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**SEMI-ANNUAL (FIRST HALF 2004)**

**Groundwater Monitoring and Pilot  
Remedial Progress Report**

**575 Paseo Grande  
San Lorenzo, California**

*8/04*

**Prepared for:**  
David D. Bohannon Organization  
Sixty 31<sup>st</sup> Avenue  
San Mateo, California

Prepared By:  
EFI  
San Ramon, California  
EFI Project No. 98360-00001

August 2004

DAVID D. BOHANNON  
ORGANIZATION

September 20, 2004

**VIA FEDERAL EXPRESS**

Ms. Eva Chu  
Hazardous Materials Specialist  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502

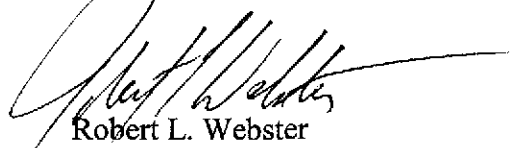
**Re: 1<sup>st</sup> Semester 2004 Groundwater Monitoring and Pilot Remedial Progress  
Report – David D. Bohannon Organization Property Located at 575 Paseo  
Grande – San Lorenzo, California**

Dear Ms. Chu:

The David D. Bohannon Organization is pleased to provide the enclosed copy of the above-referenced report. The report was prepared by Engineering and Fire Investigations (EFI).

Please contact the undersigned or Mr. Chris Maxwell of EFI if you have any questions or comments regarding the report.

Sincerely,

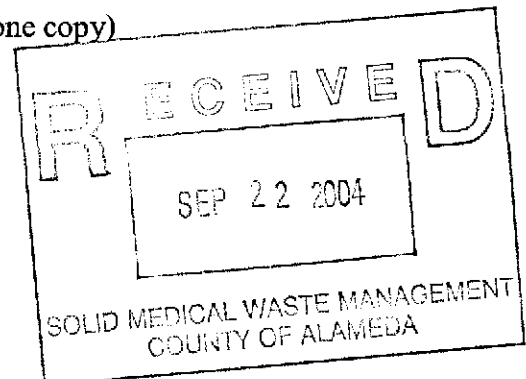


Robert L. Webster  
Chairman

cc: Chris Maxwell, EFI

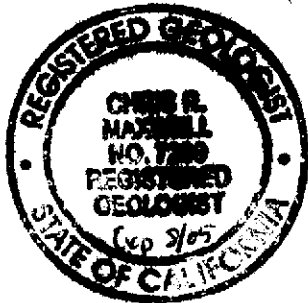
Enclosure – 1<sup>st</sup> Semester 2004 Groundwater Report (one copy)

RLW:lpm



**Semi-Annual (First Half 2004)  
Groundwater Monitoring and Pilot Remedial Progress Report  
575 Paseo Grande  
San Lorenzo, California**

The material and data in this report were prepared under the supervision and direction of the undersigned. This report was prepared consistent with current and generally accepted geologic and environmental consulting principles and practices that are within the limitations provided herein.



EFI

A handwritten signature in black ink, appearing to read "Chris Maxwell", written over a horizontal line.

Chris Maxwell, R.G.  
Branch Manager

A handwritten signature in black ink, appearing to read "Mark Williams", written over a horizontal line.

Mark Williams  
Senior Scientist

## LIMITATIONS

The conclusions and recommendations contained in this report/assessment are based upon professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates when the investigations were performed. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.
2. The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the site.
3. Because of the limitations stated above, the findings, observations, and conclusions expressed by EFI in this report are not, and should not be, considered an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state or local law or regulation.
4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.
5. EFI reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, state or local governmental agencies. Any use of the report constitutes acceptance of the limits of EFI's liability. EFI's liability extends only to its client and not to any other parties who may obtain the report. Issues raised by the report should be reviewed by appropriate legal counsel.



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## 1.0 INTRODUCTION

This report presents the results of groundwater monitoring, sampling, and analysis conducted on April 13, 2004 for the property located at 575 Paseo Grande, San Lorenzo, California (Site), Figure 1. This sampling event was conducted to continue the assessment of groundwater conditions beneath the Site. The previous groundwater monitoring and sampling was conducted in December 2003. The scope of work included measuring the depth to water in groundwater monitoring wells MW-1 through MW-7, and collecting groundwater samples for analysis of total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and total xylenes, (collectively BTEX). Well locations are shown on Figure 2.

During May 2004, EFI installed wells at the Site for the purposes of pilot scale remedial activities (see Figure 2). Four wells were installed on-Site for the purposes of injecting nitrate solution to groundwater upgradient of well MW-4 (NIW-A1, -A2, -B1, -B2). Eight wells were installed on-Site for the purposes of injecting peroxide solution to soil and groundwater upgradient of well MW-3 (PIW-A1 to -A4 and PIW-B1 to -B4). Four wells were installed for the purposes of observing the affects of the injection program (NOBS-B1, POBS-A1, POBS-B1, POBS-B2).

Baseline groundwater sampling from select injection and observation wells was completed in May 2004. System construction and initial injections were completed during May/June 2004. This report summarizes the well/system installation, nitrate/peroxide injections, and baseline groundwater sampling. Progress groundwater sampling was completed in June 2004, and the results are summarized herein.

### 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-onsite. The work was conducted by Twining Laboratories, Inc. as documented in their letter report dated April 15, 1995. The investigation included a magnetometer survey followed by an exploratory excavation. In summary, the work conducted identified underground gasoline service station equipment which included what appeared to be the former tank pit, approximately 110 feet of fuel delivery system piping, and a grease sump and/or hydraulic lift pit in an area which may have been the former service garage. Field evidence and one soil sample indicated the potential for soil contamination along the piping runs, around the grease sump, and around the inferred location of the former tank pit. Characterization of the magnitude and extent of potential soil contamination were not performed during the initial activities.



In June 1995, SECOR conducted additional activities at the Site which included removal of the former underground storage tank (UST) system piping and the former grease sump, and characterization soil sampling along the pipelines and around the former grease sump and former tank pit areas. This work was summarized in SECOR's letter report 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. SECOR subsequently conducted excavation activities in these two areas. The soil excavated from the former sump area was transported off-site for disposal. The soil generated from the UST excavation was treated by means of aeration and later transported off-site for disposal. Three groundwater monitoring wells (MW-1, MW-2, and MW-3) were installed during the investigation activities to evaluate the degree to which the groundwater had been affected. The results of the soil characterization and groundwater monitoring activities are reported in SECOR's *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 SECOR's *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 SECOR's *Work Plan for Additional Groundwater Monitoring Well Installation* dated October 22, 1999, and SECOR's *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 Alameda County Health Care Services Agency (ACHCSA) 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 microgram per Liter [ $\mu\text{g/L}$ ]) in the first two sampling events (December 2000 and February 2001). The well has since been non-detect for all constituents.

In January 2003, SECOR performed an additional limited subsurface investigation as described in the *Remedial Action Work Plan* dated October 25, 2002, and submitted to the ACHCSA. The Work Plan was approved by the ACHSA in a letter dated October 28, 2002. Based on field observations, soil boring logs, and laboratory analytical results, SECOR concluded that: 1) subsurface materials consist primarily of fine-grained soils punctuated by zones of silty sand, and can be divided into 'A', 'B', and 'C' zones based on depth and the occurrence of water-bearing



sandy zones; 2) perched groundwater was encountered within fill materials at approximately 5 to 8 feet below ground surface (bgs), and water-bearing zones were encountered in silt and sand at depths of 13 to 15 feet bgs, in sand from 16 to 19 feet bgs, and in silty sand at 22.5 feet bgs; and 3) soil sample analytical results suggest that the majority of chemical impact exists in silty clay from approximately 8 to 13.5 feet bgs within and adjacent to the former UST and pump island excavation. The findings of the investigation were presented in the report *Limited Subsurface Investigation Report and Work Plan for Additional Soil and Groundwater Assessment* dated February 19, 2003 and prepared by SECOR.

At the request of the ACHCSA, a sensitive receptor survey was performed for the Site. The survey consisted of identifying the locations and depths of subsurface utilities near the Site, and reviewing data provided by the California Department of Water Resources (DWR) for potential groundwater production wells. The survey results are presented in SECOR'S *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.

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

In May 2004, Engineering and Fire Investigations (EFI) initiated installation of the pilot groundwater remedial program. Injection and observation well installations were completed during May 2004 in accordance with the approved RAW. Initial chemical injections were completed during May/June 2004. Progress groundwater samples were collected in June 2004, and the results are discussed herein.





## 2.0 GROUNDWATER MONITORING FOR WELLS MW-1 to MW-7

Groundwater monitoring wells MW-1 through MW-7 were gauged for depth-to-water and sampled on April 13, 2004.

### 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 for each well. Table 1 presents historical groundwater elevation data for the Site.

### 2.2 Purging and Sampling

Each of the seven monitor wells were purged using a low-flow purging method consisting of dedicated tubing attached to a variable speed peristaltic pump set to extract groundwater at a rate of approximately 0.1 gallons per minute (gpm). Temperature, conductivity, pH, dissolved oxygen content, and oxidation-reduction potential were monitored using a flow-through cell during purging to confirm stable water conditions prior to sampling. Copies of the field data sheets are attached as Appendix A.

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, capped, labeled, and stored on ice pending delivery to STL San Francisco, a California state-certified laboratory. The groundwater samples were analyzed for TPH-g by modified U.S. Environmental Protection Agency (EPA) Method 8015m, and for BTEX by EPA Method 8021B.

### 3.0 RESULTS FOR WELLS MW-1 TO MW-7

#### 3.1 Groundwater Elevation Results

The average depth to water measurements taken at the Site on April 13, 2004 was 5.62 feet below the top of well casing, with an average water table elevation of 20.40 feet above mean sea level. Groundwater elevations increased an average of 0.25 feet since the previous monitoring event in December 2003.

A potentiometric surface map illustrating the interpreted groundwater surface elevation and flow direction on April 13, 2004 is presented as Figure 3. The hydraulic gradient across the Site was approximately 0.0012 feet per foot (ft/ft) toward the southwest. These results are generally consistent with flow direction results obtained during the prior monitoring events. As noted in previous reports, the flow direction beneath the Site is potentially tidally influenced by the San Francisco bay to the west.

#### 3.2 Groundwater Analytical Results

Table 2 presents historical groundwater laboratory analytical results for the Site including the April 13, 2004 event. Petroleum hydrocarbon chemical data for the April 2004 event are illustrated on Figure 4.

TPH-g and BTEX concentrations continued to be below the laboratory method reporting limits in on-site well MW-1 and off-site wells MW-5, MW-6, and MW-7. Samples from wells MW-2, MW-3, and MW-4 continue to indicate detectable concentrations of petroleum hydrocarbons.

Copies of the laboratory analytical reports for groundwater samples are attached as Appendix B. The following two subsections provide a brief discussion of the analytical results.

##### 3.2.1 BTEX

BTEX constituents were reported in samples collected from wells MW-2, MW-3, and MW-4. Historical concentrations of benzene in these three wells are shown on Figure 5 (MW-2 and MW-4) and Figure 6 (MW-3). During the April 13, 2004 event, benzene concentrations ranged from 290 µg/L in MW-4 to 1,200 µg/L in MW-3. Reported BTEX concentrations are generally consistent with historical results.

##### 3.2.2 TPH-g

TPH-g was reported in samples collected from wells MW-2, MW-3, and MW-4. Historical concentrations of TPH-g in these three wells are shown on Figure 7 (MW-2 and MW-4) and Figure 8 (MW-3). During the April 13, 2004 event, the TPH-g concentrations ranged from 2,700 µg/L in MW-2 to 7,400 µg/L in MW-4. Reported TPH-g concentrations are generally consistent with historical results.



The groundwater samples were also analyzed for total petroleum hydrocarbons as diesel (TPH-d). The TPH-d results are included on the laboratory data sheets. TPH-d was detected in the following wells: MW-2 at 350 µg/L; MW-3 at 960 µg/L; and MW-4 at 1,200 µg/L. The analytical results for the three wells were flagged in the laboratory data report by the following note: *hydrocarbon reported does not match the pattern of our diesel/gasoline standard*. TPH-d was not detected in the other four wells above the laboratory reporting limits (<50 µg/L).



## 4.0 REMEDIAL PILOT TESTING

The following presents the methods and preliminary results for pilot remedial testing at the Site.

### 4.1 Well Installations

Consistent with the RAW approved by the regulatory agency, EFI provided direct oversight for the installation of injection and observation wells at the Site. Well installations were completed in May 2004. Well locations are shown on Figure 2. Nitrate injection wells were installed to facilitate injection of nitrate solution to the A and B zones upgradient of well MW-4. Existing well MW-4 will be used as an observation well for the A Zone, and new well NOBS-B1 was installed immediately adjacent to MW-4 to observe groundwater conditions in the B-Zone.

Peroxide injection wells were also installed to facilitate injection to the A and B Zones, upgradient of well MW-3. Existing well MW-3 will be used as an observation well for the A Zone. New well POBS-B2 was installed immediately adjacent to well MW-3, and will be used to evaluate groundwater conditions in the B Zone downgradient of the injection area. Wells POBS-A1 (A Zone) and POBS-B1 (B Zone) are one-inch diameter piezometers, installed in the middle of the peroxide injection area to evaluate the affects of peroxide chemical injections.

In general, A Zone injection and observation wells were installed to a total depth of 18 feet bgs with screen from approximately eight to 18 feet bgs. These wells target the clay, silt, and silty sand sediments of the A zone impacted by hydrocarbons. B Zone injection and observation wells were typically installed to approximately 26 feet bgs, with screen from approximately 20 to 26 feet bgs. These wells target the silty sand, sand, and gravelly sand sediments of the B Zone. Well construction for the A Zone and B Zone is generally consistent with the RAW. Well construction details will be provided in the Pilot Remedial Report, to be submitted at the end of the 6-month pilot program.

During well installations, select soil samples were collected for laboratory analysis. These data supplement the existing data to provide a baseline for soil conditions prior to the pilot remedial program. The baseline soil data collected in May 2004 is provided in Table 3.

### 4.2 Pilot Remedial System

The pilot remedial system generally consists of chemical storage tanks, connecting valves, and flexible hosing. No pumps or other mechanized equipment is being used at the Site to facilitate injections. Chemical storage tanks are temporary rental equipment, provided by the chemical company and then removed following completion of the injection program. No permanent storage tanks are currently located at the Site.



### 4.3 Baseline Groundwater Sampling

Groundwater samples were collected in May 2004 from select injection and observation wells to provide a baseline for groundwater conditions prior to chemical/nitrate injections. These data, in addition to the April 2004 results for MW-3 and MW-4, provide a pre-injection baseline from which to evaluate remedial progress. The baseline data is summarized on Table 4. Field data sheets for the sampling are provided in Appendix A, and laboratory sheets are provided in Appendix B.

### 4.4 Phase One Injections

The remedial pilot program consists of injecting nitrate and peroxide solutions to the subsurface. Nitrate is being injected upgradient of well MW-4 to reduce concentrations of dissolved phase hydrocarbons in groundwater. The nitrate is intended to facilitate anaerobic degradation.

Peroxide is being injected upgradient of well MW-3 to chemically oxidize petroleum hydrocarbons in soil and groundwater, including light non-aqueous phase liquids (LNAPL). The peroxide may also increase dissolved oxygen and ORP levels in the groundwater, thereby facilitating aerobic degradation.

The following summarizes the Phase One injections, completed in late May 2004.

#### 4.4.1 Nitrate Injections and Observations

Baseline groundwater data (May 2004) for the nitrate injection area indicates the presence of nitrate in B Zone injection and observation wells before injections. These data are consistent with the low levels of hydrocarbons in these wells, suggesting that microbial activity is already effectively reducing concentrations in the B Zone in this area. Therefore, nitrate solution was not injected into the B Zone as part of the Phase One program.

Approximately 400 gallons of nitrate solution (approximately 1.7 mg/L nitrate as  $\text{NO}_3$ , 120 mg/L ammonia nitrogen, 140 mg/L organic nitrogen, and 260 mg/L total kjeldahl nitrogen-TKN) was injected into A Zone wells NIW-A1 and NIW-A2 during late May 2004. The solution was gravity drained from a holding tank to the injection wells. Progress groundwater samples were collected on June 21, 2004. The baseline and progress data are provided on Table 4. Field data sheets are provided in Appendix A, and laboratory data is provided in Appendix B.

Comparison of the baseline and progress data suggest the following:

- Nitrate was not detected in the A-Zone injection or observation wells during the baseline sampling and progress sampling. These data suggest that nitrate in the injection solution may have been consumed by microorganisms in the groundwater system. Additional groundwater sampling is required to evaluate the other species of nitrogen, such as ammonia and TKN.
- Concentrations of hydrocarbons in the injection wells decreased significantly.



- Concentrations of hydrocarbons at the observation well (MW-4) showed a significant decrease compared to the baseline data. The progress test results are within the range of historic data for MW-4, and additional sampling will be necessary to evaluate the concentration trends.

#### 4.4.1 Peroxide Injections and Observations

Approximately 1,000 gallons of peroxide solution (7 percent) was injected into the eight A Zone and B-Zone wells during late May 2004. The solution was gravity drained from a holding tank to the injection wells. Progress groundwater samples were collected on June 21, 2004. The baseline and progress data are provided on Table 4. Field data sheets are provided in Appendix A, and laboratory data is provided in Appendix B.

Comparison of the baseline and progress data suggest the following:

- Dissolved oxygen levels increased in the injection wells, and ORP values generally became more positive in the injection wells. These data suggest that the peroxide injections are facilitating conditions conducive to aerobic activity.
- Concentrations of hydrocarbons in the injection wells decreased significantly.
- Concentrations of hydrocarbons, dissolved oxygen, and ORP at the A zone observation wells (MW-3 and POBS-A1) were generally unchanged compared to the baseline data. These data suggest that the initial injections to the A zone (about 500 gallons) did not have a significant spatial affect on the A Zone soil and groundwater.
- Concentrations of hydrocarbons at the B Zone observation wells (POBS-B1 and -B2) decreased significantly. Concentrations of dissolved oxygen and ORP at these wells increased. These results are consistent with field observations noted during injections (i.e., bubbling was heard in the B zone observation wells). These observations suggest that the initial injections to the B Zone (about 500 gallons) had a significant spatial affect on the B Zone soil and groundwater.

#### 4.5 Phase Two Pilot Program Injections

Phase Two injections were completed in July 2004 for the following two reasons:

- 1) The peroxide observation well data clearly indicated that additional peroxide solution was necessary to affect soil and groundwater conditions of the A zone.
- 2) Nitrate data for injection and observation wells in the A zone suggest that the injected nitrate may have been consumed by microorganisms.

The Phase Two injections consisted of injecting 1,000 gallons of seven percent peroxide solution to the four A Zone wells (PIW-A1 to -A4) and 2,500 gallons of nitrate solution to the two A Zone wells (NIW-A1 and -A2). Progress groundwater sampling will be completed in August 2004, and results will be presented in the 2<sup>nd</sup> Semester 2004 report.

Table 1  
 Historical Groundwater Elevation Data  
 575 Paseo Grande  
 San Lorenzo, California

Date Sampled	TOC (ft msl)	DTW (ft bTOC)	ELEV (ft msl)
<b>MW-1</b>			
5/17/1996	27.11	5.65	21.46
10/8/1996		7.47	19.64
4/1/1997		6.27	20.84
6/12/1997		6.90	20.21
9/10/1997		7.48	19.63
6/8/1999		6.44	20.67
9/13/1999		7.56	19.55
12/21/1999		7.41	19.70
3/17/2000		5.35	21.76
12/5/2000	26.98	6.99	19.99
2/28/2001		5.71	21.27
8/22/2001		7.39	19.59
5/22/2002		6.25	20.73
8/29/2002		7.23	19.75
12/2/2002		7.13	19.85
3/4/2003		5.77	21.21
12/18/2003		6.37	20.61
4/13/2004		6.13	20.85
<b>MW-2</b>			
5/17/1996	26.73	5.56	21.17
10/8/1996		7.15	19.58
4/1/1997		6.61	20.12
6/12/1997		6.76	19.97
9/10/1997		7.19	19.54
6/8/1999		6.45	20.28
9/13/1999		7.46	19.27
12/21/1999		7.26	19.47
3/17/2000		5.56	21.17
12/5/2000	26.73	7.01	19.72
2/28/2001		5.81	20.92
8/22/2001		7.42	19.31
5/22/2002		6.40	20.33
8/29/2002		7.26	19.47
12/2/2002		7.02	19.71
3/4/2003		5.91	20.82
12/18/2003		6.47	20.26
4/13/2004		6.28	20.45

Table 1  
 Historical Groundwater Elevation Data  
 575 Paseo Grande  
 San Lorenzo, California

Date Sampled	TOC (ft msl)	DTW (ft bTOC)	ELEV (ft msl)
<b>MW-3</b>			
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
<b>MW-4</b>			
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
<b>MW-5</b>			
12/5/2000	25.77	6.25	19.52
2/28/2001		4.95	20.82
8/22/2001		6.69	19.08
5/22/2002		5.50	20.27
8/29/2002		6.54	19.23
12/2/2002		6.37	19.40
3/4/2003		5.41	20.36
12/18/2003		5.65	20.12
4/13/2004		5.37	20.40



Table 1  
 Historical Groundwater Elevation Data  
 575 Paseo Grande  
 San Lorenzo, California

Date Sampled	TOC (ft msl)	DTW (ft bTOC)	ELEV (ft msl)
<b>MW-6</b>			
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
<b>MW-7</b>			
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

Notes:

TOC = Top of casing

DTW = Depth to water

ELEV = Water table elevation above mean sea level (msl)

ft msl = feet above msl

ft bTOC = feet below TOC

NM = Not measured

Table 2  
 Historical Groundwater Analytical Data  
 575 Paseo Grande  
 San Lorenzo, California

Date Sampled	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
<b>MW-1</b>								
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	--	--	--
<b>MW-2</b>								
5/17/1996	23,000	900	330	650	1,500	--	<10	<50
10/8/1996	8,400	530	<50	400	360	--	--	--
4/1/1997	7,600	470	64	210	250	--	--	--
6/12/1997	8,200	440	52	190	190	--	--	--
9/10/1997	8,500	390	51	220	240	--	--	--
6/8/1999	2,100	240	8	33	40	<10	<10	33
9/13/1999	1,300	120	<5	<5	15	--	--	--
12/21/1999	1,400	110	5.6	11	17	--	--	<5
3/17/2000	1,200	180	19	28	31	<50	--	<5
12/5/2000	800	75	1.8	11	14	--	--	--
2/28/2001	1,200	120	7.1	19	27	--	--	--
8/22/2001	990	75	3.5	8.9	8.1	<5	--	<5
5/22/2002	1,700	230	12	12	25	--	--	--
8/29/2002	1,000	66	2.6	12	12	--	--	--
12/2/2002	1,100	76	8.7	11	17	--	--	--
3/4/2003	1,100	130	4.5	22	24	--	--	--
12/18/2003	910	55	4.1	3.3	3.7	--	--	--
4/13/2004	2,700	350	15	18	24	--	--	--

Table 2  
 Historical Groundwater Analytical Data  
 575 Paseo Grande  
 San Lorenzo, California

Date Sampled	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
<b>MW-3</b>								
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	--	--	--
<b>MW-4</b>								
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	--	--	--
<b>MW-5</b>								
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	--	--	--

Table 2  
 Historical Groundwater Analytical Data  
 575 Paseo Grande  
 San Lorenzo, California

Date Sampled	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
<b>MW-6</b>								
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	--	--	--
<b>MW-7</b>								
12/5/2000	<50	<0.5	<0.5	<0.5	<b>1.5</b>	--	--	<5
2/28/2001	<50	<0.5	<0.5	<0.5	<b>6.7</b>	--	--	<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*	--	--	--	--	--	--	--	--
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	--	--	--

Notes:

TOC = Top of casing

DTW = Depth to water

ELEV = Water table elevation above mean sea level (msl)

ft msl = feet above msl

ft bTOC = feet below TOC

NM = Not measured

\* = well not sampled

-- = water sample not analyzed for specified constituents

**Table 3**  
**May 2004 Baseline Soil Data for the Pilot Remedial Program**

575 Paseo Grande  
 San Lorenzo, California

Sample ID Number	Sample Date	Sample Depth (feet bgs)	TPH gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes
USEPA Lab Analytical Methods			8015M/8021B				
Units			mg/kg				
NIW-B2-14	05/05/04	14	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
PIW-A2-5.5	05/05/04	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
PIW-A2-9.5	05/05/04	9.5	150	< 0.062	< 0.062	0.91	< 0.062
POBS-2B-9	05/06/04	9	480	< 3.1	< 3.1	< 3.1	< 3.1
POBS-2B-14	05/06/04	14	1,500	7.5	< 6.2	17	21

mg/kg = milligrams per kilogram

TPH = total petroleum hydrocarbons

< = less than the laboratory method reporting limit as specified

bgs = below ground surface

Table 4  
Groundwater Data for Pilot Remedial Program  
575 Paseo Grande  
San Lorenzo, California

Well ID	Date Sampled	TPH-g <i>Units</i> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Nitrate as NO <sub>3</sub> mg/L	Dissolved Oxygen <sup>(1)</sup> mg/L	ORP <sup>(1)</sup>	Temperature <sup>(1)</sup> degrees Celsius	Electrical Conductivity <sup>(1)</sup>
<b>Peroxide Treatment Area - A Zone Injection Wells</b>											
PIW-A1	5/13/2004	6,800	460	50	31	300	NA	0.10	98.90	20.88	1.50
	6/18/2004	240	10	2.1	4	11	NA	25.42	212.60	21.19	0.62
PIW-A2	5/13/2004	20,000	1,500	460	760	2,600	NA	1.23	98.70	21.40	1.50
	6/18/2004	2,800	150	14	6.5	90	NA	12.57	266.80	23.40	0.49
<b>Peroxide Treatment Area - B Zone Injection Wells</b>											
PIW-B1	5/13/2004	1,900	28	<5.0	11	51	NA	1.30	103.20	22.06	1.21
	6/18/2004	270	22	1	2.2	2.7	NA	19.87	242.50	21.60	0.47
PIW-B3	5/13/2004	3,300	420	17	7.8	44	NA	0.32	107.60	23.11	1.31
	6/18/2004	180	1.2	<0.5	<0.5	2.4	NA	15.50	301.50	21.95	0.39
<b>Peroxide Treatment Area - A Zone Observation Wells</b>											
POBS-A1	5/13/2004	16,000	2,200	220	480	980	NA	0.71	126.20	21.58	2.10
	6/18/2004	11,000	2,200	150	120	820	NA	1.09	92.10	20.69	2.54
MW-3	5/13/2004	3,900	1,200	19	<5.0	<10	NA	0.31	-121.00	21.03	1.93
	6/18/2004	4,300	1,600	40	81	26	NA	1.19	-66.10	22.30	1.98
<b>Peroxide Treatment Area - B Zone Observation Wells</b>											
POBS-B1	5/13/2004	11,000	250	71	160	590	NA	0.11	76.80	21.35	1.31
	6/18/2004	3,500	9.8	<0.5	0.8	13	NA	1.61	132.10	20.75	1.05
POBS-B2	5/13/2004	4,500	150	23	11	120	NA	0.21	92.30	21.76	1.23
	6/18/2004	97	7.4	0.8	1.6	1.7	NA	7.95	265.50	21.39	1.23
<b>Nitrate Injection Area - A Zone Injection Wells</b>											
NIW-A1	5/13/2004	9,300	1,800	59	250	96	<1.0	1.93	117.10	22.02	1.61
	6/18/2004	3,100	340	22	93	55	<2.0	2.99	-33.50	21.30	2.30
NIW-A2	5/13/2004	970	18	<2.5	<2.5	4	<1.0	0.53	112.10	21.62	1.37
	6/18/2004	200	6.4	1.7	2.1	3.5	<2.0	1.96	-57.40	21.39	1.61

