Batch: 150923

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	103		76 - 132
Toluene-d8 (Surr)	114		80 - 128

Lab Sample ID: 440-64676-E-19 MSD

Matrix: Water

Analysis Batch: 150923

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	45		25.0	60.7	F	ug/L		64	66 - 130	5	20
Ethanol	ND		250	247		ug/L		99	54 - 150	4	30
Ethylbenzene	4.0		25.0	28.5		ug/L		98	70 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	12		25.0	38.7		ug/L		106	70 - 130	2	25
m,p-Xylene	7.9		50.0	56.1		ug/L		97	70 - 133	1	25
o-Xylene	2.6		25.0	27.0		ug/L		98	70 - 133	0	20
Toluene	5.6		25.0	29.6		ug/L		96	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		80 - 120
Dibromofluoromethane (Surr)	105		76 - 132
Toluene-d8 (Surr)	113		80 - 128

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-150804/3

Matrix: Water

Analysis Batch: 150804

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		50		ug/L			12/16/13 11:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		65 - 140		12/16/13 11:02	1

Lab Sample ID: LCS 440-150804/2

Matrix: Water

Analysis Batch: 150804

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	800	846		ug/L		106	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		65 - 140

TestAmerica Irvine

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 440-65084-D-1 MS

Matrix: Water

Analysis Batch: 150804

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	ND		800	820		ug/L		103	65 - 140
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	100		65 - 140						

Lab Sample ID: 440-65084-D-1 MSD

Matrix: Water

Analysis Batch: 150804

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		800	838		ug/L		105	65 - 140	2	20
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	101		65 - 140								

Lab Sample ID: MB 440-151416/31

Matrix: Water

Analysis Batch: 151416

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		50		ug/L			12/19/13 01:27	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		65 - 140					12/19/13 01:27	1

Lab Sample ID: LCS 440-151416/30

Matrix: Water

Analysis Batch: 151416

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	800	809		ug/L		101	80 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	80		65 - 140				

Lab Sample ID: 440-65077-D-1 MS

Matrix: Water

Analysis Batch: 151416

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	57		800	857		ug/L		100	65 - 140
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	100		65 - 140						

TestAmerica Irvine

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 440-65077-D-1 MSD

Matrix: Water

Analysis Batch: 151416

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	57		800	759		ug/L		88	65 - 140	12	20
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	93		65 - 140								

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Lab Sample ID: MB 440-150842/1-A

Matrix: Water

Analysis Batch: 151121

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 150842

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		0.050		mg/L		12/16/13 13:09	12/17/13 12:51	1
C29-C40	ND		0.050		mg/L		12/16/13 13:09	12/17/13 12:51	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	74		45 - 120				12/16/13 13:09	12/17/13 12:51	1

Lab Sample ID: LCS 440-150842/2-A

Matrix: Water

Analysis Batch: 151121

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 150842

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C28	1.00	0.755		mg/L		76	40 - 115
Surrogate	%Recovery	LCS Qualifier	Limits				
n-Octacosane	84		45 - 120				

Lab Sample ID: LCSD 440-150842/3-A

Matrix: Water

Analysis Batch: 151121

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 150842

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	1.00	0.696		mg/L		70	40 - 115	8	25
Surrogate	%Recovery	LCSD Qualifier	Limits						
n-Octacosane	78		45 - 120						

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

GC/MS VOA

Analysis Batch: 150923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-64676-E-19 MS	Matrix Spike	Total/NA	Water	8260B	
440-64676-E-19 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-65210-1	MW-1	Total/NA	Water	8260B	
440-65210-2	MW-2	Total/NA	Water	8260B	
440-65210-3	MW-4	Total/NA	Water	8260B	
440-65210-4	MW-5	Total/NA	Water	8260B	
440-65210-5	MW-6	Total/NA	Water	8260B	
440-65210-6	TB-20131212	Total/NA	Water	8260B	
LCS 440-150923/4	Lab Control Sample	Total/NA	Water	8260B	
MB 440-150923/3	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 150804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-65084-D-1 MS	Matrix Spike	Total/NA	Water	8015B	
440-65084-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	
440-65210-1	MW-1	Total/NA	Water	8015B	
440-65210-2	MW-2	Total/NA	Water	8015B	
440-65210-3	MW-4	Total/NA	Water	8015B	
LCS 440-150804/2	Lab Control Sample	Total/NA	Water	8015B	
MB 440-150804/3	Method Blank	Total/NA	Water	8015B	

