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11:12 am, Aug 03, 2012

Alameda County Environmental Health

July 27, 2012

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

#### Dear Mr. Detterman:

Enclosed for your review is the Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report (Semi-Annual Report) prepared by Stantec Consulting Services Inc. (Stantec) on behalf of David D. Bohannon Organization (Bohannon). The Semi-Annual Report summarizes recent groundwater monitoring and sampling conducted by Stantec at 575 Paseo Grande in San Lorenzo, California (the Site). Semi-annual groundwater monitoring and reporting is being conducted by Stantec pursuant to the Alameda County Environmental Health (ACEH) letter to Bohannon dated November 28, 2011.

The next semi-annual sampling event will take place in November 2012. Bohannon will submit a second semi-annual groundwater monitoring report following the November 2012 sampling event.

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 Semi-Annual Report, please contact me at (650) 345-8222.

Sincerely,

CC:

Scott E. Bohannon, Senior Vice President

Mr. Chris Maxwell, Stantec Consulting Services Inc.

Mr. Andrew A. Bassak, Manatt, Phelps, and Phillips LLP

# SECOND QUARTER 2012 (SEMI-ANNUAL) GROUNDWATER MONITORING REPORT David D. Bohannon Organization

575 Paseo Grande San Lorenzo, California

PN: 185702534



# SECOND QUARTER 2012 (SEMI-ANNUAL) GROUNDWATER MONITORING REPORT DAVID D. BOHANNON ORGANIZATION

Limitations and Certifications July 27, 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:

Chris Maxwell, P.G. #7269

Principal Geologist

### SECOND QUARTER 2012 (SEMI-ANNUAL) GROUNDWATER MONITORING REPORT DAVID D. BOHANNON ORGANIZATION

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# SECOND QUARTER 2012 (SEMI-ANNUAL) GROUNDWATER MONITORING REPORT DAVID D. BOHANNON ORGANIZATION

Introduction July 27, 2012

#### 1.0 Introduction

Stantec Consulting Services Inc. (Stantec; formerly SECOR) presents this groundwater monitoring report for the second quarter of 2012 which describes results of semi-annual groundwater monitoring, sampling, and analysis conducted on May 3, 2012, May 4, 2012, and June 8, 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 November 28, 2011, requesting additional groundwater monitoring in support of Site closure. A second semi-annual groundwater monitoring event will be conducted in November 2012. The previous groundwater monitoring and sampling was conducted in January 2010. The scope of work 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).

#### 1.1 BACKGROUND

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, initial 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, Stantec 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 Stantec's letter report to the County dated June 29, 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. Stantec 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)

# SECOND QUARTER 2012 (SEMI-ANNUAL) GROUNDWATER MONITORING REPORT DAVID D. BOHANNON ORGANIZATION

Introduction July 27, 2012

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 Stantec's documents entitled, "Report of Interim Remedial Actions," dated June 4, 1994, and "Fourth Quarter 1996 Monitoring and Sampling Report," dated November 26, 1996. Monitoring well locations are illustrated in Figure 2.

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 Stantec's document entitled, "Third Quarter Groundwater Monitoring Results and Plume Definition Report," dated October 21, 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 Stantec's documents entitled, "Work Plan for Additional Groundwater Monitoring Well Installation," dated October 22, 1999, and "Addendum to the Work Plan for Additional Groundwater Monitoring Well Installation," dated December 2, 1999. The Work Plan was approved with comments in correspondence from the County 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, Stantec performed an additional limited subsurface investigation as described in the document entitled, "Remedial Action Work Plan," dated October 25, 2002, and submitted to the County. The Work Plan was approved by the County in a letter dated October 28, 2002. Based on field observations, soil boring logs, and laboratory analytical results, Stantec concluded that: 1) perched groundwater was encountered within fill materials at approximately 5 to 8 feet below ground surface (ft-bgs); 2) water-bearing zones were encountered in silt and sand at depths of 13- to -15 ft-bgs (A zone), in sand from 16-to -19 ft-bgs (B zone), and in silty sand at 22.5 ft-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 ft-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 Stantec.

At the request of the County, 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

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Introduction July 27, 2012

wells. The survey results are presented in Stantec's document entitled, "Third Quarter 1999 Groundwater Monitoring Results and Plume Definition Report," dated October 21, 1999. 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 Stantec in December 2003 proposing hydrogen peroxide injections for chemical oxidation of soils in addition to nitrate injections. The RAW addendum was approved by the County 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 for these wells are provided in Appendix A of the 2007 Progress Report. The well installation activities were described in the document entitled, "1st Semester 2004 Semi-Annual Groundwater Monitoring Report," prepared by EFI Global (EFI Global, 2004).

Additional injections were completed in July 2004 (Phase Two) and October 2004 (Phase Three). Progress groundwater sampling for Phases Two and Three were 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, April 2005).

Site-wide groundwater monitoring was conducted in May 2005. In June 2005, Stantec advanced 14 soil borings at locations intended to provide additional delineation of the target area for full-scale DPE system implementation. Stantec obtained an operation permit from the BAAQMD in July 2005 and installed seven additional remediation wells in September 2005. Stantec 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 2007 Progress Report (Stantec, 2007).

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#### 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 TPHg and 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 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).

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Groundwater Monitoring July 27, 2012

### 2.0 Groundwater Monitoring

Site-wide groundwater monitoring and sampling was performed on May 3, 2012 and May 4, 2012, and consisted of sounding wells for depth-to-water and sampling wells MW-1 through MW-7, POBS-A1, POBS-B1, POBS-B2, and NOBS-B1. Additional monitoring and sampling was performed at MW-4 on June 8, 2012. Well gauging data is reported on Table 2. Field data sheets are provided in Appendix A. Laboratory analytical data is reported on Table 3 and included in Appendix B. The following summarizes the data collected by Stantec in May 2012.

#### 2.1 WATER LEVEL GAUGING

Prior to purging and sampling, the depth-to-groundwater 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. Observation wells POBS-A1, POBS-B1, POBS-B2, and NOBS-B1 are remedial wells and have not been surveyed; the groundwater elevations in these wells were not calculated. Table 2 presents historical monitoring well groundwater elevation data for the Site.

The average depth-to-water measured at the Site on May 3, 2012 and May 4, 2012 was 5.50 feet below the top of well casing with an average water-table elevation of 20.44 feet above mean sea level (amsl). A potentiometric surface map illustrating the interpreted groundwater surface elevation and flow direction on May 3, 2012 and May 4, 2012, is presented as Figure 3. The hydraulic gradient across the Site was approximately 0.003 feet per foot (ft/ft) toward the west-southwest. The groundwater elevation in monitoring well MW-3 is not consistent with other Site groundwater elevations and was not used to plot the potentiometric surface or to calculate the hydraulic gradient. The depth-to-water in MW-4 was also measured on June 8, 2012 and was 5.87 feet amsl. The groundwater elevation in MW-4 on June 8, 2012 was not used to plot the potentiometric surface or to calculate the hydraulic gradient for the Site-wide sampling event on May 3, 2012 and May 4, 2012.

#### 2.2 GROUNDWATER SAMPLING

On May 3, 2012 and May 4, 2012, wells were purged and sampled using a low-flow purging method consisting of new dedicated tubing attached to a variable speed peristaltic pump set to extract groundwater at a rate of approximately 250 milliliters per minute (mL/min). Temperature, conductivity, pH, DO content, and ORP were monitored using a flow-through cell during purging to confirm stable water conditions prior to sampling. Prior to low-flow purging and sampling of MW-4 on June 8, 2012, approximately 10 gallons of groundwater was purged from the well using a stainless steel bailer. Copies of field data sheets are attached as Appendix A.

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Groundwater Monitoring July 27, 2012

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 TPHg by U.S. EPA Method 8015M and for BTEX by 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.

#### **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 seven LCSs, six LCS duplicates, one MS and MS duplicate pair, and three 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 B.

# SECOND QUARTER 2012 (SEMI-ANNUAL) GROUNDWATER MONITORING REPORT DAVID D. BOHANNON ORGANIZATION

Results July 27, 2012

#### 3.0 Results

The following presents a discussion of results of the May 2012 and June 2012 groundwater monitoring conducted at the Site.

#### 3.1 GROUNDWATER ANALYTICAL RESULTS

Petroleum hydrocarbon chemical data for the May 2012 and June 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-1, MW-2, MW-3, MW-4, and POBS-A1 are included in Appendix C.

TPHg and BTEX concentrations continued to be below the laboratory method reporting limits (MRLs) in on-site well MW-1 and in off-Site monitoring wells MW-5, MW-6, and MW-7.

TPHg, benzene, and ethylbenzene results from on-site monitoring well MW-2 were slightly above the January 2010 sampling event. Concentrations of these compounds remain well below historical concentrations for MW-2. Toluene and xylenes were not detected above the MRLs during the May 2012 sampling of well MW-2.

Sample analytical results from monitoring well MW-4 suggest a localized rebound in petroleum hydrocarbon concentrations, most notably TPHg, since the January 2010 sampling event. The TPHg and benzene concentrations were 6,800 ug/L and 190 ug/L in May 2012, respectively. The concentrations of TPHg and benzene in MW-4 on June 8, 2012 were 3,400 ug/L and 83 ug/L, respectively.

As shown on Table 3, the concentrations of all petroleum hydrocarbons in well POBS-A1 decreased by an order of magnitude from the January 2010 sampling event. For example TPHg decreased from 7,300 ug/L to 540 ug/L, and benzene decreased from 1,100 ug/L to 110 ug/L. The concentrations of petroleum hydrocarbons in monitoring well MW-3, located approximately 14 feet downgradient of POBS-A1, were below laboratory MRLs.

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Conclusions July 27, 2012

### 4.0 Conclusions

In general, the results of the May 2012 and June 2012 groundwater monitoring events indicate stable trends in petroleum hydrocarbon concentrations in on- and off-site monitoring wells. The following presents a discussion of the most significant results:

- □ Concentrations of petroleum hydrocarbon constituents in off-Site and downgradient monitoring wells MW-5, MW-6, and MW-7 have been below laboratory MRLs for 10 years following the beginning of groundwater monitoring at these well locations in December 2000, and continue to be below laboratory MRLs. These results indicate that petroleum hydrocarbon constituents found in on-site groundwater have not significantly impacted off-Site groundwater.
- As indicated by the sample analytical results for well POBS-A1, the concentrations of TPHg and BTEX in groundwater within the former UST area have decreased an order of magnitude since the previous sampling event and significantly below historical concentrations. Furthermore, concentrations of TPHg and BTEX in groundwater in MW-3 and POBS-B2 located immediately downgradient of the former UST have reached near non-detect levels.
- ☐ Concentrations in monitoring well MW-4 increased from the previous sampling event in January 2010. The petroleum hydrocarbon concentrations in MW-4 will be monitored during the second semi-annual groundwater monitoring event to be conducted in November 2012.
- ☐ Concentrations of petroleum hydrocarbons in all other on- and off-site monitoring wells remain stable or near the laboratory MRLs.

**SECOND QUARTER 2012 (SEMI-ANNUAL) GROUNDWATER MONITORING REPORT DAVID D. BOHANNON ORGANIZATION** 

### **TABLES**

Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report David D. Bohannon Organization 575 Paseo Grande San Lorenzo, California

Stantec PN: 185702534

July 27, 2012

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

Well	Date Installed	Top of Casing Elevation (ft amsl)	Total Depth (feet)	Casing Diameter (inches)	Screen Slot Size (inches)	Screen Length (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
MW-1	NA	26.98	15	4	0.02	9	6	15
MW-2	NA	26.73	15	4	0.02	9	6	15
MW-3	NA	26.55	15	4	0.02	9	6	15
MW-4	10/2/2000	25.87	15	4	0.02	9	6	15
MW-5	10/2/2000	25.77	15	4	0.02	9	6	15
MW-6	10/2/2000	24.89	15	4	0.02	9	6	15
MW-7	10/2/2000	25.43	15	4	0.02	9	6	15
PIW-A1	5/4/2004	NA	18	4	0.02	10	8	18
PIW-A2	5/4/2004	NA	18	4	0.02	10	8	18
PIW-A3	5/4/2004	NA	18	4	0.02	10	8	18
PIW-A4	5/6/2004	NA	18	4	0.02	10	8	18
PIW-B1	5/3/2004	NA	26	4	0.02	6	19.5	25.5
PIW-B2	5/3/2004	NA	26	4	0.02	6	20	26
PIW-B3	5/4/2004	NA	26	4	0.02	6	20	26
PIW-B4	5/4/2004	NA	26	4	0.02	6	20	26
POBS-A1	5/6/2004	NA	18	4	0.02	10	8	18
POBS-B1	5/6/2004	NA	26	4	0.02	10	20	26
POBS-B2	5/6/2004	NA	26	4	0.02	10	20	26
NIW-A1	5/5/2004	NA	18	4	0.02	10	8	18
NIW-A2	5/5/2004	NA	18	4	0.02	10	8	18
NIW-B1	5/5/2004	NA	26	4	0.02	6	20	26
NIW-B2	5/5/2004	NA	26	4	0.02	6	20	26
NOBS-B1	5/7/2004	NA	26	2	0.02	6	20	26
DP-1	9/30/2005	NA	20.5	4	0.02	10	5	15
DP-2	9/29/2005	NA	20	4	0.02	10	4.3	14.3
DP-3	9/29/2005	NA	20.2	4	0.02	10	4.5	14.5
DP-4	9/28/2005	NA	20	4	0.02	10	4.2	14.2
DP-5	9/28/2005	NA	20.5	4	0.02	9.8	4.7	14.5
DP-6	9/29/2005	NA	20.2	4	0.02	10	4.5	14.5
DP-7	9/29/2005	NA	21	4	0.02	10	4.5	14.5

#### Abbreviations:

ft amsl = feet above mean sea level ft bgs = feet below ground surface in = inches NA = Not Available or Not Known

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

	TOC Elevation	DTW	Groundwater Elevation
Date Sampled	(ft amsl)	(ft BTOC)	(ft amsl)
MW-1	(it amoi)	(11 2 1 3 3)	(it diriol)
5/17/1996	27.11	5.65	21.46
10/8/1996	27.11	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	20.50	5.71	21.27
8/22/2001		7.39	19.59
5/22/2001		6.25	20.73
8/29/2002		7.23	19.75
12/2/2002		7.23 7.13	19.75
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
MW-2		0.02	21.00
5/17/1996	26.73	5.56	21.17
10/8/1996	20.70	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

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

	TOC Elevation	DTW	Groundwater Elevation
Date Sampled	(ft amsl)	(ft BTOC)	(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
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

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

	TOC Elevation	DTW	Groundwater Elevation
Date Sampled	(ft amsl)	(ft BTOC)	(ft amsl)
MW-5	( )	( = = = )	( 2 2 2 )
12/5/2000	25.77	6.25	19.52
2/28/2001	20.77	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
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
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

#### TABLE 2

### Historical Groundwater Elevations David D. Bohannon Organization DPE System 575 Paseo Grande, San Lorenzo, CA

	TOC Elevation	DTW	Groundwater Elevation		
Date Sampled	(ft amsl)	(ft BTOC)	(ft amsl)		

#### 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

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

	TPH-G	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Chromium	Dissolved Inorganic Lead
Date Sampled	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(μg/L)
Groundwater Mon			(10)		,, o	(10)		(1.0)
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	00.000	000	000	050	4 500		40	50
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 - a	<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 <sup>J</sup>	1.2	<0.5	<0.5	<1.0			
5/3/2012	350	22	< 0.5	2.1	<1.0			

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

	TPH-G	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Chromium	Dissolved Inorganic Lead
Date Sampled	(µg/L)	(µg/L)	(μg/L)	μg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)
MW-3	" 0 /	,, ,	,, ,		(10)	W 0 /	., 0	,, ,
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			
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 <sup>J</sup>	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		

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

	TPH-G	Benzene	Toluene	Ethylhenzene	Total Xylenes	MTRF	Chromium	Dissolved Inorganic Lead
Date Sampled	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
MW-5	\r~\&' <del>-</del> /	\r~9' =/	(rg, -)	/L.a. –)	/L.a/	\r'\\\_/	(mg/ =/	\may =/
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 Treatme	ent Area - A	Zone Inject	ion 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			
	-,						L	

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

	TPH-G	Benzene	Toluene	Ethylhonzono	Total Xylenes	MTDE	Chromium	Dissolved Inorganic Lead
Date Sampled	(μg/L)	μg/L)	(μg/L)	(μg/L)	(μg/L)	MTBE (μg/L)	(μg/L)	(μg/L)
Peroxide Treatme				(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
PIW-B1	iii Area - D	Zone mjeci	ion wens					
5/13/2004	1,900	28	<5.0	11	51			
	270	20	<5.0 <b>1</b>	2.2	2.7			
6/18/2004								
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 Treatme	nt Area - A	Zone Obse	rvation Well	ls				
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 <sup>J</sup>	1,100	29	53	42			
5/4/2012	540	110	2.0	1.4	<1.0			
Peroxide Treatme			rvation Well		-			
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			
POBS-B2	<b>\</b> 30	0.00	< 0.5	< 0.5	< 1.0			
5/13/2004	4,500	150	23	11	120			
6/18/2004	4,300 97	7.4	0.8	1.6	1.7			
8/27/2004	240	36.0	1.6	6.7	4.2			
12/2/2004		<0.5		<0.5	<b>4.2</b> <1.0			
5/27/2005	<50 <b>97</b>	<0.5 <b>33.0</b>	<0.5 <b>0.56</b>	<0.5 <b>1.3</b>	<1.0 <b>0.74</b>			
8/24/2006	57	< 0.5	< 0.5	< 0.5	< 1.0			
5/3/2012	57 83	< 0.5 <b>8.8</b>	< 0.5 < 0.5	< 0.5 < 0.5	< 1.0 < 1.0			
Nitrate Injection A				< 0.5	< 1.0			
NIW-A1	16a - A 201	ie irijection	vvens					
	0.200	1 000	E0	250	06			
5/13/2004	9,300	1,800	59 20	250	96 55			
6/18/2004	3,100	340	22	93	55 5.7			
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 - May 2012, June 2012 and Historical David D. Bohannon Organization DPE System
575 Paseo Grande, San Lorenzo, CA

	TPH-G	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Chromium	Dissolved Inorganic Lead
Date Sampled	(µg/L)	(µg/L)	(µg/L)	μg/L)	(μg/L)	(µg/L)	(μg/L)	(μg/L)
Nitrate Injection A	rea - B Zoi	ne 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 A	rea - Obse	ervation Well	ls					
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			

#### Abbreviations:

 $\mu g/L$  = 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.

