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December 20, 2012

SUBMITTED ELECTRONICALLY

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By Alameda County Environmental Health at 5:38 pm, Jan 02, 2013

Mr. Mark E. Detterman, P.G., CEG
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Re: Third Quarter 2012 Groundwater Monitoring Report –
Former Petroleum Underground Storage Tank (UST) Site
David D. Bohannon Organization Property Located at
575 Paseo Grande - San Lorenzo, CA

Dear Mr. Detterman:

Enclosed for your review is the *Third Quarter 2012 Groundwater Monitoring Report* prepared by Stantec Consulting Services Inc. (Stantec) on behalf of David D. Bohannon Organization (Bohannon). The report summarizes recent groundwater monitoring and sampling conducted by Stantec at 575 Paseo Grande in San Lorenzo, California (the Site). Quarterly groundwater monitoring and reporting is being conducted by Stantec pursuant to the Alameda County Environmental Health (ACEH) letter to Bohannon dated August 31, 2012.

The fourth quarter 2012 sampling event was conducted in November 2012. Bohannon will submit a fourth quarter 2012 groundwater monitoring report to ACEH by March 1, 2013 as required by ACEH in the August 31, 2012 letter to Bohannon.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge. If you have any questions regarding the enclosed report, please contact me at (650) 345-8222.

Sincerely,

Scott E. Bohannon, Senior Vice President

cc: Mr. Chris Maxwell, Stantec Consulting Services Inc.
Mr. Andrew A. Bassak, Manatt, Phelps, and Phillips LLP

**THIRD QUARTER 2012
GROUNDWATER MONITORING REPORT
David D. Bohannon Organization**

575 Paseo Grande
San Lorenzo, California
PN: 185702534



December 21, 2012

Limitations and Certifications

This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of David D. Bohannon Organization for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

Prepared by:



Mason Albrecht, P.E. #C78130
Engineering Associate

Reviewed by:



Chris Maxwell, P.G.
Principal Geologist

Information, conclusions, and recommendations provided by Stantec in this document have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Licensed Reviewer:



Mason Albrecht, P.E. #C78130
Engineering Associate



**THIRD QUARTER 2012
GROUNDWATER MONITORING REPORT
DAVID D. BOHANNON ORGANIZATION**

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**THIRD QUARTER 2012
GROUNDWATER MONITORING REPORT
DAVID D. BOHANNON ORGANIZATION**

Introduction
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1.0 Introduction

Stantec Consulting Services Inc. (Stantec; formerly SECOR) presents this groundwater monitoring report for the third quarter of 2012 which describes results of groundwater monitoring and sampling conducted on September 18, 2012 for the property located at 575 Paseo Grande, San Lorenzo, California (Site), Figure 1. This sampling event was conducted by Stantec pursuant to a letter from Alameda County Environmental Health (ACEH) to David D. Bohannon Organization (Bohannon), dated August 31, 2012, requesting additional third quarter 2012 groundwater monitoring to monitor post-remediation trends at the Site. The scope of work for the third quarter 2012 included measuring the depth to water in groundwater monitoring wells MW-1 through MW-7 and observation wells POBS-A1, POBS-B1, POBS-B2, and NOBS-B1 (Figure 2), and collecting groundwater samples for analysis of total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and total xylenes, (collectively BTEX). Groundwater samples were not collected from monitoring wells MW-1, MW-5, MW-6, and MW-7 during the third quarter 2012 pursuant to the August 31, 2012 letter.

Site background information including a summary of previous Site investigations and remedial actions is included in Appendix A of this report.

2.0 Groundwater Monitoring

The horizontal coordinates and elevations of all Site wells were surveyed by a California licensed land surveyor on September 24, 2012 to California State Water Resources Control Board (SWRCB) GeoTracker requirements and pursuant to technical comment #1 of the August 31, 2012 ACEH letter to Bohannon. Well construction information including top of casing elevations were updated and are shown on Table 1. The elevations in feet above mean sea level are based on the North American Vertical Datum of 1988. The vertical datum for the previous well surveys conducted in May 1996 and December 2000 was the National Geodetic Vertical Datum of 1929. The top of casing elevations in relation to mean sea level from previous surveys are lower than the September 24, 2012 survey due to the different datum reference. The top of casing elevations obtained from the September 24, 2012 survey were used to calculate groundwater elevations based on the depth-to-water measurements collected from Site monitoring wells on September 18, 2012 as described below.

Site-wide groundwater monitoring and sampling was performed on September 18, 2012, and consisted of sounding all Site monitoring wells for depth-to-water and sampling wells MW-2 through MW-4, POBS-A1, POBS-B1, POBS-B2, and NOBS-B1. Groundwater samples were not collected from monitoring wells MW-1, MW-5, MW-6, and MW-7 during the third quarter 2012 pursuant to the August 31, 2012 letter. Field data sheets are provided in Appendix B. Laboratory analytical data is reported on Table 3 and included in Appendix C. The following summarizes the data collected by Stantec in September 2012.

2.1 WATER LEVEL GAUGING

Prior to purging and sampling, the depth-to-water was measured from the top of each well casing using a water-level indicator graduated to 0.01 foot. Depth-to-groundwater measurements and surveyed wellhead top-of-casing elevations were used to calculate groundwater surface elevations in wells MW-1 through MW-7. Table 2 presents historical monitoring well groundwater elevation data for the Site.

The average depth-to-water measured at the Site on September 18, 2012 was 6.84 feet below the top of well casing with an average water-table elevation of 21.98 feet above mean sea level (ams). A potentiometric surface map illustrating the interpreted groundwater surface elevation and flow direction on September 18, 2012 is presented on Figure 3. The hydraulic gradient across the Site was approximately 0.0024 feet per foot (ft/ft) toward the southwest.

2.2 GROUNDWATER SAMPLING

On September 18, 2012, wells were purged and sampled using a low-flow purging method consisting of dedicated well tubing attached to a variable speed peristaltic pump set to extract groundwater at a rate of approximately 200 milliliters per minute (mL/min). Temperature, conductivity, pH, dissolved oxygen (DO)

content, and oxidation/reduction potential (ORP) were monitored using a flow-through cell during purging to confirm stable water conditions prior to sampling. Observations of water color and odor were also recorded during purging. Copies of field data sheets are attached as Appendix B.

Samples were collected from each well using the dedicated tubing to eliminate the possibility of cross-contamination between wells. Samples were placed in laboratory-supplied sample containers, labeled, and stored on ice pending delivery to TestAmerica, a California state accredited lab located in Pleasanton, California. The groundwater samples were analyzed for gasoline range organics (C5-C12) and BTEX by United States Environmental Protection Agency (U.S. EPA) Method 8260B.

2.2.1 Quality Assurance/Quality Control Procedures

Analytical data were evaluated for accuracy and precision based on field and laboratory quality assurance and quality control (QA/QC) performance.

Duplicate Sample

One duplicate sample was collected during the third quarter 2012 sampling event from monitoring well MW-3. The analysis of field duplicate samples is a measure of both field and analytical precision.

Holding Times

The laboratory QA/QC includes checking adherence to holding times. Holding times are established by the U.S. EPA and refer to the maximum allowable time to pass between sample collection and analysis by the laboratory. All analyses were performed within the holding times specified by the U.S. EPA.

Control Spikes and Method Blanks

The laboratory control spike (LCS) and matrix spike (MS) recovery results and method blank (MB) results were used to assess accuracy of the analytical data. The analytical program included four LCSs and five LCS duplicates, one MS and MS duplicate pair, and two MBs. The spike recovery results were within the prescribed range of acceptable limits for analytical accuracy in all cases. The data are included in Appendix C.

**THIRD QUARTER 2012
GROUNDWATER MONITORING REPORT
DAVID D. BOHANNON ORGANIZATION**

Results
December 21, 2012

3.0 Results

The following presents a discussion of results of the September 2012 groundwater monitoring conducted at the Site.

3.1 GROUNDWATER ANALYTICAL RESULTS

Petroleum hydrocarbon chemical data for the September 2012 events are shown in Table 3 and illustrated on Figure 4. Laboratory analytical reports are included in Appendix C. Historical concentration trends for TPHg and benzene in select groundwater monitoring wells including MW-2, MW-3, MW-4, and POBS-A1 are included in Appendix D.

The TPHg result from on-site monitoring well MW-2 was slightly above the May 2012 sampling event. The concentrations of benzene in this well decreased from the May 2012 event. Concentrations of these compounds remain well below historical concentrations for MW-2. Toluene, ethylbenzene, and xylenes were not detected above the MRLs during the September 2012 sampling of well MW-2.

Sample analytical results from off-site well MW-4 show that concentrations decreased from June 2012 by over fifty-percent. For example, TPHg and benzene decreased from 3,400 µg/L and 83 µg/L, respectively in June 2012, to 1,400 µg/L and 25 µg/L in September 2012.

The concentrations of all petroleum hydrocarbons in well POBS-A1 increased from the May 2012 sampling event. The September 2012 benzene concentration in MW-2 (1,100 µg/L) is equal to the concentration observed during the post-DPE sampling event in January 2010.

The concentrations of petroleum hydrocarbons in the primary and duplicate samples from monitoring well MW-3, located approximately 14 feet downgradient of POBS-A1, also increased from the May 2012 sampling event (most petroleum hydrocarbon concentrations in MW-3 were below MRLs in May 2012). Petroleum hydrocarbon concentrations in MW-3 remain well below historical concentrations.

**THIRD QUARTER 2012
GROUNDWATER MONITORING REPORT
DAVID D. BOHANNON ORGANIZATION**

Conclusions
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4.0 Conclusions

The following presents a discussion of the most significant results of the third quarter 2012 monitoring and sampling event conducted in September 2012:

- ❑ As indicated by the sample analytical results for well POBS-A1 and MW-3, the concentrations of TPHg and BTEX in groundwater within and immediately downgradient of the former UST area increased compared to the May 2012 sampling event. The September 2012 concentrations remain substantially below historical values pre-remediation. The concentrations will be monitored during the fourth quarter 2012 monitoring and sampling event.
- ❑ Compared to the second quarter 2012 monitoring and sampling event in May 2012, petroleum hydrocarbon concentrations appear to be stable in on-site monitoring well MW-2 and decreasing in off-site monitoring well MW-4. The September 2012 concentrations remain substantially below historical values pre-remediation.

TABLES

Third Quarter 2012 Groundwater Monitoring Report
David D. Bohannon Organization
575 Paseo Grande
San Lorenzo, California
Stantec PN: 185702534
December 21, 2012

TABLE 1
Well Construction Details
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Installed	Top of Casing Elevation (ft amsl) ¹	Total Depth (ft bgs)	Casing Diameter (inches)	Screen Slot Size (inches)	Screen Length (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
MW-1	5/10/1996	29.77	15.5	2	0.02	9.75	5.5	15.25
MW-2	5/10/1996	29.54	15.5	2	0.02	9.75	5.5	15.25
MW-3	5/10/1996	29.34	14.5	2	0.02	9.75	4.5	14.25
MW-4	10/2/2000	28.64	15	2	0.02	9	6	15
MW-5	10/2/2000	28.56	15	2	0.02	9	6	15
MW-6	10/2/2000	27.70	15	2	0.02	9	6	15
MW-7	10/2/2000	28.22	15	2	0.02	9	6	15
PIW-A1	5/4/2004	32.46	18	4	0.02	10	8	18
PIW-A2	5/4/2004	32.57	18	4	0.02	10	8	18
PIW-A3	5/4/2004	31.74	18	4	0.02	10	8	18
PIW-A4	5/6/2004	32.35	18	4	0.02	10	8	18
PIW-B1	5/3/2004	32.11	25.5	4	0.02	6	19.5	25.5
PIW-B2	5/3/2004	32.37	26	4	0.02	6	20	26
PIW-B3	5/4/2004	31.91	26	4	0.02	6	20	26
PIW-B4	5/4/2004	32.18	26	4	0.02	6	20	26
POBS-A1	5/6/2004	29.84	18	1	0.02	10	8	18
POBS-B1	5/6/2004	29.95	26	1	0.02	6	20	26
POBS-B2	5/6/2004	29.21	26	2	0.02	6	20	26
NIW-A1	5/5/2004	31.53	18	4	0.02	10	8	18
NIW-A2	5/5/2004	30.80	18	4	0.02	10	8	18
NIW-B1	5/5/2004	29.91	26	4	0.02	6	20	26
NIW-B2	5/5/2004	31.04	26	4	0.02	6	20	26
NOBS-B1	5/7/2004	28.54	26	2	0.02	6	20	26
DP-1	9/30/2005	32.53	20.5	8	0.02	10	4.75	14.75
DP-2	9/29/2005	32.35	20	8	0.02	10	4.25	14.25
DP-3	9/29/2005	32.22	20	8	0.02	10	4.50	14.50
DP-4	9/28/2005	32.07	20	8	0.02	10	4.25	14.25
DP-5	9/28/2005	32.24	20.25	8	0.02	9.75	4.75	14.50
DP-6	9/29/2005	31.66	20.25	8	0.02	10	4.50	14.50
DP-7	9/29/2005	31.34	20.25	8	0.02	10	4.50	14.50

Abbreviations:

ft amsl = feet above mean sea level

ft bgs = feet below ground surface

in = inches

NA = Not Available or Not Known

Notes:

- 1) Top of casing elevations surveyed by Mid Coast Engineers on September 24, 2012; North American Vertical Datum of 1988, NAVD 88.
- 2) Well construction information in Table 1 was updated in September 2012 for Geotracker compliance.