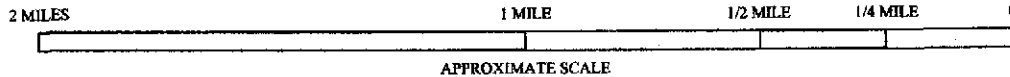
Table 4  
 Groundwater Data for Pilot Remedial Program  
 575 Paseo Grande  
 San Lorenzo, California

Well ID	Date Sampled	TPH-g <i>Units</i> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Nitrate as NO <sub>3</sub> mg/L	Dissolved Oxygen <sup>(1)</sup> mg/L	ORP <sup>(1)</sup>	Temperature <sup>(1)</sup> degrees Celsius	Electrical Conductivity <sup>(1)</sup>
<b>Nitrate Injection Area - B Zone Injection Wells</b>											
NIW-B1	5/13/2004	170	6.5	1.1	2.4	8.0	25	0.37	119.80	23.36	1.22
	6/18/2004	160	2.9	0.7	2.6	2.5	26	0.55	-75.50	21.30	1.39
NIW-B2	5/13/2004	260	8.9	1.5	4	8.4	35	0.25	112.10	23.41	1.36
	6/18/2004	120	1.0	<0.5	1.1	<1	40	0.35	-45.50	21.36	1.26
<b>Nitrate Injection Area - Observation Wells</b>											
MW-4	5/13/2004	7,400	290	29	110	100	<1.0	0.33	-52.10	20.00	1.16
	6/18/2004	2,700	140	12	36	16	<1.0	0.56	-63.30	20.81	1.18
NOBS-B1	5/13/2004	120	4.6	0.8	2.3	5.4	35	0.11	93.20	20.10	1.19
	6/18/2004	88	1.9	0.7	1.7	<1	34	0.53	-75.50	20.69	1.13

Notes:

NA = water sample not analyzed for specified constituents

(1) - Field Measurement Using Flow Through Cell



TOPOGRAPHIC MAP  
SAN LORENZO, CALIFORNIA  
1993



111 Deerwood road,  
Suite 195  
San Ramon, California 94583  
PH. (925) 820-9580  
Fax (925) 820-9587

FIGURE 1  
SITE LOCATION MAP

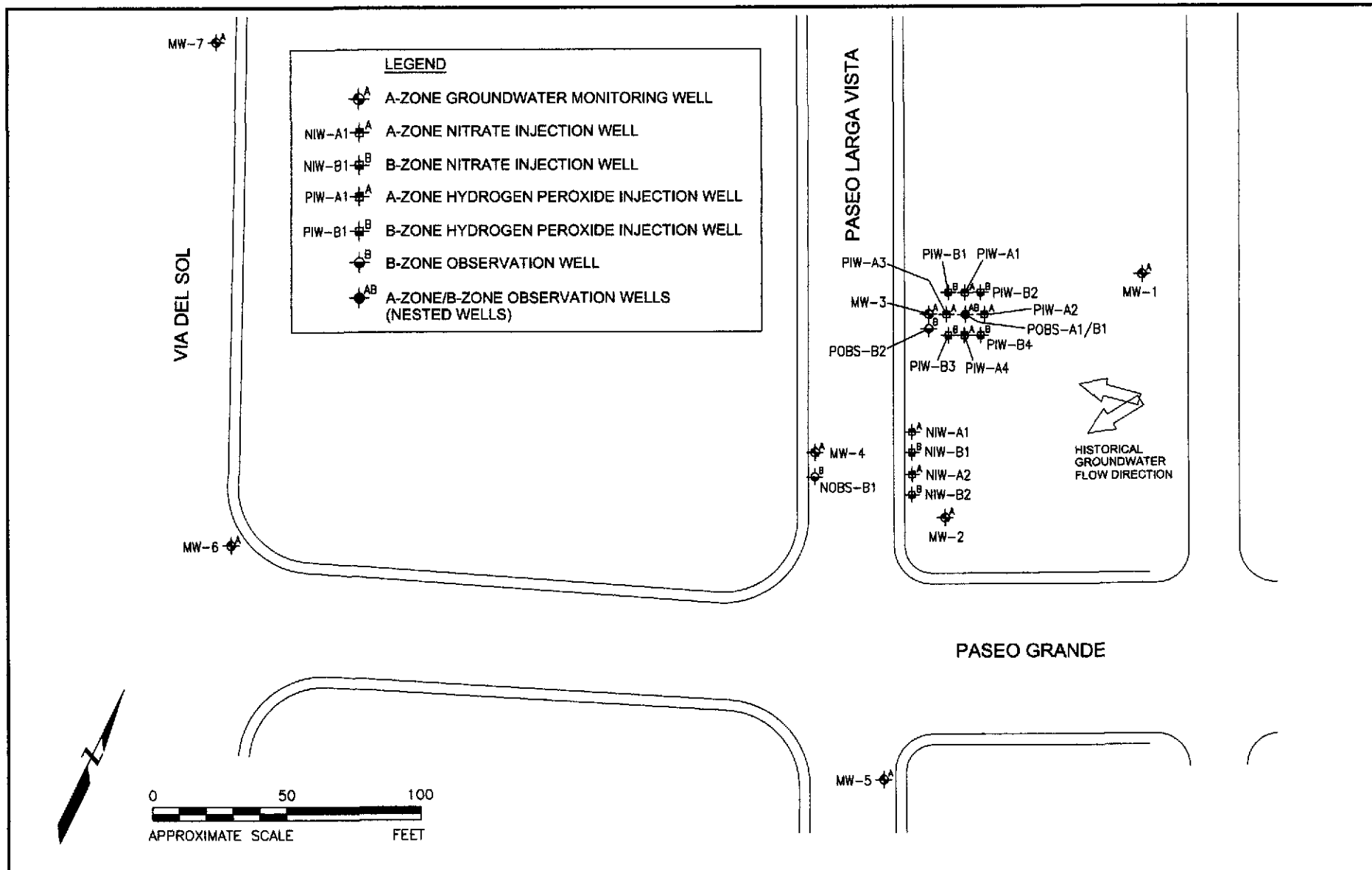
BOHANNON DEVELOPMENT  
COMPANY

575 PASEO GRANDE  
SAN LORENZO, CALIFORNIA

EFI Job No.  
98360.00001

4/5/04





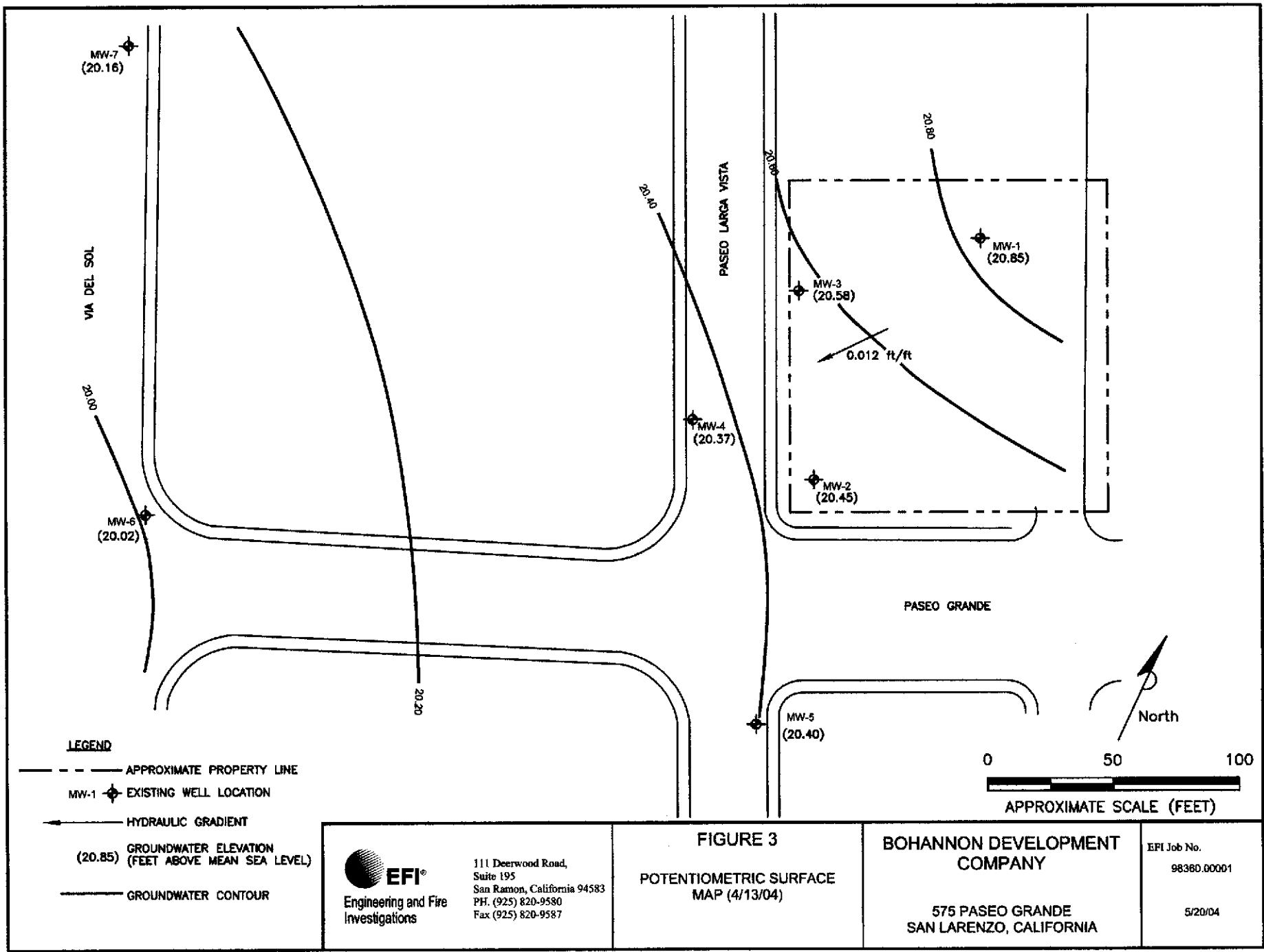
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Investigations

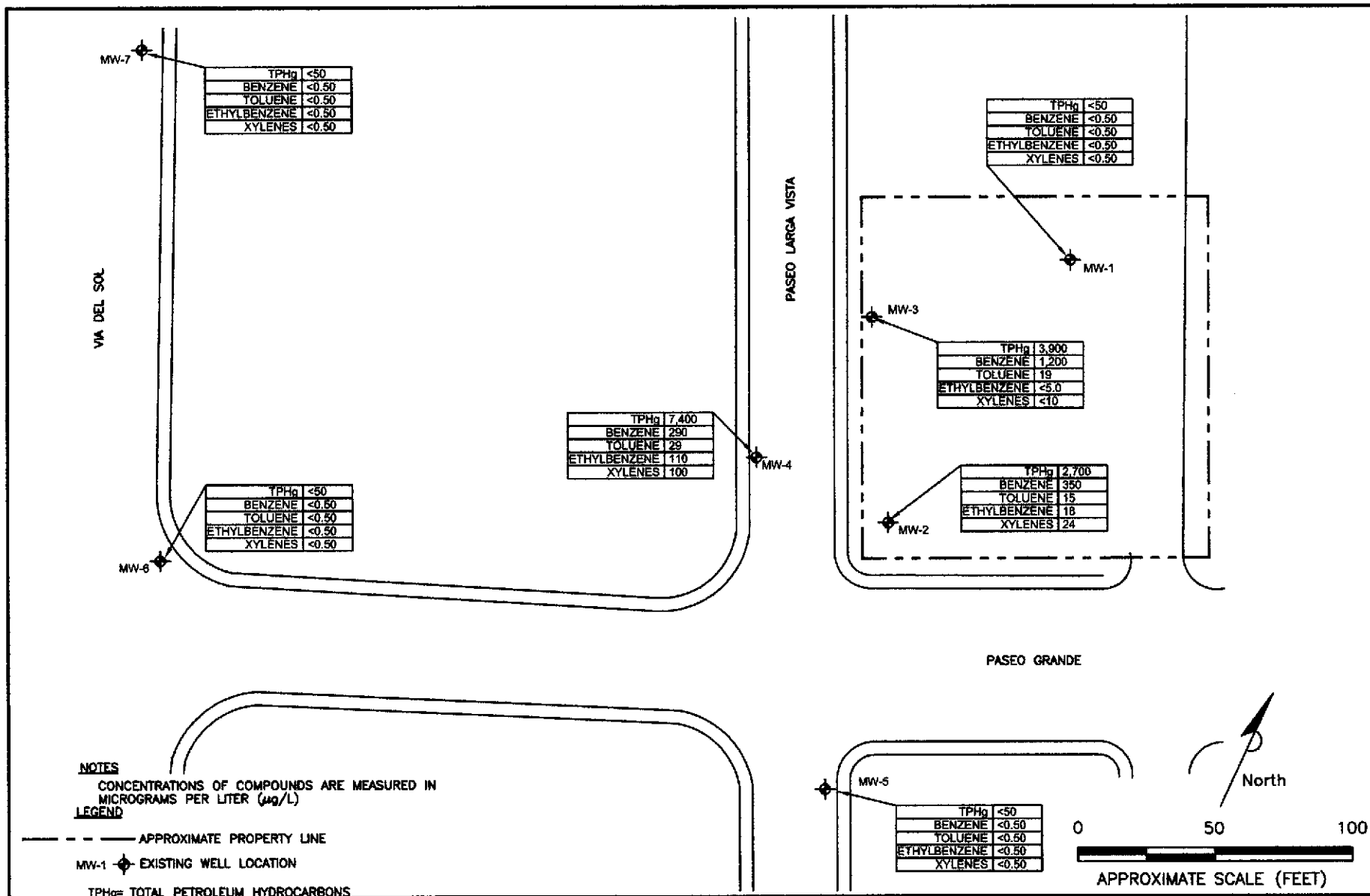
111 Deerwood Road,  
Suite 195  
San Ramon, California 94583  
PH. (925) 820-9580  
Fax (925) 820-9587

**FIGURE 2  
WELL LOCATIONS**

**BOHANNON DEVELOPMENT  
COMPANY**  
  
575 PASEO GRANDE  
SAN LORENZO, CALIFORNIA

EFI Job No.  
98360-00011  
  
Date:  
07/13/04





**NOTES**  
 CONCENTRATIONS OF COMPOUNDS ARE MEASURED IN MICROGRAMS PER LITER (µg/L)

**LEGEND**  
 - - - - - APPROXIMATE PROPERTY LINE  
 MW-1 EXISTING WELL LOCATION

TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

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 San Ramon, California 94583  
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 Fax (925) 820-9587

**FIGURE 4**  
 CHEMICAL CONCENTRATIONS  
 IN GROUNDWATER  
 4/13/04

**BOHANNON DEVELOPMENT  
 COMPANY**

575 PASEO GRANDE  
 SAN LARENZO, CALIFORNIA

EPI Job No.  
 98360.00001

5/20/04

Figure 5 - Historical Concentrations of Benzene at MW-2 and MW-4

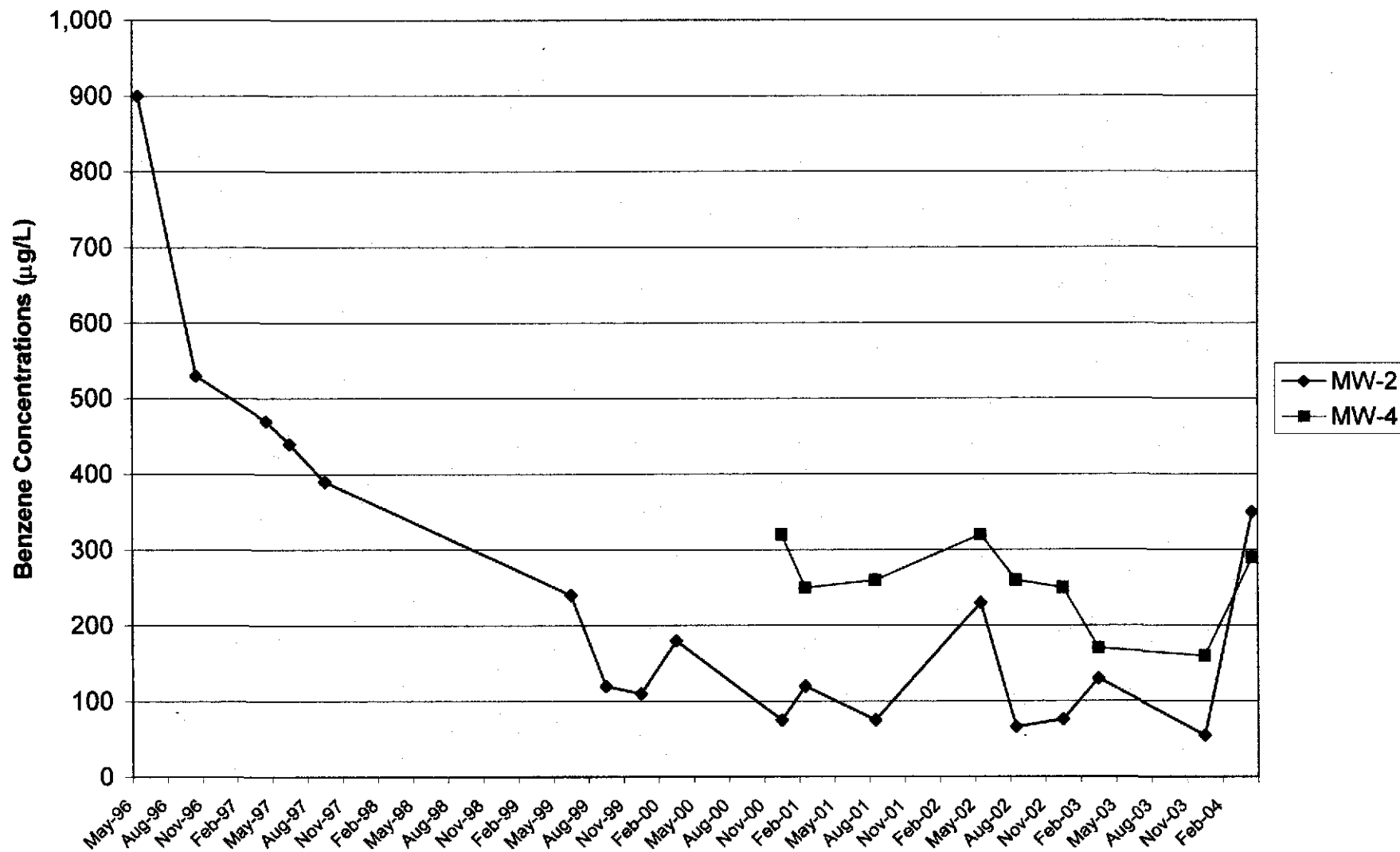


Figure 6 - Historical Concentrations of Benzene at MW-3

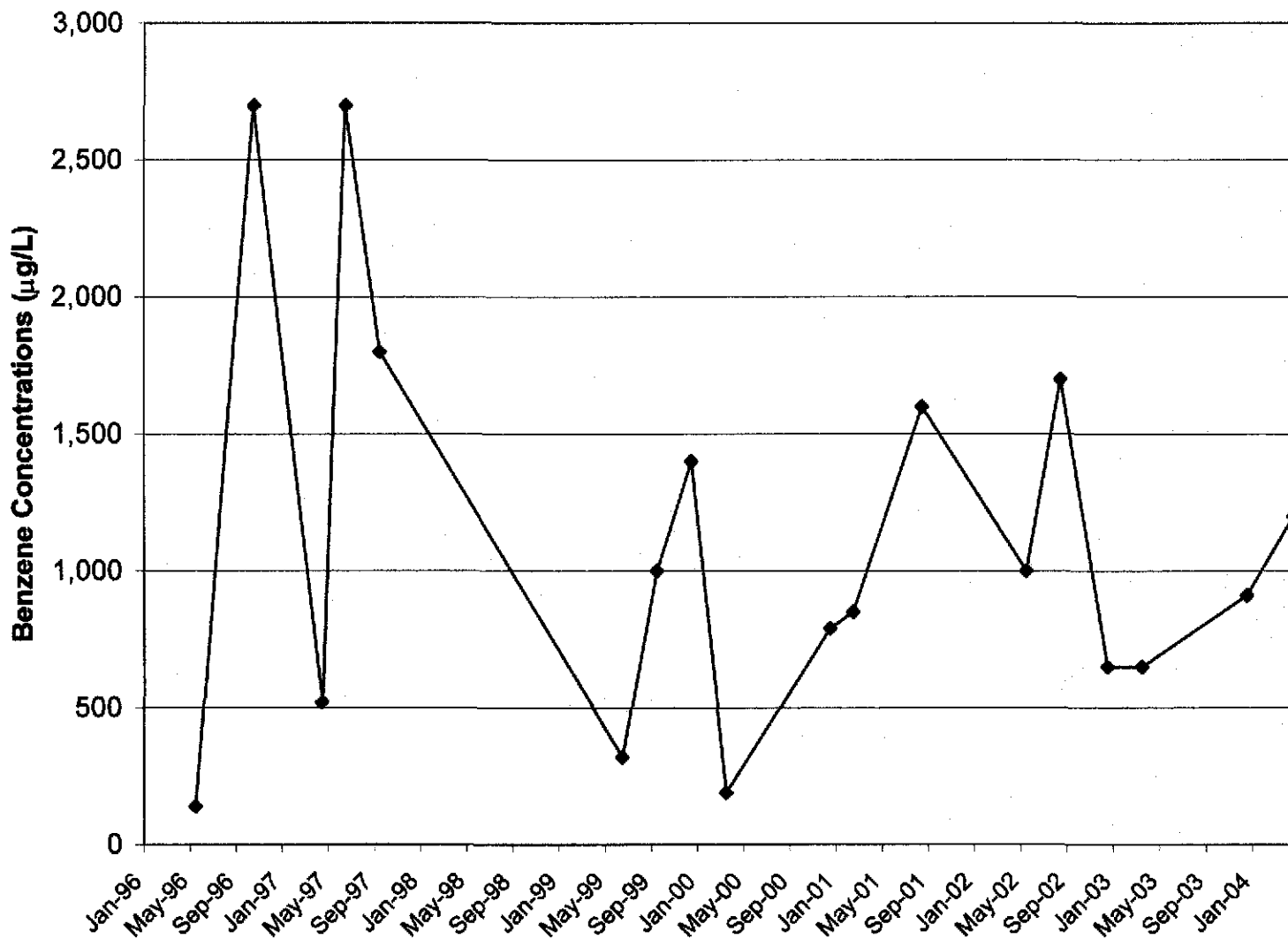


Figure 7 - Historical Concentrations of TPH-g at MW-2 and MW-4

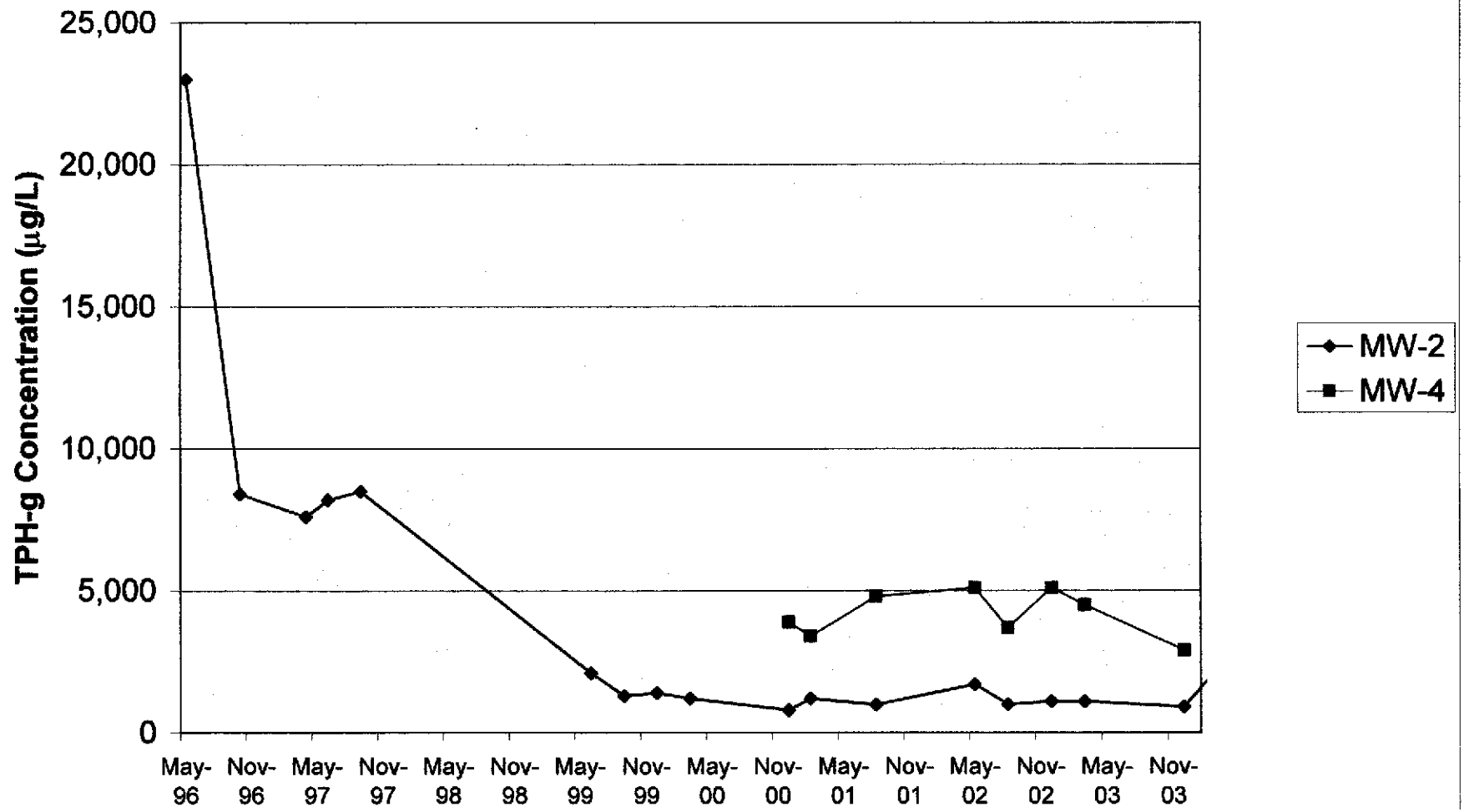
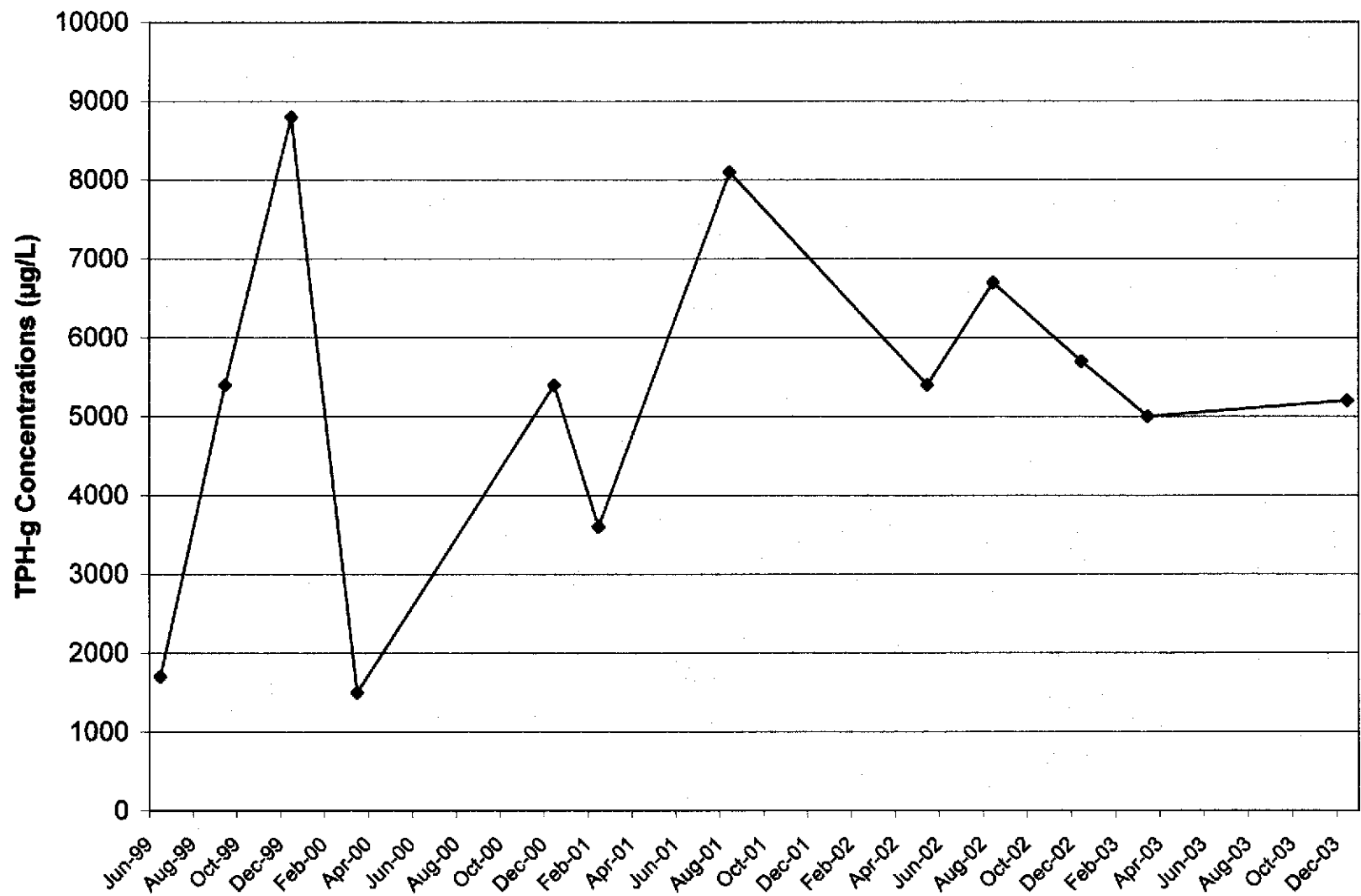