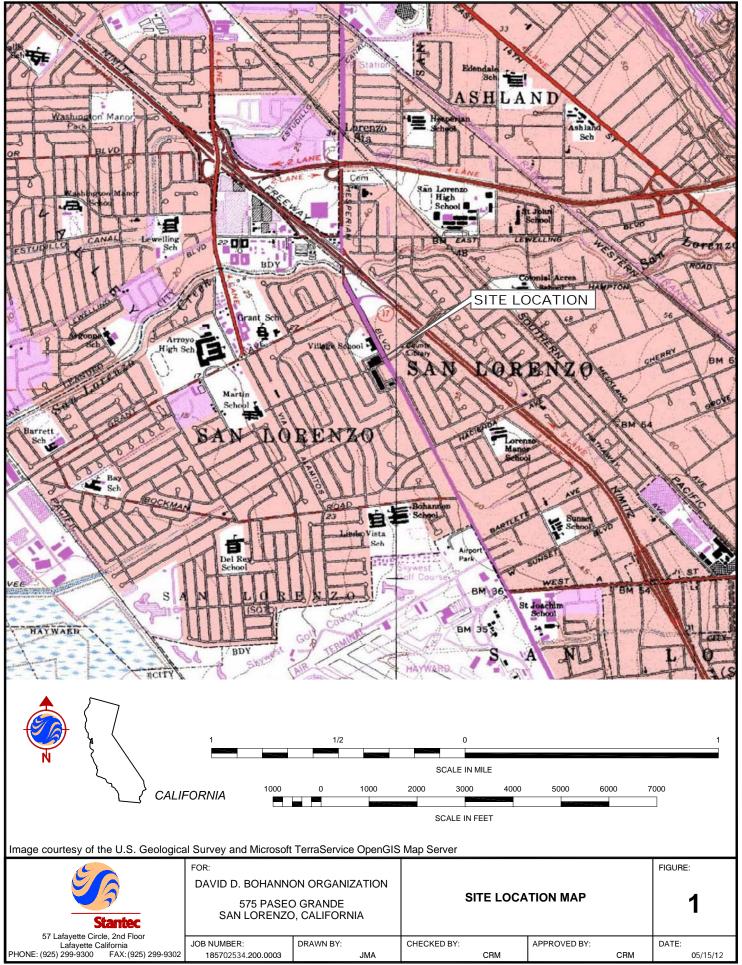
J = the chromatograph for this sample does not match the chromatographic pattern of the specified standard

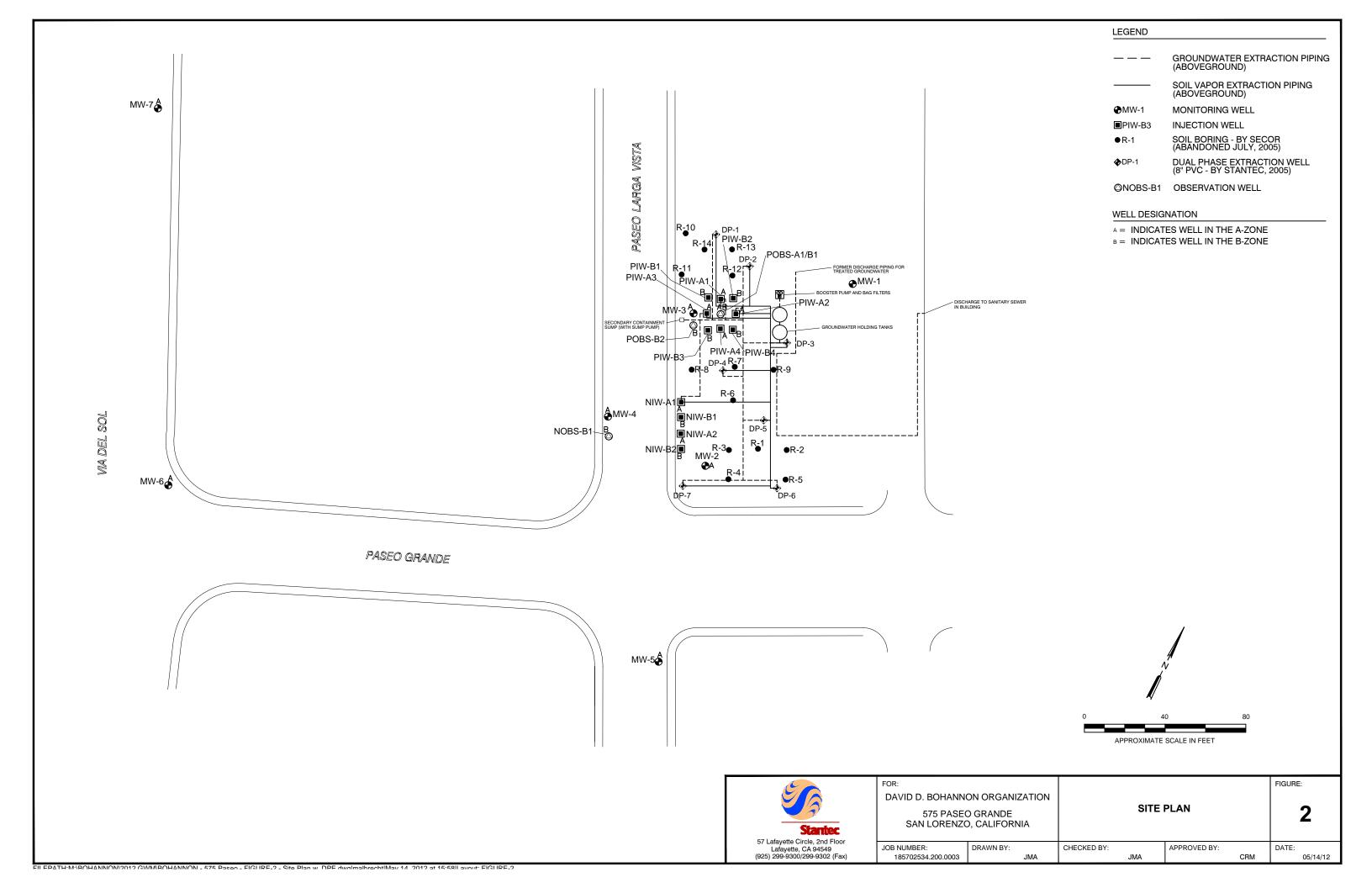
SECOND QUARTER 2012 (SEMI-ANNUAL) GROUNDWATER MONITORING REPORT DAVID D. BOHANNON ORGANIZATION

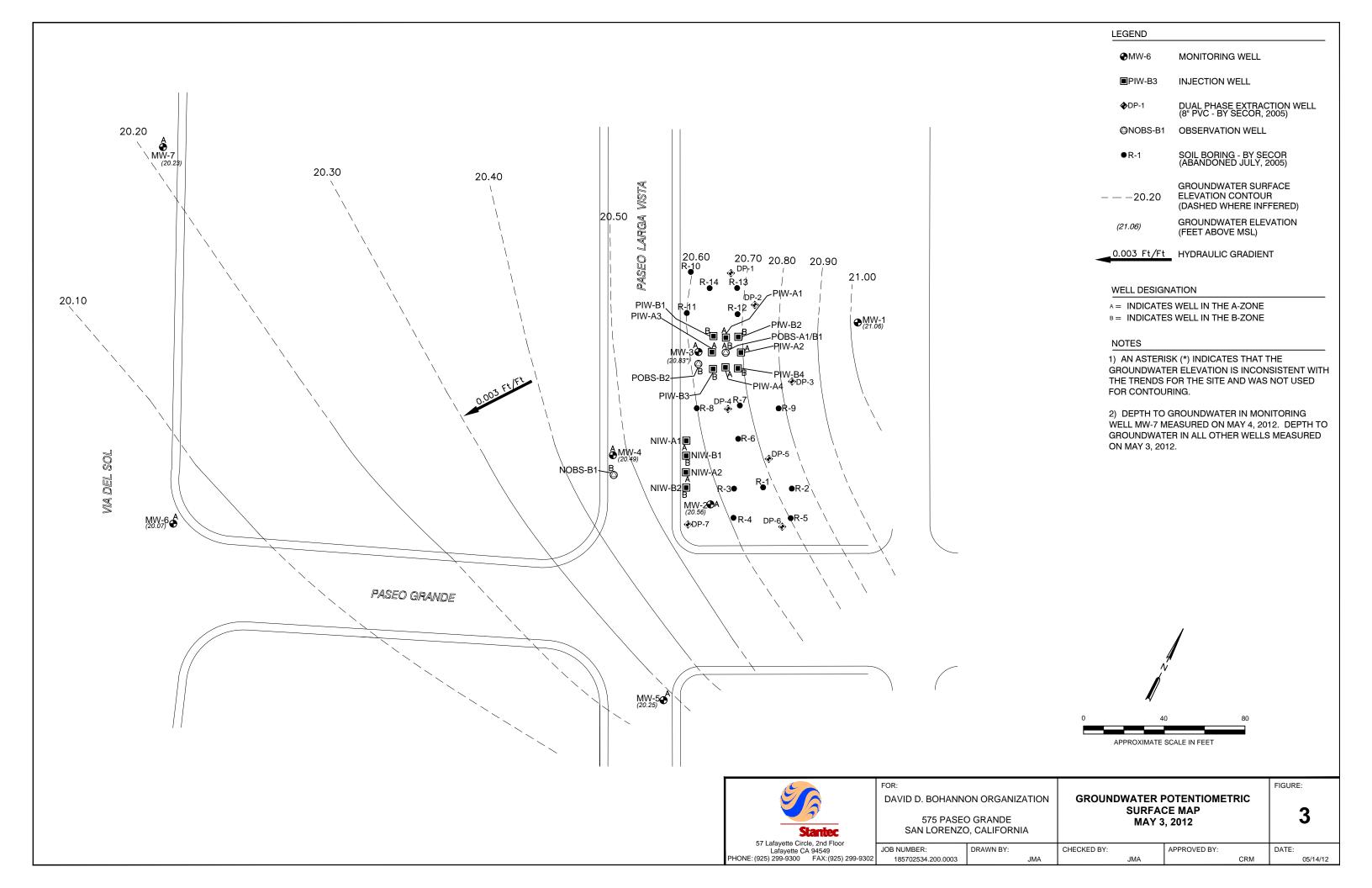
### **FIGURES**

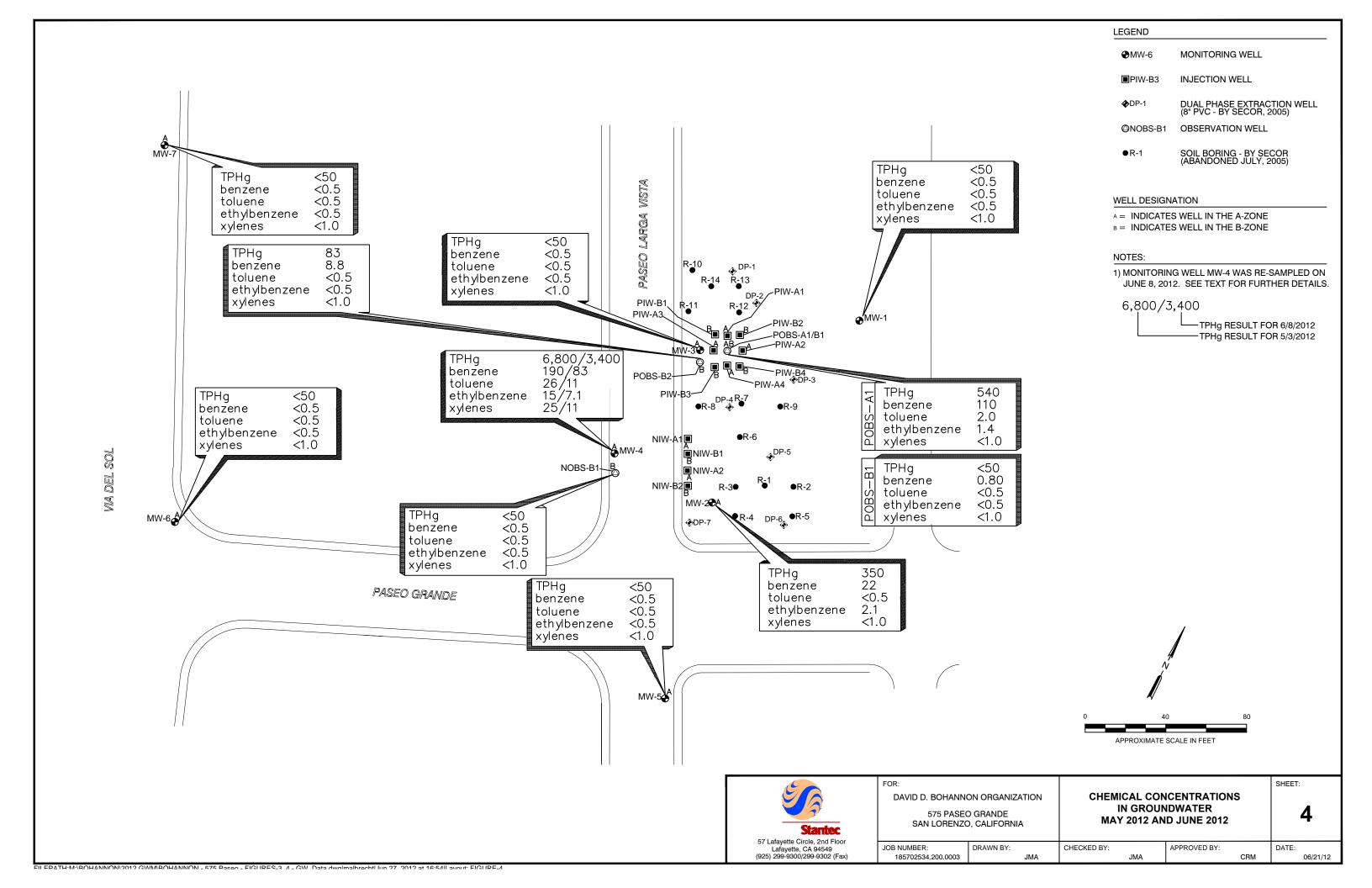
Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report David D. Bohannon Organization 575 Paseo Grande San Lorenzo, California

Stantec PN: 185702534 July 27, 2012









SECOND QUARTER 2012 (SEMI-ANNUAL)
GROUNDWATER MONITORING REPORT
DAVID D. BOHANNON ORGANIZATION

## APPENDIX A Field Data Sheets for the May 2012 and June 2012 Groundwater Monitoring Events

Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report David D. Bohannon Organization 575 Paseo Grande San Lorenzo, California Stantec PN: 185702534 July 27, 2012

**Groundwater Sampling Data Sheet** Project Name: Project #: 18570253/Task No: 200 2002 Bohannon Date: 5/3/17

Sito I cootier	<del>, - 7 C</del>		raon no.	2-0 0005	Donai			L	Jaic. 5 1 2	112
Site Location San Lorenzo	:			6-	mele-	سر .ده. د	Welque			
Well ID: M	al r=-		Donth	to Water (I	DTIAN	(5): ( r			APP	
Screen Interv			Dopth	to Bottom	(DTD)	<u>در کارا).</u> در ۱۴۱۰	Sampi	le DTW (ft):		TOO
Tube/Pump D				Diameter (in				ppm) =	ferenced to:	100
CALCULATIONS			AAGII L	nameter (m	icii).	<u> </u>	OAM	ppm) =		
O, LEGGE ( ) TO I 4	<b>J</b> .									
Length of the wa	iter column	1:	ft	DTW	ft =		ft	Volume of S	Schedule 40 PV	/C Pipe
			DTB	DTW		Water Col	•	Well Diam		gal/linear ft
								1		
								1.25	1.38	0.08
80% of the water	r level:		ft	+ (	ft X (	0.2) = _	ft	2	2.067	0.17
			DTW	Water Col		Re	charge water level	3	3.068	0.38
								4	4.026	0.66
Estimated Purge	Volume (F	FPV)· =	ft '	x	x	3 =	Gallons	6	6.065	1.5
Estimated Purge	(-	v,w	ater col	gal/lin. ft.	—^` <del>_</del>	sing Volume	Callons	1		
				_		•		8	7.981	2.6
(X)	Low-Flow	//Micro Pur	ging					10	10.02	4.12
( )	Purge at	least 3 well	volumes					12	11.938	5.81
Purging Equipn	nent:	9	Sampling	Equipment:				Type of Ma	ater Quality Kit	lleod:
( )	nent:	Bailer	oumpining i	( )		Bai	ler		SI 556	. useu.
( ) Dis	posable B	ailer		( <sub>-</sub> X)_Pu	ı <del>mp Dis</del>	eharge		( )N	lyron L	
	ctric Subm ristaltic Pui	nergible Pum	ıp	( ) Dis	sposabl	le Bailer	Sadiastad Tubina	. ,	lorriba	
	notallic Ful ner:			( X) Pe	nstallic her:	Pump & L	Dedicated Tubing	( ) H	ranna Other:	
` '			·> *\$	( ) 0		<del></del>		( ) 0		
Be	gin Purge	at <u>∛</u>	3 <b>2</b>							
		Temp.		Specific						Redox
Time	Volume	(C) F)		Conductiv	- 1	pН			DO	Potential
(24 hrs)	(G /(L))		DTW	(μS/cm		(units)	Color	Odor	(mg/L)	(mV)
(every 3-5 min)		(± 10%)	1700 d	(± 10%)		(± 0.2)			(± 10%)	(± 20%)
\$35	60	18.56				7,27	Clear	NONE	0,43	239,1
340	2.5	18-62	5159	876		7.28	/1	£1	0.36	2/8,7
895 850	4,0	18.71	5.59	879		<u> 2,30</u>			0,28	208,7
855	7.0	18.76	5.59	881		7,29	21	10	0.36	202,3
<u> </u>	7.0	10,00	357	834	7	<u> 230</u>	(<		0.38	200,7
								1		
Liters / Gallon	s Puraed	l:	· OZZENIKA		Pumn	Rate in I	L or G /min:		WI	
	g	••			· ump	rate III	L 01 0 /111111.			
Sampling Time	e: 09	00			Duplio	ate Sam	ple ID:	Sample Tin	ne:	
Sample Analya	v		K ORDEI	₹		Dunlicat	e Sample Analy	rad For SE	E WORK OR	NED
(√) Analyte(s):	<u> </u>	Preserv		Bottles:		(√) Analy		Preservative		DEK
(X) TPH-g, BTEX	K, MTBE	HC		3 X 40 mL V	OAs	( ) TOC	20(0).	H₂SO₄		Amber VOAs
( ) TPH-d & TPH		HC		2 x 0.5 L Am		( ) Metha		HCI	3 X 40 mL \	/OAs
( ) NO₂, NO₃ & S ( ) Total Mangar		Nor		1 X 500 mL F	- 1		halene, Phenol	None	2 x 1 L Amb	
( ) Dissolved Iro		HN0 Field-filtere		1 X 250 mL F 1 X 250 mL F	- 1		nity, TDS phorus, TKN	None H₂SO₄	1 X 500 mL 1 x 500 mL	
( ) Ferrous Iron	••	HC		2 X Amber V	- 1	( ) VOCs		HCI	3 X 40 mL \	
( ) SVOCs		Nor		2 x 1 L Ambe	- 1	( ) Other				
			<del>"</del>							
Notes:										

Revised: 5/2/2012 Stantec

**Groundwater Sampling Data Sheet** Project Name: Project #: 1857 02534 Task No: 200,0002 Bohannon Date: 5/3//2 Site Location: San Lorenzo Sampler(s): Z- Meluycoy Well ID: NOBS-B1 Depth to Water (DTW) (ft): ょっこら Sample DTW (ft): ディ34 Depth to Bottom (DTB) (ft): 25-60 Measurements Referenced to: TOC Screen Interval (ft): Tube/Pump Depth (ft): Well Diameter (inch): 2 OVM (ppm) = -CALCULATIONS: Length of the water column: Volume of Schedule 40 PVC Pipe Well Diameter. I.D gal/linear ft. 1.25 1.38 0.08 ft + ( \_\_\_\_\_ft X 0.2) = \_\_\_\_ft Water Col Recharge water level 80% of the water level: 2 2.067 0.17 3.068 0.38 4.026 0.66 Estimated Purge Volume (EPV): = X 3 = \_\_\_\_ Gallons
Casing Volumes 6 6.065 1.5 gal/lin. ft. 7.981 2.6 (X) Low-Flow/Micro Purging 10 10.02 4.12 ( ) Purge at least 3 well volumes 12 11.938 5.81 **Purging Equipment:** Sampling Equipment: Type of Water Quality Kit Used: Bailer (X) YSI 556 Disposable Bailer (X) Pump Discharge ) Myron L ) Electric Submergible Pump ( ) Disposable Bailer ) Horriba (X) Peristaltic Pump Peristaltic Pump & Dedicated Tubing ) Hanna ( ) Other: ) Other: 934 Begin Purge at **Specific** Redox Temp. Conductivity Time Volume рΗ DO Potential (°C) °F) (G (L)) DTW (24 hrs) (µS/cm) (units) Color Odor (mg/L) (mV)  $(\pm 0.2)$ (every 3-5 min)  $(\pm 10\%)$  $(\pm 10\%)$  $(\pm 10\%)$  $(\pm 20\%)$ 18,46 5,34 937 1058 0,32 1.5 7,02 clear 102,3 4040 940 18,66 535 3.0 1860 7,08 0.34 1151 4.6 18,82 5,34 1062 7.09 20 40 134,0 5.0 18.845.34 0,33 50 1062 7,08 1 . 137,6 7.08 0,30 7 € 143,