TABLE 2
Historical Groundwater Elevations
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Date Sampled	TOC Elevation¹ (ft amsl)	DTW (ft BTOC)	Groundwater Elevation (ft amsl)
MW-1			
5/17/1996	27.11	5.65	21.46
10/8/1996		7.47	19.64
4/1/1997		6.27	20.84
6/12/1997		6.90	20.21
9/10/1997		7.48	19.63
6/8/1999		6.44	20.67
9/13/1999		7.56	19.55
12/21/1999		7.41	19.70
3/17/2000		5.35	21.76
12/5/2000	26.98	6.99	19.99
2/28/2001		5.71	21.27
8/22/2001		7.39	19.59
5/22/2002		6.25	20.73
8/29/2002		7.23	19.75
12/2/2002		7.13	19.85
3/4/2003		5.77	21.21
12/18/2003		6.37	20.61
4/13/2004		6.13	20.85
12/2/2004		6.93	20.05
5/27/2005		5.90	21.08
8/24/2006		6.79	20.19
1/13/2010		6.59	20.39
5/3/2012		5.92	21.06
9/18/2012	29.77	7.32	22.45
MW-2			
5/17/1996	26.73	5.56	21.17
10/8/1996		7.15	19.58
4/1/1997		6.61	20.12
6/12/1997		6.76	19.97
9/10/1997		7.19	19.54
6/8/1999		6.45	20.28
9/13/1999		7.46	19.27
12/21/1999		7.26	19.47
3/17/2000		5.56	21.17
12/5/2000	26.73	7.01	19.72
2/28/2001		5.81	20.92
8/22/2001		7.42	19.31
5/22/2002		6.40	20.33
8/29/2002		7.26	19.47
12/2/2002		7.02	19.71
3/4/2003		5.91	20.82
12/18/2003		6.47	20.26
4/13/2004		6.28	20.45
12/2/2004		6.80	19.93
5/27/2005		6.11	20.62
8/24/2006		6.90	19.83
1/13/2010		6.53	20.20
5/3/2012		6.17	20.56
9/18/2012	29.54	7.37	22.17

TABLE 2
Historical Groundwater Elevations
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Date Sampled	TOC Elevation¹ (ft amsl)	DTW (ft BTOC)	Groundwater Elevation (ft amsl)
MW-3			
5/17/1996	26.15	4.39	21.76
10/8/1996		6.82	19.33
4/1/1997		5.53	20.62
6/12/1997		6.18	19.97
9/10/1997		6.81	19.34
6/8/1999		5.74	20.41
9/13/1999		6.88	19.27
12/21/1999		6.66	19.49
3/17/2000		4.51	21.64
12/5/2000	26.55	6.84	19.71
2/28/2001		5.44	21.11
8/22/2001		7.29	19.26
5/22/2002		6.22	20.33
8/29/2002		7.26	19.29
12/2/2002		6.85	19.70
3/4/2003		5.72	20.83
12/18/2003		6.15	20.40
4/13/2004		5.97	20.58
12/2/2004		6.64	19.91
5/27/2005		5.74	20.81
8/23/2006		6.69	19.86
1/13/2010		6.08	20.47
5/3/2012		5.72	20.83
9/18/2012	29.34	7.18	22.16
MW-4			
12/5/2000	25.87	6.28	19.59
2/28/2001		4.99	20.88
8/22/2001		6.73	19.14
5/22/2002		5.50	20.37
8/29/2002		6.55	19.32
12/2/2002		6.28	19.59
3/4/2003		5.28	20.59
12/18/2003		5.85	20.02
4/13/2004		5.50	20.37
12/2/2004		6.05	19.82
5/27/2005		5.46	20.41
8/24/2006		6.15	19.72
1/13/2010		5.78	20.09
5/3/2012		5.38	20.49
6/8/2012		5.87	20.00
9/18/2012	28.64	6.65	21.99

TABLE 2
Historical Groundwater Elevations
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Date Sampled	TOC Elevation¹ (ft amsl)	DTW (ft BTOC)	Groundwater Elevation (ft amsl)
MW-5			
12/5/2000	25.77	6.25	19.52
2/28/2001		4.95	20.82
8/22/2001		6.69	19.08
5/22/2002		5.50	20.27
8/29/2002		6.54	19.23
12/2/2002		6.37	19.40
3/4/2003		5.41	20.36
12/18/2003		5.65	20.12
4/13/2004		5.37	20.40
12/2/2004		6.03	19.74
5/27/2005		5.46	20.31
8/24/2006		6.17	19.60
1/13/2010		5.72	20.05
5/3/2012		5.52	20.25
9/18/2012	28.56	6.67	21.89
MW-6			
12/5/2000	24.89	5.68	19.21
2/28/2001		4.35	20.54
8/22/2001		6.15	18.74
5/22/2002		4.91	19.98
8/29/2002		5.96	18.93
12/2/2002		5.70	19.19
3/4/2003		4.69	20.20
12/18/2003		5.05	19.84
4/13/2004		4.87	20.02
12/2/2004		5.42	19.47
5/27/2005		4.75	20.14
8/24/2006		5.57	19.32
1/13/2010		5.17	19.72
5/3/2012		4.82	20.07
9/18/2012	27.70	6.10	21.60
MW-7			
12/5/2000	25.43	6.43	19.00
2/28/2001		4.76	20.67
8/22/2001		6.95	18.48
5/22/2002		5.55	19.88
8/29/2002		NM	--
12/2/2002		6.43	19.00
3/4/2003		5.10	20.33
12/18/2003		5.65	19.78
4/13/2004		5.27	20.16
12/2/2004		6.15	19.28
5/27/2005		5.12	20.31
8/24/2006		6.28	19.15
1/13/2010		5.97	19.46
5/4/2012		5.20	20.23
9/18/2012	28.22	6.60	21.62

TABLE 2
Historical Groundwater Elevations
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Date Sampled	TOC Elevation¹ (ft amsl)	DTW (ft BTOC)	Groundwater Elevation (ft amsl)
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Notes:

DTW = Depth to water
ft amsl = feet above mean sea level
ft BTOC = feet below top of casing
NM = Not measured
TOC = Top of casing

1) Top of casing elevations surveyed by Mid Coast Engineers on September 24, 2012; North American Vertical Datum of 1988, NAVD 88. Previous surveys in May 1996 and December 2000 referenced National Geodetic Vertical Datum, NGVD 29.

TABLE 3
Groundwater Analytical Results - September 2012 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
Groundwater Monitoring Wells								
MW-1								
5/17/1996	1,100	<0.5	8.7	7.4	17	--	<10	<50
10/8/1996	120	<0.5	<0.5	2.7	<0.5	--	--	--
4/1/1997	550	<0.5	<0.5	7.6	6.6	--	--	--
6/12/1997	160	<0.5	<0.5	2.9	1.7	--	--	--
9/10/1997	640	2.2	3.8	7.4	16	--	--	--
6/8/1999	<50	<0.5	<0.5	<0.5	<0.5	<10	<10	<20
9/13/1999	<50	<0.5	<0.5	<0.5	1.1	--	--	<5
12/21/1999	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
3/17/2000	<50	<0.5	<0.5	<0.5	0.79	<5	--	<5
12/5/2000	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
2/28/2001	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/22/2001	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<5
5/22/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/29/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/2/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
3/4/2003	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/18/2003	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
4/13/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
6/18/2004	150	1.5	<0.5	2.7	2.4	--	--	--
5/27/2005	<50	1.6	<0.5	<0.5	<0.5	--	--	--
8/24/2006	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
1/13/2010	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
5/3/2012	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
MW-2								
5/17/1996	23,000	900	330	650	1,500	--	<10	<50
10/8/1996	8,400	530	<50	400	360	--	--	--
4/1/1997	7,600	470	64	210	250	--	--	--
6/12/1997	8,200	440	52	190	190	--	--	--
9/10/1997	8,500	390	51	220	240	--	--	--
6/8/1999	2,100	240	8	33	40	<10	<10	33
9/13/1999	1,300	120	<5	<5	15	--	--	--
12/21/1999	1,400	110	5.6	11	17	--	--	<5
3/17/2000	1,200	180	19	28	31	<50	--	<5
12/5/2000	800	75	1.8	11	14	--	--	--
2/28/2001	1,200	120	7.1	19	27	--	--	--
8/22/2001	990	75	3.5	8.9	8.1	<5	--	<5
5/22/2002	1,700	230	12	12	25	--	--	--
8/29/2002	1,000	66	2.6	12	12	--	--	--
12/2/2002	1,100	76	8.7	11	17	--	--	--
3/4/2003	1,100	130	4.5	22	24	--	--	--
12/18/2003	910	55	4.1	3.3	3.7	--	--	--
4/13/2004	2,700	350	15	18	24	--	--	--
10/5/2004	2,000	120	5.5	<2.5	8.3	--	--	--
5/27/2005	5,700	450	53	240	71	--	--	--
8/24/2006	1,400	90	4.7	16	21	--	--	--
1/13/2010	130^J	1.2	<0.5	<0.5	<1.0	--	--	--
5/3/2012	350	22	<0.5	2.1	<1.0	--	--	--
9/18/2012	410	4.7	<0.5	<0.5	<1.0	--	--	--

TABLE 3
Groundwater Analytical Results - September 2012 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
MW-3								
5/17/1996	6,700	140	45	210	180	--	<10	<50
10/8/1996	1,800	2,700	240	910	970	--	--	--
4/1/1997	27,000	520	50	520	450	--	--	--
6/12/1997	29,000	2,700	160	940	500	--	--	--
9/10/1997	290,000	1,800	3,200	2,800	6,900	--	--	--
6/8/1999	1,700	320	6.4	15	<0.5	<10	<10	24
9/13/1999	5,400	1,000	<20	<20	<20	--	--	--
12/21/1999	8,800	1,400	63	17	23	--	--	<5
3/17/2000	1,500	190	<5	7.6	<5	<50	--	<5
12/5/2000	5,400	790	20	7.4	10	--	--	--
2/28/2001	3,600	850	15	25	10	--	--	--
8/22/2001	8,100	1,600	28	44	17	<50	--	<5
5/22/2002	5,400	1,000	32	13	21	--	--	--
8/29/2002	6,700	1,700	55	49	38	--	--	--
12/2/2002	5,700	650	17	37	33	--	--	--
3/4/2003	5,000	650	18	42	27	--	--	--
12/18/2003	5,200	910	25	20	21	--	--	--
4/13/2004	3,900	1,200	19	<5.0	<10	--	--	--
6/18/2004	4,300	1,600	40	81	26	--	--	--
8/27/2004	6,900	2,100	59	220	<50	--	--	--
10/5/2004	9,800	2,500	52	160	38	--	--	--
12/2/2004	8,300	2,400	41	200	29	--	--	--
12/14/2004	15,000	3,600	140	560	210	--	--	--
5/27/2005	5,500	840	36	210	41	--	--	--
8/23/2006	1,700	190	5.3	51	<10	--	--	--
1/13/2010	<50	2	<0.5	<0.5	<1.0	--	--	--
5/3/2012	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
9/18/2012	480/440	110/100	2.6/2.4	0.66/0.62	1.2/1.1	--	--	--
MW-4								
12/5/2000	3,900	320	13	41	31	--	--	<5
2/28/2001	3,400	250	14	44	22	--	--	<5
8/22/2001	4,800	260	12	27	9	<50	--	<5
5/22/2002	5,100	320	29	74	50	--	--	--
8/29/2002	3,700	260	<5	30	28	--	--	--
12/2/2002	5,100	250	8.9	26	22	--	--	--
3/4/2003	4,500	170	18	63	47	--	--	--
12/18/2003	2,900	160	8.3	8	<5	--	--	--
4/13/2004	7,400	290	29	110	100	--	--	--
6/18/2004	2,700	140	12	36	16	--	--	--
8/27/2004	460	19	1.2	1.1	1.5	--	--	--
10/5/2004	460	19	<1.0	<1.0	<1.0	--	--	--
12/2/2004	2,800	120	5.4	8.3	5.3	--	--	--
5/27/2005	7,300	350	37	100	50	--	--	--
8/24/2006	2,400	59	8.2	19	14	--	--	--
1/14/2010	400 ^J	1.6	<0.5	<0.5	<1.0	--	--	--
5/3/2012	6,800	190	26	15	25	--	--	--
6/8/2012	3,400	83	11	7.1	11	<0.50	--	--
9/18/2012	1,400	25	4.2	1.2	3.6	--	--	--

