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ENVIRONMENT

Ms. Bruni Davila
United States Environmental Protection Agency, Region IX
75 Hawthorne Street, 9th Floor
SFD-7-4
San Francisco, California 94105

Subject:
USEPA First Quarter 2013 Monitoring Report
Watkins-Johnson Superfund Site, 440 Kings Village Road, Scotts Valley, California

Date:
26 March 2013

Contact:
Liz Sewell

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Email:
Liz.Sewell@arcadis-us.com

Our ref:
RC000463.0112.NA213

Dear Ms. Davila:

ARCADIS has prepared this *United States Environmental Protection Agency (USEPA) First Quarter 2013 Monitoring Report* for the Watkins-Johnson Superfund Site, 440 Kings Village Road, Scotts Valley, California (Site). This report is submitted in accordance with the *Final Remedial Design Plan for Remedial Design/Remedial Action (*Watkins-Johnson Environmental, Inc. August 31, 1993*, Final Remedial Design Plan for Remedial Design/Remedial Action, Watkins-Johnson Company, Scotts Valley, California)* for the Site.

Introduction

This report presents the information obtained during the first quarter 2013 (December 1, 2012 through February 28, 2013) for the Site.

This quarterly report provides:

- A discussion of the groundwater monitoring program and the associated activities performed during the current quarter;
- A summary of groundwater monitoring activities;
- A summary of groundwater level measurements;
- A summary of groundwater quality results;
- A summary of the status of the groundwater extraction and treatment system (GWETS) and the soil vapor extraction system (SVES);
- A summary of data validation results; and
- Summary.

Groundwater Monitoring Program

ARCADIS assumed responsibility for operation of the remedial system at the Site in July 1999. At that time, the USEPA and Watkins Johnson Company (WJC) had agreed to specific activities to monitor trichloroethene (TCE), which had been observed in monitoring well WJ-41 at concentrations above its maximum contaminant level (MCL) of 5 micrograms per liter (µg/L). During the June 1999 sampling event, tetrachloroethene (PCE) began to be detected in well WJ-43.

After review of the historic and recent data from site-wide monitoring in December 2002, the groundwater-monitoring program was modified to only require quarterly sampling of Regional Zone wells WJ-41 and WJ-43. In 2010, USEPA requested that the routine groundwater monitoring program include wells WJ-11, WJ-37A, WJ-41, WJ-43, the Wescosa Well and additional wells installed upgradient and offsite (*Addendum to Sampling and Analysis Plan – Background Groundwater Assessment*, ARCADIS April 16, 2010). Four additional upgradient offsite wells (KV-1 through KV-4) were installed during the third and fourth quarters of 2010.

Well locations are shown on Figure 1. Groundwater samples are collected using passive diffusion bag (PDB) samplers (*User's Guide for Polyethylene-Based Passive Diffusion Bag Samplers to Obtain Volatile Organic Compound Concentrations in Wells,* USGS, Water-Resources Investigations Report, 01-4060, 2001) as approved by the USEPA (May 5, 2004).

Groundwater from the Wescosa Well is collected from a spigot.

Although it is not a site-related contaminant, the USEPA has requested that methyl tertiary butyl ether (MTBE) be analyzed in groundwater samples collected from site monitoring wells. Therefore, following the removal of PDB samplers, a grab groundwater sample is collected from each well using a bailer.

First Quarter 2013 Activities

The following activities were conducted during the first quarter 2013:

- December 21, 2012: Submitted the *USEPA Fourth Quarter 2012 Monitoring Report* for the Watkins-Johnson Superfund Site, 440 Kings Village Road, Scotts Valley, California.

- December 7, 2012: Collected samples from the GWETs influent, midpoint and effluent.

- January 9, 2013: Performed groundwater monitoring and sampling, which included: collection of water level measurements at wells WJ-11, WJ-37A, WJ-41, WJ-43, and KV-1 through KV-4; and the collection of groundwater samples at wells WJ-11, WJ-37A, WJ-41, WJ-43, Wescosa Well, KV-1, KV-2 at 180, 190, and 200 feet below top of casing (BTOC), KV-3 at 172 and 182 feet BTOC, and KV-4. Collected samples from the GWETS influent, midpoint and effluent.

- October 29, 2012: Submitted the Final Remedy Optimization Plan. Revisions were submitted to the agency January 28, 2013.

- February 11, 2013: Approval was received for the Final Remedy Optimization Plan.

- February 19, 2013: Collected samples from the GWETS influent, midpoint and effluent.

Groundwater-Level Measurements

As approved by the USEPA (January 27, 2003), site-wide depth-to-water measurements were no longer required as part of the revised monitoring program. Table 1 presents a summary of groundwater elevation data for selected Regional Zone and Perched Zone wells. Groundwater elevations for wells at the Site and the upgradient offsite wells are presented on Figure 2.

During the first quarter 2013 Regional Zone wells WJ-11, WJ-37A, WJ-41, WJ-43, and KV-1 through KV-4 were gauged. The Wescosa Well is sampled via a spigot, therefore gauging is not possible.

Groundwater Quality Conditions

Regional Zone wells WJ-11, WJ-37A, WJ-41, WJ-43, upgradient monitoring wells KV-1, KV-2, KV-3, KV-4 and the Wescosa Well were sampled January 9, 2013.

The samples were submitted to Curtis & Tompkins, Ltd., Analytical Laboratories (C&T) under chain of custody for analysis of volatile organic compounds (VOCs) using USEPA Test Method 8260B. The analytical results are presented in Table 2. PCE, TCE, and cis-1,2-dichloroethene (cis-1,2-DCE) concentrations detected during

the current quarter in Regional Zone groundwater wells at the Site are shown on Figure 3.

Summary of Soil Vapor Extraction System Operation

The SVE system was shut down following USEPA approval in April 2001. ARCADIS submitted the final *VLEACH Modeling Report* (*ARCADIS, July 2, 2003, Final Modeling Report VLEACH Analysis of Current Conditions, Watkins-Johnson Superfund Site, Scotts Valley, California)* to the USEPA on July 2, 2003 for consideration for final shutdown of the SVE. EPA provided approval of the VLEACH report to ARCADIS in a letter dated May 8, 2008. No vapor samples were collected during the current quarter.

Summary of Groundwater Extraction and Treatment System Operation

The GWETS began operation in 1986. The Perched Zone infiltration gallery was shut down with USEPA approval in May 2000. Discharge is authorized under NPDES Order Number R3-2006-0067, Permit Number CAG993002.

In 2008, ARCADIS proposed the shutdown of extraction well RA-2 to evaluate groundwater conditions and quality at the Site under a no-pumping state (*Proposal for RA-2 Shutdown and Groundwater Concentration Rebound Evaluation, ARCADIS,* November 6, 2008). With approval from the USEPA (letter from USEPA to ARCADIS dated November 21, 2008), extraction well RA-2 was shut down on December 19, 2008 and the RA-2 shutdown rebound evaluation commenced. On July 2, 2009, ARCADIS submitted the *Summary of RA-2 Shutdown and Groundwater Concentration Rebound Evaluation* to the USEPA, with the recommendation that the treatment system be permanently shut down because remedial goals for the Site had been reached. The USEPA requested in an email dated August 17, 2009 that the GWETS be restarted. The GWETS was formally restarted on November 19, 2009 following system modifications due to the facility no longer requiring the water, and the replacement of a failed pump in RA-2. A carbon changeout was last performed for the system during the fourth quarter of 2011.

The GWETS was temporarily shut down for 6 days during the third quarter 2012 for minor system maintenance. The system was restarted on August 16, 2012.

Results for routine GWETS sampling events are presented on Table 3. During the current quarter, 5,236,950 gallons of treated water were discharged to Bean Creek (Table 4).

Summary of Groundwater Quality Data Validation

Groundwater quality data were reviewed and assigned qualifiers in accordance with the *Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses* (USEPA, 1985). The results were acceptable, and no qualifiers were assigned. Sample results for the quality control (QC) batch were accepted by the laboratory based on percent recoveries and completeness of the QC data. The quality assurance/quality control (QA/QC) data validation summary for groundwater is included in Appendix A.

Summary

During the first quarter 2013 system sampling, the maximum PCE concentration detected in the system influent was 4.5 µg/L. TCE was not detected above the reporting limit in the system influent this quarter. All influent concentrations were treated to below permit limits prior to discharge.

During the first quarter 2013, PCE was detected above the MCL (5 µg/L) in WJ-11 at a concentration of 42 µg/L, WJ-37A at a concentration of 23 µg/L, WJ-43 at a concentration of 27 µg/L, at upgradient monitoring well KV-2 at PDB bag depth of 190 feet BTOC at a concentration of 25 µg/L, KV-2 at PDB bag depth of 200 feet BTOC at a concentration of 11 µg/L, and KV-2 at the sample and duplicate sample collected at PDB bag depth of 180 feet BTOC at a concentration of 58 µg/L and 59 µg/L, respectively. All other wells were below the MCL. TCE was not detected above the MCL (5 µg/L) at any of the wells sampled this quarter.

Cis-1,2-DCE was detected at KV-3 at 172 feet bgs at a concentration of 0.9 µg/L, and in KV-3 at 182 feet bgs at a concentration of 0.8 µg/L. At the Wescosa Well location, 1, 2-DCA was detected at a concentration of 2.3 µg/L, and vinyl chloride was detected at a concentration of 3.2 µg/L. All other analytes were not detected at any of the wells sampled this quarter.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

ARCADIS

Liz Sewell

Liz Sewell, PG
Senior Project Manager

Attachments:

Table 1	Summary of Groundwater Elevation Data – Selected Wells
Table 2	Results of Laboratory Analyses for Selected Purgeable Halocarbons
Table 3	Results of Laboratory Analyses for Volatile Organic Compounds in the Treatment System Samples
Table 4	Summary of Groundwater Extraction, Usage and Discharge to Bean Creek
Figure 1	Regional and Perched Zone Groundwater Wells and Soil Vapor Wells
Figure 2	Regional Zone Groundwater Elevations (January 2013)
Figure 3	Groundwater Analytical Results – PCE and TCE (January 2013)
Appendix A	Quality Assurance Report
Appendix B	Groundwater Sampling Field Forms
Appendix C	Laboratory Analytical Results

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ARCADIS

Tables

Table 1
Summary of Groundwater Elevation Data – Selected Wells

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Monitoring Well	Date	TOC Elevation (feet msl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Change from Previous Measurement (ft)	Quarter
AP-1	02/02/07	532.49	188.52	343.97	---	1st 2007
AP-1	02/12/08	532.49	190.15	342.34	-1.63	1st 2008
AP-3N	02/02/07	523.05	175.52	347.53	---	1st 2007
AP-3N	02/12/08	523.05	175.86	347.19	-0.34	1st 2008
AP-3N	03/20/09	523.05	174.56	348.49	1.30	2nd 2009
AP-3N	04/21/09	523.05	194.60	328.45	-20.04	2nd 2009
AP-3N	05/21/09	523.05	174.65	348.40	19.95	2nd 2009
DH-7	02/23/10	469.18	98.90	370.28	---	1st 2010
M-1	02/02/07	524.38	180.02	344.36	---	1st 2007
M-1	02/12/08	524.38	179.85	344.53	0.17	1st 2008
MW-2	10/20/09	482.21	DRY	DRY	---	4th 2009
OB-1	02/02/07	453.16	107.33	345.83	---	1st 2007
OB-1	02/12/08	453.16	108.90	344.26	-1.57	1st 2008
OB-1	03/20/09	453.16	105.82	347.34	3.08	2nd 2009
OB-1	04/21/09	453.16	107.35	345.81	-1.53	2nd 2009
OB-1	05/21/09	453.16	105.30	347.86	3.60	2nd 2009
OB-1	02/23/10	453.16	105.63	347.53	0.19	1st 2010
OB-2	02/02/07	455.23	109.15	346.08	---	1st 2007
OB-2	02/12/08	455.23	110.85	344.38	-1.70	1st 2008
OB-2	12/19/08	455.23	111.50	343.73	-0.65	1st 2009
OB-2	02/23/09	455.23	108.76	346.47	2.74	1st 2009
OB-2	03/20/09	455.23	107.80	347.43	0.96	2nd 2009
OB-2	04/21/09	455.23	107.26	347.97	0.54	2nd 2009
OB-2	05/21/09	455.23	107.22	348.01	0.04	2nd 2009
OB-2	02/23/10	455.23	107.40	347.83	-0.18	1st 2010
OB-3	02/02/07	455.97	109.60	346.37	---	1st 2007
OB-3	02/18/07	455.97	111.20	344.77	-1.60	1st 2008
PZE-6	10/20/09	453.49	DRY	DRY	---	4th 2009
RA-1	02/02/07	453.92	108.10	345.82	---	1st 2007
RA-1	02/18/07	453.92	109.70	344.22	-1.60	1st 2008
RA-1	12/05/08	453.92	110.73	343.19	-1.03	1st 2009
RA-1	12/19/08	453.92	110.30	343.62	0.43	1st 2009

Table 1
Summary of Groundwater Elevation Data – Selected Wells

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Monitoring Well	Date	TOC Elevation (feet msl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Change from Previous Measurement (ft)	Quarter
RA-1	02/23/09	453.92	107.30	346.62	3.00	1st 2009
RA-1	03/20/09	453.92	106.30	347.62	1.00	2nd 2009
RA-1	04/21/09	453.92	105.90	348.02	0.40	2nd 2009
RA-1	05/21/09	453.92	105.85	348.07	1.45	2nd 2009
RA-2	02/02/07	454.44	125.60	328.84	---	1st 2007
RA-2	02/12/08	454.44	117.68	336.76	7.92	1st 2008
RA-2	12/05/08	454.44	118.70	335.74	-1.02	1st 2009
RA-2	12/19/08	454.44	116.20	338.24	2.50	1st 2009
RA-2	02/23/09	454.44	108.25	346.19	7.95	1st 2009
RA-2	03/20/09	454.44	102.20	352.24	6.05	2nd 2009
RA-2	04/21/09	454.44	106.90	347.54	-4.70	2nd 2009
RA-2	05/21/09	454.44	106.85	347.59	1.40	2nd 2009
RA-3	02/02/07	469.78	125.54	344.24	---	1st 2007
RA-3	02/12/08	469.78	125.72	344.06	-0.18	1st 2008
RA-3	12/05/08	469.78	126.90	342.88	-1.18	1st 2009
RA-3	12/19/08	469.78	126.90	342.88	0.00	1st 2009
RA-3	02/23/09	469.78	124.90	344.88	2.00	1st 2009
RA-3	03/20/09	469.78	124.30	345.48	0.60	2nd 2009
RA-3	04/21/09	469.78	124.23	345.55	0.07	2nd 2009
RA-3	05/21/09	469.78	124.46	345.32	0.44	2nd 2009
RA-4	12/05/08	450.09	106.50	343.59	---	1st 2009
RA-4	12/19/08	450.09	106.46	343.63	0.04	1st 2009
SUPPLY WELL	02/02/07	483.20	136.34	346.86	---	1st 2007
SUPPLY WELL	02/12/08	483.20	136.15	347.05	0.19	1st 2008
SUPPLY WELL	02/23/10	483.20	135.32	347.88	0.83	1st 2010
SVWD #9 Monitor Well	05/13/08	528.00	181.50	346.50	---	2nd 2008
WJ-11	02/02/07	467.46	120.58	346.88	---	1st 2007
WJ-11	02/12/08	467.46	122.43	345.03	-1.85	1st 2008
WJ-11	12/05/08	467.46	123.35	344.11	-0.92	1st 2009
WJ-11	12/19/08	467.46	123.34	344.12	0.01	1st 2009
WJ-11	02/23/09	467.46	120.67	346.79	2.67	1st 2009
WJ-11	03/20/09	467.46	119.70	347.76	0.97	2nd 2009
WJ-11	04/21/09	467.46	119.10	348.36	0.60	2nd 2009

Table 1
Summary of Groundwater Elevation Data – Selected Wells

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Monitoring Well	Date	TOC Elevation (feet msl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Change from Previous Measurement (ft)	Quarter
WJ-11	05/21/09	467.46	118.91	348.55	0.19	2nd 2009
WJ-11	02/23/10	467.46	119.51	347.95	-0.60	1st 2010
WJ-11	05/12/10	467.46	119.57	347.89	-0.06	2nd 2010
WJ-11	08/19/10	467.46	119.72	347.74	-0.15	3rd 2010
WJ-11*	11/17/10	470.22	120.09	350.13	2.39	4th 2010
WJ-11*	02/09/11	470.22	119.84	350.38	0.25	1st 2011
WJ-11*	04/13/11	470.22	118.76	351.46	1.08	2nd 2011
WJ-11*	07/19/11	470.22	118.24	351.98	0.52	3rd 2011
WJ-11*	10/18/11	470.22	117.73	352.49	0.51	4th 2011
WJ-11*	02/09/12	470.22	116.66	353.56	1.07	1st 2012
WJ-11*	05/31/12	470.22	119.07	351.15	-2.41	2nd 2012
WJ-11*	08/15/12	470.22	118.42	351.80	0.65	3rd 2012
WJ-11*	10/23/12	470.22	119.02	351.20	-0.60	4th 2012
WJ-11*	**01/09/13**	**470.22**	**119.29**	**350.93**	**-0.27**	**1st 2013**
WJ-21	02/02/07	unk	133.84	NA	---	1st 2007
WJ-21	02/12/08	unk	133.86	NA	NA	1st 2008
WJ-22	02/02/07	477.89	134.20	343.69	---	1st 2007
WJ-22	02/12/08	477.89	134.15	343.74	0.05	1st 2008
WJ-25A	02/02/07	459.42	132.21	327.21	---	1st 2007
WJ-25A	02/12/08	459.42	116.50	342.92	15.71	1st 2008
WJ-25A	12/05/08	459.42	116.45	342.97	0.05	1st 2009
WJ-25A	12/19/08	459.42	116.40	343.02	0.05	1st 2009
WJ-25A	02/23/09	459.42	128.38	331.04	-11.98	1st 2009
WJ-25A	03/20/09	459.42	116.22	343.20	12.16	2nd 2009
WJ-25A	04/21/09	459.42	116.39	343.03	-0.17	2nd 2009
WJ-25A	05/21/09	459.42	113.57	345.85	2.82	2nd 2009
WJ-26	02/02/07	477.90	131.02	346.88	---	1st 2007
WJ-26	02/12/08	477.90	132.72	345.18	-1.70	1st 2008
WJ-29A	02/02/07	448.90	102.64	346.26	---	1st 2007
WJ-29A	02/12/08	448.90	103.35	345.55	-0.71	1st 2008
WJ-29A	02/23/09	448.90	102.55	346.35	0.80	1st 2009
WJ-29A	03/20/09	448.90	101.70	347.20	0.85	2nd 2009
WJ-29A	04/21/09	448.90	101.50	347.40	0.20	2nd 2009
WJ-29A	05/21/09	448.90	101.51	347.39	-0.01	2nd 2009

