

AUG 09 2001

**SEMI-ANNUAL GROUNDWATER  
MONITORING REPORT**

**PACIFIC GAS & ELECTRIC  
GENERAL CONSTRUCTION YARD  
4930 COLISEUM WAY  
OAKLAND, CA 94601**

**August 1, 2001**

**CSS Project No. 6118**

*Prepared for*

**PACIFIC GAS & ELECTRIC COMPANY  
4930 Coliseum Way  
Oakland, California 94601**

*Prepared by*

**CSS ENVIRONMENTAL SERVICES, INC.  
95 Belvedere Street, Suite 2  
San Rafael, California 94901**

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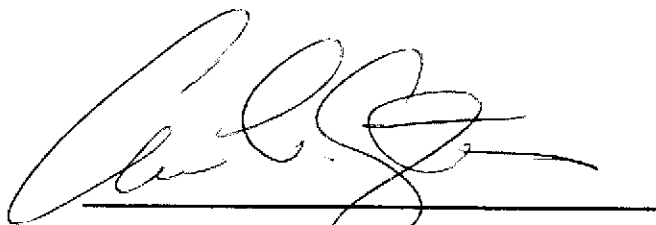
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Oakland, California 94601**

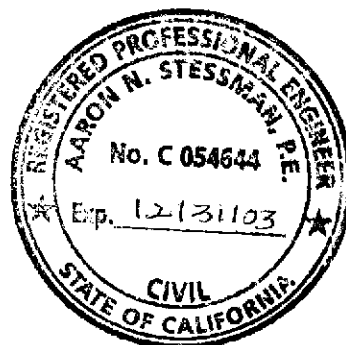
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**August 1, 2001**



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Principal Engineer**



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**APPENDICES**

APPENDIX A      Sample Collection Records  
                         Certified Laboratory Results

APPENDIX B      Historical Monitoring Data

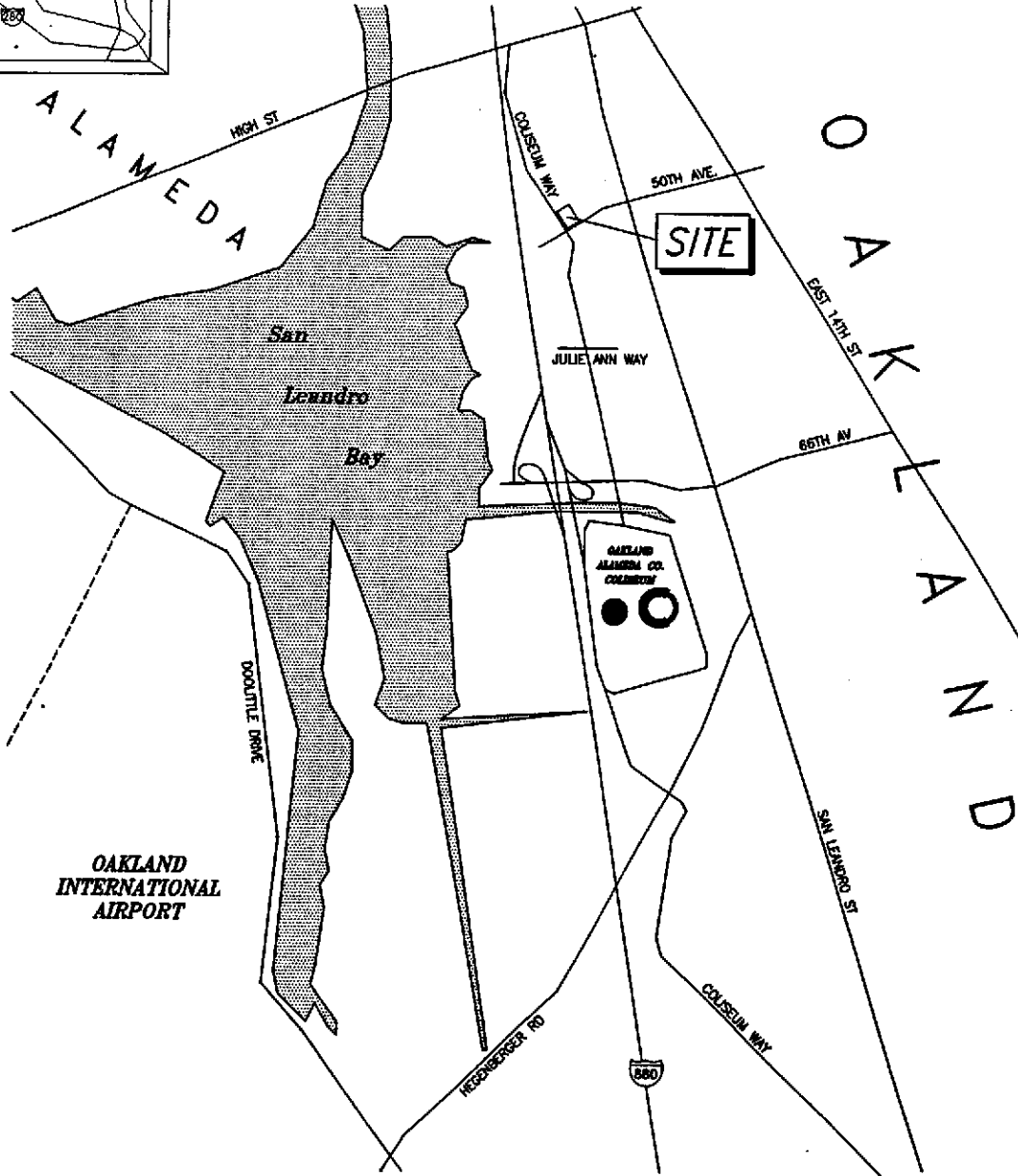
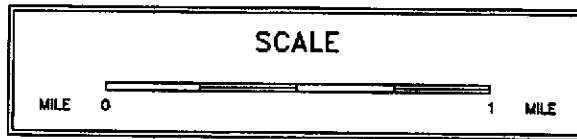
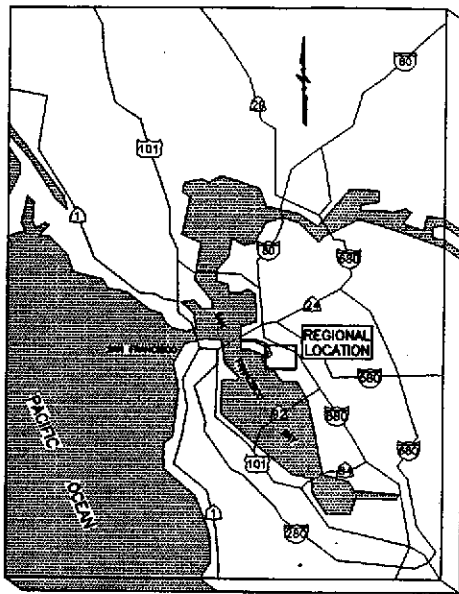
## 1.0 BACKGROUND

This report presents the results of semiannual groundwater monitoring and sampling completed in the second quarter of 2001 at the PG&E Distribution and Construction Yard at 4930 Coliseum Way in Oakland, California. A vicinity map is included as Figure 1.1. This report was completed in accordance to the directive issued by the Alameda County Health Care Services Agency (ACHCSA) and a PG&E letter to Alameda County dated April 12, 1993. This report discusses the June 2001 monitoring and sampling event and summarizes the results from groundwater monitoring and sampling performed at the site between January 1990 and the present. The groundwater monitoring program involves the following activities: measuring groundwater elevations; collecting groundwater samples from shallow wells on the site; and performing analyses of the samples to determine the distribution of selected fuel compounds, solvents, and lead in the uppermost water bearing zone, beneath the northern portion of the yard. This area includes the former locations of five underground storage tanks and one above ground storage tank. Figure 1.2 shows the site plan for the subject property.

In January 1988, all of the site's underground storage tanks and associated piping within the PG&E property lines were removed. Analysis of their contents revealed that of the four tanks formerly located in a cluster at the north corner of the yard, two contained mineral spirits and two contained heavy oils. A concrete sump was located approximately 50 feet northeast of the tank cluster, near the location of a former welding shop. A fifth tank was formerly located near the west corner of the yard and contained diesel fuel. A soil sample collected below this tank indicated a concentration for diesel below the detection limit of 10 mg/kg. Following the tank removal, a subsurface investigation showed that soils immediately adjacent to the former diesel tank were not adversely impacted.

A number of soil samples collected near the former tank cluster, sump and shop location were found to contain Total Petroleum Hydrocarbons such as Diesel (TPH-D) at concentrations up to 3,900 mg/kg and Oil and Grease (O&G) at concentrations up to 1,000 mg/kg. These results were reported in the July 1988 report "Underground Tanks Investigation" by PG&E's Technical and Ecological Services Division.

In November and December 1991, approximately 2,000 cubic yards of soil was excavated as a remedial action for the petroleum hydrocarbons identified in the soil. Soil was excavated to the depth of groundwater, approximately 8 to 8 ½ feet below ground surface at the time, and replaced with clean, compacted backfill. The backfill below approximately 7 feet consisted of drain rock while backfill above 7 feet consisted of Class II aggregate base. The northwest and northeast excavation boundaries reached the approximate PG&E property lines. During the remedial excavation, confirmatory samples were taken along the sidewalls and bottom of the excavation to confirm that all the contaminated soil with concentrations above the regulatory agency approved cleanup target levels was removed. The cleanup targets for gasoline (TPH-G) and diesel (TPH-D) were 10 mg/kg and 100 mg/kg, respectively. The cleanup target for O&G was 1,000 mg/kg, and for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) compounds was 5 µg/kg (total BTEX). This work was described in an EARTH TECHNOLOGY CORPORATION (formerly Aqua Resources, Inc.) document "Site Remediation and Closure Report ... Former Tank Cluster Area" dated February 1992.



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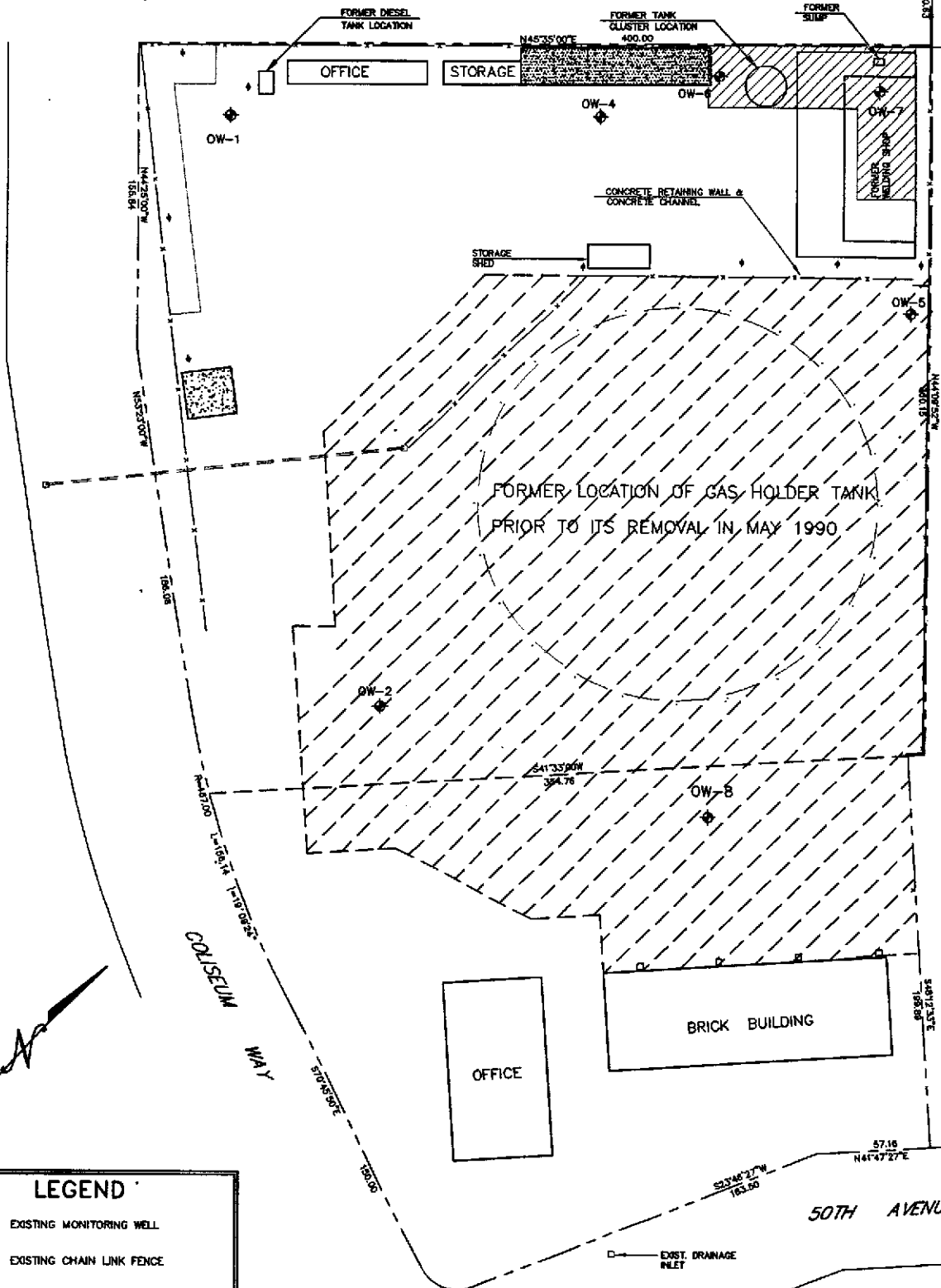
**SITE LOCATION MAP**

PG & E DISTRIBUTION CONSTRUCTION SITE  
 4930 COLISEUM WAY  
 OAKLAND, CA 94610

FIGURE

1.1

JOB NUMBER	DATE	DRAWING	BY	REVISED
6118	01/99	3666LOC	JL/ZS	00/00



**LEGEND**

- OW-5 EXISTING MONITORING WELL
- EXISTING CHAIN LINK FENCE
- PROPERTY LINE
- EXISTING UTILITY POLE
- EXTENT OF CAPPED SOIL WITH AN ELEVATED LEAD CONCENTRATION
- EXTENT OF 1991 SOIL REMEDIATION (APPROXIMATE)

**SCALE**

FEET 0 80 FEET

	<b>SITE PLAN</b> <b>PG&amp;E DISTRIBUTION CONSTRUCTION SITE</b> <b>4930 COLISEUM WAY</b> <b>OAKLAND, CA 94610</b>					FIGURE  <b>1.2</b>
	CSS ENVIRONMENTAL SERVICES, INC.	JOB NUMBER <b>6118</b>	DATE <b>11/96</b>	DRAWING <b>6118SITE</b>	BY <b>ESS</b>	

The samples collected along the PG&E property lines were above cleanup target levels, while each of the remaining confirmatory samples was below the cleanup target levels. The samples collected along the northeastern property line were above cleanup targets primarily due to TPH-D and O&G concentrations. The soils in this excavation wall contained visible tar and heavy oil, and also two pipes containing a similar petroleum product. Analytical testing of the product found in the pipes indicated TPH-D at 7,000 mg/kg and did not indicate VOCs above the method detection limit. The samples on the northwestern property line were above cleanup target levels for one or more of TPH-G, TPH-D, O&G, and BTEX.