TABLE 3
Groundwater Analytical Results - September 2012 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
MW-5								
12/5/2000	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5
2/28/2001	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5
8/22/2001	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<5
5/22/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/29/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/2/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
3/4/2003	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/18/2003	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
4/13/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
12/2/2005	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
5/27/2005	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/24/2006	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
1/14/2010	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
5/3/2012	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
MW-6								
12/5/2000	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5
2/28/2001	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5
8/22/2001	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<5
5/22/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/29/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/2/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
3/4/2003	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/18/2003	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
4/13/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
12/2/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
5/27/2005	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/24/2006	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
1/13/2010	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
5/3/2012	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
MW-7								
12/5/2000	<50	<0.5	<0.5	<0.5	1.5	--	--	<5
2/28/2001	<50	<0.5	<0.5	<0.5	6.7	--	--	<5
8/22/2001	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<5
5/22/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/2/2002	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
3/4/2003	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/18/2003	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
4/13/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
12/2/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
5/27/2005	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/24/2006	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
1/13/2010	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
5/4/2012	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
Peroxide Treatment Area - A Zone Injection Wells								
PIW-A1								
5/13/2004	6,800	460	50	31	300	--	--	--
6/18/2004	240	10	2.1	4	11	--	--	--
8/27/2004	220	14	1.2	2	5	--	--	--
10/5/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
12/2/2004	640	63	12.0	15	29	--	--	--
PIW-A2								
5/13/2004	20,000	1,500	460	760	2,600	--	--	--
6/18/2004	2,800	150	14	6.5	90	--	--	--
8/27/2004	500	34	3	4.4	12	--	--	--
12/2/2004	350	6.1	1.2	2.4	5.4	--	--	--
PIW-A3								
12/14/2004	1,500	220	28	55	99	--	--	--

TABLE 3
Groundwater Analytical Results - September 2012 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
Peroxide Treatment Area - B Zone Injection Wells								
PIW-B1								
5/13/2004	1,900	28	<5.0	11	51	--	--	--
6/18/2004	270	22	1	2.2	2.7	--	--	--
8/27/2004	230	11	0.85	1.7	4.3	--	--	--
12/2/2002	66	<0.5	<0.5	<0.5	<1.0	--	--	--
PIW-B3								
5/13/2004	3,300	420	17	7.8	44	--	--	--
6/18/2004	180	1.2	<0.5	<0.5	2.4	--	--	--
8/27/2004	230	20.0	0.93	3.3	2.9	--	--	--
12/2/2004	64	0.75	<0.5	<0.5	<1.0	--	--	--
Peroxide Treatment Area - A Zone Observation Wells								
POBS-A1								
5/13/2004	16,000	2,200	220	480	980	--	--	--
6/18/2004	11,000	2,200	150	120	820	--	--	--
8/27/2004	23,000	2,900	140	180	470	--	--	--
10/5/2004	13,000	2,400	83	130	94	--	--	--
12/2/2004	17,000	3,500	240	210	730	--	--	--
12/14/2004	13,000	2,700	200	220	510	--	--	--
5/27/2005	9,600	1,200	62	110	180	--	--	--
8/24/2006	8,500	1,700	58	120	100	--	--	--
1/13/2010	7,300 ^J	1,100	29	53	42	--	--	--
5/4/2012	540	110	2.0	1.4	<1.0	--	--	--
9/18/2012	2,600	1,100	27	8.3	18	--	--	--
Peroxide Treatment Area - B Zone Observation Wells								
POBS-B1								
5/13/2004	11,000	250	71	160	590	--	--	--
6/18/2004	3,500	9.8	<0.5	0.8	13	--	--	--
8/27/2004	500	1.4	<0.5	<0.5	<1.0	--	--	--
12/2/2004	190	2.6	<0.5	<0.5	<1.0	--	--	--
5/27/2005	68	17.0	<0.5	1.6	0.52	--	--	--
8/24/2006	50	1.1	<0.5	<0.5	<1.0	--	--	--
5/4/2012	<50	0.80	<0.5	<0.5	<1.0	--	--	--
9/18/2012	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
POBS-B2								
5/13/2004	4,500	150	23	11	120	--	--	--
6/18/2004	97	7.4	0.8	1.6	1.7	--	--	--
8/27/2004	240	36.0	1.6	6.7	4.2	--	--	--
12/2/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
5/27/2005	97	33.0	0.56	1.3	0.74	--	--	--
8/24/2006	57	<0.5	<0.5	<0.5	<1.0	--	--	--
5/3/2012	83	8.8	<0.5	<0.5	<1.0	--	--	--
9/18/2012	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
Nitrate Injection Area - A Zone Injection Wells								
NIW-A1								
5/13/2004	9,300	1,800	59	250	96	--	--	--
6/18/2004	3,100	340	22	93	55	--	--	--
8/27/2004	250	13	1.4	6	5.7	--	--	--
10/5/2004	1,700	150	<5.0	24	12	--	--	--
12/2/2004	1,400	28	6.2	10	23	--	--	--
5/27/2005	14,000	1,300	61.0	680	300	--	--	--
NIW-A2								
5/13/2004	970	18	<2.5	<2.5	4	--	--	--
6/18/2004	200	6.4	1.7	2.1	3.5	--	--	--
8/27/2004	<500	6.3	<5.0	<5.0	<10	--	--	--
12/2/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
5/27/2005	550	14.0	0.7	1.8	0.93	--	--	--

TABLE 3
Groundwater Analytical Results - September 2012 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
Nitrate Injection Area - B Zone Injection Wells								
NIW-B1								
5/13/2004	170	6.5	1.1	2.4	8.0	--	--	--
6/18/2004	160	2.9	0.7	2.6	2.5	--	--	--
8/27/2004	110	6.9	<0.5	1.4	2.0	--	--	--
12/2/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
NIW-B2								
5/13/2004	260	8.9	1.5	4	8.4	--	--	--
6/18/2004	120	1.0	<0.5	1.1	<1	--	--	--
8/27/2004	120	4.4	<0.5	1.1	1.6	--	--	--
12/2/2004	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
Nitrate Injection Area - Observation Wells								
NOBS-B1								
5/13/2004	120	4.6	0.8	2.3	5.4	--	--	--
6/18/2004	88	1.9	0.7	1.7	<1	--	--	--
8/27/2004	180	5.5	0.53	0.99	1.6	--	--	--
12/2/2004	<50	2.0	<0.5	<0.5	<1.0	--	--	--
8/24/2006	< 50	< 0.5	< 0.5	< 0.5	< 1.0	--	--	--
5/3/2012	< 50	< 0.5	< 0.5	< 0.5	< 1.0	--	--	--
9/18/2012	< 50	< 0.5	< 0.5	< 0.5	< 1.0	--	--	--

Abbreviations:

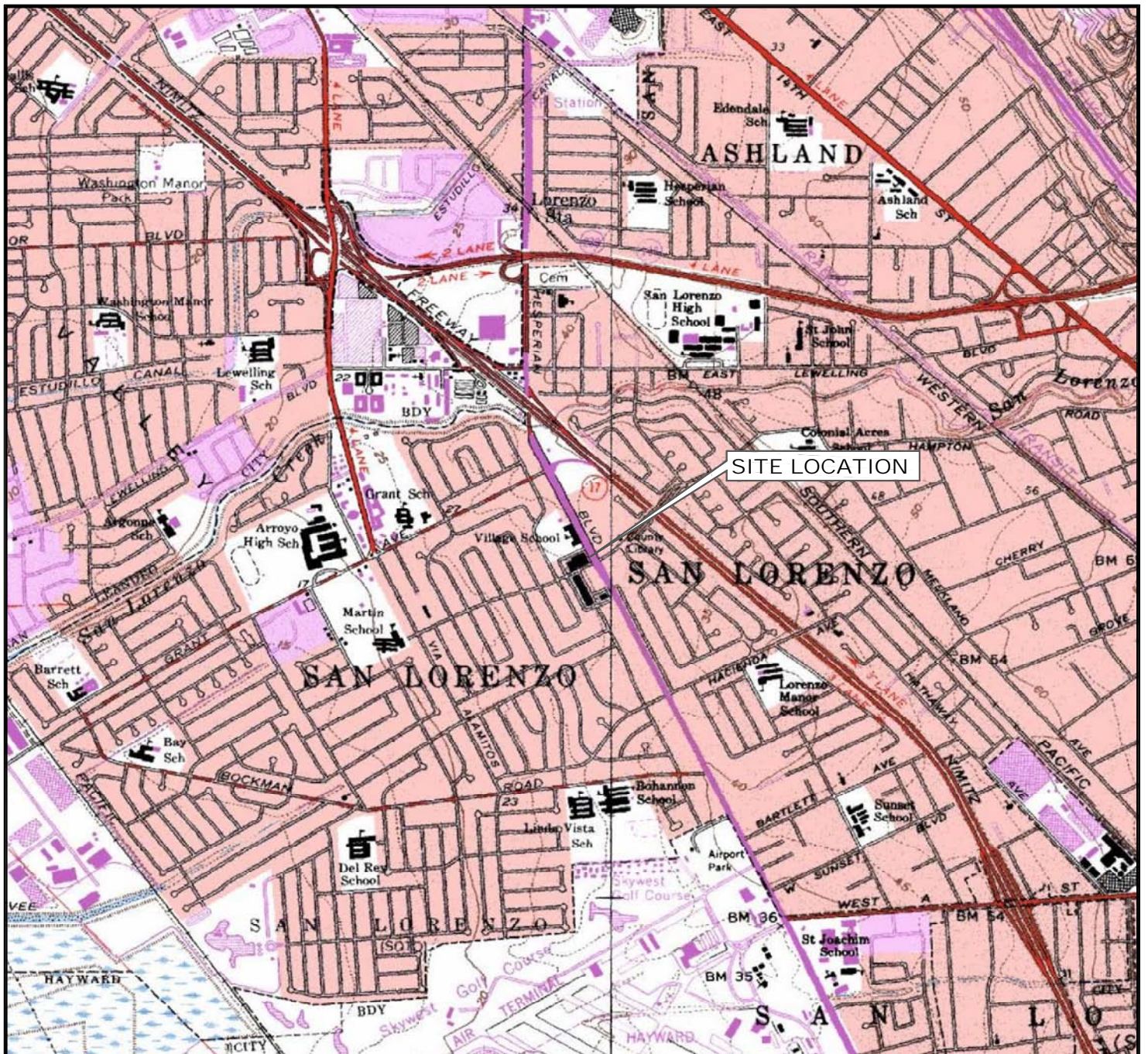
µg/L = micrograms per liter
 MTBE = methyl tert-butyl ether
 TPH-G = Total Petroleum Hydrocarbons, Gasoline Range
 -- = water sample not analyzed for specified constituents

Notes:

Bold indicates detected concentration.
 J = the chromatograph for this sample does not match the chromatographic pattern of the specified standard
480/440 = primary and duplicate sample analytical results.

FIGURES

Third Quarter 2012 Groundwater Monitoring Report
David D. Bohannon Organization
575 Paseo Grande
San Lorenzo, California
Stantec PN: 185702534
December 21, 2012