Liters / Gallons Purged	l:	P	Pump Rate in L or G /min:		
Sampling Time: / 6	000	D	Ouplicate Sample ID:	Sample Time	<b>:</b>
Sample Analyzed For:	SEE WORK ORDE	:R	Duplicate Sample Anal	yzed For: SEE	WORK ORDER
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE ( ) TPH-d & TPH-mo ( ) NO <sub>2</sub> , NO <sub>3</sub> & SO <sub>4</sub> ( ) Total Manganese ( ) Dissolved Iron ( ) Ferrous Iron ( ) SVOCs	HCI HCI None HNO <sub>3</sub> Field-filtered, HNO <sub>3</sub> HCI None	3 X 40 mL VO 2 x 0.5 L Amb 1 X 500 mL Po 1 X 250 mL Po 1 X 250 mL Po 2 X Amber VO 2 x 1 L Amber	AS ( ) TOC ers ( ) Methane oly ( ) Naphthalene, Phenol oly ( ) Alkalinity, TDS oly ( ) Phosphorus, TKN OAS ( ) VOCs	H <sub>2</sub> SO <sub>4</sub> HCI None None H <sub>2</sub> SO <sub>4</sub> HCI	2 X 40 mL Amber VOAs 3 X 40 mL VOAs 2 x 1 L Ambers 1 X 500 mL Poly 1 x 500 mL Poly 3 X 40 mL VOAs

Revised: 5/2/2012

			G	roundwat			ata Sheet			
Project #: / 🕏	57170	1-34	Tack No:	200,0002		ect Name:		<b>-</b>	Natas F17	رجع ا
Site Location	<i>)                                    </i>	327	I dSK INO.	Lov, veox	DOII	ammon		L	)ate: 5/3	112
San Lorenzo	-			Sa	ample	er(s): C	Helancon			
Well ID: Mu			Depth	to Water (	DTW	ز , تد . (ft): عز	Sample	DTW (ft):	5,51	
Screen Interv				to Bottom		3) (ft): / <i>5</i> ,	30 Measur	rements Re	ferenced to:	TOC
Tube/Pump D			Well D	iameter (ir	ıch):	2	OVM (p	pm) = 🕌	p. 4 ·	
CALCULATION	S:									
Length of the wa	ater columr		ft -		ft =		ft	Volume of S	Schedule 40 PV	/C Pipe
			DTB	DTW		Water Col		Well Diam	eter. I.D	gal/linear ft.
								1.25	1.38	0.08
80% of the water	r level:		ft ·	+ (	ft X	(02)=	ft	2	2.067	0.17
			DTW	Water Col			charge water level	_		
								3	3.068	0.38
								4	4.026	0.66
Estimated Purge	Volume (E	EPV): =	ft 2	×	_×-	<u>3</u> =	Gallons	6	6.065	1.5
		Wa	ater col	gal/lin. ft.	•	Casing Volumes	•	8	7.981	2.6
(X)	Low-Flow	/Micro Purg	ging					10	10.02	4.12
( )	Purge at	least 3 well	volumes					12	11.938	5.81
()Ele (X)Pei ()Oth	sposable B	Bailer ailer nergible Pum mp 	. •	( ) Di: ( <b>汝</b> ) Pe	sposa	Bail <del>ischarge</del> ble Bailer ic Pump & D	er edicated Tubing	(X)Y ()M ()H ()H	ter Quality Kit SI 556 lyron L orriba anna ther:	Used:
		Temp.		Specifi						Redox
Time	Volume	(C) F)		Conducti	- 1	pН			DO	Potential
(24 hrs)	(G/(L)		DTW	(μS/cm	_	(units)	Color	Odor	(mg/L)	(mV)
(every 3-5 min)	j	(± 10%)	per Surge	(± 10%		(± 0.2)			(± 10%)	(± 20%)
1010	3,0	18,07	5,53	391		6.88	C/eg/	wood	0,62	-111.7
1020	4.5	18:30	5.54	886 889		6.84 6.84		11	0.47	-1138
1025	5,5	18.26		897		6.35		E 1	0.28	109.7
1030	6,5	18,27		883		6.34	15	11	0.25	1139
1035	7,5			894		6,84	ų	۶,	0.23	-117.3
-		70.	1							///-
Liters / Gallon	s Purged	l:		winer.	Pum	p Rate in I	or G /min:	III.: 190/ai.		
Sampling Time	۵۰ ، .	2 4 2 45			Dunl	icate Sam	nlo ID:	Sample Tin		
	10	'40 SEE WOD	V 00051	_	Dupi	,		-		
Sample Analyz (√) Analyte(s):	zea ror:	SEE WOR Preserv		र Bottles:		Uuplicat (√) Analy	e Sample Analyz	zed For: SE Preservative		DER
(X) TPH-g, BTEX	K, MTBE	HC		3 X 40 mL V	OAs	( ) TOC	ie(s).	H <sub>2</sub> SO <sub>4</sub>		Amber VOAs
( ) TPH-d & TPH	<del>I</del> -mo	HC		2 x 0.5 L Am		( ) Metha		HCI	3 X 40 mL \	· ii
( ) NO₂, NO₃ & S ( ) Total Mangar		Non		1 X 500 mL l			nalene, Phenol	None	2 x 1 L Amb	ll t
( ) Dissolved Iro		HN0 Field-filtere		1 X 250 mL   1 X 250 mL		( ) Alkalin	nty, TDS horus, TKN	None H₂SO₄	1 X 500 mL 1 x 500 mL	7 11
( ) Ferrous Iron		HC	:	2 X Amber V	'OA's	( ) VOCs		HCI	3 X 40 mL \	
( ) SVOCs		Non	e	2 x 1 L Amb	ers	( ) Other				
Notes:										

Revised: 5/2/2012 Stantec

**Groundwater Sampling Data Sheet Project Name:** Project #: 185702534 Task No: 200, DOD 2 Bohannon Date: 5/3/12 Site Location: San Lorenzo Sampler(s): C. Melaucen Depth to Water (DTW) (ft): 4.79 4.82Sample DTW (ft): 4.87 Depth to Bottom (DTB) (ft): 14.75 Measurements Referenced to Well ID: MW-6 Screen Interval (ft): Measurements Referenced to: TOC Tube/Pump Depth (ft): Well Diameter (inch): 2 OVM (ppm) = -CALCULATIONS: \_\_\_\_ft - \_\_\_\_\_ft = \_\_\_\_\_ft Length of the water column: Volume of Schedule 40 PVC Pipe Well Diameter. <u>I.D</u> gal/linear ft 1.25 1.38 0.08 \_\_\_ft + \_(\_\_\_\_ft X 0.2) = \_\_\_\_ft Water Col Recharge water level 80% of the water level: 2 2.067 0.17 3 3.068 0.38 4 4.026 0.66 ft X X 3 = Gallons

Gal/lin. ft. Z Gasing Volumes Estimated Purge Volume (EPV): = 6 6.065 1.5 Water col 8 7.981 2.6 (X) Low-Flow/Micro Purging 10 10.02 4.12 ( ) Purge at least 3 well volumes 5.81 12 11.938 **Purging Equipment:** Sampling Equipment: Type of Water Quality Kit Used: Bailer Bailer (X) YSI 556 ) Disposable Bailer Pump Discharge ) Myron L ) Electric Submergible Pump ( ) Disposable Bailer ) Horriba (X) Peristaltic Pump Peristaltic Pump & Dedicated Tubing ) Hanna ( ) Other: Other:\_ ) Other: 1050 Begin Purge at Specific Redox Temp. Volume Conductivity рΗ Time DO (C)/F) Potential (24 hrs) (G (L) DTW (uS/cm) (units) Color Odor (mg/L) (mV) (every 3-5 min)  $(\pm 10\%)$  $(\pm 10\%)$  $(\pm 0.2)$  $(\pm 10\%)$ (± 20%) 1053 1.0 18,52 4,86 8.73 7,05 2/841 0.93 noye 56.7 1056 2,0 18,43 4,86 3,5 18.41 4,86 72 7,03 7,02 4 0.50 63. 2 1100 873 : 1 0. 02 11 45 18.39 4.86 18.41 4.87 18.37 7.87 875 1105 5.0 7.03 ٤s 0.42 74,6 1110 6.5 875 7,02 0.29 77.5 ٧, 8,0 ĉ # 7,02 0,3 Liters / Gallons Purged: Pump Rate in L or G /min: Sampling Time: Duplicate Sample ID: Sample Time: 1120 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 HCI 3 X 40 mL VOAs ( ) TOC H<sub>2</sub>SO<sub>4</sub> 2 X 40 mL Amber VOAs ) TPH-d & TPH-mo HCI 2 x 0.5 L Ambers ) Methane HCI 3 X 40 mL VOAs ) NO<sub>2</sub>, NO<sub>3</sub> & SO<sub>4</sub> None 1 X 500 mL Poly Naphthalene, Phenol None 2 x 1 L Ambers ) Total Manganese HNO<sub>3</sub> 1 X 250 mL Polv ) Alkalinity, TDS 1 X 500 mL Poly None Dissolved Iron Field-filtered, HNO<sub>3</sub> 1 X 250 mL Poly Phosphorus, TKN H<sub>2</sub>SO<sub>4</sub> 1 x 500 mL Polv

Notes:

) VOCs

Other

2 X Amber VOAs

2 x 1 L Ambers

Ferrous Iron

**SVOCs** 

HCI

None

HCI

3 X 40 mL VOAs

**Groundwater Sampling Data Sheet Project Name:** Project #: 185702534 Task No: 200,0004 Bohannon Date: 5/3 //2 Site Location: Sampler(s): C. Melancon San Lorenzo Depth to Water (DTW) (ft): 6/7 Sample DTW (ft): 6/36
Depth to Bottom (DTB) (ft): /5/00 Measurements Referenced to: TOC Well ID: M W-ス Screen Interval (ft): Tube/Pump Depth (ft): Well Diameter (inch): 2 OVM (ppm) = CALCULATIONS: Length of the water column: Volume of Schedule 40 PVC Pipe Well Diameter. <u>I.D</u> gal/linear ft. 1.25 1.38 0.08  $ft + \underbrace{( \text{Water Col}}_{\text{Water Col}} ft \times 0.2) = \underbrace{ft}_{\text{Recharge water level}}$ 80% of the water level: 2 2.067 0.17 3 3.068 0.38 4 4.026 0.66 Estimated Purge Volume (EPV): = X 3 = Gallons
Casing Volumes ft X gal/lin. ft. 6 6.065 1.5 8 7.981 2.6 (X) Low-Flow/Micro Purging 10 10.02 4.12 ( ) Purge at least 3 well volumes 12 5.81 11.938 **Purging Equipment:** Sampling Equipment: Type of Water Quality Kit Used: Bailer (X) YSI 556 Bailer Disposable Bailer (X) Pump Discharge ) Myron L ) Electric Submergible Pump ( ) Disposable Bailer ) Horriba (X) Peristaltic Pump (X) Peristaltic Pump & Dedicated Tubing ) Hanna ( ) Other: ) Other: ) Other: Begin Purge at Specific Redox Temp. Conductivity Time Volume pН DO Potential (°C)/ °F) (G /(L)) DTW (24 hrs) (µS/cm) (units) Color Odor (mg/L)(mV) (every 3-5 min)  $(\pm 10\%)$  $(\pm 10\%)$  $(\pm 0.2)$  $(\pm 20\%)$  $(\pm 10\%)$ 1.0 20,19636 203 C/490 7,05 -120,8 wod 206 7.03 0,43 ٤, 3.5 20.09 6.37 5.0 20.17 6.36 6.5 20.07 6.36 8.0 20.16 6.36 10 7.01 -125.5 £ t 0.50 1385 e, € € -128,0 c. -129.1 ℓí ٤, 129.9 Liters / Gallons Purged: Pump Rate in L or G /min: Sampling Time: Duplicate Sample ID: Sample Time:

/ <	. I V				
Sample Analyzed For:	SEE WORK ORDE	R '	Duplicate Sample Anal	yzed For: SEE	WORK ORDER
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	
(X) TPH-g, BTEX, MTBE ( ) TPH-d & TPH-mo ( ) NO <sub>2</sub> , NO <sub>3</sub> & SO <sub>4</sub> ( ) Total Manganese ( ) Dissolved Iron ( ) Ferrous Iron ( ) SVOCs	HCI HCI None HNO₃ Field-filtered, HNO₃ HCI None	3 X 40 mL VOAs 2 x 0.5 L Ambers 1 X 500 mL Poly 1 X 250 mL Poly 1 X 250 mL Poly 2 X Amber VOAs 2 x 1 L Ambers	( ) TOC ( ) Methane ( ) Naphthalene, Phenol ( ) Alkalinity, TDS ( ) Phosphorus, TKN ( ) VOCs ( ) Other	H₂SO₄ HCI None None H₂SO₄ HCI	2 X 40 mL Amber VOAs 3 X 40 mL VOAs 2 x 1 L Ambers 1 X 500 mL Poly 1 x 500 mL Poly 3 X 40 mL VOAs
Notes:				,	
Povined: E/2/2012				24	

Revised: 5/2/2012

			G				Data Sheet				
Project #: 100	5200	c-7)/ -	Task No.			ct Name:			lata: ====	1 1 2	1
Project #:   8 5		7.24	I ASK NO:	200,0002	Dona	inon		U	ate: 57 3	116	4
San Lorenzo	•			Sa	ımplei	r(s):	· Welaye	O 44			
Well ID: M				to Water (l	OTW)	(ft): 51	72 Sample	DTW (ft):			1
Screen Interva			Depth	to Bottom	(DTB)	) (ft): 14			ferenced to:	TOC	]
Tube/Pump De			Well [	Diameter (in	ch):	2_	OVM (p	opm) = 🔝	gen.		╛
CALCULATIONS	<b>5</b> :										_
Length of the war	ter column	:	ft	-	ft =		ft	Volume of S	Schedule 40 P\	/C Pipe	1
			DTB	DTW	_	Water Col		Well Diame		gal/linear ft.	
								1.25	1.38	0.08	1
80% of the water	· level·		ft	+ (	# V	0.2) =	ft	2	2.067		
3070 Of the water	iovoi.		DTW "	Water Col			charge water level	1		0.17	
							<b>-</b>	3	3.068	0.38	
								4	4.026	0.66	
Estimated Purge	Volume (E	:PV): =	ft	gal/lin. ft.	_× _	<u>3</u> = —	Gallons	6	6.065	1.5	
		VV	ater col	gai/lin. ft.	Ga	asing Volume:	3	8	7.981	2.6	
(X) l	Low-Flow	/Micro Pur	ging					10	10.02	4.12	1
( ) <b>I</b>	Purge at l	east 3 well	volumes					12	11.938	5.81	J
()Ele (X)Per ()Oth	posable Bactric Subministaltic Pur er:	Bailer ailer ergible Pum np 	p	( ) Dis ( <b>※</b> ) Pe	sposab ristaltio	Bail s <del>charge</del> le Bailer c Pump & D	er Dedicated Tubing	(X) Y: ( ) M ( ) H ( ) H	yron L orriba	t Used:	
Be	gin Purge	at <u>/</u> 2	37								
Time (24 hrs)	Volume (G <i>(</i> ( <u>(</u> ))	Temp.	DTW	Specific Conductiv (μS/cm	vity	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)	
(every 3-5 min)		(± 10%)		(± 10%)		(± 0.2)		Fuigt	(± 10%)	(± 20%)	]
1240	1:0	19,12	6.06	601		7,21	2/800	Atouth	0.81	-28.1	1
1245	3.5	19.02	6,22	585		7,11	<b>?</b>	10	0.41	-24.4	-
1255	5.5	19,05	6.26	578 578		7,08 7,06	er et	p 8	0.34	-18.7	-
1300	6.5		6.26	577		7.05	€ <	₹ €	0,35	1327	1/2
•						7				1700	1''
											1
				<u> </u>							╛
iters / Gallons	s Purged	•			Pump	Rate in l	L or G /min:			<u></u>	Ī
Sampling Time	15	00			Dupli	cate Sam	•	Sample Tin			
Sample Analyz √) Analyte(s):	zed For:						e Sample Analy	~~~~		RDER	4
X) TPH-g, BTEX	K, MTBE	Preserv		Bottles: 3 X 40 mL V	OAs	(√) Analy	(e(S):	Preservative H <sub>2</sub> SO <sub>4</sub>		Amber VOAs	-
) TPH-d & TPH	l-mo	HC		2 x 0.5 L Am	bers	( ) Metha		HCI	3 X 40 mL \	VOAs	
) NO₂, NO₃ & S ) Total Mangan		Nor HN0		1 X 500 mL l 1 X 250 mL l		1, , ,	halene, Phenol nity, TDS	None None	2 x 1 L Amb 1 X 500 mL		
) Dissolved Iron		Field-filtere					horus, TKN	H₂SO₄	1 x 500 mL		
) Ferrous Iron		HC		2 X Amber V	'OAs	( ) VOCs	·	HCI	3 X 40 mL \	•	
) SVOCs		Nor	1e	2 x 1 L Ambe	ers	( ) Other					
Notes:											
10163.		·····					***************************************				-
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Revised: 5/2/2012 Stantec

**Groundwater Sampling Data Sheet Project Name:** Project #: 185702534 Date: 5/3/12 Task No: 200, 0002 Bohannon Site Location: San Lorenzo Sampler(s): C. Melageon Well ID: POBS-B2 Depth to Water (DTW) (ft): 5.64 Sample DTW (ft): 6.58
Depth to Bottom (DTB) (ft): 25.90 Measurements Referenced to: TOC Screen Interval (ft): Tube/Pump Depth (ft): Well Diameter (inch): 1 OVM (ppm) = CALCULATIONS: Length of the water column: Volume of Schedule 40 PVC Pipe Well Diameter. <u>l.D</u> gal/linear ft. 1.25 1.38 0.08 \_\_\_\_\_ft + (\_\_\_\_\_\_ft X 0.2) = \_\_\_\_\_ft DTW Water Col Recharge water level 80% of the water level: 2 2.067 0.17 3 3.068 0.38 4 4.026 0.66 Estimated Purge Volume (EPV): = \_ \_ft X \_\_\_\_\_ X \_3 = \_\_\_\_ Gallons gal/lin. ft. Casing Volumes 6 6.065 1.5 8 7.981 2.6 (X) Low-Flow/Micro Puraina 10 10.02 4.12 ( ) Purge at least 3 well volumes 12 11.938 5.81 **Purging Equipment:** Sampling Equipment: Type of Water Quality Kit Used: Bailer Bailer (X) YSI 556 ) Disposable Bailer X) Pump Discharge ) Myron L ) Electric Submergible Pump ( ) Disposable Bailer ) Horriba (X) Peristaltic Pump Peristaltic Pump & Dedicated Tubing ) Hanna ( ) Other: Other: ) Other:\_ 1306 Begin Purge at Specific Redox Temp. Time Volume Conductivity Hq DO Potential (°C / °F) DTW (24 hrs) (G (L) (µS/cm) (units) Color Odor (mV) (mg/L) (± 10%) (every 3-5 min)  $(\pm 10\%)$  $(\pm 0.2)$  $(\pm 20\%)$  $(\pm 10\%)$ 19.27 657 310 1044 6.33 Clear 1.10 -Z6,6 110018 1315 1918 673 1047 0.49 -34.5 € € 1320 1917 6,67 il 37.3 21 0,39 1325 19.23 6.63 1049 0.34 10 <u>-39.3</u> 4276.59 330 5,5 1049 é f 0,29 -40.1 20 Liters / Gallons Purged: Pump Rate in L or G /min: Sampling Time: **Duplicate Sample ID:** Sample Time: 1340 Sample Analyzed For: SEE WORK ORDER Duplicate Sample Analyzed For: SEE WORK ORDER (√) Analyte(s): Preservative: Bottles: (√) Analyte(s): Preservative: Bottles: (X) TPH-a, BTEX, MTBE HCI ()TOC 3 X 40 mL VOAs H<sub>2</sub>SO<sub>4</sub> 2 X 40 mL Amber VOAs ) TPH-d & TPH-mo HCI 2 x 0.5 L Ambers ) Methane HCI 3 X 40 mL VOAs ) NO<sub>2</sub>, NO<sub>3</sub> & SO<sub>4</sub> None 1 X 500 mL Poly ) Naphthalene, Phenol None 2 x 1 L Ambers ) Total Manganese HNO<sub>3</sub> 1 X 250 mL Poly ) Alkalinity, TDS None 1 X 500 mL Poly ) Dissolved Iron Field-filtered, HNO<sub>3</sub> 1 X 250 mL Poly Phosphorus, TKN H<sub>2</sub>SO<sub>4</sub> 1 x 500 mL Poly ) Ferrous Iron HCI 2 X Amber VOAs **VOCs** HCI 3 X 40 mL VOAs **SVOCs** None 2 x 1 L Ambers Other