Table 1
Summary of Groundwater Elevation Data – Selected Wells

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Monitoring Well	Date	TOC Elevation (feet msl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Change from Previous Measurement (ft)	Quarter
WJ-37	10/20/09	461.91	85.37	376.54	---	4th 2009
WJ-37A	02/02/07	462.54	115.85	346.69	---	1st 2007
WJ-37A	02/12/08	462.54	117.65	344.89	-1.80	1st 2008
WJ-37A	12/05/08	462.54	118.65	343.89	-1.00	1st 2009
WJ-37A	12/19/08	462.54	118.15	344.39	0.50	1st 2009
WJ-37A	02/23/09	462.54	115.80	346.74	2.35	1st 2009
WJ-37A	03/20/09	462.54	114.83	347.71	0.97	2nd 2009
WJ-37A	04/21/09	462.54	114.30	348.24	0.53	2nd 2009
WJ-37A	05/21/09	462.54	114.15	348.39	0.15	2nd 2009
WJ-37A	02/23/10	462.54	114.73	347.81	-0.58	1st 2010
WJ-37A	05/12/10	462.54	114.79	347.75	-0.06	2nd 2010
WJ-37A	08/19/10	462.54	114.93	347.61	-0.14	3rd 2010
WJ-37A*	11/17/10	465.28	115.32	349.96	2.35	4th 2010
WJ-37A*	02/09/11	465.28	115.03	350.25	0.29	1st 2011
WJ-37A*	04/13/11	465.28	113.91	351.37	1.12	2nd 2011
WJ-37A*	07/19/11	465.28	113.51	351.77	0.40	3rd 2011
WJ-37A*	10/18/11	465.28	112.94	352.34	0.57	4th 2011
WJ-37A*	02/09/12	465.28	113.83	351.45	-0.89	1st 2012
WJ-37A*	05/31/12	465.28	114.37	350.91	-0.54	2nd 2012
WJ-37A*	08/15/12	465.28	113.73	351.55	0.64	3rd 2012
WJ-37A*	10/23/12	465.28	114.23	351.05	-0.50	4th 2012
WJ-37A*	**01/09/13**	**465.28**	**114.51**	**350.77**	**-0.28**	**1st 2013**
WJ-41	05/01/07	522.63	175.91	346.72	---	3rd 2006
WJ-41	08/15/07	522.63	176.83	345.80	-0.92	4th 2006
WJ-41	11/13/07	522.63	174.50	348.13	2.33	1st 2007
WJ-41	02/12/08	522.63	177.08	345.55	-2.58	1st 2008
WJ-41	05/13/08	522.63	177.40	345.23	-0.32	2nd 2008
WJ-41	08/05/08	522.63	177.77	344.86	-0.37	3rd 2008
WJ-41	12/05/08	522.63	178.90	343.73	-1.13	1st 2009
WJ-41	12/19/08	522.63	177.78	344.85	1.12	1st 2009
WJ-41	02/23/09	522.63	175.12	347.51	2.66	1st 2009
WJ-41	03/20/09	522.63	174.20	348.43	0.92	2nd 2009
WJ-41	04/21/09	522.63	173.84	348.79	0.36	2nd 2009
WJ-41	05/21/09	522.63	173.75	348.88	0.09	2nd 2009

Table 1
Summary of Groundwater Elevation Data – Selected Wells

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Monitoring Well	Date	TOC Elevation (feet msl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Change from Previous Measurement (ft)	Quarter
WJ-41	08/06/09	522.63	173.80	348.83	-0.05	3rd 2009
WJ-41	10/20/09	522.63	173.94	348.69	-0.14	4th 2009
WJ-41	02/23/10	522.63	173.96	348.67	-0.02	1st 2010
WJ-41	05/12/10	522.63	174.23	348.40	-0.27	2nd 2010
WJ-41	08/19/10	522.63	174.49	348.14	-0.26	3rd 2010
WJ-41*	11/17/10	523.65	174.83	348.82	0.68	4th 2010
WJ-41*	02/09/11	523.65	174.61	349.04	0.22	1st 2011
WJ-41*	04/13/11	523.65	173.09	350.56	1.52	2nd 2011
WJ-41*	07/19/11	523.65	173.11	350.54	-0.02	3rd 2011
WJ-41*	10/18/11	523.65	172.63	351.02	0.48	4th 2011
WJ-41*	02/09/12	523.65	173.54	350.11	-0.91	1st 2012
WJ-41*	05/31/12	523.65	174.00	349.65	-0.46	2nd 2012
WJ-41*	08/15/12	523.65	173.14	350.51	0.86	3rd 2012
WJ-41*	10/23/12	523.65	172.84	350.81	0.30	4th 2012
WJ-41*	**01/09/13**	**523.65**	**173.49**	**350.16**	**-0.65**	**1st 2013**
WJ-43	05/01/07	467.48	120.96	346.52	---	3rd 2006
WJ-43	08/15/07	467.48	121.95	345.53	-0.99	4th 2006
WJ-43	11/13/07	467.48	123.30	344.18	-1.35	1st 2007
WJ-43	02/12/08	467.48	122.59	344.89	0.71	1st 2008
WJ-43	05/13/08	467.48	122.72	344.76	-0.13	2nd 2008
WJ-43	08/05/08	467.48	123.13	344.35	-0.41	3rd 2008
WJ-43	12/05/08	467.48	123.50	343.98	-0.37	1st 2009
WJ-43	12/19/08	467.48	123.50	343.98	0.00	1st 2009
WJ-43	02/23/09	467.48	120.82	346.66	2.68	1st 2009
WJ-43	03/20/09	467.48	119.84	347.64	0.98	2nd 2009
WJ-43	04/21/09	467.48	119.25	348.23	0.59	2nd 2009
WJ-43	05/21/09	467.48	119.10	348.38	0.15	2nd 2009
WJ-43	08/06/09	467.48	119.18	348.30	-0.08	3rd 2009
WJ-43	10/20/09	467.48	119.39	348.09	-0.21	4th 2009
WJ-43	02/23/10	467.48	119.62	347.86	-0.23	1st 2010
WJ-43	05/12/10	467.48	119.71	347.77	-0.09	2nd 2010
WJ-43	08/19/10	467.48	119.82	347.66	-0.11	3rd 2010
WJ-43*	11/17/10	470.19	120.23	349.96	2.30	4th 2010
WJ-43*	02/09/11	470.19	119.96	350.23	0.27	1st 2011
WJ-43*	04/13/11	470.19	118.93	351.26	1.03	2nd 2011

Table 1
Summary of Groundwater Elevation Data – Selected Wells

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Monitoring Well	Date	TOC Elevation (feet msl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Change from Previous Measurement (ft)	Quarter
WJ-43*	07/19/11	470.19	118.42	351.77	0.51	3rd 2011
WJ-43*	10/18/11	470.19	117.86	352.33	0.56	4th 2011
WJ-43*	02/09/12	470.19	118.69	351.50	-0.83	1st 2012
WJ-43*	05/31/12	470.19	119.21	350.98	-0.52	2nd 2012
WJ-43*	08/15/12	470.19	118.62	351.57	0.59	3rd 2012
WJ-43*	10/23/12	470.19	119.19	351.00	-0.57	4th 2012
WJ-43*	**01/09/13**	**470.19**	**119.33**	**350.86**	**-0.14**	**1st 2013**
WJ-48	02/02/07	453.54	107.22	346.32	---	1st 2007
WJ-48	02/12/08	453.54	108.94	344.60	-1.72	1st 2008
WJ-48	02/23/10	453.54	105.60	347.94	3.34	1st 2010
WJ-49	02/02/07	459.72	113.35	346.37	---	1st 2007
WJ-49	02/12/08	459.72	118.91	340.81	-5.56	1st 2008
WJ-51	10/20/09	490.74	DRY	DRY	---	4th 2009
KV-1*	01/05/11	526.51	175.51	351.00	0.00	1st 2011
KV-1*	02/09/11	526.51	175.32	351.19	-0.19	1st 2011
KV-1*	04/13/11	526.51	174.31	352.20	1.01	2nd 2011
KV-1*	07/19/11	526.51	173.84	352.67	0.47	3rd 2011
KV-1*	10/18/11	526.51	173.13	353.38	0.71	4th 2011
KV-1*	02/09/12	526.51	173.97	352.54	-0.84	1st 2012
KV-1*	05/31/12	526.51	173.97	352.54	0.00	2nd 2012
KV-1*	08/15/12	526.51	173.83	352.68	0.14	3rd 2012
KV-1*	10/23/12	526.51	174.41	352.10	-0.58	4th 2012
KV-1*	**01/09/13**	**526.51**	**174.69**	**351.82**	**-0.28**	**1st 2013**
KV-2*	01/05/11	527.70	176.79	350.91	0.00	1st 2011
KV-2*	02/09/11	527.70	176.71	350.99	-0.08	1st 2011
KV-2*	04/13/11	527.70	175.54	352.16	1.17	2nd 2011
KV-2*	07/19/11	527.70	174.93	352.77	0.61	3rd 2011
KV-2*	10/18/11	527.70	171.57	356.13	3.36	4th 2011
KV-2*	02/09/12	527.70	175.11	352.59	-3.54	1st 2012
KV-2*	05/31/12	527.70	175.11	352.59	0.00	2nd 2012
KV-2*	08/15/12	527.70	175.13	352.57	-0.02	3rd 2012
KV-2*	10/23/12	527.70	175.73	351.97	-0.60	4th 2012
KV-2*	**01/09/13**	**527.70**	**175.97**	**351.73**	**-0.24**	**1st 2013**

Table 1
Summary of Groundwater Elevation Data – Selected Wells

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Monitoring Well	Date	TOC Elevation (feet msl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)	Change from Previous Measurement (ft)	Quarter
KV-3*	11/17/10	528.19	137.21	390.98	0.00	4th 2010
KV-3*	01/05/11	528.19	135.37	392.82	-1.84	1st 2011
KV-3*	02/09/11	528.19	---	---	**---**	1st 2011
KV-3*	04/13/11	528.19	135.09	393.10	---	2nd 2011
KV-3*	07/19/11	528.19	133.89	394.30	1.20	3rd 2011
KV-3*	10/18/11	528.19	133.13	395.06	0.76	4th 2011
KV-3*	02/09/12	528.19	131.51	396.68	1.62	1st 2012
KV-3*	05/31/12	528.19	131.51	396.68	0.00	2nd 2012
KV-3*	08/15/12	528.19	130.23	397.96	1.28	3rd 2012
KV-3*	10/23/12	528.19	129.57	398.62	0.66	4th 2012
KV-3*	**01/09/13**	**528.19**	**128.53**	**399.66**	**1.04**	**1st 2013**
KV-4*	01/05/11	527.69	172.84	354.85	0.00	1st 2011
KV-4*	02/09/11	527.69	172.75	354.94	-0.09	1st 2011
KV-4*	04/13/11	527.69	171.87	355.82	0.88	2nd 2011
KV-4*	07/19/11	527.69	171.13	356.56	0.74	3rd 2011
KV-4*	10/18/11	527.69	169.87	357.82	1.26	4th 2011
KV-4*	02/09/12	527.69	170.49	357.20	-0.62	1st 2012
KV-4*	05/31/12	527.69	170.09	357.60	0.40	2nd 2012
KV-4*	08/15/12	527.69	170.04	357.65	0.05	3rd 2012
KV-4*	10/23/12	527.69	169.63	358.06	0.41	4th 2012
KV-4*	**01/09/13**	**527.69**	**106.25**	**421.44**	**63.38**	**1st 2013**

Notes:

ft = feet
ft amsl = feet above mean sea level
ft btoc = feet below top of casing
--- unable to gauge water level
DRY well casing is dry
* Surveyed / Re-surveyed by Muir Consulting on 12/10/10

Table 2

Results of Laboratory Analyses for Selected Purgeable Halocarbons

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
KV-1 - 180	1/5/2011	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-1 - 180	02/09/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-1 - 180	04/13/11	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-1 - 180	07/19/11	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-1 - 180	10/18/11	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-1 - 180	02/09/12	12	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-1 - 180	05/31/12	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-1-180	08/15/12	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-1 - 180	10/23/12	2	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-1-180	**01/09/13**	**2.1**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
KV-2 -180	01/05/11	35	0.8	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-2 - 180	02/09/11	22	1.1	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-2-180/Dup 2	02/09/11	21	1.0	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-180	04/13/11	39	0.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-2-180/Dup 2	04/13/11	40	0.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-180	07/19/11	53	1.8	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-2-180/Dup 2	07/19/11	51	1.7	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-180	10/18/11	48	1.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-2-180/Dup 2	10/18/11	50	1.7	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-180	02/09/12	23	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-2-180/Dup 2	02/09/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-180	05/31/12	58	1.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-2-180/Dup 2	05/31/12	60	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-180	08/15/12	51	1.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-2-180/Dup 2	08/15/12	56	1.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-180	10/23/12	67	1.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-2-180/Dup 2	10/23/12	63	2.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-180	**01/09/13**	**58**	**2.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
KV-2-180/Dup 2	**01/09/13**	**59**	**2.2**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**---**
KV-2-190	01/05/11	14	1.4	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-190	02/09/11	11	1.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-190	04/13/11	19	1.2	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-190	07/19/11	27	1.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-190	10/18/11	24	1.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-190	02/09/12	6.1	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-190	05/31/12	38	1.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-190	08/15/12	22	2.2	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-190	10/23/12	27	1.7	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-190	**01/09/13**	**25**	**2.3**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**---**
KV-2-200	01/05/11	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-200	02/09/11	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-200	04/13/11	5.9	1.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-200	07/19/11	8.1	2.4	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-200	10/18/11	8.0	2.3	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-200	02/09/12	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-200	05/31/12	12	2.4	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-200	08/15/12	9.8	2.4	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-200	10/23/12	10	1.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-2-200	**01/09/13**	**11**	**2.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**---**

Table 2

Results of Laboratory Analyses for Selected Purgeable Halocarbons

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
KV-3-172	11/17/10	<0.5	1.2	<0.5	<0.5	0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	01/05/11	0.7	1.0	<0.5	<0.5	0.7	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	02/17/11	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	04/13/11	1.0	1.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	07/19/11	1.1	1.8	<0.5	<0.5	0.6	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	10/18/11	1.0	1.8	<0.5	<0.5	0.6	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	02/09/12	1.2	1.7	<0.5	<0.5	0.7	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	05/31/12	1.6	1.8	<0.5	<0.5	0.7	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	08/15/12	0.9	1.7	<0.5	<0.5	0.8	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	10/23/12	1.2	2.0	<0.5	<0.5	1.0	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-172	**01/09/13**	**1.1**	**1.9**	**<0.5**	**<0.5**	**0.9**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
KV-3-182	11/17/10	<0.5	1.2	<0.5	<0.5	0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-3-182	01/05/11	0.5	0.9	<0.5	<0.5	0.6	<0.5	<5.0	<0.5	<0.5	---
KV-3-182	02/17/11	<0.5	1.4	<0.5	<0.5	0.6	<0.5	<5.0	<0.5	<0.5	**---**
KV-3-182	04/13/11	1.1	1.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-3-182	07/19/11	1.2	1.4	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-3-182	10/18/11	1.0	1.4	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-3-182	02/09/12	1.2	1.4	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-3-182	05/31/12	1.6	1.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-3-182	08/15/12	1.0	1.6	<0.5	<0.5	0.6	<0.5	<5.0	<0.5	<0.5	---
KV-3-182	10/23/12	1.1	1.7	<0.5	<0.5	0.8	<0.5	<5.0	<0.5	<0.5	---
KV-3-182	**01/09/13**	**1.3**	**1.7**	**<0.5**	**<0.5**	**0.8**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**---**
KV-4-185	01/05/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-4-185 / Dup 1	01/05/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
KV-4-185	02/09/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-4-185	04/13/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-4-185	07/19/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-4-185	10/18/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-4-185	02/09/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-4-185	05/31/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-4-185	08/15/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-4-185	10/23/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
KV-4-185	**01/09/13**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
Wescosa Well	11/17/10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Wescosa Well	02/09/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Wescosa Well	04/13/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Wescosa Well	07/19/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Wescosa Well	10/18/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Wescosa Well	02/09/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Wescosa Well	05/31/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Wescosa Well	08/15/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Wescosa Well	10/23/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Wescosa Well	**01/09/13**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
WJ-11	01/03/85	---	<1	---	---	<1	---	---	---	---	---
WJ-11	08/02/86	0.03	<0.01	---	---	---	---	---	---	---	---
WJ-11	11/26/86	<1	<1	---	---	---	---	---	---	---	---
WJ-11	12/10/86	<1	<1	---	---	---	---	---	---	---	---
WJ-11	01/07/87	<1	<1	---	---	---	---	---	---	---	---

Table 2

Results of Laboratory Analyses for Selected Purgeable Halocarbons

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
WJ-11	01/29/87	<0.5	<0.5	---	---	---	---	---	---	---	---
WJ-11	05/23/87	<0.5	<0.5	---	---	<0.5	---	---	---	---	---
WJ-11	08/26/87	<0.5	<0.5	---	---	---	---	---	---	---	---
WJ-11	09/11/91	<0.5	<0.5	---	---	<0.5	---	---	---	---	---
WJ-11	03/03/92	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-11	12/08/92	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-11	06/14/93	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-11	11/18/05	7.2	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-11	02/06/06	8.4	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-11	04/24/06	16	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-11	02/02/07	8.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
WJ-11	12/19/08	9.5	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	**---**
WJ-11	02/20/09	23	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	**---**
WJ-11	03/20/09	16	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-11	04/21/09	16	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-11	05/20/09	15	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-11	02/23/10	20	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-11	05/12/10	2.1	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-11	08/19/10	2.0	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-11	11/17/10	13.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-11	02/09/11	11.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-11	04/13/11	26.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-11	07/19/11	20.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-11	10/18/11	25	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-11	02/09/12	21	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-11	05/31/12	11	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-11	08/15/12	42	0.7	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-11	10/23/12	43	0.8	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-11	**01/09/13**	**42**	**0.9**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
WJ-25A	07/03/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-25A	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
WJ-25A	12/19/08	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	**---**
WJ-25A	02/20/09	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	**---**
WJ-25A	03/20/09	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-25A	04/21/09	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-25A	05/20/09	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-26	06/15/96	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	1.9	0.6	0.6	---
WJ-26	06/02/99	<0.5	1.1	0.5	<0.5	<0.5	<0.5	5.1	1.1	1	---
WJ-26	12/13/99	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	---
WJ-26	06/16/00	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	1.9	0.6	0.6	---
WJ-26	12/15/00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	1.58	<0.500	<0.500	---
WJ-26	06/11/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-26	06/11/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-26	01/31/02	<0.50	0.52	<0.50	<0.50	<0.50	<0.50	2.2	<0.50	<0.50	---
WJ-26	06/27/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	1.1	<0.40	<0.50	---
WJ-26	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.99	<0.50	<0.50	<0.50
WJ-29A	06/14/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-29A	06/02/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
WJ-29A	12/13/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-29A	06/15/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-29A	12/15/00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---