CALIFORNIA




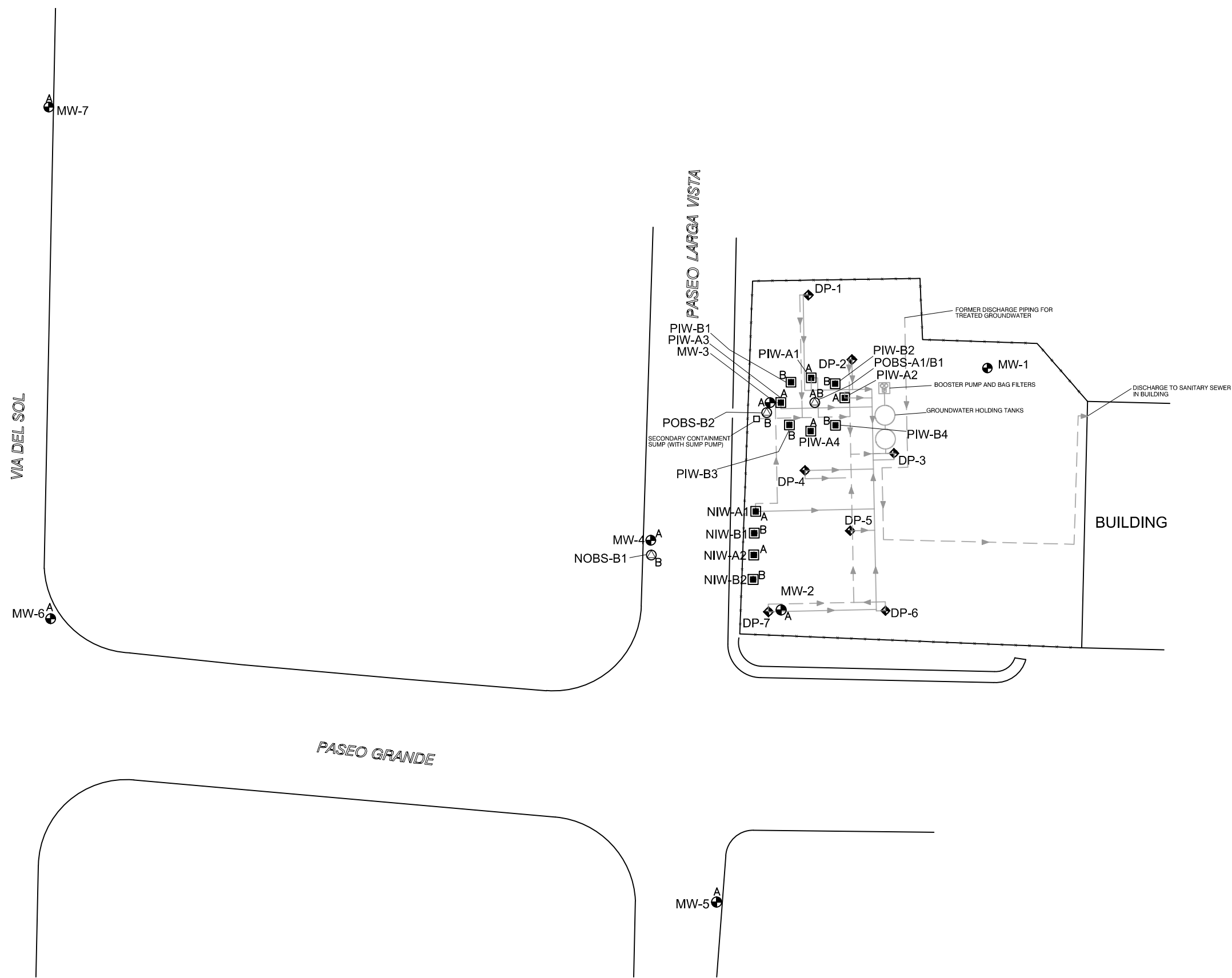
SCALE IN MILE



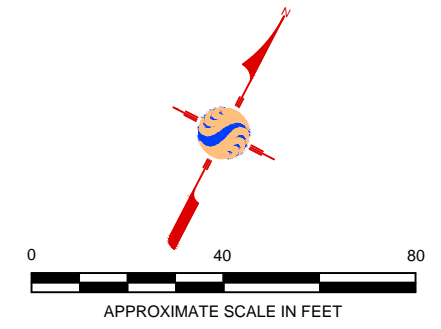
SCALE IN FEET


Image courtesy of the U.S. Geological Survey and Microsoft TerraService OpenGIS Map Server

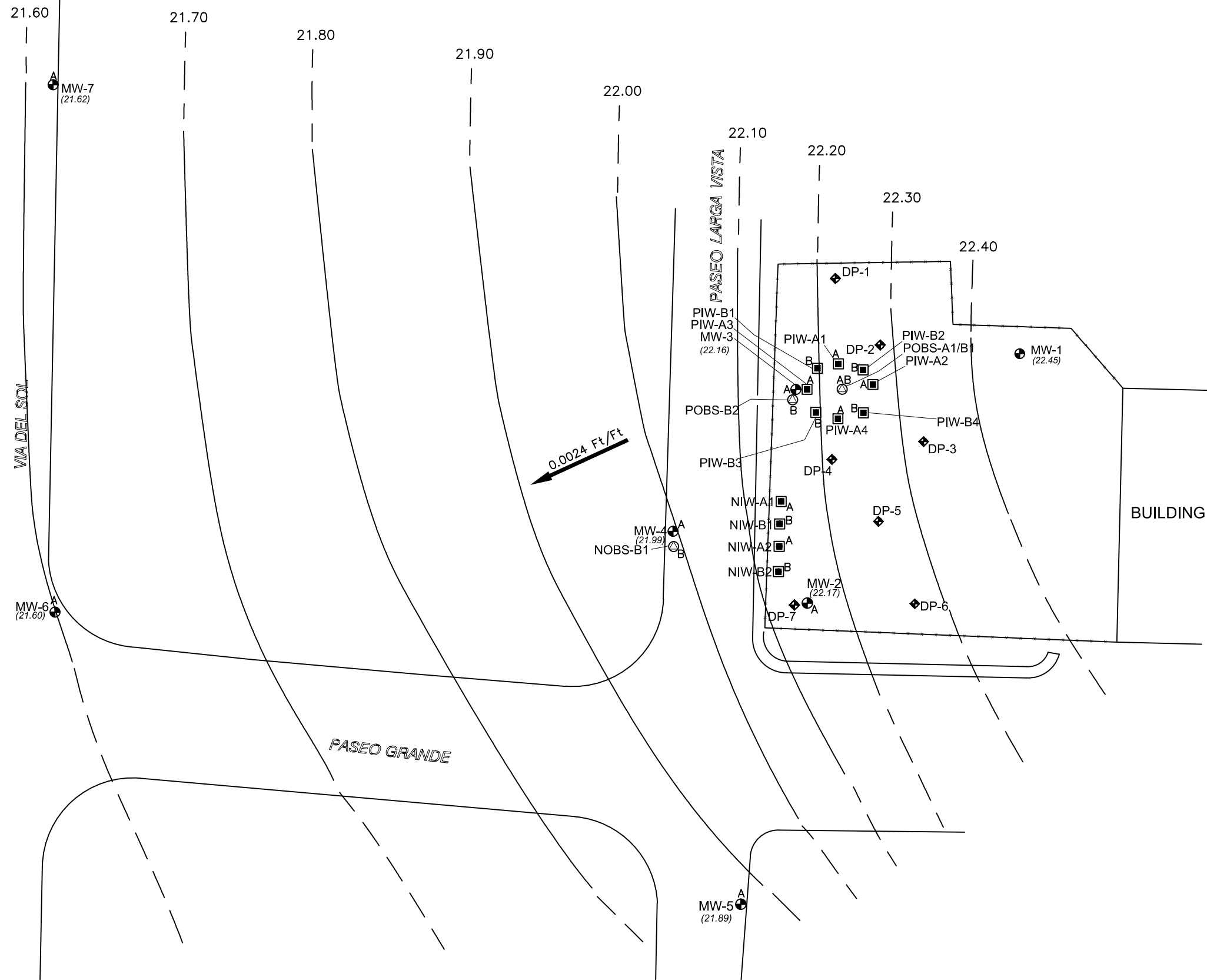
 Stantec 57 Lafayette Circle, 2nd Floor Lafayette California PHONE: (925) 299-9300 FAX: (925) 299-9302	FOR: DAVID D. BOHANNON ORGANIZATION 575 PASEO GRANDE SAN LORENZO, CALIFORNIA		SITE LOCATION MAP		FIGURE: 1
	JOB NUMBER: 185702534.200.0003	DRAWN BY: JMA	CHECKED BY: CRM	APPROVED BY: CRM	DATE: 05/15/12



- LEGEND**
- GROUNDWATER EXTRACTION PIPING (ABOVEGROUND)
 - SOIL VAPOR EXTRACTION PIPING (ABOVEGROUND)
 - FENCE LINE
 - MW-1 MONITORING WELL
 - PIW-B3 INJECTION WELL
 - ◆ DP-1 DUAL PHASE EXTRACTION WELL (8" PVC - BY SECOR, 2005)
 - NOBS-B1 OBSERVATION WELL
- WELL DESIGNATION**
- A = INDICATES WELL IN THE A-ZONE
 - B = INDICATES WELL IN THE B-ZONE



 57 Lafayette Circle, 2nd Floor Lafayette, CA 94549 (925) 299-9300/299-9302 (Fax)	FOR: DAVID D. BOHANNON ORGANIZATION 575 PASEO GRANDE SAN LORENZO, CALIFORNIA		SITE PLAN		FIGURE: 2
	JOB NUMBER: 185702534.200.0003	DRAWN BY: RRR	CHECKED BY: JMA	APPROVED BY: CRM	DATE: 11/2/12



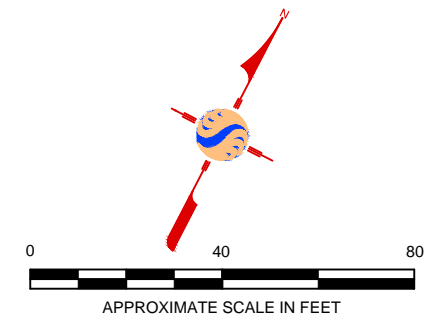
- LEGEND**
- MW-6 MONITORING WELL
 - PIW-B3 INJECTION WELL
 - ◆ DP-1 DUAL PHASE EXTRACTION WELL (8" PVC - BY SECOR, 2005)
 - NOBS-B1 OBSERVATION WELL
 - FENCE LINE
 - 22.00 GROUNDWATER SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
 - (22.45) GROUNDWATER ELEVATION (FEET ABOVE MSL)
 - ← 0.0024 Ft/Ft HYDRAULIC GRADIENT
- WELL DESIGNATION**
- A = INDICATES WELL IN THE A-ZONE
 - B = INDICATES WELL IN THE B-ZONE


NOTES

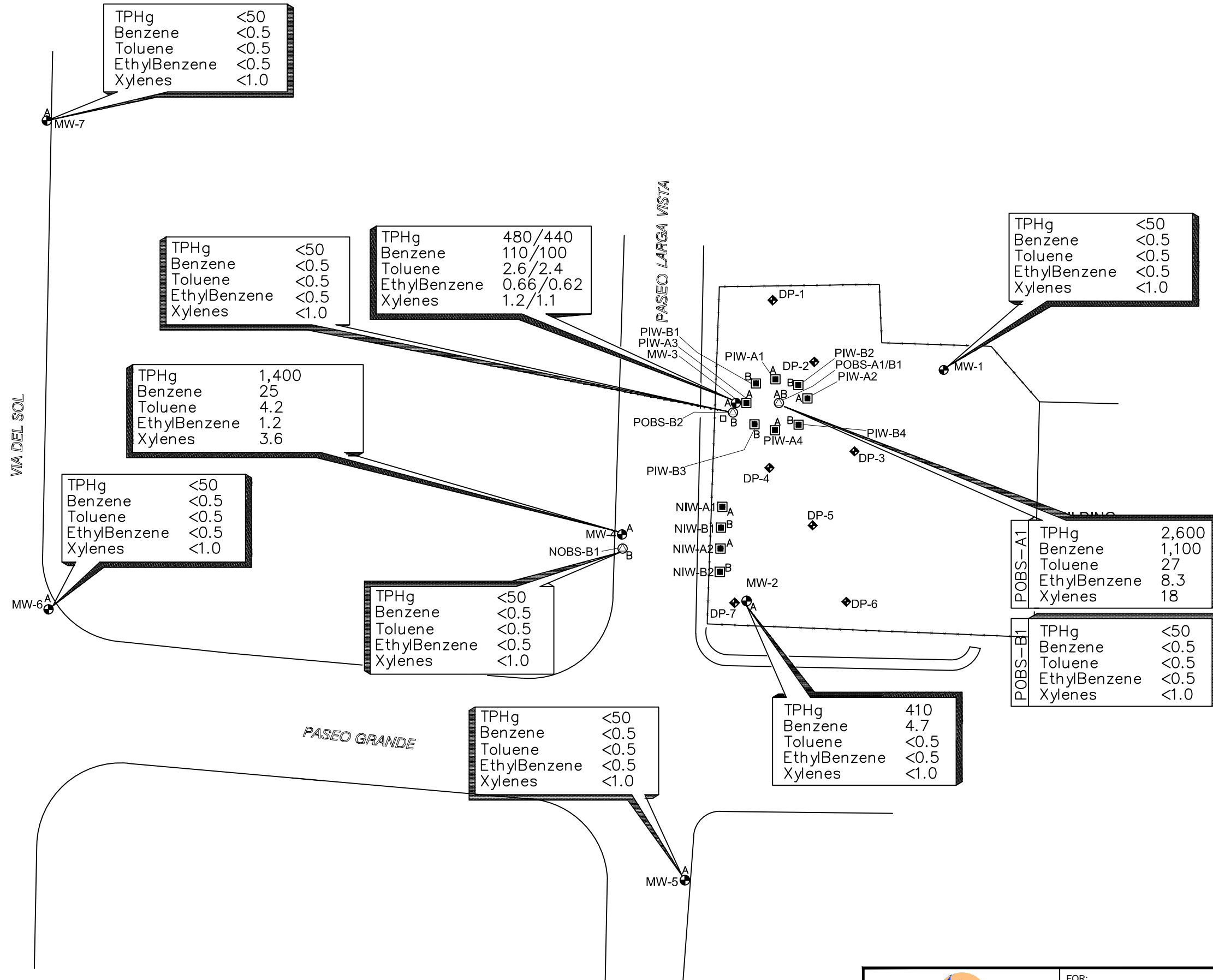
1) SITE WELLS WERE SURVEYED ON SEPTEMBER 24, 2012 BY MID COAST ENGINEERS OF WATSONVILLE, CALIFORNIA.