Notes:

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			G				ata Sheet			
						ct Name:				
Project #: 18.		534	rask No:	200.0002	Boha	nnon		D	ate: <u>5/3</u>	1/2
Site Location: San Lorenzo	•			9.	mnlo	rich.	Melanco			
Well ID: MU	1/:-1		Denth	to Water (I	DTW	(ft): ~ (	22 Sample	DTW (fft)	5,98	
Screen Interv				to Bottom					ferenced to:	TOC
Tube/Pump D				iameter (ir			OVM (p		-	
CALCULATIONS		••••		,				<u> </u>		
			_		_		_			
Length of the wa	iter column			DTW	— ft =	141.10.1	ft	Volume of S	Schedule 40 PV	C Pipe
			DTB	WIG		Water Col		Well Diame	eter. <u>I.D</u>	gal/linear ft.
								1.25	1.38	0.08
80% of the water	r level:		ft -	+ (	ft X	0.2) =	ft	2	2.067	0.17
			DTW	Water Col		-	charge water level	3	3.068	0.38
				_				4	4.026	0.66
Estimated Purge	· Volume (I							6	6.065	1.5
		vva	ater col	gal/lin. ft.	·	asing Volumes	5	8	7.981	2.6
(X)	Low-Flow	/Micro Purg	ging					10	10.02	4.12
( )	Purge at	least 3 well	volumes					12	11.938	5.81
Purging Equipment:  ( )Bailer										
Be	gin Purge	at / 🍛								
Ве	gin Purge			Specifi	С					Redox
Time	Volume	Temp.		Specifi Conducti		рН			DO	Redox Potential
		Temp.	DTW	Conducti (μS/cm	vity ı)	(units)	Color	Odor	DO (mg/L)	
Time (24 hrs) (every 3-5 min)	Volume (G (L)	Temp. (C)/ °F) (± 10%)	DTW	Conducti (μS/cm (± 10%	vity i)	(units) (± 0.2)		Odor	(mg/L) (± 10%)	Potential (mV) (± 20%)
Time (24 hrs) (every 3-5 min)	Volume (G (L))	Temp. (C)/ °F) (± 10%)	DTW	Conducti (μS/cm (± 10%	vity i)	(units) (± 0.2)	Clear	иоче	(mg/L) (± 10%) Ø.78	Potential (mV) (± 20%)
Time (24 hrs) (every 3-5 min)	Volume (G.(L))	Temp. (C)/ °F) (± 10%)	DTW 6,02 5,98	Conducti (μS/cm (± 10%	vity i)	(units) (± 0.2)	eleg-	И0 Че !!	(mg/L) (± 10%) Ø.78 Ø,4/	Potential (mV) (± 20%) 94.6 91.9
Time (24 hrs) (every 3-5 min) (3 5 6 1400 1405	Volume (G.L) 1.0 2.5 3.5	Temp. (C)/ °F) (± 10%)	DTW 6,02 5,98 5,98	Conducti (μS/cm (± 10% /2-00 /2-07	vity   1) )	(units) (± 0.2) ア・/ 2 ティル	Cleur 10	ИО Ч е 11	(mg/L) (± 10%) Ø.78 Ø.41 Ø.42	Potential (mV) (± 20%) 94.6 91.9 88.1
Time (24 hrs) (every 3-5 min) 13 5 6 140 0 140 5	Volume (G.(1) 1.0 2.5 3.5 4.5	Temp. (C)/ °F) (± 10%)	DTW 6,02 5,98	Conducti (μS/cm (± 10%	vity   1) )	(units) (± 0.2)	eleur 10	10 4 e	(mg/L) (± 10%) Ø.78 Ø.41 Ø.42 Ø.38	Potential (mV) (± 20%) 94.6 91.9 88.1
Time (24 hrs) (every 3-5 min) 13 5 6 140 0 140 5 1410 1415	Volume (G.L) 1.0 2.5 3.5 4.5 5.5	Temp. (C)/ °F) (± 10%)	DTW 6,02 5,98 5,98 5,98 5,98	Conducti (μS/cm (± 10% 12-OC 12-O7 12-11 12-15 12-16	vity   1) )	(units) (± 0.2) 7.12 7.11 7.11 7.09 7.11	Cleur 10	ИО Ч е 11	(mg/L) (± 10%) Ø.78 Ø.41 Ø.42 Ø.38	Potential (mV) (± 20%) 94.6 91.9 88.1 87.5 86.1
Time (24 hrs) (every 3-5 min) 1356 1400 1405	Volume (G.(1) 1.0 2.5 3.5 4.5	Temp. (C)/ °F) (± 10%)	DTW 6,02 5,98 5,98	Conducti (μS/cm (± 10% /2-00 /2-07	vity   1) )	(units) (± 0.2) ア・/ 2 ティル	C/eu- 10 10 11	10 4 e	(mg/L) (± 10%) Ø.78 Ø.41 Ø.42 Ø.38	Potential (mV) (± 20%) 94.6 91.9 88.1
Time (24 hrs) (every 3-5 min) 1356 1400 1405 1410 1415	Volume (G.L) 1.0 2.5 3.5 4.5 5.5	Temp. (C)/ °F) (± 10%)	DTW 6,02 5,98 5,98 5,98 5,98	Conducti (μS/cm (± 10% 12-OC 12-O7 12-11 12-15 12-16	vity   1) )	(units) (± 0.2) 7.12 7.11 7.11 7.09 7.11	C/eu- 10 10 11	10 4 e	(mg/L) (± 10%) Ø.78 Ø.41 Ø.42 Ø.38	Potential (mV) (± 20%) 94.6 91.9 88.1 87.5 86.1
Time (24 hrs) (every 3-5 min) 13 5 6 140 0 140 5 1410 1415	Volume (G.(L)) 1.0 2.5 3.5 4.5 5.5 6.5	Temp. (21 10%) 19.33 19.54 19.67 19.71	DTW 6,02 5,98 5,98 5,98 5,98	Conducti (μS/cm (± 10% 12-OC 12-O7 12-11 12-15 12-16	vity	(units) (± 0.2) 7. / 2 7. / 1 7. / 1 7. / 1 7. / 1 7. / 1 7. / 1	C/eu- 10 10 11	10 4 e	(mg/L) (± 10%) Ø.78 Ø.41 Ø.42 Ø.38	Potential (mV) (± 20%) 94.6 91.9 88.1 87.5 86.1
Time (24 hrs) (every 3-5 min) 13 > 6 1400 1405 1415 1415 1420  Liters / Gallon	Volume (G.L) 1.0 2.5 3.5 7.5 5.5 6.5	Temp. (± 10%) 19.38 19.54 19.67 19.71	DTW 6,02 5,98 5,98 5,98 5,98	Conducti (μS/cm (± 10% 12-OC 12-O7 12-11 12-15 12-16	vity i) )	(units) (± 0.2) ア・/ 2 ア・/ 1 ア・/ / ア・/ / ア・/ /	/c /	10 40 11 21 11 11	(mg/L) (± 10%) Ø.78 Ø,41 Ø,42 Ø,38 Ø,31 Ø,30	Potential (mV) (± 20%) 94.6 91.9 88.1 87.5 86.1
Time (24 hrs) (every 3-5 min) 13 5 6 1400 1405 1415 1415	Volume (G.L) 1.0 2.5 3.5 7.5 5.5 6.5	Temp. (21 10%) 19.33 19.54 19.67 19.71	DTW 6,02 5,98 5,98 5,98 5,98	Conducti (μS/cm (± 10% 12-OC 12-O7 12-11 12-15 12-16	vity i) )	(units) (± 0.2) 7. / 2 7. / 1 7. / 1 7. / 1 7. / 1 7. / 1 7. / 1	/c /	10 4 e	(mg/L) (± 10%) Ø.78 Ø,41 Ø,42 Ø,38 Ø,31 Ø,30	Potential (mV) (± 20%) 94.6 91.9 88.1 87.5 86.1
Time (24 hrs) (every 3-5 min) 13 5 6 14 0 0 14 0 5 14 15 14 2 0  Liters / Gallon Sampling Time	Volume (G (L)) 1.0 2.5 3.5 4.5 6.5 es Purgeo	Temp. (± 10%) 19.33 19.54 19.67 19.70 19.71	DTW 6,02 5,98 5,98 5,98 5,98 5,98	Conducti (μS/cm (± 10% 12-0C 12-07 12-11 12-15 12-16 12-17	vity i) )	(units) (± 0.2) ア・/ 2 ア・/ 1 P Rate in I	C/e u/c  / c  / c  / c  / c  / c  / c  / c	Sample Tir	(mg/L) (± 10%) Ø. 78 Ø. 41 Ø. 42 Ø. 38 Ø. 31 Ø. 30	Potential (mV) (± 20%) 94.6 91.9 88.1 87.5 86.1
Time (24 hrs) (every 3-5 min) 13 5 6 14 0 0 14 0 5 14 1 5 14 1 5 14 2 0  Liters / Gallon Sampling Time Sample Analys (√) Analyte(s):	Volume (G (L)	Temp. (± 10%) 19.33 19.54 19.67 19.71 19.70 19.71	DTW 6,02 5,98 5,98 5,98 5,98 5,98	Conducti (μS/cm (± 10% 12-00 12-07 12-11 12-15 12-16 12-17	vity i) ) Pum Dupl	(units) (± 0.2) ア・/ シ	C/e u/c  / c  / c  / c  / c  / c  / c  / c	Sample Tir	(mg/L) (± 10%) Ø. 78 Ø. 41 Ø. 42 Ø. 38 Ø. 31 Ø. 30  ne: EE WORK OR	Potential (mV) (± 20%) 94.6 71.9 88.1 89.5 86.1 87.9
Time (24 hrs) (every 3-5 min) (3 5 6 1400 1415 1415 1415 1420  Liters / Gallon Sampling Time Sample Analy: (√) Analyte(s): (X) TPH-g, BTE)	Volume (G (L) 1.0 2.5 3.5 4.5 5.5 6.5 s Purged e: 14 zed For:	Temp. (± 10%) 19.33 19.54 19.67 19.70 19.71	DTW 6,02 5,98 5,98 5,98 5,98 5,98	Conducti (μS/cm (± 10% 12-OC 12-O7 12-11 12-15 12-16 12-17	Pum Dupl	(units) (± 0.2) ア・/ こ ア・/ こ ア・/ こ ア・/ こ ア・/ こ ア・/ こ ア・/ フ ア・/ ノ ア・/ フ ア・/ ノ ア・/ フ ア・/ ノ ア・/ フ ア・/ ノ ア・/ フ ア・/ ア・/ フ ア・/ ア・/ ア ア ア・/ ア ア	L or G /min:  ple ID:  e Sample Analyte(s):	Sample Tin	(mg/L) (± 10%) Ø. 78 Ø. 4/ Ø. 4/ Ø. 38 Ø. 3/ Ø. 4/ Ø. 4/2 Ø. 3/ Ø. 4/ Ø. 4/ Ø. 4/ Ø. 5/ Ø. 5/	Potential (mV) (± 20%) 94.6 71.9 88.1 87.5 86.1
Time (24 hrs) (every 3-5 min)  13 5 6 140 0 1415 1415 142 0  Liters / Gallon  Sampling Time  Sample Analy (√) Analyte(s): (X) TPH-g, BTE; () TPH-d & TPH () NO₂, NO₃ & S	Volume (G (L)) 1.0 2.5 3.5 7.5 5.5 6.5 s Purged e: / 4 zed For:	Temp. (± 10%) 19.38 19.54 19.67 19.71 19.70 19.71	DTW 6,02 5,98 5,98 5,98 5,99  K ORDER	Conducti (μS/cm (± 10%) 12-0C 12-07 12-11 12-15 12-16 12-17  R Bottles: 3 X 40 mL V 2 x 0.5 L An 1 X 500 mL	Pum Dupl	(units) (± 0.2) ア・/ こ ア・/ こ ア・/ こ ア・/ こ ア・/ こ ア・/ ! ア・/ / / ア・/ / / ア・/ / ア・/ / ア・/ / / / / ア・/ / / / / / ア・/ / / / / / / / / / / / / / / / / / /	L or G /min:  ple ID:  te Sample Analyte(s):  ane chalene, Phenol	Sample Tir	(mg/L) (± 10%) Ø. 78 Ø. 4/ Ø. 42 Ø. 3 8 Ø. 3 / Ø. 42 mb./ 3 X 40 mb./ 2 x 1 L Amb./	Potential (mV) (± 20%) 94.6 91.9 88.1 89.5 86.1 84.9
Time (24 hrs) (every 3-5 min) (3 5 6 ) 4 0 0 ) 4 0 5 14 1 5 14 2 0  Liters / Gallon Sampling Time Sample Analyte(s): (X) TPH-g, BTE) ( ) NO₂, NO₃ & S ( ) Total Mangai	Volume (G.C) 1.0 2.5 3.5 4.5 5.5 6.5 e: 14 zed For: X, MTBE 1-mo SO <sub>4</sub> nese	Temp. (± 10%) 19.38 19.54 19.67 19.71 19.71  III	DTW 6,02 5,98 5,98 5,98 5,98 5,98 5,98	Conducti (μS/cm (± 10%) / 2 O C / 2 O 7 / 2 / 1 / 2 / 5 / 2 / 7 / 2 /	Pum Dupl /OAs Poly Poly	(units) (± 0.2) ア・/ こ ア・/ こ ア・/ こ ア・/ こ ア・/ ! ア・/ / / / / ア・/ / / / / / ア・/ / / / / / / / / / / / / / / / / / /	L or G /min:  ple ID:  te Sample Analyte(s):  tine thalene, Phenol nity, TDS	Sample Tin	(mg/L) (± 10%)  Ø. 78  Ø. 4/  Ø. 42  Ø. 38  Ø. 3/	Potential (mV) (± 20%) 94.6 97.9 88.7 87.5 86.7 84.9
Time (24 hrs) (every 3-5 min) (3 > 6 ) 4 0 0 j 4 0 5 14 1 5 14 2 0  Liters / Gallon Sampling Time (\(\frac{1}{3}\) Analyte(s): (X) TPH-g, BTE) () TPH-d & TPH-() NO <sub>2</sub> , NO <sub>3</sub> & () Total Mangal () Dissolved Iro	Volume (G.C) 1.0 2.5 3.5 4.5 5.5 6.5 e: 14 zed For: X, MTBE 1-mo SO <sub>4</sub> nese	Temp. (± 10%) 19.38 19.54 19.67 19.71 19.71 19.71 HORELET HORE	DTW  6,02 5,98 5,98 5,98 5,98 5,98 6,000000000000000000000000000000000000	Conducti (μS/cm (± 10% /2-ΘC /2-Θ7 /2-// /2-// /2-// /2-// /2-// /2-// /2-//  Bottles: 3 X 40 mL V 2 x 0.5 L An 1 X 500 mL 1 X 250 mL 1 X 250 mL	Pum Dupl /OAs hbers Poly Poly	(units) (± 0.2) ア・/ シ ア・/ シ ア・/ シ ア・/ シ ア・/ シ ア・/ リ ア・/ / / ア・/ / ア・/ / / / ア・/ / / ア・/ / / / ア・/	L or G /min:  ple ID:  te Sample Analyte(s):  ine chalene, Phenol nity, TDS ohorus, TKN	Sample Tin  zed For: SE  Preservative  H <sub>2</sub> SO <sub>4</sub> HCl  None  None  H <sub>2</sub> SO <sub>4</sub>	(mg/L) (± 10%) Ø. 78° Ø. 4/ Ø. 42 Ø. 38° Ø. 3/ Ø. 3	Potential (mV) (± 20%) 94.6 97.9 88.7 87.5 86.7 84.9
Time (24 hrs) (every 3-5 min) (3 5 6 ) 4 0 0 ) 4 0 5 14 1 5 14 2 0  Liters / Gallon Sampling Time Sample Analyte(s): (X) TPH-g, BTE) ( ) NO₂, NO₃ & S ( ) Total Mangai	Volume (G.C) 1.0 2.5 3.5 4.5 5.5 6.5 e: 14 zed For: X, MTBE 1-mo SO <sub>4</sub> nese	Temp. (± 10%) 19.38 19.54 19.67 19.71 19.71  III	DTW  6,02 5,98 5,98 5,98 5,98 5,98 6,99  EXAMPLE 100  EXA	Conducti (μS/cm (± 10%) / 2 O C / 2 O 7 / 2 / 1 / 2 / 5 / 2 / 7 / 2 /	Pum Dupl /OAs hbers Poly Poly /OAs	(units) (± 0.2) ア・/ こ ア・/ こ ア・/ こ ア・/ こ ア・/ ! ア・/ / / / / ア・/ / / / / / ア・/ / / / / / / / / / / / / / / / / / /	L or G /min:  ple ID:  e Sample Analyte(s):  ine thalene, Phenol hity, TDS chorus, TKN	Sample Tin	(mg/L) (± 10%)  Ø. 78  Ø. 4/  Ø. 42  Ø. 38  Ø. 3/	Potential (mV) (± 20%) 94.6 97.9 88.7 87.5 86.7 84.9
Time (24 hrs) (every 3-5 min) (3 > 6 ) 4 0 0 ) 4 0 5 14 0 0 14 5 14 1 5 14 2 0  Liters / Gallon Sampling Time Sample Analyte(s): (X) TPH-g, BTEX ( ) TPH-d & TPH ( ) NO <sub>2</sub> , NO <sub>3</sub> & 3 ( ) Total Mangal ( ) Dissolved Iro ( ) Ferrous Iron	Volume (G.C) 1.0 2.5 3.5 4.5 5.5 6.5 e: 14 zed For: X, MTBE 1-mo SO <sub>4</sub> nese	Temp. (± 10%) 19.38 19.54 19.67 19.71 19.71 19.71 19.71 19.71 19.71 19.71 HORELET HORE	DTW  6,02 5,98 5,98 5,98 5,98 5,98 6,99  EXAMPLE 100  EXA	Conducti (μS/cm (± 10%) 12-06 12-07 12-11 12-15 12-16 12-17  R Bottles: 3 X 40 mL V 2 x 0.5 L Am 1 X 250 mL 1 X 250 mL 2 X Amber V	Pum Dupl /OAs hbers Poly Poly /OAs	(units) (± 0.2)  7./2  7.//  7.//  7.//  7.//  P Rate in I icate Sam  Duplicat (√) Analy ( ) TOC ( ) Metha ( ) Napht ( ) Alkalir ( ) Phosp ( ) VOCs	L or G /min:  ple ID:  e Sample Analyte(s):  ine thalene, Phenol hity, TDS chorus, TKN	Sample Tin  zed For: SE  Preservative  H <sub>2</sub> SO <sub>4</sub> HCl  None  None  H <sub>2</sub> SO <sub>4</sub>	(mg/L) (± 10%) Ø. 78° Ø. 4/ Ø. 42 Ø. 38° Ø. 3/ Ø. 3	Potential (mV) (± 20%) 94.6 97.9 88.7 87.5 86.7 84.9