The conclusions of the February 1992 closure report suggested that offsite sources of petroleum hydrocarbons may exist in both the northeast and northwest directions, and requested regulatory agency input in initiating an investigation of these potential sources. Quarterly groundwater monitoring and sampling for a period of one year was recommended in the 1992 report for wells OW-1, OW-4, OW-6 and OW-7.

In September and October of 1992, a containment mitigation cap was constructed over the surface soils in an area south of the hydrocarbon remediation area. These soils are contaminated with lead, believed to originate from lead-containing paint chips generated from sandblasting of a large above-ground natural gas storage tank. The tank was removed in May 1990, and the soils were found contaminated with total and soluble lead above California Code of Regulations (CCR) levels for hazardous wastes. CCR Total Threshold Limit Concentration (TTLIC) for lead is 1,000 mg/kg and the Soluble Threshold Limit Concentration (STLC) is 5 mg/L, equivalent to parts per million (ppm).

The ACHCSA and the Regional Water Quality Control Board (RWQCB) approved capping as the selected remedial option for this area. As part of the remedial option the County agreed upon continued groundwater monitoring and sampling for lead. Following containment capping, the remaining open ground at the site was covered with asphalt concrete.

In February 1993, well OW-8 was installed in the southern area of the yard in the vicinity of the former above-ground storage tank (AST). A maximum lead concentration of 27  $\mu\text{g/L}$  (April 1993) was reported in samples collected from OW-8, which is below the state Maximum Contaminant Level (MCL) of 50  $\mu\text{g/L}$  for drinking water. Wells OW-2 and OW-5 are located in the vicinity of the former AST and are also being monitored for lead. Lead has not been detected above the State MCL in any monitoring events for wells OW-2, OW-5 and OW-8.

Based on lead levels consistently falling below the MCL for drinking water, the lead regulatory agency, ACHCSA, issued a letter (Appendix C) on July 14, 1994 reducing the required lead sampling frequency from quarterly to semi-annually. Similarly, petroleum hydrocarbon and VOC monitoring is presently performed semi-annually for specific wells.



## 2.0 GROUNDWATER MONITORING AND SAMPLING ACTIVITIES

Four of the five originally installed monitoring wells remain in existence at the site. Monitoring well OW-3 was destroyed during the remedial excavations performed in November 1991 in the northern corner of the yard. Two new monitoring wells, OW-6 and OW-7, were installed on December 19, 1991. OW-6 was placed in the vicinity of OW-3 to act as a replacement, and OW-7 was installed at the northeastern end of the remediation area to monitor upgradient contamination of the shallow groundwater underlying the site. Both wells penetrate the clean, compacted backfill placed in the previously excavated remediation area. Monitoring well OW-8 was installed in February 1993 to monitor possible lead concentrations in the groundwater, downgradient of the former AST. The locations of the new wells were approved by the ACHCSA.

On June 27, 2001, groundwater samples were collected by CSS Environmental Services, Inc. (CSS) personnel from monitoring wells OW-1, OW-2, OW-5, OW-6, OW-7, and OW-8. Well OW-4 was inaccessible due to the presence of an overlying storage container. Prior to sampling, three casing volumes of groundwater were purged with a bailer from each well to ensure the collection of formational water. The parameters' temperature, pH and conductivity were measured. Groundwater samples were then collected and properly stored for transportation to a State of California certified laboratory for analysis. This report presents the results of the June 27, 2001 sampling event.

The groundwater samples collected from each well were selectively analyzed by STL Chromalab of Pleasanton, California for TPH-D (LUFT Manual, October 1989), TPH-G (LUFT Manual, October 1989), BTEX (EPA method 8020), purgeable halocarbons compounds (EPA method 8010), and lead (EPA method 6010A), and MTBE (EPA method 8260A) according to the monitoring schedule.

Table 2.1 presents the current monitoring schedule with appropriate sample analyses. This schedule has been adopted with approval from the ACHCSA as provided in their letter dated July 14, 1994.

**Table 2.1 Well Monitoring Schedule and Analyses**

	TPH-D	TPH-G BTEX	EPA 8010 (VOCs)	Lead	Ground water Elevation
OW - 1	S	S			S
OW - 2				S	S
OW - 4	S	S			S
OW - 5	S	S	S	S	S
OW - 6	S	S	S		S
OW - 7	S	S	S		S
OW - 8				S	S

S = Semiannual monitoring

Certified laboratory results are presented in Appendix A along with chain-of-custody documentation. A table of the historical results of the laboratory analyses is included in Appendix B.

### 3.0 ANALYTICAL RESULTS

#### 3.1 PETROLEUM HYDROCARBONS

Table 3.1 summarizes the analytical results for petroleum hydrocarbons detected in the groundwater samples collected on June 27, 2001. TPH-D was detected in the four monitoring wells sampled for TPH-D and the highest concentration was observed in well OW-7. TPH-G was detected in three of the four monitoring wells sampled for TPH-G. The highest concentration of TPH-G was observed in monitoring well OW-7.

**Table 3.1 Petroleum Hydrocarbons in Groundwater, in mg/L**

Well	TPH-D	TPH-G
OW - 1	0.740	0.480
OW - 5	0.540	0.079
OW - 6	0.320	ND
OW - 7	1.100	1.200

Notes:

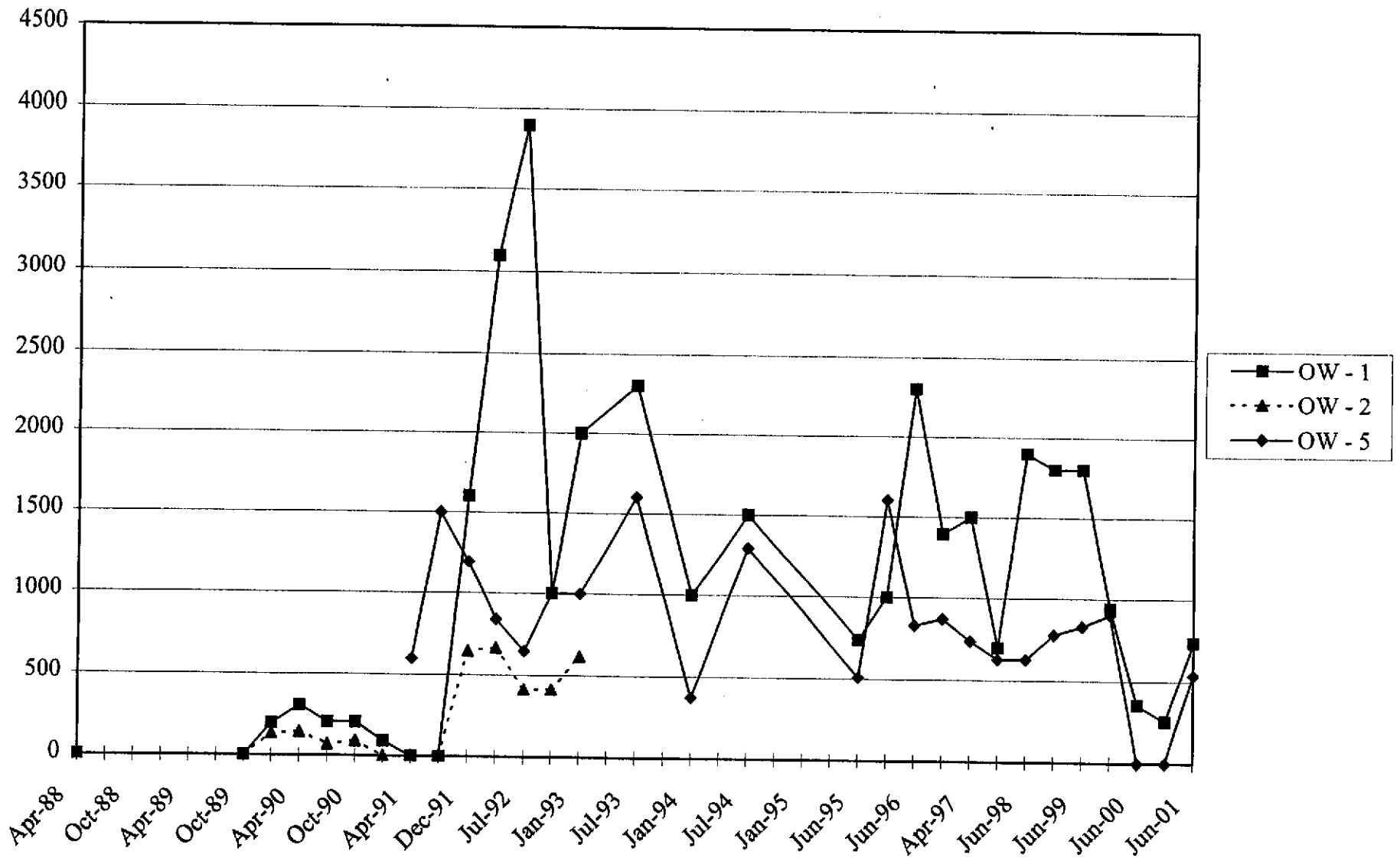
- 1) ND = Not Detected at or above the method Reporting Limits (RL)
- 2) TPH-D = Extractable Petroleum Hydrocarbons, Diesel Range, LUFT Manual, October 1989; RL = 0.05 mg/L.
- 3) TPH-G = Total Petroleum Hydrocarbons by California DHS Method LUFT Manual, October 1989; RL = 0.05 mg/L.
- 4) NA = Not Analyzed.

Figures 3.1 and 3.2 illustrate the historical concentrations of TPH-D in the monitored wells. The data from monitoring wells OW-3 and OW-6 are combined since OW-6 was installed to replace OW-3 following its destruction.

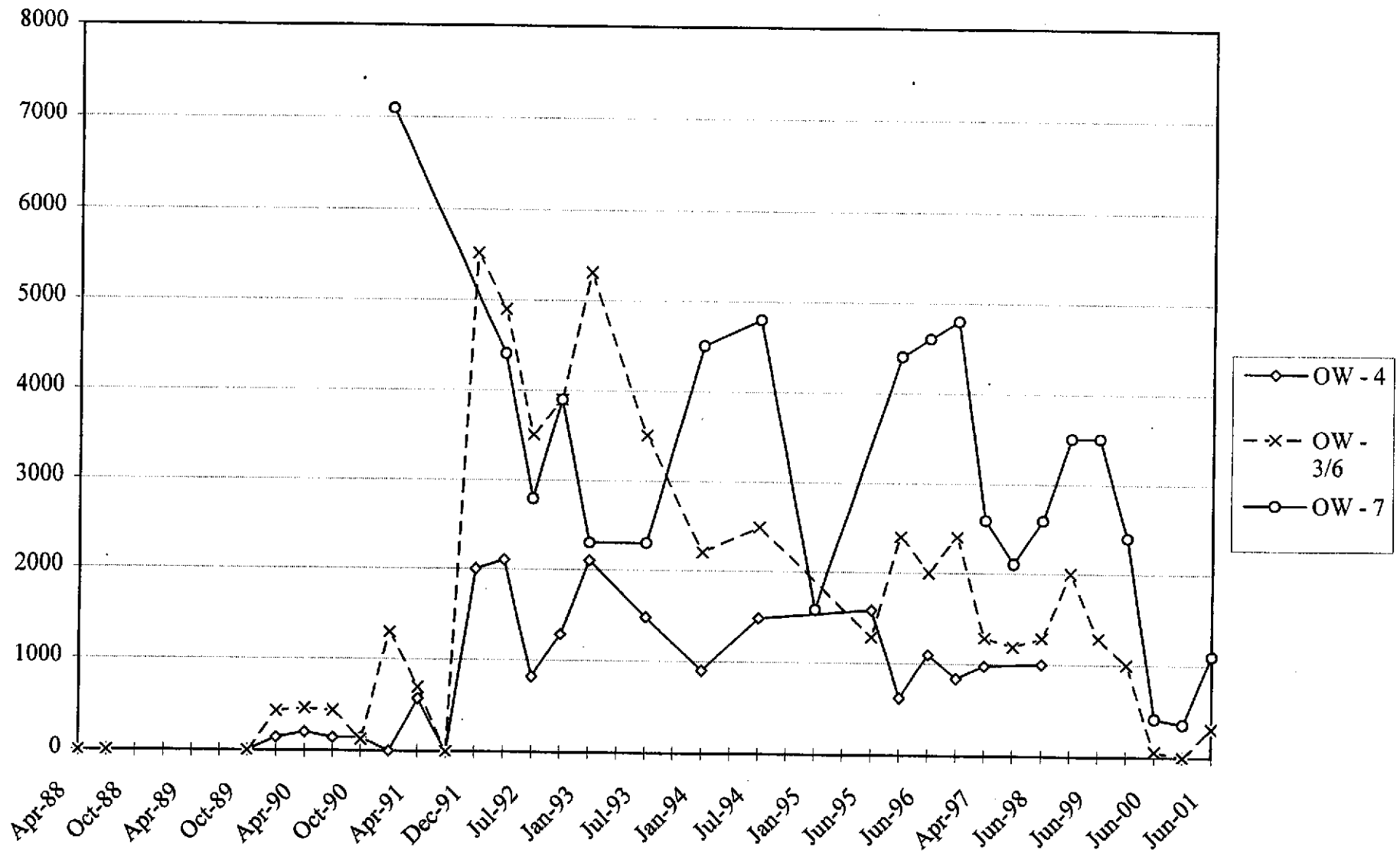
Figures 3.1 and 3.2 show that TPH-D concentrations were generally higher around the time of, or soon after, the remedial excavation in November 1991 in the wells in the remediation vicinity: OW-4, OW-6, and OW-7. Compared to the previous sampling event (November 2000), this quarter's results show an increase in TPH-D concentrations in all wells. Well OW-4 has been inaccessible for sampling over the past six sampling events due to the presence of an overlying storage container.

It was noted in the February 1992 tank cluster area remediation report that there is an apparent off-site source of contamination upgradient of the PG&E yard. The persistence of moderate TPH following remediation in this area is believed to be the result of this upgradient contamination.