MID COAST JOB NUMBER 12093, CERTIFIED BY LEE D. VAAGE

SITE COORDINATE SYSTEM:
 U.S. STATE PLANE, CALIFORNIA ZONE 3
 PROJECT DATUM NAD83/NAVD88
 US SURVEY FEET



 57 Lafayette Circle, 2nd Floor Lafayette, CA 94549 (925) 299-9300/299-9302 (Fax)	FOR: DAVID D. BOHANNON ORGANIZATION 575 PASEO GRANDE SAN LORENZO, CALIFORNIA		GROUNDWATER POTENTIOMETRIC SURFACE MAP SEPTEMBER 18, 2012		FIGURE: 3
	JOB NUMBER: 185702534.200.0003	DRAWN BY: JMA/RRR	CHECKED BY: JMA	APPROVED BY: CRM	DATE: 10/30/12



LEGEND

- MW-1 MONITORING WELL
- PIW-B3 INJECTION WELL
- ◆ DP-1 DUAL PHASE EXTRACTION WELL (8" PVC - BY SECOR, 2005)
- NOBS-B1 OBSERVATION WELL
- FENCE LINE

WELL DESIGNATION

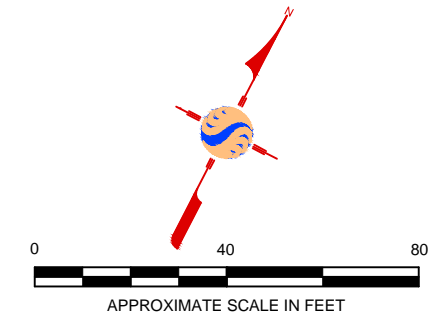
A = INDICATES WELL IN THE A-ZONE
 B = INDICATES WELL IN THE B-ZONE


NOTES

CONCENTRATIONS OF COMPOUNDS ARE MEASURED IN MICROGRAMS PER LITER (ug/L).

ABBREVIATIONS

TPHg	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	Benzene
T	Toluene
E	EthylBenzene
X	Xylenes



 57 Lafayette Circle, 2nd Floor Lafayette, CA 94549 (925) 299-9300/299-9302 (Fax)	FOR: DAVID D. BOHANNON ORGANIZATION 575 PASEO GRANDE SAN LORENZO, CALIFORNIA	PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUNDWATER SEPTEMBER 18, 2012		FIGURE: 4
	JOB NUMBER: 185702534.200.0003	DRAWN BY: RRR	CHECKED BY: JMA	APPROVED BY: CRM

APPENDIX A
Summary of Previous Site Investigations and Remedial
Actions

Third Quarter 2012 Groundwater Monitoring Report

David D. Bohannon Organization

575 Paseo Grande

San Lorenzo, California

Stantec PN: 185702534

December 21, 2012

APPENDIX A
Summary of Previous Site Investigations and Remedial Actions

David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, California

Over the last 25 years, the Site has been used as an asphalt-paved parking area located in a C1 commercial zone. The Site was a gasoline station prior to 1969. Little information is known about the Site history related to its use as a gasoline service station. In anticipation of property redevelopment, investigation activities were conducted in March 1995 to determine if former underground service station equipment remained on-site. The work was conducted by Twining Laboratories, Inc. as documented in their letter report dated April 15, 1995. The investigation included a magnetometer survey followed by an exploratory excavation. In summary, the work conducted identified underground gasoline service station equipment which included what appeared to be the former tank pit, approximately 110 feet of fuel delivery system piping, and a grease sump and/or hydraulic lift pit in an area which may have been the former service garage. Field evidence and one soil sample indicated the potential for soil contamination along the piping runs, around the grease sump, and around the inferred location of the former tank pit. Characterization of the magnitude and extent of potential soil contamination were not performed during the initial activities.

In June 1995, SECOR conducted additional activities at the Site which included removal of the former underground storage tank (UST) system piping and the former grease sump, and characterization soil sampling along the pipelines and around the former grease sump and former tank pit areas. This work was summarized in SECOR's "*Preliminary Characterization Report*" to ACEH dated June 29, 1995 (SECOR, 1995). The characterization data from this investigation indicated that there were two areas of concern at the Site: 1) the former grease sump area; and 2) the former gasoline distribution system area. SECOR subsequently conducted excavation activities in these two areas. The soil excavated from the former sump area was transported off-site for disposal. The soil generated from the UST excavation was treated by means of aeration and later transported off-site for disposal. Three groundwater monitoring wells (MW-1, MW-2, and MW-3) were installed during the investigation activities to evaluate the degree to which the groundwater had been affected. The results of the soil characterization and groundwater monitoring activities are reported in SECOR's documents entitled, "*Report of Interim Remedial Actions*" (RIRA; SECOR, 1996), dated June 4, 1996, and "*Fourth Quarter 1996 Monitoring and Sampling Report*," dated November 26, 1996.

In June 1999, a utility trench survey was conducted around the Site, and a passive soil vapor survey was performed downgradient from the Site. The results of the utility trench and passive soil vapor surveys are documented in SECOR's document entitled, "*Third Quarter Groundwater Monitoring Results and Plume Definition Investigation Report*," dated October 22, 1999 (3Q99 GWM Report, SECOR, 1999).

On December 5, 2000, four additional groundwater monitoring wells (MW-4 through MW-7) were installed at the Site. Soil and groundwater sampling was conducted to evaluate possible off-site migration of petroleum-related constituents originating from the Site, and to collect data to direct further subsurface investigations and/or remediation at the Site, if necessary. The work was conducted in general accordance with SECOR's documents entitled, "*Work Plan for Additional Groundwater Monitoring Well Installation*," dated October 22, 1999, and "*Addendum to the Work Plan for Additional Groundwater*

APPENDIX A
SUMMARY OF PREVIOUS SITE INVESTIGATIONS AND REMEDIAL ACTIONS

Monitoring Well Installation,” dated December 2, 1999. The Work Plan was approved with comments in correspondence from the ACEH in a letter dated November 4, 1999. Historically, two of the on-site wells (MW-2 and MW-3) and one well immediately downgradient to the west (MW-4) contain elevated concentrations of petroleum hydrocarbons. Wells further off-site to the west (MW-6 and MW-7) and south (MW-5) typically do not contain detectable levels of petroleum hydrocarbons, with exception of MW-7, which reported low concentrations of total xylenes (up to 6.7 micrograms per liter [µg/L]) in the first two sampling events (December 2000 and February 2001). The well has since been non-detect for all constituents.

In January 2003, SECOR performed an additional limited subsurface investigation as described in the document entitled, “*Remedial Action Work Plan*,” dated October 25, 2002, and submitted to ACEH. The Work Plan was approved by ACEH in a letter dated October 28, 2002. Based on field observations, soil boring logs, and laboratory analytical results, SECOR concluded that: 1) perched groundwater was encountered within fill materials at approximately 5 to 8 feet bgs; 2) water-bearing zones were encountered in silt and sand at depths of 13- to -15 feet bgs (A zone), in sand from 16- to -19 feet bgs (B zone), and in silty sand at 22.5 feet bgs (C zone); and 3) soil sample analytical results suggest that the majority of chemical impact exists in silty clay from approximately 8- to -13.5 feet bgs within and adjacent to the former gasoline UST and pump island excavation. The findings of the investigation were presented in the document entitled, “*Limited Subsurface Investigation Report and Work Plan for Additional Soil and Groundwater Assessment*,” dated February 19, 2003, and prepared by SECOR (SECOR, 2003a).

At the request of ACEH, a sensitive receptor survey was performed for the Site. The survey consisted of identifying the locations and depths of subsurface utilities near the Site and reviewing data provided by the California Department of Water Resources (DWR) for potential groundwater production wells. The survey results are presented in SECOR’s document entitled, “*Sensitive Receptor Survey and Conduit Study*,” dated June 30, 2003 (Receptor Study; SECOR, 2003b). The report indicates that no groundwater production wells are likely to be affected by hydrocarbons in the soil and groundwater at the Site.

Chemical Injection and Dual-Phase Extraction (DPE) Pilot Testing

The October 2002 *Remedial Action Workplan* (RAW) proposed nitrate injections to stimulate biological degradation of hydrocarbons in the groundwater. Based on the data collected in January 2003, additional remediation of soil was also recommended. An addendum to the RAW was submitted by SECOR in December 2003 proposing hydrogen peroxide injections for chemical oxidation of soils in addition to nitrate injections. The RAW addendum was approved by ACEH in a letter to Bohannon dated December 15, 2003.

In May 2004, EFI Global began the pilot groundwater remediation program. Four wells were installed on-site for the purposes of injecting nitrate solution into groundwater upgradient of well MW-4 (NIW-A1, NIW-A2, NIW-B1, and NIW-B2). Eight wells were installed on-site for injection of peroxide solution into soil and groundwater upgradient of well MW-3 (PIW-A1 to PIW-A4 and PIW-B1 to PIW-B4). Four wells were installed to observe the effects of the injection program (NOBS-B1, POBS-A1, POBS-B1, and POBS-B2). Injection and observation well installations were completed during May 2004 in accordance with the approved RAW, and initial chemical injections were completed during May/June 2004. Soil boring logs

APPENDIX A
SUMMARY OF PREVIOUS SITE INVESTIGATIONS AND REMEDIAL ACTIONS

for these wells are provided in Appendix A. The well installation activities were described in the document entitled, "*Semi-Annual (First Half 2004) Groundwater Monitoring and Pilot Remedial Progress Report*" prepared by EFI Global (EFI Global, 2004b).

Additional injections were completed in July 2004 (Phase Two) and October 2004 (Phase Three). Progress groundwater sampling for Phases Two and Three was conducted in August 2004 and December 2004, respectively. Following Phase Three injections, EFI Global conducted a single-day DPE test (February 2005) and a five-day DPE test (April 2005) in the area of the former gasoline UST. The results of the Phase Three progress sampling (December 2004) and single-day DPE test (February 2005) are reported in the document entitled, "*Semi-Annual (Second Half 2004) Groundwater Monitoring and Pilot Remedial Progress Report*" (EFI Global, 2005).

Site-wide groundwater monitoring was conducted in May 2005. In June 2005, SECOR advanced 14 soil borings at locations intended to provide additional delineation of the target area for full-scale DPE system implementation. SECOR obtained an operation permit from the BAAQMD in July 2005 and installed seven additional remediation wells in September 2005. SECOR conducted additional Site-wide groundwater monitoring during August 2006. The results of the five-day DPE test (April 2005) and subsequent groundwater monitoring activities are presented in the "*Groundwater Monitoring and Remediation Progress Report*", dated April 23, 2007 (SECOR, 2007).

Full-Scale DPE Operations and Remedial Progress Sampling

During December 2008, additional DPE system infrastructure was added and full-scale DPE system operation commenced during January/February 2009. Full-scale DPE operations consisted of soil vapor and groundwater extraction and treatment from eleven (11) Site extraction wells and former chemical injection wells. Full-scale DPE operated through December 2009 at which point remedial progress groundwater monitoring was conducted during January 2010. DPE system operations and results of remedial progress groundwater monitoring are described in the "*Report of Dual-Phase Extraction System Operations, Soil Vapor Sampling, and Risk Analysis*" (DPE Report; Stantec, 2011). The results of groundwater monitoring and DPE system performance data indicated that the DPE system significantly reduced concentrations of total petroleum hydrocarbons in the gasoline range (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) in monitoring wells downgradient of the Site below historical concentrations and to near the laboratory reporting limit concentrations in monitoring wells immediately downgradient of the former UST on-site. DPE system treatment equipment was removed from the Site in December 2009; however, all wells used for extraction and aboveground conveyance piping remain on-site.

Soil vapor sample well installation and subsequent soil vapor sampling was conducted at four locations on-site during March and April 2011. The purpose of the soil vapor sampling was to evaluate the potential for vapors associated with residual petroleum hydrocarbons in soil and/or groundwater to be present at concentrations that could pose a risk to conceptual future occupants of a Site building (if the Site was to be redeveloped with commercial and/or residential structures). Results from the soil vapor sampling indicated that concentrations of petroleum hydrocarbons present in shallow soil vapor at the Site were below available screening criteria such as California Environmental Protection Agency

APPENDIX A
SUMMARY OF PREVIOUS SITE INVESTIGATIONS AND REMEDIAL ACTIONS

California Human Health Screening Levels (CHHSLs) and Environmental Screening Levels (ESLs) published by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). A Site-specific vapor intrusion risk analysis was performed using the Johnson & Ettinger (J&E) model and the concentrations of all chemicals detected in soil vapor at the Site were inputted into the model. The J&E model results indicated that residual concentrations of chemicals in shallow soil vapor at the Site do not pose a risk to human health considering commercial/industrial or residential land uses. A detailed description of soil vapor sampling and results of the risk analysis are included in the DPE Report (Stantec, 2011).

At the request of ACEH, Stantec performed additional groundwater monitoring during the second and third quarters of 2012 to monitor petroleum hydrocarbon concentrations in Site monitoring wells after the completion of full-scale DPE system operations. The monitoring results for the second quarter of 2012 are presented in the "*Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report*" (2Q12 GWM Report), dated July 27, 2012. The results of second quarter 2012 groundwater monitoring showed concentrations of petroleum hydrocarbons downgradient of the Site in monitoring wells MW-5, MW-6, and MW-7 remain below laboratory MRLs, concentrations in on-site monitoring wells MW-1 and MW-2 remain stable or near the laboratory MRLs, and significant decreases in petroleum hydrocarbon concentrations in well POBS-A1 and monitoring well MW-3 located within and immediately downgradient of the former UST excavation area.