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			G				ata Sheet			
Project #: 14	~7*°	F711 -	Tools No.			t Name:		_	و و احدد	
Project #: 185		> 57	ask No:	200,0002					)ate: ≤ / 4	112
San Lorenzo	•			Sa	ampler	(s): C	Welay	المرزيد حر		
Well ID: MV	U-7	*********	Depth	to Water (I	DTW) (	ft): ちょる	🛫 🗢 Sample	DTW (ft):	5,25	
Screen Interv			Depth	to Bottom	(DTB)	(ft): jej	90 Measur		ferenced to:	TOC
Tube/Pump D			Well D	iameter (in	nch):	2	OVM (p	pm) = 🕝		
CALCULATIONS	S:									
Length of the wa	ater columr			_	ft = .		ft	Volume of S	Schedule 40 PV	C Pipe
			DTB	DTW		Water Col		Well Diame	eter. I.D	gal/linear ft.
								1.25	1.38	0.08
80% of the water	r level:		ft ·	+ (	ft X 0	).2) =	ft	2	2.067	0.17
			DTW	Water Col			charge water level	3	3.068	0.38
								4		
Estimated Dura	Maluma (1	TD\ 0	<b>a</b> ,			•	O !!		4.026	0.66
Estimated Purge	volume (i	EPV). =	ater col	nal/lin ft	^`	<u>3 =</u>	Gallons	6	6.065	1.5
				gamin. ic.	Cas	ang volume:	•	8	7.981	2.6
(X)	Low-Flow	//Micro Puro	ging					10	10.02	4.12
( )	Purge at	least 3 well	volumes					12	11.938	5.81
Purging Equipment:         Sampling Equipment:         Type of Water Quality Kit Used:           ( )Bailer         ( )Bailer         ( X) YSI 556           ( ) Disposable Bailer         ( X) Pump Discharge         ( ) Myron L           ( ) Electric Submergible Pump         ( ) Disposable Bailer         ( ) Horriba           ( X) Peristaltic Pump         ( X) Peristaltic Pump & Dedicated Tubing         ( ) Hanna           ( ) Other:         ( ) Other:										
De	yılı Pulye	at <u> </u>	<u> </u>							
Time	Volume	Temp.		Specific Conductiv	vity	рН			DO	Redox Potential
Time (24 hrs)		Temp.	DTW	Conductiv (μS/cm	vity )	(units)	Color	Odor	(mg/L)	Potential (mV)
Time (24 hrs) (every 3-5 min)	Volume (G /(L))	Temp. (C) °F) (± 10%)	DTW	Conductiv (μS/cm (± 10%	vity )	(units) (± 0.2)		Odor	(mg/L) (± 10%)	Potential (mV) (± 20%)
Time (24 hrs) (every 3-5 min) 7 2 2	Volume (G /(L))	Temp. (C) °F) (± 10%)	DTW	Conductive (μS/cm) (± 10%)	vity i) :	(units) (± 0.2) 7.2 2	2/09/	none	(mg/L) (± 10%) O, 5 7	Potential (mV) (± 20%)
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5	Volume (G /(L))	Temp. (C) °F) (± 10%) 16.20 16.25	DTW  5.25  5.25	Conductive (μS/cm) (± 10%) SSE SF	vity ) (	(units) (± 0.2) 7.2 2 7.23	2/04/	none	(mg/L) (± 10%) 0,57 0,20	Potential (mV) (± 20%) / 23. / //6.6
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0	Volume (G/L) 1, 0 2.0 3,5	Temp. (C) °F) (± 10%) 16.20 16.25 16.34	DTW  5.25  5.25  5.25	Conductiv (μS/cm (± 10%) 836 837 837	vity () () () () () () () () () () () () ()	(units) (± 0.2) 7.2 2 7.23 2.22	2/09/	none	(mg/L) (± 10%) 0,57 0,20 0,12	Potential (mV) (± 20%) 123, 1 116, 6 114, 7
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5	Volume (G/L) 1, 0 2, 0 3,5 5,0	Temp. (C)°F) (± 10%) )6,20 j6,25 16,39 j6,40	DTW 5,25 5,25 5,25 5,25	Conductiv (µS/cm (± 10%) 8 8 8 7 8 8 7 8 8 7 8 8 7	vity (1) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	(units) (± 0.2) 7.2 2 7.23 2.22 2.23	2/04/	40ne ''	(mg/L) (± 10%) 0,57 0,20 0,12	Potential (mV) (± 20%) JZ3. J 116.6 114.7 120.1
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0 7 3 5	Volume (G/L) 1, 0 2.0 3,5	Temp. (C)°F) (± 10%) )6,20 j6,25 16,39 j6,40	DTW  5.25  5.25  5.25	Conductiv (μS/cm (± 10%) 836 837 837	vity (1) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	(units) (± 0.2) 7.2 2 7.23 2.22	2/09/	none	(mg/L) (± 10%) 0,57 0,20 0,12	Potential (mV) (± 20%) 123, 1 116, 6 114, 7
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0 7 3 5	Volume (G/L) 1, 0 2, 0 3,5 5,0	Temp. (C)°F) (± 10%) )6,20 j6,25 16,39 j6,40	DTW 5,25 5,25 5,25 5,25	Conductiv (µS/cm (± 10%) 8 8 8 7 8 8 7 8 8 7 8 8 7	vity (1) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	(units) (± 0.2) 7.2 2 7.23 2.22 2.23	2/09/	40ne ''	(mg/L) (± 10%) 0,57 0,20 0,12	Potential (mV) (± 20%) JZ3. J 116.6 114.7 120.1
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0 7 3 5	Volume (G/L) 1, 0 2, 0 3,5 5,0	Temp. (C)°F) (± 10%) )6,20 j6,25 16,39 j6,40	DTW 5,25 5,25 5,25 5,25	Conductiv (µS/cm (± 10%) 8 8 8 7 8 8 7 8 8 7 8 8 7	vity (1) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	(units) (± 0.2) 7.2 2 7.23 2.22 2.23	2/09/	40ne ''	(mg/L) (± 10%) 0,57 0,20 0,12	Potential (mV) (± 20%) JZ3. J 116.6 114.7 120.1
Time (24 hrs) (every 3-5 min) 722 725 730 735 740	Volume (G /(L)) 1, 0 2, 0 3, 5 5, 0 6, 5	Temp. (C)°F) (± 10%) 16.20 16.25 16.39 16.40	DTW 5,25 5,25 5,25 5,25	Conductiv (µS/cm (± 10%) 836 837 837 837 833 86/	vity (i) (ii) (iii) (iii	(units) (± 0.2) 7.2 2 7.2 3 2.2 2 2.2 3 2.2 4	2/09/	40ne ''	(mg/L) (± 10%) 0,57 0,20 0,12	Potential (mV) (± 20%) JZ3. J 116.6 114.7 120.1
Time (24 hrs) (every 3-5 min) 722 725 730 735 740  Liters / Gallon	Volume (G /(L)) 1, 0 2, 0 3, 5 5, 0 6, 5	Temp. (C)°F) (± 10%) 16.20 16.25 16.39 16.40 16.40	DTW 5,25 5,25 5,25 5,25	Conductiv (µS/cm (± 10%) 836 837 837 837 839	vity )	(units) (± 0.2) 7.2 2 7.2 3 2.2 2 2.2 3 2.2 4  Rate in I	2/eq./     	40ne '' '' '' '' ''	(mg/L) (± 10%) 0,57 0,20 0,12 0,17 0,22	Potential (mV) (± 20%) JZ3. J 116.6 114.7 120.1
Time (24 hrs) (every 3-5 min) 722 725 730 735 740  Liters / Gallon Sampling Time	Volume (G /(L)) 1, 0 2, 0 3, 5 5, 0 6, 5 s Purgeo	Temp. (C)°F) (± 10%) 16.20 16.25 16.39 16.40 16.40	DTW  5.25  5.25  5.25  5.25	Conductiv (µS/cm (± 10%) 836 837 837 837 837	vity ) )  Pump  Duplic	(units) (± 0.2) 7.2 2 7.2 3 2.2 2 2.2 3 2.2 4  Rate in I	or G /min:	ijone '' '' '' '' '' Sample Tin	(mg/L) (± 10%) 0,57 0,20 0,12 0,57 0,22	Potential (mV) (± 20%) / 23 , / / // 6 , 6 / // 7 / 20 , / / // 24 , 8
Time (24 hrs) (every 3-5 min) 722 725 730 735 740  Liters / Gallon Sampling Time	Volume (G /(L)) 1, 0 2, 0 3, 5 5, 0 6, 5 s Purgeo	Temp. (C)°F) (± 10%) 16.20 16.25 16.39 16.40 16.40  SEE WOR	DTW  5.25 5.25 5.25 5.25	Conductive (µS/cm) (± 10%) 836 837 837 837 837	vity ) )  Pump  Duplic	(units) (± 0.2)  7.2 2  7.2 3  2.2 2  2.2 4  Rate in I	or G /min:	Sample Tin	(mg/L) (± 10%) 0,57 0,20 0,12 0,17 0,22	Potential (mV) (± 20%) / 23 , / / // 6 , 6 / // 7 / 20 , / / // 24 , 8
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0 7 3 5 7 4 0  Liters / Gallon Sampling Time Sample Analys (√) Analyte(s):	Volume (G I(L)) 1, 0 2, 0 3, 5 5, 0 6, 5 s Purgeo	Temp. (©1°F) (± 10%) 16.20 16.25 16.39 16.40 16.40  SEE WOR	DTW  5.25 5.25 5.25 5.25  K ORDER	Conductive (µS/cm) (± 10%) SSS SST SST SST SST SST SST SST SST SS	vity ) )  Pump  Duplic	(units) (± 0.2) 7.2 2 7.2 3 2.2 2 ≥,2 3 2.2 4  Rate in I cate Sam  Duplicat (√) Analy	or G /min:	Sample Tin	(mg/L) (± 10%) (0,57 (0,20 (0,12 (0,17 (0,22 (17) (17) (17) (18) (18) (18) (18) (18) (18) (18) (18	Potential (mV) (± 20%)  123, 1 116, 6 114, 7 129, 8  DER
Time (24 hrs) (every 3-5 min) 722 725 730 735 740  Liters / Gallon Sampling Time	Volume (G/(L))  1, 0 2, 0 3, 5 5, 0 6, 5  s Purgeo e: 7 zed For:	Temp. (C)°F) (± 10%) 16.20 16.25 16.39 16.40 16.40  SEE WOR	DTW    \$25	Conductive (µS/cm) (± 10%) 836 837 837 837 837	Pump Duplic	(units) (± 0.2)  7.2 2  7.2 3  2.2 2  2.2 4  Rate in I	or G /min: ple ID: e Sample Analyz te(s):	Sample Tin	(mg/L) (± 10%) (0,57 (0,20 (0,12 (0,17 (0,22 (17) (17) (17) (18) (18) (18) (18) (18) (18) (18) (18	Potential (mV) (± 20%) (123, 1) (114, 7) (124, 8)  DER
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0 7 3 5 7 4 0  Liters / Gallon Sampling Time Sample Analy: (√) Analyte(s): (X) TPH-d & TPH () NO₂, NO₃ & S	Volume (G /(L)) 1, 0 2, 0 3,5 5,0 6,5 s Purgeo e: 7 zed For:	Temp. (± 10%) ) 6.20 ) 6.25 16.39   6.40   6.40  SEE WOR Preserv HC Non	DTW  5.2.5 5.2.5 5.2.5 5.2.5 5.2.5 6.2.6	Conductiv (μS/cm (± 10%) 8 3 4 8 8 7 8 9 7 8	Pump Duplic OAs abers Poly	(units) (± 0.2)  7.2 2  7.2 3  2.2 2  2.2 4  Rate in I cate Sam  Duplicat (√) Analy ( ) TOC ( ) Metha ( ) Napht	or G /min: ple ID: e Sample Analyz te(s): ne halene, Phenol	Sample Tin  zed For: SE  Preservative  H <sub>2</sub> SO <sub>4</sub> HCI  None	(mg/L) (± 10%)  0, 57  0, 20  0, 12  0, 17  0, 22  ne:  E WORK OR  Bottles: 2 X 40 mL A 3 X 40 mL V 2 x 1 L Amb	Potential (mV) (± 20%) // 23 / / / / / / / / / / / / / / / / /
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0 7 3 5 7 7 0  Liters / Gallon Sampling Time (1) Analyte(s): (X) TPH-g, BTE) ( ) TPH-d & TPH ( ) NO <sub>2</sub> , NO <sub>3</sub> & S ( ) Total Mangai	Volume (G /(L))  1, 0 2, 0 3, 5 5, 0 6, 5  s Purgeo e: 7 zed For:  X, MTBE H-mo SO4 nese	Temp. (± 10%) (± 10%) ( ± 10%) ( ± 10%) ( ± 10%) ( ± 10%) ( ± 10%) ( ± 10%) ( ± 10%) ( ± 10%) ( ± 10%) ( ± 10%) ( † 0 + 10	DTW  5.2.5 5.2.5 5.2.5 5.2.5 5.2.5 5.2.5 6.2.6 6.2.6	Conductiv (μS/cm (± 10%) 8 3 4 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 8	Pump Duplic OAs hers Poly Poly	(units) (± 0.2)  7.2 2  7.2 3  2.2 2  ≥,2 3  2.2 4  Rate in I  cate Sam  Duplicat (√) Analy ( ) TOC ( ) Metha ( ) Napht ( ) Alkalir ( ) Alkalir	or G /min:  ple ID:  e Sample Analyz te(s):  ne halene, Phenol hity, TDS	Sample Tin zed For: SE Preservative H2SO4 HCI None None	(mg/L) (± 10%) 0, 57 0, 20 0, 12 0, 17 0, 22 me: E WORK OR 2 X 40 mL A 3 X 40 mL V 2 x 1 L Amb 1 X 500 mL	Potential (mV) (± 20%)  / 23 / /// 25  /// 27  /// 27  /// 28  DER  Imber VOAs  OAs  ers  Poly
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0 7 3 5 7 4 0  Liters / Gallon Sampling Time Sample Analy: (√) Analyte(s): (X) TPH-d & TPH () NO₂, NO₃ & S	Volume (G /(L))  1, 0 2, 0 3, 5 5, 0 6, 5  s Purgeo e: 7 zed For:  X, MTBE H-mo SO4 nese	Temp. (± 10%) ) 6.20 ) 6.25 16.39   6.40   6.40  SEE WOR Preserv HC Non	DTW  525 525 525 525 525 525 62, ANO <sub>3</sub>	Conductiv (μS/cm (± 10%) 8 3 4 8 8 7 8 9 7 8	Pump Duplic OAs hbers Poly Poly Poly	(units) (± 0.2)  7.2 2  7.2 3  2.2 2  2.2 3  2.2 4  Rate in I  cate Sam  Duplicat (√) Analy ( ) TOC ( ) Metha ( ) Napht ( ) Alkalir ( ) Phosp	or G /min:  ple ID:  e Sample Analyz te(s):  ne halene, Phenol hity, TDS horus, TKN	Sample Tin  zed For: SE  Preservative  H <sub>2</sub> SO <sub>4</sub> HCl  None  None  H <sub>2</sub> SO <sub>4</sub>	(mg/L) (± 10%) 0, 57 0, 20 0, 12 0, 17 0, 22 me: E WORK OR E Bottles: 2 X 40 mL A 3 X 40 mL A 3 X 40 mL A 1 X 500 mL 1 x 500 mL	Potential (mV) (± 20%)  / 23  / / / / / / / / / / / / / / / / /
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0 7 3 5 7 9 0  Liters / Gallon Sampling Time (√) Analyte(s): (X) TPH-g, BTE) () TPH-d & TPH-d (1) NO₂, NO₃ & (1) Total Mangar () Dissolved Iro	Volume (G /(L))  1, 0 2, 0 3, 5 5, 0 6, 5  s Purgeo e: 7 zed For:  X, MTBE H-mo SO4 nese	Temp. (©1°F) (± 10%) 16.20 16.25 16.39 16.40 16.40  SEE WOR Preserv HC HC HC HC Field-filtere	DTW  5.25 5.25 5.25 5.25 5.25 6.1 6.1 6.2 6.4 6.4 6.3 6.4 6.4 6.3 6.4	Conductiv (μS/cm (± 10%) 8 8 7 8 8 8 8	Pump Duplic  OAs abers Poly Poly /OAs	(units) (± 0.2)  7.2 2  7.2 3  2.2 2  ≥,2 3  2.2 4  Rate in I  cate Sam  Duplicat (√) Analy ( ) TOC ( ) Metha ( ) Napht ( ) Alkalir ( ) Alkalir	or G /min:  ple ID:  e Sample Analyz te(s):  ne halene, Phenol hity, TDS horus, TKN	Sample Tin zed For: SE Preservative H2SO4 HCI None None	(mg/L) (± 10%) 0, 57 0, 20 0, 12 0, 17 0, 22 me: E WORK OR 2 X 40 mL A 3 X 40 mL V 2 x 1 L Amb 1 X 500 mL	Potential (mV) (± 20%)  / 23  / / / / / / / / / / / / / / / / /
Time (24 hrs) (every 3-5 min) 7 2 2 7 2 5 7 3 0 7 3 5 7 9 0  Liters / Gallon Sampling Time (√) Analyte(s): (X) TPH-g, BTE) () TPH-d & TPH () NO <sub>2</sub> , NO <sub>3</sub> & S () Total Mangar () Dissolved Iro () Ferrous Iron	Volume (G /(L))  1, 0 2, 0 3, 5 5, 0 6, 5  s Purgeo e: 7 zed For:  X, MTBE H-mo SO4 nese	Temp. (©1°F) (± 10%) 16.20 16.25 16.39 16.40 16.40  SEE WOR Preserv HO HO HNO Field-filtere	DTW  5.25 5.25 5.25 5.25 5.25 6.1 6.1 6.2 6.4 6.4 6.3 6.4 6.4 6.3 6.4	Conductiv (μS/cm (± 10%) 8 8 7 8 7	Pump Duplic  OAs abers Poly Poly /OAs	(units) (± 0.2)  7.2 2  7.2 3  2.2 2  2.2 3  2.2 4  Rate in I  cate Sam  Duplicat (√) Analy ( ) TOC ( ) Metha ( ) Napht ( ) Alkalir ( ) Phosp ( ) VOCs	or G /min:  ple ID:  e Sample Analyz te(s):  ne halene, Phenol hity, TDS horus, TKN	Sample Tin  zed For: SE  Preservative  H <sub>2</sub> SO <sub>4</sub> HCl  None  None  H <sub>2</sub> SO <sub>4</sub>	(mg/L) (± 10%) 0, 57 0, 20 0, 12 0, 17 0, 22 me: E WORK OR E Bottles: 2 X 40 mL A 3 X 40 mL A 3 X 40 mL A 1 X 500 mL 1 x 500 mL	Potential (mV) (± 20%)  / 23  / / / / / / / / / / / / / / / / /