Table 2

Results of Laboratory Analyses for Selected Purgeable Halocarbons

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Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
WJ-29A	06/07/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-29A	01/31/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-29A	06/25/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-29A	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
WJ-37 (perched)	10/20/2009[2]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	05/25/87	<0.5	---	---	---	---	---	---	---	---	---
WJ-37A	08/24/87	<0.5	<0.5	---	---	---	---	---	---	---	---
WJ-37A	11/17/87	<0.5	<0.5	---	---	---	---	---	---	---	---
WJ-37A	03/10/88	<1	---	---	---	---	---	---	---	---	---
WJ-37A	06/19/88	<1	---	---	---	---	---	---	---	---	---
WJ-37A	09/15/88	<1	---	---	---	---	---	---	---	---	---
WJ-37A	06/22/89	---	<0.5	---	---	---	---	---	---	---	---
WJ-37A	09/02/89	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	06/20/90	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	09/18/90	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	09/12/91	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	03/04/92	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	09/15/92	0.73	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	12/08/92	ND	ND	---	---	---	---	---	---	---	---
WJ-37A	12/10/92	<0.5	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	06/14/93	ND	ND	---	---	---	---	---	---	---	---
WJ-37A	06/16/93	<0.5	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	12/14/93	0.5	ND	---	---	---	---	---	---	---	---
WJ-37A	12/15/93	0.5	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	06/15/94	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	12/20/94	ND	ND	---	---	---	---	---	---	---	---
WJ-37A	12/22/94	<0.5	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	06/05/95	ND	ND	---	---	---	---	---	---	---	---
WJ-37A	06/07/95	<0.5	0.8	---	---	<0.5	---	---	---	---	---
WJ-37A	12/27/95	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	06/12/96	<0.5	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	06/18/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-37A	12/16/96	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	06/23/97	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	06/22/98	<0.5	<0.5	---	---	---	---	---	---	---	---
WJ-37A	06/24/98	<0.5	<0.5	---	---	<0.5	---	---	---	---	---
WJ-37A	06/01/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
WJ-37A	06/19/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-37A	06/06/01	0.63	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-37A	06/27/02	0.63	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-37A	11/18/05	1.8	<0.5	<0.5	<0.5	<0.5	<1.0	2.4	<0.5	<0.5	---
WJ-37A	02/06/06	1	<0.5	<0.5	<0.5	<0.5	<1.0	0.9	<0.5	<0.5	---
WJ-37A	04/24/06	2.1	<0.5	<0.5	<0.5	<0.5	<1.0	1.4	<0.5	<0.5	---
WJ-37A	02/02/07	0.97	0.55	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
WJ-37A	12/19/08	22	6.4	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-37A	02/20/09	42	6.4	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-37A	03/20/09	25	9.3	<0.5	<0.5	0.6	<1.0	<2.0	<0.5	<0.5	---
WJ-37A	04/21/09	23	6.4	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-37A	05/20/09	17	3.7	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-37A	02/23/10	20	0.7	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-37A	05/12/10	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---

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Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
WJ-37A	08/19/10	22	0.9	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-37A	11/17/10	25	0.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	02/09/11	20	1.1	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	04/13/11	26	1.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	07/19/11	31	1.8	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	10/18/11	22	1.1	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	02/09/12	31	0.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	05/31/12	28	0.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	08/15/12	27	0.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	10/23/12	23	0.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-37A	**01/09/13**	**23**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
WJ-41	06/15/88	<1.0	<1.0	---	---	---	---	---	---	---	---
WJ-41	09/13/88	<1.0	<1.0	---	---	---	---	---	---	---	---
WJ-41	11/30/88	<0.5	<0.5	---	---	---	---	---	---	---	---
WJ-41	06/21/89	---	<0.5	---	---	---	---	---	---	---	---
WJ-41	12/11/90	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	---
WJ-41	03/12/91	---	<0.5	---	---	---	---	---	---	---	---
WJ-41	05/14/91	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-41	06/26/91	---	<0.5	---	<0.5	<0.5	<0.5	---	<0.5	<0.5	---
WJ-41	12/09/91	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-41	03/03/92	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-41	09/15/92	---	<0.5	ND	ND	<0.5	ND	---	ND	ND	---
WJ-41	06/14/94	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-41	06/07/95	---	0.8	ND	ND	<0.5	ND	ND	ND	ND	---
WJ-41	06/13/96	<0.5	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	09/25/96	---	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	12/17/96	---	0.8	---	---	<0.5	---	---	---	---	---
WJ-41	06/26/97	---	3.3	---	---	<0.5	---	---	---	---	---
WJ-41	12/15/97	1.8	11	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
WJ-41	03/12/98	1.2	6.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	06/22/98	0.9	4.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	12/14/98	---	7.2	---	---	<0.5	---	---	---	---	---
WJ-41	03/17/99	1.3	7.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	03/17/99	1.1	6.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	06/01/99	1.6	8.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
WJ-41	06/01/99	1.7	9.1	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
WJ-41	10/15/99	2.09	9.72	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-41	10/15/99	2.16	9.54	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-41	12/18/99	4.1	18.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	03/08/00	1.31	6.84	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-41	03/08/00	1.36	6.56	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-41	05/05/00	1.82	9.24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	06/14/00	3	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	07/21/00	1.64	7.81	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	09/28/00	3.4	16.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	10/26/00	4.1	20.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---
WJ-41	11/28/00	2.8	13.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---
WJ-41	12/15/00	3.43	17	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-41	12/15/00	3.37	17	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---

Table 2

Results of Laboratory Analyses for Selected Purgeable Halocarbons

Watkins-Johnson Superfund Site

Scotts Valley, California

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Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
WJ-41	01/17/01	4.37	22.5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-41	02/09/01	2.79	21.6	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-41	04/30/01	4.23	13.2	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-41	05/15/01	2.43	17.4	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-41	06/12/01	0.89	4.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	07/31/01	2.2	12	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-41	07/31/01	2.4	13	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-41	08/30/01	2.8	6.2	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-41	09/20/01	2.4	12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	10/25/01	2.4	12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	11/21/01	2.8	14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	01/31/02	5	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	01/31/02	5	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	03/27/02	<0.50	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	05/10/02	1.9	12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	07/02/02	0.54	2.2	<0.10	<0.50	<0.50	<0.50	<1.0	<0.40	<0.50	---
WJ-41	09/24/02	0.56	2.3	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	11/24/02	0.79	2.7	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	12/26/02	0.65	2.3	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	01/31/03	1.4	7.4	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	01/31/03	1.4	7.4	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	05/13/03	2	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-41	08/14/03	4.8	33	<0.10	<0.5	<0.5	<0.5	<0.5	<0.4	<0.5	---
WJ-41	11/19/03	3.9	21	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	11/19/03	2.8	15	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	11/19/03	2.7	15	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	<0.50
WJ-41	12/30/03	2.9	14	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	12/30/03	1.2	2.8	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	12/30/03	0.99	2.6	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	01/28/04	1.1	4.9	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	01/28/04	0.94	3.2	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	01/28/04	0.84	2.9	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	01/28/04	0.96	3.4	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	01/28/04	0.6	2.4	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	02/25/04	1.4	9.6	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	02/25/04	0.8	2.4	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	02/25/04	0.7	2.2	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	02/25/04	0.59	2.3	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	03/25/04	1.7	14	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	03/25/04	0.53	2	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	03/25/04	0.61	2.2	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	03/25/04	0.52	1.9	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	05/11/04	3	14	<0.10	<0.20	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	08/03/04	2.8	16	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	08/03/04	2.6	17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	11/02/04	4.5	19	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5	---
WJ-41	11/02/04	3.9	22	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-41	02/10/05	3.6	19	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	05/03/05	3.1	16	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	05/03/05	2.6	16	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	08/05/05	2.9	19	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5

Table 2

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Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
WJ-41	08/05/05	3	18	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	11/18/05	1.1	14	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-41	11/18/05	0.9	13	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-41	02/06/06	1.5	11	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-41	02/06/06	1.6	12	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-41	04/24/06	2.3	14	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-41	08/03/06	3.2	17	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-41	08/03/06	3.4	17	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-41	11/03/06	3.2	16	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-41	02/02/07	4	16	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
WJ-41/Dup 1	02/02/07	3.7	16	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
WJ-41	05/01/07	1.4	16	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-41	08/15/07	3.7	18	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50
WJ-41	11/13/07	3.5	14	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	---
WJ-41/Dup 1	11/13/07	3.5	14	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	---
WJ-41	02/12/08	3.0	12	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	02/12/08	3.3	12	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-41	05/13/08	2.5	11	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	05/13/08	2.7	12	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-41	08/05/08	2.7	10	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	08/05/08	2.4	11	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-41	12/19/08	<0.5	5.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	12/19/08	0.5	5.9	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41	02/20/09	1.1	5.6	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	02/20/09	1.2	5.8	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-41	03/20/09	0.7	6.4	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	03/20/09	0.7	6.4	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41	04/21/09	1.5	8.2	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	04/21/09	1.4	8.2	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41	05/20/09	1.3	8.7	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	05/20/09	1.3	8.8	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41	08/06/09	1.7	6.9	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	08/06/09	1.8	7	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41	10/20/09	0.7	1.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41/Dup 1	10/20/09	0.6	1.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	02/23/10	0.8	2.1	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41	05/12/10	2.0	8.9	<0.5	<0.5	<0.5	<0.5	<5.1	<0.5	<0.5	---
WJ-41	08/19/10	2.8	9.8	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41/Dup 1	08/19/10	3.2	11	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-41	11/17/10	2.1	6.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41/Dup 1	11/17/10	2.4	6.8	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	02/09/11	1.6	6.2	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41/Dup 1	02/09/11	1.6	6.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	04/13/11	0.7	2.4	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41/Dup 1	04/13/11	0.8	2.2	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	07/19/11	2.0	5.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	10/18/11	1.4	3.8	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41/Dup 1	10/18/11	1.6	3.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	02/09/12	1.8	3.3	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41/Dup 1	02/09/12	1.7	3.8	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5

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Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
WJ-41	05/31/12	1.9	4.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41/Dup 1	05/31/12	1.9	4.4	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	08/15/12	1.2	3.1	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41/Dup 1	08/15/12	1.2	3.1	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	10/23/12	0.9	1.8	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41/Dup 1	10/23/12	0.9	1.8	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-41	**01/09/13**	**1.4**	**3.2**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
WJ-41/Dup 1	**01/09/13**	**1.4**	**3.2**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
WJ-43	06/14/88	<1.0	<1.0	---	---	---	---	---	---	---	---
WJ-43	09/14/88	<1.0	<1.0	---	---	---	---	---	---	---	---
WJ-43	09/14/88	<1.0	<1.0	---	---	---	---	---	---	---	---
WJ-43	03/29/89	---	<0.12	<0.13	---	---	<0.5	<0.5	<0.03	<0.02	---
WJ-43	06/22/89	---	<0.5	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	---
WJ-43	06/22/89	<0.5	<0.5	---	---	---	---	---	---	---	---
WJ-43	09/21/89	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-43	12/13/89	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-43	03/20/90	---	<0.5	---	<0.5	<0.5	---	---	---	<0.5	---
WJ-43	12/11/90	---	<0.5	---	<0.5	<0.5	<0.5	---	<0.5	<0.5	---
WJ-43	03/12/91	---	<0.5	---	---	---	---	---	---	---	---
WJ-43	06/25/91	---	<0.5	---	<0.5	<1.0	<0.5	---	<0.5	<0.5	---
WJ-43	12/09/91	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-43	06/16/92	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-43	12/08/92	---	<0.5	ND	ND	<0.5	ND	---	ND	ND	---
WJ-43	06/15/93	---	<0.5	ND	---	<0.5	ND	ND	ND	0.59	---
WJ-43	06/14/94	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-43	06/06/95	---	<0.5	ND	ND	<0.5	ND	ND	ND	ND	---
WJ-43	06/10/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-43	06/24/97	---	<0.5	---	---	<0.5	---	---	---	---	---
WJ-43	06/23/98	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-43	06/02/99	2.70	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
WJ-43	06/19/00	5.90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-43	06/07/01	8.00	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-43	05/09/02	4.90	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-43	06/26/02	9.80	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	01/31/03	6.00	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	05/13/03	5.90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-43	05/13/03	5.80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-43	08/14/03	5.40	<0.5	<0.10	<0.5	<0.5	<0.5	<0.5	<0.4	<0.5	---
WJ-43	11/19/03	5.30	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	11/19/03	4.70	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	12/30/03	4.60	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	12/30/03	5.90	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	01/28/04	6.10	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	01/28/04	7.10	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	01/28/04	7.00	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	01/28/04	5.20	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	02/25/04	8.80	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	02/25/04	7.80	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	02/25/04	6.10	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---

Table 2

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Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
WJ-43	03/25/04	8.90	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	03/25/04	8.90	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	03/25/04	9.20	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	05/11/04	10.00	<0.50	<0.10	<0.20	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	08/03/04	13.00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-43	11/02/04	8.60	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-43	02/10/05	17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-43	05/03/05	25	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	08/05/05	29	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	11/18/05	23	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-43	02/06/06	21	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-43	04/24/06	34	0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-43	04/24/06	33	0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-43	08/03/06	46	0.6	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-43	11/03/06	31	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
WJ-43	02/02/07	25	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
WJ-43	05/01/07	28	0.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-43/Dup	05/01/07	31	0.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
WJ-43	08/15/07	45	1.0	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50
WJ-43/Dup	08/15/07	44	0.8	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50
WJ-43	11/13/07	24	<0.5	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	---
WJ-43	02/12/08	20	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-43	05/13/08	30	0.6	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-43	08/05/08	35	0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
WJ-43	12/19/08	17	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-43	02/20/09	21	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-43	03/20/09	12	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-43	04/21/09	11	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-43	05/20/09	12	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-43	08/06/09	13	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-43	10/20/09	18	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	02/23/10	20	<0.5	<0.5	<0.5	<0.5	<1.0	<2.0	<0.5	<0.5	---
WJ-43	05/12/10	30	0.6	<0.5	<0.5	<0.5	<1.1	<2.0	<0.5	<0.5	---
WJ-43	08/19/10	36	0.5	<0.5	<0.5	<0.5	<1.1	<2.0	<0.5	<0.5	---
WJ-43	11/17/10	34	0.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	02/09/11	31	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	04/13/11	27	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	07/19/11	30	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	10/18/11	23	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	02/09/12	52	0.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	05/31/12	36	0.9	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	08/15/12	31	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	10/23/12	24	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
WJ-43	**01/09/13**	**27**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
WJ-48	06/14/96	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	3.7	<0.5	<0.5	---
WJ-48	06/02/99	<0.5	2.7	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
WJ-48	12/18/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-48	06/15/00	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	3.7	<0.5	<0.5	---
WJ-48	12/14/00	<0.500	0.724	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
WJ-48	06/07/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-48	01/31/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---

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Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
WJ-48	06/27/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	1.5	<0.40	<0.50	---
WJ-48	06/27/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	1.3	<0.40	<0.50	---
WJ-48	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.78	<0.50	<0.50	<0.50
WJ-48	02/23/10	<0.50	<0.50	<0.90	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
WJ-49	06/18/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-49	06/02/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
WJ-49	06/19/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
WJ-49	06/08/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
WJ-49	07/01/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
WJ-49	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
SUPPLY WELL	03/30/89	<0.03	0.61	---	---	---	---	---	---	---	---
SUPPLY WELL	06/28/89	<0.5	29	---	---	---	---	---	---	---	---
SUPPLY WELL	09/20/89	<0.5	<0.5	---	---	---	---	---	---	---	---
SUPPLY WELL	02/06/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
SUPPLY WELL	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
SUPPLY WELL	02/23/10	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
AP-3N	06/12/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
AP-3N	06/26/97	---	<0.5	---	---	---	---	---	---	---	---
AP-3N	03/12/98	<0.5	<0.5	---	---	---	---	---	---	---	---
AP-3N	06/22/98	<0.5	<0.5	---	---	---	---	---	---	---	---
AP-3N	03/17/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
AP-3N	06/01/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
AP-3N	10/15/99	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
AP-3N	12/18/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
AP-3N	03/08/00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
AP-3N	06/13/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
AP-3N	09/28/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
AP-3N	12/15/00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
AP-3N	04/30/01	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
AP-3N	06/11/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
AP-3N	09/20/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
AP-3N	01/31/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
AP-3N	05/09/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
AP-3N	07/02/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
AP-3N	09/26/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
AP-3N	04/24/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
AP-3N	02/02/07	<0.50	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
BC-6	05/11/04	<0.50	<0.50	<0.10	<0.20	<0.50	<0.50	<0.50	<0.40	<0.50	---
BC-6	08/19/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
BC-6	11/02/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
BC-6	02/10/05	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
BC-6	05/03/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
BC-6	08/05/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
BC-6	11/18/05	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-6	02/06/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-6	04/24/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-6	08/03/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-6	11/03/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-6	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---

Table 2

Results of Laboratory Analyses for Selected Purgeable Halocarbons

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
BC-7	05/11/04	<0.50	<0.50	<0.10	<0.20	<0.50	<0.50	<0.50	<0.40	<0.50	---
BC-7	08/19/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
BC-7	11/02/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
BC-7	02/10/05	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
BC-7	05/03/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
BC-7	08/05/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
BC-7	11/18/05	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-7	02/06/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-7	04/24/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-7	08/03/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-7	11/03/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BC-7	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
BCDP	05/11/04	<0.50	<0.50	<0.10	<0.20	<0.50	<0.50	<0.50	<0.40	<0.50	---
BCDP	08/19/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
BCDP	11/02/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
BCDP	02/10/05	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
BCDP	05/03/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
BCDP	08/05/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
BCDP	11/18/05	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BCDP	02/06/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BCDP	04/24/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BCDP	08/03/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BCDP	11/03/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
BCDP	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
											---
OB-1	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
OB-1	02/23/10	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
OB-2	02/23/10	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
OB-3	06/15/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
OB-3	06/02/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
OB-3	06/16/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
OB-3	06/08/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	---
OB-3	07/03/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
OB-3	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
RA-1	12/19/08	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-1	02/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-1	03/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-1	04/21/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-1	05/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-2	12/19/08[1]	---	---	---	---	---	---	---	---	---	---
RA-2	02/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	2.9	<0.50	<0.50	---
RA-2	03/20/09	<0.50	4.2	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-2	04/21/09	0.5	4.4	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-2	05/20/09	0.5	<0.50	<0.50	<0.50	<0.50	<1.0	4.7	<0.50	<0.50	---
RA-3	12/19/08	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---

Table 2

Results of Laboratory Analyses for Selected Purgeable Halocarbons

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
RA-3	02/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-3	03/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-3	04/21/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-3	05/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-4	12/19/08	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-4	02/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-4	03/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-4	04/21/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
RA-4	05/20/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
SVWD-9	05/13/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	---
SVWD-9M	05/13/08	6.3	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	---
Field Blank	05/09/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
Field Blank	09/24/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Field Blank	11/19/03	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Field Blank	12/30/03	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Field Blank	01/28/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Field Blank	02/25/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Field Blank	03/25/04	<0.50	<0.50	<0.10	<0.50	<0.50	0.52	<0.50	<0.40	<0.50	---
Field Blank	05/11/04	<0.50	<0.50	<0.10	<0.20	<0.50	0.59	<0.50	<0.40	<0.50	---
Field Blank	08/05/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
Field Blank	11/13/07	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	---
Trip Blank	06/11/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
Trip Blank	09/28/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
Trip Blank	12/14/00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	---
Trip Blank	03/27/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
Trip Blank	07/03/02	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Trip Blank	11/19/03	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Trip Blank	12/30/03	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Trip Blank	01/28/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Trip Blank	02/25/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Trip Blank	03/25/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Trip Blank	05/11/04	<0.50	<0.50	<0.10	<0.20	<0.50	0.57	<0.50	<0.40	<0.50	---
Trip Blank	08/03/04	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
Trip Blank	08/19/04	<0.50	<0.50	<0.10	<0.50	<0.50	<0.50	<0.50	<0.40	<0.50	---
Trip Blank	02/10/05	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
Trip Blank	05/03/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
Trip Blank	08/05/05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	---
Trip Blank	11/18/05	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
Trip Blank	02/06/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
Trip Blank	04/24/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
Trip Blank	08/03/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
Trip Blank	11/03/06	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	---
Trip Blank	02/02/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
Trip Blank	05/01/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
Trip Blank	08/15/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50

Table 2
Results of Laboratory Analyses for Selected Purgeable Halocarbons

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Regional Monitoring Well	Sample Date	PCE µg/L	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	cis-1,2-DCE µg/L	CFM µg/L	Freon 113 µg/L	1,1,1-TCA µg/L	1,1,2-TCA µg/L	MTBE µg/L
Treatment Standard		**5**	**5**	**6**	**5**	**6**	**100**	**---**	**200**	**32**	**---**
Trip Blank	11/13/07	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	---
Trip Blank	02/12/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	---
Trip Blank	05/13/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	---
Trip Blank	08/06/09	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
Trip Blank	10/20/09	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Trip Blank	02/23/10	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
Trip Blank	08/19/10	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
Trip Blank	11/17/10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Trip Blank	02/09/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Trip Blank	04/13/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Trip Blank	07/19/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Trip Blank	10/18/11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Trip Blank	02/09/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Trip Blank	08/15/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Trip Blank	10/23/12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
Trip Blank	**01/09/13**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**<0.5**	**<0.5**	**<0.5**
PDB Blank	08/19/10	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<2.0	<0.50	<0.50	---
PDB Blank	11/17/10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5

Notes:

1 RA-2 sample collected from TS-IN of the GWETS for the December 19, 2008 event. Refer to Table 3 for GWETS analytical results.