References

- EFI Global, 2004a. Semi-Annual (Second Half 2003) Groundwater Monitoring Report, 575 Paseo Grande, San Lorenzo, California. June 21, 2004.
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- Regional Water Quality Control Board (RWQCB), 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. California Regional Water Quality Control Board, San Francisco Bay Region. Interim Final - November 2007, Revised May 2008.
- SECOR International Incorporated (SECOR), 1995. Preliminary Characterization Report, Former Gasoline Service Station Property at the Northeast Corner of Paseo Grande and Paseo Largavista, San Lorenzo, California. June 29, 1995.
- SECOR, 1996. Report of Interim Remedial Actions, Former Gasoline Service Station, 575 Paseo Grande, San Lorenzo, California. June 4, 1996.
- SECOR, 1999. Third Quarter 1999 Groundwater Monitoring Results and Plume Definition Investigation Report, 575 Paseo Grande, San Lorenzo, California. October 22, 1999.
- SECOR, 2003a. Limited Subsurface Investigation Report and Work Plan for Additional Soil and Groundwater Assessment, David D. Bohannon Organization Property, 575 Paseo Grande, San Lorenzo, California. February 19, 2003.
- SECOR, 2003b. Sensitive Receptor Survey and Conduit Study, The Bohannon Development Company Property, 575 Paseo Grande, San Lorenzo, California. June 30, 2003.
- Stantec Consulting Corporation, 2011. Report of Dual-Phase Extraction System Operations, Soil Vapor Sampling, and Risk Analysis, David D. Bohannon Organization. November 22, 2011.
- Stantec Consulting Services Inc., 2012. Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report, David D. Bohannon Organization, 575 Paseo Grande, San Lorenzo, California. July 27, 2012.

APPENDIX B
Field Data Sheets for the September 2012 Groundwater
Monitoring Event

Third Quarter 2012 Groundwater Monitoring Report

David D. Bohannon Organization

575 Paseo Grande

San Lorenzo, California

Stantec PN: 185702534

December 21, 2012

Groundwater Sampling Data Sheet

Project #: 185702534 Task No:		Project Name: Bohannon		Date: 9/18/12
Site Location: San Lorenzo				
Well ID: MW-3		Sampler(s): 2, Melagron		
Depth to Water (DTW) (ft): 7.18		Sample DTW (ft): 8.11		
Screen Interval (ft):		Depth to Bottom (DTB) (ft):		Measurements Referenced to: TOC
Tube/Pump Depth (ft):		Well Diameter (inch): 2		OVM (ppm) = -

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ X $\frac{3}{1}$ = _____ Gallons
Water col gal/lin. ft. Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at **1240**

Time (24 hrs)	Volume (G/L)	Temp. (°C/°F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
1245	1.5	24.85	7.76	924	7.03	clear	mod.	0.72	-57.0
1250	2.5	23.41	8.10	909	7.12	"	"	0.45	-107.7
1255	3.0	23.84	8.11	914	7.12	"	"	0.36	-104.1
1300	3.5	24.03	8.11	916	7.10	"	"	0.33	-104.1
1305	4.0	24.32	8.11	919	7.11	"	"	0.25	-104.7
1310	4.5	24.38	8.11	920	7.12	"	"	0.26	-104.7

Liters / Gallons Purged:			Pump Rate in L or G /min:		
Sampling Time: 1310			Duplicate Sample ID: DUP		Sample Time:
Sample Analyzed For: SEE WORK ORDER			Duplicate Sample Analyzed For: SEE WORK ORDER		
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane	HCl	3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol	None	2 x 1 L Ambers
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS	None	1 X 500 mL Poly
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs	HCl	3 X 40 mL VOAs
() SVOCs	None	2 x 1 L Ambers	() Other		

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u>	Task No:	Project Name: Bohannon
Site Location: San Lorenzo		Date: <u>9/18/12</u>
Well ID: <u>MW-4</u>	Depth to Water (DTW) (ft): <u>6.65</u>	Sampler(s): <u>C. 140/44.com</u>
Screen Interval (ft):	Depth to Bottom (DTB) (ft):	Sample DTW (ft): <u>6.82</u>
Tube/Pump Depth (ft):	Well Diameter (inch): <u>2</u>	Measurements Referenced to: TOC
		OVM (ppm) = <u>-</u>

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ gal/in. ft. X 3 = _____ Gallons
Water col Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 915

Time (24 hrs)	Volume (G/L)	Temp. (C/F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>920</u>	<u>1.5</u>	<u>20.40</u>	<u>6.94</u>	<u>891</u>	<u>6.83</u>	<u>Clear</u>	<u>mod.</u>	<u>0.39</u>	<u>-50.4</u>
<u>925</u>	<u>2.5</u>	<u>20.39</u>	<u>6.82</u>	<u>895</u>	<u>6.98</u>	<u>"</u>	<u>"</u>	<u>0.31</u>	<u>-59.5</u>
<u>930</u>	<u>3.5</u>	<u>20.45</u>	<u>6.82</u>	<u>899</u>	<u>6.99</u>	<u>"</u>	<u>"</u>	<u>0.31</u>	<u>-60.7</u>
<u>935</u>	<u>4.5</u>	<u>20.43</u>	<u>6.82</u>	<u>902</u>	<u>7.00</u>	<u>"</u>	<u>"</u>	<u>0.28</u>	<u>-61.6</u>
<u>940</u>	<u>5.5</u>	<u>20.44</u>	<u>6.82</u>	<u>903</u>	<u>7.00</u>	<u>"</u>	<u>"</u>	<u>0.27</u>	<u>-61.3</u>

Liters / Gallons Purged:			Pump Rate in L or G /min:		
Sampling Time: <u>940</u>			Duplicate Sample ID:		Sample Time:
Sample Analyzed For: SEE WORK ORDER			Duplicate Sample Analyzed For: SEE WORK ORDER		
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane	HCl	3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol	None	2 x 1 L Ambers
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS	None	1 X 500 mL Poly
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs	HCl	3 X 40 mL VOAs
() SVOCs	None	2 x 1 L Ambers	() Other		

Notes:

TB-1 (900)

Groundwater Sampling Data Sheet

Project #: <u>195702534</u>	Task No:	Project Name: Bohannon
Site Location: San Lorenzo		Date: <u>9/18/12</u>
Well ID: <u>NOBS-B1</u>	Sampler(s): <u>C. Melencan</u>	Depth to Water (DTW) (ft): <u>6.54</u> Sample DTW (ft): <u>6.59</u>
Screen Interval (ft):	Depth to Bottom (DTB) (ft):	Measurements Referenced to: TOC
Tube/Pump Depth (ft):	Well Diameter (inch): <u>2</u>	OVM (ppm) = <u>—</u>

CALCULATIONS:

Length of the water column: $\frac{\text{DTB}}{\text{DTW}}$ ft - $\frac{\text{DTW}}{\text{DTW}}$ ft = $\frac{\text{Water Col}}{\text{DTW}}$ ft

80% of the water level: $\frac{\text{DTW}}{\text{DTW}}$ ft + $(\frac{\text{Water Col}}{\text{DTW}} \text{ ft} \times 0.2) =$ $\frac{\text{Recharge water level}}{\text{DTW}}$ ft

Estimated Purge Volume (EPV) = $\frac{\text{Water col}}{\text{gal/lin. ft.}} \times \frac{\text{Casing Volumes}}{3} =$ $\frac{\text{Gallons}}{\text{Casing Volumes}}$

- (X) Low-Flow/Micro Purging
() Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () Bailer
() Disposable Bailer
() Electric Submergible Pump
(X) Peristaltic Pump
() Other: _____

Sampling Equipment:

- () Bailer
(X) Pump Discharge
() Disposable Bailer
() Peristaltic Pump & Dedicated Tubing
() Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
() Myron L
() Horriba
() Hanna
() Other: _____

Begin Purge at 950

Time (24 hrs)	Volume (G/L)	Temp. (°C/°F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>955</u>	<u>1.5</u>	<u>20.23</u>	<u>6.62</u>	<u>990</u>	<u>7.19</u>	<u>clear</u>	<u>none</u>	<u>0.56</u>	<u>27.6</u>
<u>1000</u>	<u>2.5</u>	<u>20.13</u>	<u>6.60</u>	<u>988</u>	<u>7.23</u>	<u>"</u>	<u>"</u>	<u>0.30</u>	<u>34.6</u>
<u>1005</u>	<u>3.5</u>	<u>20.15</u>	<u>6.59</u>	<u>989</u>	<u>7.24</u>	<u>"</u>	<u>"</u>	<u>0.31</u>	<u>34.8</u>
<u>1010</u>	<u>4.5</u>	<u>20.18</u>	<u>6.59</u>	<u>990</u>	<u>7.24</u>	<u>"</u>	<u>"</u>	<u>0.32</u>	<u>36.7</u>
<u>1015</u>	<u>5.5</u>	<u>20.18</u>	<u>6.59</u>	<u>991</u>	<u>7.24</u>	<u>"</u>	<u>"</u>	<u>0.29</u>	<u>36.8</u>
<u>1020</u>									

Liters / Gallons Purged:			Pump Rate in L or G /min:		
Sampling Time: <u>1020</u>			Duplicate Sample ID:		Sample Time:
Sample Analyzed For: SEE WORK ORDER			Duplicate Sample Analyzed For: SEE WORK ORDER		
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane	HCl	3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol	None	2 x 1 L Ambers
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS	None	1 X 500 mL Poly
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs	HCl	3 X 40 mL VOAs
() SVOCs	None	2 x 1 L Ambers	() Other		

Notes:

Groundwater Sampling Data Sheet

Project #: 185702534	Task No:	Project Name: Bohannon
Site Location: San Lorenzo		Date: 9/18/12
Well ID: POBS-B1	Sampler(s): C. Melancon	Sample DTW (ft):
Screen Interval (ft):	Depth to Water (DTW) (ft): 7.71	Depth to Bottom (DTB) (ft):
Tube/Pump Depth (ft):	Well Diameter (inch): 1	Measurements Referenced to: TOC
		OVM (ppm) = —

CALCULATIONS:

Length of the water column: $\frac{\text{DTB}}{\text{DTW}} \text{ ft} - \frac{\text{DTW}}{\text{DTW}} \text{ ft} = \frac{\text{Water Col}}{\text{DTW}} \text{ ft}$

80% of the water level: $\frac{\text{DTW}}{\text{DTW}} \text{ ft} + \left(\frac{\text{Water Col}}{\text{DTW}} \text{ ft} \times 0.2 \right) = \frac{\text{Recharge water level}}{\text{DTW}} \text{ ft}$

Estimated Purge Volume (EPV) = $\frac{\text{Water col}}{\text{gal/in. ft.}} \times \frac{\text{Casing Volumes}}{3} = \text{Gallons}$

- (X) Low-Flow/Micro Purging
() Purge at least 3 well volumes

Well Diameter	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () Bailer
() Disposable Bailer
() Electric Submergible Pump
(X) Peristaltic Pump
() Other: _____

Sampling Equipment:

- () Bailer
(X) Pump Discharge
() Disposable Bailer
() Peristaltic Pump & Dedicated Tubing
() Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
() Myron L
() Horriba
() Hanna
() Other: _____

Begin Purge at **1025**

Time (24 hrs)	Volume (G/L)	Temp. (C/F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
1030	1.5	20.29	7.97	1264	7.05	Clear	Faint	0.55	-50.4
1035	2.5	20.29	7.88	1317	7.07	"	"	0.40	-20.8
1040	3.5	20.30	7.92	1334	7.07	"	"	0.55	5.4
1045	4.5	20.27	7.89	1338	7.06	"	"	0.52	17.9
1050	5.5	20.24	7.88	1337	7.06	"	"	0.30	21.5
1055	6.5	20.31	7.88	1339	7.06	"	"	0.29	22.2

Liters / Gallons Purged:			Pump Rate in L or G /min:		
Sampling Time: 1100			Duplicate Sample ID:		Sample Time:
Sample Analyzed For: SEE WORK ORDER			Duplicate Sample Analyzed For: SEE WORK ORDER		
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane	HCl	3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol	None	2 x 1 L Ambers
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS	None	1 X 500 mL Poly
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs	HCl	3 X 40 mL VOAs
() SVOCs	None	2 x 1 L Ambers	() Other:		

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u>	Task No: _____	Project Name: <u>Bohannon</u>
Site Location: <u>San Lorenzo</u>		Date: <u>9/18/12</u>
Well ID: <u>POBS-A1</u>	Sampler(s): <u>C. Melancon</u>	Sample DTW (ft): <u>8.06</u>
Screen Interval (ft): _____	Depth to Water (DTW) (ft): <u>7.58</u>	Depth to Bottom (DTB) (ft): _____
Tube/Pump Depth (ft): _____	Well Diameter (inch): <u>1</u>	Measurements Referenced to: <u>TOC</u>
		OVM (ppm) = <u>—</u>

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ gal/in. ft. X 3 = _____ Gallons
Water col Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D.	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 1105