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			G	roundwat	er Sa	mpling [	Data Sheet			
Duning of the left			F1-81-	P		ct Name:				
Project #: /%:	> 1025	39	lask No:	100,800Z	Boha	nnon		D	ate: 57 4	1/2
San Lorenzo	•			S	ample	r(s): <i>C</i>	· Melan	A = 12 A		
Well ID: PE	BS-	<u> </u>	Depth			(ft): 6	20 Sample	DTW (ft):	6.70	
Screen Interv		· · · · · · · · · · · · · · · · · · ·	Depth	to Bottom	(DTB	) (ft): / 7	7,80 Measur	ements Re	ferenced to:	TOC
Tube/Pump D			Well D	iameter (ir	nch):	Ĺ	OVM (p			
CALCULATION	S:					,				
Length of the wa	ater column	1'	ft	_	ft =		ff	Volume of S	Schedule 40 PV	/C Dina
			DTB	DTW	'``	Water Col	it.	1		
								Well Diame		gal/linear ft.
								1.25	1.38	0.08
80% of the wate	r level:		ft	+ ( Water Co	.—ft X			2	2.067	0.17
		:	DIW	vvater Co	•	Re	charge water level	3	3.068	0.38
								4	4.026	0.66
Estimated Purge	Volume (I	EPV): =	ft:	x	x_	3 =	Gallons	6	6.065	1.5
		Wa	iter col	gal/lin. ft.	С	asing Volumes	s	8	7.981	2.6
(X)	Low-Flow	/Micro Purg	aina					10	10.02	4.12
		least 3 well						12	11.938	5.81
( )	90		rolaliloo					12	11.930	3.01
Purging Equipment: Sampling Equipment: Type of Water Quality Kit Used:  ( )Bailer ( )Bailer (X) YSI 556  ( ) Disposable Bailer (X) Pump Discharge ( ) Myron L  ( ) Electric Submergible Pump ( ) Disposable Bailer ( ) Horriba  (X) Peristaltic Pump ( ) Peristaltic Pump & Dedicated Tubing ( ) Hanna  ( ) Other: ( ) Other:										
Be	gin Purge	at <u>\$</u>	09							
		Temp.		Specifi						Redox
Time (24 hrs)	Volume	(°C / °F)	DTW	Conducti	- 1	pH (verific)	O a la m		DO	Potential
(every 3-5 min)	(G / L)	(± 10%)	DIVV	(μS/cm (± 10%		(units) (± 0.2)	Color	Odor	(mg/L)	(mV)
812	110	18,50	6.51	1/72		6-27	Clear	mod.	(± 10%)	(± 20%)
815	2.0	18,84		1080		5-66	CIEWS	14011.	0.36	-64.8
820	3.5	2 22	6.70	1100		6,82	ér	11	0,24	-73.9
825	4.5	18,35	6,70	1137	é	6.84	10	11	0,18	180.7
830	5,5	,,	6.70	1147	6	5.86	ψ	71	0.20	-90,3
835	6.5	18,90	6.70	1148	<u> </u>	2.87	i e	10	0,19	-92.6
							1,21,71			
	l				<u> </u>				<u> </u>	
Liters / Gallon	s Purged	<b>!</b>	TITTA WALL		Pump	Rate in I	_ or G /min:		TOTAL CONTROL	
Sampling Time	e: 😴	40		WHO CAN A CA	Dupli	cate Sam	ple ID:	Sample Tin	ne:	
		-		_		l		•		
Sample Analyz (√) Analyte(s):	zed For:	SEE WOR Preserv		र Bottles:			e Sample Analyz	zed For: SE Preservative		DER
(X) TPH-g, BTEX	K, MTBE	HC		3 X 40 mL V	OAs	(√) Analy ( ) TOC	ie(s).	H <sub>2</sub> SO <sub>4</sub>		Amber VOAs
( ) TPH-d & TPH	<del>I</del> -mo	HC	.[	2 x 0.5 L Am	bers	( ) Metha		HCI	3 X 40 mL \	
( ) NO <sub>2</sub> , NO <sub>3</sub> & SO <sub>4</sub> None 1 X 500 mL Poly ( ) Naphthalene, Phenol								None	2 x 1 L Amb	
/ \ Total Mana		LIKE	`		roly	ı( ) Aikalir	nity, TDS	None	1 X 500 mL	POIY
( ) Total Mangar ( ) Dissolved Iro	nese	HN0 Field-filtere		1 X 250 mL 1 X 250 mL	Polv	( ) Phosn	horus. TKN	$H_2SO_4$		
( ) Dissolved Iro ( ) Ferrous Iron	nese	Field-filtere HC	d, HNO₃ I	1 X 250 mL 2 X Amber \	/OAs	( ) VOCs	horus, T <b>KN</b>	H₂SO₄ HCl	1 x 500 mL 3 X 40 mL \	Poly
( ) Dissolved Iro	nese	Field-filtere	d, HNO₃ I	1 X 250 mL	/OAs				1 x 500 mL	Poly
( ) Dissolved Iro ( ) Ferrous Iron	nese	Field-filtere HC	d, HNO₃ I	1 X 250 mL 2 X Amber \	/OAs	( ) VOCs			1 x 500 mL	Poly
( ) Dissolved Iro ( ) Ferrous Iron ( ) SVOCs	nese	Field-filtere HC	d, HNO₃ I	1 X 250 mL 2 X Amber \	/OAs	( ) VOCs			1 x 500 mL	Poly

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			G	<u>roundwat</u>			oata Sh	<u>eet</u>			
D						ct Name:			_		
Project #:   82		34	ask No:	200.0002	Boha	nnon			D	ate: 514	112
San Lorenzo				S	amnla	r(e)·	111	. /			
Well ID: PO	R6-	BI	Depth	Sa to Water (	DTW)	(ft): 6	21	Sample	DTW (ft)	6,57	
Screen Interv		<u> </u>	Depth	to Bottom	(DTB	(ft): 2 s	<u> </u>	Measure	ements Ref	ferenced to:	TOC
Tube/Pump D				iameter (ir				OVM (p			
CALCULATIONS	S:			·		· · · · · · · · · · · · · · · · · · ·					
Length of the wa	iter column		π DTB	DTW	<u>π</u> =	Water Cal	π		Volume of S	schedule 40 PV	C Pipe
			DIB	DIV		Water Coi			Well Diame	eter. I.D	gal/linear ft.
									1.25	1.38	0.08
80% of the water	r level:		ft	+ <u>(</u> Water Col	ft X	0.2) =	ft		2	2.067	0.17
		1	DTW	Water Col		Red	charge wate	r level	3	3.068	0.38
									4	4.026	0.66
Estimated Duras	Volumo (E	ΕD\Λ· ~	4	v	v	2 -	0-	llana			
Estimated Purge	volulile (E		iter col	nal/lin ft	<b>-^</b> -	asing Volumes	Ga	llions	6	6.065	1.5
				9	•	aonig Folumo			8	7.981	2.6
(X)	Low-Flow	/Micro Puro	ging						10	10.02	4.12
( )	Purge at I	east 3 well	volumes						12	11.938	5.81
Purging Equipment:  Sampling Equipment:  Bailer  Signature () Bailer  Signature () Bailer  Signature () Bailer  Signature (X) YSI 556  Myron L  Myr											
		Temp.		Specifi							Redox
Time (24 hrs)	Volume	(C) F)	DTW	Conducti	- 1	pH (verite)	<u> </u>	.la	0.1	DO	Potential
	(G /(L))	(± 10%)	DIVV	(μS/cm	_	(units)	Co	lor	Odor (mg/L)		(mV)
(every 3-5 min)	1.0		6.60	(± 10%		(± 0.2) 6.94	<i>&gt; 1</i>		ن سۇ	(± 10%)	(± 20%)
755	2.0	19.37		1289		6,96	21e.		Frient	0.37	-35,9
900	3,0	19.46		1309		5.97	2 1		71	0.21	ーバス・ブ
905	4.0		6.57	1323	- 6	6,97	71		٤,	0,21	-2.0
910	5.0		6,57	1333	. 4	6.97	61		84	0,20	+2.4
915	6.0	19,51	6.57	1339		6,97	é<		<i>(</i> †	0,19	+3,8
Liters / Gallon	s Purged	<b> </b> :			Pum	p Rate in I	_ or G /m	nin:			
Sampling Time	7	20			Dupli	icate Sam	-		Sample Tin		
Sample Analyz	zed For:			***************************************						E WORK OR	DER
(√) Analyte(s): ( X) TPH-g, BTE>	/ MTRE	Preserv HC		Bottles: 3 X 40 mL V	/ΩΛs	(√) Analy ( ) TOC	te(s):	F	Preservative H <sub>2</sub> SO <sub>4</sub>		Amber VOAs
( ) TPH-d & TPH		HC		2 x 0.5 L Am		( ) Metha	ne		HCl	3 X 40 mL \	
( ) NO <sub>2</sub> , NO <sub>3</sub> & S		Non		1 X 500 mL		( ) Napht	halene, P	henol	None	2 x 1 L Amb	ers
( ) Total Mangar ( ) Dissolved Iro		HN0 Field-filtere		1 X 250 mL l 1 X 250 mL l			nity, TDS nhorus, TK	'NI	None H₂SO₄	1 X 500 mL 1 x 500 mL	
( ) Ferrous Iron		HC		2 X Amber V		( ) VOCs		AIN.	HCI	3 X 40 mL \	·
( ) SVOCs		Non	е	2 x 1 L Amb	ers	( ) Other					
Notes:				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
											<del></del>

Revised: 5/2/2012

## Stantec

## HYDROLOGIC DATA SHEET

Date: 5-3-12	Project:	Bohannon	

Technician: C. Melancon Project #: 185702534 200,000 Z

TOC = Top of Well Casing Elevation
DTP = Depth to Free Product (FP or NAPH) Below TOC
DTW = Depth to Groundwater Below TOC
DTB = Depth to Bottom of Well Casing Below TOC

DIA = Well Casing Diameter ELEV = Groundwater Elevation DUP = Duplicate

WELL OR LOCATION	TIME	MEA	SUREMENT		COMMENTS
		DTW	DTB	Dia	
-					
MW-1	725	5,92	14.90	2	
MW-2	730	6,17	15,00	ス	
MW-3	755	5.72	14.80	2	
MW-4	720	5,38	15,30	2	
MW-5	715	5,57	14.60	2	
MW-6		4.82	14.75	2	DTW=4.82
MW-7	715*	5,20*	14,90	2	DTW=4.82 Car overwell, sounded DTW on 5-4
POBS-A1		6,20	17.80		,
POBS-B1	745	6,31	26,00	1	
POBS-B2	740	5,64	25.90	ス	
NOBS-B1	800	5,25	25.60	2	
	<u> </u>	1	!	<u> </u>	1 of 1



## **CHAIN OF CUSTODY RECORD**

Stantec Lafayette Office 57 Lafayette Circle, 2nd Floor Lafayette, CA 94549
TEL:(925) 299-9300 FAX:(925)299-

Date:

Time:

Received by: (Signature)

Project Name: Address:

OTHER

LAB USE

Turn-around Time (Business Days): 10 DAYS X 5 DAYS

Special Instructions or Notes:

Relinquished by: (Signature)

Commonstation									
Project Manager:   M 4 50 01   All 1 e c 4	Stantec Project # DATE: 5-4-1 Z	4.444444	<del></del>	Invoice	(s) for l	Contact	ompany Co	ntec Co	Stan
Sample   Signature   Signatu	PAGE:	2044							7 Lafayette Circle, 2nd Floor Proje
Service   Serv	85702534 / OF /								
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1085-B1  1090  1W-4  1040  1W-6  1120  1230  1W-3  1340  1W-1  1W-7  5-4-12  740  0B5-A1  0B5-B1  V 920  V V V V  School by (Signature)  1085-B1  School by (S			1	1	1			1	
(W-4 1W-6 1120 1230 1300 0B5-B2 1340 1W-7 0B5-A1 0B5-A1 0B5-B1 Oate: Time: Receiped by (Signatura) 1W-7 1W-7 1W-7 1W-7 1W-7 1W-7 1W-7 1W-7 1W-7 1W-7 1W-7 1W-1 1W-7 1W-1 1W-7 1W-1 1W-7 1W-1 1W-7 1W-1 1W-7 1W-1 1W-7 1W-1 1W-7 1W-1 1W-7 1W-1 1W-									
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OBS-A1 OBS-B1 V 920 V V V V  Signature  Date: Time: Received by: (Signature)  Signature							<del>                                     </del>	-4-12	W-7 5-
Signature:  Date: Time: Received by: (Signature)  Signature: Time: Signature:								1	2B5-A1
Signature:  Date: Time: Received by: (Signature)  Signature: Time: Signature:			1	V	V	1 . 1 /			785-B1
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Signature Date: Time: Received by: (Signature) 5/4/12 10/15			1						
	C 5/4/17 1015	Host Amon	_	ignature)	ived by: (S	Rece			
(Signature) Date: Time: Received to Signature)		( ) ( ) ( ) ( ) ( )		ignature)	ived by:)s	Rece			

**Groundwater Sampling Data Sheet Project Name:** Date: 6 18112 Project #: 185702534 Task No:200.0002Bohannon Site Location: San Lorenzo Sampler(s): Well ID: MW〜4 Depth to Water (DTW) (ft): 5,87 Sample DTW (ft): Depth to Bottom (DTB) (ft): 15.40 Screen Interval (ft): Measurements Referenced to: TOC Tube/Pump Depth (ft): (6) Well Diameter (inch): 2 OVM (ppm) = CALCULATIONS: Length of the water column: Volume of Schedule 40 PVC Pipe Well Diameter. I.D gal/linear ft. 1.25 1.38 0.08 \_\_ft + \_(\_\_\_\_\_ft X 0.2) = \_\_\_\_\_ft Water Col Recharge water level 80% of the water level: 2 2.067 0.17 3.068 0.38 4.026 0.66 Estimated Purge Volume (EPV): = 6.065 1.5 gal/lin. ft. 7.981 2.6 (X) Low-Flow/Micro Purging 10 10.02 4.12 ( ) Purge at least 3 well volumes 12 11.938 5.81 **Purging Equipment: Sampling Equipment:** Type of Water Quality Kit Used: (X) YSI 556 ) Disposable Bailer (X) Pump Discharge ) Myron L ) Electric Submergible Pump ( ) Disposable Bailer ) Horriba (X) Peristaltic Pump ) Peristaltic Pump & Dedicated Tubing ) Hanna ( ) Other: ) Other: Begin Purge at 1130 Specific Redox Temp. Volume Conductivity Time Hq DO **Potential** (°C / °F) (24 hrs) (G (L)) DTW (µS/cm) Odor (units) Color (mg/L)(mV) (every 3-5 min)  $(\pm 10\%)$  $(\pm 10\%)$  $(\pm 0.2)$  $(\pm 10\%)$  $(\pm 20\%)$ 1.0 20-16 6.03 1017 Cloudy mod 1003 19,736.02 .33 4 999 19.65 6.03 K 2 ( 998 le 11 4.0 19.49 6.03 0,15 15 19.43 6.03 11

Liters / Gallons Purged	:		Pum	p R	ate in	L or G /min:			
Sampling Time: 12	00		Dupl	icat	e Sam	ple ID:	Sample Ti	ne:	
	000000000000000000000000000000000000000			1-					
Sample Analyzed For:	SEE WORK ORDE	R		Di	uplicat	te Sample Ana	alyzed For: Si	E WORK OR	DER
(√) Analyte(s):	Preservative:	Bottles:		(√	) Analy	/te(s):	Preservative	e: Bottles:	
(X) TPH-g, BTEX, MTBE	HCI	3 X 40 mL V	OAs	(	) TOC		H <sub>2</sub> SO <sub>4</sub>	2 X 40 mL A	Amber VOAs
( ) TPH-d & TPH-mo	HCI	2 x 0.5 L Am	bers	(	) Metha	ane	HCI	3 X 40 mL \	/OAs
( ) NO <sub>2</sub> , NO <sub>3</sub> & SO <sub>4</sub>	None	1 X 500 mL	Poly	(	) Naphi	thalene, Phenol	None	2 x 1 L Amb	ers
( ) Total Manganese	HNO₃	1 X 250 mL	Poly	(	) Alkali	nity, TDS	None	1 X 500 mL	Poly
( ) Dissolved Iron	Field-filtered, HNO₃	1 X 250 mL	Poly	(	) Phosp	phorus, TKN	H <sub>2</sub> SO <sub>4</sub>	1 x 500 mL	Poly
( ) Ferrous Iron	HCI	2 X Amber \	OAs	(	) VOCs	3	HCI	3 X 40 mL \	/OAs
( ) SVOCs	None	2 x 1 L Amb	ers	(	) Other				

Notes: Pulged 10 gellons USing builer frior to

furging low flow,

Ferrous Ison Hart kit = 1, 9 mg/L

Revised: 5/2/2012



## CHAIN OF CUSTODY RECORD

Stantec Lafayette Office 57 Lafayette Circle, 2nd Floor Lafayette, CA 94549 EL:(925) 299-9300 FAX:(925)299-9302

Stantec Company Contact(s) for Invoice:	Stantec Project # DATE: 6-8-12
Project Manager: MusonAlbrecht	, PAGE:
amail: Marcon all break + a com doe	185707 E34 1 OF 1

	TEL:(925) 299-9300 FAX:(925)299-9302	email: in	16504	1.41	bort	ech)	1 60 -5	tlest	Cec, C	om	183	70	25	37				) OF /	
Project Nan	ne: Behennen							Sampler(s) Printed Name:  Chules Melanean  Laboratory:  L											
Address:	Sey Lovenzo CA						Sampler	u/e (s) Signat	s /V	10/4	100	2	Lab Use	Te.	<u>57</u> 1	Jun 1		- 64 	
Turn-aroun	ırn-around Time (Business Days):									***************************************			I consideration				*********		
10 DAYS	D DAYS 5 DAYS 72 HR 48 HR 24 HR <24 HR							6					REQUE	STED	NALYS	SIS			
□ отн	ER						184												
					·		12												
Special Ins	structions or Notes: Te	emperature U		pt (C):			Hy (BTEX/WIBE X > 6 0 B											Tems	3.30
LAB USE ONLY	Field Sample Identification	DATE	PLING TIME	MAT- RIX	No. of Cont.	Pre- serve	7											Laboratory	Notes
	MW-4	6-8-12	1200	w	3	HCL	X												
											D								
	^																		
				1/															
Relinquishe	d by-(Signature)	Date: 6-8-12	Time: 13/2	Receiv	ed by: (S	ignal/lie)	A	4					I	cele	1/2	Time:	1/2		
Relinquishe	d by: (Signature)	Date:	Time:	Recen	red by: (S	signature)				(			1			Time:			
Relinquished	d by: (Signature)	Date:	Time:	Receiv	ed by: (S	ignature)	,						I		T	Time:	T		

#### **Stantec**

SECOND QUARTER 2012 (SEMI-ANNUAL)
GROUNDWATER MONITORING REPORT
DAVID D. BOHANNON ORGANIZATION

#### **APPENDIX B**

Laboratory Analytical Report and Chain-of-Custody for the May 2012 and June 2012 Groundwater Monitoring Events

Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report
David D. Bohannon Organization
575 Paseo Grande
San Lorenzo, California
Stantec PN: 185702534

July 27, 2012



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: 720-41962-1

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: 5/9/2012 12:45:26 PM

Afsaneh Salimpour Project Manager I

afsaneh.salimpour@testamericainc.com

·····LINKS ······

Review your project results through
Total Access

**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.

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

TestAmerica Job ID: 720-41962-1

# **Table of Contents**

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Case Narrative	4
Detection Summary	5
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QC Sample Results	11
QC Association Summary	15
Lab Chronicle	16
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	22

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## **Definitions/Glossary**

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

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 720-41962-1

#### **Glossary**

TEQ

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)

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#### **Case Narrative**

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

TestAmerica Job ID: 720-41962-1

Job ID: 720-41962-1

**Laboratory: TestAmerica Pleasanton** 

Narrative

Job Narrative 720-41962-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 5/4/2012 10:15 AM; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.30 C.

#### GC/MS VOA

No analytical or quality issues were noted.