2 WJ-37 sample from October 20, 2009 was a pre-purging grab sample as the well contained only 5 to 6 inches of water and did not recharge following purging.

3 Wescosa Well is located located on an adjacent property and owned by a separate party.

Analyses performed by Sequoia Analytical, Morgan Hill, California prior to 5-3-05.
Beginning 5-3-05, analyses performed by Curtis & Tompkins Ltd., Berkeley, California.

February 2, 2007 analyses performed by BC Laboratories, Inc. in Bakersfield, California.

Selected purgeable halocarbons analyzed by United States Environmental Protection Agency (USEPA) Method 8260B.

Notes (cont):

PCE	tetrachloroethene
TCE	trichloroethene
1,1-DCE	1,1-dichloroethene
1,1-DCA	1,1-dichloroethane
cis-1,2-DCE	cis-1,2-dichloroethene
CFM	chloroform
1,1,1-TCA	1,1,1-trichloroethane
1,1,2-TCA	1,1,2-trichloroethane
MTBE	methyl tertiary-butyl ether
µg/L	micrograms per liter
NA	not analyzed
PDB	Passive diffusion bag
<	Symbol indicates not detected at or above laboratory detection limit as noted.
---	data not available
J	Laboratory qualifier = estimated value.

Dup	Duplicate sample.
b	sample collected using bailer after purge with grundfos pump
c	sample collected from PDB set at 198 feet btoc
d	sample collected from PDB set at 183.5 feet btoc
e	sample collected from PDB set at 191 feet btoc
f	Laboratory reports acetone at 19 µg/L.
g	Laboratory reports acetone at 19 µg/L.
h	acetone at 43 µg/L and 2-butanone at 13 µg/L.
i	Laboratory reports acetone at 41 µg/L and 2-butanone at 12 µg/L.
j	sample collected from PDB set at 166 feet btoc
k	sample collected from PDB set at 130 feet btoc
l	sample collected from PDB set at 148 feet btoc
m	acetone at 22 µg/L and attributed to laboratory artifact.
n	acetone at 44 µg/L and 2-butanone at 14 µg/L and attributed to laboratory
o	Laboratory reports acetone at 43 µg/L and 2-butanone at 18 µg/L and
p	1,2-DCA at 0.9 µg/L

Table 3
Results of Laboratory Analyses for Volatile Organic Compounds in the Treatment System

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Sample Identification	Sampling Location	Date Sampled	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Vinyl Cloride	Freon 113 (µg/L)	1,1,1-TCA (µg/L)	Chromium (µg/L)	Hexavalent Chromium (µg/L)	Nickel (µg/L)
Permit Limits for Effluent Water			**0.8**	**2.7**	**6**	**10**	**0.5**		**200**	**50**	**10**	**52**
TS-IN	**Treatment System Influent Water**	12/07/12	**4.5**	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	**1.5**	<0.52	**25**
		01/09/13	**4.0**	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	**26**	**0.00073**	**190**
		02/19/13	**4.2**	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	**3.9**	<0.50	**58**
TS-MID	**Water Between LPGAC Vessels**	12/07/12	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	**8.8**	**11**	<1.0
		01/09/13	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	**10.0**	**0.0098**	<1.0
		02/19/13	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	**10**	**11**	<1.0
TS-OUT	**Treatment System Effluent Water**	12/07/12	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<1.0	<0.5	<1.0
		01/09/13	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<1.0	<0.00052	<1.0
		02/19/13	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<1.0	<0.50	<1.0

Notes:

Detected values shown in bold.

Analysis performed using United States Environmental Protection Agency (USEPA) Method 8260B.

Analyses performed by Curtis & Tompkins Ltd., Berkeley, California.

--- Not Analyzed.

TS-IN	Treatment System Influent Water		
TS-MID	Water between LPGAC vessels	LPGAC	Liquid phase granular activated carbon
TS-OUT	Treatment System Effluent Water	PCE	Tetrachloroethene
1,1,1-TCA	1,1,1-Trichloroethane	TCE	Trichloroethene
MTBE	methyl tertiary butyl ether	µg/L	Micrograms per liter
cis-1,2-DCE	cis-1,2-Dichloroethene	<	Symbol indicates not detected at or above the laboratory reporting limit as noted.

Table 4
Summary of Groundwater Extraction, Usage, and Discharge to Bean Creek

Watkins-Johnson Superfund Site

Scotts Valley, California

USEPA First Quarter 2013 Monitoring Report

Month	Notes	Groundwater Extracted (gallons)	Treated Water Reused by Facility[1] (gallons)	Treated Water Discharged to Bean Creek (gallons)	Perched Zone Infiltration[2]
First Quarter 2013					
Dec-13	3	1,807,888	0	1,807,888	0
Jan-13	3	1,796,507	0	1,796,507	0
Feb-13	3	1,632,555	0	1,632,555	0
1st Quarter 2013 Total		**5,236,950**	**0**	**5,236,950**	**0**

Notes:

1 Following December 2008 system shutdown, facility no longer reuses treated water.

2 The groundwater infiltration system has been shut off since May 2000.

3 Total monthly volumes were estimated based on average daily flow rates between site visits on December 7, January 9, and February 19.

ARCADIS

Figures

LEGEND:

● WJ-41	WELL SCREENED IN THE REGIONAL ZONE OF THE SANTA MARGARITA FORMATION
○ RA-4	REMEDIAL ACTION WELL SCREENED IN THE REGIONAL ZONE OF THE SANTA MARGARITA FORMATION
⊕ DH-1	WELL SCREENED IN THE PERCHED ZONE OF THE SANTA MARGARITA FORMATION
⊕ RA-5	REMEDIAL ACTION WELL SCREENED IN THE PERCHED ZONE OF THE SANTA MARGARITA FORMATION
✸ PZE-4	PERCHED ZONE EXTRACTION WELL SCREENED IN THE SANTA MARGARITA AQUIFER
⊠ PZI-4	PERCHED ZONE INFILTRATION WELL
+ SV-1	SOIL VAPOR EXTRACTION WELL
⊠ MW-1B	SOIL VAPOR MONITORING WELL SCREENED IN THE PERCHED ZONE
⊠ WJ-27A	ABANDONED WELL
620	TOPOGRAPHIC ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL

100 0 100 200
SCALE FEET

FORMER WATKINS-JOHNSON COMPANY SITE
GROUNDWATER MAP
440 KINGS VILLAGE ROAD
SCOTTS VALLEY, CALIFORNIA

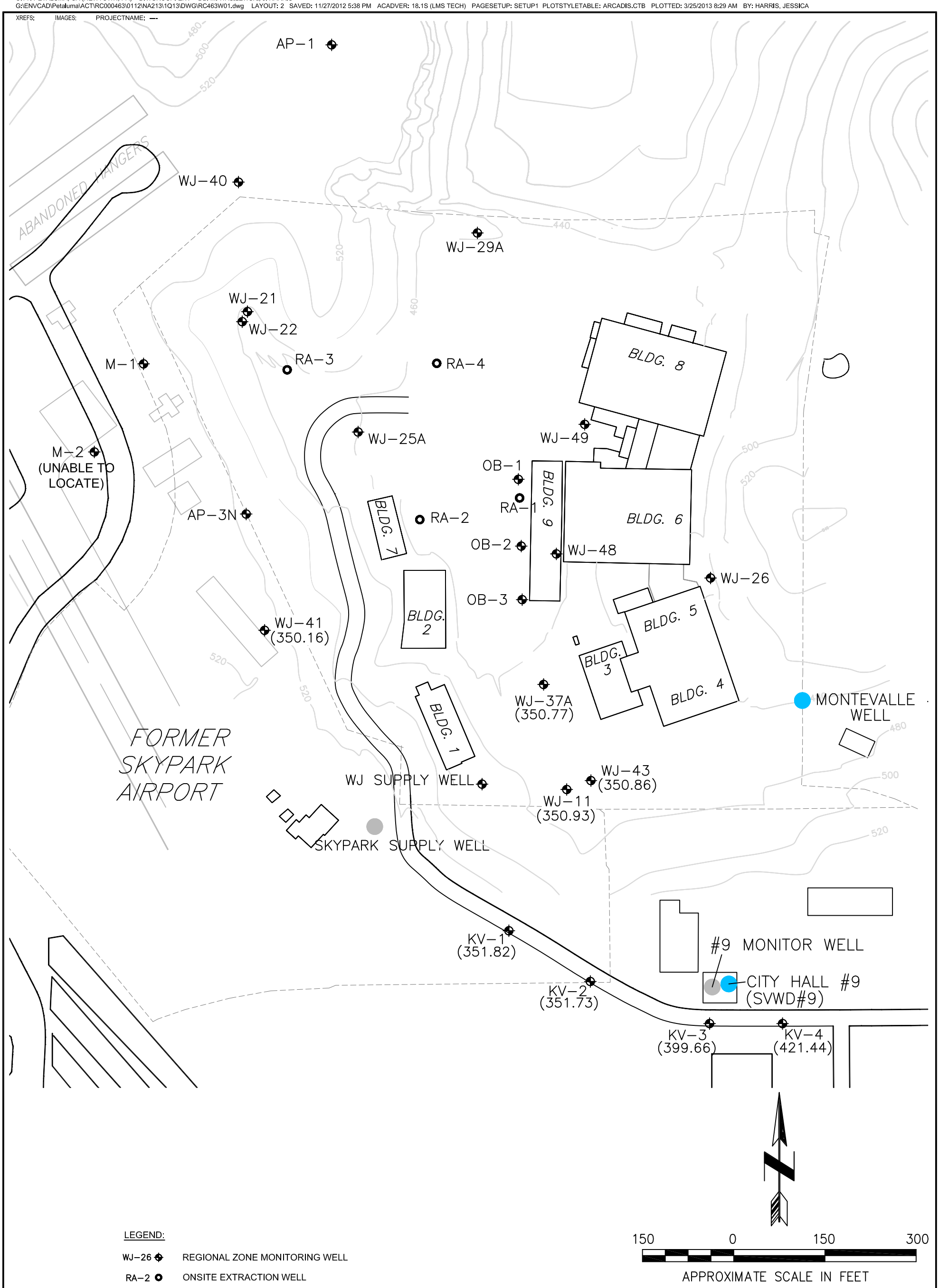
REGIONAL AND PERCHED ZONE GROUNDWATER WELLS AND SOIL VAPOR WELLS

ARCADIS

FIGURE
1

CITY:FULLERTON DIV/GROUP:ENV LD:R.HUBATCH PIC:L.A. SMITH PM:L SEWELL TM:H. WHITEHOUSE LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Fullerton\ACTIRC\00046301\00\MG109\CAD\Revised Map 7_24_09.dwg LAYOUT: FIG1 SAVED: 7/24/2009 8:29 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 7/24/2009 8:41 AM BY: HUBATCH, RICK
XREFS: IMAGES: SVG PHASE 0100
Agmwgr.tif

CITY: PETALUMA, CA (NEWTOWN, PA) DIV/GROUP: ENV DB: M. WASILEWSKI, J. HARRIS
G:\ENVCAD\Petaluma\ACT\RC000463\0112\NA213\1Q13\DWG\RC463W01.dwg LAYOUT: 2 SAVED: 11/27/2012 5:38 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 3/25/2013 8:29 AM BY: HARRIS, JESSICA
XREFS: IMAGES: PROJECTNAME: ---



LEGEND:

WJ-26	REGIONAL ZONE MONITORING WELL
RA-2	ONSITE EXTRACTION WELL
CITY HALL SVWD #9	OFFSITE PRODUCTION WELL SCREENED IN THE SANTA MARGARITA AQUIFER
SKYPARK SUPPLY WELL	OFFSITE PRODUCTION/MONITORING WELL NOT SCREENED IN THE SANTA MARGARITA AQUIFER
- - - - - -	PARCEL BOUNDARY
(351.82)	GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL

FORMER WATKINS-JOHNSON COMPANY SITE
440 KINGS VILLAGE ROAD
SCOTTS VALLEY, CALIFORNIA
USEPA FIRST QUARTER 2013 MONITORING REPORT

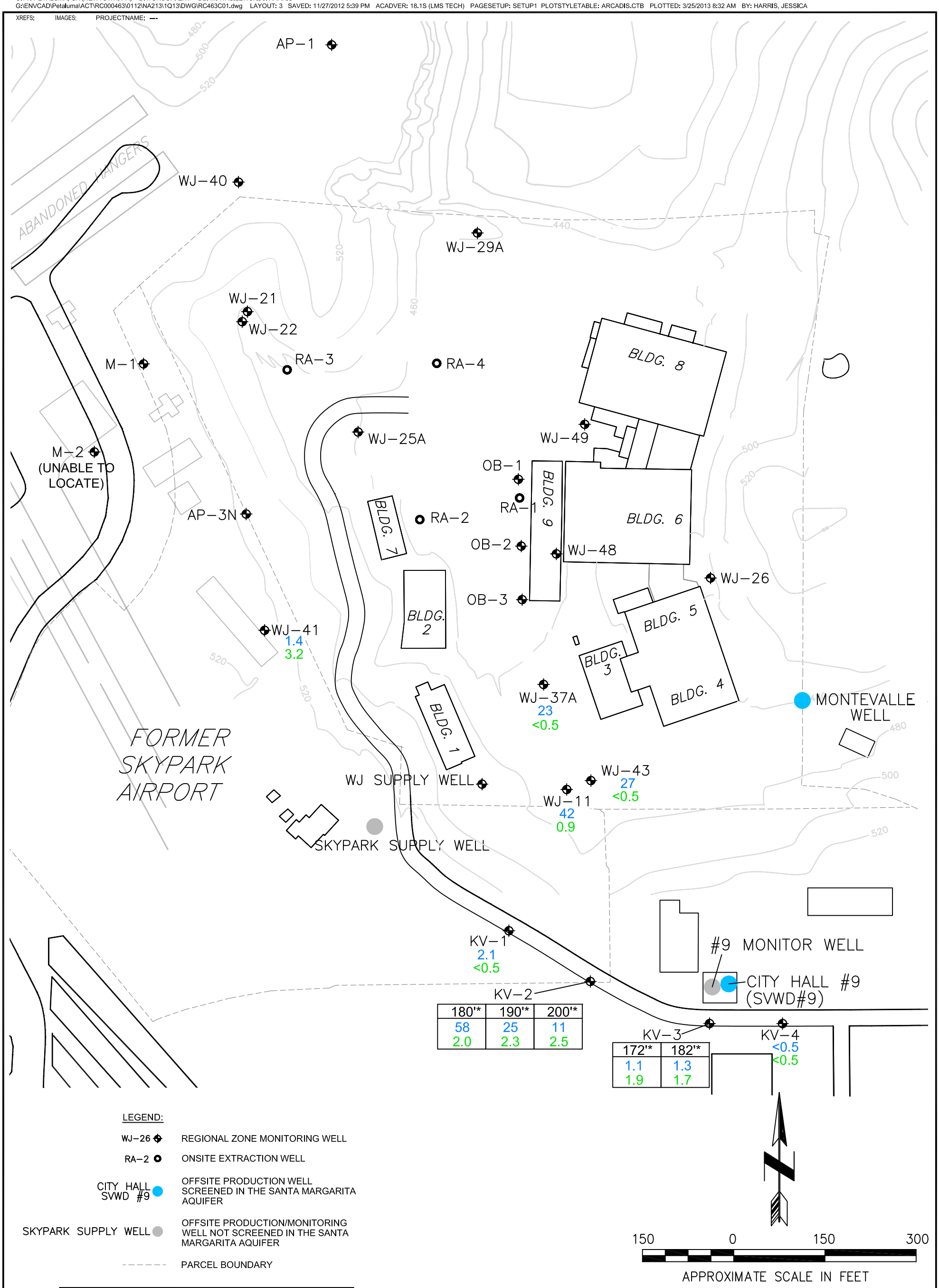
REGIONAL ZONE GROUNDWATER ELEVATIONS (JANUARY 2013)

ARCADIS

FIGURE
2

CITY: PETALUMA, CA (NEWTOWN, PA) DIV/GROUP: ENV DB: M. WASILEWSKI, J. HARRIS
G:\ENVCAD\Petaluma\ACT\RC000463\0112\NA213\1Q13\DWG\RC463C01.dwg LAYOUT: 3 SAVED: 11/27/2012 5:39 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 3/25/2013 8:32 AM BY: HARRIS, JESSICA

XREFS: IMAGES: PROJECTNAME: ---



180'*	190'*	200'*
58 2.0	25 2.3	11 2.5

172'*	182'*
1.1 1.9	1.3 1.7

LEGEND:

WJ-26	REGIONAL ZONE MONITORING WELL
RA-2	ONSITE EXTRACTION WELL
CITY HALL SVWD #9	OFFSITE PRODUCTION WELL SCREENED IN THE SANTA MARGARITA AQUIFER
SKYPARK SUPPLY WELL	OFFSITE PRODUCTION/MONITORING WELL NOT SCREENED IN THE SANTA MARGARITA AQUIFER
- - - - - -	PARCEL BOUNDARY

WJ-43	WELL
27	PCE CONCENTRATION (µg/L)
<0.5	TCE CONCENTRATION (µg/L)

PCE	TETRACHLOROETHENE
TCE	TRICHLOROETHENE
µg/L	MICROGRAMS PER LITER
*	DEPTH OF PDB PLACEMENT

FORMER WATKINS-JOHNSON COMPANY SITE
440 KINGS VILLAGE ROAD
SCOTTS VALLEY, CALIFORNIA
USEPA FIRST QUARTER 2013 MONITORING REPORT

GROUNDWATER ANALYTICAL RESULTS PCE AND TCE (JANUARY 2013)

ARCADIS

FIGURE
3

Appendix A

Quality Assurance Report

Site: Watkins-Johnson Superfund Site
440 Kings Village Road
Analyzing Lab: Curtis & Tompkins, Ltd.
Reviewer: Dennis Dyke
Date: March 21, 2013
Data Validation Report #: 18807

Sample Delivery Groups (SDGs): 242306 and 242307

23 Water Samples
Volatile Organic Compounds (VOCs) by EPA Method 8260B

QA/QC Data Review Summary

I. Introduction

The following water samples were collected and submitted to Curtis & Tompkins, Ltd. Analytical Laboratories in Berkeley, California (C&T) for analysis of the analytes listed in the header using United States Environmental Protection Agency (USEPA) analytical methods.