Time (24 hrs)	Volume (G/L)	Temp. (°C/°F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>1110</u>	<u>1.5</u>	<u>21.77</u>	<u>7.99</u>	<u>1550</u>	<u>6.93</u>	<u>Clear</u>	<u>Mod.</u>	<u>0.37</u>	<u>-77.2</u>
<u>1115</u>	<u>2.5</u>	<u>21.70</u>	<u>8.08</u>	<u>1541</u>	<u>6.94</u>	<u>"</u>	<u>"</u>	<u>0.32</u>	<u>-77.6</u>
<u>1120</u>	<u>3.0</u>	<u>21.76</u>	<u>8.06</u>	<u>1535</u>	<u>6.95</u>	<u>"</u>	<u>"</u>	<u>0.31</u>	<u>-81.6</u>
<u>1125</u>	<u>3.5</u>	<u>21.66</u>	<u>8.06</u>	<u>1529</u>	<u>6.95</u>	<u>"</u>	<u>"</u>	<u>0.31</u>	<u>-82.5</u>
<u>1130</u>	<u>4.0</u>	<u>21.62</u>	<u>8.06</u>	<u>1525</u>	<u>6.95</u>	<u>"</u>	<u>"</u>	<u>0.32</u>	<u>-82.7</u>

Liters / Gallons Purged: _____			Pump Rate in L or G /min: _____		
Sampling Time: <u>1130</u>			Duplicate Sample ID: _____		Sample Time: _____
Sample Analyzed For: <u>SEE WORK ORDER</u>			Duplicate Sample Analyzed For: <u>SEE WORK ORDER</u>		
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane	HCl	3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol	None	2 x 1 L Ambers
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS	None	1 X 500 mL Poly
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs	HCl	3 X 40 mL VOAs
() SVOCs	None	2 x 1 L Ambers	() Other: _____		

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u>	Task No:	Project Name: Bohannon
Site Location: San Lorenzo		Date: <u>9/19/12</u>
Sampler(s): <u>C. Melancon</u>		
Well ID: <u>MW-2</u>	Depth to Water (DTW) (ft): <u>7.37</u>	Sample DTW (ft): <u>7.39</u>
Screen Interval (ft):	Depth to Bottom (DTB) (ft):	Measurements Referenced to: TOC
Tube/Pump Depth (ft):	Well Diameter (inch): <u>2</u>	OMV (ppm) = <u>—</u>

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ X $\frac{3}{1}$ = _____ Gallons
Water col gal/lin. ft. Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submergible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 1140

Time (24 hrs)	Volume (G/L)	Temp. (°F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>1145</u>	<u>1.5</u>	<u>23.48</u>	<u>7.41</u>	<u>1306</u>	<u>7.11</u>	<u>Clear</u>	<u>Mod</u>	<u>0.55</u>	<u>-85.0</u>
<u>1150</u>	<u>2.5</u>	<u>23.50</u>	<u>7.37</u>	<u>1323</u>	<u>7.09</u>	<u>"</u>	<u>"</u>	<u>0.41</u>	<u>-79.2</u>
<u>1155</u>	<u>3.5</u>	<u>23.54</u>	<u>7.39</u>	<u>1331</u>	<u>7.08</u>	<u>"</u>	<u>"</u>	<u>0.30</u>	<u>-68.7</u>
<u>1200</u>	<u>4.5</u>	<u>23.61</u>	<u>7.39</u>	<u>1332</u>	<u>7.08</u>	<u>"</u>	<u>"</u>	<u>0.29</u>	<u>-69.5</u>
<u>1205</u>									

Liters / Gallons Purged:	Pump Rate in L or G /min:																																																
Sampling Time: <u>1200</u>	Duplicate Sample ID: _____ Sample Time: _____																																																
Sample Analyzed For: SEE WORK ORDER																																																	
Duplicate Sample Analyzed For: SEE WORK ORDER																																																	
<table style="width: 100%; border-collapse: collapse;"> <tr> <th>(√) Analyte(s):</th> <th>Preservative:</th> <th>Bottles:</th> </tr> <tr> <td>(X) TPH-g, BTEX, MTBE</td> <td>HCl</td> <td>3 X 40 mL VOAs</td> </tr> <tr> <td>() TPH-d & TPH-mo</td> <td>HCl</td> <td>2 x 0.5 L Ambers</td> </tr> <tr> <td>() NO₂, NO₃ & SO₄</td> <td>None</td> <td>1 X 500 mL Poly</td> </tr> <tr> <td>() Total Manganese</td> <td>HNO₃</td> <td>1 X 250 mL Poly</td> </tr> <tr> <td>() Dissolved Iron</td> <td>Field-filtered, HNO₃</td> <td>1 X 250 mL Poly</td> </tr> <tr> <td>() Ferrous Iron</td> <td>HCl</td> <td>2 X Amber VOAs</td> </tr> <tr> <td>() SVOCs</td> <td>None</td> <td>2 x 1 L Ambers</td> </tr> </table>	(√) Analyte(s):	Preservative:	Bottles:	(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Total Manganese	HNO ₃	1 X 250 mL Poly	() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Ferrous Iron	HCl	2 X Amber VOAs	() SVOCs	None	2 x 1 L Ambers	<table style="width: 100%; border-collapse: collapse;"> <tr> <th>(√) Analyte(s):</th> <th>Preservative:</th> <th>Bottles:</th> </tr> <tr> <td>() TOC</td> <td>H₂SO₄</td> <td>2 X 40 mL Amber VOAs</td> </tr> <tr> <td>() Methane</td> <td>HCl</td> <td>3 X 40 mL VOAs</td> </tr> <tr> <td>() Naphthalene, Phenol</td> <td>None</td> <td>2 x 1 L Ambers</td> </tr> <tr> <td>() Alkalinity, TDS</td> <td>None</td> <td>1 X 500 mL Poly</td> </tr> <tr> <td>() Phosphorus, TKN</td> <td>H₂SO₄</td> <td>1 x 500 mL Poly</td> </tr> <tr> <td>() VOCs</td> <td>HCl</td> <td>3 X 40 mL VOAs</td> </tr> <tr> <td>() Other: _____</td> <td></td> <td></td> </tr> </table>	(√) Analyte(s):	Preservative:	Bottles:	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs	() Methane	HCl	3 X 40 mL VOAs	() Naphthalene, Phenol	None	2 x 1 L Ambers	() Alkalinity, TDS	None	1 X 500 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly	() VOCs	HCl	3 X 40 mL VOAs	() Other: _____		
(√) Analyte(s):	Preservative:	Bottles:																																															
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() Methane	HCl	3 X 40 mL VOAs																																															
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() VOCs	HCl	3 X 40 mL VOAs																																															
() Other: _____																																																	

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u>	Task No:	Project Name: Bohannon
Site Location: San Lorenzo		Date: <u>9/18/12</u>
Well ID: <u>POBS-B2</u>	Sampler(s): <u>C. Melagron</u>	Sample DTW (ft): <u>8.08</u>
Screen Interval (ft):	Depth to Water (DTW) (ft): <u>7.05</u>	Depth to Bottom (DTB) (ft):
Tube/Pump Depth (ft):	Well Diameter (inch): <u>2</u>	Measurements Referenced to: TOC
		OVM (ppm) = <u>-</u>

CALCULATIONS:

Length of the water column: $\frac{\text{DTB}}{\text{DTW}} \text{ ft} - \frac{\text{DTW}}{\text{DTW}} \text{ ft} = \frac{\text{Water Col}}{\text{DTW}} \text{ ft}$

80% of the water level: $\frac{\text{DTW}}{\text{DTW}} \text{ ft} + \left(\frac{\text{Water Col}}{\text{DTW}} \text{ ft} \times 0.2 \right) = \text{Recharge water level}$

Estimated Purge Volume (EPV): $= \frac{\text{Water col}}{\text{gal/lin. ft.}} \times \frac{\text{Casing Volumes}}{3} = \text{Gallons}$

- (X) Low-Flow/Micro Purging
() Purge at least 3 well volumes

Well Diameter	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () Bailer
() Disposable Bailer
() Electric Submergible Pump
(X) Peristaltic Pump
() Other: _____

Sampling Equipment:

- () Bailer
(X) Pump Discharge
() Disposable Bailer
() Peristaltic Pump & Dedicated Tubing
() Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
() Myron L
() Horriba
() Hanna
() Other: _____

Begin Purge at 1205

Time (24 hrs)	Volume (G/L)	Temp. (C/F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>1210</u>	<u>1.5</u>	<u>22.33</u>	<u>8.17</u>	<u>1065</u>	<u>7.30</u>	<u>clear</u>	<u>404+</u>	<u>0.48</u>	<u>-50.9</u>
<u>1215</u>	<u>2.5</u>	<u>22.63</u>	<u>8.38</u>	<u>1071</u>	<u>7.23</u>	<u>"</u>	<u>"</u>	<u>0.38</u>	<u>-43.1</u>
<u>1220</u>	<u>3.0</u>	<u>23.23</u>	<u>8.16</u>	<u>1084</u>	<u>7.21</u>	<u>"</u>	<u>"</u>	<u>0.37</u>	<u>-29.8</u>
<u>1225</u>	<u>3.5</u>	<u>23.40</u>	<u>8.08</u>	<u>1088</u>	<u>7.21</u>	<u>"</u>	<u>"</u>	<u>0.29</u>	<u>-23.4</u>
<u>1230</u>	<u>4.0</u>	<u>23.44</u>	<u>8.08</u>	<u>1089</u>	<u>7.21</u>	<u>"</u>	<u>"</u>	<u>0.28</u>	<u>-22.3</u>

Liters / Gallons Purged:			Pump Rate in L or G /min:		
Sampling Time: <u>1230</u>			Duplicate Sample ID:		Sample Time:
Sample Analyzed For: SEE WORK ORDER			Duplicate Sample Analyzed For: SEE WORK ORDER		
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane	HCl	3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol	None	2 x 1 L Ambers
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS	None	1 X 500 mL Poly
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs	HCl	3 X 40 mL VOAs
() SVOCs	None	2 x 1 L Ambers	() Other: _____		

Notes:

APPENDIX C
Laboratory Analytical Report and Chain-of-Custody for the
September 2012 Groundwater Monitoring Event

Third Quarter 2012 Groundwater Monitoring Report

David D. Bohannon Organization

575 Paseo Grande

San Lorenzo, California

Stantec PN: 185702534

December 21, 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-44599-1

Client Project/Site: Bohannon San Lorenzo

For:

Stantec Consulting Corp.
57 Lafayette Circle
2nd Floor
Lafayette, California 94549-4321

Attn: Mr. Mason Albrecht



Authorized for release by:
9/26/2012 4:14:43 PM

Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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

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

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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Job ID: 720-44599-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-44599-1

Comments

No additional comments.

Receipt

The samples were received on 9/18/2012 2:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

No analytical or quality issues were noted.

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Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Client Sample ID: TB-1

Lab Sample ID: 720-44599-1

No Detections

Client Sample ID: MW-4

Lab Sample ID: 720-44599-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	25		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	1.2		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	4.2		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	3.6		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	1400		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: NOBS-B1

Lab Sample ID: 720-44599-3

No Detections

Client Sample ID: POBS-B1

Lab Sample ID: 720-44599-4

No Detections

Client Sample ID: POBS-A1

Lab Sample ID: 720-44599-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1100		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	8.3		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Toluene	27		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	18		10		ug/L	10		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	2600		500		ug/L	10		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 720-44599-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.7		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	410		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: POBS-B2

Lab Sample ID: 720-44599-7

No Detections

Client Sample ID: MW-3

Lab Sample ID: 720-44599-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	110		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	0.66		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	2.6		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Detection Summary

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Client Sample ID: MW-3 (Continued)

Lab Sample ID: 720-44599-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	1.2		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	480		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: DUP

Lab Sample ID: 720-44599-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	100		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	0.62		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	2.4		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	1.1		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	440		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Client Sample ID: TB-1
Date Collected: 09/18/12 09:00
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			09/19/12 13:15	1
Ethylbenzene	ND		0.50		ug/L			09/19/12 13:15	1
Toluene	ND		0.50		ug/L			09/19/12 13:15	1
Xylenes, Total	ND		1.0		ug/L			09/19/12 13:15	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			09/19/12 13:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 130					09/19/12 13:15	1
1,2-Dichloroethane-d4 (Surr)	103		75 - 138					09/19/12 13:15	1
Toluene-d8 (Surr)	101		70 - 130					09/19/12 13:15	1

Client Sample ID: MW-4
Date Collected: 09/18/12 09:40
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	25		0.50		ug/L			09/19/12 13:44	1
Ethylbenzene	1.2		0.50		ug/L			09/19/12 13:44	1
Toluene	4.2		0.50		ug/L			09/19/12 13:44	1
Xylenes, Total	3.6		1.0		ug/L			09/19/12 13:44	1
Gasoline Range Organics (GRO) -C5-C12	1400		50		ug/L			09/19/12 13:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	112		67 - 130					09/19/12 13:44	1
1,2-Dichloroethane-d4 (Surr)	109		75 - 138					09/19/12 13:44	1
Toluene-d8 (Surr)	102		70 - 130					09/19/12 13:44	1