Analysis Batch: 151416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-65077-D-1 MS	Matrix Spike	Total/NA	Water	8015B	
440-65077-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	
440-65210-4	MW-5	Total/NA	Water	8015B	
440-65210-5	MW-6	Total/NA	Water	8015B	
440-65210-6	TB-20131212	Total/NA	Water	8015B	
LCS 440-151416/30	Lab Control Sample	Total/NA	Water	8015B	
MB 440-151416/31	Method Blank	Total/NA	Water	8015B	

GC Semi VOA

Prep Batch: 150842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-65210-1	MW-1	Silica Gel Cleanup	Water	3510C SGC	
440-65210-2	MW-2	Silica Gel Cleanup	Water	3510C SGC	
440-65210-3	MW-4	Silica Gel Cleanup	Water	3510C SGC	
440-65210-4	MW-5	Silica Gel Cleanup	Water	3510C SGC	
440-65210-5	MW-6	Silica Gel Cleanup	Water	3510C SGC	
LCS 440-150842/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 440-150842/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 440-150842/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

Analysis Batch: 151121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-65210-2	MW-2	Silica Gel Cleanup	Water	8015B	150842
440-65210-4	MW-5	Silica Gel Cleanup	Water	8015B	150842

TestAmerica Irvine

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

GC Semi VOA (Continued)

Analysis Batch: 151121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-65210-5	MW-6	Silica Gel Cleanup	Water	8015B	150842
LCS 440-150842/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	150842
LCSD 440-150842/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	150842
MB 440-150842/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	150842

Analysis Batch: 151123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-65210-1	MW-1	Silica Gel Cleanup	Water	8015B	150842
440-65210-3	MW-4	Silica Gel Cleanup	Water	8015B	150842



Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - 9-9708

TestAmerica Job ID: 440-65210-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-14
Arizona	State Program	9	AZ0671	10-13-14
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-23-14 *
Hawaii	State Program	9	N/A	01-31-14
Nevada	State Program	9	CA015312007A	07-31-14
New Mexico	State Program	6	N/A	01-31-14
Northern Mariana Islands	State Program	9	MP0002	01-31-14
Oregon	NELAP	10	4005	09-12-14
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Irvine

Irvine
 17461 Derian Ave
 Suite 100
 Irvine, CA 92614
 phone 949 261 1022 fax 949 260 3299

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Toni DeMayo				Site Contact:				Date: 12/12/13				COC No.	
Arcadis - U.S., Inc. - Irvine		Tel/Fax: (916) 985-2079				Lab Contact: Sushmitha Reddy				Carrier:				1 of 1 COCs	
320 Commerce, Suite 200		Analysis Turnaround Time				Filtered Sample GRO by EPA 8015 MOD BTEX & MTBE (\$260B) DRO with Silica Gel Clean Up by 8015 TPH-mo with Silica Gel Clean Up by 8015 Ethanol by \$260B				Job No. 131212-J01 SDG No.				Sample Specific Notes.	
Irvine, CA 92602		Calendar (C) or Work Days (W) _____													
714-508-2657 Phone		TAT if different from Below _____													
714-730-9345 FAX		<input checked="" type="checkbox"/> 2 weeks													
Project Name: 5910 MacArthur Blvd., Oakland, CA		<input type="checkbox"/> 1 week													
Site: 9-9708		<input type="checkbox"/> 2 days													
P O		<input type="checkbox"/> 1 day													
Global ID: T0600102093															
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.										
MW-1	12-12-13	0955	Grub	W	9	X	X	X	X	X					
MW-2		1020			9	X	X	X	X	X					
MW-4		1055			9	X	X	X	X	X					
MW-5		0935			9	X	X	X	X	X					
MW-6		0915			9	X	X	X	X	X					
TB- 20131212		0900		W	4	X	X								
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____						1,2	1,2	1	1	1,2					
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poisonous <input type="checkbox"/> Unknown						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Special Instructions/QC Requirements & Comments: Must meet lowest detection limits possible for 8260 compounds															
Relinquished by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Date/Time: 12-12-13/1520		Received by: <i>[Signature]</i>		Company: PXS		Date/Time: 12-12-13/1530					
Relinquished by: <i>[Signature]</i>		Company: STS		Date/Time: 12/13/13/1305		Received by: <i>[Signature]</i>		Company: TAP		Date/Time: 12/13/13 @ 1305					
Relinquished by: <i>[Signature]</i>		Company: TAP		Date/Time: 12/13/13/1600		Received by: Erin Ryan		Company: TAI		Date/Time: 12/14/13 1025					



440-65210 Chain of Custody

Tracking #: 5816 9345 8576
 5816 9345 8865

IB 63 3.6 / 2.2
 5.8 / 4.4

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 440-65210-1

Login Number: 65210

List Number: 1

Creator: Freitag, Kevin R

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