Figure 8 - Historical Concentrations of TPH-g at MW-3  
(June 1999 to April 2004)





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**APPENDIX A  
FIELD DATA SHEETS**



GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 4/13/04

Project Name: Bohannon Well Designation: MW-1  
 Project Number: 983600001 Field Personnel: MBW  
 Site Location: San Lorenzo

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
14.30	6.13	=	7.99	2-inch	4-inch	6-inch	1X =
				0.16	0.64	1.44	3X =

TDC = 26.99

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day	10:00						
Volume Purged	1	2	3				
Purge Rate (gpm)	0.15 gpm	0.15 gpm	0.15 gpm				
Temperature (°C)	20.12	20.13	20.18				
ORP	244.3	241.8	241.8				
Dissolved Oxygen	<del>0.51</del> 0.51	<del>0.40</del> 0.40	0.38				
pH	7.35	7.24	7.24				
Specific Conductivity (µmhos)	1387	1399	1398				
Turbidity/Color	-	-	-				
Odor/Sheen	none	none	none				
Depth to Water During Purge (ft)	6.7	6.7	6.7				
Number of Casing Volumes Removed							
Dewatered?	no	no	no				
Comments:							

SAMPLE DATA:

Static Water Level: 6.13 Description of Water Level Measurement Point: Notch in casing  
 Water Level Determined By: Solinst Sander  
 Purge Method: Low volume peristaltic  
 Purge Depth: \_\_\_\_\_ Percent Recovery: 100 Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: 10:28  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

PURGE WATER DISPOSAL:

Total Discharge (gal): \_\_\_\_\_ Disposal Method: Drum  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

WELL HEAD CONDITIONS:

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 4/13/04

Project Name: Behannon Well Designation: MW-2  
 Project Number: 983600001 Field Personnel: MBLW  
 Site Location: San Lorenzo

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	-	6.28	=		2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

100 = 26.73

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged	0.5	1.0	1.3				
Purge Rate (gpm)	6.15	6.15					
Temperature (°C)	20.94	20.93	20.94				
ORP	-112.6	-112.9	-113.1				
Dissolved Oxygen	0.42	0.40	0.49				
pH	6.90	6.91	6.90				
Specific Conductivity (µmhos)	15.32	15.33	15.32				
Turbidity/Color	clear	clear	clear				
Odor/Sheen	Strong pet	odor					
Depth to Water During Purge (ft)	6.5	6.5	6.5				
Number of Casing Volumes Removed							
Dewatered?	no	no					
Comments:							

SAMPLE DATA:

Static Water Level: 6.28 Description of Water Level Measurement Point: Notch in casing  
 Water Level Determined By: Salinist sonde  
 Purge Method: Low volume peristaltic  
 Purge Depth: \_\_\_\_\_ Percent Recovery: 100 Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: 11:55  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

PURGE WATER DISPOSAL:

Total Discharge (gal): \_\_\_\_\_ Disposal Method: Drum  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

WELL HEAD CONDITIONS:

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 4/13/04

Project Name: Behannon Well Designation: MW-3  
 Project Number: 983600001 Field Personnel: MSW  
 Site Location: Sum. Loc. 20

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	<u>5.97</u>	=		2-inch	4-inch	6-inch	1X =
				0.16	0.64	1.44	3X =

TC = 26.55

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged	<u>6.5</u>	<u>1.5</u>	<u>1.25</u>				
Purge Rate (gpm)							
Temperature (°C)	<u>21.03</u>	<u>21.03</u>	<u>21.03</u>				
ORP	<u>-120.8</u>	<u>-121.5</u>	<u>-121.6</u>				
Dissolved Oxygen	<u>0.31</u>	<u>0.31</u>	<u>0.31</u>				
pH	<u>6.90</u>	<u>6.91</u>	<u>6.91</u>				
Specific Conductivity (µmhos)	<u>1937</u>	<u>1938</u>	<u>1938</u>				
Turbidity/Color	<u>-</u>	<u>-</u>	<u>-</u>				
Odor/Sheen	<u>Strong odor</u>	<u>—————&gt;</u>					
Depth to Water During Purge (ft)	<u>6.5</u>	<u>6.5</u>	<u>6.5</u>				
Number of Casing Volumes Removed							
Dewatered?	<u>no</u>	<u>no</u>	<u>no</u>				
Comments:							

SAMPLE DATA:

Static Water Level: 5.97 Description of Water Level Measurement Point: Notch in casing  
 Water Level Determined By: Solinst Sander  
 Purge Method: Low volume peristaltic  
 Purge Depth: \_\_\_\_\_ Percent Recovery: 100 Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: 12:20  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

PURGE WATER DISPOSAL:

Total Discharge (gal): \_\_\_\_\_ Disposal Method: Drum  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

WELL HEAD CONDITIONS:

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 4/13/04

Project Name: Bolton Well Designation: MW-4  
 Project Number: 983600001 Field Personnel: MB  
 Site Location: San Lore 720

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	<u>5.50</u>	=		2-inch	4-inch	6-inch	1X =
				0.16	0.64	1.44	3X =

TOC = 25.87

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged	<u>0.5</u>	<u>1.0</u>	<u>1.5</u>	<u>2.0</u>			
Purge Rate (gpm)	<u>0.15</u>	<u>0.15</u>	<u>0.15</u>	<u>0.15</u>			
Temperature (°C)	<u>18.82</u>	<u>18.91</u>	<u>18.90</u>	<u>18.90</u>			
ORP	<u>-83.7</u>	<u>-89.5</u>	<u>-89.8</u>	<u>-80.4</u>			
Dissolved Oxygen	<u>0.67</u>	<u>0.40</u>	<u>0.37</u>	<u>0.26</u>			
pH	<u>6.91</u>	<u>6.87</u>	<u>6.85</u>	<u>6.83</u>			
Specific Conductivity (µmhos)	<u>1062</u>	<u>1066</u>	<u>1065</u>	<u>1067</u>			
Turbidity/Color	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>			
Odor/Sheen	<u>pet odor</u>	<u>pet odor</u>	<u>pet odor</u>	<u>pet odor</u>			
Depth to Water During Purge (ft)	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>			
Number of Casing Volumes Removed							
Dewatered?	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>			
Comments:							

SAMPLE DATA:

Static Water Level: 5.50 Description of Water Level Measurement Point: Watch in Casing  
 Water Level Determined By: Solinst Sounder  
 Purge Method: Low Volume Peristaltic  
 Purge Depth: \_\_\_\_\_ Percent Recovery: 100 Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: 1:20  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

PURGE WATER DISPOSAL:

Total Discharge (gal): \_\_\_\_\_ Disposal Method: Down  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

WELL HEAD CONDITIONS:

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 4/13/04

Project Name: Behannon Well Designation: MW-5  
 Project Number: 9336.0 0001 Field Personnel: ABW  
 Site Location: Sun Lorenza

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
<u>0</u>	-	<u>550 5.37</u>	=		2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

TOL = 25.77

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged	<u>0.5</u>	<u>1.0</u>	<u>1.5</u>				
Purge Rate (gpm)	<u>0.15</u>	<u>0.15</u>	<u>0.15</u>				
Temperature (°C)	<u>19.32</u>	<u>19.31</u>	<u>19.33</u>				
ORP	<u>245.9</u>	<u>241.8</u>	<u>236.7</u>				
Dissolved Oxygen	<u>0.47</u>	<u>0.41</u>	<u>0.40</u>				
pH	<u>7.55</u>	<u>7.49</u>	<u>7.47</u>				
Specific Conductivity (µmhos)	<u>850</u>	<u>852</u>	<u>849</u>				
Turbidity/Color							
Odor/Sheen	<u>none</u>	<u>none</u>	<u>none</u>				
Depth to Water During Purge (ft)	<u>6</u>	<u>6</u>	<u>6</u>				
Number of Casing Volumes Removed							
Dewatered?	<u>no</u>	<u>no</u>	<u>no</u>				
Comments:							

**SAMPLE DATA:**  
 Static Water Level: 5.37 Description of Water Level Measurement Point: notch in casing  
 Water Level Determined By: Schmid Gouder  
 Purge Method: Low volume peristh  
 Purge Depth: \_\_\_\_\_ Percent Recovery: 100 Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: 16:58  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**  
 Total Discharge (gal): \_\_\_\_\_ Disposal Method: Drum  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**  
 Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 7/13/04

Project Name: Bohannon  
Project Number: 943600001  
Site Location: San Lorenzo

Well Designation: MW-6  
Field Personnel: MB

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
				2-inch	4-inch	6-inch	
<u>20.52</u>	<u>4.87</u>	=		0.16	0.64	1.44	1X = 3X =
<u>Total = 24.89</u>							

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged	<u>0.5</u>	<u>1.0</u>	<u>1.5</u>				
Purge Rate (gpm)	<u>0.15</u>	<u>0.15</u>	<u>0.15</u>				
Temperature (°C)	<u>18.83</u>	<u>18.52</u>	<u>18.80</u>				
ORP	<u>240.8</u>	<u>240.6</u>	<u>240.4</u>				
Dissolved Oxygen	<u>0.51</u>	<u>0.49</u>	<u>0.50</u>				
pH	<u>7.22</u>	<u>7.21</u>	<u>7.22</u>				
Specific Conductivity (µmhos)	<u>927</u>	<u>928</u>	<u>926</u>				
Turbidity/Color	<u>-</u>	<u>-</u>	<u>-</u>				
Odor/Sheen	<u>none</u>	<u>none</u>	<u>none</u>				
Depth to Water During Purge (ft)	<u>5.5</u>	<u>5.5</u>	<u>5.5</u>				
Number of Casing Volumes Removed							
Dewatered?	<u>no</u>	<u>no</u>	<u>no</u>				
Comments:							

**SAMPLE DATA:**  
 Static Water Level: 4.87 Description of Water Level Measurement Point: Notch in casing  
 Water Level Determined By: Solimbb Sawyer  
 Purge Method: low volume peristaltic  
 Purge Depth: \_\_\_\_\_ Percent Recovery: 100 Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: 11:14  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**  
 Total Discharge (gal): \_\_\_\_\_ Disposal Method: Down  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**  
 Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 4/13/04

Project Name: Bohanna Well Designation: MW-7  
 Project Number: 983600001 Field Personnel: MBW  
 Site Location: San Lorenz

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	<u>5.27</u>	=		2-inch	4-inch	6-inch	1X =
				0.16	0.64	1.44	3X =

TC = 25.43

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged	<u>6.5</u>	<u>1.0</u>	<u>1.5</u>				
Purge Rate (gpm)	<u>0.15</u>	<u>0.15</u>	<u>0.15</u>				
Temperature (°C)	<u>17.05</u>	<u>17.05</u>	<u>17.04</u>				
ORP	<u>259.1</u>	<u>259.2</u>	<u>259.4</u>				
Dissolved Oxygen	<u>0.59</u>	<u>0.59</u>	<u>0.50</u>				
pH	<u>7.36</u>	<u>7.35</u>	<u>7.35</u>				
Specific Conductivity (µmhos)	<u>797</u>	<u>797</u>	<u>796</u>				
Turbidity/Color	<u>-</u>	<u>-</u>	<u>-</u>				
Odor/Sheen	<u>none</u>	<u>none</u>	<u>none</u>				
Depth to Water During Purge (ft)	<u>6</u>	<u>6</u>	<u>6</u>				
Number of Casing Volumes Removed							
Dewatered?	<u>no</u>	<u>no</u>	<u>no</u>				
Comments:							

SAMPLE DATA:  
 Static Water Level: 5.27 Description of Water Level Measurement Point: Notch in casing  
 Water Level Determined By: Soliman Gaudin  
 Purge Method: low volume peristaltic  
 Purge Depth: \_\_\_\_\_ Percent Recovery: 100 Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: 11:40  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

PURGE WATER DISPOSAL:  
 Total Discharge (gal): \_\_\_\_\_ Disposal Method: Drum  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

WELL HEAD CONDITIONS:  
 Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Behannon  
Project Number: 98360 000010  
Site Location: San Lorenzo, CA

Well Designation: FW-A1  
Field Personnel: Mark Williams

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	20.99	20.87	20.83				
ORP	115.6	109.1	98.9				
Dissolved Oxygen	<del>0.0</del> 3.013	0.15	0.10				
pH	7.12	7.19	7.16				
Specific Conductivity (µmhos)	1433	1,521	1,505				
Turbidity/Color	cloudy	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: ✓ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_



**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bahannon

Well Designation: P1W-A2

Project Number: 98360 000010

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

**WELL VOLUME CALCULATION**

Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	1X =
	-		=		0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	21.51	21.49	21.48				
ORP	111.3	101.9	98.7				
Dissolved Oxygen	2.55	1.19	1.23				
pH	6.97	7.01	6.99				
Specific Conductivity (µmhos)	1.497	1.522	1.505				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_

Water Level Determined By: \_\_\_\_\_

Purge Method: \_\_\_\_\_

Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_

Sampling Equipment: \_\_\_\_\_

Time of Sample Collection: \_\_\_\_\_

Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_

Drum Designation(s)/Volume: \_\_\_\_\_

Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO

Inside of Well Head and Outer Casing Dry?: YES NO

Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bohannon

Well Designation: PW-A3

Project Number: 98360 000010

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

**WELL VOLUME CALCULATION**

Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	22.44	22.40	22.35				
ORP	49.1	40.11	42.2				
Dissolved Oxygen	5.33	2.97	1.19				
pH	7.07	7.05	7.01				
Specific Conductivity (µmhos)	1.368	1.401	1.392				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bohannon  
Project Number: 98360 600010  
Site Location: San Lorenzo, CA

Well Designation: PW-A4  
Field Personnel: Mark Williams

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
	-		=		0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	22.07	22.01	22.02				
ORP	55.3	49.8	35.7				
Dissolved Oxygen	0.25	0.27	0.21				
pH	7.04	7.11	7.09				
Specific Conductivity (µmhos)	1482	1443	1463				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bohannon

Well Designation: PW-61

Project Number: 98360 600010

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

**WELL VOLUME CALCULATION**

Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	22.35	22.04	22.06				
ORP	110.8	105.4	105.2				
Dissolved Oxygen	1.63	1.42	1.30				
pH	7.25	7.15	7.16				
Specific Conductivity (µmhos)	1.210	1.225	1.231				
Turbidity/Color	Clear	Clear	Clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_

Water Level Determined By: \_\_\_\_\_

Purge Method: \_\_\_\_\_

Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_

Sampling Equipment: \_\_\_\_\_

Time of Sample Collection: \_\_\_\_\_

Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_

Drum Designation(s)/Volume: \_\_\_\_\_

Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO

Inside of Well Head and Outer Casing Dry?: YES NO

Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Behannon

Well Designation: FW-62

Project Number: 98360 0000 10

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	1X =
	-		=		0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	22.42	22.31	22.34				
ORP	121.4	103.1	98.3				
Dissolved Oxygen	0.36	0.33	0.34				
pH	7.18	7.15	7.16				
Specific Conductivity (µmhos)	1.284	1.244	1.236				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_

Water Level Determined By: \_\_\_\_\_

Purge Method: \_\_\_\_\_

Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_

Sampling Equipment: \_\_\_\_\_

Time of Sample Collection: \_\_\_\_\_

Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_

Drum Designation(s)/Volume: \_\_\_\_\_

Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO

Inside of Well Head and Outer Casing Dry?: YES NO

Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bohannon  
Project Number: 98360 600010  
Site Location: San Lorenzo, CA

Well Designation: P1W-63  
Field Personnel: Mark Williams

**WELL VOLUME CALCULATION**

Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	23.92	23.05	23.11				
ORP	123.3	119.9	107.6				
Dissolved Oxygen	0.42	0.38	0.32				
pH	7.07	7.11	7.09				
Specific Conductivity (µmhos)	1.316	1.339	1.305				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bshannon

Well Designation: piw-B-1

Project Number: 98360 6000 10

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	23.34	23.19	23.22				
ORP	95.9	92.6	89.9				
Dissolved Oxygen	0.10	0.12	0.09				
pH	7.06	6.98	7.02				
Specific Conductivity (µmhos)	1.345	1.362	1.405				
Turbidity/Color	Clear	Clear	Clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 5/13/04

Project Name: Bohannon  
Project Number: 98360 0000 10  
Site Location: San Lorenzo, CA

Well Designation: ~~PTW-1~~ NIW-A1  
Field Personnel: Mark Williams

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	22.07	22.01	22.02				
ORP	124.2	119.9	117.1				
Dissolved Oxygen	4.33	2.35	4.93				
pH	6.91	6.92	6.95				
Specific Conductivity (µmhos)	1.556	1.672	1.611				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

SAMPLE DATA:

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

PURGE WATER DISPOSAL:

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

WELL HEAD CONDITIONS:

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_



**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 1/5/13/04

Project Name: B. Shannon  
Project Number: 98360 6000 10  
Site Location: San Lorenzo / CA

Well Designation: N:W-A2  
Field Personnel: Mark Williams

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	21.71	21.64	21.62				
ORP	120.1	117.8	112.1				
Dissolved Oxygen	0.57	0.61	0.53				
pH	6.95	6.92	6.93				
Specific Conductivity (µmhos)	1.372	1.345	1.366				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bshannon

Well Designation: NW-81

Project Number: 98360 000010

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

**WELL VOLUME CALCULATION**

Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X =
								3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	23.31	23.28	23.26				
ORP	123.3	120.4	119.8				
Dissolved Oxygen	0.39	0.36	0.37				
pH	7.18	7.15	7.12				
Specific Conductivity (µmhos)	1.191	1.201	1.223				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_

Water Level Determined By: \_\_\_\_\_

Purge Method: \_\_\_\_\_

Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_

Sampling Equipment: \_\_\_\_\_

Time of Sample Collection: \_\_\_\_\_

Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_

Drum Designation(s)/Volume: \_\_\_\_\_

Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO

Inside of Well Head and Outer Casing Dry?: YES NO

Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bohannon  
Project Number: 98360 0000 10  
Site Location: San Lorenzo, CA

Well Designation: N1W-BL  
Field Personnel: Mark Williams

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	1X =
	-		=		0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	23.45	23.39	23.41				
ORP	119.9	118.2	112.1				
Dissolved Oxygen	0.32	0.27	0.25				
pH	7.20	7.15	7.18				
Specific Conductivity (µmhos)	1.324	1.303	1.355				
Turbidity/Color	Clear	Clear	Clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/01

Project Name: Bshannon

Well Designation: MW-4

Project Number: 98360 000010

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X =
								3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	19.98	20.01	20.00				
ORP	-67.9	-48.7	-52.1				
Dissolved Oxygen	0.32	0.35	0.33				
pH	7.13	7.05	7.11				
Specific Conductivity (µmhos)	1.144	1.162	1.159				
Turbidity/Color	clear	cloudy	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_

Water Level Determined By: \_\_\_\_\_

Purge Method: \_\_\_\_\_

Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_

Sampling Equipment: \_\_\_\_\_

Time of Sample Collection: \_\_\_\_\_

Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_

Drum Designation(s)/Volume: \_\_\_\_\_

Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO

Inside of Well Head and Outer Casing Dry?: YES NO

Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bushman Well Designation: NDSS-131  
 Project Number: 99360 000010 Field Personnel: Mark Williams  
 Site Location: San Lorenzo, CA

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	<u>20.24</u>	<u>20.19</u>	<u>20.21</u>				
ORP	<u>123.4</u>	<u>107.6</u>	<u>93.2</u>				
Dissolved Oxygen	<u>0.26</u>	<u>0.17</u>	<u>0.11</u>				
pH	<u>7.16</u>	<u>7.12</u>	<u>7.14</u>				
Specific Conductivity (µmhos)	<u>1,157</u>	<u>1,204</u>	<u>1,197</u>				
Turbidity/Color	<u>clear</u>	<u>slight, cloudy</u>	<u>clear</u>				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/01

Project Name: Behanan Well Designation: POB-32  
 Project Number: 99360 0000 10 Field Personnel: Mark Williams  
 Site Location: San Lorenzo, CA

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	21.84	21.79	21.76				
ORP	103.9	109.7	92.3				
Dissolved Oxygen	0.31	0.26	0.21				
pH	7.15	7.07	7.09				
Specific Conductivity (µmhos)	1.276	1.289	1.293				
Turbidity/Color	Clear	Clear	Clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bohannon

Well Designation: POSS-B1

Project Number: 99360 0000 10

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

**WELL VOLUME CALCULATION**

Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	-		=		2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	21.30	21.31	21.35				
ORP	85.4	80.1	76.3				
Dissolved Oxygen	0.16	0.12	0.11				
pH	7.20	7.18	7.21				
Specific Conductivity (umhos)	1.263	1.301	1.309				
Turbidity/Color	Clear	Clear	Clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 5/13/04

Project Name: Bshannon

Well Designation: POBS-A1

Project Number: 98360 0000 10

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	21.62	21.60	21.58				
ORP	135.3	128.7	126.2				
Dissolved Oxygen	0.81	0.76	0.71				
pH	7.04	7.11	7.02				
Specific Conductivity (µmhos)	2102	2113	2104				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_

Water Level Determined By: \_\_\_\_\_

Purge Method: \_\_\_\_\_

Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_

Sampling Equipment: \_\_\_\_\_

Time of Sample Collection: \_\_\_\_\_

Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_

Drum Designation(s)/Volume: \_\_\_\_\_

Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO

Inside of Well Head and Outer Casing Dry?: YES NO

Comments: \_\_\_\_\_





**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 111 Deerwood Road  
Suite 195

Project Name: Bohannon  
Project Number: \_\_\_\_\_  
Site Location: San Lorenzo

Well Designation: PIW-A1  
Field Personnel: MW  
San Ramon, CA 94583  
Tel: 925-820-9580  
Fax: 925-820-9587

**WELL VOLUME CALCULATION**

Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	-		=		2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	21.29	21.16	21.19				
ORP	215.4	214.4	212.6				
Dissolved Oxygen	2.764	2.655	2.542				
pH	7.13	7.11	7.13				
Specific Conductivity (µmhos)	0.694	0.667	0.621				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:	<u>Some petroleum oil</u>						

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 6/18/04

Project Name: Bolton Well Designation: PIW-AZ  
 Project Number: \_\_\_\_\_ Field Personnel: mbw  
 Site Location: San Lorenzo

TPH-g/BT

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	-		=		2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	23.45	23.44	23.40				
ORP	304.6	287.1	266.8				
Dissolved Oxygen	22.38	17.11	12.57				
pH	7.33	7.39	7.34				
Specific Conductivity (µmhos)	0.4961	0.500	0.496				
Turbidity/Color	cloudy	clear	clear				
Odor/Sheen	none	none	none				
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

SAMPLE DATA:

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

PURGE WATER DISPOSAL:

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

WELL HEAD CONDITIONS:

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/18/04

Project Name: B. Shannon Well Designation: PIW-A3  
 Project Number: \_\_\_\_\_ Field Personnel: M.B.W.  
 Site Location: San Lorenzo

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	-		=		2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	22.31	22.41	22.35				
ORP	313.1	305.4	291.1				
Dissolved Oxygen	7.22	4.56	3.11				
pH	6.76	6.75	6.80				
Specific Conductivity (µmhos)	0.305	0.366	0.385				
Turbidity/Color	0.22 /	clear	clear				
Odor/Sheen	none	none	none				
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/16/04

Project Name: Bolton  
Project Number: \_\_\_\_\_  
Site Location: San Lorenz

Well Designation: PIW-A4  
Field Personnel: MA

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
		=		2-inch	4-inch	6-inch	1X =
		=		0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	<u>23.16</u>	<u>23.11</u>	<u>23.26</u>				
ORP	<u>313.6</u>	<u>295.6</u>	<u>266.7</u>				
Dissolved Oxygen	<u>6.67</u>	<u>3.13</u>	<u>2.87</u>				
pH	<u>6.77</u>	<u>6.81</u>	<u>6.79</u>				
Specific Conductivity (µmhos)	<u>0.632</u>	<u>0.672</u>	<u>0.683</u>				
Turbidity/Color	<u>cloudy</u>	<u>clear</u>	<u>clear</u>				
Odor/Sheen	<u>none</u>	<u>none</u>	<u>none</u>				
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