Sample ID	Lab ID	Sample Date	Field Duplicate Parent Sample
WESCOSA WELL (GRAB)	242306-001	1/9/2013	
KV-1 (GRAB)	242306-002	1/9/2013	
KV-2 (GRAB)	242306-003	1/9/2013	
KV-3 (GRAB)	242306-004	1/9/2013	
KV-4 (GRAB)	242306-005	1/9/2013	
WJ-41 (GRAB)	242306-006	1/9/2013	
WJ-11 (GRAB)	242306-007	1/9/2013	
WJ-43 (GRAB)	242306-008	1/9/2013	
WJ-37A (GRAB)	242306-009	1/9/2013	
WESCOSA WELL	242307-001	1/9/2013	
KV-1	242307-002	1/9/2013	
KV-2@180	242307-003	1/9/2013	
KV-2@190	242307-004	1/9/2013	
KV-2@200	242307-005	1/9/2013	
DUP-2	242307-006	1/9/2013	KV-2-180
KV-3@172	242307-007	1/9/2013	
KV-3@182	242307-008	1/9/2013	
KV-4	242307-009	1/9/2013	
WJ-41	242307-010	1/9/2013	
TB010913	242307-011	1/9/2013	
WJ-11	242307-012	1/9/2013	
DUP-1	242307-013	1/9/2013	WJ-41
WJ-43	242307-014	1/9/2013	
WJ-37A	242307-015	1/9/2013	

This document was prepared in accordance with USEPA documents *Contract Laboratory Program National Functional Guidelines for Organic Data Review* (1999) and the *Quality Assurance Project Plan (QAPP) for Remedial Design/Remedial Action, Watkins-Johnson Company, Scotts Valley, California,* April 12, 1993.

II. Validity

A. Results are valid for the project purposes, subject to the comments in Section III.

III. Comments

A. Proper sample preservation was maintained after sample collection and the EPA-recommended holding time was met for all sample analyses.

B. No dilutions were required; the reporting limits are adequate for assessments.

C. All surrogate recoveries were within the QC acceptance limits.

D. All matrix spike/matrix spike duplicate sample (MS/MSD) and laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses met the QC acceptance criteria.

E. Target analytes were not detected in any of the associated laboratory method blanks or trip blank.

F. The relative percent differences (RPDs) between the field duplicate sample results were acceptable at less than 25%.

G. Integration sheets, chromatograms, and reference scans are produced to positively identify compounds reported above quantitation limits for samples designated as laboratory quality control samples. These data were not reviewed, but are retained by the laboratories.

H. All analytical results are considered valid and no sample results out of 947 required qualification. For this batch of samples analyses, the completeness goal is met.

I. Other quality control criteria were met and considered acceptable.

Appendix B

Groundwater Sampling Field Forms

Site Visit Report

ARCADIS Project Number: RC000463.~~0101~~.NA212 0112	Dates of Site Visit: ~~05- -12~~ 12/07/12
ARCADIS Project Name: SVG	Location of Project: Scotts Valley
ARCADIS Personnel Present: H. Tauscher	Other Persons Present: Weber, Hayes & Associates

Purpose of Site Visit: ~~May Sampling~~ December System Sampling

Date & Time:	Activities:
12/06/12 0900	Depart for site -
1000	Arrive @ SVG AVIZA. System is running, no issue for restart.
	Sample system.
	Conduct inspection and take pictures of large sinkhole that has occurred near building 8 on site. An employee from Weber, Hayes & Associates on site to conduct soil sampling alerted me to the condition. The pvc pipe linked to ~~the~~ the groundwater ~~Weber, Hayes & Associates~~ treatment system does not appear to be compromised. The system was still running and the pipe in question was not turned on. RA-2 is the only extraction well running.
1130	Depart the site
1245	Arrive @ San Jose Office

Rental Equipment Used

~~Qty~~	~~Rental ID~~	~~Description~~	~~Rental Period~~	~~Return Conf. #~~
	1415	Sign over COC and samples to courier. Email pictures and scan field notes to Katie Wynne for her info.		

Weather:	Signature & Date:
	Eqpt Billing Log to Accounting Date: Initials:

SVG
Watkins-Johnson Superfund Facility
Scotts Valley, CA

Date & Time: 12/07/12 1000
Technician: H. Tauscher
Weather: overcast, cool, ~~[illegible]~~ calm
Ambient Temperature: 60's

Reviewed By: _____ Date: _____

System Status	ON	OFF	Alarm	Comments
Operational Status	X			
Well RA-2	X			

System Components	Value	Units	Normal	Comments
Influent Pressure From Well	25	PSI	25	
RA-2 Flow	90	GPM	90	
Position of Throttle Valve	100	% Open	100	
Carbon Vessels				
Influent Temperature	—	Celsius	~16	
Mid Pressure	—	PSI		
Out Pressure	—	PSI		
System Totals				
System Totalizer	66 0489 00	Gallons		
Building Tank Supply	6196983 —	Gallons		
Timer Settings				
Run Start Time	0200	HHMM	~~700~~ 0200	
Run Time Duration	9	Hrs	~~9.5~~ 1100	
Electrical Meter				
Electrical Meter Reading	8.7.4 x16	KWH		

Inspections	Yes	No	Comments
High/High Alarm Checked?	X		RA-2 stops, yellow light spins
Samples taken?	X		
Any Leaks in Piping or Tanks?	X		
Creek Inspected?		X	

Health and Safety Equipment	Yes	No	Comments
Fire Extinguisher(s) Checked?	X		Date of exp:
Eye-Wash in Truck?	X		Date of exp:
First-Aid Kit in Truck?	X		

Maintenance Performed	Yes	No	Date
Pumps Greased		X	

Additional Comments/Maintenance Performed

Site Visit Report

ARCADIS Project Number:	Dates of Site Visit: 02/19/13
~~RC000463.0112.MD213~~ NA212	~~1/ /2013~~
ARCADIS Project Name:	Location of Project:
SVG	**Scotts Valley**
ARCADIS Personnel Present:	Other Persons Present:
H. Tauscher	

Purpose of Site Visit:

~~**January Sampling Event**~~ February Sampling Event

Date & Time:	Activities:
02/19/13 0900	Depart for site
1000	Arrive @ SVG Aviza - System is running - no power outage issues as anticipated. Took a picture of the electrical meter and emailed it to Kathy Brandt and Katie Wynne to show them how I have been reading the meter, it appears as though the meter might be going out, the first number is hard to read, the bottom half is illegible. Tried to get a courier, could not get through, drove the samples to Curtis & Tompkins myself. (Short hold time would not allow shipping.)
1130	Depart site for lab
1233	Sign over samples & COC
1500	Arrive back @ office
1600	Arrive @ final destination.

Rental Equipment Used

Qty	Rental ID	Description	Rental Period	Return Conf. #

Weather:	Signature & Date:
	Eqpt Billing Log to Accounting Date: Initials:

SVG
Watkins-Johnson Superfund Facility
Scotts Valley, CA

Date & Time: 02/19/13 1000
Technician: H. Tausher
Weather: overcast, drizzle, calm
Ambient Temperature: 50's

Reviewed By: _____ Date: _____

System Status	ON	OFF	Alarm	Comments
Operational Status	X			
Well RA-2	X			

System Components	Value	Units	Normal	Comments
Influent Pressure From Well	25	PSI	25	
RA-2 Flow	90	GPM	90	
Position of Throttle Valve	100	% Open	100	
Carbon Vessels				
Influent Temperature	—	Celsius	~16	
Mid Pressure	—	PSI		
Out Pressure	—	PSI		
System Totals				
System Totalizer	703467	Gallons		
Building Tank Supply	619683	Gallons		
Timer Settings				
Run Start Time	0200	HHMM	700	1230
Run Time Duration	10.5	Hrs	9.5	
Electrical Meter				
Electrical Meter Reading	1773 x16	KWH		

Inspections	Yes	No	Comments
High/High Alarm Checked?	X		RA-2 stops, yellow light spins
Samples taken?	X		
Any Leaks in Piping or Tanks?		X	
Creek Inspected?		X	

Health and Safety Equipment	Yes	No	Comments
Fire Extinguisher(s) Checked?	X		Date of exp:
Eye-Wash in Truck?	X		Date of exp:
First-Aid Kit in Truck?	X		

Maintenance Performed	Yes	No	Date
Pumps Greased		X	

Additional Comments/Maintenance Performed

Looks as though there is asphalt to be layed down in area of sink hole. The sink hole has been filled in.

Site Visit Report

ARCADIS Project Number: **RC000463.0112.MD213**	Dates of Site Visit: **1/09 /2013**
ARCADIS Project Name: **SVG**	Location of Project: **Scotts Valley**
ARCADIS Personnel Present: **H. Tauscher**	Other Persons Present: Statewide Traffic Control

Purpose of Site Visit:

January Sampling Event

Date & Time:	Activities:
01/09/13 @ 0630	- Depart for site, grab ice along the way.
0745	- Arrive @ site, arrange truck for most efficient sampling. Calibrate Horiba - pH = 4.0, temp = 6.4°C Sample Wescosa Well
0900	- Traffic Control arrives, hold tailgate safety meeting - hot topic is traffic on road where working. Statewide sets up and begin sampling in the street.
1030	- Receive a call from Desiree Tetrault of Curtis & Tompkins regarding Hex Chrome samples. Need to send them to Accutest @ Curtis & Tompkins cost.
1330	Depart site for San Jose office.
1430	Arrive @ site same time as courier, sign over samples & COC's. Finalize paperwork.

Rental Equipment Used

Qty	Rental ID	Description	Rental Period	Return Conf. #

Weather:	Signature & Date:
	Eqpt Billing Log to Accounting Date: Initials:

RECORD OF WATER LEVEL MEASUREMENTS

Date: ~~5- -12~~ 01/09/13

Tools used (circle one): Interface Probe DTW Meter

Project Name: **SVG**

Job No.: **RC000463.0101.~~NA212~~** MD213

Location: **Scotts Valley, CA**

ARCADIS Personnel: **H. Tauscher**

Well Number	Time Measured	Depth to Product (DTP) (feet)	Depth to Water (DTW) (feet)	Depth to Bottom (DTB) (feet)	Product Thickness = DTW - DTP (feet)	Remarks:
WJ-11	1241	N/A	119.29	129.75	N/A	
WJ-37A	1320		114.51	168.25		
WJ-41	1139		173.49	207.09		
WJ-43	1303		119.33	167.85		
KV-1	0937		174.69	199.25		
KV-2	1007		175.97	218.43		
KV-3	1045		128.53	198.93		
KV-4	1115		106.25	203.70		

ARCADIS

SVG
Watkins-Johnson Superfund Facility
Scotts Valley, CA

Date & Time: 01/09/13 1230
Technician: H. Tauscher
Weather: overcast
Ambient Temperature: 50's

Reviewed By: _____ Date: _____

System Status	ON	OFF	Alarm	Comments
Operational Status	X			
Well RA-2	X			

System Components	Value	Units	Normal	Comments
Influent Pressure From Well	25	PSI	25	
RA-2 Flow	90	GPM	90	
Position of Throttle Valve	100	% Open	100	
Carbon Vessels				
Influent Temperature	—	Celsius	~16	
Mid Pressure	—	PSI		
Out Pressure	—	PSI		
System Totals				
System Totalizer	679778	Gallons		
Building Tank Supply	619683	Gallons		
Timer Settings				
Run Start Time	0200	HHMM	~~700~~	1230
Run Time Duration	10.5	Hrs	~~9.5~~	
Electrical Meter				
Electrical Meter Reading	1277 x16	KWH		

Inspections	Yes	No	Comments
High/High Alarm Checked?	X		RA-2 stops, yellow light spins
Samples taken?	X		
Any Leaks in Piping or Tanks?		X	
Creek Inspected?		X	

Health and Safety Equipment	Yes	No	Comments
Fire Extinguisher(s) Checked?	X		Date of exp:
Eye-Wash in Truck?	X		Date of exp:
First-Aid Kit in Truck?	X		

Maintenance Performed	Yes	No	Date
Pumps Greased		X	

Additional Comments/Maintenance Performed

Water Sampling Log

Project Number RC000463.0112.MD213 Date 01-09-13

Project Name SVG Well Number WJ-37A

Weather overcast, cold, 90's Sampling Time: Begin 1317 End 1330

Samplers Name H. Tauscher

Evacuation Data

Measuring Point (MP) TOC

Total Sounded Depth of Well Below MP 169.25

Depth to Water Below MP 114.51

Water Column in Well

Gallons per Foot

Gallons in Well

Diameter of Casing

Calculated Gallons Purged Prior to Sampling

Sampling Pump Intake Setting (feet below measuring point)

Purge Method:

PVC Bailer ☐ Diaphragm Pump ☐ size

Disposable Bailer ☐ Submersible Pump ☐ size

Other

Field Parameters

Start Time

Time	~~Cumulative~~ Gallons	~~Temperature~~ °F/°C	~~Specific Cond.~~ µS/cm	pH	~~DO~~	~~ORP~~	Other	Color
			x	7.3				
			x					
			x					
			x					
			x					
			x					

Sampling

Sampling Method PDB + bailer

Actual Gallons Purged Prior to Sampling

Time 1321 Depth to Water 114.51 Color Clear Other

Remarks

grab - time - 1329

Well Casing Volumes (gal/ft)

1 - 1/4" = 0.077 1 - 1/2" = 0.10 2" = 0.16 3" = 0.37 3 1/2 = 0.50 4" = 0.65 6" = 1.46

ARCADIS Passive Diffusion Bag (PDB) Groundwater Sampling Form

Project Number:	RC000463.0112.MD213	Sample Date:	01- 09 -13
Project Name:	Scotts Valley	Well Name:	WJ-43
Sampling Event:	Quarterly Sampling January 2013	Number of PDB Stations:	1
Task Manager:	Katie Wynne	Depth to Water:	119.33
Sampler(s):	H. Tauscher	Depth to Bottom:	167.85
Weather:	overcast, cold, 50's	pH:	7.1
Sample Time Interval: Start:	1301	Depth to Bag:	
Finish:	1315	Actual Depth to Bag (if different)	

PDB SAMPLES

Station	Volume	Preservative	Analysis	Comments
PDB 1	See attached table			

QUALITY CONTROL SAMPLES

Type	Comments
□ Field Duplicate	
□ MS/MSD	
□ Field Blank	
□ Equipment Rinse	
□ Other:_____	

PDB REPLACEMENT | X YES | NO |

Additional Comments:

Sample time = 1305 grab time = 1310

Water Sampling Log

Project Number RC000463.0112.MD213 Date 01-09-13

Project Name SVG Well Number WJ-11

Weather overcast cold 50's Sampling Time: Begin 1240 End 1300

Samplers Name H. Tauscher

Evacuation Data

Measuring Point (MP) TOC

Total Sounded Depth of Well Below MP 129.75

Depth to Water Below MP 119.29

Water Column in Well

Gallons per Foot

Gallons in Well

Diameter of Casing 2"

Calculated Gallons Purged Prior to Sampling

Sampling Pump Intake Setting (feet below measuring point)

Purge Method:

PVC Bailer ☐ Diaphragm Pump ☐ size

Disposable Bailer ☐ Submersible Pump ☐ size

Other

Field Parameters

Start Time

Time	~~Cumulative~~ Gallons	~~Temperature~~ °F/°C	~~Specific Cond.~~ µS/cm	pH	~~DO~~	~~ORP~~	~~Other~~	~~Color~~
			x	7.4				
			x					
			x					
			x					
			x					
			x					

Sampling

Sampling Method PDB + Bailer

Actual Gallons Purged Prior to Sampling

Time 1244 Depth to Water 119.29 Color Clear Other

Remarks

Grab time = 1250

Well Casing Volumes (gal/ft)

1 - 1/4" = 0.077 1 - 1/2" = 0.10 2" = 0.16 3" = 0.37 3 1/2 = 0.50 4" = 0.65 6" = 1.46

ARCADIS Passive Diffusion Bag (PDB) Groundwater Sampling Form

Project Number:	RC000463.0112.MD213	**Sample Date:**	01-09-13
Project Name:	Scotts Valley	**Well Name:**	WJ-41
Sampling Event:	Quarterly Sampling January 2013	**Number of PDB Stations:**	1
Task Manager:	Katie Wynne	**Depth to Water:**	173.49
Sampler(s):	H. Tauscher	**Depth to Bottom:**	207.09
Weather:	overcast, cold, 50's	**pH:**	8.1
Sample Time Interval:		**Depth to Bag:**	
Start:	1137		
Finish:	1159	**Actual Depth to Bag (if different)**	

PDB SAMPLES

Station	Volume	Preservative	Analysis	Comments
PDB 1	See attached table			

QUALITY CONTROL SAMPLES

Type	Comments
□ Field Duplicate	
□ MS/MSD	
□ Field Blank	
□ Equipment Rinse	
□ Other:_____	

PDB REPLACEMENT | X YES | NO

Additional Comments: Grab = 1155

Sample time = 1141

Dup 1 = 1220

ARCADIS Passive Diffusion Bag (PDB) Groundwater Sampling Form

Project Number:	RC000463.0112.MD213	**Sample Date:**	01- 09 -13
Project Name:	Scotts Valley	**Well Name:**	KV-4
Sampling Event:	Quarterly Sampling January 2013	**Number of PDB Stations:**	1
Task Manager:	Katie Wynne	**Depth to Water:**	106.25
Sampler(s):	H. Tauscher	**Depth to Bottom:**	203.70
Weather:	overcast, cold, 50's	**pH:**	7.6
Sample Time Interval:		**Depth to Bag:**	?
Start:	1113	**Actual Depth to Bag (if different)**	
Finish:	1135		

PDB SAMPLES

Station	Volume	Preservative	Analysis	Comments
PDB 1	See attached table			

QUALITY CONTROL SAMPLES

Type	Comments
☐ Field Duplicate	
☐ MS/MSD	
☐ Field Blank	
☐ Equipment Rinse	
☐ Other:_____	

PDB REPLACEMENT | X YES | NO

Additional Comments: Grab time = 1127

Sample time = 1117

ARCADIS Passive Diffusion Bag (PDB) Groundwater Sampling Form

Project Number:	RC000463.0112.MD213	**Sample Date:**	01- 09 -13
Project Name:	Scotts Valley	**Well Name:**	KV-3
Sampling Event:	Quarterly Sampling January 2013	**Number of PDB Stations:**	2
Task Manager:	Katie Wynne	**Depth to Water:**	128.53
Sampler(s):	H. Tauscher	**Depth to Bottom:**	198.93
Weather:	overcast, cold, 50's	**pH:**	7.5
Sample Time Interval:		**Depth to Bag:**	
Start:	1043		
Finish:	1111	**Actual Depth to Bag (if different)**	

PDB SAMPLES

Station	Volume	Preservative	Analysis	Comments
PDB 1	See attached table			
PDB 2	See attached table			

QUALITY CONTROL SAMPLES

Type	Comments
□ Field Duplicate	
□ MS/MSD	
□ Field Blank	
□ Equipment Rinse	
□ Other:_____	

PDB REPLACEMENT | X YES | NO

Additional Comments: Grab time = 1103

@ 172 time = 1049

@ 182 time = 1054

ARCADIS Passive Diffusion Bag (PDB) Groundwater Sampling Form

Project Number:	RC000463.0112.MD213	**Sample Date:**	01-09 -13
Project Name:	Scotts Valley	**Well Name:**	KV-2
Sampling Event:	Quarterly Sampling January 2013	**Number of PDB Stations:**	4
Task Manager:	Katie Wynne	**Depth to Water:**	175.97
Sampler(s):	H. Tauscher	**Depth to Bottom:**	218.43
Weather:	overcast, cold, 50's	**pH:**	7.4
Sample Time Interval:		**Depth to Bag:**	
Start:	1005		
Finish:	1041	**Actual Depth to Bag (if different)**	

PDB SAMPLES

Station	Volume	Preservative	Analysis	Comments
PDBs 1 thru 4	See attached table			

QUALITY CONTROL SAMPLES

Type	Comments
□ Field Duplicate	
□ MS/MSD	
□ Field Blank	
□ Equipment Rinse	
□ Other:_____	

PDB REPLACEMENT | X YES | NO |

Additional Comments:

@ 180 time = 1012 Grab time = 1031

@ 190 time = 1019

@ 200 time = 1023

Dup 2 time = 1039

ARCADIS Passive Diffusion Bag (PDB) Groundwater Sampling Form

Project Number:	RC000463.0112.MD213	**Sample Date:**	01- 09 -13
Project Name:	Scotts Valley	**Well Name:**	KV-1
Sampling Event:	Quarterly Sampling January 2013	**Number of PDB Stations:**	1
Task Manager:	Katie Wynne	**Depth to Water:**	174.69
Sampler(s):	H. Tauscher	**Depth to Bottom:**	199.25
Weather:	overcast, cold, 50's	**pH:**	7.6
Sample Time Interval: Start:	0935	**Depth to Bag:**	
Finish:	1002	**Actual Depth to Bag (if different)**	

PDB SAMPLES

Station	Volume	Preservative	Analysis	Comments
PDB 1	See attached table			

QUALITY CONTROL SAMPLES

Type	Comments
☐ Field Duplicate	
☐ MS/MSD	
☐ Field Blank	
☐ Equipment Rinse	
☐ Other:_____	

PDB REPLACEMENT | X YES | NO |

Additional Comments:

Sample time = 0950

grab = 0954

Water Sampling Log

Project Number RC000463.0112.MD213 Date 01-09-13

Project Name SVG Well Number Wescosa

Weather overcast, cold, 50's Sampling Time: Begin 0800 End 0821

Samplers Name H. Tauscher

Evacuation Data

Measuring Point (MP) TOC

Total Sounded Depth of Well Below MP

Depth to Water Below MP

Water Column in Well N/A

Gallons per Foot

Gallons in Well

Diameter of Casing N/A

Calculated Gallons Purged Prior to Sampling

Sampling Pump Intake Setting (feet below measuring point) N/A

Purge Method:

PVC Bailer ☐ Diaphragm Pump ☐ size

Disposable Bailer ☐ Submersible Pump ☐ size

Other Spigot

Field Parameters

Start Time

Time	~~Cumulative Gallons~~	~~Temperature~~ Temperature °F/°C	~~Specific Cond.~~ µS/cm	pH	~~DO~~	~~ORP~~	~~Other~~	~~Color~~
	5	4.4	x	7.9				
			x					
			x					
			x					
			x					
			x					

Sampling

Sampling Method Spigot

Actual Gallons Purged Prior to Sampling ~5

Time 0809 Depth to Water ——— Color Clear Other

Remarks

Well Casing Volumes (gal/ft)

1 - 1/4" = 0.077 1 - 1/2" = 0.10 2" = 0.16 3" = 0.37 3 1/2 = 0.50 4" = 0.65 6" = 1.46

ARCADIS Geraghty Miller, Inc.