**FIGURE 3.1**  
**TPH-DIESEL in OW - 1, 2, & 5**



**FIGURE 3.2**  
**TPH-DIESEL in OW - 4, 3/6, & 7**



Figures 3.3 and 3.4 illustrate the historical concentrations of TPH-G. Between January 1991 and March 1992 the analyses were not performed. Monitoring of TPH-G concentrations in OW-2 is no longer performed due to non-detections in this well. TPH-G has been consistently below 500 µg/L in all wells except upgradient wells OW-1, and OW-7. Historically, OW-7 has had concentrations ranging from 650 to 1,800 µg/L. The current TPH-G concentration for OW-1 is 480 µg/L. Well OW-1's current TPH-G concentration shows a decrease compared to the previous sampling event of November 2000, while OW-5's and OW-7's current TPH-G concentrations of 79 µg/L and 1200 µg/L, respectively, show an increase. Current sampling results were non-detect for well OW-6.

**3.2 LEAD**

Table 3.2 presents the results of this quarter's groundwater analyses for lead. The maximum contaminant level (MCL) observed by state water treatment systems is 15 µg/L. Samples were collected and analyzed for dissolved lead (filtered) in June of 2001. During this quarter's event, lead was not detected in the monitoring wells that were sampled for lead. Historically, the majority of samples show concentrations below the 15 µg/L drinking water MCL. The highest historical concentration of lead was 27 µg/L in OW-8, sampled in April 1993.

**Table 3.2 Lead in Groundwater, in µg/L**

Well Number	State MCL	Reporting Limit	Dissolved Lead
OW-2	15	5.0	ND
OW-5	15	5.0	ND
OW-8	15	5.0	ND

Notes:

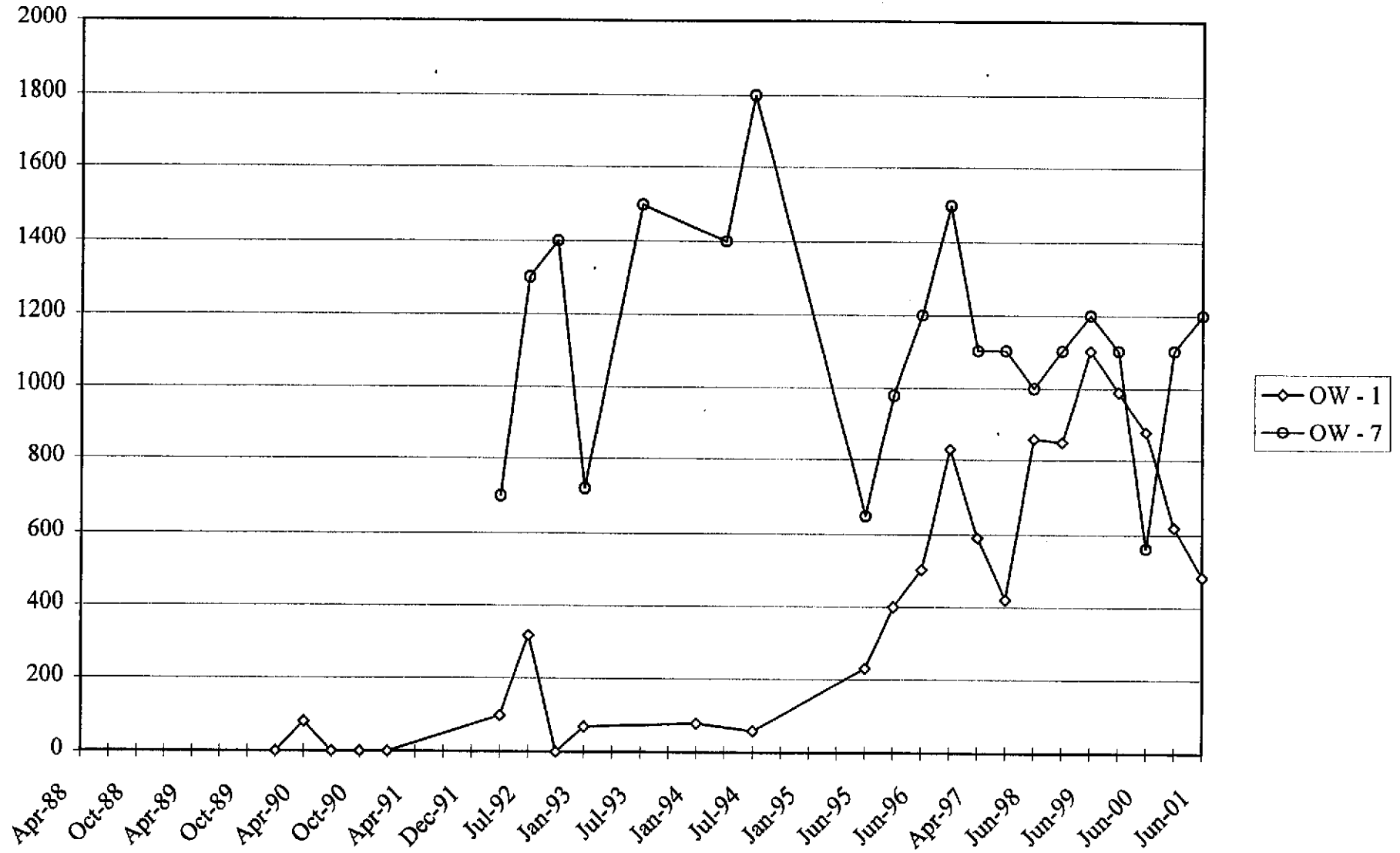
MCL = Maximum Contaminate Level for drinking water.

ND = Not Detected at or above the method Reporting Limits (RL)

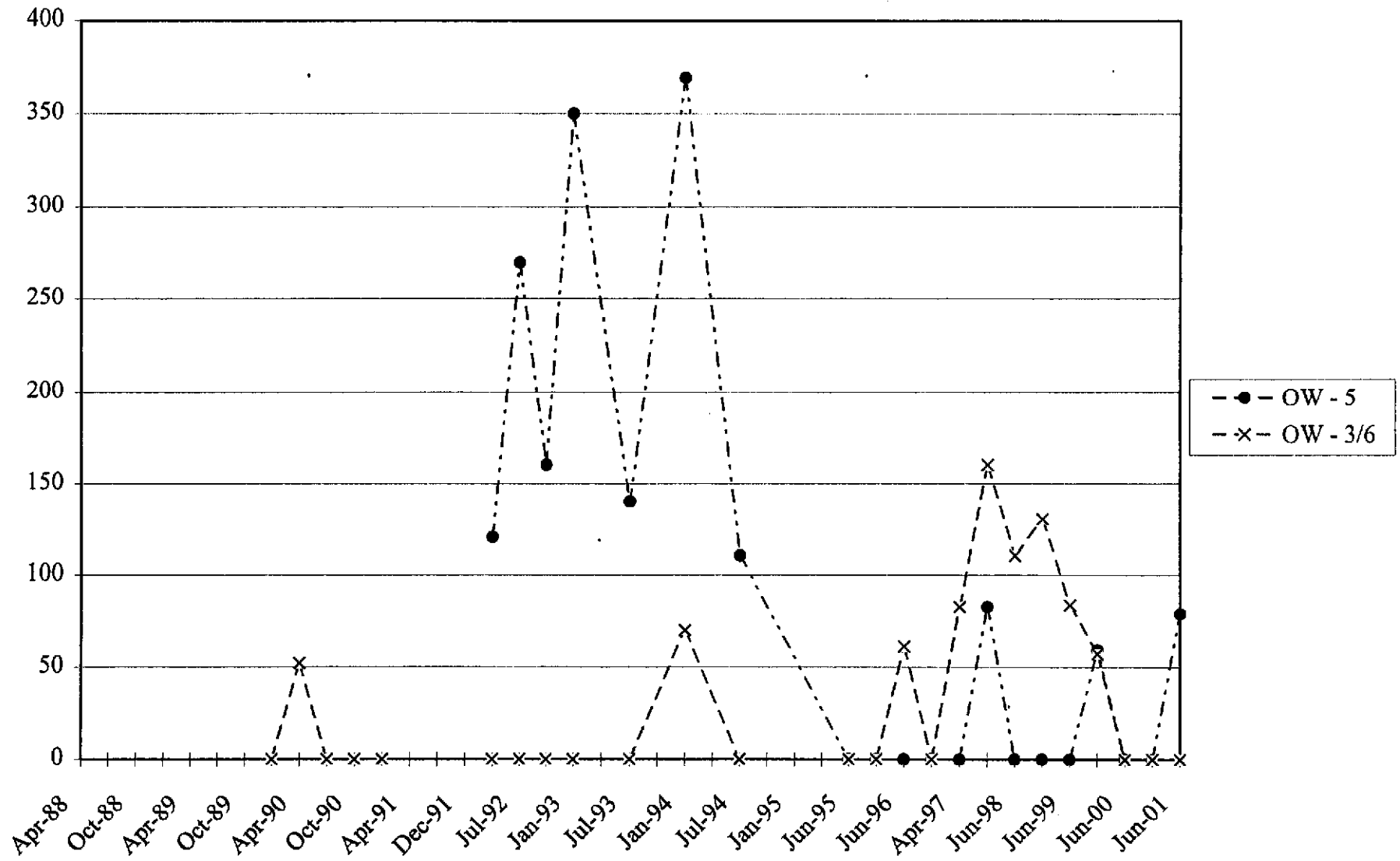
NA = Not Analyzed

Dissolved Lead analyses performed by EPA Method 6010A

**FIGURE 3.3**  
**TPH-GASOLINE in OW - 1 & 7**



**FIGURE 3.4**  
**TPH-GASOLINE in OW - 5 & 3/6**





### 3.3 VOLATILE ORGANIC COMPOUNDS

Historical results of VOC monitoring are presented in Appendix B. Table 3.3 presents the recent analytical results for VOCs in groundwater. The state MCLs for drinking water were exceeded for the following compounds: 1,4-Dichlorobenzene (1,4-DCB) in monitoring wells OW-6 and OW-7 at concentrations of 6.1 µg/L and 510 µg/L respectively, and Benzene in well OW-5 at a concentration of 7.7 µg/L.

VOCs detected at concentrations below their MCLs include:

- 1,1-Dichloroethane in wells OW-5 and OW-6;
- Chlorobenzene in well OW-7;
- 1,3-Dichlorobenzene (1,3-DCB) in wells OW-6 and OW-7;
- 1,2-Dichlorobenzene (1,2-DCB) in well OW-7;
- Trichloroethylene in well OW-5;
- Total Xylenes in well OW-1.

Figures 3.5 and 3.6 show the historical concentrations of total VOCs in the on-site monitoring wells. Figure 3.5 shows the concentrations of total VOCs in wells OW-1, OW-2 and OW-4. Of these wells, none are presently monitored for VOCs.

Figure 3.6 shows the concentrations of total VOCs in wells OW-5, OW-6, and OW-7, located at the upgradient edges of the site. The total VOC concentrations detected this quarter in wells OW-5, OW-6, and OW-7 were 2.1 µg/L, 8.7 µg/L, and 941 µg/L, respectively. These three wells lie within ten feet of the northeast and/or northwest property lines of the site. Groundwater elevation monitoring consistently indicates that the groundwater flow direction is from the north from neighboring properties onto the PG&E site. This demonstrates that VOCs may be migrating onto the PG&E site from an upgradient source.

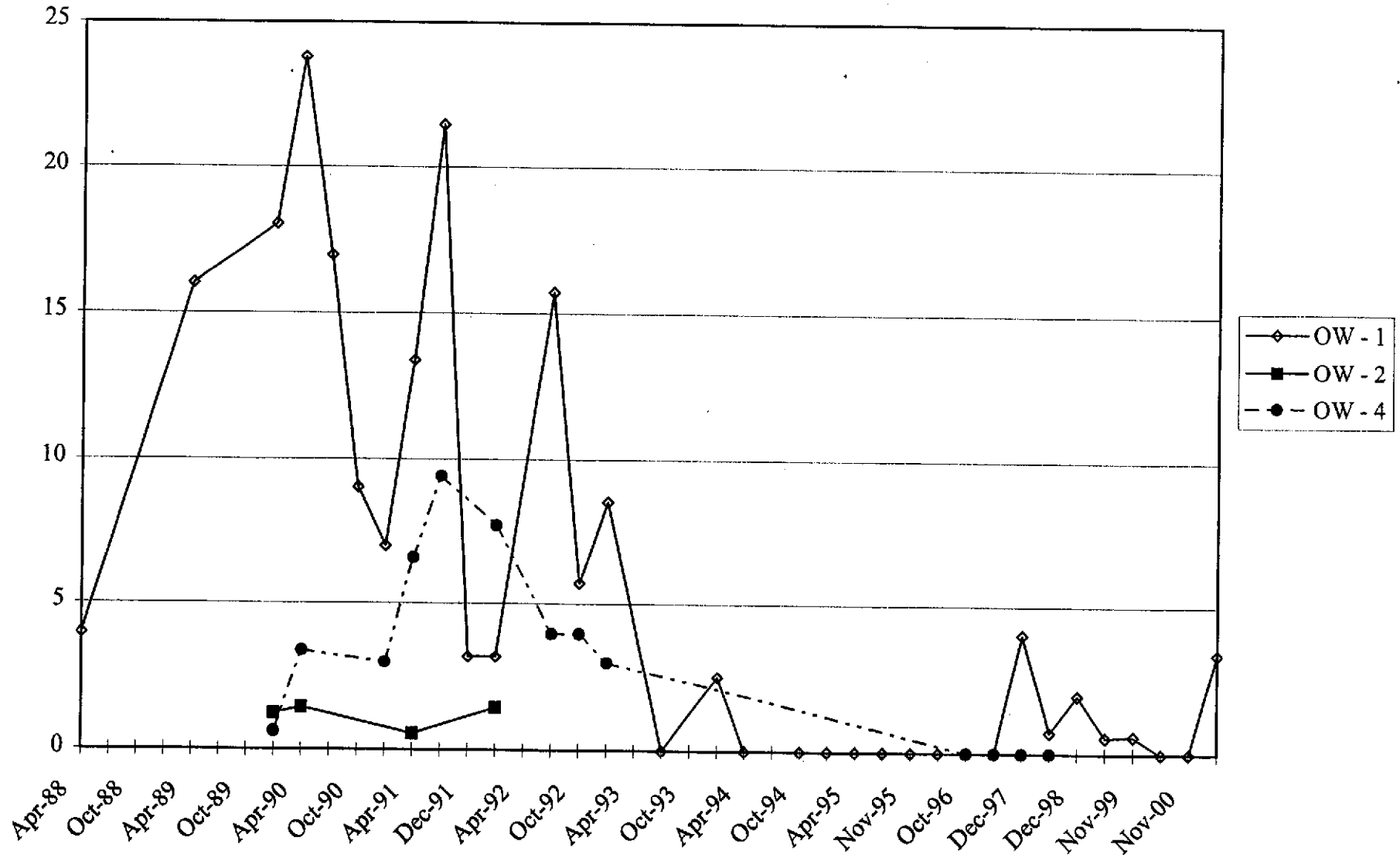
Table 3.3 Volatile Organic Compounds in Groundwater, in ug/l