GROUNDWATER WELL - PURGE AND SAMPLE RECORD

Date: 6/18/04

Project Name: Bokunan  
Project Number: \_\_\_\_\_  
Site Location: San Lorenzo

Well Designation: PIW-B1  
Field Personnel: MA

TPA-g/BK

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	-		=		2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm) <sup>avg</sup>							
Temperature (°C)	<u>21.67</u>	<u>21.55</u>	<u>21.61</u>				
ORP	<u>311.6</u>	<u>287.0</u>	<u>242.5</u>				
Dissolved Oxygen	<u>28.41</u>	<u>21.46</u>	<u>19.87</u>				
pH	<u>7.28</u>	<u>7.15</u>	<u>7.21</u>				
Specific Conductivity (µmhos)	<u>0.405</u>	<u>0.467</u>	<u>0.477</u>				
Turbidity/Color	<u>26-27</u>	<u>clear</u>	<u>clear</u>				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

SAMPLE DATA:

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

PURGE WATER DISPOSAL:

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

WELL HEAD CONDITIONS:

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/18/04

Project Name: Bohannon Well Designation: PIW-B2  
 Project Number: \_\_\_\_\_ Field Personnel: MA  
 Site Location: San Lorenzo

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
	-		=		0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	22.07	22.01	22.05				
ORP	318.7	299.1	275.0				
Dissolved Oxygen	2.970	1.8.5	12.6				
pH	7.30	7.35	7.42				
Specific Conductivity (µmhos)	0.359	0.372	0.381				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/18/04

Project Name: Bahannon  
Project Number: \_\_\_\_\_  
Site Location: San Lucas

Well Designation: PIW-B3  
Field Personnel: Mika

TPH-5/BTE0

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	22.76	21.90	21.95				
ORP	324.0	322.8	301.5				
Dissolved Oxygen	27.02	18.34	15.5				
pH	7.17	7.07	7.11				
Specific Conductivity (µmhos)	0.358	0.382	0.399				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/13/04

Project Name: Bolton Well Designation: PW-134  
 Project Number: \_\_\_\_\_ Field Personnel: MM  
 Site Location: San Lucas

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	-		=		2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	<u>21.23</u>	<u>21.33</u>	<u>21.37</u>				
ORP	<u>305.6</u>	<u>211.4</u>	<u>196.5</u>				
Dissolved Oxygen	<u>7.27</u>	<u>6.92</u>	<u>6.01</u>				
pH	<u>6.90</u>	<u>6.95</u>	<u>6.97</u>				
Specific Conductivity (µmhos)	<u>0.535</u>	<u>0.525</u>	<u>0.544</u>				
Turbidity/Color	<u>cloud</u>	<u>clear</u>	<u>clear</u>				
Odor/Sheen	<u>sheen</u>	<u>odor</u>	<u>odor</u>				
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_



**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/18/04

Project Name: Bannon Well Designation: N1W-A1  
 Project Number: \_\_\_\_\_ Field Personnel: McWilliams (MBW)  
 Site Location: San Lorenzo

TP 11-g / BTGV N Hyde

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
	-		=		0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	21.17	21.38	21.30				
ORP	-37.5	-31.5	-33.5				
Dissolved Oxygen	7.52	3.91	2.99				
pH	6.70	6.26	6.33				
Specific Conductivity (µmhos)	2,336	2,299	2,301				
Turbidity/Color	cloudy, orange	clear - blue	clear - blue				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:	<u>Blue</u>						

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/18/04

Project Name: Bohannon Well Designation: NIW-AZ  
 Project Number: \_\_\_\_\_ Field Personnel: M&W  
 Site Location: San Lorenzo

TPH-S/BTEV N. side

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X =
								3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	<u>21.46</u>	<u>21.35</u>	<u>21.35</u>				
ORP	<u>-54.9</u>	<u>-56.1</u>	<u>-57.4</u>				
Dissolved Oxygen	<u>7.77</u>	<u>2.35</u>	<u>1.96</u>				
pH	<u>6.24</u>	<u>6.35</u>	<u>6.29</u>				
Specific Conductivity (µmhos)	<u>1,534</u>	<u>1,622</u>	<u>1,611</u>				
Turbidity/Color	<u>cloudy blue</u>	<u>cloudy blue</u>	<u>clear blue</u>				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:	<u>Blue</u>						

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method	Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/18/01

Project Name: Bushman  
Project Number: \_\_\_\_\_  
Site Location: San Lorenzo

Well Designation: N1W-B1  
Field Personnel: MBSW

TPH-9/BK24 Nutsche

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	-		=		2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	<u>21.31</u>	<u>21.30</u>	<u>21.53</u>				
ORP	<u>-70.8</u>	<u>-72.4</u>	<u>-75.5</u>				
Dissolved Oxygen	<u>7.95</u>	<u>1.11</u>	<u>0.55</u>				
pH	<u>6.60</u>	<u>6.67</u>	<u>6.71</u>				
Specific Conductivity (umhos)	<u>1.423</u>	<u>1.344</u>	<u>1.399</u>				
Turbidity/Color	<u>clear</u>	<u>clear</u>	<u>clear</u>				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/18/04

Project Name: Bohman  
Project Number: \_\_\_\_\_  
Site Location: 500 Lorenz

Well Designation: N1W-B2  
Field Personnel: MJL

TPH-5/157ca Nitrate

WELL VOLUME CALCULATION								
Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	
					0.16	0.64	1.44	1X = 3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	21.24	21.39	21.36				
ORP	-40.6	-43.6	-45.5				
Dissolved Oxygen	0.47	0.39	0.35				
pH	6.92	6.87	6.84				
Specific Conductivity (µmhos)	1,200	1,233	1,267				
Turbidity/Color	clear	clear	clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/19/04

Project Name: Bohannon  
Project Number: \_\_\_\_\_  
Site Location: San Lorenzo

Well Designation: POBS-A1  
Field Personnel: MA

TP11-9/BTKX

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	<u>→</u>	=		2-inch	4-inch	6-inch	1X =
				0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	<u>20.75</u>	<u>20.66</u>	<u>20.69</u>				
ORP	<u>101.4</u>	<u>98.8</u>	<u>92.1</u>				
Dissolved Oxygen	<u>1.22</u>	<u>1.15</u>	<u>1.09</u>				
pH	<u>6.99</u>	<u>6.91</u>	<u>6.99</u>				
Specific Conductivity (µmhos)	<u>2067</u>	<u>2115</u>	<u>254</u>				
Turbidity/Color	<u>cloudy</u>	<u>cloudy</u>	<u>cloudy</u>				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:	<u>Some sheen odor</u>						

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/18/04

Project Name: Bohannon  
Project Number: \_\_\_\_\_  
Site Location: San Juan

Well Designation: POBS-B1  
Field Personnel: MW

TPA-9/8764

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	*	=		2-inch	4-inch	6-inch	1X =
				0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	20.82	20.79	20.75				
ORP	144.7	136.5	132.1				
Dissolved Oxygen	1.79	1.65	1.61				
pH	7.12	7.09	7.04				
Specific Conductivity (µmhos)	1.267	1.233	1.057				
Turbidity/Color	clear	clear	clear				
Odor/Sheen	none	none	none				
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/11/04

Project Name: B Shannon  
Project Number: \_\_\_\_\_  
Site Location: San Lorenzo

Well Designation: FOBS-2B  
Field Personnel: MAW

DPH-5/13/04

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	<u>*</u>	=		2-inch	4-inch	6-inch	1X =
				0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	<u>21.55</u>	<u>21.42</u>	<u>21.39</u>				
ORP	<u>305.7</u>	<u>270.1</u>	<u>265.5</u>				
Dissolved Oxygen	<u>14.54</u>	<u>8.09</u>	<u>7.95</u>				
pH	<u>7.00</u>	<u>6.99</u>	<u>7.05</u>				
Specific Conductivity (µmhos)	<u>1.202</u>	<u>1.251</u>	<u>1.239</u>				
Turbidity/Color	<u>cloudy</u>	<u>clear</u>	<u>clear</u>				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/18/04

Project Name: Bohannon  
Project Number: \_\_\_\_\_  
Site Location: San Lorenzo

Well Designation: ND35-B1  
Field Personnel: MBW

TPH-5/BROY Nitrate

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	<u>6.04</u>	=		2-inch	4-inch	6-inch	1X =
				0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	<u>20.72</u>	<u>20.79</u>	<u>20.69</u>				
ORP	<u>-79.9</u>	<u>-74.3</u>	<u>-75.5</u>				
Dissolved Oxygen	<u>0.52</u>	<u>0.54</u>	<u>0.53</u>				
pH	<u>7.04</u>	<u>7.24</u>	<u>7.19</u>				
Specific Conductivity (µmhos)	<u>1.246</u>	<u>1.166</u>	<u>1.134</u>				
Turbidity/Color	<u>clear</u>	<u>clear</u>	<u>clear</u>				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**  
 Static Water Level: 6.04 Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**  
 Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**  
 Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_



**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/10/04

Project Name: Bshannon

Well Designation: MW-3

Project Number: 98360 0000 10

Field Personnel: Mark Williams

Site Location: San Lorenzo, CA

**WELL VOLUME CALCULATION**

Total Well Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
					2-inch	4-inch	6-inch	1X =
					0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	22.26	22.31	22.30				
ORP	+68.5	+65.5	+66.1				
Dissolved Oxygen	1.22	1.20	1.19				
pH	7.01	7.05	7.09				
Specific Conductivity (µmhos)	1,909	1,911	1,985				
Turbidity/Color	Black	Clear	Clear				
Odor/Sheen							
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_

Water Level Determined By: \_\_\_\_\_

Purge Method: \_\_\_\_\_

Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_

Sampling Equipment: \_\_\_\_\_

Time of Sample Collection: \_\_\_\_\_

Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_

Drum Designation(s)/Volume: \_\_\_\_\_

Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO

Inside of Well Head and Outer Casing Dry?: YES NO

Comments: \_\_\_\_\_

**GROUNDWATER WELL - PURGE AND SAMPLE RECORD**

Date: 6/12/04

Project Name: Bolton  
Project Number: \_\_\_\_\_  
Site Location: San Lorenzo

Well Designation: MW-1  
Field Personnel: MA

JPN-S/BST

WELL VOLUME CALCULATION							
Total Well Depth (ft)	Depth to Water (ft)	=	Water Column (ft)	Casing Diameter Multiplier (SCHD 40)			Casing Volume Purge Quantity
	*	=		2-inch	4-inch	6-inch	1X =
				0.16	0.64	1.44	3X =

Parameter	Purge Sample 1	Purge Sample 2	Purge Sample 3	Purge Sample 4	Purge Sample 5	Purge Sample 6	Purge Sample 7
Time of Day							
Volume Purged							
Purge Rate (gpm)							
Temperature (°C)	21.46	21.53	21.50				
ORP	220.5	220.7	219.5				
Dissolved Oxygen	0.52	0.51	0.50				
pH	7.13	7.10	7.09				
Specific Conductivity (µmhos)	1.323	1.339	1.345				
Turbidity/Color	clear	clear	clear				
Odor/Sheen	none	no slight	slight				
Depth to Water During Purge (ft)							
Number of Casing Volumes Removed							
Dewatered?							
Comments:							

**SAMPLE DATA:**

Static Water Level: \_\_\_\_\_ Description of Water Level Measurement Point: \_\_\_\_\_  
 Water Level Determined By: \_\_\_\_\_  
 Purge Method: \_\_\_\_\_  
 Purge Depth: \_\_\_\_\_ Percent Recovery: \_\_\_\_\_ Depth to Water During Sampling: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_  
 Time of Sample Collection: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample No.	No. of Containers	Container Type	Preservative	Field Filtration	Analytical Method Comments

**PURGE WATER DISPOSAL:**

Total Discharge (gal): \_\_\_\_\_ Disposal Method: \_\_\_\_\_  
 Drum Designation(s)/Volume: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WELL HEAD CONDITIONS:**

Well Security Device Working as Designed?: YES NO Well Casing Intact?: YES NO  
 Inside of Well Head and Outer Casing Dry?: YES NO  
 Comments: \_\_\_\_\_



Engineering and Fire  
Investigations

## APPENDIX B

### CHAIN OF CUSTODY RECORD AND ANALYTICAL DATA SHEETS

Engineering and Fire Investigations

April 20, 2004

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Attn.: Mark Williams  
Project#: 9836000001  
Project: Bohannon

Dear Mr. Williams,

Attached is our report for your samples received on 04/13/2004 15:26  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after  
05/28/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,  
please call me at (925) 484-1919.

You can also contact me via email. My email address is: [asalimpour@stl-inc.com](mailto:asalimpour@stl-inc.com)

Sincerely,



Afsaneh Salimpour  
Project Manager

**Diesel**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	04/13/2004 10:28	Water	1
MW-5	04/13/2004 10:58	Water	2
MW-6	04/13/2004 11:14	Water	3
MW-7	04/13/2004 11:40	Water	4
MW-2	04/13/2004 11:55	Water	5
MW-3	04/13/2004 12:20	Water	6
MW-4	04/13/2004 13:20	Water	7

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

04/19/2004 16:37

**Diesel**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

Prep(s): 3510/8015M                      Test(s): 8015M  
Sample ID: MW-1                              Lab ID: 2004-04-0405 - 1  
Sampled: 04/13/2004 10:28                Extracted: 4/14/2004 07:30  
Matrix: Water                                 QC Batch#: 2004/04/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	04/15/2004 20:36	
<i>Surrogate(s)</i> o-Terphenyl	83.2	60-130	%	1.00	04/15/2004 20:36	

**Diesel**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

Prep(s): 3510/8015M Test(s): 8015M  
Sample ID: MW-7 Lab ID: 2004-04-0405 - 4  
Sampled: 04/13/2004 11:40 Extracted: 4/14/2004 07:30  
Matrix: Water QC Batch#: 2004/04/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	04/15/2004 22:08	
<i>Surrogate(s)</i>						
o-Terphenyl	82.8	60-130	%	1.00	04/15/2004 22:08	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

04/19/2004 16:37

**Diesel**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive

Walnut Creek, CA 94596

Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001

Bohannon

Received: 04/13/2004 15:26

Prep(s): 3510/8015M	Test(s): 8015M
Sample ID: MW-2	Lab ID: 2004-04-0405 - 5
Sampled: 04/13/2004 11:55	Extracted: 4/14/2004 07:30
Matrix: Water	QC Batch#: 2004/04/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	350	50	ug/L	1.00	04/15/2004 22:39	edr
<i>Surrogate(s)</i> o-Terphenyl	77.2	60-130	%	1.00	04/15/2004 22:39	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

04/19/2004 16:37



**Diesel**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

Prep(s): 3510/8015M                      Test(s): 8015M  
Sample ID: **MW-3**                              Lab ID: 2004-04-0405 - 6  
Sampled: 04/13/2004 12:20                      Extracted: 4/14/2004 07:30  
Matrix: Water                                      QC Batch#: 2004/04/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	960	50	ug/L	1.00	04/15/2004 23:10	edr
<b>Surrogate(s)</b> o-Terphenyl	82.1	60-130	%	1.00	04/15/2004 23:10	

**Diesel**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 983600001  
Bohannon

Received: 04/13/2004 15:26

Prep(s): 3510/8015M                      Test(s): 8015M  
Sample ID: **MW-4**                              Lab ID: 2004-04-0405 - 7  
Sampled: 04/13/2004 13:20                      Extracted: 4/14/2004 07:30  
Matrix: Water                                      QC Batch#: 2004/04/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	1200	50	ug/L	1.00	04/15/2004 23:40	edr
<b>Surrogate(s)</b> o-Terphenyl	95.8	60-130	%	1.00	04/15/2004 23:40	

**Diesel**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

**Batch QC Report**

Prep(s): 3510/8015M

Method Blank

MB: 2004/04/14-02.10-001

Water

Test(s): 8015M

QC Batch # 2004/04/14-02.10

Date Extracted: 04/14/2004 07:30

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	50	ug/L	04/14/2004 17:09	
<b>Surrogates(s)</b> o-Terphenyl	91.1	60-130	%	04/14/2004 17:09	

Severn Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

04/19/2004 16:37

Page 9 of 11

**Diesel**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive

Walnut Creek, CA 94596

Phone: (925) 457-7384 Fax: ( ) -

Project: 983600001

Bohannon

Received: 04/13/2004 15:26

**Batch QC Report**

Prep(s): 3510/8015M

Test(s): 8015M

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/04/14-02.10**

LCS 2004/04/14-02.10-002

Extracted: 04/14/2004

Analyzed: 04/14/2004 16:16

LCSD 2004/04/14-02.10-003

Extracted: 04/14/2004

Analyzed: 04/14/2004 16:46

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Diesel	884	902	1000	88.4	90.2	2.0	60-130	25		
<b>Surrogates(s)</b> o-Terphenyl	17.4	17.6	20.0	87.2	88.1		60-130	0		

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Tei 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

04/19/2004 16:37

**Diesel**

Engineering and Fire Investigations  
Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

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**Legend and Notes**

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**Result Flag**

edr

Hydrocarbon reported is in the early Diesel range, and does not match our Diesel standard



STL

2004-04-0405

San Francisco Chain of Custody  
1220 Quarry Lane • Pleasanton CA 94566-4756  
Phone: (925) 484-1019 • Fax: (925) 484-1066  
Email: stl@stl-inc.com

Reference #: 04774  
Date 4/13/04 Page 1 of 1

San Ramon CA 94583

Report To: Analysis Request

Company: EFI  
Address: 111 Deswood Rd Suite 195  
Phone: 925 457-7329  
Bill To: EFI  
Attn: Mark Williams

Sample ID	Date	Time	Mat	Pres	TPH EPA Method	Organic Analytes	Pesticides	Metals	Low Level Metals	Wet TGA	Heavy Metals	Soils	Asbestos
MW-1	4/13/04	10:25	HCL	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-5	4/13/04	10:30	HCL	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-6	4/13/04	11:04	HCL	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-7	4/13/04	11:45	HCL	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-2	4/13/04	11:55	HCL	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-3	4/13/04	12:10	HCL	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-4	4/13/04	12:15	HCL	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

MATERIAL CONTAINERS

**Project Info**  
Project Name: Bertram  
Project: 9163600001  
POB:  
Cock Card#  
1 A 4 Day 72h 38h 23h Other: Standard  
Report:  Routine  Level 4  Level 5  Special Instructions / Comments:

**Sample Receipt**  
# of Containers:  
Temp: H.D  
Confirms to record:  
1) Released by: [Signature] Time: 3:20 Date: 4/13/04  
Signature: [Signature] Time: Date:  
Printed Name: EFI Date:  
Company: EFI

2) Requisitioned by:  
Signature: Time:  
Printed Name: Date:  
Company:  
3) Received by:  
Signature: Time:  
Printed Name: Date:  
Company:

3) Requisitioned by:  
Signature: Time:  
Printed Name: Date:  
Company:  
4) Received by: [Signature] Time: 15:20 Date: 04/13/04  
Signature: [Signature] Time: Date:  
Printed Name: STL SF Date:  
Company:

**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	04/13/2004 10:28	Water	1
MW-5	04/13/2004 10:58	Water	2
MW-6	04/13/2004 11:14	Water	3
MW-7	04/13/2004 11:40	Water	4
MW-2	04/13/2004 11:55	Water	5
MW-3	04/13/2004 12:20	Water	6
MW-4	04/13/2004 13:20	Water	7

Fuel Oxygenates by 8260B

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive

Walnut Creek, CA 94596

Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001

Bohannon

Received: 04/13/2004 15:26

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-1	Lab ID:	2004-04-0405 - 1
Sampled:	04/13/2004 10:28	Extracted:	4/16/2004 22:55
Matrix:	Water	QC Batch#:	2004/04/16-02.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/16/2004 22:55	
Benzene	ND	0.50	ug/L	1.00	04/16/2004 22:55	
Toluene	ND	0.50	ug/L	1.00	04/16/2004 22:55	
Ethylbenzene	ND	0.50	ug/L	1.00	04/16/2004 22:55	
Total xylenes	ND	1.0	ug/L	1.00	04/16/2004 22:55	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	100.6	76-114	%	1.00	04/16/2004 22:55	
Toluene-d8	99.3	88-110	%	1.00	04/16/2004 22:55	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

04/20/2004 14:33



Fuel Oxygenates by 8260B

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive

Walnut Creek, CA 94596

Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001

Bohannon

Received: 04/13/2004 15:26

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-5	Lab ID:	2004-04-0405 - 2
Sampled:	04/13/2004 10:58	Extracted:	4/16/2004 23:19
Matrix:	Water	QC Batch#:	2004/04/16-02.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/16/2004 23:19	
Benzene	ND	0.50	ug/L	1.00	04/16/2004 23:19	
Toluene	ND	0.50	ug/L	1.00	04/16/2004 23:19	
Ethylbenzene	ND	0.50	ug/L	1.00	04/16/2004 23:19	
Total xylenes	ND	1.0	ug/L	1.00	04/16/2004 23:19	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	103.5	76-114	%	1.00	04/16/2004 23:19	
Toluene-d8	97.8	88-110	%	1.00	04/16/2004 23:19	

Fuel Oxygenates by 8260B

Engineering and Fire Investigations  
Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

Prep(s): 5030B Test(s): 8260B  
Sample ID: MW-6 Lab ID: 2004-04-0405 - 3  
Sampled: 04/13/2004 11:14 Extracted: 4/16/2004 23:41  
Matrix: Water QC Batch#: 2004/04/16-02.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/16/2004 23:41	
Benzene	ND	0.50	ug/L	1.00	04/16/2004 23:41	
Toluene	ND	0.50	ug/L	1.00	04/16/2004 23:41	
Ethylbenzene	ND	0.50	ug/L	1.00	04/16/2004 23:41	
Total xylenes	ND	1.0	ug/L	1.00	04/16/2004 23:41	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	103.0	76-114	%	1.00	04/16/2004 23:41	
Toluene-d8	100.1	88-110	%	1.00	04/16/2004 23:41	

Fuel Oxygenates by 8260B

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

Prep(s): 5030B Test(s): 8260B  
Sample ID: MW-7 Lab ID: 2004-04-0405 - 4  
Sampled: 04/13/2004 11:40 Extracted: 4/17/2004 00:05  
Matrix: Water QC Batch#: 2004/04/16-02.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/17/2004 00:05	
Benzene	ND	0.50	ug/L	1.00	04/17/2004 00:05	
Toluene	ND	0.50	ug/L	1.00	04/17/2004 00:05	
Ethylbenzene	ND	0.50	ug/L	1.00	04/17/2004 00:05	
Total xylenes	ND	1.0	ug/L	1.00	04/17/2004 00:05	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	100.9	76-114	%	1.00	04/17/2004 00:05	
Toluene-d8	101.6	88-110	%	1.00	04/17/2004 00:05	

Fuel Oxygenates by 8260B

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

Prep(s): 5030B Test(s): 8260B  
Sample ID: MW-2 Lab ID: 2004-04-0405 - 5  
Sampled: 04/13/2004 11:55 Extracted: 4/17/2004 15:19  
Matrix: Water QC Batch#: 2004/04/17-01.66  
Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	2700	250	ug/L	5.00	04/17/2004 15:19	
Benzene	350	2.5	ug/L	5.00	04/17/2004 15:19	
Toluene	15	2.5	ug/L	5.00	04/17/2004 15:19	
Ethylbenzene	18	2.5	ug/L	5.00	04/17/2004 15:19	
Total xylenes	24	5.0	ug/L	5.00	04/17/2004 15:19	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	89.9	76-114	%	5.00	04/17/2004 15:19	
Toluene-d8	102.3	88-110	%	5.00	04/17/2004 15:19	

**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

Prep(s): 5030B Test(s): 8260B  
Sample ID: **MW-3** Lab ID: 2004-04-0405 - 6  
Sampled: 04/13/2004 12:20 Extracted: 4/17/2004 15:43  
Matrix: Water QC Batch#: 2004/04/17-01.66  
Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	3900	500	ug/L	10.00	04/17/2004 15:43	
Benzene	1200	5.0	ug/L	10.00	04/17/2004 15:43	
Toluene	19	5.0	ug/L	10.00	04/17/2004 15:43	
Ethylbenzene	ND	5.0	ug/L	10.00	04/17/2004 15:43	
Total xylenes	ND	10	ug/L	10.00	04/17/2004 15:43	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	103.4	76-114	%	10.00	04/17/2004 15:43	
Toluene-d8	102.5	88-110	%	10.00	04/17/2004 15:43	

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

04/20/2004 14:33

**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive

Walnut Creek, CA 94596

Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001

Bohannon

Received: 04/13/2004 15:26

Prep(s): 5030B                      Test(s): 8260B  
Sample ID: **MW-4**                      Lab ID: 2004-04-0405 - 7  
Sampled: 04/13/2004 13:20                      Extracted: 4/17/2004 01:14  
Matrix: Water                      QC Batch#: 2004/04/16-02.65  
Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	7400	500	ug/L	10.00	04/17/2004 01:14	
Benzene	290	5.0	ug/L	10.00	04/17/2004 01:14	
Toluene	29	5.0	ug/L	10.00	04/17/2004 01:14	
Ethylbenzene	110	5.0	ug/L	10.00	04/17/2004 01:14	
Total xylenes	100	10	ug/L	10.00	04/17/2004 01:14	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	100.6	76-114	%	10.00	04/17/2004 01:14	
Toluene-d8	99.7	88-110	%	10.00	04/17/2004 01:14	

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**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations  
Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/04/16-02.65-048

Water

Test(s): 8260B

QC Batch # 2004/04/16-02.65

Date Extracted: 04/16/2004 18:48

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/16/2004 18:48	
Benzene	ND	0.5	ug/L	04/16/2004 18:48	
Toluene	ND	0.5	ug/L	04/16/2004 18:48	
Ethylbenzene	ND	0.5	ug/L	04/16/2004 18:48	
Total xylenes	ND	1.0	ug/L	04/16/2004 18:48	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	108.2	76-114	%	04/16/2004 18:48	
Toluene-d8	104.8	88-110	%	04/16/2004 18:48	

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Page 9 of 13

Fuel Oxygenates by 8260B

Engineering and Fire Investigations

Attn.: Mark Williams

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Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2004/04/17-01.66-046

Water

Test(s): 8260B

QC Batch # 2004/04/17-01.66

Date Extracted: 04/17/2004 09:46

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/17/2004 09:46	
Benzene	ND	0.5	ug/L	04/17/2004 09:46	
Toluene	ND	0.5	ug/L	04/17/2004 09:46	
Ethylbenzene	ND	0.5	ug/L	04/17/2004 09:46	
Total xylenes	ND	1.0	ug/L	04/17/2004 09:46	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	90.2	76-114	%	04/17/2004 09:46	
Toluene-d8	99.0	88-110	%	04/17/2004 09:46	

Severn Trent Laboratories, Inc.