Appendix C

Laboratory Analytical Results

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 241813
ANALYTICAL REPORT

Arcadis	Project : RC000463
2000 Powell St	Location : SVG AVIZA Scotts Valley, CA
Emeryville, CA 94608	Level : II

Sample ID	Lab ID
TS-OUT	241813-001
TS-MID	241813-002
TS-IN	241813-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Desiree N. Tetrault Date: 12/21/2012

Desiree N. Tetrault
Project Manager
(510) 486-0900

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**241813**
Client:	**Arcadis**
Project:	**RC000463**
Location:	**SVG AVIZA Scotts Valley, CA**
Request Date:	**12/07/12**
Samples Received:	**12/07/12**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 12/07/12. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Metals (EPA 6020):
No analytical problems were encountered.

Hexavalent Chromium by Ion Chromatograph (EPA 7199):
No analytical problems were encountered.

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 241813 Date Received 12/7/12 Number of coolers 1
Client ARCADIS Project RC000463.0112. NA212

Date Opened 12/7/12 By (print) EL (sign) E. Le
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) ____ YES NO
   Shipping info ____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many ____ Name ____ Date ____
2B. Were custody seals intact upon arrival? ____ YES NO N/A
3. Were custody papers dry and intact when received? ____ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? ____ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ____ YES NO
6. Indicate the packing in cooler: (if other, describe) ____

☐ Bubble Wrap ☒ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) ____

☒ Samples Received on ice & cold without a temperature blank; ~~temp. taken with IR gun~~

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ____ YES NO
   If YES, what time were they transferred to freezer? ____
9. Did all bottles arrive unbroken/unopened? ____ YES NO
10. Are there any missing / extra samples? ____ YES NO
11. Are samples in the appropriate containers for indicated tests? ____ YES NO
12. Are sample labels present, in good condition and complete? ____ YES NO
13. Do the sample labels agree with custody papers? ____ YES NO
14. Was sufficient amount of sample sent for tests requested? ____ YES NO
15. Are the samples appropriately preserved? ____ YES NO N/A
16. Did you check preservatives for all bottles for each sample? ____ YES NO N/A
17. Did you document your preservative check? ____ YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? ____ YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? ____ YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? ____ YES NO N/A
21. Was the client contacted concerning this sample delivery? ____ YES NO
   If YES, Who was called? ____ By ____ Date: ____

COMMENTS

Rev 10, 11/11

Curtis & Tompkins Sample Preservation for 241813

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[X]	[ ]	[ ]	_____
e	[ ]	[ ]	[ ]	_____
-002a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[X]	[ ]	[ ]	_____
e	[ ]	[ ]	[ ]	_____
-003a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[X]	[ ]	[ ]	_____
e	[ ]	[ ]	[ ]	_____

Analyst: EL
Date: 12/7/12

Page 1 of 1

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-OUT	Batch#:	193870
Lab ID:	241813-001	Sampled:	12/07/12
Matrix:	Water	Received:	12/07/12
Units:	ug/L	Analyzed:	12/14/12
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-MID	Batch#:	193870
Lab ID:	241813-002	Sampled:	12/07/12
Matrix:	Water	Received:	12/07/12
Units:	ug/L	Analyzed:	12/14/12
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-IN	Batch#:	193870
Lab ID:	241813-003	Sampled:	12/07/12
Matrix:	Water	Received:	12/07/12
Units:	ug/L	Analyzed:	12/14/12
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	4.5	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	193870
Units:	ug/L	Analyzed:	12/14/12
Diln Fac:	1.000		

Type: BS Lab ID: QC670246

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	12.50	12.68	101	65-130
Trichloroethene	12.50	11.70	94	76-121
Chlorobenzene	12.50	11.60	93	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	99	80-121

Type: BSD Lab ID: QC670247

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	13.36	107	65-130	5	22
Trichloroethene	12.50	11.95	96	76-121	2	20
Chlorobenzene	12.50	11.80	94	80-120	2	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC670248	Batch#:	193870
Matrix:	Water	Analyzed:	12/14/12
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Chromium

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Chromium	Sampled:	12/07/12
Matrix:	Water	Received:	12/07/12
Units:	ug/L	Prepared:	12/11/12
Diln Fac:	5.000	Analyzed:	12/12/12
Batch#:	193740		

Field ID	Type	Lab ID	Result	RL
TS-OUT	SAMPLE	241813-001	ND	1.0
TS-MID	SAMPLE	241813-002	8.8	1.0
TS-IN	SAMPLE	241813-003	7.0	1.0
	BLANK	QC669729	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Nickel

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Nickel	Batch#:	193740
Matrix:	Water	Sampled:	12/07/12
Units:	ug/L	Received:	12/07/12
Diln Fac:	5.000	Prepared:	12/11/12

Field ID	Type	Lab ID	Result	RL	Analyzed
TS-OUT	SAMPLE	241813-001	ND	1.0	12/18/12
TS-MID	SAMPLE	241813-002	ND	1.0	12/18/12
TS-IN	SAMPLE	241813-003	190	1.0	12/12/12
	BLANK	QC669729	ND	1.0	12/14/12

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Chromium

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Chromium	Batch#:	193740
Field ID:	ZZZZZZZZZZ	Sampled:	12/03/12
MSS Lab ID:	241722-003	Received:	12/05/12
Matrix:	Water	Prepared:	12/11/12
Units:	ug/L	Analyzed:	12/12/12
Diln Fac:	5.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC669730		100.0	83.80	84	75-120		
BSD	QC669731		100.0	86.35	86	75-120	3	20
MS	QC669732	0.3465	100.0	84.85	85	66-120		
MSD	QC669733		100.0	85.00	85	66-120	0	32

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Nickel

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Nickel	Batch#:	193740
Field ID:	ZZZZZZZZZZ	Sampled:	12/03/12
MSS Lab ID:	241722-003	Received:	12/05/12
Matrix:	Water	Prepared:	12/11/12
Units:	ug/L	Analyzed:	12/12/12
Diln Fac:	5.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC669730		100.0	89.30	89	61-131		
BSD	QC669731		100.0	91.30	91	61-131	2	23
MS	QC669732	3.355	100.0	87.75	84	57-126		
MSD	QC669733		100.0	89.60	86	57-126	2	42

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Hexavalent Chromium

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	METHOD
Project#:	RC000463	Analysis:	EPA 7199
Matrix:	Water	Batch#:	193623
Units:	ug/L	Received:	12/07/12
Diln Fac:	1.000		

Field ID:	TS-OUT	Sampled:	12/07/12 10:11
Type:	SAMPLE	Analyzed:	12/07/12 17:42
Lab ID:	241813-001		

Analyte	Result	RL
Hexavalent Chromium	ND	0.50

Field ID:	TS-MID	Sampled:	12/07/12 10:17
Type:	SAMPLE	Analyzed:	12/07/12 17:55
Lab ID:	241813-002		

Analyte	Result	RL
Hexavalent Chromium	11	0.50

Field ID:	TS-IN	Sampled:	12/07/12 10:23
Type:	SAMPLE	Analyzed:	12/07/12 18:07
Lab ID:	241813-003		

Analyte	Result	RL
Hexavalent Chromium	ND	0.50

Type:	BLANK	Analyzed:	12/07/12 13:36
Lab ID:	QC669224		

Analyte	Result	RL
Hexavalent Chromium	ND	0.50

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Hexavalent Chromium

Lab #:	241813	Location:	SVG AVIZA Scotts Valley, CA
Client:	Arcadis	Prep:	METHOD
Project#:	RC000463	Analysis:	EPA 7199
Field ID:	ZZZZZZZZZZ	Batch#:	193623
MSS Lab ID:	241809-001	Sampled:	12/07/12 09:09
Units:	ug/L	Received:	12/07/12

Type:	LCS	Diln Fac:	1.000
Lab ID:	QC669225	Analyzed:	12/07/12 13:48
Matrix:	Water		

Analyte	Spiked	Result	%REC	Limits
Hexavalent Chromium	20.00	21.48	107	90-110

Type:	MS	Diln Fac:	10.00
Lab ID:	QC669226	Analyzed:	12/07/12 19:02
Matrix:	Filtrate		

Analyte	MSS Result	Spiked	Result	%REC	Limits
Hexavalent Chromium	299.5	100.0	409.3	110	85-115

Type:	MSD	Diln Fac:	10.00
Lab ID:	QC669227	Analyzed:	12/07/12 19:15
Matrix:	Filtrate		

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Hexavalent Chromium	100.0	406.2	107	85-115	1	20

RPD= Relative Percent Difference

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Analytical Laboratories, Since 1878

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 242306
ANALYTICAL REPORT

Arcadis	Project : RC000463
2000 Powell St	Location : SVG - Scotts Valley, CA
Emeryville, CA 94608	Level : II

Sample ID	Lab ID
WESCOSA WELL (GRAB)	242306-001
KV-1 (GRAB)	242306-002
KV-2 (GRAB)	242306-003
KV-3 (GRAB)	242306-004
KV-4 (GRAB)	242306-005
WJ-41 (GRAB)	242306-006
WJ-11 (GRAB)	242306-007
WJ-43 (GRAB)	242306-008
WJ-37A (GRAB)	242306-009

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Desiree N. Tetrault Date: 01/16/2013

Desiree N. Tetrault
Project Manager
(510) 486-0900

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**242306**
Client:	**Arcadis**
Project:	**RC000463**
Location:	**SVG - Scotts Valley, CA**
Request Date:	**01/09/13**
Samples Received:	**01/09/13**

This data package contains sample and QC results for nine water samples, requested for the above referenced project on 01/09/13. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Curtis & Tompkins

ARCADIS
Infrastructure · Water · Environment · Buildings

ID#: 242306

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Send Results to:

Contact & Company Name: K. Wynne ARCADIS
Telephone:
Address:
Fax: on file
City State Zip
E-mail Address:

Project Name/Location (City, State): SVG-Scotts Valley, CA
Project #: RC80004/63.CA12.MD.213
Sampler's Printed Name: Heather Tausher
Sampler's Signature: Heather M Tausher

Preservative	HCL						
Filtered (✓)							
# of Containers	3						
Container Information	VOA						

PARAMETER ANALYSIS & METHOD

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil, SE - Sediment, NL - NAPL/Oil, W - Water, SL - Sludge, SW - Sample Wipe, T - Tissue, A - Air, Other: _____

	Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	Grab MTBE							REMARKS
1	Wescosa Well (Grab)	01/09/13	0809		X	W	X							
2	KV-1 (Grab)	01/09/13	0954		X	W	X							
3	KV-2 (Grab)	01/09/13	1031		X	W	X							
	~~Dup2 (Grab)~~	~~01/09/13~~			~~X~~	~~W~~	~~X~~							
4	KV-3 (Grab)	01/09/13	1103		X	W	X							
5	KV-4 (Grab)	01/09/13	1127		X	W	X							
6	WJ-41 (Grab)	01/09/13	1155		X	W	X							
7	WJ-11 (Grab)	01/09/13	1250		X	W	X							
8	WJ-43 (Grab)	01/09/13	1310		X	W	X							
9	WJ-37A (Grab)	01/09/13	1329		X	W	X							

Special Instructions/Comments:

☐ Special QA/QC Instructions(✓):

Laboratory Information and Receipt

Lab Name: Curtis & Tompkins
☑ Cooler packed with ice (✓)
Specify Turnaround Requirements:
Shipping Tracking #:
Cooler Custody Seal (✓): ☐ Intact ☐ Not Intact
Sample Receipt:
Condition/Cooler Temp: _____

Relinquished By	Received By	Relinquished By	Laboratory Received By
Printed Name: Heather Tausher	Printed Name: Ricky Grams	Printed Name: Ricky Grams	Printed Name: Eileen Leung
Signature: Heather M Tausher	Signature: [illegible]	Signature: [illegible]	Signature: Eileen Leung
Firm: ARCADIS	Firm/Courier: CRT	Firm/Courier: CRT	Firm: CET
Date/Time: 01/09/13 @ 1430	Date/Time: 1/9/13 1430	Date/Time: 1/9/13 1655	Date/Time: 1/9/13 1655

intact on ice cold RC

Distribution: WHITE – Laboratory returns with results YELLOW – Lab copy PINK – Retained by ARCADIS

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 242306 Date Received 1/9/13 Number of coolers 1
Client Arcadis Project SVG - Scotts Valley, CA

Date Opened 1/9/13 By (print) AM (sign)
Date Logged in 1/10/13 By (print) EL (sign) E. Lerry

1. Did cooler come with a shipping slip (airbill, etc) ____ YES (NO)
   Shipping info ____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☑ NO
   How many ____ Name ____ Date ____
2B. Were custody seals intact upon arrival? ____ YES NO (N/A)
3. Were custody papers dry and intact when received? ____ (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? ____ (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ____ (YES) NO
6. Indicate the packing in cooler: (if other, describe) ____

☐ Bubble Wrap ☑ Foam blocks ☑ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 1.5

☐ Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ____ YES (NO)
   If YES, what time were they transferred to freezer? ____
9. Did all bottles arrive unbroken/unopened? ____ (YES) NO
10. Are there any missing / extra samples? ____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? ____ (YES) NO
12. Are sample labels present, in good condition and complete? ____ (YES) NO
13. Do the sample labels agree with custody papers? ____ YES (NO)
14. Was sufficient amount of sample sent for tests requested? ____ (YES) NO
15. Are the samples appropriately preserved? ____ (YES) NO N/A
16. Did you check preservatives for all bottles for each sample? ____ YES NO (N/A)
17. Did you document your preservative check? ____ YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? ____ YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? ____ YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? ____ (YES) NO N/A
21. Was the client contacted concerning this sample delivery? ____ YES (NO)
   If YES, Who was called? ____ By ____ Date: ____

COMMENTS
13) -003 [KV-2 (Grab)]: Sample ID on labels say KV-2 @180 (Grab)
-004 [KV-3 (Grab)]: " " KV-3 @172 (Grab)

Rev 10, 11/11

Curtis & Tompkins, Ltd.

MTBE by GC/MS

Lab #:	242306	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	01/09/13
Units:	ug/L	Received:	01/09/13
Diln Fac:	1.000	Analyzed:	01/11/13

Field ID: WESCOSA WELL (GRAB) Lab ID: 242306-001
Type: SAMPLE Batch#: 194511

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-127

Field ID: KV-1 (GRAB) Lab ID: 242306-002
Type: SAMPLE Batch#: 194511

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	93	80-127

Field ID: KV-2 (GRAB) Lab ID: 242306-003
Type: SAMPLE Batch#: 194511

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-127

Field ID: KV-3 (GRAB) Lab ID: 242306-004
Type: SAMPLE Batch#: 194511

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-127

Field ID: KV-4 (GRAB) Lab ID: 242306-005
Type: SAMPLE Batch#: 194511

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

MTBE by GC/MS

Lab #:	242306	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	01/09/13
Units:	ug/L	Received:	01/09/13
Diln Fac:	1.000	Analyzed:	01/11/13

Field ID: WJ-41 (GRAB) Lab ID: 242306-006
Type: SAMPLE Batch#: 194517

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-127

Field ID: WJ-11 (GRAB) Lab ID: 242306-007
Type: SAMPLE Batch#: 194512

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-127

Field ID: WJ-43 (GRAB) Lab ID: 242306-008
Type: SAMPLE Batch#: 194512

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127

Field ID: WJ-37A (GRAB) Lab ID: 242306-009
Type: SAMPLE Batch#: 194512

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-127

Type: BLANK Batch#: 194511
Lab ID: QC672733

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	89	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

MTBE by GC/MS

Lab #:	242306	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	01/09/13
Units:	ug/L	Received:	01/09/13
Diln Fac:	1.000	Analyzed:	01/11/13

Type: BLANK Batch#: 194512
Lab ID: QC672736

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127

Type: BLANK Batch#: 194517
Lab ID: QC672752

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

MTBE by GC/MS

Lab #:	242306	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194511
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Type: BS Lab ID: QC672729

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	22.94	92	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	88	80-127

Type: BSD Lab ID: QC672730

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	23.80	95	59-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

MTBE by GC/MS

Lab #:	242306	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194512
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Type: BS Lab ID: QC672734

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	23.05	92	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127

Type: BSD Lab ID: QC672735

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	22.92	92	59-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

MTBE by GC/MS

Lab #:	242306	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194517
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Type: BS Lab ID: QC672750

Analyte	Spiked	Result	%REC	Limits
MTBE	12.50	11.94	96	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	90	80-127

Type: BSD Lab ID: QC672751

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	12.50	12.16	97	59-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 242307
ANALYTICAL REPORT

Arcadis	Project : RC000463
2000 Powell St	Location : SVG - Scotts Valley, CA
Emeryville, CA 94608	Level : II

Sample ID	Lab ID
WESCOSA WELL	242307-001
KV-1	242307-002
KV-2@180	242307-003
KV-2@190	242307-004
KV-2@200	242307-005
DUP2	242307-006
KV-3@172	242307-007
KV-3@182	242307-008
KV-4	242307-009
WJ-41	242307-010
TB010913	242307-011
WJ-11	242307-012
DUP1	242307-013
WJ-43	242307-014
WJ-37A	242307-015