Client Sample ID: NOBS-B1
Date Collected: 09/18/12 10:20
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			09/19/12 15:10	1
Ethylbenzene	ND		0.50		ug/L			09/19/12 15:10	1
Toluene	ND		0.50		ug/L			09/19/12 15:10	1
Xylenes, Total	ND		1.0		ug/L			09/19/12 15:10	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			09/19/12 15:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 130					09/19/12 15:10	1
1,2-Dichloroethane-d4 (Surr)	104		75 - 138					09/19/12 15:10	1
Toluene-d8 (Surr)	101		70 - 130					09/19/12 15:10	1

Client Sample ID: POBS-B1
Date Collected: 09/18/12 11:00
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			09/19/12 15:39	1
Ethylbenzene	ND		0.50		ug/L			09/19/12 15:39	1
Toluene	ND		0.50		ug/L			09/19/12 15:39	1
Xylenes, Total	ND		1.0		ug/L			09/19/12 15:39	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Client Sample ID: POBS-B1
Date Collected: 09/18/12 11:00
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			09/19/12 15:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 130					09/19/12 15:39	1
1,2-Dichloroethane-d4 (Surr)	105		75 - 138					09/19/12 15:39	1
Toluene-d8 (Surr)	101		70 - 130					09/19/12 15:39	1

Client Sample ID: POBS-A1
Date Collected: 09/18/12 11:30
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1100		5.0		ug/L			09/19/12 16:07	10
Ethylbenzene	8.3		5.0		ug/L			09/19/12 16:07	10
Toluene	27		5.0		ug/L			09/19/12 16:07	10
Xylenes, Total	18		10		ug/L			09/19/12 16:07	10
Gasoline Range Organics (GRO) -C5-C12	2600		500		ug/L			09/19/12 16:07	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 130					09/19/12 16:07	10
1,2-Dichloroethane-d4 (Surr)	104		75 - 138					09/19/12 16:07	10
Toluene-d8 (Surr)	99		70 - 130					09/19/12 16:07	10

Client Sample ID: MW-2
Date Collected: 09/18/12 12:00
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.7		0.50		ug/L			09/25/12 14:18	1
Ethylbenzene	ND		0.50		ug/L			09/25/12 14:18	1
Toluene	ND		0.50		ug/L			09/25/12 14:18	1
Xylenes, Total	ND		1.0		ug/L			09/25/12 14:18	1
Gasoline Range Organics (GRO) -C5-C12	410		50		ug/L			09/25/12 14:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	115		67 - 130					09/25/12 14:18	1
1,2-Dichloroethane-d4 (Surr)	100		75 - 138					09/25/12 14:18	1
Toluene-d8 (Surr)	103		70 - 130					09/25/12 14:18	1

Client Sample ID: POBS-B2
Date Collected: 09/18/12 12:30
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			09/19/12 17:05	1
Ethylbenzene	ND		0.50		ug/L			09/19/12 17:05	1
Toluene	ND		0.50		ug/L			09/19/12 17:05	1
Xylenes, Total	ND		1.0		ug/L			09/19/12 17:05	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			09/19/12 17:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 130					09/19/12 17:05	1
1,2-Dichloroethane-d4 (Surr)	105		75 - 138					09/19/12 17:05	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Client Sample ID: POBS-B2
Date Collected: 09/18/12 12:30
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-7
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		09/19/12 17:05	1

Client Sample ID: MW-3
Date Collected: 09/18/12 13:10
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	110		0.50		ug/L			09/19/12 17:34	1
Ethylbenzene	0.66		0.50		ug/L			09/19/12 17:34	1
Toluene	2.6		0.50		ug/L			09/19/12 17:34	1
Xylenes, Total	1.2		1.0		ug/L			09/19/12 17:34	1
Gasoline Range Organics (GRO) -C5-C12	480		50		ug/L			09/19/12 17:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 130		09/19/12 17:34	1
1,2-Dichloroethane-d4 (Surr)	106		75 - 138		09/19/12 17:34	1
Toluene-d8 (Surr)	100		70 - 130		09/19/12 17:34	1

Client Sample ID: DUP
Date Collected: 09/18/12 00:00
Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	100		0.50		ug/L			09/19/12 18:03	1
Ethylbenzene	0.62		0.50		ug/L			09/19/12 18:03	1
Toluene	2.4		0.50		ug/L			09/19/12 18:03	1
Xylenes, Total	1.1		1.0		ug/L			09/19/12 18:03	1
Gasoline Range Organics (GRO) -C5-C12	440		50		ug/L			09/19/12 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 130		09/19/12 18:03	1
1,2-Dichloroethane-d4 (Surr)	106		75 - 138		09/19/12 18:03	1
Toluene-d8 (Surr)	100		70 - 130		09/19/12 18:03	1

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-121196/4
Matrix: Water
Analysis Batch: 121196

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			09/19/12 09:24	1
Ethylbenzene	ND		0.50		ug/L			09/19/12 09:24	1
Toluene	ND		0.50		ug/L			09/19/12 09:24	1
Xylenes, Total	ND		1.0		ug/L			09/19/12 09:24	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			09/19/12 09:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 130		09/19/12 09:24	1
1,2-Dichloroethane-d4 (Surr)	102		75 - 138		09/19/12 09:24	1
Toluene-d8 (Surr)	100		70 - 130		09/19/12 09:24	1

Lab Sample ID: LCS 720-121196/5
Matrix: Water
Analysis Batch: 121196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	24.2		ug/L		97	79 - 130
Ethylbenzene	25.0	24.6		ug/L		99	80 - 120
Toluene	25.0	24.4		ug/L		97	78 - 120
m-Xylene & p-Xylene	50.0	50.5		ug/L		101	70 - 142
o-Xylene	25.0	25.6		ug/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	99		75 - 138
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCS 720-121196/7
Matrix: Water
Analysis Batch: 121196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	500		ug/L		100	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		75 - 138
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCSD 720-121196/6
Matrix: Water
Analysis Batch: 121196

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	24.2		ug/L		97	79 - 130	0	20
Ethylbenzene	25.0	24.6		ug/L		98	80 - 120	0	20
Toluene	25.0	24.3		ug/L		97	78 - 120	0	20

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-121196/6

Matrix: Water

Analysis Batch: 121196

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	50.0	50.4		ug/L		101	70 - 142	0	20
o-Xylene	25.0	25.4		ug/L		101	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	97		75 - 138
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCSD 720-121196/8

Matrix: Water

Analysis Batch: 121196

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	498		ug/L		100	62 - 120	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	105		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		75 - 138
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: 720-44599-3 MS

Matrix: Water

Analysis Batch: 121196

Client Sample ID: NOBS-B1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		25.0	24.8		ug/L		99	60 - 140
Ethylbenzene	ND		25.0	24.4		ug/L		98	60 - 140
Toluene	ND		25.0	24.4		ug/L		98	60 - 140
m-Xylene & p-Xylene	ND		50.0	50.0		ug/L		100	60 - 140
o-Xylene	ND		25.0	25.6		ug/L		102	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	98		75 - 138
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: 720-44599-3 MSD

Matrix: Water

Analysis Batch: 121196

Client Sample ID: NOBS-B1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		25.0	25.0		ug/L		100	60 - 140	1	20
Ethylbenzene	ND		25.0	24.3		ug/L		97	60 - 140	0	20
Toluene	ND		25.0	24.3		ug/L		97	60 - 140	0	20
m-Xylene & p-Xylene	ND		50.0	49.7		ug/L		99	60 - 140	1	20
o-Xylene	ND		25.0	25.7		ug/L		103	60 - 140	0	20

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: 720-44599-3 MSD
Matrix: Water
Analysis Batch: 121196

Client Sample ID: NOBS-B1
Prep Type: Total/NA

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	99		75 - 138
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: MB 720-121566/5
Matrix: Water
Analysis Batch: 121566

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.50		ug/L			09/25/12 09:57	1
Ethylbenzene	ND		0.50		ug/L			09/25/12 09:57	1
Toluene	ND		0.50		ug/L			09/25/12 09:57	1
Xylenes, Total	ND		1.0		ug/L			09/25/12 09:57	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			09/25/12 09:57	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	101		67 - 130		09/25/12 09:57	1
1,2-Dichloroethane-d4 (Surr)	101		75 - 138		09/25/12 09:57	1
Toluene-d8 (Surr)	100		70 - 130		09/25/12 09:57	1

Lab Sample ID: LCS 720-121566/6
Matrix: Water
Analysis Batch: 121566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	25.0	25.7		ug/L		103	79 - 130
Ethylbenzene	25.0	25.6		ug/L		102	80 - 120
Toluene	25.0	25.7		ug/L		103	78 - 120
m-Xylene & p-Xylene	50.0	51.3		ug/L		103	70 - 142
o-Xylene	25.0	26.6		ug/L		106	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	96		75 - 138
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCS 720-121566/8
Matrix: Water
Analysis Batch: 121566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Gasoline Range Organics (GRO) -C5-C12	500	504		ug/L		101	62 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	99		75 - 138
Toluene-d8 (Surr)	102		70 - 130

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-121566/7

Matrix: Water

Analysis Batch: 121566

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	25.8		ug/L		103	79 - 130	0	20
Ethylbenzene	25.0	25.3		ug/L		101	80 - 120	1	20
Toluene	25.0	25.6		ug/L		103	78 - 120	0	20
m-Xylene & p-Xylene	50.0	50.5		ug/L		101	70 - 142	2	20
o-Xylene	25.0	26.5		ug/L		106	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	96		75 - 138
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCSD 720-121566/9

Matrix: Water

Analysis Batch: 121566

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	494		ug/L		99	62 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	101		75 - 138
Toluene-d8 (Surr)	102		70 - 130

QC Association Summary

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

GC/MS VOA

Analysis Batch: 121196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-44599-1	TB-1	Total/NA	Water	8260B/CA_LUFT MS	
720-44599-2	MW-4	Total/NA	Water	8260B/CA_LUFT MS	
720-44599-3	NOBS-B1	Total/NA	Water	8260B/CA_LUFT MS	
720-44599-3 MS	NOBS-B1	Total/NA	Water	8260B/CA_LUFT MS	
720-44599-3 MSD	NOBS-B1	Total/NA	Water	8260B/CA_LUFT MS	
720-44599-4	POBS-B1	Total/NA	Water	8260B/CA_LUFT MS	
720-44599-5	POBS-A1	Total/NA	Water	8260B/CA_LUFT MS	
720-44599-7	POBS-B2	Total/NA	Water	8260B/CA_LUFT MS	
720-44599-8	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
720-44599-9	DUP	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-121196/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-121196/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-121196/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-121196/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-121196/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 121566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-44599-6	MW-2	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-121566/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-121566/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-121566/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-121566/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-121566/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Client Sample ID: TB-1

Date Collected: 09/18/12 09:00

Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	121196	09/19/12 13:15	AC	TAL SF

Client Sample ID: MW-4

Date Collected: 09/18/12 09:40

Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	121196	09/19/12 13:44	AC	TAL SF

Client Sample ID: NOBS-B1

Date Collected: 09/18/12 10:20

Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	121196	09/19/12 15:10	AC	TAL SF

Client Sample ID: POBS-B1

Date Collected: 09/18/12 11:00

Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	121196	09/19/12 15:39	AC	TAL SF

Client Sample ID: POBS-A1

Date Collected: 09/18/12 11:30

Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	121196	09/19/12 16:07	AC	TAL SF

Client Sample ID: MW-2

Date Collected: 09/18/12 12:00

Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	121566	09/25/12 14:18	AC	TAL SF

Client Sample ID: POBS-B2

Date Collected: 09/18/12 12:30

Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	121196	09/19/12 17:05	AC	TAL SF

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Client Sample ID: MW-3

Date Collected: 09/18/12 13:10

Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	121196	09/19/12 17:34	AC	TAL SF

Client Sample ID: DUP

Date Collected: 09/18/12 00:00

Date Received: 09/18/12 14:25

Lab Sample ID: 720-44599-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	121196	09/19/12 18:03	AC	TAL SF

Laboratory References:

TAL SF = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Laboratory: TestAmerica Pleasanton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL SF

Protocol References:

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

Laboratory References:

TAL SF = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-44599-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-44599-1	TB-1	Water	09/18/12 09:00	09/18/12 14:25
720-44599-2	MW-4	Water	09/18/12 09:40	09/18/12 14:25
720-44599-3	NOBS-B1	Water	09/18/12 10:20	09/18/12 14:25
720-44599-4	POBS-B1	Water	09/18/12 11:00	09/18/12 14:25
720-44599-5	POBS-A1	Water	09/18/12 11:30	09/18/12 14:25
720-44599-6	MW-2	Water	09/18/12 12:00	09/18/12 14:25
720-44599-7	POBS-B2	Water	09/18/12 12:30	09/18/12 14:25
720-44599-8	MW-3	Water	09/18/12 13:10	09/18/12 14:25
720-44599-9	DUP	Water	09/18/12 00:00	09/18/12 14:25



Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 720-44599-1

Login Number: 44599

List Number: 1

Creator: Apostol, Anita

List Source: TestAmerica Pleasanton

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

APPENDIX D
Chemical Concentration Trends in Groundwater

Third Quarter 2012 Groundwater Monitoring Report

David D. Bohannon Organization

575 Paseo Grande

San Lorenzo, California

Stantec PN: 185702534

December 21, 2012