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**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations  
Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/04/16-02.65**

LCS 2004/04/16-02.65-001  
LCSD 2004/04/16-02.65-024

Extracted: 04/16/2004  
Extracted: 04/16/2004

Analyzed: 04/16/2004 18:01  
Analyzed: 04/16/2004 18:24

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	21.4	23.5	25.0	85.6	94.0	9.4	69-129	20		
Toluene	23.0	24.0	25.0	92.0	96.0	4.3	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	484	462	500	96.8	92.4		76-114			
Toluene-d8	526	504	500	105.2	100.8		88-110			

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04/20/2004 14:33

Page 11 of 13

**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

Attn.: Mark Williams

449 Nob Hill Drive

Walnut Creek, CA 94596

Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000001

Bohannon

Received: 04/13/2004 15:26

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/04/17-01.66**

LCS 2004/04/17-01.66-058

Extracted: 04/17/2004

Analyzed: 04/17/2004 08:58

LCSD 2004/04/17-01.66-022

Extracted: 04/17/2004

Analyzed: 04/17/2004 09:22

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	25.7	24.4	25.0	102.8	97.6	5.2	69-129	20		
Toluene	25.2	23.5	25.0	100.8	94.0	7.0	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	412	427	500	82.4	85.4		76-114			
Toluene-d8	497	502	500	99.4	100.4		88-110			

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04/20/2004 14:33

Page 12 of 13

**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations  
Attn.: Mark Williams

449 Nob Hill Drive  
Walnut Creek, CA 94596  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 9836000001  
Bohannon

Received: 04/13/2004 15:26

---

**Legend and Notes**

---

**Analysis Flag**

o

Reporting limits were raised due to high level of analyte present in the sample.



STL San Francisco

### Sample Receipt Checklist

Submission #: 2004- 04 - 0405

Checklist completed by: (initials) JM Date: 04.14/04

Courier name:  STL San Francisco  Client \_\_\_\_\_

Custody seals intact on shipping container/samples Yes \_\_\_ No \_\_\_ Not Present

Chain of custody present? Yes  No \_\_\_

Chain of custody signed when relinquished and received? Yes  No \_\_\_

Chain of custody agrees with sample labels? Yes  No \_\_\_

Samples in proper container/bottle? Yes  No \_\_\_

Sample containers intact? Yes  No \_\_\_

Sufficient sample volume for indicated test? Yes  No \_\_\_

All samples received within holding time? Yes  No \_\_\_

Container/Temp Blank temperature in compliance ( $4^{\circ}C \pm 2$ )? Temp: 4.0 °C Yes  No \_\_\_

Ice Present Yes  No \_\_\_

Water - VOA vials have zero headspace? No VOA vials submitted \_\_\_ Yes  No \_\_\_

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small -O), M (medium - O) or L (large - O))

Water - pH acceptable upon receipt?  Yes  No

pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc -Lot #(s) \_\_\_\_\_

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: \_\_\_\_\_  
\_\_\_\_\_

#### Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) \_\_\_\_\_ Date: \_\_\_\_\_/\_\_\_\_\_/04

Client contacted:  Yes  No

Summary of discussion: \_\_\_\_\_  
\_\_\_\_\_

Corrective Action (per PM/Client): \_\_\_\_\_  
\_\_\_\_\_

Engineering and Fire Investigations

May 13, 2004

111 Deerwood Road, Ste 195  
San Ramon, CA 94583

Attn.: Mark Williams

Project#: 9836000010

Project: Bohannon

Dear Mr. Williams,

Attached is our report for your samples received on 05/06/2004 16:00

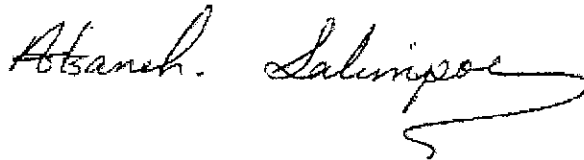
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 06/20/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: [asalimpour@stl-inc.com](mailto:asalimpour@stl-inc.com)

Sincerely,



Afsaneh Salimpour  
Project Manager

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
NIW-B2-14	05/05/2004	Soil	2
PIW-A2-5.5	05/05/2004	Soil	3

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

Prep(s):	5035	Test(s):	8015M
	5035		8021B
Sample ID:	NIW-B2-14	Lab ID:	2004-05-0177 - 2
Sampled:	05/05/2004	Extracted:	5/12/2004 13:40
Matrix:	Soil	QC Batch#:	2004/05/12-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/12/2004 13:40	
Benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 13:40	
Toluene	ND	0.0050	mg/Kg	1.00	05/12/2004 13:40	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 13:40	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/12/2004 13:40	
<b>Surrogate(s)</b>						
Trifluorotoluene	101.0	53-125	%	1.00	05/12/2004 13:40	
4-Bromofluorobenzene-FID	89.1	58-124	%	1.00	05/12/2004 13:40	

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

Page 2 of 6



**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

Prep(s):	5035	Test(s):	8015M
	5035		8021B
Sample ID:	PIW-A2-5.5	Lab ID:	2004-05-0177 - 3
Sampled:	05/05/2004	Extracted:	5/12/2004 14:15
Matrix:	Soil	QC Batch#:	2004/05/12-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/12/2004 14:15	
Benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 14:15	
Toluene	ND	0.0050	mg/Kg	1.00	05/12/2004 14:15	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 14:15	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/12/2004 14:15	
<b>Surrogate(s)</b>						
Trifluorotoluene	97.7	53-125	%	1.00	05/12/2004 14:15	
4-Bromofluorobenzene-FID	77.2	58-124	%	1.00	05/12/2004 14:15	

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5035  
5035

Test(s): 8015M  
8021B

**Method Blank**

**Soil**

**QC Batch # 2004/05/12-01.05**

MB: 2004/05/12-01.05-001

Date Extracted: 05/12/2004 10:45

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	05/12/2004 10:45	
Benzene	ND	0.0050	mg/Kg	05/12/2004 10:45	
Toluene	ND	0.0050	mg/Kg	05/12/2004 10:45	
Ethyl benzene	ND	0.0050	mg/Kg	05/12/2004 10:45	
Xylene(s)	ND	0.0050	mg/Kg	05/12/2004 10:45	
<b>Surrogates(s)</b>					
Trifluorotoluene	114.7	53-125	%	05/12/2004 10:45	
4-Bromofluorobenzene-FID	113.2	58-124	%	05/12/2004 10:45	

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5035

Test(s): 8021B

**Laboratory Control Spike**

**Soil**

**QC Batch # 2004/05/12-01.05**

LCS 2004/05/12-01.05-002

Extracted: 05/12/2004

Analyzed: 05/12/2004 11:20

LCSD 2004/05/12-01.05-003

Extracted: 05/12/2004

Analyzed: 05/12/2004 11:55

Compound	Conc. mg/Kg		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	0.115	0.107	0.1000	115.0	107.0	7.2	77-123	35		
Toluene	0.116	0.105	0.1000	116.0	105.0	10.0	78-122	35		
Ethyl benzene	0.113	0.103	0.1000	113.0	103.0	9.3	70-130	35		
Xylene(s)	0.329	0.301	0.300	109.7	100.3	9.0	75-125	35		
<b>Surrogates(s)</b>										
Trifluorotoluene	527	508	500	105.4	101.6		53-125			

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5035

Test(s): 8015M

**Laboratory Control Spike**

**Soil**

**QC Batch # 2004/05/12-01.05**

LCS 2004/05/12-01.05-004  
LCSD 2004/05/12-01.05-005

Extracted: 05/12/2004  
Extracted: 05/12/2004

Analyzed: 05/12/2004 12:30  
Analyzed: 05/12/2004 13:05

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	0.463	0.436	0.500	92.6	87.2	6.0	75-125	35		
<b>Surrogates(s)</b>										
4-Bromofluorobenzene-FID	484	499	500	96.8	99.8		58-124			

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
PIW-A2-9.5	05/05/2004	Soil	4
POBS-2B-9	05/06/2004	Soil	5
POBS-2B-14	05/06/2004	Soil	6

Severn Trent Laboratories, Inc.

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05/13/2004 16:48

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: <b>PIW-A2-9.5</b>	Lab ID: 2004-05-0177 - 4
Sampled: 05/05/2004	Extracted: 5/7/2004 09:47
Matrix: Soil	QC Batch#: 2004/05/07-05.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	150	10	mg/Kg	1.00	05/11/2004 09:47	g
Benzene	ND	0.62	mg/Kg	1.00	05/11/2004 09:47	
Toluene	ND	0.62	mg/Kg	1.00	05/11/2004 09:47	
Ethyl benzene	0.91	0.62	mg/Kg	1.00	05/11/2004 09:47	
Xylene(s)	ND	0.62	mg/Kg	1.00	05/11/2004 09:47	
<b>Surrogate(s)</b>						
Trifluorotoluene	62.0	53-125	%	1.00	05/11/2004 09:47	
4-Bromofluorobenzene-FID	385.0	58-124	%	1.00	05/11/2004 09:47	sh

Severn Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

Prep(s): 5030 Test(s): 8015M  
5030 8021B  
Sample ID: POBS-2B-9 Lab ID: 2004-05-0177 - 5  
Sampled: 05/06/2004 Extracted: 5/7/2004 10:22  
Matrix: Soil QC Batch#: 2004/05/07-05.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	480	50	mg/Kg	5.00	05/11/2004 10:22	g
Benzene	ND	3.1	mg/Kg	5.00	05/11/2004 10:22	
Toluene	ND	3.1	mg/Kg	5.00	05/11/2004 10:22	
Ethyl benzene	ND	3.1	mg/Kg	5.00	05/11/2004 10:22	
Xylene(s)	ND	3.1	mg/Kg	5.00	05/11/2004 10:22	
<b>Surrogate(s)</b>						
Trifluorotoluene	NA	53-125	%	1.00	05/11/2004 10:22	sd
4-Bromofluorobenzene-FID	NA	58-124	%	1.00	05/11/2004 10:22	sd

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: <b>POBS-2B-14</b>	Lab ID: 2004-05-0177 - 6
Sampled: 05/06/2004	Extracted: 5/7/2004 10:57
Matrix: Soil	QC Batch#: 2004/05/07-05.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1500	100	mg/Kg	10.00	05/11/2004 10:57	g
Benzene	7.5	6.2	mg/Kg	10.00	05/11/2004 10:57	
Toluene	ND	6.2	mg/Kg	10.00	05/11/2004 10:57	
Ethyl benzene	17	6.2	mg/Kg	10.00	05/11/2004 10:57	
Xylene(s)	21	6.2	mg/Kg	10.00	05/11/2004 10:57	
<b>Surrogate(s)</b>						
Trifluorotoluene	NA	53-125	%	1.00	05/11/2004 10:57	sd
4-Bromofluorobenzene-FID	NA	58-124	%	1.00	05/11/2004 10:57	sd

Severn Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

Page 4 of 8



**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

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San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5030

5030

Method Blank

MB: 2004/05/07-05.05-001

Test(s): 8015M

8021B

QC Batch # 2004/05/07-05.05

Date Extracted: 05/07/2004 08:02

Soil

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	10	mg/Kg	05/11/2004 08:02	
Benzene	ND	0.62	mg/Kg	05/11/2004 08:02	
Toluene	ND	0.62	mg/Kg	05/11/2004 08:02	
Ethyl benzene	ND	0.62	mg/Kg	05/11/2004 08:02	
Xylene(s)	ND	0.62	mg/Kg	05/11/2004 08:02	
<b>Surrogates(s)</b>					
Trifluorotoluene	55.3	53-125	%	05/11/2004 08:02	
4-Bromofluorobenzene-FID	67.9	58-124	%	05/11/2004 08:02	

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Soil**

**QC Batch # 2004/05/07-05.05**

LCS 2004/05/07-05.05-002  
LCSD 2004/05/07-05.05-003

Extracted: 05/07/2004  
Extracted: 05/07/2004

Analyzed: 05/11/2004 08:37  
Analyzed: 05/11/2004 09:12

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	0.116	0.121	0.125	92.8	96.8	4.2	77-123	35		
Toluene	0.117	0.118	0.125	93.6	94.4	0.9	78-122	35		
Ethyl benzene	0.114	0.116	0.125	91.2	92.8	1.7	70-130	35		
Xylene(s)	0.338	0.348	0.375	90.1	92.8	3.0	75-125	35		
<b>Surrogates(s)</b>										
Trifluorotoluene	58.2	60.2	100	58.2	60.2		53-125	0		

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

**Laboratory Control Spike**

**Soil**

**QC Batch # 2004/05/07-05.05**

LCS 2004/05/07-05.05-004

Extracted: 05/07/2004

Analyzed: 05/08/2004 06:54

LCSD 2004/05/07-05.05-005

Extracted: 05/07/2004

Analyzed: 05/08/2004 07:29

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	5.79	5.91	6.25	92.6	94.6	2.1	75-125	35		
<i>Surrogates(s)</i>										
4-Bromofluorobenzene-FID	114	113	100	114.0	113.0		58-124	0		

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

Gas/BTEX Compounds (High Level)

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

---

Legend and Notes

---

Result Flag

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

sd

Surrogate recovery not reportable due to required dilution.

sh

Surrogate recovery was higher than QC limit due to matrix interference.



STL

2004-05-0177

STL San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: sflogin@stl-inc.com

Reference #: 85558

Date 5/16/04 Page 1 of 1

Report To

Client: Mark Williams
Company: EPI Global
Address: 111 Decimus Rd, Suite 195
Phone:
Email:
Sampled By: Mark Williams
Phone: 457-7343

Analysis Request

Table with columns for Sample ID, Date, Time, Mal, Pres, and various analysis categories like TPH, PCBs, Pesticides, etc.

Project Info. Sample Receipt

Project Name: Bohannon
Project #: 2036000010
Of:
Credit Card#:
Temp: 3
Conforms to record:
Other:

1) Relinquished by:
Signature: [Signature]
Printed Name: Mark Williams
Company: EPI Global
Date: 5/16/04

2) Relinquished by:
Signature:
Printed Name:
Company:

3) Relinquished by:
Signature:
Printed Name:
Company:

Report: [ ] Routine [ ] Level 3 [ ] Level 4 [ ] EOD [ ] Site Tank Fund EEP [ ] Global ID

1) Received by:
Signature: [Signature]
Printed Name: M. VILLANUEVA
Company: STL SF
Date: 05/16/04

2) Received by:
Signature:
Printed Name:
Company:

3) Received by:
Signature:
Printed Name:
Company:

**Engineering and Fire Investigations**

May 21, 2004

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Attn.: Mark Williams  
Project#: 98360.0000.10

Dear Mr. Williams,

Attached is our report for your samples received on 05/14/2004 09:00  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

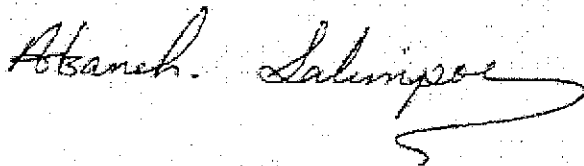
The report contains a Case Narrative detailing sample receipt and analysis.

Please note that any unused portion of the samples will be discarded after  
06/28/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,  
please call me at (925) 484-1919.

You can also contact me via email. My email address is: [asalimpour@stl-inc.com](mailto:asalimpour@stl-inc.com)

Sincerely,



Afsaneh Salimpour  
Project Manager

**Engineering and Fire Investigations**

May 21, 2004

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Attn.: Mark Williams  
Project#: 98360.0000.10

Case Narrative

General and Sample Comments

We (STL San Francisco) received 15 Water samples , on Friday, May 14, 2004 9:00 AM.

Analysis Comments and Flags by QC Batch

Gas/BTEX by 8015M/8021	Water	QC Batch#: 2004/05/17-01.05
------------------------	-------	-----------------------------

P1W-A1 >> MS 2004/05/17-01.05-030  
Compound Flag(s)  
mso MS/MSD spike recoveries were out of QC limits due to matrix interference.  
Precision and Accuracy were verified by LCS/LCSD.

P1W-A1 >> MSD 2004/05/17-01.05-031  
Compound Flag(s)  
mso MS/MSD spike recoveries were out of QC limits due to matrix interference.  
Precision and Accuracy were verified by LCS/LCSD.

P1W-A1 >> MSD 2004/05/17-01.05-031  
Compound Flag(s)  
rpd Analyte RPD was out of QC limits due to sample heterogeneity.

N1W-A1 2004-05-0485-007  
Compound Flag(s)  
dp Sample contains discrete peak in addition to gasoline.

N1W-A2 2004-05-0485-008  
Compound Flag(s)  
g Hydrocarbon reported in the gasoline range does not match our gasoline standard.

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
P1W-A1	05/13/2004	Water	1
P1W-A2	05/13/2004	Water	2
P1W-A3	05/13/2004	Water	3
P1W-A4	05/13/2004	Water	4
N1W-A1	05/13/2004	Water	7
N1W-A2	05/13/2004	Water	8
N1W-B1	05/13/2004	Water	9
N1W-B2	05/13/2004	Water	10
POBS-A1	05/13/2004	Water	11
POBS-B1	05/13/2004	Water	12
POBS-B2	05/13/2004	Water	13
NOBS-B1	05/13/2004	Water	14
MW-4	05/13/2004	Water	15



**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s):	300.0/9056	Test(s):	300.0/9056
Sample ID:	N1W-A1	Lab ID:	2004-05-0485 - 7
Sampled:	05/13/2004	Extracted:	5/14/2004 06:00
Matrix:	Water	QC Batch#:	2004/05/14-02.41

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	ND	1.0	mg/L	1.00	05/15/2004 12:14	

Misc Anions by Ion Chromatograph

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 300.0/9056	Test(s): 300.0/9056
Sample ID: <b>N1W-A2</b>	Lab ID: 2004-05-0485 - 8
Sampled: 05/13/2004	Extracted: 5/14/2004 06:00
Matrix: Water	QC Batch#: 2004/05/14-02.41

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	ND	1.0	mg/L	1.00	05/15/2004 12:32	

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 300.0/9056	Test(s): 300.0/9056
Sample ID: N1W-B1	Lab ID: 2004-05-0485 - 9
Sampled: 05/13/2004	Extracted: 5/14/2004 06:00
Matrix: Water	QC Batch#: 2004/05/14-02.41

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	25	1.0	mg/L	1.00	05/15/2004 12:50	

Misc Anions by Ion Chromatograph

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s):	300.0/9056	Test(s):	300.0/9056
Sample ID:	N1W-B2	Lab ID:	2004-05-0485 - 10
Sampled:	05/13/2004	Extracted:	5/14/2004 06:00
Matrix:	Water	QC Batch#:	2004/05/14-02.41

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	35	1.0	mg/L	1.00	05/15/2004 13:08	

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 300.0/9056	Test(s): 300.0/9056
Sample ID: POBS-B2	Lab ID: 2004-05-0485 - 13
Sampled: 05/13/2004	Extracted: 5/17/2004 06:00
Matrix: Water	QC Batch#: 2004/05/17-01.41

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Bromide	1.3	1.0	mg/L	1.00	05/17/2004 13:05	

Misc Anions by Ion Chromatograph

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s):	300.0/9056	Test(s):	300.0/9056
Sample ID:	NOBS-B1	Lab ID:	2004-05-0485 - 14
Sampled:	05/13/2004	Extracted:	5/14/2004 06:00
Matrix:	Water	QC Batch#:	2004/05/14-02.41

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Bromide	ND	1.0	mg/L	1.00	05/15/2004 13:26	
Nitrate	35	1.0	mg/L	1.00	05/15/2004 13:26	

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 300.0/9056	Test(s): 300.0/9056
Sample ID: MW-4	Lab ID: 2004-05-0485 - 15
Sampled: 05/13/2004	Extracted: 5/14/2004 06:00
Matrix: Water	QC Batch#: 2004/05/14-02:41

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	ND	1.0	mg/L	1.00	05/15/2004 13:44	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566  
Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/21/2004 10:49

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 300.0/9056

Test(s): 300.0/9056

Method Blank

Water

QC Batch # 2004/05/14-02.41

MB: 2004/05/14-02.41-001

Date Extracted: 05/14/2004 06:00

Compound	Conc.	RL	Unit	Analyzed	Flag
Bromide	ND	1.0	mg/L	05/14/2004 08:43	
Nitrate	ND	1.0	mg/L	05/14/2004 08:43	



**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Batch QC Report					
Prep(s): 300.0/9056	Method Blank			Water	Test(s): 300.0/9056
MB: 2004/05/17-01.41-001				QC Batch # 2004/05/17-01.41	Date Extracted: 05/17/2004 06:00

Compound	Conc.	RL	Unit	Analyzed	Flag
Bromide	ND	1.0	mg/L	05/17/2004 07:18	
Nitrate	ND	1.0	mg/L	05/17/2004 07:18	

**Misc Anions by Ion Chromatograph**

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Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 300.0/9056

Test(s): 300.0/9056

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/05/14-02.41**

LCS 2004/05/14-02.41-002

Extracted: 05/14/2004

Analyzed: 05/14/2004 09:01

LCSD 2004/05/14-02.41-003

Extracted: 05/14/2004

Analyzed: 05/14/2004 09:19

Compound	Conc. mg/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Bromide	20.5	20.5	20.0	102.5	102.5	0.0	80-120	20		
Nitrate	20.4	20.6	20.0	102.0	103.0	1.0	80-120	20		

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Received: 05/14/2004 09:00

Batch QC Report			
Prep(s): 300.0/9056		Test(s): 300.0/9056	
<b>Laboratory Control Spike</b>		<b>Water</b>	<b>QC Batch # 2004/05/17-01.41</b>
LCS	2004/05/17-01.41-002	Extracted: 05/17/2004	Analyzed: 05/17/2004 07:36
LCSD	2004/05/17-01.41-003	Extracted: 05/17/2004	Analyzed: 05/17/2004 07:54

Compound	Conc. mg/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Bromide	19.0	19.1	20.0	95.0	95.5	0.5	80-120	20		
Nitrate	18.8	19.0	20.0	94.0	95.0	1.1	80-120	20		

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/21/2004 10:49

**Misc Anions by Ion Chromatograph**

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Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 300.0/9056

Test(s): 300.0/9056

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2004/05/17-01.41**

P1W-A4 >> MS

Lab ID: 2004-05-0485 - 004

MS: 2004/05/17-01.41-004

Extracted: 05/17/2004

Analyzed: 05/17/2004 13:23

Dilution: 1.00

MSD: 2004/05/17-01.41-005

Extracted: 05/17/2004

Analyzed: 05/17/2004 13:41

Dilution: 1.00

Compound	Conc. mg/L			Spk. Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	mg/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Bromide	20.4	20.3	1.66	20.0	93.7	93.2	0.5	80-120	20		
Nitrate	19.7	19.6	ND	20.0	98.5	98.0	0.5	80-120	20		

**Gas/BTEX by 8015M/8021**

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Project: 98360.0000.10

Received: 05/14/2004 09:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
P1W-A1	05/13/2004	Water	1
P1W-A2	05/13/2004	Water	2
P1W-B1	05/13/2004	Water	5
P1W-B3	05/13/2004	Water	6
N1W-A1	05/13/2004	Water	7
N1W-A2	05/13/2004	Water	8
N1W-B1	05/13/2004	Water	9
N1W-B2	05/13/2004	Water	10
POBS-A1	05/13/2004	Water	11
POBS-B1	05/13/2004	Water	12
POBS-B2	05/13/2004	Water	13
NOBS-B1	05/13/2004	Water	14

Gas/BTEX by 8015M/8021

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s):	5030 5030	Test(s):	8015M 8021B
Sample ID:	P1W-A1	Lab ID:	2004-05-0485 - 1
Sampled:	05/13/2004	Extracted:	5/17/2004 21:00
Matrix:	Water	QC Batch#:	2004/05/17-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	6800	1000	ug/L	20.00	05/17/2004 21:00	
Benzene	460	10	ug/L	20.00	05/17/2004 21:00	
Toluene	50	10	ug/L	20.00	05/17/2004 21:00	
Ethyl benzene	31	10	ug/L	20.00	05/17/2004 21:00	
Xylene(s)	300	10	ug/L	20.00	05/17/2004 21:00	
<b>Surrogate(s)</b>						
Trifluorotoluene	106.4	58-124	%	20.00	05/17/2004 21:00	
4-Bromofluorobenzene-FID	97.9	50-150	%	20.00	05/17/2004 21:00	

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: P1W-A2	Lab ID: 2004-05-0485 - 2
Sampled: 05/13/2004	Extracted: 5/17/2004 21:35
Matrix: Water	QC Batch#: 2004/05/17-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	20000	2500	ug/L	50.00	05/17/2004 21:35	
Benzene	1500	25	ug/L	50.00	05/17/2004 21:35	
Toluene	460	25	ug/L	50.00	05/17/2004 21:35	
Ethyl benzene	760	25	ug/L	50.00	05/17/2004 21:35	
Xylene(s)	2600	25	ug/L	50.00	05/17/2004 21:35	
<b>Surrogate(s)</b>						
Trifluorotoluene	104.5	58-124	%	50.00	05/17/2004 21:35	
4-Bromofluorobenzene-FID	97.5	50-150	%	50.00	05/17/2004 21:35	

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05/21/2004 14:39

Gas/BTEX by 8015M/8021

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: P1W-B1	Lab ID: 2004-05-0485 - 5
Sampled: 05/13/2004	Extracted: 5/17/2004 22:11
Matrix: Water	QC Batch#: 2004/05/17-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1900	500	ug/L	10.00	05/17/2004 22:11	
Benzene	28	5.0	ug/L	10.00	05/17/2004 22:11	
Toluene	ND	5.0	ug/L	10.00	05/17/2004 22:11	
Ethyl benzene	11	5.0	ug/L	10.00	05/17/2004 22:11	
Xylene(s)	51	5.0	ug/L	10.00	05/17/2004 22:11	
<b>Surrogate(s)</b>						
Trifluorotoluene	105.7	58-124	%	10.00	05/17/2004 22:11	
4-Bromofluorobenzene-FID	95.5	50-150	%	10.00	05/17/2004 22:11	



**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: <b>P1W-B3</b>	Lab ID: 2004-05-0485 - 6
Sampled: 05/13/2004	Extracted: 5/18/2004 02:18
Matrix: Water	QC Batch#: 2004/05/17-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	3300	250	ug/L	5.00	05/18/2004 02:18	
Benzene	420	2.5	ug/L	5.00	05/18/2004 02:18	
Toluene	17	2.5	ug/L	5.00	05/18/2004 02:18	
Ethyl benzene	7.8	2.5	ug/L	5.00	05/18/2004 02:18	
Xylene(s)	44	2.5	ug/L	5.00	05/18/2004 02:18	
<b>Surrogate(s)</b>						
Trifluorotoluene	116.3	58-124	%	5.00	05/18/2004 02:18	
4-Bromofluorobenzene-FID	100.2	50-150	%	5.00	05/18/2004 02:18	

**Gas/BTEX by 8015M/8021**

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: N1W-A1	Lab ID: 2004-05-0485 - 7
Sampled: 05/13/2004	Extracted: 5/18/2004 02:53
Matrix: Water	QC Batch#: 2004/05/17-01:05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	9300	1000	ug/L	20.00	05/18/2004 02:53	dp
Benzene	1800	10	ug/L	20.00	05/18/2004 02:53	
Toluene	59	10	ug/L	20.00	05/18/2004 02:53	
Ethyl benzene	250	10	ug/L	20.00	05/18/2004 02:53	
Xylene(s)	96	10	ug/L	20.00	05/18/2004 02:53	
<b>Surrogate(s)</b>						
Trifluorotoluene	98.6	58-124	%	20.00	05/18/2004 02:53	
4-Bromofluorobenzene-FID	96.6	50-150	%	20.00	05/18/2004 02:53	