PURGEABLE HALOCARBONS	MCL	Well Number							
		OW-1	OW-2	OW-4	OW-5	OW-6	OW-7	OW-8	MB
Chloromethane		NA	NA	NA	ND	ND	ND	NA	ND
Bromomethane		NA	NA	NA	ND	ND	ND	NA	ND
Vinyl chloride	0.5	NA	NA	NA	ND	ND	ND	NA	ND
Chloroethane		NA	NA	NA	ND	ND	ND	NA	ND
Methylene Chloride	5 <sup>#</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Trichlorofluoromethane	150	NA	NA	NA	ND	ND	ND	NA	ND
1,1-Dichloroethene	6	NA	NA	NA	ND	ND	ND	NA	ND
1,1-Dichloroethane	5	NA	NA	NA	1.4	1.2	ND	NA	ND
cis-1,2-Dichloroethene	6	NA	NA	NA	ND	ND	ND	NA	ND
trans-1,2-Dichloroethene	10	NA	NA	NA	ND	ND	ND	NA	ND
Chloroform	100 <sup>3*</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Freon 113	1200	NA	NA	NA	ND	ND	ND	NA	ND
1,2-Dichloroethane	0.5	NA	NA	NA	ND	ND	ND	NA	ND
1,1,1-Trichloroethane	200	NA	NA	NA	ND	ND	ND	NA	ND
Carbon Tetrachloride	0.5	NA	NA	NA	ND	ND	ND	NA	ND
Bromodichloromethane	100 <sup>3*</sup>	NA	NA	NA	ND	ND	ND	NA	ND
1,2-Dichloropropane	5	NA	NA	NA	ND	ND	ND	NA	ND
cis-1,3-Dichloropropene	5 <sup>4**</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Trichloroethylene	5	NA	NA	NA	0.7	ND	ND	NA	NA
1,1,2-Trichloroethane	32	NA	NA	NA	ND	ND	ND	NA	ND
trans-1,3-Dichloropropene	5 <sup>4**</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Dibromochloromethane	100 <sup>3*</sup>	NA	NA	NA	ND	ND	ND	NA	ND
2-Chloroethylvinyl Ether		NA	NA	NA	ND	ND	ND	NA	ND
Bromoform	100 <sup>3*</sup>	NA	NA	NA	ND	ND	ND	NA	ND
Tetrachloroethylene	5	NA	NA	NA	ND	ND	ND	NA	NA
1,1,2,2-Tetrachloroethane	1	NA	NA	NA	ND	ND	ND	NA	ND
Chlorobenzene	30	NA	NA	NA	ND	ND	27	NA	ND
1,3-Dichlorobenzene	600 <sup>#</sup>	NA	NA	NA	ND	1.4	320	NA	ND
1,2-Dichlorobenzene	600 <sup>#</sup>	NA	NA	NA	ND	ND	42	NA	ND
1,4-Dichlorobenzene	5	NA	NA	NA	ND	6.1	510	NA	ND
PURGEABLE AROMATICS									
Benzene	1	ND	NA	NA	7.7	ND	ND	NA	ND
Toluene	1000 <sup>#</sup>	ND	NA	NA	ND	ND	ND	NA	ND
Ethylbenzene	680	ND	NA	NA	ND	ND	ND	NA	ND
Total Xylenes	1750 <sup>4**</sup>	3.4	NA	NA	ND	ND	ND	NA	ND
FUEL OXYGENATES									
Methyl tertiary butyl ether	13+	NA	NA	NA	NA	NA	NA	NA	NA

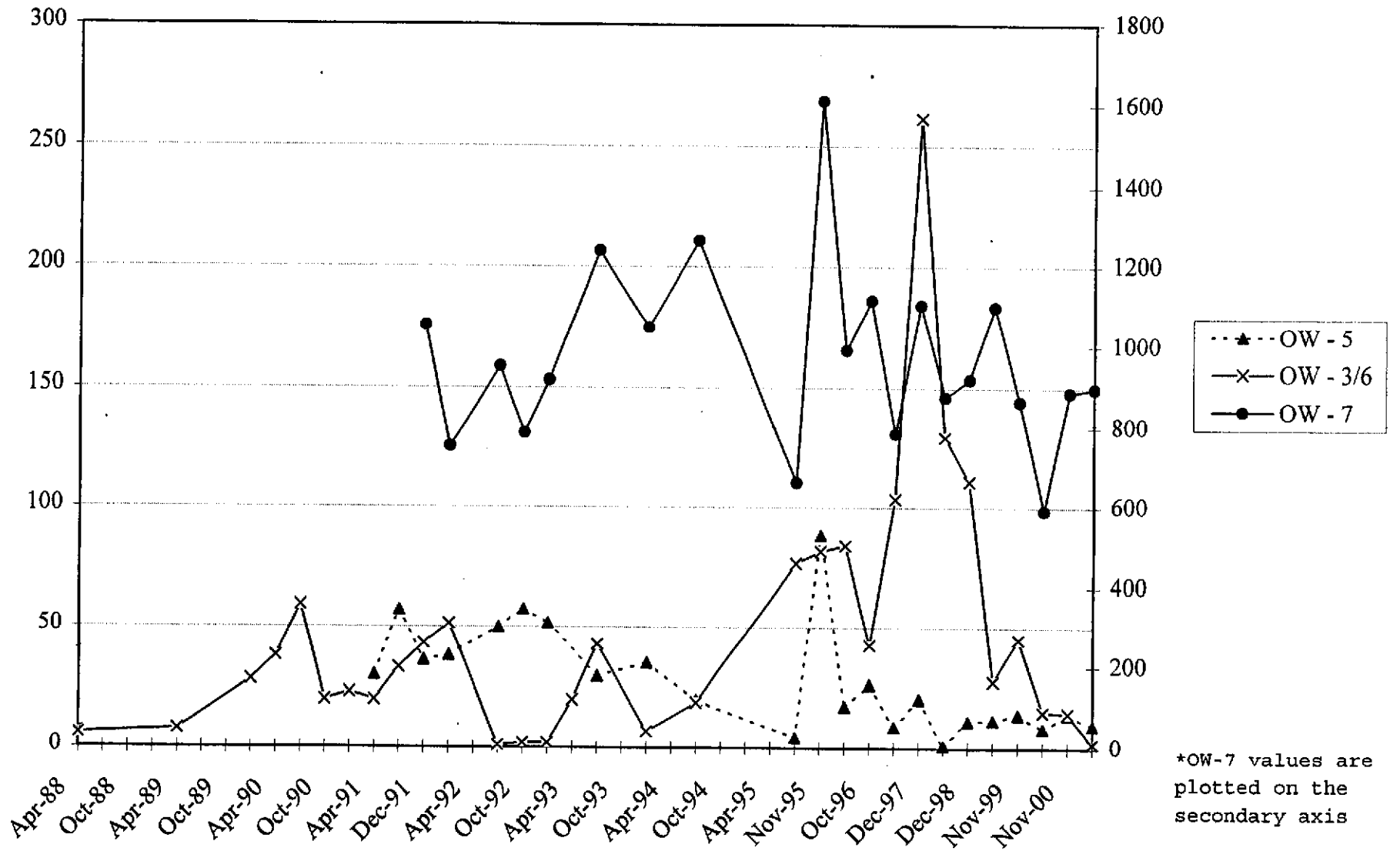
Notes:

- 1) MCL = Maximum Contaminant Level in drinking water (State MCL, if not noted otherwise)
- 2) # = EPA MCL
- 3) \* = MCL for sum of four compounds
- 4) \*\* = MCL for sum of all xylene isomers
- 5) \*\*\* = MCL for sum of trans- and cis-1,3-Dichloropropene
- 6) ND = Not Detected at or above MDL
- 7) Purgeable Halocarbons (EPA method 8010)
- 8) Purgeable Aromatics (EPA method 8020)
- 9) Fuel Oxygenates, MTBE only (EPA method 8260A)
- Exceeded MCL
- 10) NA = Not Tested
- 11) MB = Method Blank
- 12) + = California Public Health Goal for Chemicals in Drinking Water

**FIGURE 3.5**  
**TOTAL VOCs in OW-1, 2, & 4**



**FIGURE 3.6**  
**TOTAL VOCS in OW-5, 6, & 7\***

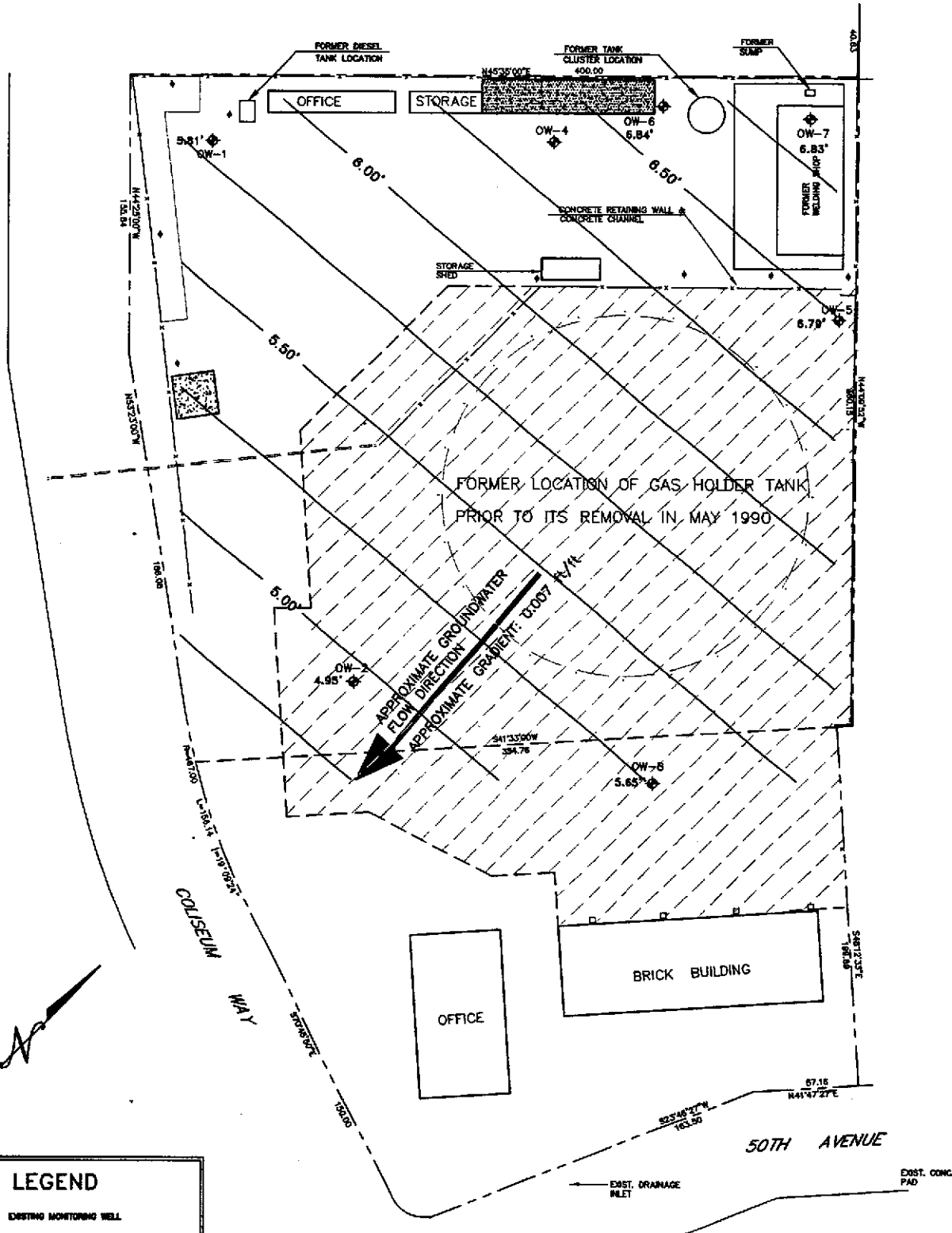


\*OW-7 values are plotted on the secondary axis

#### 4.0 GROUNDWATER FLOW DIRECTION

Water level measurements in the site monitoring wells were collected on June 27, 2001, prior to groundwater sampling. Groundwater elevations are shown in relation to a site specific coordinate system reported in previous reports. The top of casing (TOC) elevations for each of the wells are based upon an assumed TOC elevation of 10 feet at OW-1.

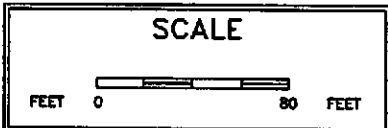
The groundwater elevations measured on June 27, 2001 and the resulting gradient direction are presented in Figure 4.1. Historical groundwater elevations along with TOC elevations for each well are presented as a graph in Figure 4.2. The groundwater flow direction was calculated from groundwater elevations in OW-1, OW-2, and OW-7, and indicates the local groundwater gradient on this date was 0.007 ft/ft to the south. The gradient value is slightly lower than that normally observed. The lead mitigation cap now limits direct precipitative recharge in the area between wells OW-2 and OW-5, and OW-8. The majority of the remaining site area has also been paved.