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

**Client Sample ID: TB-1** 

TestAmerica Job ID: 720-41962-1

Lab Sample ID: 720-41962-1

No Detections

Client Sample ID: MW-5 Lab Sample ID: 720-41962-2

No Detections

Client Sample ID: NOBS-B1 Lab Sample ID: 720-41962-3

No Detections

Client Sample ID: MW-4 Lab Sample ID: 720-41962-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	190		10		ug/L	20	_	8260B/CA_LUFT	Total/NA
								MS	
Ethylbenzene	15		10		ug/L	20		8260B/CA_LUFT	Total/NA
								MS	
Toluene	26		10		ug/L	20		8260B/CA_LUFT	Total/NA
								MS	
Xylenes, Total	25		20		ug/L	20		8260B/CA_LUFT	Total/NA
								MS	
Gasoline Range Organics (GRO)	6800		1000		ug/L	20		8260B/CA_LUFT	Total/NA
-C5-C12								MS	

Client Sample ID: MW-6 Lab Sample ID: 720-41962-5

No Detections

Client Sample ID: MW-2 Lab Sample ID: 720-41962-6

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type
Benzene	22	0.50	ug/L	1	8260B/CA_LUFT MS	Total/NA
Ethylbenzene	2.1	0.50	ug/L	1	8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) C5-C12	350	50	ug/L	1	8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-3 Lab Sample ID: 720-41962-7

No Detections

Client Sample ID: POBS-B2 Lab Sample ID: 720-41962-8

Analyte	Result Qua	alifier RL	MDL Un	nit	Dil Fac	D	Method	Prep Type
Benzene	8.8	0.50	ug	/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO)  -C5-C12	83	50	ug.	/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-1 Lab Sample ID: 720-41962-9

No Detections

Client Sample ID: MW-7 Lab Sample ID: 720-41962-10

No Detections

TestAmerica Pleasanton 5/9/2012

## **Detection Summary**

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

TestAmerica Job ID: 720-41962-1

2

Client Sample ID: POBS-A1

Lab Sample ID: 720-41962-11

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	1.4		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	2.0		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	540		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

7

**Client Sample ID: POBS-B1** 

Lab Sample ID: 720-41962-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.80		0.50		ug/L	1		8260B/CA_LUFT	Total/NA
								MS	

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Client: Stantec Consulting Corp. Project/Site: Bohannon San Lorenzo TestAmerica Job ID: 720-41962-1

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Client Sample ID: TB-1 Date Collected: 05/03/12 06:40							Lab	Sample ID: 720- Matrix	41962-1 c: Water
Date Received: 05/04/12 10:15 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/05/12 01:26	1
Ethylbenzene	ND		0.50		ug/L			05/05/12 01:26	1
Toluene	ND		0.50		ug/L			05/05/12 01:26	1
Xylenes, Total	ND		1.0		ug/L			05/05/12 01:26	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/05/12 01:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 130			_		05/05/12 01:26	1
1,2-Dichloroethane-d4 (Surr)	103		75 - 138					05/05/12 01:26	1
Toluene-d8 (Surr)	102		70 - 130					05/05/12 01:26	1
Client Sample ID: MW-5							Lab	Sample ID: 720-	41962-2
Date Collected: 05/03/12 09:00								Matrix	c: Water
Date Received: 05/04/12 10:15 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Benzene	ND	0.50	ug/L	05/05/12 01:55	1
Ethylbenzene	ND	0.50	ug/L	05/05/12 01:55	1
Toluene	ND	0.50	ug/L	05/05/12 01:55	1
Xylenes, Total	ND	1.0	ug/L	05/05/12 01:55	1
Gasoline Range Organics (GRO) -C5-C12	ND	50	ug/L	05/05/12 01:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 130		05/05/12 01:55	1
1,2-Dichloroethane-d4 (Surr)	107		75 - 138		05/05/12 01:55	1
Toluene-d8 (Surr)	103		70 - 130		05/05/12 01:55	1

Client Sample ID: NOBS-B1 Lab Sample ID: 720-41962-3 Date Collected: 05/03/12 10:00 **Matrix: Water** Date Received: 05/04/12 10:15

Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Benzene	ND ND	0.50	ug/L		05/05/12 02:24	1
Ethylbenzene	ND	0.50	ug/L		05/05/12 02:24	1
Toluene	ND	0.50	ug/L		05/05/12 02:24	1
Xylenes, Total	ND	1.0	ug/L		05/05/12 02:24	1
Gasoline Range Organics (GRO) -C5-C12	ND	50	ug/L		05/05/12 02:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepare	ed Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 130		05/05/12 02:24	1
1,2-Dichloroethane-d4 (Surr)	105		75 <sub>-</sub> 138		05/05/12 02:24	1
Toluene-d8 (Surr)	102		70 - 130		05/05/12 02:24	1

Client Sample ID: MW-4	Lab Sample ID: 720-41962-4
Date Collected: 05/03/12 10:40	Matrix: Water

Date Received: 05/04/12 10:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	190		10		ug/L			05/07/12 12:58	20
Ethylbenzene	15		10		ug/L			05/07/12 12:58	20
Toluene	26		10		ug/L			05/07/12 12:58	20
Xylenes, Total	25		20		ug/L			05/07/12 12:58	20

6

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

Date Collected: 05/03/12 12:30

TestAmerica Job ID: 720-41962-1

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

Lab Sample ID: 720-41962-4 Client Sample ID: MW-4 Date Collected: 05/03/12 10:40 **Matrix: Water** Date Received: 05/04/12 10:15 Result Qualifier RΙ MDL Unit D Dil Fac Analyte Prepared Analyzed 1000 05/07/12 12:58 20 **Gasoline Range Organics (GRO)** 6800 ug/L -C5-C12 Qualifier Surrogate %Recovery Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene 109 67 - 130 05/07/12 12:58 20 1,2-Dichloroethane-d4 (Surr) 104 75 - 138 05/07/12 12:58 20 Toluene-d8 (Surr) 104 70 - 130 05/07/12 12:58 20 Lab Sample ID: 720-41962-5 Client Sample ID: MW-6 Date Collected: 05/03/12 11:20 **Matrix: Water** Date Received: 05/04/12 10:15 Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ND 0.50 Benzene ug/L 05/07/12 13:26 Ethylbenzene ND 0.50 ug/L 05/07/12 13:26 Toluene ND 0.50 ug/L 05/07/12 13:26

ND 1.0 ug/L 05/07/12 13:26 Xvlenes, Total ND 50 ug/L 05/07/12 13:26 Gasoline Range Organics (GRO) -C5-C12 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 106 67 130 05/07/12 13:26 4-Bromofluorobenzene 1,2-Dichloroethane-d4 (Surr) 106 75 - 138 05/07/12 13:26

Toluene-d8 (Surr) 103 70 - 130 05/07/12 13:26 1

Client Sample ID: MW-2 Lab Sample ID: 720-41962-6

Date Received: 05/04/12 10:15 Result Qualifier MDL Unit Analyte RL D Prepared Analyzed Dil Fac 0.50 ug/L 05/07/12 14:53 Benzene 22 Ethylbenzene 2.1 0.50 ug/L 05/07/12 14:53 Toluene ND 0.50 ug/L 05/07/12 14:53 Xylenes, Total ND 1.0 ug/L 05/07/12 14:53 50 ug/L 05/07/12 14:53 **Gasoline Range Organics (GRO)** 350 -C5-C12

Qualifier Limits Dil Fac Surrogate %Recovery Prepared Analyzed 67 - 130 05/07/12 14:53 4-Bromofluorobenzene 114 1,2-Dichloroethane-d4 (Surr) 109 75 - 138 05/07/12 14:53 Toluene-d8 (Surr) 104 70 - 130 05/07/12 14:53

Client Sample ID: MW-3

Lab Sample ID: 720-41962-7

Date Collected: 05/03/12 13:00

Matrix: Water

Date Received: 05/04/12 10:15 MDL Unit Result Qualifier Analyte RL D Prepared Analyzed Dil Fac Benzene ND 0.50 ug/L 05/07/12 15:22 ND 0.50 ug/L Ethylbenzene 05/07/12 15:22 Toluene ND 0.50 ug/L 05/07/12 15:22 Xylenes, Total ND 1.0 ug/L 05/07/12 15:22 ND 50 ug/L 05/07/12 15:22 Gasoline Range Organics (GRO) -C5-C12

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		67 - 130	-		05/07/12 15:22	1
1,2-Dichloroethane-d4 (Surr)	105		75 - 138			05/07/12 15:22	1

**Matrix: Water** 

2

6

TestAmerica Job ID: 720-41962-1

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

Date Collected: 05/03/12 13:00

Date Received: 05/04/12 10:15

Client Sample ID: MW-3

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

Lab Sample ID: 720-41962-7

**Matrix: Water** 

 Surrogate
 %Recovery
 Qualifier
 Limits
 Prepared
 Analyzed
 Dil Fac

 Toluene-d8 (Surr)
 103
 70 - 130
 05/07/12 15:22
 1

Lab Sample ID: 720-41962-8

ID. 720-41302-0

Date Collected: 05/03/12 13:40 Matrix: Water

Date Received: 05/04/12 10:15

Client Sample ID: POBS-B2

Analyte	Result	Qualifier	RL	MDL	Unit	ı	D	Prepared	Analyzed	Dil Fac
Benzene	8.8		0.50		ug/L				05/07/12 15:50	1
Ethylbenzene	ND		0.50		ug/L				05/07/12 15:50	1
Toluene	ND		0.50		ug/L				05/07/12 15:50	1
Xylenes, Total	ND		1.0		ug/L				05/07/12 15:50	1
Gasoline Range Organics (GRO) -C5-C12	83		50		ug/L				05/07/12 15:50	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		67 - 130	_		05/07/12 15:50	1
1,2-Dichloroethane-d4 (Surr)	106		75 - 138			05/07/12 15:50	1
Toluene-d8 (Surr)	104		70 - 130			05/07/12 15:50	1

Lab Sample ID: 720-41962-9

Date Collected: 05/03/12 14:30 Matrix: Water

Date Received: 05/04/12 10:15

Client Sample ID: MW-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/07/12 16:19	1
Ethylbenzene	ND		0.50		ug/L			05/07/12 16:19	1
Toluene	ND		0.50		ug/L			05/07/12 16:19	1
Xylenes, Total	ND		1.0		ug/L			05/07/12 16:19	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/07/12 16:19	1

-03-012

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 130		05/07/12 16:19	1
1,2-Dichloroethane-d4 (Surr)	108		75 - 138		05/07/12 16:19	1
Toluene-d8 (Surr)	103		70 - 130		05/07/12 16:19	1

Client Sample ID: MW-7

Date Collected: 05/04/12 07:40

Lab Sample ID: 720-41962-10

Matrix: Water

Date Received: 05/04/12 10:15

Date Received: 05/04/12 10:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/07/12 16:48	1
Ethylbenzene	ND		0.50		ug/L			05/07/12 16:48	1
Toluene	ND		0.50		ug/L			05/07/12 16:48	1
Xylenes, Total	ND		1.0		ug/L			05/07/12 16:48	1
Gasoline Range Organics (GRO)	ND		50		ug/L			05/07/12 16:48	1

-C5-C12

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 130	-		05/07/12 16:48	1
1,2-Dichloroethane-d4 (Surr)	107		75 - 138			05/07/12 16:48	1
Toluene-d8 (Surr)	103		70 - 130			05/07/12 16:48	1

## **Client Sample Results**

Client: Stantec Consulting Corp.

Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-41962-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Client Sample ID: POBS-A1							Lab S	Sample ID: 720-4	1962-11
Date Collected: 05/04/12 08:40								Matrix	c: Water
Date Received: 05/04/12 10:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	110		0.50		ug/L			05/07/12 17:16	1
Ethylbenzene	1.4		0.50		ug/L			05/07/12 17:16	1
Toluene	2.0		0.50		ug/L			05/07/12 17:16	1
Xylenes, Total	ND		1.0		ug/L			05/07/12 17:16	1
Gasoline Range Organics (GRO) -C5-C12	540		50		ug/L			05/07/12 17:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	111		67 - 130			_		05/07/12 17:16	1
1,2-Dichloroethane-d4 (Surr)	110		75 - 138					05/07/12 17:16	1
Toluene-d8 (Surr)	105		70 - 130					05/07/12 17:16	1
Client Sample ID: POBS-B1							Lab S	Sample ID: 720-4	1962-12
Date Collected: 05/04/12 09:20 Date Received: 05/04/12 10:15								Matrix	c: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	0.80		0.50		ug/L			05/07/12 17:45	•
Ethylbenzene	ND		0.50		ug/L			05/07/12 17:45	
Toluene	ND		0.50		ug/L			05/07/12 17:45	
Xylenes, Total	ND		1.0		ug/L			05/07/12 17:45	
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/07/12 17:45	

Surrogate	%Recovery Qualifier	r Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109	67 - 130		05/07/12 17:45	1
1,2-Dichloroethane-d4 (Surr)	110	75 - 138		05/07/12 17:45	1
Toluene-d8 (Surr)	103	70 - 130		05/07/12 17:45	1

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**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

#### 3

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-113043/4

Matrix: Water

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

Analysis Batch: 113043

MB	MB							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ND		0.50		ug/L			05/04/12 16:20	1
ND		0.50		ug/L			05/04/12 16:20	1
ND		0.50		ug/L			05/04/12 16:20	1
ND		1.0		ug/L			05/04/12 16:20	1
ND		0.50		ug/L			05/04/12 16:20	1
ND		1.0		ug/L			05/04/12 16:20	1
ND		50		ug/L			05/04/12 16:20	1
	Result ND ND ND ND ND ND ND ND	ND ND ND ND ND	Result         Qualifier         RL           ND         0.50           ND         0.50           ND         1.0           ND         0.50           ND         0.50           ND         0.50           ND         1.0           ND         1.0	Result         Qualifier         RL         MDL           ND         0.50         0.50           ND         0.50         0.50           ND         1.0         0.50           ND         0.50         0.50           ND         1.0         0.50	Result         Qualifier         RL         MDL         Unit           ND         0.50         ug/L           ND         0.50         ug/L           ND         1.0         ug/L           ND         0.50         ug/L           ND         0.50         ug/L           ND         1.0         ug/L           ND         1.0         ug/L	Result         Qualifier         RL         MDL         Unit         D           ND         0.50         ug/L         ug/L           ND         0.50         ug/L           ND         1.0         ug/L           ND         0.50         ug/L           ND         0.50         ug/L           ND         1.0         ug/L	Result         Qualifier         RL         MDL         Unit         D         Prepared           ND         0.50         ug/L           ND         0.50         ug/L           ND         1.0         ug/L           ND         0.50         ug/L           ND         0.50         ug/L           ND         1.0         ug/L	Result         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed           ND         0.50         ug/L         05/04/12 16:20           ND         0.50         ug/L         05/04/12 16:20           ND         1.0         ug/L         05/04/12 16:20           ND         0.50         ug/L         05/04/12 16:20           ND         0.50         ug/L         05/04/12 16:20           ND         1.0         ug/L         05/04/12 16:20

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 130	_		05/04/12 16:20	1
1,2-Dichloroethane-d4 (Surr)	104		75 - 138			05/04/12 16:20	1
Toluene-d8 (Surr)	103		70 - 130			05/04/12 16:20	1

Lab Sample ID: LCS 720-113043/5

Matrix: Water

Analysis Batch: 113043

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	25.0	24.4		ug/L		98	79 - 130	
Ethylbenzene	25.0	23.1		ug/L		92	80 - 120	
Toluene	25.0	23.2		ug/L		93	78 - 120	
m-Xylene & p-Xylene	50.0	47.4		ug/L		95	70 - 142	
o-Xvlene	25.0	24.8		ua/L		99	70 - 130	

LCS LCS

Surrogate	%Recovery Qual	ifier Limits
4-Bromofluorobenzene	102	67 - 130
1,2-Dichloroethane-d4 (Surr)	101	75 - 138
Toluene-d8 (Surr)	103	70 - 130

Lab Sample ID: LCS 720-113043/7

Matrix: Water

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 113043

	Spike	e LCS	LCS			%Rec.	
Analyte	Adde	d Result	Qualifier L	Jnit D	%Rec	Limits	
Gasoline Range Organics (GRO)	500	0 425	u	ıg/L	85	62 - 120	

-C5-C12

	LCS LCS	
Surrogate	%Recovery Qual	ifier Limits
4-Bromofluorobenzene	107	67 - 130
1,2-Dichloroethane-d4 (Surr)	105	75 <sub>-</sub> 138
Toluene-d8 (Surr)	104	70 - 130

Lab Sample ID: LCSD 720-113043/6

**Matrix: Water** 

Analysis Batch: 113043

Analysis Batch. 113043									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	25.0	24.7		ug/L		99	79 - 130	1	20

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

TestAmerica Job ID: 720-41962-1

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

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-113043/6

**Matrix: Water** 

Analyte

Toluene

o-Xylene

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 113043

Client Sample ID: L	ab Control Sample Dup
	Prep Type: Total/NA

LCSD LCSD RPD Spike %Rec. Added Result Qualifier Limits RPD Limit Unit %Rec 25.0 23.0 92 80 - 120 20 ug/L 0 25.0 23.3 ug/L 93 78 - 120 0 20 50.0 47.7 95 70 - 142 20 ug/L 25.0 24.9 ug/L 100 70 - 130

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

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 113043

**Matrix: Water** 

Lab Sample ID: LCSD 720-113043/8

Spike LCSD LCSD %Rec. RPD Added Result Qualifier Limit Analyte Unit D Limits RPD %Rec 500 452 62 - 120 20 Gasoline Range Organics (GRO) ug/L 6 -C5-C12

LCSD LCSD Surrogate %Recovery Qualifier Limits 67 - 130 4-Bromofluorobenzene 106 1,2-Dichloroethane-d4 (Surr) 107 75 - 138 Toluene-d8 (Surr) 103 70 - 130

MR MR

Analysis Batch: 113098

Lab Sample ID: MB 720-113098/7 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

	IVID	1110							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			05/07/12 10:05	1
Ethylbenzene	ND		0.50		ug/L			05/07/12 10:05	1
Toluene	ND		0.50		ug/L			05/07/12 10:05	1
m-Xylene & p-Xylene	ND		1.0		ug/L			05/07/12 10:05	1
o-Xylene	ND		0.50		ug/L			05/07/12 10:05	1
Xylenes, Total	ND		1.0		ug/L			05/07/12 10:05	1
Gasoline Range Organics (GRO)	ND		50		ug/L			05/07/12 10:05	1
-C5-C12									

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 130		05/07/12 10:05	1
1,2-Dichloroethane-d4 (Surr)	109		75 - 138		05/07/12 10:05	1
Toluene-d8 (Surr)	103		70 - 130		05/07/12 10:05	1

Lab Sample ID: LCS 720-113098/10

**Matrix: Water** 

Analysis Batch: 113098

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)	500	447		ug/L		89	62 - 120

-C5-C12

TestAmerica Pleasanton 5/9/2012

Prep Type: Total/NA

**Client Sample ID: Lab Control Sample** 

Client: Stantec Consulting Corp. Project/Site: Bohannon San Lorenzo TestAmerica Job ID: 720-41962-1

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

Lab Sample ID: LCS 720-113098/10

**Matrix: Water** 

Analysis Batch: 113098

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

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	107		67 - 130
1,2-Dichloroethane-d4 (Surr)	108		75 - 138
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: LCS 720-113098/8

**Matrix: Water** 

m-Xylene & p-Xylene

Analyte Benzene Ethylbenzene Toluene

o-Xylene

Analysis Batch: 113098

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

Spike	LCS	LCS				%Rec.	
Added	Result	Qualifier	Unit	D	%Rec	Limits	
 25.0	26.2		ug/L		105	79 - 130	
25.0	24.7		ug/L		99	80 - 120	
25.0	24.3		ug/L		97	78 - 120	
50.0	51.0		ug/L		102	70 - 142	
25.0	26.9		ug/L		108	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	105		67 - 130
1,2-Dichloroethane-d4 (Surr)	104		75 - 138
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: LCSD 720-113098/11

**Matrix: Water** 

Analysis Batch: 113098

Client Sample	ID: La	b Contro	Sample Dup

Prep Type: Total/NA

•	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)	500	441		ug/L		88	62 - 120	1	20
CE C12									

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene	107	67 - 130
1,2-Dichloroethane-d4 (Surr)	105	75 - 138
Toluene-d8 (Surr)	104	70 - 130

Lab Sample ID: LCSD 720-113098/9

**Matrix: Water** 

Analysis Batch: 113098

Client Sample ID: Lab Control Sample Dup

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	25.0	26.0		ug/L		104	79 - 130	1	20
Ethylbenzene	25.0	24.3		ug/L		97	80 - 120	2	20
Toluene	25.0	24.7		ug/L		99	78 - 120	2	20
m-Xylene & p-Xylene	50.0	50.4		ug/L		101	70 - 142	1	20
o-Xylene	25.0	26.5		ug/L		106	70 - 130	1	20

LCSD LCSD

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

Prep Type: Total/NA

TestAmerica Job ID: 720-41962-1

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

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

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MSD MSD

Lab Sample ID: 720-41962-5 MS

**Matrix: Water** 

Analysis Batch: 113098

Client Sample ID: MW-6 Prep Type: Total/NA

7 mary or Datom 110000										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	ND		25.0	26.0		ug/L		104	60 - 140	
Ethylbenzene	ND		25.0	24.1		ug/L		96	60 - 140	
Toluene	ND		25.0	24.2		ug/L		97	60 - 140	
m-Xylene & p-Xylene	ND		50.0	49.8		ug/L		100	60 _ 140	
o-Xylene	ND		25.0	26.1		ug/L		104	60 - 140	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene	102		67 - 130							
1 2-Dichloroethane-d4 (Surr)	106		75 <sub>-</sub> 138							

70 - 130

Lab Sample ID: 720-41962-5 MSD

**Matrix: Water** 

Toluene-d8 (Surr)

Analysis Batch: 113098

Client Sample ID: MW-6 Prep Type: Total/NA

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		25.0	25.7		ug/L		103	60 - 140	1	20
Ethylbenzene	ND		25.0	24.0		ug/L		96	60 - 140	0	20
Toluene	ND		25.0	24.1		ug/L		96	60 - 140	0	20
m-Xylene & p-Xylene	ND		50.0	49.4		ug/L		99	60 - 140	1	20
o-Xylene	ND		25.0	26.1		ug/L		104	60 - 140	0	20

	MSD	WISD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	98		75 - 138
Toluene-d8 (Surr)	104		70 - 130

lient Comple ID: MW 6

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## **QC Association Summary**

Client: Stantec Consulting Corp.

Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-41962-1

**GC/MS VOA** 

Analysis Batch: 113043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-41962-1	TB-1	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-2	MW-5	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-3	NOBS-B1	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-113043/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-113043/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-113043/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-113043/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
				MS	
MB 720-113043/4	Method Blank	Total/NA	Water	8260B/CA_LUFT	
				MS	

Analysis Batch: 113098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-41962-4	MW-4	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-5	MW-6	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-5 MS	MW-6	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-5 MSD	MW-6	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-6	MW-2	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-7	MW-3	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-8	POBS-B2	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-9	MW-1	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-10	MW-7	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-11	POBS-A1	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-41962-12	POBS-B1	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-113098/10	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-113098/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-113098/11	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-113098/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
				MS	
MB 720-113098/7	Method Blank	Total/NA	Water	8260B/CA_LUFT	
				MS	

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Client Sample ID: TB-1

Date Collected: 05/03/12 06:40 Date Received: 05/04/12 10:15

Lab Sample ID: 720-41962-1

Matrix: Water

Batch Dilution Prepared Batch Batch Factor or Analyzed Prep Type Type Method Run Number Analyst Lab Total/NA Analysis 8260B/CA LUFTMS 113043 05/05/12 01:26 DH TAL SF

Client Sample ID: MW-5 Lab Sample ID: 720-41962-2

Date Collected: 05/03/12 09:00

**Matrix: Water** 

Date Received: 05/04/12 10:15

Batch Batch Dilution Batch Prepared Method Number or Analyzed Prep Type Type Run Factor Analyst Lab Total/NA 8260B/CA\_LUFTMS 113043 05/05/12 01:55 DH TAL SF Analysis

Client Sample ID: NOBS-B1 Lab Sample ID: 720-41962-3

Date Collected: 05/03/12 10:00 Date Received: 05/04/12 10:15

Matrix: Water

Batch Batch

Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab 05/05/12 02:24 TAL SF Total/NA Analysis 8260B/CA LUFTMS 113043 DH

Client Sample ID: MW-4 Lab Sample ID: 720-41962-4

Date Collected: 05/03/12 10:40

**Matrix: Water** 

Date Received: 05/04/12 10:15

Batch Batch Dilution Batch Prepared Method **Prep Type** Туре Factor Number or Analyzed Analyst Run Lab Total/NA Analysis 8260B/CA\_LUFTMS 20 113098 05/07/12 12:58 AC TAL SF

Client Sample ID: MW-6 Lab Sample ID: 720-41962-5

Date Collected: 05/03/12 11:20 Date Received: 05/04/12 10:15

**Matrix: Water** 

Dilution Prepared Batch Batch Batch

Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Analysis 8260B/CA LUFTMS 113098 05/07/12 13:26 TAL SE Total/NA AC

Client Sample ID: MW-2 Lab Sample ID: 720-41962-6

Date Collected: 05/03/12 12:30 Date Received: 05/04/12 10:15

Matrix: Water

Batch Batch Dilution Batch Prepared Method Number or Analyzed Prep Type Type Run Factor Analyst Lab Total/NA 8260B/CA\_LUFTMS 113098 05/07/12 14:53 AC TAL SF

Client Sample ID: MW-3 Lab Sample ID: 720-41962-7

Date Collected: 05/03/12 13:00

**Matrix: Water** 

Date Received: 05/04/12 10:15

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Total/NA 8260B/CA\_LUFTMS 113098 05/07/12 15:22 AC TAL SF Analysis

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

Client Sample ID: POBS-B2

Date Collected: 05/03/12 13:40

Date Received: 05/04/12 10:15

TestAmerica Job ID: 720-41962-1

Lab Sample ID: 720-41962-8

**Matrix: Water** 

**Matrix: Water** 

Matrix: Water

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B/CA LUFTMS 113098 05/07/12 15:50 AC TAL SF

Client Sample ID: MW-1 Lab Sample ID: 720-41962-9

Date Collected: 05/03/12 14:30 Matrix: Water

Date Received: 05/04/12 10:15

Batch Batch Dilution Batch Prepared Method Factor Number or Analyzed Prep Type Type Run Analyst Lab 8260B/CA LUFTMS 113098 05/07/12 16:19 Total/NA Analysis AC TAL SF

Client Sample ID: MW-7 Lab Sample ID: 720-41962-10

Date Collected: 05/04/12 07:40 **Matrix: Water** 

Date Received: 05/04/12 10:15

Batch Batch Dilution Batch Prepared Prep Type Туре Method Factor Number or Analyzed Lab Run Analyst 05/07/12 16:48 Total/NA Analysis 8260B/CA\_LUFTMS 113098 AC TAL SF

Client Sample ID: POBS-A1 Lab Sample ID: 720-41962-11

Date Collected: 05/04/12 08:40

Date Received: 05/04/12 10:15

Dilution Prepared Batch Batch Batch Method Number or Analyzed Prep Type Type Run Factor Analyst Lab Total/NA Analysis 8260B/CA\_LUFTMS 113098 05/07/12 17:16 AC TAL SF

Client Sample ID: POBS-B1 Lab Sample ID: 720-41962-12

Date Collected: 05/04/12 09:20

Date Received: 05/04/12 10:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	113098	05/07/12 17:45	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: 720-41962-1

Laboratory Authority Program EPA Region Certification ID

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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## **Method Summary**

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

TestAmerica Job ID: 720-41962-1

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

**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

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## **Sample Summary**

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

TestAmerica Job ID: 720-41962-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-41962-1	TB-1	Water	05/03/12 06:40	05/04/12 10:15
720-41962-2	MW-5	Water	05/03/12 09:00	05/04/12 10:15
720-41962-3	NOBS-B1	Water	05/03/12 10:00	05/04/12 10:15
720-41962-4	MW-4	Water	05/03/12 10:40	05/04/12 10:15
720-41962-5	MW-6	Water	05/03/12 11:20	05/04/12 10:15
720-41962-6	MW-2	Water	05/03/12 12:30	05/04/12 10:15
720-41962-7	MW-3	Water	05/03/12 13:00	05/04/12 10:15
720-41962-8	POBS-B2	Water	05/03/12 13:40	05/04/12 10:15
720-41962-9	MW-1	Water	05/03/12 14:30	05/04/12 10:15
720-41962-10	MW-7	Water	05/04/12 07:40	05/04/12 10:15
720-41962-11	POBS-A1	Water	05/04/12 08:40	05/04/12 10:15
720-41962-12	POBS-B1	Water	05/04/12 09:20	05/04/12 10:15

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## **CHAIN OF CUSTODY RECORD**

Stantec Lafayette Office 57 Lafayette Circle, 2nd Floor Lafayette, CA 94549

Stantec Company Contact(s) for Invoice:	Stantec Project # DATE: 5-4-1 Z
Project Manager: Mason Albrec	h f

	TEL:(925) 299-9300 FAX:(925)299-9302	email: 🎮	4504.a	1/1/0	och+	Ø 51	aut.	c/ 1	coul	ŧ	1857	702:	53	1				/ OF	1	
Project Name:												aborator	() r							
Address:	Address: 575 Puseo Evande						Ch	Charles Melancon						TestAmorica						
	Sun Lorenzo CA						Sampler(s) Printed Name:  Laborato  Sampler(s) Signature:  Laborato  Labi-Use					ab Use C	s Ciniy:							
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	MW-4		1040																	
	MW-6		1120																	
	MW-2		1230																	
	MW-3		1300																	
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	MW-1		1430														***************************************			
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## **Login Sample Receipt Checklist**

Client: Stantec Consulting Corp. Job Number: 720-41962-1

Login Number: 41962 List Source: TestAmerica Pleasanton

List Number: 1 Creator: Apostol, Anita

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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 sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

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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: 720-42599-1

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: 6/15/2012 3:34:12 PM

Onieka Howard Project Manager I

onieka.howard@testamericainc.com

Designee for

Afsaneh Salimpour Project Manager I

afsaneh.salimpour@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**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.

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

TestAmerica Job ID: 720-42599-1

# **Table of Contents**

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Sample Summary	13
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## **Definitions/Glossary**

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

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 720-42599-1

#### **Glossary**

TEQ

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)

-

#### **Case Narrative**

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

TestAmerica Job ID: 720-42599-1

Job ID: 720-42599-1

**Laboratory: TestAmerica Pleasanton** 

Narrative

Job Narrative 720-42599-1

#### Comments

No additional comments.

#### Receipt

The sample was received on 6/8/2012 1:12 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° 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: 720-42599-1

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Client Sample ID: MW-4

Lab Sample	ID:	720-42599-1
------------	-----	-------------

Analyte	Result	Qualifier RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	83	0.50		ug/L	1	_	8260B/CA_LUFT MS	Total/NA
Ethylbenzene	7.1	0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	11	0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	11	1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO)	3400	50		ug/L	1		8260B/CA_LUFT	Total/NA

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## **Client Sample Results**

Client: Stantec Consulting Corp.

TestAmerica Job ID: 720-42599-1

Project/Site: Bohannon San Lorenzo

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Client Sample ID: MW-4 Lab Sample ID: 720-42599-1 Date Collected: 06/08/12 12:00 **Matrix: Water** Date Received: 06/08/12 13:12 MDL Unit Analyte Result Qualifier RL D Prepared Dil Fac Analyzed 83 0.50 ug/L 06/12/12 02:00 Benzene 0.50 ug/L 06/12/12 02:00 Ethylbenzene 7.1 Toluene 11 0.50 ug/L 06/12/12 02:00 ug/L 06/12/12 02:00 1.0 **Xylenes, Total** 11 **Gasoline Range Organics (GRO)** 3400 50 ug/L 06/12/12 02:00 -C5-C12 Methyl tert-butyl ether ND 0.50 ug/L 06/12/12 02:00

Surrogate	%Recovery	Qualifier Lin	nits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	121	67 -	.130		06/12/12 02:00	1
1,2-Dichloroethane-d4 (Surr)	106	75 -	. 138		06/12/12 02:00	1
Toluene-d8 (Surr)	104	70 -	. 130		06/12/12 02:00	1

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Client: Stantec Consulting Corp. Project/Site: Bohannon San Lorenzo TestAmerica Job ID: 720-42599-1

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-115181/5

**Matrix: Water** 

Analysis Batch: 115181

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			06/11/12 19:47	1
Ethylbenzene	ND		0.50		ug/L			06/11/12 19:47	1
Toluene	ND		0.50		ug/L			06/11/12 19:47	1
Xylenes, Total	ND		1.0		ug/L			06/11/12 19:47	1
Gasoline Range Organics (GRO)	ND		50		ug/L			06/11/12 19:47	1
-C5-C12									
Methyl tert-butyl ether	ND		0.50		ug/L			06/11/12 19:47	1
	МВ	МВ							

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene 99 67 - 130 06/11/12 19:47 1,2-Dichloroethane-d4 (Surr) 104 75 - 138 06/11/12 19:47 Toluene-d8 (Surr) 100 70 - 130 06/11/12 19:47

Lab Sample ID: LCS 720-115181/6

**Matrix: Water** 

Analysis Batch: 115181

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 25.0 24.8 ug/L 99 79 - 130 Ethylbenzene 25.0 25.0 80 - 120 ug/L 100 Toluene 25.0 24.7 ug/L 99 78 - 120 m-Xylene & p-Xylene 50.0 55.4 ug/L 111 70 - 142 o-Xylene 25.0 26.8 ug/L 107 70 - 130 Methyl tert-butyl ether 25.0 29.2 62 - 130 ug/L 117

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 104 67 - 130 75 - 138 1,2-Dichloroethane-d4 (Surr) 99 Toluene-d8 (Surr) 117 70 - 130

Lab Sample ID: LCS 720-115181/8

**Matrix: Water** 

Analysis Batch: 115181

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

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)	500	459		ug/L		92	62 - 120	
-C5-C12								

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene			67 - 130
1,2-Dichloroethane-d4 (Surr)	99		75 - 138
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCSD 720-115181/7

**Matrix: Water** 

Analysis Batch: 115181

Analysis Batch. 110101									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier U	Jnit	D	%Rec	Limits	RPD	Limit
Benzene	25.0	24.7	u	ıg/L		99	79 - 130	0	20

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

## **QC Sample Results**

Client: Stantec Consulting Corp. Project/Site: Bohannon San Lorenzo TestAmerica Job ID: 720-42599-1

# Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-115181/7

**Matrix: Water** 

Analysis Batch: 115181

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

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ethylbenzene	25.0	24.8		ug/L		99	80 - 120	1	20
Toluene	25.0	21.5		ug/L		86	78 - 120	14	20
m-Xylene & p-Xylene	50.0	54.8		ug/L		110	70 - 142	1	20
o-Xylene	25.0	26.0		ug/L		104	70 - 130	3	20
Methyl tert-butyl ether	25.0	29.7		ug/L		119	62 - 130	2	20

LCSD LCSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 87 67 - 130 1,2-Dichloroethane-d4 (Surr) 101 75 - 138 Toluene-d8 (Surr) 101 70 - 130

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

**Matrix: Water** 

Analysis Batch: 115181

Lab Sample ID: LCSD 720-115181/9

LCSD LCSD Spike %Rec. RPD Result Qualifier Limit Analyte Added Unit D %Rec Limits RPD 500 451 ug/L 90 62 \_ 120 2 Gasoline Range Organics (GRO) -C5-C12

LCSD LCSD %Recovery Qualifier Surrogate Limits 4-Bromofluorobenzene 118 67 - 130 1,2-Dichloroethane-d4 (Surr) 101 75 - 138 Toluene-d8 (Surr) 101 70 - 130

# **QC Association Summary**

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

TestAmerica Job ID: 720-42599-1

#### **GC/MS VOA**

#### Analysis Batch: 115181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-42599-1	MW-4	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-115181/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-115181/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-115181/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-115181/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
				MS	
MB 720-115181/5	Method Blank	Total/NA	Water	8260B/CA_LUFT	
				MS	

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#### **Lab Chronicle**

Client: Stantec Consulting Corp. Project/Site: Bohannon San Lorenzo TestAmerica Job ID: 720-42599-1

Lab Sample ID: 720-42599-1

Matrix: Water

Client Sample ID: MW-4 Date Collected: 06/08/12 12:00

Date Received: 06/08/12 13:12

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	115181	06/12/12 02:00	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: 720-42599-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pleasanton	California	State Program	9	2496

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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# **Method Summary**

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

TestAmerica Job ID: 720-42599-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM	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

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# **Sample Summary**

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

TestAmerica Job ID: 720-42599-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-42599-1	MW-4	Water	06/08/12 12:00	06/08/12 13:12

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# 6/15/2012

Page 14 of 15



# **CHAIN OF CUSTODY RECORD**

Stantec Lafayette Office 57 Lafayette Circle, 2nd Floor Lafayette, CA 94549 TEL:(925) 299-9300 FAX:(925)299-9302

Stantec Company Contact(s) for Invoice:	Stantec Project #	DATE: 6
Project Manager: MusonAlbrecht		PAGE:
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TEL:(925) 299-9300 FAX:(925)299-9302	email: 🌶	46580	1.41	bo	ech)	1 00-50	tuat	ec, c	om	185	70	253	34				1 OF	1		
TEL:(925) 299-9300 FAX:(925)299-9302 email: M@SEA. U/brecht  Project Name: Behennon  Address:																				
Sey Lorenzo CA							Sampler(s) Printed Name:  Chu/e= Me/uneon  Sampler(s) Signature:			Lab Use	Oney	<u> </u>		' <i>+</i> -/						
Furn-around Time (Business Days):	· · · · · · · · · · · · · · · · · · ·													· · · · · · · · · · · · · · · · · · ·			13-1-1/1-11/1//			
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Special Instructions or Notes: To	emperature (	Jpon Recei	pt (C):			Hy IBTEX WINDE 8260B												emo.	3.3	,0 ,C
Field Sample Identification	SAM	IPLING	MAT-	No. of	Pre-	10									ļ		}			
(SQNATES)	DATE	TIME	RIX	Cont.	serve	17												Laboratory	Notes	
MW-4	6-8-12	1200	W	3	HCL	<u> X</u>		ļ												
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Relinquished by: (Signature)	Date:	Time:	Receiv	Received by: (Signature)							1				Time:	1				
	***														<u>i</u>		<u> </u>			

#### **Login Sample Receipt Checklist**

Client: Stantec Consulting Corp. Job Number: 720-42599-1

Login Number: 42599 List Source: TestAmerica Pleasanton

List Number: 1 Creator: Apostol, Anita

Question Answer Comment Radioactivity either was not measured or, if measured, is at or below N/A background The cooler's custody seal, if present, is intact. N/A The cooler or samples do not appear to have been compromised or True tampered with. 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 True There are no discrepancies between the sample IDs on the containers and the COC. 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 True MS/MSDs VOA sample vials do not have headspace or bubble is <6mm (1/4") in True diameter. Multiphasic samples are not present. True

True

True

Samples do not require splitting or compositing.

Residual Chlorine Checked.

#### **Stantec**

SECOND QUARTER 2012 (SEMI-ANNUAL)
GROUNDWATER MONITORING REPORT
DAVID D. BOHANNON ORGANIZATION

# APPENDIX C Chemical Concentration Trends in Groundwater

Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report
David D. Bohannon Organization
575 Paseo Grande
San Lorenzo, California
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July 27, 2012