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Desiree N. Tetrault Date: 01/16/2013

Desiree N. Tetrault
Project Manager
(510) 486-0900

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**242307**
Client:	**Arcadis**
Project:	**RC000463**
Location:	**SVG - Scotts Valley, CA**
Request Date:	**01/09/13**
Samples Received:	**01/09/13**

This data package contains sample and QC results for fifteen water samples, requested for the above referenced project on 01/09/13. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

ARCADIS
Infrastructure · Water · Environment · Buildings

ID#: 242307

Curtis & Tompkins

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

Send Results to:
Contact & Company Name: R. Wynne ARCADIS
Address: on file
City / State / Zip
Telephone:
Fax:
E-mail Address:

Project Name/Location (City, State): SVG - Scotts Valley, CA
Project #: PC000463.0112.MD213
Sampler's Printed Name: Heather Tausher
Sampler's Signature: Heather Tausher

Preservative	HCL
Filtered (✓)	
# of Containers	3
Container Information	VOAs

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil, SE - Sediment, NL - NAPL/Oil, W - Water, SL - Sludge, SW - Sample Wipe, T - Tissue, A - Air, Other: _____

PARAMETER ANALYSIS & METHOD

	Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	8260B	REMARKS
1	Wescora Well	01/09/13	0809		X	W	X	
2	KV-2	01/09/13	0950		X	W	X	
3	KV-2@180	01/09/13	1012		X	W	X	
4	KV-2@190	01/09/13	1019		X	W	X	
5	KV-2@200	01/09/13	1023		X	W	X	
6	DUP2	01/09/13	1039		X	W	X	
7	KV-3@172	01/09/13	1049		X	W	X	
8	KV-3@182	01/09/13	1054		X	W	X	
9	KV-4	01/09/13	1117		X	W	X	
10	WJ-41	01/09/13	1141		X	W	X	
11	TB010913	01/09/13	—		X	W	2	
12	WJ-11	01/09/13	1244		X	W	X	
13	DUP1	01/09/13	1220		X	W	X	
14	WJ-43	01/09/13	1305		X	W	X	
15	WJ-37A	01/09/13	1321		X	W	X	

Special Instructions/Comments:

☐ Special QA/QC Instructions(✓):

Laboratory Information and Receipt

Lab Name: Curtis & Tompkins
☒ Cooler packed with ice (✓)
Specify Turnaround Requirements: Standard
Shipping Tracking #:

Cooler Custody Seal (✓): ☐ Intact ☐ Not Intact
Sample Receipt:
Condition/Cooler Temp: _____

	Relinquished By	Received By	Relinquished By	Laboratory Received By
Printed Name:	Heather Tausher	Ricky Evans	Ricky Evans	Eileen Leung
Signature:	Heather Tausher	[signature]	[signature]	[signature]
Firm:	ARCADIS	CFT	CFT	CFT
Date/Time:	01/09/13 @ 1430	1/9/13 1430	1/9/13 1655	1/9/13 1655

20730826 CofC AR Form 01.12.2007

Distribution: WHITE – Laboratory returns with results; YELLOW – Lab copy; PINK – Retained by ARCADIS

intact on ice coll RE

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 242307 Date Received 1/9/13 Number of coolers 1
Client Arcadis Project SVG - Scotts Valley, CA

Date Opened 1/9/13 By (print) AM (sign) [signature]
Date Logged in 1/10/13 By (print) EL (sign) E. Z[signature]

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
   Shipping info _____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☑ NO
   How many _____ Name _____ Date _____
2B. Were custody seals intact upon arrival? _____ YES NO (N/A)
3. Were custody papers dry and intact when received? _____ (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ___ (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

☐ Bubble Wrap ☑ Foam blocks ☑ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 1.5

☐ Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ (YES) NO
10. Are there any missing / extra samples? _____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? _____ (YES) NO
12. Are sample labels present, in good condition and complete? _____ (YES) NO
13. Do the sample labels agree with custody papers? _____ (YES) NO
14. Was sufficient amount of sample sent for tests requested? _____ (YES) NO
15. Are the samples appropriately preserved? _____ (YES) NO N/A
16. Did you check preservatives for all bottles for each sample? _____ YES NO (N/A)
17. Did you document your preservative check? _____ YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? _____ (YES) NO N/A
21. Was the client contacted concerning this sample delivery? _____ YES (NO)
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____
_____
_____
_____
_____
_____

Rev 10, 11/11

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WESCOSA WELL	Batch#:	194512
Lab ID:	242307-001	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	3.2	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	2.3	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WESCOSA WELL	Batch#:	194512
Lab ID:	242307-001	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	91	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	108	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-1	Batch#:	194546
Lab ID:	242307-002	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/13/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	2.1	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-1	Batch#:	194546
Lab ID:	242307-002	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/13/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	89	69-148
Toluene-d8	105	80-120
Bromofluorobenzene	110	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-2@180	Batch#:	194546
Lab ID:	242307-003	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/13/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	2.0	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	58	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-2@180	Batch#:	194546
Lab ID:	242307-003	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/13/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	89	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	107	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-2@190	Batch#:	194512
Lab ID:	242307-004	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	2.3	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	25	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-2@190	Batch#:	194512
Lab ID:	242307-004	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	91	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	108	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-2@200	Batch#:	194512
Lab ID:	242307-005	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	2.5	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	11	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-2@200	Batch#:	194512
Lab ID:	242307-005	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	91	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	DUP2	Batch#:	194512
Lab ID:	242307-006	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	2.2	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	59	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	DUP2	Batch#:	194512
Lab ID:	242307-006	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	90	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-3@172	Batch#:	194512
Lab ID:	242307-007	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	0.9	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	1.9	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	1.1	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-3@172	Batch#:	194512
Lab ID:	242307-007	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	89	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	106	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-3@182	Batch#:	194512
Lab ID:	242307-008	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	0.8	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	1.7	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	1.3	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-3@182	Batch#:	194512
Lab ID:	242307-008	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-127
1,2-Dichloroethane-d4	89	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	108	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-4	Batch#:	194512
Lab ID:	242307-009	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	KV-4	Batch#:	194512
Lab ID:	242307-009	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	91	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	106	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WJ-41	Batch#:	194512
Lab ID:	242307-010	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	3.2	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	1.4	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WJ-41	Batch#:	194512
Lab ID:	242307-010	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-127
1,2-Dichloroethane-d4	87	69-148
Toluene-d8	105	80-120
Bromofluorobenzene	106	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TB010913	Batch#:	194512
Lab ID:	242307-011	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TB010913	Batch#:	194512
Lab ID:	242307-011	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	91	69-148
Toluene-d8	104	80-120
Bromofluorobenzene	108	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WJ-11	Batch#:	194556
Lab ID:	242307-012	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/14/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	0.9	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	42	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WJ-11	Batch#:	194556
Lab ID:	242307-012	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/14/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-127
1,2-Dichloroethane-d4	93	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	106	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	DUP1	Batch#:	194556
Lab ID:	242307-013	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/14/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	10	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	3.2	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	1.4	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	DUP1	Batch#:	194556
Lab ID:	242307-013	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/14/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-127
1,2-Dichloroethane-d4	91	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	107	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WJ-43	Batch#:	194556
Lab ID:	242307-014	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/14/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	10	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	27	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WJ-43	Batch#:	194556
Lab ID:	242307-014	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/14/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	90	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	108	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WJ-37A	Batch#:	194516
Lab ID:	242307-015	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	23	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	WJ-37A	Batch#:	194516
Lab ID:	242307-015	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	109	69-148
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194512
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Type: BS Lab ID: QC672734

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	26.24	105	65-130
Benzene	25.00	26.23	105	80-123
Trichloroethene	25.00	26.36	105	76-121
Toluene	25.00	25.94	104	80-120
Chlorobenzene	25.00	25.81	103	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127
1,2-Dichloroethane-d4	98	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-121

Type: BSD Lab ID: QC672735

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.77	99	65-130	6	22
Benzene	25.00	25.62	102	80-123	2	20
Trichloroethene	25.00	25.47	102	76-121	3	20
Toluene	25.00	25.30	101	80-120	2	20
Chlorobenzene	25.00	25.49	102	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127
1,2-Dichloroethane-d4	97	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672736	Batch#:	194512
Matrix:	Water	Analyzed:	01/11/13
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672736	Batch#:	194512
Matrix:	Water	Analyzed:	01/11/13
Units:	ug/L		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127
1,2-Dichloroethane-d4	103	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	107	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194516
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Type: BS Lab ID: QC672747

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	12.50	12.40	99	65-130
Benzene	12.50	12.84	103	80-123
Trichloroethene	12.50	13.33	107	76-121
Toluene	12.50	13.12	105	80-120
Chlorobenzene	12.50	13.28	106	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	112	69-148
Toluene-d8	97	80-120
Bromofluorobenzene	96	80-121

Type: BSD Lab ID: QC672748

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	10.79	86	65-130	14	22
Benzene	12.50	12.10	97	80-123	6	20
Trichloroethene	12.50	12.54	100	76-121	6	20
Toluene	12.50	13.01	104	80-120	1	20
Chlorobenzene	12.50	12.59	101	80-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	99	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672749	Batch#:	194516
Matrix:	Water	Analyzed:	01/11/13
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672749	Batch#:	194516
Matrix:	Water	Analyzed:	01/11/13
Units:	ug/L		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	105	69-148
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672828	Batch#:	194546
Matrix:	Water	Analyzed:	01/13/13
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672828	Batch#:	194546
Matrix:	Water	Analyzed:	01/13/13
Units:	ug/L		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-127
1,2-Dichloroethane-d4	91	69-148
Toluene-d8	104	80-120
Bromofluorobenzene	109	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194546
Units:	ug/L	Analyzed:	01/13/13
Diln Fac:	1.000		

Type: BS Lab ID: QC672829

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	20.01	100	65-130
Benzene	20.00	21.93	110	80-123
Trichloroethene	20.00	20.48	102	76-121
Toluene	20.00	21.96	110	80-120
Chlorobenzene	20.00	21.31	107	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	86	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	103	80-121

Type: BSD Lab ID: QC672830

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	20.50	103	65-130	2	22
Benzene	20.00	21.56	108	80-123	2	20
Trichloroethene	20.00	20.41	102	76-121	0	20
Toluene	20.00	21.95	110	80-120	0	20
Chlorobenzene	20.00	21.34	107	80-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	87	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	104	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194556
Units:	ug/L	Analyzed:	01/14/13
Diln Fac:	1.000		

Type: BS Lab ID: QC672865

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	25.44	102	65-130
Benzene	25.00	26.09	104	80-123
Trichloroethene	25.00	26.06	104	76-121
Toluene	25.00	25.71	103	80-120
Chlorobenzene	25.00	25.65	103	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-127
1,2-Dichloroethane-d4	103	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-121

Type: BSD Lab ID: QC672866

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	23.71	95	65-130	7	22
Benzene	25.00	25.68	103	80-123	2	20
Trichloroethene	25.00	25.54	102	76-121	2	20
Toluene	25.00	25.14	101	80-120	2	20
Chlorobenzene	25.00	25.59	102	80-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127
1,2-Dichloroethane-d4	99	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672867	Batch#:	194556
Matrix:	Water	Analyzed:	01/14/13
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672867	Batch#:	194556
Matrix:	Water	Analyzed:	01/14/13
Units:	ug/L		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242307	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	194556
MSS Lab ID:	242313-002	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/14/13
Diln Fac:	1.000		

Type: MS Lab ID: QC672919

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1519	25.00	25.06	100	71-122
Benzene	<0.1000	25.00	27.03	108	80-121
Trichloroethene	<0.1000	25.00	25.52	102	69-121
Toluene	<0.1000	25.00	26.53	106	80-120
Chlorobenzene	<0.1296	25.00	25.93	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	89	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-121

Type: MSD Lab ID: QC672920

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.69	99	71-122	2	21
Benzene	25.00	26.11	104	80-121	3	20
Trichloroethene	25.00	24.95	100	69-121	2	20
Toluene	25.00	26.21	105	80-120	1	20
Chlorobenzene	25.00	25.50	102	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-127
1,2-Dichloroethane-d4	86	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 242308
ANALYTICAL REPORT

Arcadis	Project : RC000463
2000 Powell St	Location : SVG - Scotts Valley, CA
Emeryville, CA 94608	Level : II

Sample ID	Lab ID
TS-OUT	242308-001
TS-MID	242308-002
TS-IN	242308-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Desiree N. Tetrault Date: 01/16/2013

Desiree N. Tetrault
Project Manager
(510) 486-0900

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**242308**
Client:	**Arcadis**
Project:	**RC000463**
Location:	**SVG - Scotts Valley, CA**
Request Date:	**01/09/13**
Samples Received:	**01/09/13**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 01/09/13. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Metals (EPA 6020):
No analytical problems were encountered.

Curtis + Tompkins

ARCADIS
Infrastructure · Water · Environment · Buildings

ID#: 242308

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 1

Lab Work Order #

Send Results to:

Contact & Company Name: Katie Wynne/Arcadis
Telephone:
Address:
Fax:
City State Zip
E-mail Address:
on file

Project Name/Location (City, State): Svg-Scotts Valley, CA
Project #: RC000463.0112.MD213
Sampler's Printed Name: Heather Tausher
Sampler's Signature:

Preservative	H2SO4	HCL					
Filtered (✓)							
# of Containers	1	3					
Container Information	poly	VOAS					

PARAMETER ANALYSIS & METHOD

Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	Total chrome	Nickel 6020						REMARKS
TS-OUT	01/09/13	1213		X	W	X	X						
TS-MID	01/09/13	1217		X	W	X	X						
TS-IN	01/09/13	1221		X	W	X	X						

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil, SE - Sediment, NL - NAPL/Oil, W - Water, SL - Sludge, SW - Sample Wipe, T - Tissue, A - Air, Other: _____

Special Instructions/Comments:

☐ Special QA/QC Instructions(✓):

Laboratory Information and Receipt

Lab Name: Curtis + Tompkins
☒ Cooler packed with ice (✓)
Cooler Custody Seal (✓): ☐ Intact ☐ Not Intact
Specify Turnaround Requirements: Standard
Shipping Tracking #:
Sample Receipt:
Condition/Cooler Temp: _____

Relinquished By	Received By	Relinquished By	Laboratory Received By
Printed Name: Heather Tausher	Printed Name: Ricky Grams	Printed Name: Ricky Grams	Printed Name: Eileen Leung
Signature:	Signature:	Signature:	Signature:
Firm: ARCADIS	Firm/Courier: CT	Firm/Courier: CT	Firm: C&T
Date/Time: 01/09/13 @ 1430	Date/Time: 1/9/13 1450	Date/Time: 1/9/13 1655	Date/Time: 1/9/13 1655

intact on ice Cord RC

20730826 CofC AR Form 01.12.2007

Distribution: WHITE – Laboratory returns with results YELLOW – Lab copy PINK – Retained by ARCADIS

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 242308 Date Received 1/9/13 Number of coolers 1
Client Arcadis Project SVG - Scotts Valley, CA

Date Opened 1/9/13 By (print) AM (sign) [illegible]
Date Logged in 1/14/13 By (print) EL (sign) E Zeng

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
   Shipping info _____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☑ NO
   How many _____ Name _____ Date _____
2B. Were custody seals intact upon arrival? _____ YES NO (N/A)
3. Were custody papers dry and intact when received? _____ (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ___ (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

☐ Bubble Wrap ☑ Foam blocks ☑ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 1.5

☐ Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ (YES) NO
10. Are there any missing / extra samples? _____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? _____ (YES) NO
12. Are sample labels present, in good condition and complete? _____ (YES) NO
13. Do the sample labels agree with custody papers? _____ (YES) NO
14. Was sufficient amount of sample sent for tests requested? _____ (YES) NO
15. Are the samples appropriately preserved? _____ YES (NO) N/A
16. Did you check preservatives for all bottles for each sample? _____ (YES) NO N/A
17. Did you document your preservative check? _____ (YES) NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? _____ (YES) NO N/A
21. Was the client contacted concerning this sample delivery? _____ YES (NO)
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS
15) Containers for metals analysis preserved w/ H_2SO_4.

Rev 10, 11/11

Curtis & Tompkins Sample Preservation for 242308

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[X]	[ ]	[ ]	_____
-002a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[X]	[ ]	[ ]	_____
-003a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[X]	[ ]	[ ]	_____

Analyst: EL
Date: 1/10/13

Page 1 of 1

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-OUT	Batch#:	194516
Lab ID:	242308-001	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-OUT	Batch#:	194516
Lab ID:	242308-001	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	109	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-MID	Batch#:	194516
Lab ID:	242308-002	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-MID	Batch#:	194516
Lab ID:	242308-002	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-127
1,2-Dichloroethane-d4	111	69-148
Toluene-d8	96	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-IN	Batch#:	194516
Lab ID:	242308-003	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	4.0	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-IN	Batch#:	194516
Lab ID:	242308-003	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-127
1,2-Dichloroethane-d4	111	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	104	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194516
Units:	ug/L	Analyzed:	01/11/13
Diln Fac:	1.000		

Type: BS Lab ID: QC672747

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	12.50	12.40	99	65-130
Benzene	12.50	12.84	103	80-123
Trichloroethene	12.50	13.33	107	76-121
Toluene	12.50	13.12	105	80-120
Chlorobenzene	12.50	13.28	106	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	112	69-148
Toluene-d8	97	80-120
Bromofluorobenzene	96	80-121

Type: BSD Lab ID: QC672748

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	10.79	86	65-130	14	22
Benzene	12.50	12.10	97	80-123	6	20
Trichloroethene	12.50	12.54	100	76-121	6	20
Toluene	12.50	13.01	104	80-120	1	20
Chlorobenzene	12.50	12.59	101	80-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	99	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672749	Batch#:	194516
Matrix:	Water	Analyzed:	01/11/13
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC672749	Batch#:	194516
Matrix:	Water	Analyzed:	01/11/13
Units:	ug/L		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	105	69-148
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Chromium

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Chromium	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Prepared:	01/14/13
Diln Fac:	5.000	Analyzed:	01/15/13
Batch#:	194607		

Field ID	Type	Lab ID	Result	RL
TS-OUT	SAMPLE	242308-001	ND	1.0
TS-MID	SAMPLE	242308-002	10	1.0
TS-IN	SAMPLE	242308-003	26	1.0
	BLANK	QC673017	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Nickel

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Nickel	Sampled:	01/09/13
Matrix:	Water	Received:	01/09/13
Units:	ug/L	Prepared:	01/14/13
Diln Fac:	5.000	Analyzed:	01/15/13
Batch#:	194607		

Field ID	Type	Lab ID	Result	RL
TS-OUT	SAMPLE	242308-001	ND	1.0
TS-MID	SAMPLE	242308-002	ND	1.0
TS-IN	SAMPLE	242308-003	190	1.0
	BLANK	QC673017	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Chromium

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Chromium	Batch#:	194607
Field ID:	ZZZZZZZZZZ	Sampled:	01/09/13
MSS Lab ID:	242356-001	Received:	01/11/13
Matrix:	Water	Prepared:	01/14/13
Units:	ug/L	Analyzed:	01/15/13
Diln Fac:	5.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC673018		100.0	97.20	97	75-120		
BSD	QC673019		100.0	100.0	100	75-120	3	20
MS	QC673020	1.717	100.0	80.85	79	66-120		
MSD	QC673021		100.0	85.75	84	66-120	6	32

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Nickel

Lab #:	242308	Location:	SVG - Scotts Valley, CA
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Nickel	Batch#:	194607
Field ID:	ZZZZZZZZZZ	Sampled:	01/09/13
MSS Lab ID:	242356-001	Received:	01/11/13
Matrix:	Water	Prepared:	01/14/13
Units:	ug/L	Analyzed:	01/15/13
Diln Fac:	5.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC673018		100.0	99.25	99	61-131		
BSD	QC673019		100.0	101.9	102	61-131	3	23
MS	QC673020	2.847	100.0	85.00	82	57-126		
MSD	QC673021		100.0	88.10	85	57-126	4	42

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 242309
ANALYTICAL REPORT

Arcadis	Project : RC000463
2000 Powell St	Location : Scotts Valley, CA
Emeryville, CA 94608	Level : II

Sample ID	Lab ID
TS-OUT	242309-001
TS-MID	242309-002
TS-IN	242309-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Desiree N. Tetrault Date: 01/16/2013

Desiree N. Tetrault
Project Manager
(510) 486-0900

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**242309**
Client:	**Arcadis**
Project:	**RC000463**
Location:	**Scotts Valley, CA**
Request Date:	**01/09/13**
Samples Received:	**01/09/13**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 01/09/13. See attached cooler receipt form for any sample receipt problems or discrepancies.