**LEGEND**

- OW-5 EXISTING MONITORING WELL
- EXISTING CHAIN LINK FENCE
- PROPERTY LINE
- EXISTING UTILITY POLE
- EXTENT OF CAPPED SOIL WITH AN ELEVATED LEAD CONCENTRATION

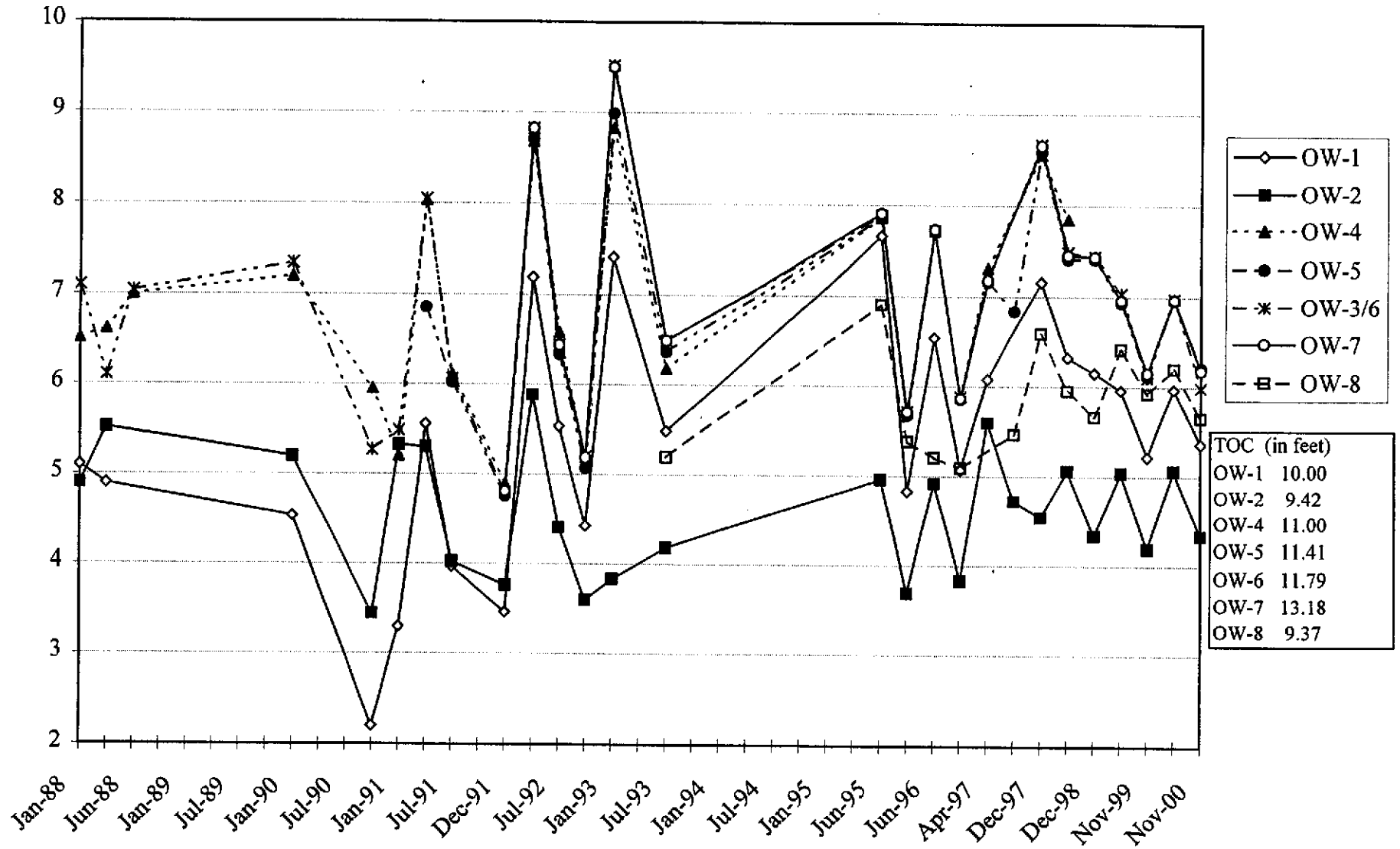
NOTE: GROUNDWATER ELEVATIONS TAKEN JUNE 27, 2001  
 ALL ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL.  
 RESULTS BASED ON WELLS OW-1, OW-2, AND OW-7



		SITE PLAN AND SITE RELATIVE GROUNDWATER ELEVATIONS PG&E DISTRIBUTION CONSTRUCTION SITE 4930 COLISEUM WAY OAKLAND, CA 94610				FIGURE  4.1
		JOB NUMBER 6118	DATE 1/99	DRAWING GW06-01	BY ES/ZS/BD	

CSS ENVIRONMENTAL SERVICES, INC.

**FIGURE 4.2**  
**HISTORICAL GROUNDWATER LEVELS**



## 5.0 CAP INSPECTION

The next scheduled cap inspection is during the fourth quarter of 2001.



## 6.0 CONCLUSIONS AND RECOMMENDATIONS

### 6.1 CONCLUSIONS

The following conclusions are made based upon the results of analyses performed on groundwater samples collected on June 27, 2001 from monitoring wells OW-1, OW-2, OW-5, OW-6, OW-7 and OW-8, and from prior semi-annual sampling results.

- The groundwater beneath the site appears to flow to the south, consistent with the historical flow direction range of south to southwest. The groundwater gradient of 0.007 ft/ft is slightly lower than that previously observed.
- TPH-D was detected in wells OW-1, OW-5, OW-6 and OW-7 above the reporting limit of 50 µg/L, however the concentrations are at lower concentrations than most historical sampling events. The highest concentration was found in well OW-7 at 1100 µg/L. Moderate TPH-D concentrations in groundwater have persisted in wells located in the northeastern portion of the property. Since remedial action had removed known sources of contaminants within the site, the presence of TPH-D is likely to be caused by upgradient, off-site source. The current applicable guideline for TPH-D where groundwater is a potential source of drinking water is the California Regional Water Quality Control Board, San Francisco Bay Region's (RWQCB's) Risk-Based Screening Level (RBSL) of 100 µg/L, the EPA Suggested No-Adverse-Response Level (SNARL).
- Monitoring wells OW-1, OW-5, and OW-7 had TPH-G concentrations of 480, 79, and 1200 µg/L, respectively. TPH-G was not detected in well OW-6. Well OW-7 continues to have the highest concentration of TPH-G. The presence of TPH-G is likely from an upgradient, off-site source. The current applicable guideline for TPH-G is the RBSL of 100 µg/L, the EPA SNARL for diesel.
- Soluble lead concentrations were not detected in monitoring wells OW-2, OW-5 and OW-8. The MCL for lead in drinking water is 15 µg/L.
- Wells OW-5, OW-6 and OW-7 lie at the upgradient portion of the site and historically have had the highest concentrations of TPH-G and/or VOCs. The total VOC concentration is particularly elevated in OW-7, averaging near 1,000 µg/L. This indicates an upgradient, off-site source of fuel and solvent contamination located north of the subject site. The concentration of total VOCs in two out of the three wells decreased this quarter relative to the previous sampling event.

- The following VOC's were detected above their MCL:  
  
1,4-Dichlorobenzene (1,4-DCB) in wells OW-6 and OW-7;  
Benzene in well OW-5.
  
- The following VOCs were detected below their MCL:  
  
1,1-Dichloroethane in wells OW-5 and OW-6;  
Chlorobenzene in well OW-7;  
1,3-Dichlorobenzene (1,3-DCB) in wells OW-6 and OW-7;  
1,2-Dichlorobenzene (1,2-DCB) in well OW-7;  
Trichloroethylene in well OW-5;  
Total Xylenes in well OW-1.

## 6.2 RECOMMENDATIONS

- Continue monitoring in conformance with the revised ACHCSA schedule.
- An unidentified upgradient source of TPH-D, TPH-G and VOCs north of the subject property is clearly indicated by the groundwater monitoring data. Based on this finding it is recommended that PG&E enter into discussions with the involved regulatory agencies to investigate and pursue those responsible for the groundwater contaminants entering the PG&E property.
- Perform the annual inspection of the lead containment cap during the fourth quarter of 2001.

***APPENDIX A***

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**Sample Collection Records  
Certified Laboratory Results**

Project: PG+E Job No.: 6118  
 Subject: FIELD INVESTIGATION DAILY REPORT Date: 6-27-01  
 Equipment Rental: \_\_\_\_\_ Company: \_\_\_\_\_ To: CSS  
 Equipment Hours: \_\_\_\_\_ F.E. Time from: \_\_\_\_\_ to: \_\_\_\_\_ By: JS

(outside service and expense record must be attached for any outside costs)

- 1200 - Arrive @ CSS. Meet w/ Aaron
- 1205 - Load Truck
- 1230 - Drive to PG+E (site)
- 1310 - On-site, ✓ in w/ J.R.
- 1320 - Open all wells
- 1350 - Start V level meas.
- 1415 - Start to purge ~ 8 gal. from OW-2
- 1430 - Meas. Cond., Temp., + pH
- 1435 - Sample OW-2. Pb
- 1440 - Start to purge ~ 6.7 gal from OW-8
- 1455 - Meas. Cond., Temp + pH
- 1500 - Sampled OW-8. Pb
- 1510 - Start to purge ~ 6.9 gal. from OW-5
- 1525 - Meas. Cond., Temp., + pH
- 1530 - Sampled OW-5 TPH-g/BTEX; VOC's
- 1537 - " " TPH-d; Pb
- 1550 - Start to purge ~ 6.6 gal. from OW-1
- 1605 - Meas. Cond., Temp., + pH
- 1610 - Sampled OW-1. TPH-g/BTEX
- 1615 - " " TPH-d
- 1625 - Start to purge ~ 5.9 gal from OW-6
- 1640 - Meas. Cond., Temp., + pH
- 1645 - Sampled OW-6. TPH-g/BTEX; VOC's
- 1655 - " " TPH-d
- 1705 - Start to purge ~ 5.6 gal. from OW-7
- 1720 - Meas. Cond., Temp., + pH
- 1725 - Sampled OW-7. TPH-g/BTEX; VOC's
- 1732 - " " TPH-d

Attachments:

Initial

Project: Coliseum Way  
Subject: FIELD INVESTIGATION DAILY REPORT  
Equipment Rental: \_\_\_\_\_ Company: \_\_\_\_\_  
Equipment Hours: \_\_\_\_\_ F.E. Time from: \_\_\_\_\_ to: \_\_\_\_\_  
Job No.: 6118  
Date: 6-27-01  
To: CSS  
By: JS

(outside service and expense record must be attached for any outside costs)

1740 - Clean up  
1800 - Off-site  
- Drive to CSS  
1840 - Unload Truck  
- Finish Paperwork; C-O-C  
1920

Attachments:

Initial

# RECORD OF GROUNDWATER LEVEL MEASUREMENTS

Page 1 of 1

Date Measured: 6 - 27 - 01

Job No.: 6118

Site Location: PG + E Coliseum Way

Well location map attached? Yes  No

Method of Measurement:  Electric well sounder,  
 Other: \_\_\_\_\_

Weather/Visibility: Cloudy, Chance of Rain.

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Well I.D.	Time (24 hr)	G.W.L. (1/100 ft)	G.W.L. 3x's?	B.O.W. (1/2ft)	Remarks
OW-1		4.19	4.19	17.97	2"
OW-2		4.47	4.47	21.12	
OW-4					Covered
OW-5		4.62	4.62	18.95	2"
OW-6		4.95	4.95	17.15	2"
OW-7		6.35	6.35	18.10	
OW-8		<del>3.92</del>	4.35	<del>17.75</del>	2"

Measured by (Signature): John L. Subotic

# WATER QUALITY SAMPLING INFORMATION

Date: 6-27-01 Well No.: OW-2 Sampled by: JJ  
 Project: Plote Coliseum Way Project No.: 6113  
 Sampling method: Dis-barter

GROUNDWATER	SURFACE WATER	Sketch of well location
Well diameter (in.) <u>2"</u>	Stream width (ft.) _____	[Empty Sketch Box]
Well elevation (ft.) _____	Stream depth (ft.) _____	
Depth to static water (ft.) _____	Stream velocity (cfs.) _____	
Water level elevation (ft.) <u>4.47</u>	Rained recently (?) _____	
Well casing depth (ft.) <u>21.12</u>	<u>2-in. Casing = 0.16 gal/ft.</u>	
Water volume in well (gals) <u>2.66</u>	<u>4-in. Casing = 0.63 gal/ft.</u>	
Pump inlet depth (ft.) _____	<u>6-in. Casing = 1.47 gal/ft.</u>	

Analyses requested: \_\_\_\_\_  
 No. & types of sample bottles used: \_\_\_\_\_ Method of shipment: \_\_\_\_\_

TIME	DEPTH TO WATER (ft.)	VOLUME WITHDRAWN (GALS.)	TEMP (deg. F)	PH	CONDUCTIVITY (uS/cm)	TURBIDITY	REMARKS
<u>1415</u>		<u>0</u>					<u>Start</u>
<u>1420</u>		<u>20</u>	<u>72.0</u>	<u>6.53</u>	<u>2410</u>		<u>Clear; No odor</u>
<u>1435</u>							<u>Sampled OW-2</u>
							<u>P6</u>

7.98

# WATER QUALITY SAMPLING INFORMATION

Date: 6-27-01 Well No.: OW-8 Sampled by: JS  
 Project: PG&E Coliseum Way Project No.: 6118  
 Sampling method: Dip-net

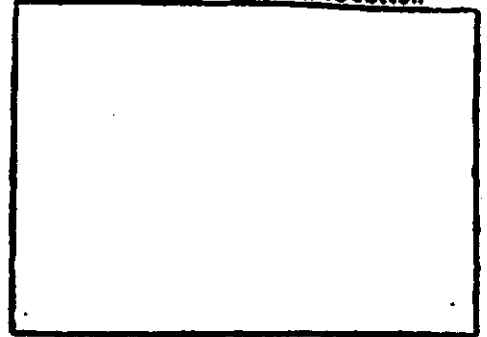
## GROUNDWATER

Well diameter (in.) 3"  
 Well elevation (ft.) \_\_\_\_\_  
 Depth to static water (ft.) \_\_\_\_\_  
 Water level elevation (ft.) 3.92  
 Well casing depth (ft.) 17.75  
 Water volume in well (gals) 2.21  
 Pump inlet depth (ft.) \_\_\_\_\_

## SURFACE WATER

Stream width (ft.) \_\_\_\_\_  
 Stream depth (ft.) \_\_\_\_\_  
 Stream velocity (cfs.) \_\_\_\_\_  
 Rained recently (?) \_\_\_\_\_  
 2-in. Casing = 0.16 gal/in.  
 4-in. Casing = 0.63 gal/in.  
 6-in. Casing = 1.47 gal/in.

Sketch of well location



Analyses requested: \_\_\_\_\_  
 No. & types of sample bottles used: \_\_\_\_\_ Method of shipment: \_\_\_\_\_

TIME	DEPTH TO WATER (ft.)	VOLUME WITHDRAWN (GALS.)	TEMP (deg. F)	pH	CONDUCTIVITY (µS/cm)	TURBIDITY	REMARKS
1440		0					Start
1455		6.7	68.8	6.58	73		Light Br; Slight (drown?) Odor
1500							Sampled OW-8 P6

6.63



# WATER QUALITY SAMPLING INFORMATION

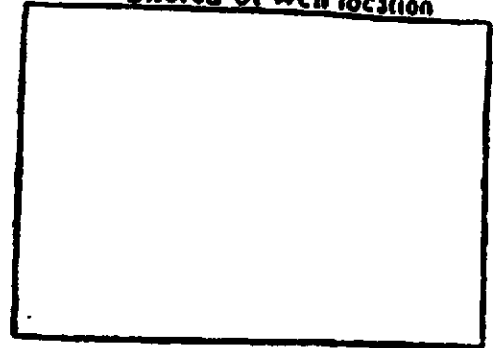
Date: 6-27-01 Well No.: OW-5 Sampled by: J.S.  
 Project: PG+E Coliseum Way Project No.: 6115  
 Sampling method: Dis-Boiler

## GROUNDWATER

## SURFACE WATER

Sketch of well location

Well diameter (in.) _____	Stream width (ft.) _____
Well elevation (ft.) _____	Stream depth (ft.) _____
Depth to static water (ft.) _____	Stream velocity (cfs.) _____
Water level elevation (ft.) <u>4.62</u>	Raised recently (?) _____
Well casing depth (ft.) <u>18.95</u>	2-in. Casing = 0.16 gal/ft.
Water volume in well (gals) <u>229</u>	4-in. Casing = 0.63 gal/ft.
Pump water depth (ft.) _____	6-in. Casing = 1.47 gal/ft.