**Gas/BTEX by 8015M/8021**

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: N1W-A2	Lab ID: 2004-05-0485 - 8
Sampled: 05/13/2004	Extracted: 5/18/2004 03:28
Matrix: Water	QC Batch#: 2004/05/17-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	970	250	ug/L	5.00	05/18/2004 03:28	g
Benzene	18	2.5	ug/L	5.00	05/18/2004 03:28	
Toluene	ND	2.5	ug/L	5.00	05/18/2004 03:28	
Ethyl benzene	ND	2.5	ug/L	5.00	05/18/2004 03:28	
Xylene(s)	4.3	2.5	ug/L	5.00	05/18/2004 03:28	
<b>Surrogate(s)</b>						
Trifluorotoluene	98.2	58-124	%	5.00	05/18/2004 03:28	
4-Bromofluorobenzene-FID	98.9	50-150	%	5.00	05/18/2004 03:28	

Gas/BTEX by 8015M/8021

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: N1W-B1	Lab ID: 2004-05-0485 - 9
Sampled: 05/13/2004	Extracted: 5/18/2004 04:04
Matrix: Water	QC Batch#: 2004/05/17-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	170	50	ug/L	1.00	05/18/2004 04:04	
Benzene	6.5	0.50	ug/L	1.00	05/18/2004 04:04	
Toluene	1.1	0.50	ug/L	1.00	05/18/2004 04:04	
Ethyl benzene	2.4	0.50	ug/L	1.00	05/18/2004 04:04	
Xylene(s)	8.0	0.50	ug/L	1.00	05/18/2004 04:04	
<b>Surrogate(s)</b>						
Trifluorotoluene	98.0	58-124	%	1.00	05/18/2004 04:04	
4-Bromofluorobenzene-FID	91.5	50-150	%	1.00	05/18/2004 04:04	

**Gas/BTEX by 8015M/8021**

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: N1W-B2	Lab ID: 2004-05-0485 - 10
Sampled: 05/13/2004	Extracted: 5/19/2004 12:19
Matrix: Water	QC Batch#: 2004/05/18-02.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	260	50	ug/L	1.00	05/19/2004 12:19	
Benzene	8.9	0.50	ug/L	1.00	05/19/2004 12:19	
Toluene	1.5	0.50	ug/L	1.00	05/19/2004 12:19	
Ethyl benzene	4.0	0.50	ug/L	1.00	05/19/2004 12:19	
Xylene(s)	8.4	0.50	ug/L	1.00	05/19/2004 12:19	
<b>Surrogate(s)</b>						
Trifluorotoluene	96.2	58-124	%	1.00	05/19/2004 12:19	
4-Bromofluorobenzene-FID	98.8	50-150	%	1.00	05/19/2004 12:19	

Gas/BTEX by 8015M/8021

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	POBS-A1	Lab ID:	2004-05-0485 - 11
Sampled:	05/13/2004	Extracted:	5/21/2004 12:01
Matrix:	Water	QC Batch#:	2004/05/21-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	16000	1300	ug/L	25.00	05/21/2004 12:01	
Benzene	2200	13	ug/L	25.00	05/21/2004 12:01	
Toluene	220	13	ug/L	25.00	05/21/2004 12:01	
Ethyl benzene	480	13	ug/L	25.00	05/21/2004 12:01	
Xylene(s)	980	13	ug/L	25.00	05/21/2004 12:01	
<b>Surrogate(s)</b>						
Trifluorotoluene	100.5	58-124	%	25.00	05/21/2004 12:01	
4-Bromofluorobenzene-FID	97.9	50-150	%	25.00	05/21/2004 12:01	

**Gas/BTEX by 8015M/8021**

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: <b>POBS-B1</b>	Lab ID: 2004-05-0485 - 12
Sampled: 05/13/2004	Extracted: 5/21/2004 12:36
Matrix: Water	QC Batch#: 2004/05/21-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	11000	1000	ug/L	20.00	05/21/2004 12:36	
Benzene	250	10	ug/L	20.00	05/21/2004 12:36	
Toluene	71	10	ug/L	20.00	05/21/2004 12:36	
Ethyl benzene	160	10	ug/L	20.00	05/21/2004 12:36	
Xylene(s)	590	10	ug/L	20.00	05/21/2004 12:36	
<b>Surrogate(s)</b>						
Trifluorotoluene	102.7	58-124	%	20.00	05/21/2004 12:36	
4-Bromofluorobenzene-FID	98.1	50-150	%	20.00	05/21/2004 12:36	

Gas/BTEX by 8015M/8021

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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: POBS-B2	Lab ID: 2004-05-0485 - 13
Sampled: 05/13/2004	Extracted: 5/21/2004 13:11
Matrix: Water	QC Batch#: 2004/05/21-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	4500	500	ug/L	10.00	05/21/2004 13:11	
Benzene	150	5.0	ug/L	10.00	05/21/2004 13:11	
Toluene	23	5.0	ug/L	10.00	05/21/2004 13:11	
Ethyl benzene	11	5.0	ug/L	10.00	05/21/2004 13:11	
Xylene(s)	120	5.0	ug/L	10.00	05/21/2004 13:11	
<b>Surrogate(s)</b>						
Trifluorotoluene	102.1	58-124	%	10.00	05/21/2004 13:11	
4-Bromofluorobenzene-FID	96.9	50-150	%	10.00	05/21/2004 13:11	



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Project: 98360.0000.10

Received: 05/14/2004 09:00

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: <b>NOBS-B1</b>	Lab ID: 2004-05-0485 - 14
Sampled: 05/13/2004	Extracted: 5/21/2004 11:26
Matrix: Water	QC Batch#: 2004/05/21-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	120	50	ug/L	1.00	05/21/2004 11:26	
Benzene	4.6	0.50	ug/L	1.00	05/21/2004 11:26	
Toluene	0.81	0.50	ug/L	1.00	05/21/2004 11:26	
Ethyl benzene	2.3	0.50	ug/L	1.00	05/21/2004 11:26	
Xylene(s)	5.4	0.50	ug/L	1.00	05/21/2004 11:26	
<b>Surrogate(s)</b>						
Trifluorotoluene	106.2	58-124	%	1.00	05/21/2004 11:26	
4-Bromofluorobenzene-FID	98.5	50-150	%	1.00	05/21/2004 11:26	

Gas/BTEX by 8015M/8021

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Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 5030

5030

Method Blank

MB: 2004/05/17-01.05-004

Test(s): 8015M

8021B

Water

QC Batch # 2004/05/17-01.05

Date Extracted: 05/17/2004 09:36

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	05/17/2004 09:36	
Benzene	ND	0.5	ug/L	05/17/2004 09:36	
Toluene	ND	0.5	ug/L	05/17/2004 09:36	
Ethyl benzene	ND	0.5	ug/L	05/17/2004 09:36	
Xylene(s)	ND	0.5	ug/L	05/17/2004 09:36	
<b>Surrogates(s)</b>					
Trifluorotoluene	106.7	58-124	%	05/17/2004 09:36	
4-Bromofluorobenzene-FID	101.7	50-150	%	05/17/2004 09:36	

Sewern Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/21/2004 14:39

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

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Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Batch QC Report					
Prep(s): 5030				Test(s): 8015M	
5030				8021B	
Method Blank		Water		QC Batch # 2004/05/18-02.05	
MB: 2004/05/18-02.05-030				Date Extracted: 05/19/2004 00:09	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	05/19/2004 00:09	
Benzene	ND	0.5	ug/L	05/19/2004 00:09	
Toluene	ND	0.5	ug/L	05/19/2004 00:09	
Ethyl benzene	ND	0.5	ug/L	05/19/2004 00:09	
Xylene(s)	ND	0.5	ug/L	05/19/2004 00:09	
<b>Surrogates(s)</b>					
Trifluorotoluene	90.2	58-124	%	05/19/2004 00:09	
4-Bromofluorobenzene-FID	94.5	50-150	%	05/19/2004 00:09	

Gas/BTEX by 8015M/8021

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Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 5030

5030

Method Blank

MB: 2004/05/18-02.05-054

Test(s): 8015M

8021B

Water

QC Batch # 2004/05/18-02.05

Date Extracted: 05/19/2004 14:46

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	05/19/2004 14:46	
Benzene	ND	0.5	ug/L	05/19/2004 14:46	
Toluene	ND	0.5	ug/L	05/19/2004 14:46	
Ethyl benzene	ND	0.5	ug/L	05/19/2004 14:46	
Xylene(s)	ND	0.5	ug/L	05/19/2004 14:46	
<b>Surrogates(s)</b>					
Trifluorotoluene	100.8	58-124	%	05/19/2004 14:46	
4-Bromofluorobenzene-FID	101.2	50-150	%	05/19/2004 14:46	

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Batch QC Report			
Prep(s): 5030			Test(s): 8015M
5030			8021B
<b>Method Blank</b>		<b>Water</b>	<b>QC Batch # 2004/05/21-01.05</b>
MB: 2004/05/21-01.05-004			Date Extracted: 05/21/2004 08:31

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	05/21/2004 08:31	
Benzene	ND	0.5	ug/L	05/21/2004 08:31	
Toluene	ND	0.5	ug/L	05/21/2004 08:31	
Ethyl benzene	ND	0.5	ug/L	05/21/2004 08:31	
Xylene(s)	ND	0.5	ug/L	05/21/2004 08:31	
<b>Surrogates(s)</b>					
Trifluorotoluene	107.6	58-124	%	05/21/2004 08:31	
4-Bromofluorobenzene-FID	99.0	50-150	%	05/21/2004 08:31	

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/05/17-01.05**

LCS: 2004/05/17-01.05-005

Extracted: 05/17/2004

Analyzed: 05/17/2004 10:12

LCSD: 2004/05/17-01.05-006

Extracted: 05/17/2004

Analyzed: 05/17/2004 10:47

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	52.0	53.8	50.0	104.0	107.6	3.4	77-123	20		
Toluene	52.8	52.6	50.0	105.6	105.2	0.4	78-122	20		
Ethyl benzene	51.9	51.8	50.0	103.8	103.6	0.2	70-130	20		
Xylene(s)	152	151	150	101.3	100.7	0.6	75-125	20		
<b>Surrogates(s)</b>										
Trifluorotoluene	528	527	500	105.6	105.4		58-124			

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/05/17-01.05**

LCS 2004/05/17-01.05-007

Extracted: 05/17/2004

Analyzed: 05/17/2004 11:22

LCSD 2004/05/17-01.05-008

Extracted: 05/17/2004

Analyzed: 05/17/2004 11:57

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	215	211	250	86.0	84.4	1.9	75-125	20		
<b>Surrogates(s)</b>										
4-Bromofluorobenzene-FID	521	503	500	104.2	100.6		50-150			

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

Laboratory Control Spike

Water

QC Batch # 2004/05/18-02.05

LCS 2004/05/18-02.05-031

Extracted: 05/19/2004

Analyzed: 05/19/2004 00:45

LCSD 2004/05/18-02.05-032

Extracted: 05/19/2004

Analyzed: 05/19/2004 01:21

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	51.0	52.5	50.0	102.0	105.0	2.9	77-123	20		
Toluene	49.8	51.6	50.0	99.6	103.2	3.6	78-122	20		
Ethyl benzene	48.8	48.9	50.0	97.6	97.8	0.2	70-130	20		
Xylene(s)	144	143	150	96.0	95.3	0.7	75-125	20		
<b>Surrogates(s)</b>										
Trifluorotoluene	427	447	500	85.4	89.4		58-124			



**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360.0000.10

Received: 05/14/2004 09:00

Batch QC Report										
Prep(s): 5030					Test(s): 8015M					
Laboratory Control Spike			Water			QC Batch # 2004/05/18-02.05				
LCS	2004/05/18-02:05-033		Extracted: 05/19/2004			Analyzed: 05/19/2004 01:56				
LCSD	2004/05/18-02:05-034		Extracted: 05/19/2004			Analyzed: 05/19/2004 02:32				
Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	214	206	250	85.6	82.4	3.8	75-125	20		
<b>Surrogates(s)</b>										
4-Bromofluorobenzene-FID	459	463	500	91.8	92.6		50-150			

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/05/21-01.05**

LCS 2004/05/21-01.05-005  
LCSD 2004/05/21-01.05-006

Extracted: 05/21/2004  
Extracted: 05/21/2004

Analyzed: 05/21/2004 09:06  
Analyzed: 05/21/2004 09:41

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	58.1	55.3	50.0	116.2	110.6	4.9	77-123	20		
Toluene	57.9	54.7	50.0	115.8	109.4	5.7	78-122	20		
Ethyl benzene	56.4	53.4	50.0	112.8	106.8	5.5	70-130	20		
Xylene(s)	166	156	150	110.7	104.0	6.2	75-125	20		
<b>Surrogates(s)</b>										
Trifluorotoluene	505	507	500	101.0	101.4		58-124			

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

Batch QC Report										
Prep(s): 5030						Test(s): 8015M				
<b>Laboratory Control Spike</b>			<b>Water</b>			<b>QC Batch # 2004/05/21-01.05</b>				
LCS	2004/05/21-01.05-007		Extracted: 05/21/2004			Analyzed: 05/21/2004 10:16				
LCSD	2004/05/21-01.05-008		Extracted: 05/21/2004			Analyzed: 05/21/2004 10:51				
Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	204	206	250	81.6	82.4	1.0	75-125	20		
<b>Surrogates(s)</b> 4-Bromofluorobenzene-FID	481	470	500	96.2	94.0		50-150			

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

Matrix Spike ( MS / MSD )

Water

QC Batch # 2004/05/17-01.05

P1W-A1 >> MS

Lab ID: 2004-05-0485 - 001

MS: 2004/05/17-01.05-028

Extracted: 05/17/2004

Analyzed: 05/17/2004 23:56

Dilution: 20.00

MSD: 2004/05/17-01.05-029

Extracted: 05/18/2004

Analyzed: 05/18/2004 00:32

Dilution: 20.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	1460	1520	457	1000	100.3	106.3	5.8	65-135	20		
Toluene	1080	1130	49.7	1000	103.0	108.0	4.7	65-135	20		
Ethyl benzene	1060	1060	30.6	1000	102.9	102.9	0.0	65-135	20		
Xylene(s)	3320	3320	301	3000	100.6	100.6	0.0	65-135	20		
<i>Surrogate(s)</i>											
Trifluorotoluene	431	433		500	86.2	86.6		58-124			

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94586

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/21/2004 14:39

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2004/05/17-01.05**

P1W-A1 >> MS

Lab ID: 2004-05-0485 - 001

MS: 2004/05/17-01.05-030

Extracted: 05/18/2004

Analyzed: 05/18/2004 01:07

Dilution: 20.00

MSD: 2004/05/17-01.05-031

Extracted: 05/18/2004

Analyzed: 05/18/2004 01:43

Dilution: 20.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample		ug/L	MS	MSD	RPD	Rec.	RPD	MS
Gasoline	9710	9050	6800	5000	58.2	45.0	25.6	65-135	20	mso	mso, rpd
<b>Surrogate(s)</b> 4-Bromofluorobenzene-FID	443	442		500	88.6	88.4		50-150			

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/21/2004 14:39

Gas/BTEX by 8015M/8021

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.0000.10

Received: 05/14/2004 09:00

---

Legend and Notes

---

**Result Flag**

dp

Sample contains discrete peak in addition to gasoline.

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

mso

MS/MSD spike recoveries were out of QC limits due to matrix interference. Precision and Accuracy were verified by LCS/LCSD.

rpd

Analyte RPD was out of QC limits due to sample heterogeneity.

STL San Francisco

Sample Receipt Checklist

Submission #: 2004-05-0485

Checklist completed by: (Initials) JWM Date: 05/14/04

Courier name:  STL San Francisco  Client

Custody seals intact on shipping container/samples Yes \_\_\_ No \_\_\_ Not Present

Chain of custody present? Yes  No \_\_\_

Chain of custody signed when relinquished and received? Yes  No \_\_\_

Chain of custody agrees with sample labels? Yes  No \_\_\_

Samples in proper container/bottle? Yes  No \_\_\_

Sample containers intact? Yes  No \_\_\_

Sufficient sample volume for indicated test? Yes  No \_\_\_

All samples received within holding time? Yes  No \_\_\_

Container/Temp. Blank temperature in compliance (4° C ± 2)? Temp: 4.0 °C Yes  No \_\_\_

Ice Present Yes  No \_\_\_

Water - VOA vials have zero headspace? No VOA vials submitted Yes  No \_\_\_

(If bubble is present, refer to approximate bubble size and itemize in comments as S (small - O), M (medium - O) or L (large - O))

Water - pH acceptable upon receipt?  Yes  No

pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc - Lot #(s) \_\_\_\_\_

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: \_\_\_\_\_

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (Initials) \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/04

Client contacted:  Yes  No

Summary of discussion: \_\_\_\_\_

Corrective Action (per PM/Client): \_\_\_\_\_



STL

STL San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1098
Email: stlogin@stl-inc.com

2004-05-0485

Reference #: 85853

Date 5/13/04 Page 1 of 1

Table with columns: Sample ID, Date, Time, Mat, Pres, and Analysis Results. Includes handwritten entries for sample IDs (PIW-A1 to NIW-B2) and analysis results (X marks).

Project Info and Sample Receipt section. Includes fields for Project Name (98360 0000 10), Project #, PO #, Credit Card #, and a table for retention time (5 Day, 72h, 48h, 24h, Other).

Relinquished/Received by section 1. Includes signature and time for Mark Williams on 5/13/04.

Relinquished/Received by section 2. Includes signature and time for Denise Harrington on 0900.

Relinquished/Received by section 3. Includes signature and time for Denise Harrington on 0900, dated 5/14/04.

Number of Containers

Handwritten numbers: 4, 4, 1, 1, 3, 3, 4, 4, 4, 4





STL

STL San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: stlogin@stl-inc.com

2004-05-0485

Reference #: 85853

Date Page 2 of 2

Report To Analysis Request

Form fields for client information: Allt, Company, Address, Phone, Email, Bill To, Sampled By, Allt, Phone.

Table with columns: Sample ID, Date, Time, Vol, Pres, and various chemical analysis checkboxes (e.g., EPA 8210, EPA 8215, EPA 8216, etc.).

Project Info and Sample Receipt section containing signature and date fields for relinquished and received parties.

Number of Containers

Handwritten numbers: 4, 4, 4, 1

Engineering and Fire Investigations

June 29, 2004

111 Deerwood Road, Ste 195  
San Ramon, CA 94583

Attn.: Mark Williams

Project#: 98360-000011

Project: Bohannon

Dear Mr. Williams,

Attached is our report for your samples received on 06/21/2004 09:29

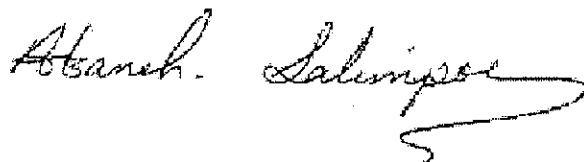
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 08/05/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: [asalimpour@stl-inc.com](mailto:asalimpour@stl-inc.com)

Sincerely,



Afsaneh Salimpour  
Project Manager

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011

Bohannon

Received: 06/21/2004 09:29

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
NIW-A1	06/18/2004	Water	5
NIW-A2	06/18/2004	Water	6
NIW-B1	06/18/2004	Water	7
NIW-B2	06/18/2004	Water	8
NOBS-B1	06/18/2004	Water	11
MW-4	06/18/2004	Water	12

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/29/2004 13:08

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011

Bohannon

Received: 06/21/2004 09:29

Prep(s): 300.0/9056                      Test(s): 300.0/9056  
Sample ID: **NIW-A1**                      Lab ID: 2004-06-0661 - 5  
Sampled: 06/18/2004                      Extracted: 6/21/2004 11:00  
Matrix: Water                              QC Batch#: 2004/06/21-01.41  
Analysis Flag: HT ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	ND	2.0	mg/L	2.00	06/21/2004 15:23	lrm,HT

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/29/2004 13:08

Misc Anions by Ion Chromatograph

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

Prep(s): 300.0/9056      Test(s): 300.0/9056  
Sample ID: NIW-A2      Lab ID: 2004-06-0661 - 6  
Sampled: 06/18/2004      Extracted: 6/21/2004 11:00  
Matrix: Water      QC Batch#: 2004/06/21-01.41  
Analysis Flag: HT ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	ND	2.0	mg/L	2.00	06/21/2004 15:41	Irm,HT

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-00011  
Bohannon

Received: 06/21/2004 09:29

Prep(s): 300.0/9056                      Test(s): 300.0/9056  
Sample ID: **NIW-B1**                      Lab ID: 2004-06-0661 - 7  
Sampled: 06/18/2004                      Extracted: 6/21/2004 11:00  
Matrix: Water                              QC Batch#: 2004/06/21-01.41  
Analysis Flag: HT ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	26	1.0	mg/L	1.00	06/21/2004 12:54	HT

Misc Anions by Ion Chromatograph

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

Prep(s): 300.0/9056      Test(s): 300.0/9056  
Sample ID: NIW-B2      Lab ID: 2004-06-0661 - 8  
Sampled: 06/18/2004      Extracted: 6/21/2004 11:00  
Matrix: Water      QC Batch#: 2004/06/21-01.41  
Analysis Flag: HT ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	40	1.0	mg/L	1.00	06/21/2004 13:13	HT

Misc Anions by Ion Chromatograph

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011

Bohannon

Received: 06/21/2004 09:29

Prep(s): 300.0/9056	Test(s): 300.0/9056
Sample ID: NOBS-B1	Lab ID: 2004-06-0661 - 11
Sampled: 06/18/2004	Extracted: 6/21/2004 11:00
Matrix: Water	QC Batch#: 2004/06/21-01.41
Analysis Flag: HT ( See Legend and Note Section )	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	34	1.0	mg/L	1.00	06/21/2004 13:31	HT



Misc Anions by Ion Chromatograph

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

Prep(s): 300.0/9056                      Test(s): 300.0/9056  
Sample ID: MW-4                              Lab ID: 2004-06-0661 - 12  
Sampled: 06/18/2004                        Extracted: 6/21/2004 11:00  
Matrix: Water                                QC Batch#: 2004/06/21-01.41  
Analysis Flag: HT ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Nitrate	ND	1.0	mg/L	1.00	06/21/2004 13:50	HT

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566  
Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/29/2004 13:08

Page 7 of 11

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 300.0/9056

Method Blank

MB: 2004/06/21-01.41-001

Water

Test(s): 300.0/9056

QC Batch # 2004/06/21-01.41

Date Extracted: 06/21/2004 10:30

Compound	Conc.	RL	Unit	Analyzed	Flag
Nitrate	ND	1.0	mg/L	06/21/2004 11:07	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/29/2004 13:08

Page 8 of 11

**Misc Anions by Ion Chromatograph**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 300.0/9056

Test(s): 300.0/9056

Laboratory Control Spike

Water

QC Batch # 2004/06/21-01.41

LCS 2004/06/21-01.41-002

Extracted: 06/21/2004

Analyzed: 06/21/2004 11:41

LCSD 2004/06/21-01.41-003

Extracted: 06/21/2004

Analyzed: 06/21/2004 11:44

Compound	Conc. mg/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Nitrate	19.6	19.6	20.0	98.0	98.0	0.0	80-120	20		

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Misc Anions by Ion Chromatograph

Engineering and Fire Investigations

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Project: 98360-000011

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Batch QC Report

Prep(s): 300.0/9056

Test(s): 300.0/9056

Matrix Spike ( MS / MSD )

Water

QC Batch # 2004/06/21-01.41

MW-4 >> MS

Lab ID: 2004-06-0661 - 012

MS: 2004/06/21-01.41-004

Extracted: 06/22/2004

Analyzed: 06/22/2004 13:21

Dilution: 1.00

MSD: 2004/06/21-01.41-005

Extracted: 06/22/2004

Analyzed: 06/22/2004 13:40

Dilution: 1.00

Compound	Conc. mg/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample		mg/L	MS	MSD	RPD	Rec.	RPD	MS
Nitrate	20.3	20.2	ND	20.0	101.5	101.0	0.5	80-120	20		

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**Legend and Notes**

---

**Analysis Flag**

HT

Extracted out of holding time

**Result Flag**

Irm

Reporting limits were raised due to matrix interference.