EPA 7199 Cr+6 (EPA 7199):
Accutest Labs in San Jose, CA performed the analysis (NELAP certified). Please see the Accutest Labs case narrative.

Accutest

ARCADIS
Infrastructure · Water · Environment · Buildings

ID#: 242309

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 1

Lab Work Order #:

Send Results to:

Contact & Company Name: Curtis + Tompkins / Desiree Tetrault 510-204-2225

Telephone:

Address:

Fax:

City State Zip

E-mail Address:

Project Name/Location (City, State): Scotts Valley, CA

Project #: RC000463.0112.MD213

Sampler's Printed Name: Heather Tarkcher

Sampler's Signature: Heather M Tarcher

Preservative	~~HCL~~							
Filtered (✓)	none							
# of Containers	1							
Container Information	poly							

PARAMETER ANALYSIS & METHOD

Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	Hex Chrome 7199							REMARKS
TS-OUT	01/09/13	1218		X	LW	1							
TS-MID	01/09/13	1217		X	LW	1							
TS-IN	01/09/13	1221		X	LW	1							

Keys

Preservation Key: A. H_2SO_4 B. HCL C. HNO_3 D. NaOH E. None F. Other G. Other H. Other

Container Information Key: 1. 40 ml Vial 2. 1 L Amber 3. 250 ml Plastic 4. 500 ml Plastic 5. Encore 6. 2 oz. Glass 7. 4 oz. Glass 8. 8 oz. Glass 9. Other 10. Other

Matrix Key: SO - Soil SE - Sediment NL - NAPL/Oil W - Water SL - Sludge SW - Sample Wipe T - Tissue A - Air Other

Special Instructions/Comments:

*24 hr hold time ** report and bill directly to Curtis + Tompkins

☐ Special QA/QC Instructions (✓):

Laboratory Information and Receipt

Lab Name:

☐ Cooler packed with ice (✓)

Specify Turnaround Requirements:

Shipping Tracking #:

Cooler Custody Seal (✓): ☐ Intact ☐ Not Intact

Sample Receipt:

Condition/Cooler Temp:

	Relinquished By	Received By	Relinquished By	Laboratory Received By
Printed Name:	Heather Tarcher	Ricky Graves	Ricky Graves	L BAUTISTA
Signature:	Heather M Tarcher	[signature]	[signature]	L Bautista
Firm:	ARCADIS	CIT	CIT	ACCUTEST
Date/Time:	01/09/13 1430	1/9/13 1430	1/9/13 1500	1/9/13 1500

20730826 CofC AR Form 01.12.2007

Distribution: WHITE – Laboratory returns with results YELLOW – Lab copy PINK – Retained by ARCADIS

Laboratory Job Number 242309

Subcontracted Products

Accutest Labs

Northern California
ACCUTEST
LABORATORIES

01/16/13

Technical Report for

Curtis & Tompkins, Ltd.

Subcontract - Curtis & Tompkins

RC000463.0112.MD213

Accutest Job Number: C25648

Sampling Date: 01/09/13

Report to:

Curtis & Tompkins, Ltd.
2323 Fifth St.
Berkeley, CA 94710
desiree.tetrault@ctberk.com

ATTN: Desiree Tetrault

Total number of pages in report: **15**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Accutest Laboratories

Sample Summary

Curtis & Tompkins, Ltd.

Job No: C25648

Subcontract - Curtis & Tompkins
Project No: RC000463.0112.MD213

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C25648-1	01/09/13	12:13	HT	01/09/13	AQ	Ground Water	TS-OUT
C25648-2	01/09/13	12:17	HT	01/09/13	AQ	Ground Water	TS-MID
C25648-3	01/09/13	12:21	HT	01/09/13	AQ	Ground Water	TS-IN

Summary of Hits

Job Number: C25648
Account: Curtis & Tompkins, Ltd.
Project: Subcontract - Curtis & Tompkins
Collected: 01/09/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C25648-1	**TS-OUT**					
No hits reported in this sample.						
C25648-2	**TS-MID**					
Chromium, Hexavalent		0.0098	0.00052		mg/l	SW846 7199
C25648-3	**TS-IN**					
Chromium, Hexavalent		0.00073	0.00052		mg/l	SW846 7199

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TS-OUT		
Lab Sample ID:	C25648-1	**Date Sampled:**	01/09/13
Matrix:	AQ - Ground Water	**Date Received:**	01/09/13
		Percent Solids:	n/a
Project:	Subcontract - Curtis & Tompkins		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.00052	0.00052	mg/l	1	01/09/13 17:37	PH	SW846 7199

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TS-MID		
Lab Sample ID:	C25648-2	**Date Sampled:**	01/09/13
Matrix:	AQ - Ground Water	**Date Received:**	01/09/13
		Percent Solids:	n/a
Project:	Subcontract - Curtis & Tompkins		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	0.0098	0.00052	mg/l	1	01/09/13 17:55	PH	SW846 7199

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TS-IN		
Lab Sample ID:	C25648-3	**Date Sampled:**	01/09/13
Matrix:	AQ - Ground Water	**Date Received:**	01/09/13
		Percent Solids:	n/a
Project:	Subcontract - Curtis & Tompkins		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	0.00073	0.00052	mg/l	1	01/09/13 18:23	PH	SW846 7199

RL = Reporting Limit

Northern California ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CTCAD 4752

Accutest

ARCADIS
Infrastructure. Water. Environment. Buildings

ID#:

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 1

Lab Work Order # C25648

Send Results to:

Contact & Company Name: Curtis + Tompkins / Desiree Tetrault
Telephone: 510-204-2237
Address:
Fax:
City State Zip
E-mail Address:

Project Name/Location (City, State): Scotts Valley, CA
Project #: RC000463.0112.MD213
Sampler's Printed Name: Heather Taubscher
Sampler's Signature: Heather M Taubscher

Preservative	~~HCL~~						
Filtered (✓)	None						
# of Containers	1						
Container Information	poly						

PARAMETER ANALYSIS & METHOD

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil
W - Water
T - Tissue
SE - Sediment
SL - Sludge
A - Air
NL - NAPL/Oil
SW - Sample Wipe
Other: _____

Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	Hex Chrome 7199		LAB#						REMARKS
TS-OUT	01/09/13	1213		X	W	1		-1						
TS-MID	01/09/13	1217		X	W	1		-2						
TS-IN	01/09/13	1221		X	W	1		-3						

Special Instructions/Comments:
*24 hr hold time ** report and bill directly to Curtis + Tompkins

☐ Special QA/QC Instructions (✓):

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Lab Name:	Cooler Custody Seal (✓)	Printed Name: Heather Taubscher	Printed Name: Ricky Graves	Printed Name: Ricky Graves	Printed Name: L Bautista
☐ Cooler packed with Ice (✓)	☐ Intact ☐ Not Intact	Signature: Heather M Taubscher	Signature:	Signature:	Signature: L Bautista
Specify Turnaround Requirements:	Sample Receipt:	Firm: ARCADIS	Firm/Courier: CPT	Firm/Courier: CPT	Firm: ACCUTEST
Shipping Tracking #:	Condition/Cooler Temp: 5.2°C	Date/Time: 01/09/13 1430	Date/Time: 1/9/13 1430	Date/Time: 1/9/13 1500	Date/Time: 1/9/13 1500

intact on ice cold 0°

20730826 CofC AR Form 01.12.2007

Distribution: WHITE – Laboratory returns with results YELLOW – Lab copy PINK – Retained by ARCADIS

C25648: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C25648 **Client:** Curtis & Tompkins **Project:** SCOTTS VALLEY,CA(RC000463.0112.MD213)

Date / Time Received: 1/9/2013 **Delivery Method:** Client **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (5.2/5.2); 0

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:408.588.0200
2105 Lundy Avenue
F: 408.588.0201
San Jose, CA 95131
www/accutest.com

C25648: Chain of Custody
Page 2 of 2

Northern California
ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C25648
Account: CTCAB - Curtis & Tompkins, Ltd.
Project: Subcontract - Curtis & Tompkins

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP4522/GN9850	0.00052	0.0	mg/l	0.02	0.0195	97.5	90-110%

Associated Samples:
Batch GP4522: C25648-1, C25648-2, C25648-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C25648
Account: CTCAB - Curtis & Tompkins, Ltd.
Project: Subcontract - Curtis & Tompkins

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP4522/GN9850	C25648-1	mg/l	0.0	0.0	0.0	0-20%

Associated Samples:
Batch GP4522: C25648-1, C25648-2, C25648-3
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C25648
Account: CTCAB - Curtis & Tompkins, Ltd.
Project: Subcontract - Curtis & Tompkins

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP4522/GN9850	C25648-1	mg/l	0.0	0.02	0.019	95.0	85-115%

Associated Samples:
Batch GP4522: C25648-1, C25648-2, C25648-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 243208
ANALYTICAL REPORT

Arcadis	Project : RC000463
2000 Powell St	Location : AVIZA SVG
Emeryville, CA 94608	Level : II

Sample ID	Lab ID
TS-OUT	243208-001
TS-MID	243208-002
TS-IN	243208-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Desiree N. Tetrault Date: 02/26/2013

Desiree N. Tetrault
Project Manager
(510) 486-0900

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**243208**
Client:	**Arcadis**
Project:	**RC000463**
Location:	**AVIZA SVG**
Request Date:	**02/19/13**
Samples Received:	**02/19/13**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 02/19/13. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Metals (EPA 6020):
No analytical problems were encountered.

Hexavalent Chromium by Ion Chromatograph (EPA 7199):
No analytical problems were encountered.

CHAIN OF CUSTODY

Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody #

C&T LOGIN # 243208

Project No: RC0006463.0112.NA212
Project Name: AVIZA SVG
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH ☒ Standard

Sampler: H. Tauscher
Report To: K. Wynne
Company: ARCADIS
Telephone: on file
Email:

Lab No.	Sample ID.	SAMPLING Date Collected	SAMPLING Time Collected	MATRIX Water	MATRIX Solid	# of Containers	CHEMICAL PRESERVATIVE HCl	H2SO4	HNO3	NaOH	None	ANALYTICAL REQUEST 8260B-8010 LIST	Hexavalent Chromium	Total Chrome/Nickel 6020
	TS-OUT	02/19/13	1020	X		5	X		X			X	X	X
	TS-MID	02/19/13	1025	X		5	X		X			X	X	X
	TS-IN	02/19/13	1030	X		5	X		X			X	X	X

Notes:

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY: [signature] DATE: 02/19/13 TIME: 1253
DATE: TIME:
DATE: TIME:

RECEIVED BY: [signature] DATE: 2/19/13 TIME: 1253
DATE: TIME:
DATE: TIME:

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 243208 Date Received 2/19/13 Number of coolers 1
Client ~~ARCA~~ ARCADIS Project RC000463.0112.NA212

Date Opened 2/19/13 By (print) [illegible] (sign) [illegible]
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES NO
   Shipping info _____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many _____ Name _____ Date _____
2B. Were custody seals intact upon arrival? _____ YES NO N/A
3. Were custody papers dry and intact when received? _____ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ___ YES NO
6. Indicate the packing in cooler: (if other, describe) _____

☐ Bubble Wrap ☒ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) _____

☒ Samples Received on ice & cold without a temperature blank; ~~temp. taken with IR gun~~

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES NO
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ YES NO
10. Are there any missing / extra samples? _____ YES NO
11. Are samples in the appropriate containers for indicated tests? _____ YES NO
12. Are sample labels present, in good condition and complete? _____ YES NO
13. Do the sample labels agree with custody papers? _____ YES NO
14. Was sufficient amount of sample sent for tests requested? _____ YES NO
15. Are the samples appropriately preserved? _____ YES NO N/A
16. Did you check preservatives for all bottles for each sample? _____ YES NO N/A
17. Did you document your preservative check? _____ YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? _____ YES NO N/A
21. Was the client contacted concerning this sample delivery? _____ YES NO
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS

_____

Rev 10, 11/11

Curtis & Tompkins Sample Preservation for 243208

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[X]	[ ]	[ ]	_____
e	[ ]	[ ]	[ ]	_____
-002a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[X]	[ ]	[ ]	_____
e	[ ]	[ ]	[ ]	_____
-003a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[ ]	_____
c	[ ]	[ ]	[ ]	_____
d	[X]	[ ]	[ ]	_____
e	[ ]	[ ]	[ ]	_____

Analyst: EL
Date: 2/19/13

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-OUT	Batch#:	195691
Lab ID:	243208-001	Sampled:	02/19/13
Matrix:	Water	Received:	02/19/13
Units:	ug/L	Analyzed:	02/20/13
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	86	72-140
Toluene-d8	98	80-120
Bromofluorobenzene	91	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-MID	Batch#:	195691
Lab ID:	243208-002	Sampled:	02/19/13
Matrix:	Water	Received:	02/19/13
Units:	ug/L	Analyzed:	02/20/13
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	87	72-140
Toluene-d8	100	80-120
Bromofluorobenzene	89	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Volatile Organics

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Field ID:	TS-IN	Batch#:	195691
Lab ID:	243208-003	Sampled:	02/19/13
Matrix:	Water	Received:	02/19/13
Units:	ug/L	Analyzed:	02/20/13
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	4.2	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	85	72-140
Toluene-d8	96	80-120
Bromofluorobenzene	93	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	195691
Units:	ug/L	Analyzed:	02/20/13
Diln Fac:	1.000		

Type: BS Lab ID: QC677388

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	12.50	14.91	119	61-137
Trichloroethene	12.50	13.55	108	77-122
Chlorobenzene	12.50	13.70	110	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	83	72-140
Toluene-d8	99	80-120
Bromofluorobenzene	89	80-120

Type: BSD Lab ID: QC677389

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	15.74	126	61-137	5	24
Trichloroethene	12.50	13.93	111	77-122	3	20
Chlorobenzene	12.50	14.54	116	80-120	6	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	83	72-140
Toluene-d8	100	80-120
Bromofluorobenzene	87	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Volatile Organics

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	EPA 5030B
Project#:	RC000463	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC677390	Batch#:	195691
Matrix:	Water	Analyzed:	02/20/13
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	83	72-140
Toluene-d8	102	80-120
Bromofluorobenzene	90	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Chromium

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Chromium	Sampled:	02/19/13
Matrix:	Water	Received:	02/19/13
Units:	ug/L	Prepared:	02/20/13
Diln Fac:	5.000	Analyzed:	02/21/13
Batch#:	195729		

Field ID	Type	Lab ID	Result	RL
TS-OUT	SAMPLE	243208-001	ND	1.0
TS-MID	SAMPLE	243208-002	9.9	1.0
TS-IN	SAMPLE	243208-003	3.9	1.0
	BLANK	QC677522	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Nickel

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Nickel	Sampled:	02/19/13
Matrix:	Water	Received:	02/19/13
Units:	ug/L	Prepared:	02/20/13
Diln Fac:	5.000	Analyzed:	02/21/13
Batch#:	195729		

Field ID	Type	Lab ID	Result	RL
TS-OUT	SAMPLE	243208-001	ND	1.0
TS-MID	SAMPLE	243208-002	ND	1.0
TS-IN	SAMPLE	243208-003	58	1.0
	BLANK	QC677522	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Chromium

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Chromium	Batch#:	195729
Field ID:	TS-OUT	Sampled:	02/19/13
MSS Lab ID:	243208-001	Received:	02/19/13
Matrix:	Water	Prepared:	02/20/13
Units:	ug/L	Analyzed:	02/21/13
Diln Fac:	5.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC677523		100.0	94.70	95	75-120		
BSD	QC677524		100.0	90.10	90	75-120	5	21
MS	QC677525	0.2440	100.0	87.15	87	68-120		
MSD	QC677526		100.0	83.85	84	68-120	4	25

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Nickel

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	EPA 200.8
Project#:	RC000463	Analysis:	EPA 6020
Analyte:	Nickel	Batch#:	195729
Field ID:	TS-OUT	Sampled:	02/19/13
MSS Lab ID:	243208-001	Received:	02/19/13
Matrix:	Water	Prepared:	02/20/13
Units:	ug/L	Analyzed:	02/21/13
Diln Fac:	5.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC677523		100.0	93.40	93	72-120		
BSD	QC677524		100.0	89.75	90	72-120	4	23
MS	QC677525	<0.1769	100.0	83.15	83	62-120		
MSD	QC677526		100.0	80.15	80	62-120	4	37

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Hexavalent Chromium

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	METHOD
Project#:	RC000463	Analysis:	EPA 7199
Matrix:	Water	Batch#:	195666
Units:	ug/L	Received:	02/19/13
Diln Fac:	1.000		

Field ID:	TS-OUT	Sampled:	02/19/13 10:20
Type:	SAMPLE	Analyzed:	02/19/13 14:07
Lab ID:	243208-001		

Analyte	Result	RL
Hexavalent Chromium	ND	0.50

Field ID:	TS-MID	Sampled:	02/19/13 10:25
Type:	SAMPLE	Analyzed:	02/19/13 13:55
Lab ID:	243208-002		

Analyte	Result	RL
Hexavalent Chromium	11	0.50

Field ID:	TS-IN	Sampled:	02/19/13 10:30
Type:	SAMPLE	Analyzed:	02/19/13 13:43
Lab ID:	243208-003		

Analyte	Result	RL
Hexavalent Chromium	ND	0.50

Type:	BLANK	Analyzed:	02/19/13 11:00
Lab ID:	QC677251		

Analyte	Result	RL
Hexavalent Chromium	ND	0.50

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Hexavalent Chromium

Lab #:	243208	Location:	AVIZA SVG
Client:	Arcadis	Prep:	METHOD
Project#:	RC000463	Analysis:	EPA 7199
Field ID:	TS-MID	Batch#:	195666
MSS Lab ID:	243208-002	Sampled:	02/19/13 10:25
Matrix:	Water	Received:	02/19/13
Units:	ug/L		

Type: LCS Diln Fac: 1.000
Lab ID: QC677252 Analyzed: 02/19/13 11:12

Analyte	Spiked	Result	%REC	Limits
Hexavalent Chromium	10.00	10.42	104	90-110

Type: MS Diln Fac: 1.010
Lab ID: QC677257 Analyzed: 02/19/13 14:28

Analyte	MSS Result	Spiked	Result	%REC	Limits
Hexavalent Chromium	10.83	10.10	21.87	109	85-115

Type: MSD Diln Fac: 1.010
Lab ID: QC677258 Analyzed: 02/19/13 14:40

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Hexavalent Chromium	10.10	22.01	111	85-115	1	39

RPD= Relative Percent Difference