Analyses requested: \_\_\_\_\_  
 No. & types of sample bottles used: \_\_\_\_\_ Method of shipment: \_\_\_\_\_

TIME	DEPTH TO WATER (ft.)	VOLUME WITHDRAWN (GALS.)	TEMP. (deg. F)	PH	CONDUCTIVITY	TURBIDITY	REMARKS
1510		0	—	—	—	—	Start
1525			72.3	5.95	549		Lt. Br.; Slight Gas odor
1530							Sampled OW-5 TRP-g/16 TEX; VOC
1537							Sampled OW-5 TRP-cl; Pb

6.27

# WATER QUALITY SAMPLING INFORMATION

Date: 6-27-01 Well No.: OW-1 Sampled by: JS  
 Project: Plot E Coliseum Way Project No.: 6115  
 Sampling method: Dis-bater

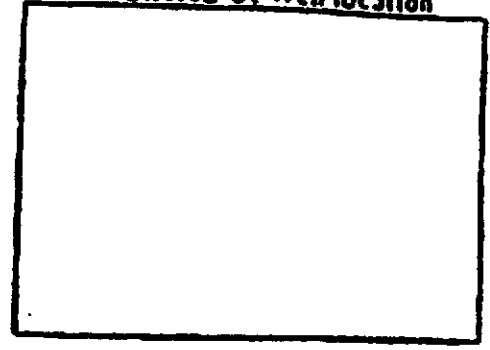
## GROUNDWATER

Well diameter (in.) \_\_\_\_\_  
 Well elevation (ft.) \_\_\_\_\_  
 Depth to static water (ft.) \_\_\_\_\_  
 Water level elevation (ft.) 4.17  
 Well casing depth (ft.) 17.97  
 Water volume in well (gals) 2.20  
 Pump water depth (ft.) \_\_\_\_\_

## SURFACE WATER

Stream width (ft.) \_\_\_\_\_  
 Stream depth (ft.) \_\_\_\_\_  
 Stream velocity (cfs.) \_\_\_\_\_  
 Raised recently (?) \_\_\_\_\_  
 2-in. Casing = 0.16 gal/ft.  
 4-in. Casing = 0.65 gal/ft.  
 6-in. Casing = 1.47 gal/ft.

Sketch of well location



Analyses requested: \_\_\_\_\_  
 No. & types of sample bottles used: \_\_\_\_\_ Method of shipment: \_\_\_\_\_

TIME	DEPTH TO WATER (ft.)	VOLUME WITHDRAWN (GALS)	TEMP (deg F)	pH	CONDUCTIVITY <u>uS/cm</u>	TURBIDITY	REMARKS
1550		0					Start
1605		2.6	72.3	6.10	904		Clear; Slight Gas Odor
1610							Sampled OW-1 Turbidity / pH
1615							Sampled OW-1 Turbidity

6.6

# WATER QUALITY SAMPLING INFORMATION

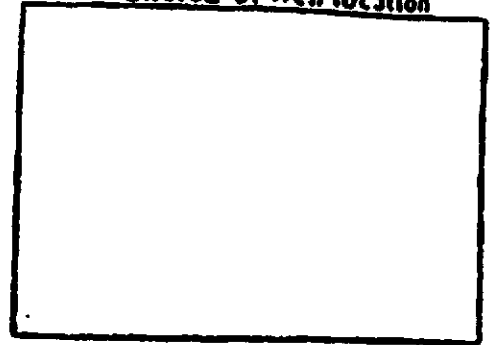
Date: 6-27-01 Well No.: OW-6 Sampled by: JS  
 Project: PG+E Coliseum Way Project No.: 6118  
 Sampling method: Dic-Water

## GROUNDWATER

## SURFACE WATER

Sketch of well location

Well diameter (in.) \_\_\_\_\_ Stream width (ft.) \_\_\_\_\_  
 Well elevation (ft.) \_\_\_\_\_ Stream depth (ft.) \_\_\_\_\_  
 Depth to static water (ft.) \_\_\_\_\_ Stream velocity (cfs.) \_\_\_\_\_  
 Water level elevation (ft.) 4.95 Rained recently (?) \_\_\_\_\_  
 Well casing depth (ft.) 17.15 2-in. Casing = 0.16 gal/min.  
 Water volume in well (gals) 1.95 4-in. Casing = 0.63 gal/min.  
 Pump inlet depth (ft.) \_\_\_\_\_ 6-in. Casing = 1.47 gal/min.



Analyses requested: \_\_\_\_\_  
 No. & types of sample bottles used: \_\_\_\_\_ Method of shipment: \_\_\_\_\_

TIME	DEPTH TO WATER (ft.)	VOLUME WITHDRAWN (GALS.)	TEMP (deg. F)	pH	CONDUCTIVITY	TURBIDITY	REMARKS
1625		0					Start
1640		5.9	70.0	7.14	949		Grey, Slight Gas Odor
1645							Sampled OW-6
1650							Turbidity / STDs / DOC's Sampled OW-6

5.85

# WATER QUALITY SAMPLING INFORMATION

Date: 6-27-01 Well No.: OW-7 Sampled by: JS  
Project: PG+E Coliseum Way Project No.: 6118  
Sampling method: Dis-bailer

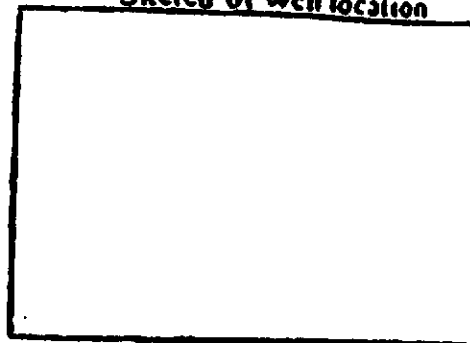
## GROUNDWATER

Well diameter (in.) \_\_\_\_\_  
Well elevation (ft.) \_\_\_\_\_  
Depth to static water (ft.) \_\_\_\_\_  
Water level elevation (ft.) 6.35  
Well casing depth (ft.) 18.10  
Water volume in well (gals) 1.88  
Pump inlet depth (ft.) \_\_\_\_\_

## SURFACE WATER

Stream width (ft.) \_\_\_\_\_  
Stream depth (ft.) \_\_\_\_\_  
Stream velocity (cfs.) \_\_\_\_\_  
Rained recently (?) \_\_\_\_\_  
7-in. Casing = 0.16 gal/hr  
4-in. Casing = 0.65 gal/hr  
6-in. Casing = 1.47 gal/hr

## Sketch of well location



Analyses requested: \_\_\_\_\_

No. & types of sample bottles used: \_\_\_\_\_ Method of shipment: \_\_\_\_\_

TIME	DEPTH TO WATER (ft.)	VOLUME WITHDRAWN (GALS.)	TEMP. (deg. F)	pH	CONDUCTIVITY <u>uS/cm</u>	TURBIDITY	REMARKS
1705							
1720			67.3	6.65	826		Clear; No odor
1725							Sampled OW-7 NP1+G/BTEX; VOCs
1732							Sampled OW-7 TPH-a

5.64

**CSS Environmental Services**  
95 Belvedere Street, Suite 2  
San Rafael, CA 94901

Attn.: Mr. Aaron Stessman

Project: 6118  
Coliseum Way GW Monitoring

Dear Mr. Stessman,

Attached is our report for your samples received on Friday June 29, 2001  
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 August 13, 2001  
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: [gcook@chromalab.com](mailto:gcook@chromalab.com)

Sincerely,



Gary Cook

Diesel

<b>CSS Environmental Services</b>	<input checked="" type="checkbox"/> 95 Belvedere Street, Suite 2 San Rafael, CA 94901
Attn: Aaron Stessman	Phone: (415) 457-9551 Fax: (415) 457-9261
Project #: 6118	Project: Coliseum Way GW Monitoring

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
OW-1	Water	06/27/2001 16:10	1
OW-5	Water	06/27/2001 15:30	3
OW-6	Water	06/27/2001 16:45	4
OW-7	Water	06/27/2001 17:25	5

To: **CSS Environmental Services**

Test Method: 8015M

Attn.: Aaron Stessman

Prep Method: 3510/8015M

Diesel

Sample ID: <b>OW-1</b>	Lab Sample ID: <b>2001-06-0564-001</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 16:10	Extracted: 07/02/2001 13:55
Matrix: Water	QC-Batch: 2001/07/02-04.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	740	50	ug/L	1.00	07/03/2001 08:59	ndp
<b>Surrogate(s)</b> o-Terphenyl	93.7	60-130	%	1.00	07/03/2001 08:59	

To: **CSS Environmental Services**  
Attn.: Aaron Stessman

Test Method: 8015M  
Prep Method: 3510/8015M

Diesel

Sample ID: <b>OW-5</b>	Lab Sample ID: <b>2001-06-0564-003</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 15:30	Extracted: 07/02/2001 13:55
Matrix: Water	QC-Batch: 2001/07/02-04.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	540	50	ug/L	1.00	07/03/2001 11:30	ndp
<b>Surrogate(s)</b> o-Terphenyl	92.4	60-130	%	1.00	07/03/2001 11:30	



# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-06-0564

To: **CSS Environmental Services**

Test Method: 8015M

Attn.: Aaron Stessman

Prep Method: 3510/8015M

Diesel

Sample ID: <b>OW-6</b>	Lab Sample ID: <b>2001-06-0564-004</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 16:45	Extracted: 07/02/2001 13:55
Matrix: Water	QC-Batch: 2001/07/02-04.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	320	50	ug/L	1.00	07/03/2001 10:23	ndp
<b>Surrogate(s)</b> o-Terphenyl	88.7	60-130	%	1.00	07/03/2001 10:23	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-06-0564

To: **CSS Environmental Services**

Test Method: 8015M

Attn.: Aaron Stessman

Prep Method: 3510/8015M

Diesel

Sample ID: <b>OW-7</b>	Lab Sample ID: <b>2001-06-0564-005</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 17:25	Extracted: 07/02/2001 13:55
Matrix: Water	QC-Batch: 2001/07/02-04.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	1100	50	ug/L	1.00	07/03/2001 11:12	ndp
<b>Surrogate(s)</b> o-Terphenyl	83.2	60-130	%	1.00	07/03/2001 11:12	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: **CSS Environmental Services**

Test Method: 8015M

Attn.: Aaron Stessman

Prep Method: 3510/8015M

### Batch QC Report

Diesel

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/07/02-04.10</b>
MB: 2001/07/02-04.10-001		Date Extracted: 07/02/2001 13:55

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	07/03/2001 08:21	
<b>Surrogate(s)</b> o-Terphenyl	90.0	60-130	%	07/03/2001 08:21	

To: **CSS Environmental Services**

Test Method: 8015M

Attn: Aaron Stessman

Prep Method: 3510/8015M

**Batch QC Report**

Diesel

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/07/02-04.10</b>
LCS: 2001/07/02-04.10-002	Extracted: 07/02/2001 13:55	Analyzed 07/03/2001 07:05
LCSD: 2001/07/02-04.10-003	Extracted: 07/02/2001 13:55	Analyzed 07/03/2001 07:43

Compound	Conc. [ ug/L ]		Exp.Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	973	930	1250	1250	77.8	74.4	4.5	60-130	25		
<b>Surrogate(s)</b> o-Terphenyl	18.7	18.1	20.0	20.0	93.5	90.5		60-130			

To: **CSS Environmental Services**  
Attn: Aaron Stessman

Test Method: 8015M  
Prep Method: 3510/8015M

**Legend & Notes**

Diesel

**Analyte Flags**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

Soluble Metals

<b>CSS Environmental Services</b>	✉ 95 Belvedere Street, Suite 2 San Rafael, CA 94901
Attn: Aaron Stessman	Phone: (415) 457-9551 Fax: (415) 457-9261
Project #: 6118	Project: Coliseum Way GW Monitoring

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
OW-2	Water	06/27/2001 14:35	2
OW-5	Water	06/27/2001 15:30	3
OW-8	Water	06/27/2001 15:00	6

# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-06-0564

To: **CSS Environmental Services**

Test Method: 6010B

Attn.: Aaron Stessman

Prep Method: 3005A

## Soluble Metals

Sample ID: <b>OW-2</b>	Lab Sample ID: <b>2001-06-0564-002</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 14:35	Extracted: 07/03/2001 07:00
Matrix: Water	QC-Batch: 2001/07/03-03.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	ND	0.0050	mg/L	1.00	07/03/2001 16:52	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: **CSS Environmental Services**

Test Method: 6010B

Attn.: Aaron Stessman

Prep Method: 3005A

Soluble Metals

Sample ID: <b>OW-5</b>	Lab Sample ID: <b>2001-06-0564-003</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 15:30	Extracted: 07/03/2001 07:00
Matrix: Water	QC-Batch: 2001/07/03-03.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	ND	0.0050	mg/L	1.00	07/03/2001 16:56	



To: CSS Environmental Services

Test Method: 6010B

Attn.: Aaron Stessman

Prep Method: 3005A

Soluble Metals

Sample ID: <b>OW-8</b>	Lab Sample ID: <b>2001-06-0564-006</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 15:00	Extracted: 07/03/2001 07:00
Matrix: Water	QC-Batch: 2001/07/03-03.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	ND	0.0050	mg/L	1.00	07/03/2001 17:00	

To: **CSS Environmental Services**  
Attn.: Aaron Stessman

Test Method: 6010B  
Prep Method: 3005A

**Batch QC Report**  
Soluble Metals

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/07/03-03.15</b>
MB: 2001/07/03-03.15-018		Date Extracted: 07/03/2001 07:00

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Lead	ND	0.0050	mg/L	07/03/2001 16:06	

To: **CSS Environmental Services**

Test Method: 6010B

Attn: Aaron Stessman

Prep Method: 3005A

**Batch QC Report**

**Soluble Metals**

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/07/03-03.15</b>
LCS: 2001/07/03-03.15-019	Extracted: 07/03/2001 07:00	Analyzed 07/03/2001 16:10
LCSD: 2001/07/03-03.15-020	Extracted: 07/03/2001 07:00	Analyzed 07/03/2001 16:15

Compound	Conc. [ mg/L ]		Exp. Conc. [ mg/L ]		Recovery [%]			RPD		Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD		
Lead	0.484	0.483	0.500	0.500	96.8	96.6	0.2	80-120	20				