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**Fuel Oxygenates by 8260B**

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**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
PIW-A1	06/18/2004	Water	1
PIW-A2	06/18/2004	Water	2
PIW-B1	06/18/2004	Water	3
PIW-B3	06/18/2004	Water	4
NIW-A1	06/18/2004	Water	5
NIW-A2	06/18/2004	Water	6
NIW-B1	06/18/2004	Water	7
NIW-B2	06/18/2004	Water	8
POBS-A1	06/18/2004	Water	9
POBS-B1	06/18/2004	Water	10
NOBS-B1	06/18/2004	Water	11
MW-4	06/18/2004	Water	12
MW-3	06/18/2004	Water	13
MW-1	06/18/2004	Water	14
POBS-2B	06/18/2004	Water	15

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**Fuel Oxygenates by 8260B**

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Received: 06/21/2004 09:29

Prep(s): 5030B Test(s): 8260B  
Sample ID: PIW-A1 Lab ID: 2004-06-0661 - 1  
Sampled: 06/18/2004 Extracted: 6/24/2004 11:51  
Matrix: Water QC Batch#: 2004/06/24-01.64  
Analysis Flag: Im ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	240	100	ug/L	2.00	06/24/2004 11:51	
Benzene	10	1.0	ug/L	2.00	06/24/2004 11:51	
Toluene	2.1	1.0	ug/L	2.00	06/24/2004 11:51	
Ethylbenzene	4.0	1.0	ug/L	2.00	06/24/2004 11:51	
Total xylenes	11	2.0	ug/L	2.00	06/24/2004 11:51	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	92.0	72-128	%	2.00	06/24/2004 11:51	
Toluene-d8	94.1	80-113	%	2.00	06/24/2004 11:51	

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**Fuel Oxygenates by 8260B**

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Received: 06/21/2004 09:29

Prep(s): 5030B Test(s): 8260B  
 Sample ID: PIW-A2 Lab ID: 2004-06-0661 - 2  
 Sampled: 06/18/2004 Extracted: 6/24/2004 12:14  
 Matrix: Water QC Batch#: 2004/06/24-01.64  
 Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	2800	250	ug/L	5.00	06/24/2004 12:14	
Benzene	150	2.5	ug/L	5.00	06/24/2004 12:14	
Toluene	14	2.5	ug/L	5.00	06/24/2004 12:14	
Ethylbenzene	6.5	2.5	ug/L	5.00	06/24/2004 12:14	
Total xylenes	90	5.0	ug/L	5.00	06/24/2004 12:14	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	94.4	72-128	%	5.00	06/24/2004 12:14	
Toluene-d8	94.8	80-113	%	5.00	06/24/2004 12:14	

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**Fuel Oxygenates by 8260B**

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Received: 06/21/2004 09:29

Prep(s): 5030B Test(s): 8260B  
Sample ID: PIW-B1 Lab ID: 2004-06-0661 - 3  
Sampled: 06/18/2004 Extracted: 6/24/2004 12:59  
Matrix: Water QC Batch#: 2004/06/24-01.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	270	50	ug/L	1.00	06/24/2004 12:59	
Benzene	22	0.50	ug/L	1.00	06/24/2004 12:59	
Toluene	1.0	0.50	ug/L	1.00	06/24/2004 12:59	
Ethylbenzene	2.2	0.50	ug/L	1.00	06/24/2004 12:59	
Total xylenes	2.7	1.0	ug/L	1.00	06/24/2004 12:59	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	88.3	72-128	%	1.00	06/24/2004 12:59	
Toluene-d8	93.8	80-113	%	1.00	06/24/2004 12:59	

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Fuel Oxygenates by 8260B

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Received: 06/21/2004 09:29

Prep(s): 5030B	Test(s): 8260B
Sample ID: PIW-B3	Lab ID: 2004-06-0661 - 4
Sampled: 06/18/2004	Extracted: 6/23/2004 11:13
Matrix: Water	QC Batch#: 2004/06/23-01.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	180	50	ug/L	1.00	06/23/2004 11:13	
Benzene	1.2	0.50	ug/L	1.00	06/23/2004 11:13	
Toluene	ND	0.50	ug/L	1.00	06/23/2004 11:13	
Ethylbenzene	ND	0.50	ug/L	1.00	06/23/2004 11:13	
Total xylenes	2.4	1.0	ug/L	1.00	06/23/2004 11:13	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	97.3	72-128	%	1.00	06/23/2004 11:13	
Toluene-d8	93.2	80-113	%	1.00	06/23/2004 11:13	

**Fuel Oxygenates by 8260B**

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Prep(s): 5030B Test(s): 8260B  
Sample ID: NIW-A1 Lab ID: 2004-06-0661 - 5  
Sampled: 06/18/2004 Extracted: 6/23/2004 10:59  
Matrix: Water QC Batch#: 2004/06/23-01.66  
Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	3100	1000	ug/L	20.00	06/23/2004 10:59	
Benzene	340	10	ug/L	20.00	06/23/2004 10:59	
Toluene	22	10	ug/L	20.00	06/23/2004 10:59	
Ethylbenzene	93	10	ug/L	20.00	06/23/2004 10:59	
Total xylenes	55	20	ug/L	20.00	06/23/2004 10:59	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	91.0	72-128	%	20.00	06/23/2004 10:59	
Toluene-d8	100.2	80-113	%	20.00	06/23/2004 10:59	

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Prep(s): 5030B	Test(s): 8260B
Sample ID: NIW-A2	Lab ID: 2004-06-0661 - 6
Sampled: 06/18/2004	Extracted: 6/25/2004 01:25
Matrix: Water	QC Batch#: 2004/06/24-02.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	200	50	ug/L	1.00	06/25/2004 01:25	
Benzene	6.4	0.50	ug/L	1.00	06/25/2004 01:25	
Toluene	1.7	0.50	ug/L	1.00	06/25/2004 01:25	
Ethylbenzene	2.1	0.50	ug/L	1.00	06/25/2004 01:25	
Total xylenes	3.5	1.0	ug/L	1.00	06/25/2004 01:25	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	95.6	72-128	%	1.00	06/25/2004 01:25	
Toluene-d8	96.9	80-113	%	1.00	06/25/2004 01:25	

**Fuel Oxygenates by 8260B**

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Prep(s): 5030B Test(s): 8260B  
Sample ID: NIW-B1 Lab ID: 2004-06-0661 - 7  
Sampled: 06/18/2004 Extracted: 6/23/2004 11:47  
Matrix: Water QC Batch#: 2004/06/23-01.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	160	50	ug/L	1.00	06/23/2004 11:47	
Benzene	2.9	0.50	ug/L	1.00	06/23/2004 11:47	
Toluene	0.67	0.50	ug/L	1.00	06/23/2004 11:47	
Ethylbenzene	2.6	0.50	ug/L	1.00	06/23/2004 11:47	
Total xylenes	2.5	1.0	ug/L	1.00	06/23/2004 11:47	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	91.8	72-128	%	1.00	06/23/2004 11:47	
Toluene-d8	96.2	80-113	%	1.00	06/23/2004 11:47	

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Fuel Oxygenates by 8260B

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Received: 06/21/2004 09:29

Prep(s):	5030B	Test(s):	8260B
Sample ID:	NIW-B2	Lab ID:	2004-06-0661 - 8
Sampled:	06/18/2004	Extracted:	6/23/2004 12:11
Matrix:	Water	QC Batch#:	2004/06/23-01.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	120	50	ug/L	1.00	06/23/2004 12:11	
Benzene	0.99	0.50	ug/L	1.00	06/23/2004 12:11	
Toluene	ND	0.50	ug/L	1.00	06/23/2004 12:11	
Ethylbenzene	1.1	0.50	ug/L	1.00	06/23/2004 12:11	
Total xylenes	ND	1.0	ug/L	1.00	06/23/2004 12:11	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	94.3	72-128	%	1.00	06/23/2004 12:11	
Toluene-d8	95.2	80-113	%	1.00	06/23/2004 12:11	

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**Fuel Oxygenates by 8260B**

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Received: 06/21/2004 09:29

Prep(s): 5030B Test(s): 8260B  
Sample ID: POBS-A1 Lab ID: 2004-06-0661 - 9  
Sampled: 06/18/2004 Extracted: 6/23/2004 10:16  
Matrix: Water QC Batch#: 2004/06/23-01.68  
Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	11000	1300	ug/L	25.00	06/23/2004 10:16	
Benzene	2200	13	ug/L	25.00	06/23/2004 10:16	
Toluene	150	13	ug/L	25.00	06/23/2004 10:16	
Ethylbenzene	120	13	ug/L	25.00	06/23/2004 10:16	
Total xylenes	820	25	ug/L	25.00	06/23/2004 10:16	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	74.1	72-128	%	25.00	06/23/2004 10:16	
Toluene-d8	93.3	80-113	%	25.00	06/23/2004 10:16	

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**Fuel Oxygenates by 8260B**

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Received: 06/21/2004 09:29

Prep(s):	5030B	Test(s):	8260B
Sample ID:	POBS-B1	Lab ID:	2004-06-0661 - 10
Sampled:	06/18/2004	Extracted:	6/24/2004 13:21
Matrix:	Water	QC Batch#:	2004/06/24-01.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	3500	50	ug/L	1.00	06/24/2004 13:21	
Benzene	9.8	0.50	ug/L	1.00	06/24/2004 13:21	
Toluene	ND	0.50	ug/L	1.00	06/24/2004 13:21	
Ethylbenzene	0.76	0.50	ug/L	1.00	06/24/2004 13:21	
Total xylenes	13	1.0	ug/L	1.00	06/24/2004 13:21	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	88.0	72-128	%	1.00	06/24/2004 13:21	
Toluene-d8	97.1	80-113	%	1.00	06/24/2004 13:21	

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Project: 98360-000011  
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Received: 06/21/2004 09:29

Prep(s): 5030B Test(s): 8260B  
Sample ID: **NOBS-B1** Lab ID: 2004-06-0661 - 11  
Sampled: 06/18/2004 Extracted: 6/23/2004 10:54  
Matrix: Water QC Batch#: 2004/06/23-01.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	88	50	ug/L	1.00	06/23/2004 10:54	
Benzene	1.9	0.50	ug/L	1.00	06/23/2004 10:54	
Toluene	0.72	0.50	ug/L	1.00	06/23/2004 10:54	
Ethylbenzene	1.7	0.50	ug/L	1.00	06/23/2004 10:54	
Total xylenes	ND	1.0	ug/L	1.00	06/23/2004 10:54	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	79.1	72-128	%	1.00	06/23/2004 10:54	
Toluene-d8	93.7	80-113	%	1.00	06/23/2004 10:54	

**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

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Received: 06/21/2004 09:29

Prep(s): 5030B Test(s): 8260B  
Sample ID: MW-4 Lab ID: 2004-06-0661 - 12  
Sampled: 06/18/2004 Extracted: 6/23/2004 14:05  
Matrix: Water QC Batch#: 2004/06/23-01.68  
Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	2700	500	ug/L	10.00	06/23/2004 14:05	
Benzene	140	5.0	ug/L	10.00	06/23/2004 14:05	
Toluene	12	5.0	ug/L	10.00	06/23/2004 14:05	
Ethylbenzene	36	5.0	ug/L	10.00	06/23/2004 14:05	
Total xylenes	16	10	ug/L	10.00	06/23/2004 14:05	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	93.4	72-128	%	10.00	06/23/2004 14:05	
Toluene-d8	95.7	80-113	%	10.00	06/23/2004 14:05	

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Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

Prep(s): 5030B Test(s): 8260B  
Sample ID: MW-3 Lab ID: 2004-06-0661 - 13  
Sampled: 06/18/2004 Extracted: 6/23/2004 14:24  
Matrix: Water QC Batch#: 2004/06/23-01.68  
Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	4300	500	ug/L	10.00	06/23/2004 14:24	
Benzene	1600	5.0	ug/L	10.00	06/23/2004 14:24	
Toluene	40	5.0	ug/L	10.00	06/23/2004 14:24	
Ethylbenzene	81	5.0	ug/L	10.00	06/23/2004 14:24	
Total xylenes	26	10	ug/L	10.00	06/23/2004 14:24	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	90.9	72-128	%	10.00	06/23/2004 14:24	
Toluene-d8	101.6	80-113	%	10.00	06/23/2004 14:24	

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Project: 98360-000011

Bohannon

Received: 06/21/2004 09:29

Prep(s): 5030B	Test(s): 8260B
Sample ID: MW-1	Lab ID: 2004-06-0661 - 14
Sampled: 06/18/2004	Extracted: 6/23/2004 14:43
Matrix: Water	QC Batch#: 2004/06/23-01.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	150	50	ug/L	1.00	06/23/2004 14:43	
Benzene	1.5	0.50	ug/L	1.00	06/23/2004 14:43	
Toluene	ND	0.50	ug/L	1.00	06/23/2004 14:43	
Ethylbenzene	2.7	0.50	ug/L	1.00	06/23/2004 14:43	
Total xylenes	2.4	1.0	ug/L	1.00	06/23/2004 14:43	
<i>Surrogate(s)</i>						
1,2-Dichloroethane-d4	88.7	72-128	%	1.00	06/23/2004 14:43	
Toluene-d8	100.6	80-113	%	1.00	06/23/2004 14:43	

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

06/28/2004 10:54

**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

Prep(s): 5030B Test(s): 8260B  
Sample ID: POBS-2B Lab ID: 2004-06-0661 - 15  
Sampled: 06/18/2004 Extracted: 6/23/2004 15:02  
Matrix: Water QC Batch#: 2004/06/23-01.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	97	50	ug/L	1.00	06/23/2004 15:02	
Benzene	7.4	0.50	ug/L	1.00	06/23/2004 15:02	
Toluene	0.79	0.50	ug/L	1.00	06/23/2004 15:02	
Ethylbenzene	1.6	0.50	ug/L	1.00	06/23/2004 15:02	
Total xylenes	1.7	1.0	ug/L	1.00	06/23/2004 15:02	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	89.8	72-128	%	1.00	06/23/2004 15:02	
Toluene-d8	96.2	80-113	%	1.00	06/23/2004 15:02	

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06/28/2004 10:54

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**Fuel Oxygenates by 8260B**

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Attn.: Mark Williams

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Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/06/23-01.62-001

Water

Test(s): 8260B

QC Batch # 2004/06/23-01.62

Date Extracted: 06/23/2004 08:01

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/23/2004 08:01	
Benzene	ND	0.5	ug/L	06/23/2004 08:01	
Toluene	ND	0.5	ug/L	06/23/2004 08:01	
Ethylbenzene	ND	0.5	ug/L	06/23/2004 08:01	
Total xylenes	ND	1.0	ug/L	06/23/2004 08:01	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	92.4	72-128	%	06/23/2004 08:01	
Toluene-d8	97.2	80-113	%	06/23/2004 08:01	

**Fuel Oxygenates by 8260B**

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Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2004/06/23-01.66

MB: 2004/06/23-01.66-038

Date Extracted: 06/23/2004 09:38

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/23/2004 09:38	
Benzene	ND	0.5	ug/L	06/23/2004 09:38	
Toluene	ND	0.5	ug/L	06/23/2004 09:38	
Ethylbenzene	ND	0.5	ug/L	06/23/2004 09:38	
Total xylenes	ND	1.0	ug/L	06/23/2004 09:38	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	91.2	72-128	%	06/23/2004 09:38	
Toluene-d8	94.0	80-113	%	06/23/2004 09:38	

Fuel Oxygenates by 8260B

Engineering and Fire Investigations

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San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011

Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/06/23-01.68-033

Water

Test(s): 8260B

QC Batch # 2004/06/23-01.68

Date Extracted: 06/23/2004 09:33

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/23/2004 09:33	
Benzene	ND	0.5	ug/L	06/23/2004 09:33	
Toluene	ND	0.5	ug/L	06/23/2004 09:33	
Ethylbenzene	ND	0.5	ug/L	06/23/2004 09:33	
Total xylenes	ND	1.0	ug/L	06/23/2004 09:33	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	85.8	72-128	%	06/23/2004 09:33	
Toluene-d8	96.6	80-113	%	06/23/2004 09:33	

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06/28/2004 10:54



**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/06/24-01.64-024

Water

Test(s): 8260B

QC Batch # 2004/06/24-01.64

Date Extracted: 06/24/2004 11:24

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/24/2004 11:24	
Benzene	ND	0.5	ug/L	06/24/2004 11:24	
Toluene	ND	0.5	ug/L	06/24/2004 11:24	
Ethylbenzene	ND	0.5	ug/L	06/24/2004 11:24	
Total xylenes	ND	1.0	ug/L	06/24/2004 11:24	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	87.8	72-128	%	06/24/2004 11:24	
Toluene-d8	95.2	80-113	%	06/24/2004 11:24	

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06/28/2004 10:54

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**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011

Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2004/06/24-02.68-034

Water

Test(s): 8260B

QC Batch # 2004/06/24-02.68

Date Extracted: 06/24/2004 18:34

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/24/2004 18:34	
Benzene	ND	0.5	ug/L	06/24/2004 18:34	
Toluene	ND	0.5	ug/L	06/24/2004 18:34	
Ethylbenzene	ND	0.5	ug/L	06/24/2004 18:34	
Total xylenes	ND	1.0	ug/L	06/24/2004 18:34	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	88.2	72-128	%	06/24/2004 18:34	
Toluene-d8	100.2	80-113	%	06/24/2004 18:34	

**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations  
Attn.: Mark Williams

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San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/06/23-01.62**

LCS 2004/06/23-01.62-017

Extracted: 06/23/2004

Analyzed: 06/23/2004 07:17

LCSD 2004/06/23-01.62-039

Extracted: 06/23/2004

Analyzed: 06/23/2004 07:39

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	25.2	25.9	25.0	100.8	103.6	2.7	69-129	20		
Toluene	27.4	26.9	25.0	109.6	107.6	1.8	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	410	421	500	82.0	84.2		72-128			
Toluene-d8	509	506	500	101.8	101.2		80-113			

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**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

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San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011

Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/06/23-01.66**

LCS 2004/06/23-01.66-050

Extracted: 06/23/2004

Analyzed: 06/23/2004 08:50

LCSD 2004/06/23-01.66-014

Extracted: 06/23/2004

Analyzed: 06/23/2004 09:14

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	25.1	26.4	25.0	100.4	105.6	5.0	69-129	20		
Toluene	25.5	27.7	25.0	102.0	110.8	8.3	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	429	441	500	85.8	88.2		72-128			
Toluene-d8	494	511	500	98.8	102.2		80-113			

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**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

Attn.: Mark Williams

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San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/06/23-01.68**

LCS 2004/06/23-01.68-055

Extracted: 06/23/2004

Analyzed: 06/23/2004 08:55

LCSD 2004/06/23-01.68-014

Extracted: 06/23/2004

Analyzed: 06/23/2004 09:14

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	23.9	25.0	25.0	95.6	100.0	4.5	69-129	20		
Toluene	25.8	28.4	25.0	103.2	113.6	9.6	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	394	402	500	78.8	80.4		72-128			
Toluene-d8	454	491	500	90.8	98.2		80-113			

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06/28/2004 10:54

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**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

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San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011

Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/06/24-01.64**

LCS 2004/06/24-01.64-039

Extracted: 06/24/2004

Analyzed: 06/24/2004 10:39

LCSD 2004/06/24-01.64-001

Extracted: 06/24/2004

Analyzed: 06/24/2004 11:01

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	26.5	25.2	25.0	106.0	100.8	5.0	69-129	20		
Toluene	26.9	25.9	25.0	107.6	103.6	3.8	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	424	431	500	84.8	86.2		72-128			
Toluene-d8	480	476	500	96.0	95.2		80-113			

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06/28/2004 10:54

**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-00011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2004/06/24-02.68**

LCS 2004/06/24-02.68-056

Extracted: 06/24/2004

Analyzed: 06/24/2004 17:56

LCSD 2004/06/24-02.68-015

Extracted: 06/24/2004

Analyzed: 06/24/2004 18:15

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	22.7	22.5	25.0	90.8	90.0	0.9	69-129	20		
Toluene	24.8	24.7	25.0	99.2	98.8	0.4	70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	433	409	500	86.6	81.8		72-128			
Toluene-d8	479	469	500	95.8	93.8		80-113			

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06/28/2004 10:54

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**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2004/06/23-01.62**

PIW-B3 >> MS

Lab ID: 2004-06-0661 - 004

MS: 2004/06/23-01.62-035

Extracted: 06/23/2004

Analyzed: 06/23/2004 11:35

Dilution: 1.00

MSD: 2004/06/23-01.62-057

Extracted: 06/23/2004

Analyzed: 06/23/2004 11:57

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample		ug/L	MS	MSD	RPD	Rec.	RPD	MS
Benzene	25.9	26.3	1.17	25.0	98.9	100.5	1.6	69-129	20		
Toluene	25.2	25.1	ND	25.0	100.8	100.4	0.4	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	441	466		500	88.2	93.3		72-128			
Toluene-d8	469	477		500	93.8	95.4		80-113			

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06/28/2004 10:54

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**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

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San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2004/06/23-01.66**

NIW-B2 >> MS

Lab ID: 2004-06-0661 - 008

MS: 2004/06/23-01.66-035

Extracted: 06/23/2004

Analyzed: 06/23/2004 12:35

Dilution: 1.00

MSD: 2004/06/23-01.66-059

Extracted: 06/23/2004

Analyzed: 06/23/2004 12:59

Dilution: 1.00

Compound	Conc. ug/L			Spk. Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample		ug/L	MS	MSD	RPD	Rec.	RPD	MS
Benzene	27.3	26.7	0.989	25.0	105.2	102.8	2.3	69-129	20		
Toluene	26.9	24.9	ND	25.0	107.6	99.6	7.7	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	443	448		500	88.6	89.6		72-128			
Toluene-d8	499	478		500	99.8	95.6		80-113			

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06/28/2004 10:54

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**Fuel Oxygenates by 8260B**

Engineering and Fire Investigations

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Phone: (925) 457-7384 Fax: ( ) -

Project: 98360-000011  
Bohannon

Received: 06/21/2004 09:29

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2004/06/23-01.68**

POBS-2B >> MS

Lab ID: 2004-06-0661 - 015

MS: 2004/06/23-01.68-021

Extracted: 06/23/2004

Analyzed: 06/23/2004 15:21

Dilution: 1.00

MSD: 2004/06/23-01.68-040

Extracted: 06/23/2004

Analyzed: 06/23/2004 15:40

Dilution: 1.00

Compound	Conc. ug/L		Spk.Level	Recovery %			Limits %		Flags		
	MS	MSD		Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS
Benzene	33.4	30.7	7.40	25.0	104.0	93.2	11.0	69-129	20		
Toluene	26.7	26.6	0.792	25.0	103.6	103.2	0.4	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	421	448		500	84.2	89.6		72-128			
Toluene-d8	492	489		500	98.4	97.8		80-113			

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**Fuel Oxygenates by 8260B**

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Project: 98360-000011

Bohannon

Received: 06/21/2004 09:29

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**Legend and Notes**

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**Analysis Flag**

lrm

Reporting limits raised due to high level of non-target analyte materials.

o

Reporting limits were raised due to high level of analyte present in the sample.



SEVERN  
TRENT

STL

STL San Francisco Chain of Custody  
1220 Quarry Lane • Pleasanton CA 94566-4756  
Phone: (925) 484-1919 • Fax: (925) 484-1096  
Email: sflogin@stl-inc.com

Reference #: 87074

Date 6/10/04 Page 2 of 2

Report To Analysis Request

Attn:		<input type="checkbox"/> TPH EPA - 8015/8021 <input type="checkbox"/> 8260B <input checked="" type="checkbox"/> Gas w/ <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> Purgeable Aromatics <input type="checkbox"/> BTEX EPA - 8021 <input type="checkbox"/> 8260B <input type="checkbox"/> TEPH EPA 8015M <input type="checkbox"/> Silica Gel <input type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other: _____ <input type="checkbox"/> Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol <input type="checkbox"/> Purgeable Halocarbons <input type="checkbox"/> (HVOCs) EPA 8021 by 8260B <input type="checkbox"/> Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624 <input type="checkbox"/> Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625 <input type="checkbox"/> Oil and Grease <input type="checkbox"/> Petroleum <input type="checkbox"/> (EPA 1664) <input type="checkbox"/> Total <input type="checkbox"/> Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 <input type="checkbox"/> PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608 <input type="checkbox"/> PNAs by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310 <input type="checkbox"/> CAM17 Metals <input type="checkbox"/> (EPA 6010/7470/7471) <input type="checkbox"/> Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other: _____ <input type="checkbox"/> Low Level Metals by EPA 200.8/6020 <input type="checkbox"/> (ICP-MS): _____ <input type="checkbox"/> WET (STLC) <input type="checkbox"/> TCLP <input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H <sub>2</sub> O) <input type="checkbox"/> Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> <input type="checkbox"/> Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>
Company:		
Address:		
Phone:	Email:	
Bill To:	Sampled By:	
Attn:	Phone:	

Sample ID	Date	Time	Mat rix	Pres erv.	TPH EPA - 8015/8021 <input type="checkbox"/> 8260B <input checked="" type="checkbox"/> Gas w/ <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE	Purgeable Aromatics BTEX EPA - 8021 <input type="checkbox"/> 8260B	TEPH EPA 8015M <input type="checkbox"/> Silica Gel <input type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other: _____	Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624	Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625	Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664) <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608	PNAs by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other: _____	Low Level Metals by EPA 200.8/6020 (ICP-MS): _____	<input type="checkbox"/> WET (STLC) <input type="checkbox"/> TCLP	Hexavalent Chromium pH (24h hold time for H <sub>2</sub> O)	Spec Cond. <input type="checkbox"/> Alkalinity TSS <input type="checkbox"/> TDS <input type="checkbox"/>	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>			Number of Containers		
NOBS-B1	6/10/04			AC	X																					
MW-2					X																					
MW-3					X																					
MW-1					X																					

Project Info.	Sample Receipt	1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Project Name: Bohemian	# of Containers:	<i>[Signature]</i> 9:29 Signature Time	Signature Time	Signature Time
Project#:	Head Space:	Mark Williams 6/21/04 Printed Name Date	Printed Name Date	Printed Name Date
PO#:	Temp: 60	Company	Company	Company
Credit Card#:	Conforms to record:			

T A T	5 Day	72h	48h	24h	Other:	1) Received by: <i>[Signature]</i> 09:29 Signature Time	2) Received by:	3) Received by:
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> EDD <input type="checkbox"/> State Tank Fund EDF Special Instructions / Comments: <input type="checkbox"/> Global ID _____						John Mulley 6-21-04 Printed Name Date	Signature Time	Signature Time
						STL SF Company	Printed Name Date	Printed Name Date
							Company	Company

STL San Francisco

### Sample Receipt Checklist

Submission #: 2004- 06-0661

Checklist completed by: (initials) MV Date: 06, 21 /04

Courier name:  STL San Francisco  Client \_\_\_\_\_

Custody seals intact on shipping container/samples Yes \_\_\_ No \_\_\_ Not Present

Chain of custody present? Yes  No \_\_\_

Chain of custody signed when relinquished and received? Yes  No \_\_\_

Chain of custody agrees with sample labels? Yes \_\_\_ No

Samples in proper container/bottle? Yes  No \_\_\_

Sample containers intact? Yes  No \_\_\_

Sufficient sample volume for indicated test? Yes  No \_\_\_

All samples received within holding time? Yes \_\_\_ No

Container/Temp Blank temperature in compliance ( $4^{\circ}C \pm 2$ )? Temp: 6 °C Yes  No \_\_\_

Ice Present Yes  No \_\_\_

Water - VOA vials have zero headspace? No VOA vials submitted \_\_\_ Yes  No \_\_\_

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small -O), M (medium ~ O) or L (large ~ O))

Water - pH acceptable upon receipt?  Yes  No

pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc -Lot #(s) \_\_\_\_\_

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: Nitrates received out of hold time - notified PM.  
SAMPLE # 11 ID# ON SAMPLES NOBS-B. EXTRA 3 VOAS  
RECD ID# POBS-2B LOGGED-ON HOLD

#### Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) AS Date: 6/21 /04

Client contacted:  Yes  No

Summary of discussion: Per Mark William Run POBS-2B for  
gas/BTEX on 6/21/04 @ 2:03

Corrective Action (per PM/Client):  
\_\_\_\_\_  
\_\_\_\_\_

Engineering and Fire Investigations

May 13, 2004

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Attn.: Mark Williams

Project#: 9836000010

Project: Bohannon

Dear Mr. Williams,

Attached is our report for your samples received on 05/06/2004 16:00

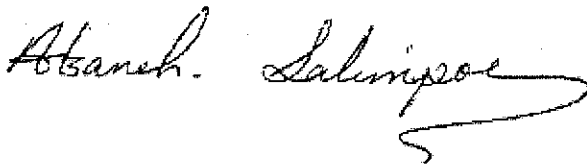
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 06/20/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: [asalimpour@stl-inc.com](mailto:asalimpour@stl-inc.com)

Sincerely,



Afsaneh Salimpour  
Project Manager

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
NIW-B2-14	05/05/2004	Soil	2
PIW-A2-5.5	05/05/2004	Soil	3



**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

Prep(s):	5035	Test(s):	8015M
	5035		8021B
Sample ID:	NIW-B2-14	Lab ID:	2004-05-0177 - 2
Sampled:	05/05/2004	Extracted:	5/12/2004 13:40
Matrix:	Soil	QC Batch#:	2004/05/12-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/12/2004 13:40	
Benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 13:40	
Toluene	ND	0.0050	mg/Kg	1.00	05/12/2004 13:40	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 13:40	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/12/2004 13:40	
<b>Surrogate(s)</b>						
Trifluorotoluene	101.0	53-125	%	1.00	05/12/2004 13:40	
4-Bromofluorobenzene-FID	89.1	58-124	%	1.00	05/12/2004 13:40	

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	PIW-A2-5.5	Lab ID:	2004-05-0177 - 3
Sampled:	05/05/2004	Extracted:	5/12/2004 14:15
Matrix:	Soil	QC Batch#:	2004/05/12-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/12/2004 14:15	
Benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 14:15	
Toluene	ND	0.0050	mg/Kg	1.00	05/12/2004 14:15	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 14:15	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/12/2004 14:15	
<b>Surrogate(s)</b>						
Trifluorotoluene	97.7	53-125	%	1.00	05/12/2004 14:15	
4-Bromofluorobenzene-FID	77.2	58-124	%	1.00	05/12/2004 14:15	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