Gas/BTEX

<b>CSS Environmental Services</b>	☒ 95 Belvedere Street, Suite 2 San Rafael, CA 94901
Attn: Aaron Stessman	Phone: (415) 457-9551 Fax: (415) 457-9261
Project #: 6118	Project: Coliseum Way GW Monitoring

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
OW-1	Water	06/27/2001 16:10	1
OW-5	Water	06/27/2001 15:30	3
OW-6	Water	06/27/2001 16:45	4
OW-7	Water	06/27/2001 17:25	5

To: **CSS Environmental Services**

Test Method: 8020  
8015M

Attn.: Aaron Stessman

Prep Method: 5030

Gas/BTEX

Sample ID: <b>OW-1</b>	Lab Sample ID: <b>2001-06-0564-001</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 16:10	Extracted: 06/29/2001 21:54
Matrix: Water	QC-Batch: 2001/06/29-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	480	50	ug/L	1.00	06/29/2001 21:54	g
Benzene	ND	0.50	ug/L	1.00	06/29/2001 21:54	
Toluene	ND	0.50	ug/L	1.00	06/29/2001 21:54	
Ethyl benzene	ND	0.50	ug/L	1.00	06/29/2001 21:54	
Xylene(s)	3.4	0.50	ug/L	1.00	06/29/2001 21:54	
<b>Surrogate(s)</b>						
Trifluorotoluene	66.7	58-124	%	1.00	06/29/2001 21:54	
4-Bromofluorobenzene-FID	54.1	50-150	%	1.00	06/29/2001 21:54	

# STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-06-0564

To: CSS Environmental Services

Test Method: 8020  
8015M

Attn.: Aaron Stessman

Prep Method: 5030

Gas/BTEX

Sample ID: <b>OW-5</b>	Lab Sample ID: <b>2001-06-0564-003</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 15:30	Extracted: 06/29/2001 22:27
Matrix: Water	QC-Batch: 2001/06/29-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	79	50	ug/L	1.00	06/29/2001 22:27	g
Benzene	7.7	0.50	ug/L	1.00	06/29/2001 22:27	
Toluene	ND	0.50	ug/L	1.00	06/29/2001 22:27	
Ethyl benzene	ND	0.50	ug/L	1.00	06/29/2001 22:27	
Xylene(s)	ND	0.50	ug/L	1.00	06/29/2001 22:27	
<b>Surrogate(s)</b>						
Trifluorotoluene	83.0	58-124	%	1.00	06/29/2001 22:27	
4-Bromofluorobenzene-FID	69.6	50-150	%	1.00	06/29/2001 22:27	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: **CSS Environmental Services**

Test Method: 8020  
8015M

Attn.: Aaron Stessman

Prep Method: 5030

Gas/BTEX

Sample ID: <b>OW-6</b>	Lab Sample ID: <b>2001-06-0564-004</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 16:45	Extracted: 06/29/2001 23:00
Matrix: Water	QC-Batch: 2001/06/29-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	06/29/2001 23:00	
Benzene	ND	0.50	ug/L	1.00	06/29/2001 23:00	
Toluene	ND	0.50	ug/L	1.00	06/29/2001 23:00	
Ethyl benzene	ND	0.50	ug/L	1.00	06/29/2001 23:00	
Xylene(s)	ND	0.50	ug/L	1.00	06/29/2001 23:00	
<b>Surrogate(s)</b>						
Trifluorotoluene	72.6	58-124	%	1.00	06/29/2001 23:00	
4-Bromofluorobenzene-FID	61.8	50-150	%	1.00	06/29/2001 23:00	

To: **CSS Environmental Services**

Test Method: 8020  
8015M

Attn.: Aaron Stessman

Prep Method: 5030

Gas/BTEX

Sample ID: <b>OW-7</b>	Lab Sample ID: <b>2001-06-0564-005</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 17:25	Extracted: 06/29/2001 16:45
Matrix: Water	QC-Batch: 2001/06/29-01.05

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	1200	50	ug/L	1.00	06/29/2001 16:45	g
Benzene	ND	0.50	ug/L	1.00	06/29/2001 16:45	
Toluene	ND	0.50	ug/L	1.00	06/29/2001 16:45	
Ethyl benzene	ND	0.50	ug/L	1.00	06/29/2001 16:45	
Xylene(s)	ND	0.50	ug/L	1.00	06/29/2001 16:45	
<b>Surrogate(s)</b>						
Trifluorotoluene	77.8	58-124	%	1.00	06/29/2001 16:45	
4-Bromofluorobenzene-FID	84.5	50-150	%	1.00	06/29/2001 16:45	



To: **CSS Environmental Services**

Test Method: 8015M

8020

Attn.: Aaron Stessman

Prep Method: 5030

**Batch QC Report**  
Gas/BTEX

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/06/29-01.01</b>
MB: 2001/06/29-01.01-009		Date Extracted: 06/29/2001 12:16

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	06/29/2001 12:16	
Benzene	ND	0.5	ug/L	06/29/2001 12:16	
Toluene	ND	0.5	ug/L	06/29/2001 12:16	
Ethyl benzene	ND	0.5	ug/L	06/29/2001 12:16	
Xylene(s)	ND	0.5	ug/L	06/29/2001 12:16	
<b>Surrogate(s)</b>					
Trifluorotoluene	97.3	58-124	%	06/29/2001 12:16	
4-Bromofluorobenzene-FID	82.1	50-150	%	06/29/2001 12:16	

To: **CSS Environmental Services**

Test Method: 8015M  
8020

Attn.: Aaron Stessman

Prep Method: 5030

**Batch QC Report**  
Gas/BTEX

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/06/29-01.05</b>
MB: 2001/06/29-01.05-006		Date Extracted: 06/29/2001 11:48

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	06/29/2001 11:48	
Benzene	ND	0.5	ug/L	06/29/2001 11:48	
Toluene	ND	0.5	ug/L	06/29/2001 11:48	
Ethyl benzene	ND	0.5	ug/L	06/29/2001 11:48	
Xylene(s)	ND	0.5	ug/L	06/29/2001 11:48	
<b>Surrogate(s)</b>					
Trifluorotoluene	90.5	58-124	%	06/29/2001 11:48	
4-Bromofluorobenzene-FID	66.0	50-150	%	06/29/2001 11:48	

To: **CSS Environmental Services**

Test Method: 8020

Attn: Aaron Stessman

Prep Method: 5030

## Batch QC Report

Gas/BTEX

Laboratory Control Spike (LCS/LCSD)		Water		QC Batch # 2001/06/29-01.01	
LCS:	2001/06/29-01.01-005	Extracted:	06/29/2001 10:05	Analyzed	06/29/2001 10:05
LCSD:	2001/06/29-01.01-006	Extracted:	06/29/2001 10:38	Analyzed	06/29/2001 10:38

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Benzene	103	95.1	100.0	100.0	103.0	95.1	8.0	77-123	20		
Toluene	106	96.5	100.0	100.0	106.0	96.5	9.4	78-122	20		
Ethyl benzene	104	95.6	100.0	100.0	104.0	95.6	8.4	70-130	20		
Xylene(s)	303	281	300	300	101.0	93.7	7.5	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	524	463	500	500	104.8	92.6		58-124			

To: **CSS Environmental Services**

Test Method: 8015M  
8020

Attn: Aaron Stessman

Prep Method: 5030

**Batch QC Report**

Gas/BTEX

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/06/29-01.01</b>
LCS: 2001/06/29-01.01-007	Extracted: 06/29/2001 11:11	Analyzed 06/29/2001 11:11
LCSD: 2001/06/29-01.01-008	Extracted: 06/29/2001 11:43	Analyzed 06/29/2001 11:43

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	498	414	500	500	99.6	82.8	18.4	75-125	20		
<b>Surrogate(s)</b>											
4-Bromofluorobenzene-FI	415	355	500	500	83.0	71.0		50-150			

To: **CSS Environmental Services**  
 Attn: Aaron Stessman

Test Method: 8020  
 Prep Method: 5030

**Batch QC Report**

Gas/BTEX

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/06/29-01.05</b>
LCS: 2001/06/29-01.05-007	Extracted: 06/29/2001 12:21	Analyzed 06/29/2001 12:21
LCSD: 2001/06/29-01.05-008	Extracted: 06/29/2001 12:53	Analyzed 06/29/2001 12:53

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Benzene	86.2	91.4	100.0	100.0	86.2	91.4	5.9	77-123	20		
Toluene	85.3	89.2	100.0	100.0	85.3	89.2	4.5	78-122	20		
Ethyl benzene	83.0	87.1	100.0	100.0	83.0	87.1	4.8	70-130	20		
Xylene(s)	249	264	300	300	83.0	88.0	5.8	75-125	20		
<b>Surrogate(s)</b> Trifluorotoluene	465	480	500	500	93.0	96.0		58-124			

To: **CSS Environmental Services**

Test Method: 8015M  
8020

Attn: Aaron Stessman

Prep Method: 5030

**Batch QC Report**

Gas/BTEX

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/06/29-01.05</b>
LCS: 2001/06/29-01.05-009	Extracted: 06/29/2001 13:26	Analyzed 06/29/2001 13:26
LCSD: 2001/06/29-01.05-010	Extracted: 06/29/2001 13:58	Analyzed 06/29/2001 13:58

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	460	512	500	500	92.0	102.4	10.7	75-125	20		
<b>Surrogate(s)</b>											
4-Bromofluorobenzene-FI	403	448	500	500	80.6	89.6		50-150			

To: **CSS Environmental Services**

Test Method: 8015M  
8020

Attn: Aaron Stessman

Prep Method: 5030

**Legend & Notes**

Gas/BTEX

**Analyte Flags**

g

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

Halogenated Volatile Organic Compounds

<b>CSS Environmental Services</b>	✉ 95 Belvedere Street, Suite 2 San Rafael, CA 94901
Attn: Aaron Stessman	Phone: (415) 457-9551 Fax: (415) 457-9261
Project #: 6118	Project: Coliseum Way GW Monitoring

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
OW-5	Water	06/27/2001 15:30	3
OW-6	Water	06/27/2001 16:45	4
OW-7	Water	06/27/2001 17:25	5



To: **CSS Environmental Services**  
 Attn.: Aaron Stessman

Test Method: 8010  
 Prep Method: 5030

Halogenated Volatile Organic Compounds

Sample ID: <b>OW-5</b>	Lab Sample ID: <b>2001-06-0564-003</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 15:30	Extracted: 07/07/2001 04:08
Matrix: Water	QC-Batch: 2001/07/06-01.25

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	1.00	07/07/2001 04:08	
Vinyl chloride	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Chloroethane	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Trichlorofluoromethane	ND	0.50	ug/L	1.00	07/07/2001 04:08	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Methylene chloride	ND	5.0	ug/L	1.00	07/07/2001 04:08	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
1,1-Dichloroethane	1.4	0.50	ug/L	1.00	07/07/2001 04:08	
Chloroform	ND	0.50	ug/L	1.00	07/07/2001 04:08	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Carbon tetrachloride	ND	0.50	ug/L	1.00	07/07/2001 04:08	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Trichloroethene	0.70	0.50	ug/L	1.00	07/07/2001 04:08	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Bromodichloromethane	ND	0.50	ug/L	1.00	07/07/2001 04:08	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	07/07/2001 04:08	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Tetrachloroethene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Dibromochloromethane	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Chlorobenzene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Bromoform	ND	2.0	ug/L	1.00	07/07/2001 04:08	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	07/07/2001 04:08	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	07/07/2001 04:08	
Trichlorotrifluoroethane	ND	2.0	ug/L	1.00	07/07/2001 04:08	
Chloromethane	ND	1.0	ug/L	1.00	07/07/2001 04:08	
Bromomethane	ND	1.0	ug/L	1.00	07/07/2001 04:08	
<b>Surrogate(s)</b>						
1-Chloro-2-fluorobenzene	68.3	50-150	%	1.00	07/07/2001 04:08	

To: **CSS Environmental Services**

Test Method: 8010

Attn.: Aaron Stessman

Prep Method: 5030

Halogenated Volatile Organic Compounds

Sample ID: <b>OW-6</b>	Lab Sample ID: <b>2001-06-0564-004</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 16:45	Extracted: 07/07/2001 05:02
Matrix: Water	QC-Batch: 2001/07/06-01.25

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	1.00	07/07/2001 05:02	
Vinyl chloride	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Chloroethane	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Trichlorofluoromethane	ND	0.50	ug/L	1.00	07/07/2001 05:02	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Methylene chloride	ND	5.0	ug/L	1.00	07/07/2001 05:02	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	07/07/2001 05:02	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	07/07/2001 05:02	
1,1-Dichloroethane	1.2	0.50	ug/L	1.00	07/07/2001 05:02	
Chloroform	ND	0.50	ug/L	1.00	07/07/2001 05:02	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Carbon tetrachloride	ND	0.50	ug/L	1.00	07/07/2001 05:02	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Trichloroethene	ND	0.50	ug/L	1.00	07/07/2001 05:02	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Bromodichloromethane	ND	0.50	ug/L	1.00	07/07/2001 05:02	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	07/07/2001 05:02	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	07/07/2001 05:02	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	07/07/2001 05:02	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Tetrachloroethene	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Dibromochloromethane	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Chlorobenzene	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Bromoform	ND	2.0	ug/L	1.00	07/07/2001 05:02	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	07/07/2001 05:02	
1,3-Dichlorobenzene	1.4	0.50	ug/L	1.00	07/07/2001 05:02	
1,4-Dichlorobenzene	6.1	0.50	ug/L	1.00	07/07/2001 05:02	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	07/07/2001 05:02	
Trichlorotrifluoroethane	ND	2.0	ug/L	1.00	07/07/2001 05:02	
Chloromethane	ND	1.0	ug/L	1.00	07/07/2001 05:02	
Bromomethane	ND	1.0	ug/L	1.00	07/07/2001 05:02	
<b>Surrogate(s)</b>						
1-Chloro-2-fluorobenzene	76.2	50-150	%	1.00	07/07/2001 05:02	