Page 3 of 6

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5035

5035

Method Blank

MB: 2004/05/12-01.05-001

Test(s): 8015M

8021B

Soil

QC Batch # 2004/05/12-01.05

Date Extracted: 05/12/2004 10:45

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	05/12/2004 10:45	
Benzene	ND	0.0050	mg/Kg	05/12/2004 10:45	
Toluene	ND	0.0050	mg/Kg	05/12/2004 10:45	
Ethyl benzene	ND	0.0050	mg/Kg	05/12/2004 10:45	
Xylene(s)	ND	0.0050	mg/Kg	05/12/2004 10:45	
<b>Surrogates(s)</b>					
Trifluorotoluene	114.7	53-125	%	05/12/2004 10:45	
4-Bromofluorobenzene-FID	113.2	58-124	%	05/12/2004 10:45	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5035

Test(s): 8021B

Laboratory Control Spike

Soil

QC Batch # 2004/05/12-01.05

LCS 2004/05/12-01.05-002

Extracted: 05/12/2004

Analyzed: 05/12/2004 11:20

LCSD 2004/05/12-01.05-003

Extracted: 05/12/2004

Analyzed: 05/12/2004 11:55

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	0.115	0.107	0.1000	115.0	107.0	7.2	77-123	35		
Toluene	0.116	0.105	0.1000	116.0	105.0	10.0	78-122	35		
Ethyl benzene	0.113	0.103	0.1000	113.0	103.0	9.3	70-130	35		
Xylene(s)	0.329	0.301	0.300	109.7	100.3	9.0	75-125	35		
<b>Surrogates(s)</b>										
Trifluorotoluene	527	508	500	105.4	101.6		53-125			

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5035

Test(s): 8015M

**Laboratory Control Spike**

**Soil**

**QC Batch # 2004/05/12-01.05**

LCS 2004/05/12-01.05-004

Extracted: 05/12/2004

Analyzed: 05/12/2004 12:30

LCSD 2004/05/12-01.05-005

Extracted: 05/12/2004

Analyzed: 05/12/2004 13:05

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	0.463	0.436	0.500	92.6	87.2	6.0	75-125	35		
<i>Surrogates(s)</i> 4-Bromofluorobenzene-FID	484	499	500	96.8	99.8		58-124			

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566  
Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
PIW-A2-9.5	05/05/2004	Soil	4
POBS-2B-9	05/06/2004	Soil	5
POBS-2B-14	05/06/2004	Soil	6

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

Page 1 of 8

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	PIW-A2-9.5	Lab ID:	2004-05-0177 - 4
Sampled:	05/05/2004	Extracted:	5/7/2004 09:47
Matrix:	Soil	QC Batch#:	2004/05/07-05.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	150	10	mg/Kg	1.00	05/11/2004 09:47	g
Benzene	ND	0.62	mg/Kg	1.00	05/11/2004 09:47	
Toluene	ND	0.62	mg/Kg	1.00	05/11/2004 09:47	
Ethyl benzene	0.91	0.62	mg/Kg	1.00	05/11/2004 09:47	
Xylene(s)	ND	0.62	mg/Kg	1.00	05/11/2004 09:47	
<b>Surrogate(s)</b>						
Trifluorotoluene	62.0	53-125	%	1.00	05/11/2004 09:47	
4-Bromofluorobenzene-FID	385.0	58-124	%	1.00	05/11/2004 09:47	sh

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 16:48

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000010  
Bohannon

Received: 05/06/2004 16:00

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	<b>POBS-2B-9</b>	Lab ID:	2004-05-0177 - 5
Sampled:	05/06/2004	Extracted:	5/7/2004 10:22
Matrix:	Soil	QC Batch#:	2004/05/07-05.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	480	50	mg/Kg	5.00	05/11/2004 10:22	g
Benzene	ND	3.1	mg/Kg	5.00	05/11/2004 10:22	
Toluene	ND	3.1	mg/Kg	5.00	05/11/2004 10:22	
Ethyl benzene	ND	3.1	mg/Kg	5.00	05/11/2004 10:22	
Xylene(s)	ND	3.1	mg/Kg	5.00	05/11/2004 10:22	
<b>Surrogate(s)</b>						
Trifluorotoluene	NA	53-125	%	1.00	05/11/2004 10:22	sd
4-Bromofluorobenzene-FID	NA	58-124	%	1.00	05/11/2004 10:22	sd



**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	<b>POBS-2B-14</b>	Lab ID:	2004-05-0177 - 6
Sampled:	05/06/2004	Extracted:	5/7/2004 10:57
Matrix:	Soil	QC Batch#:	2004/05/07-05.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1500	100	mg/Kg	10.00	05/11/2004 10:57	g
Benzene	7.5	6.2	mg/Kg	10.00	05/11/2004 10:57	
Toluene	ND	6.2	mg/Kg	10.00	05/11/2004 10:57	
Ethyl benzene	17	6.2	mg/Kg	10.00	05/11/2004 10:57	
Xylene(s)	21	6.2	mg/Kg	10.00	05/11/2004 10:57	
<b>Surrogate(s)</b>						
Trifluorotoluene	NA	53-125	%	1.00	05/11/2004 10:57	sd
4-Bromofluorobenzene-FID	NA	58-124	%	1.00	05/11/2004 10:57	sd

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 9836000010  
Bohannon

Received: 05/06/2004 16:00

Batch QC Report					
Prep(s): 5030				Test(s): 8015M	
5030				8021B	
Method: Blank		Soil		QC Batch # 2004/05/07-05.05	
MB: 2004/05/07-05.05-001				Date Extracted: 05/07/2004 08:02	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	10	mg/Kg	05/11/2004 08:02	
Benzene	ND	0.62	mg/Kg	05/11/2004 08:02	
Toluene	ND	0.62	mg/Kg	05/11/2004 08:02	
Ethyl benzene	ND	0.62	mg/Kg	05/11/2004 08:02	
Xylene(s)	ND	0.62	mg/Kg	05/11/2004 08:02	
<b>Surrogates(s)</b>					
Trifluorotoluene	55.3	53-125	%	05/11/2004 08:02	
4-Bromofluorobenzene-FID	67.9	58-124	%	05/11/2004 08:02	

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Soil**

**QC Batch # 2004/05/07-05.05**

LCS 2004/05/07-05.05-002

Extracted: 05/07/2004

Analyzed: 05/11/2004 08:37

LCSD 2004/05/07-05.05-003

Extracted: 05/07/2004

Analyzed: 05/11/2004 09:12

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	0.116	0.121	0.125	92.8	96.8	4.2	77-123	35		
Toluene	0.117	0.118	0.125	93.6	94.4	0.9	78-122	35		
Ethyl benzene	0.114	0.116	0.125	91.2	92.8	1.7	70-130	35		
Xylene(s)	0.338	0.348	0.375	90.1	92.8	3.0	75-125	35		
<b>Surrogates(s)</b>										
Trifluorotoluene	58.2	60.2	100	58.2	60.2		53-125	0		

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010  
Bohannon

Received: 05/06/2004 16:00

Batch QC Report										
Prep(s): 5030						Test(s): 8015M				
<b>Laboratory Control Spike</b>			<b>Soil</b>			<b>QC Batch # 2004/05/07-05.05</b>				
LCS	2004/05/07-05.05-004		Extracted: 05/07/2004			Analyzed: 05/08/2004 06:54				
LCSD	2004/05/07-05.05-005		Extracted: 05/07/2004			Analyzed: 05/08/2004 07:29				
Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	5.79	5.91	6.25	92.6	94.6	2.1	75-125	35		
<b>Surrogates(s)</b> 4-Bromofluorobenzene-FID	114	113	100	114.0	113.0		58-124	0		

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360000010

Bohannon

Received: 05/06/2004 16:00

---

**Legend and Notes**

---

**Result Flag**

- g Hydrocarbon reported in the gasoline range does not match our gasoline standard.
- sd Surrogate recovery not reportable due to required dilution.
- sh Surrogate recovery was higher than QC limit due to matrix interference.

STL San Francisco

Sample Receipt Checklist

Submission #: 2004- 05 - 0177

Checklist completed by: (initials) MN Date: 05, 06 /04

Courier name:  STL San Francisco  Client \_\_\_\_\_

Custody seals intact on shipping container/samples

Yes \_\_\_ No \_\_\_ Not Present

Chain of custody present?

Yes  No \_\_\_

Chain of custody signed when relinquished and received?

Yes \_\_\_ No \_\_\_

Chain of custody agrees with sample labels?

Yes \_\_\_ No

Samples in proper container/bottle?

Yes  No \_\_\_

Sample containers intact?

Yes  No \_\_\_

Sufficient sample volume for indicated test?

Yes  No \_\_\_

All samples received within holding time?

Yes  No \_\_\_

Container/Temp Blank temperature in compliance ( $4^{\circ}C \pm 2$ )?

Temp: 3 °C Yes  No \_\_\_

Ice Present Yes  No \_\_\_

Water - VOA vials have zero headspace?

No VOA vials submitted  Yes \_\_\_ No \_\_\_

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small ~O), M (medium ~ O) or L (large ~ O))

SOIL

Water - pH acceptable upon receipt?  Yes  No

pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc -Lot #(s) \_\_\_\_\_

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: SAMPLE #5 ID# ON SAMPLE POSS-2B-9.5

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ /04

Client contacted:  Yes  No

Summary of discussion:

Corrective Action (per PM/Client):

2004-05-0177

STL San Francisco Chain of Custody  
1220 Quarry Lane • Pleasanton CA 94566-4756  
Phone: (925) 484-1919 • Fax: (925) 484-1096  
Email: sflogin@stl-inc.com

Reference #: 85558

Date 5/6/04 Page 1 of 1

Report To

Attn: Mark Williams San Bruno  
Company: EFI Global 94503  
Address: 111 Decimus Rd, Suite 195  
Phone: Email:  
Bill To: EFI Global Sampled By: Mark Williams  
Attn: Mark Williams Phone: 457-7391

Analysis Request

Sample ID	Date	Time	Mat rix	Pres erv.	TPH EPA - <input type="checkbox"/> 8015/8021 <input type="checkbox"/> 8260B <input type="checkbox"/> 8260B <input type="checkbox"/> MTBE	Purgeable Aromatics BTEX EPA - <input type="checkbox"/> 8021 <input type="checkbox"/> 8260B	TEPH EPA 8015M <input type="checkbox"/> Silica Gel <input type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other	Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624	Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625	Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664) <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608	PNAAs by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	Low Level Metals by EPA 200.0/6020 (ICP-MS):	W.E.T (STLC) TCLP	Hexavalent Chromium pH (24h hold time for H <sub>2</sub> O)	Spec Cond. <input type="checkbox"/> Alkalinity TSS <input type="checkbox"/> TDS <input type="checkbox"/>	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>	Number of Containers
N1W-BZ-9	5/5/04			Ice																		
N1W-BZ-14	5/5/04				X																	14
P1W-AZ-5.5	5/5/04				X																	
P1W-AZ-9.5	5/5/04				X																	
P0BS-2B-9	5/6/04				X																	
P0BS-2B-14	5/6/04				X																	

Project Info. Sample Receipt

Project Name: Bohannon  
Project#: 98360 00010  
O#:   
Credit Card#:   
Temp: 3  
Conforms to record:   
5 Day 72h 48h 24h Other:

1) Relinquished by:  
Signature: [Signature] Time: 16:00  
Printed Name: Mark Williams Date: 5/6/04  
Company: EFI Global

2) Relinquished by:  
Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Company: \_\_\_\_\_

3) Relinquished by:  
Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Company: \_\_\_\_\_

Report:  Routine  Level 3  Level 4  EDD  State Tank Fund EDF  
Special Instructions / Comments:   
Global ID: \_\_\_\_\_

1) Received by:  
Signature: [Signature] Time: 16:00  
Printed Name: M. VILLANUEVA Date: 05/06/04  
Company: STL SF

2) Received by:  
Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Company: \_\_\_\_\_

3) Received by:  
Signature: \_\_\_\_\_ Time: \_\_\_\_\_  
Printed Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Company: \_\_\_\_\_

Engineering and Fire Investigations

May 14, 2004

111 Deerwood Road, Ste 195  
San Ramon, CA 94583

Attn.: Mark Williams

Project#: 98360.005010

Project: Bohannon

Dear Mr. Williams,

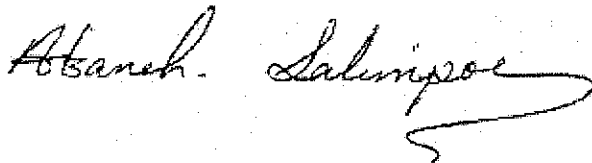
Attached is our report for your samples received on 05/07/2004 18:25  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after  
06/21/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,  
please call me at (925) 484-1919.

You can also contact me via email. My email address is: [asalimpour@stl-inc.com](mailto:asalimpour@stl-inc.com)

Sincerely,



Afsaneh Salimpour  
Project Manager



**Total Lead**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010

Bohannon

Received: 05/07/2004 18:25

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
DRUM COMP A	05/07/2004	Soil	1
DRUM COMP B	05/07/2004	Soil	2

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 19:30

**Total Lead**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

Prep(s):	3050B	Test(s):	6010B
Sample ID:	DRUM COMP A	Lab ID:	2004-05-0276 - 1
Sampled:	05/07/2004	Extracted:	5/7/2004 17:55
Matrix:	Soil	QC Batch#:	2004/05/07-05:15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	6.1	1.0	mg/Kg	1.00	05/11/2004 13:27	

**Total Lead**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010

Bohannon

Received: 05/07/2004 18:25

Prep(s):	3050B	Test(s):	6010B
Sample ID:	<b>DRUM COMP B</b>	Lab ID:	2004-05-0276 - 2
Sampled:	05/07/2004	Extracted:	5/7/2004 17:55
Matrix:	Soil	QC Batch#:	2004/05/07-05.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	17	1.0	mg/Kg	1.00	05/11/2004 13:48	

Severn Trent Laboratories, Inc.

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Tei 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/13/2004 19:30

**Total Lead**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

**Batch QC Report**

Prep(s): 3050B

Method Blank

MB: 2004/05/07-05.15-074

Soil

Test(s): 6010B

QC Batch # 2004/05/07-05.15

Date Extracted: 05/07/2004 17:55

Compound	Conc.	RL	Unit	Analyzed	Flag
Lead	ND	1.0	mg/Kg	05/11/2004 12:16	

**Total Lead**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

Batch QC Report										
Prep(s): 3050B					Test(s): 6010B					
Laboratory Control Spike			Soil			QC Batch # 2004/05/07-05.15				
LCS	2004/05/07-05.15-075		Extracted: 05/07/2004			Analyzed: 05/11/2004 12:20				
LCSD	2004/05/07-05.15-076		Extracted: 05/07/2004			Analyzed: 05/11/2004 12:24				
Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Lead	89.9	90.4	100.0	89.9	90.4	0.6	80-120	20		

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
DRUM COMP A	05/07/2004	Soil	1

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010

Bohannon

Received: 05/07/2004 18:25

Prep(s):	5035	Test(s):	8015M
	5035		8021B
Sample ID:	<b>DRUM COMP A</b>	Lab ID:	2004-05-0276 - 1
Sampled:	05/07/2004	Extracted:	5/12/2004 14:50
Matrix:	Soil	QC Batch#:	2004/05/12-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/12/2004 14:50	
Benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 14:50	
Toluene	ND	0.0050	mg/Kg	1.00	05/12/2004 14:50	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/12/2004 14:50	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/12/2004 14:50	
<b>Surrogate(s)</b>						
Trifluorotoluene	93.2	53-125	%	1.00	05/12/2004 14:50	
4-Bromofluorobenzene-FID	83.8	58-124	%	1.00	05/12/2004 14:50	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/14/2004 11:46

Gas/BTEX by 8015M/8021

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

**Batch QC Report**

Prep(s): 5035  
5035

Test(s): 8015M  
8021B

Method Blank

Soil

QC Batch # 2004/05/12-01.05

MB: 2004/05/12-01.05-001

Date Extracted: 05/12/2004 10:45

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	05/12/2004 10:45	
Benzene	ND	0.0050	mg/Kg	05/12/2004 10:45	
Toluene	ND	0.0050	mg/Kg	05/12/2004 10:45	
Ethyl benzene	ND	0.0050	mg/Kg	05/12/2004 10:45	
Xylene(s)	ND	0.0050	mg/Kg	05/12/2004 10:45	
<b>Surrogates(s)</b>					
Trifluorotoluene	114.7	53-125	%	05/12/2004 10:45	
4-Bromofluorobenzene-FID	113.2	58-124	%	05/12/2004 10:45	

Severn Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/14/2004 11:46



**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

Batch QC Report										
Prep(s): 5035							Test(s): 8021B			
Laboratory Control Spike			Soil			QC Batch # 2004/05/12-01.05				
LCS	2004/05/12-01.05-002		Extracted: 05/12/2004			Analyzed: 05/12/2004 11:20				
LCSD	2004/05/12-01.05-003		Extracted: 05/12/2004			Analyzed: 05/12/2004 11:55				
Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	0.115	0.107	0.1000	115.0	107.0	7.2	77-123	35		
Toluene	0.116	0.105	0.1000	116.0	105.0	10.0	78-122	35		
Ethyl benzene	0.113	0.103	0.1000	113.0	103.0	9.3	70-130	35		
Xylene(s)	0.329	0.301	0.300	109.7	100.3	9.0	75-125	35		
<b>Surrogates(s)</b>										
Trifluorotoluene	527	508	500	105.4	101.6		53-125			

**Gas/BTEX by 8015M/8021**

Engineering and Fire Investigations  
Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

**Batch QC Report**

Prep(s): 5035

Test(s): 8015M

**Laboratory Control Spike**

**Soil**

**QC Batch # 2004/05/12-01.05**

LCS: 2004/05/12-01.05-004

Extracted: 05/12/2004

Analyzed: 05/12/2004 12:30

LCSD: 2004/05/12-01.05-005

Extracted: 05/12/2004

Analyzed: 05/12/2004 13:05

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	0.463	0.436	0.500	92.6	87.2	6.0	75-125	35		
<i>Surrogates(s)</i> 4-Bromofluorobenzene-FID	484	499	500	96.8	99.8		58-124			

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/14/2004 11:46

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010

Bohannon

Received: 05/07/2004 18:25

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
DRUM COMP B	05/07/2004	Soil	2
P1W-A-3-14	05/07/2004	Soil	3

Severn Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/14/2004 11:46

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	<b>DRUM COMP B</b>	Lab ID:	2004-05-0276 - 2
Sampled:	05/07/2004	Extracted:	5/12/2004 16:08
Matrix:	Soil	QC Batch#:	2004/05/12-05 05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	530	20	mg/Kg	2.00	05/13/2004 16:08	
Benzene	ND	1.2	mg/Kg	2.00	05/13/2004 16:08	
Toluene	1.7	1.2	mg/Kg	2.00	05/13/2004 16:08	
Ethyl benzene	9.4	1.2	mg/Kg	2.00	05/13/2004 16:08	
Xylene(s)	32	1.2	mg/Kg	2.00	05/13/2004 16:08	
<b>Surrogate(s)</b>						
Trifluorotoluene	90.0	53-125	%	1.00	05/13/2004 16:08	
4-Bromofluorobenzene-FID	656.0	58-124	%	1.00	05/13/2004 16:08	sh

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010

Bohannon

Received: 05/07/2004 18:25

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	P1W-A-3-14	Lab ID:	2004-05-0276 - 3
Sampled:	05/07/2004	Extracted:	5/12/2004 16:43
Matrix:	Soil	QC Batch#:	2004/05/12-05.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	980	50	mg/Kg	5.00	05/13/2004 16:43	
Benzene	ND	3.1	mg/Kg	5.00	05/13/2004 16:43	
Toluene	ND	3.1	mg/Kg	5.00	05/13/2004 16:43	
Ethyl benzene	26	3.1	mg/Kg	5.00	05/13/2004 16:43	
Xylene(s)	100	3.1	mg/Kg	5.00	05/13/2004 16:43	
<b>Surrogate(s)</b>						
Trifluorotoluene	NA	53-125	%	5.00	05/13/2004 16:43	sd
4-Bromofluorobenzene-FID	NA	58-124	%	5.00	05/13/2004 16:43	sd

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -  
Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

**Batch QC Report**

Prep(s): 5030  
5030

**Method Blank**

MB: 2004/05/12-05.05-005

**Soil**

Test(s): 8015M  
8021B

**QC Batch # 2004/05/12-05.05**

Date Extracted: 05/12/2004 07:46

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	10	mg/Kg	05/13/2004 07:46	
Benzene	ND	0.62	mg/Kg	05/13/2004 07:46	
Toluene	ND	0.62	mg/Kg	05/13/2004 07:46	
Ethyl benzene	ND	0.62	mg/Kg	05/13/2004 07:46	
Xylene(s)	ND	0.62	mg/Kg	05/13/2004 07:46	
<b>Surrogates(s)</b>					
Trifluorotoluene	78.7	53-125	%	05/13/2004 07:46	
4-Bromofluorobenzene-FID	96.2	58-124	%	05/13/2004 07:46	

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010

Bohannon

Received: 05/07/2004 18:25

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

**Laboratory Control Spike**

**Soil**

**QC Batch # 2004/05/12-05.05**

LCS 2004/05/12-05.05-001

Extracted: 05/12/2004

Analyzed: 05/13/2004 17:18

LCSD 2004/05/12-05.05-002

Extracted: 05/12/2004

Analyzed: 05/13/2004 17:53

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	6.78	6.18	6.25	108.5	98.9	9.3	75-125	35		
<i>Surrogates(s)</i> 4-Bromofluorobenzene-FID	111	112	100	111.0	112.0		58-124	0		

Severn Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

05/14/2004 11:46

**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195  
San Ramon, CA 94583  
Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010  
Bohannon

Received: 05/07/2004 18:25

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Soil**

**QC Batch # 2004/05/12-05.05**

LCS 2004/05/12-05.05-003

Extracted: 05/12/2004

Analyzed: 05/13/2004 13:01

LCSD 2004/05/12-05.05-004

Extracted: 05/12/2004

Analyzed: 05/13/2004 08:56

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %			Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS	LCSD
Benzene	0.125	0.120	0.125	100.0	96.0	4.1	77-123	35			
Toluene	0.127	0.120	0.125	101.6	96.0	5.7	78-122	35			
Ethyl benzene	0.125	0.118	0.125	100.0	94.4	5.8	70-130	35			
Xylene(s)	0.374	0.350	0.375	99.7	93.3	6.6	75-125	35			
<b>Surrogates(s)</b> Trifluorotoluene	94.8	79.8	100	94.8	79.8		53-125	0			



**Gas/BTEX Compounds (High Level)**

Engineering and Fire Investigations

Attn.: Mark Williams

111 Deerwood Road, Ste 195

San Ramon, CA 94583

Phone: (925) 457-7384 Fax: ( ) -

Project: 98360.005010

Bohannon

Received: 05/07/2004 18:25

---

**Legend and Notes**

---

**Result Flag**

sd

Surrogate recovery not reportable due to required dilution.

sh

Surrogate recovery was higher than QC limit due to matrix interference.

STL San Francisco

Sample Receipt Checklist

Submission #: 2004-05-0276

Checklist completed by: (initials) JMM Date: 05/10/04

Courier name:  STL San Francisco  Client

Custody seals intact on shipping container/samples Yes \_\_\_ No \_\_\_ Not Present

Chain of custody present? Yes  No \_\_\_

Chain of custody signed when relinquished and received? Yes  No \_\_\_

Chain of custody agrees with sample labels? Yes  No \_\_\_

Samples in proper container/bottle? Yes  No \_\_\_

Sample containers intact? Yes  No \_\_\_

Sufficient sample volume for indicated test? Yes  No \_\_\_

All samples received within holding time? Yes  No \_\_\_

Container/Temp Blank temperature in compliance (4° C ± 2)? Temp: 25.0 °C Yes  No \_\_\_

Ice Present Yes \_\_\_ No

Water - VOA vials have zero headspace? No VOA vials submitted  Yes \_\_\_ No \_\_\_

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small ~O), M (medium ~ O) or L (large ~ O))

Water - pH acceptable upon receipt?  Yes  No

pH adjusted- Preservative used:  HNO3  HCl  H2SO4  NaOH  ZnOAc - Lot #(s) \_\_\_\_\_

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: per client: <4 hrs from sampling

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/04

Client contacted:  Yes  No

Summary of discussion:

Corrective Action (per PM/Client):

Mark - [williams@efiglobal.com](mailto:williams@efiglobal.com)

**Report To** **Analysis Request**

Attn: Mark Williams  
 Company: EPI Global  
 Address: 111 Decroix Rd, Suite 195, San Ramon, CA 94583  
 Phone: 925 484 7334 (Email)  
 Bill To: EPI Global Sampled By: Mark Williams  
 Attn: Mark Williams Phone: \_\_\_\_\_

Sample ID	Date	Time	Mat rix	Pres erv.	TPH EPA - <input type="checkbox"/> 8015/8021 <input type="checkbox"/> 8260B <input checked="" type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> MTBE	Purgeable Aromatics BTEX EPA - <input type="checkbox"/> 8021 <input type="checkbox"/> 8260B	TEPH EPA 8015M <input type="checkbox"/> Silica Gel <input type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other _____	Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624	Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625	Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664) <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608	PNAs by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals <input checked="" type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other _____	Low Level Metals by EPA 200.8/6020 (ICP-MS):	<input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> TCLP	Hexavalent Chromium pH (24h hold time for H <sub>2</sub> O)	Spec Cond. <input type="checkbox"/> Alkalinity TSS <input type="checkbox"/> TDS <input type="checkbox"/>	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>	Number of Containers
<u>Drum Comp A</u>	<u>5/7/04</u>				<u>X</u>											<u>X</u>						
<u>Drum Comp B</u>	<u>5/7/04</u>				<u>X</u>											<u>X</u>						
<u>Piw-A3-14</u>	<u>5/7/04</u>				<u>X</u>																	

**Project Info.**  
 Project Name: Shannon  
 Project#: 98360 00010  
 PO#: \_\_\_\_\_  
 Credit Card#: \_\_\_\_\_

**Sample Receipt**  
 # of Containers: \_\_\_\_\_  
 Head Space: \_\_\_\_\_  
 Temp: 25.0°C  
 Conforms to record: \_\_\_\_\_  
 Other: STANDARD  
 Report:  Routine  Level 3  Level 4  EDD  State Tank Fund EDF  
 Special Instructions / Comments: \_\_\_\_\_  
 Global ID \_\_\_\_\_

1) Relinquished by:  
Mark Williams 5/7/04  
 Signature \_\_\_\_\_ Time \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Company: EPI Global

1) Received by:  
JTL-SE 5/7/04  
 Signature \_\_\_\_\_ Time \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Company: \_\_\_\_\_

2) Relinquished by:  
 Signature \_\_\_\_\_ Time \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Company: \_\_\_\_\_

2) Received by:  
 Signature \_\_\_\_\_ Time \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Company: \_\_\_\_\_

3) Relinquished by:  
 Signature \_\_\_\_\_ Time \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Company: \_\_\_\_\_

3) Received by:  
 Signature \_\_\_\_\_ Time \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Company: \_\_\_\_\_