To: **CSS Environmental Services**

Test Method: 8010

Attn.: Aaron Stessman

Prep Method: 5030

Halogenated Volatile Organic Compounds

Sample ID: <b>OW-7</b>	Lab Sample ID: <b>2001-06-0564-005</b>
Project: 6118 Coliseum Way GW Monitoring	Received: 06/29/2001 14:25
Sampled: 06/27/2001 17:25	Extracted: 07/07/2001 04:48
Matrix: Water	QC-Batch: 2001/07/06-01.26
Sample/Analysis Flag o ( See Legend & Note section )	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	10	ug/L	10.00	07/07/2001 04:48	
Vinyl chloride	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Chloroethane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Trichlorofluoromethane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
1,1-Dichloroethene	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Methylene chloride	ND	50	ug/L	10.00	07/07/2001 04:48	
trans-1,2-Dichloroethene	ND	5.0	ug/L	10.00	07/07/2001 04:48	
cis-1,2-Dichloroethene	ND	5.0	ug/L	10.00	07/07/2001 04:48	
1,1-Dichloroethane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Chloroform	ND	5.0	ug/L	10.00	07/07/2001 04:48	
1,1,1-Trichloroethane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Carbon tetrachloride	ND	5.0	ug/L	10.00	07/07/2001 04:48	
1,2-Dichloroethane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Trichloroethene	ND	5.0	ug/L	10.00	07/07/2001 04:48	
1,2-Dichloropropane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Bromodichloromethane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
2-Chloroethylvinyl ether	ND	5.0	ug/L	10.00	07/07/2001 04:48	
trans-1,3-Dichloropropene	ND	5.0	ug/L	10.00	07/07/2001 04:48	
cis-1,3-Dichloropropene	ND	5.0	ug/L	10.00	07/07/2001 04:48	
1,1,2-Trichloroethane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Tetrachloroethene	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Dibromochloromethane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
Chlorobenzene	27	5.0	ug/L	10.00	07/07/2001 04:48	
Bromoform	ND	20	ug/L	10.00	07/07/2001 04:48	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	10.00	07/07/2001 04:48	
1,3-Dichlorobenzene	320	5.0	ug/L	10.00	07/07/2001 04:48	
1,4-Dichlorobenzene	510	5.0	ug/L	10.00	07/07/2001 04:48	
1,2-Dichlorobenzene	42	5.0	ug/L	10.00	07/07/2001 04:48	
Trichlorotrifluoroethane	ND	20	ug/L	10.00	07/07/2001 04:48	
Chloromethane	ND	10	ug/L	10.00	07/07/2001 04:48	
Bromomethane	ND	10	ug/L	10.00	07/07/2001 04:48	
<b>Surrogate(s)</b>						
1-Chloro-2-fluorobenzene	87.0	50-150	%	10.00	07/07/2001 04:48	

To: **CSS Environmental Services**  
 Attn.: Aaron Stessman

Test Method: 8010  
 Prep Method: 5030

**Batch QC Report**  
 Halogenated Volatile Organic Compounds

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/07/06-01.26</b>
MB: 2001/07/06-01.26-003		Date Extracted: 07/06/2001 08:49

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	07/06/2001 08:49	
Vinyl chloride	ND	0.5	ug/L	07/06/2001 08:49	
Chloroethane	ND	0.5	ug/L	07/06/2001 08:49	
Trichlorofluoromethane	ND	0.5	ug/L	07/06/2001 08:49	
1,1-Dichloroethene	ND	0.5	ug/L	07/06/2001 08:49	
Methylene chloride	ND	5.0	ug/L	07/06/2001 08:49	
trans-1,2-Dichloroethene	ND	0.5	ug/L	07/06/2001 08:49	
cis-1,2-Dichloroethene	ND	0.5	ug/L	07/06/2001 08:49	
1,1-Dichloroethane	ND	0.5	ug/L	07/06/2001 08:49	
Chloroform	ND	0.5	ug/L	07/06/2001 08:49	
1,1,1-Trichloroethane	ND	0.5	ug/L	07/06/2001 08:49	
Carbon tetrachloride	ND	0.5	ug/L	07/06/2001 08:49	
1,2-Dichloroethane	ND	0.5	ug/L	07/06/2001 08:49	
Trichloroethene	ND	0.5	ug/L	07/06/2001 08:49	
1,2-Dichloropropane	ND	0.5	ug/L	07/06/2001 08:49	
Bromodichloromethane	ND	0.5	ug/L	07/06/2001 08:49	
2-Chloroethylvinyl ether	ND	0.5	ug/L	07/06/2001 08:49	
trans-1,3-Dichloropropene	ND	0.5	ug/L	07/06/2001 08:49	
cis-1,3-Dichloropropene	ND	0.5	ug/L	07/06/2001 08:49	
1,1,2-Trichloroethane	ND	0.5	ug/L	07/06/2001 08:49	
Tetrachloroethene	ND	0.5	ug/L	07/06/2001 08:49	
Dibromochloromethane	ND	0.5	ug/L	07/06/2001 08:49	
Chlorobenzene	ND	0.5	ug/L	07/06/2001 08:49	
Bromoform	ND	2.0	ug/L	07/06/2001 08:49	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	07/06/2001 08:49	
1,3-Dichlorobenzene	ND	0.5	ug/L	07/06/2001 08:49	
1,4-Dichlorobenzene	ND	0.5	ug/L	07/06/2001 08:49	
1,2-Dichlorobenzene	ND	0.5	ug/L	07/06/2001 08:49	
Trichlorotrifluoroethane	ND	2.0	ug/L	07/06/2001 08:49	
Chloromethane	ND	1.0	ug/L	07/06/2001 08:49	
Bromomethane	ND	1.0	ug/L	07/06/2001 08:49	
<b>Surrogate(s)</b>					
1-Chloro-2-fluorobenzene	80.5	50-150	%	07/06/2001 08:49	

To: **CSS Environmental Services**

Test Method: 8010

Attn.: Aaron Stessman

Prep Method: 5030

**Batch QC Report**

Halogenated Volatile Organic Compounds

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2001/07/06-01.25</b>
MB: 2001/07/06-01.25-003		Date Extracted: 07/06/2001 08:27

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	07/06/2001 08:27	
Vinyl chloride	ND	0.5	ug/L	07/06/2001 08:27	
Chloroethane	ND	0.5	ug/L	07/06/2001 08:27	
Trichlorofluoromethane	ND	0.5	ug/L	07/06/2001 08:27	
1,1-Dichloroethene	ND	0.5	ug/L	07/06/2001 08:27	
Methylene chloride	ND	5.0	ug/L	07/06/2001 08:27	
trans-1,2-Dichloroethene	ND	0.5	ug/L	07/06/2001 08:27	
cis-1,2-Dichloroethene	ND	0.5	ug/L	07/06/2001 08:27	
1,1-Dichloroethane	ND	0.5	ug/L	07/06/2001 08:27	
Chloroform	ND	0.5	ug/L	07/06/2001 08:27	
1,1,1-Trichloroethane	ND	0.5	ug/L	07/06/2001 08:27	
Carbon tetrachloride	ND	0.5	ug/L	07/06/2001 08:27	
1,2-Dichloroethane	ND	0.5	ug/L	07/06/2001 08:27	
Trichloroethene	ND	0.5	ug/L	07/06/2001 08:27	
1,2-Dichloropropane	ND	0.5	ug/L	07/06/2001 08:27	
Bromodichloromethane	ND	0.5	ug/L	07/06/2001 08:27	
2-Chloroethylvinyl ether	ND	0.5	ug/L	07/06/2001 08:27	
trans-1,3-Dichloropropene	ND	0.5	ug/L	07/06/2001 08:27	
cis-1,3-Dichloropropene	ND	0.5	ug/L	07/06/2001 08:27	
1,1,2-Trichloroethane	ND	0.5	ug/L	07/06/2001 08:27	
Tetrachloroethene	ND	0.5	ug/L	07/06/2001 08:27	
Dibromochloromethane	ND	0.5	ug/L	07/06/2001 08:27	
Chlorobenzene	ND	0.5	ug/L	07/06/2001 08:27	
Bromoform	ND	2.0	ug/L	07/06/2001 08:27	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	07/06/2001 08:27	
1,3-Dichlorobenzene	ND	0.5	ug/L	07/06/2001 08:27	
1,4-Dichlorobenzene	ND	0.5	ug/L	07/06/2001 08:27	
1,2-Dichlorobenzene	ND	0.5	ug/L	07/06/2001 08:27	
Trichlorotrifluoroethane	ND	2.0	ug/L	07/06/2001 08:27	
Chloromethane	ND	1.0	ug/L	07/06/2001 08:27	
Bromomethane	ND	1.0	ug/L	07/06/2001 08:27	
<b>Surrogate(s)</b>					
1-Chloro-2-fluorobenzene	74.0	50-150	%	07/06/2001 08:27	

To: **CSS Environmental Services**

Test Method: 8010

Attn: Aaron Stessman

Prep Method: 5030

## Batch QC Report

### Halogenated Volatile Organic Compounds

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/07/06-01.26</b>
LCS: 2001/07/06-01.26-006	Extracted: 07/06/2001 11:09	Analyzed 07/06/2001 11:09
LCSD: 2001/07/06-01.26-007	Extracted: 07/06/2001 13:02	Analyzed 07/06/2001 13:02

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
1,1-Dichloroethene	13.4	13.3	20.0	20.0	67.0	66.5	0.7	50-140	20		
Trichloroethene	13.6	13.9	20.0	20.0	68.0	69.5	2.2	50-150	20		
Chlorobenzene	16.7	17.6	20.0	20.0	83.5	88.0	5.2	50-150	20		
<b>Surrogate(s)</b>											
1-Chloro-2-fluorobenzene	21.5	22.5	20	20	107.5	112.5		50-150			

To: **CSS Environmental Services**

Test Method: 8010

Attn: Aaron Stessman

Prep Method: 5030

### Batch QC Report

#### Halogenated Volatile Organic Compounds

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 2001/07/06-01.25</b>
LCS: 2001/07/06-01.25-004	Extracted: 07/06/2001 09:14	Analyzed 07/06/2001 09:14
LCSD: 2001/07/06-01.25-005	Extracted: 07/06/2001 10:00	Analyzed 07/06/2001 10:00

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
1,1-Dichloroethene	18.7	19.5	20.0	20.0	93.5	97.5	4.2	50-140	20		
Trichloroethene	19.7	20.3	20.0	20.0	98.5	101.5	3.0	50-150	20		
Chlorobenzene	20.0	20.2	20.0	20.0	100.0	101.0	1.0	50-150	20		
<b>Surrogate(s)</b>											
1-Chloro-2-fluorobenzene	22.0	21.8	20	20	110.0	109.0		50-150			

To: **CSS Environmental Services**

Attr: Aaron Stessman

Test Method: 8010

Prep Method: 5030

## Legend & Notes

Halogenated Volatile Organic Compounds

### Analysis Flags

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



From					Analysis Request																
Proj.Mgr	Company				Analysis Request																
Avon Steesman	CSS Environmental																				
Address																					
95 Belvedere St., Suite 2																					
San Rafael, CA 94901																					
Sampler (Signature)																					
Julie L. Sibilo / Abs. Sibilo																					
Phone		Fax/Email																			
(415) 457-9551		(415) 457-9261																			
Sample ID	Date	Time	Mat rix	Pres erv.	TPH (EPA 8015/8020/8021) <input checked="" type="checkbox"/> Gas w/ <input type="checkbox"/> MTBE	Purgeable Aromatics BTEX (EPA 8020/8021)	TEPH (EPA 8015M) <input type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other	Fuel Oxygenates (8260B) <input type="checkbox"/> DCA, EOB <input type="checkbox"/> Full Oxygenate List <input type="checkbox"/> MTBE <input type="checkbox"/> BTEX	Purgeable Halocarbons (HVOCs) (EPA 8070/8021)	Volatile Organics GC/MS (VOCs) (EPA 8260A/8260B)	Semivolatiles GC/MS (EPA 8270)	Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664) <input type="checkbox"/> Total	<input type="checkbox"/> Pesticides (EPA 8081) <input type="checkbox"/> PCBs (EPA 8082)	PNAs by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	CAMI 7 Metals (EPA 6010/7470/7471)	Metals: <input checked="" type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	<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	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>	
OW-1	6-27-01	1610	W	Y	X																
OW-1		1615		W			X														
OW-2		1435		N																	
OW-5		1530		Y	X				X								X				
OW-5		1537		N			X														
OW-6		1645		Y	X				X								X				
OW-6		1653		N			X														
OW-7		1725		Y	X				X												
OW-7		1732		N			X														
OW-8		1500		N													X				

Project Info.		Sample Receipt		
Project Name: <u>Coliseum Way</u>		# of Containers:		
Project#: <u>GW Monitoring</u>		Head Space:		
PO#: <u>6118</u>		Temp:		
Credit Card#:		Conforms to record:		
T	Std 5	72h	48h	24h
A	Day			
T				Other
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> EDD				
Special Instructions / Comments:				
*Filter Pb Sample prior to analysis				
Please See Attached Price Sheet				

1) Relinquished by:

[Signature] Time 12:50

Printed Name \_\_\_\_\_ Date 4/29/01

Company \_\_\_\_\_

2) Relinquished by:

Signature \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_ Date \_\_\_\_\_

Company \_\_\_\_\_

3) Relinquished by:

Signature \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_ Date \_\_\_\_\_

Company \_\_\_\_\_

1) Received by:

[Signature] Time 12:50

Printed Name \_\_\_\_\_ Date 4/29/01

Company \_\_\_\_\_

2) Received by:

Signature \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_ Date \_\_\_\_\_

Company \_\_\_\_\_

3) Received by:

Signature \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_ Date \_\_\_\_\_

Company \_\_\_\_\_



***APPENDIX B***

**Historical Monitoring Data**

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### Historical Groundwater Analytical Data

Well ID	MCL	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	OW-1	
Date	ug/L	Apr-88	Oct-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Apr-93	Jul-93	Oct-93	Jan-94	Jul-94	Jan-95	Nov-95	Jun-98	Oct-98	Apr.,Jun-97	Dec-97	Jun-98	Dec-98	Jun-99	Nov-99	Jun-00	Nov-00	Jun-01	
<b>PURGEABLE HALOCARBOHNS</b>																																		
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Methylene Chloride	5#	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	5	ND	5	4	4	2	2	1	2.8	4.8	ND	ND	ND	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethane	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethane	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chloroform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Freon 113	1200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND	0.83	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Bromo-dichloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropane	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropane	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibromochloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Chloroethylvinyl Ether		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Bromoform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chlorobenzene	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene		NA	NA	1	4	4	1	3	1.8	2.8	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	600#	NA	NA	ND	ND	ND	ND	ND	0.58	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	5	4	11	5	13	11	6	3	6.7	14	3.2	ND	4	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
<b>PURGEABLE AROMATICS</b>																																		
Benzene	1	ND	ND	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	ND	ND	0.66	ND	0.5	0.55	ND	ND	ND	ND		
Toluene	1000#	ND	ND	2.3	0.4	ND	ND	ND	ND	ND	ND	ND	0.7	ND	ND	NA	ND	NA	ND	ND	NA	ND	ND	ND	ND	0.67	ND	ND	ND	ND	ND	ND		
Ethylbenzene	680	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	0.8	NA	ND	NA	ND	ND	NA	ND	ND	ND	2.3	ND	0.76	ND	ND	ND	ND	ND		
Total Xylenes	1750**	ND	ND	2.8	2.4	ND	ND	ND	ND	ND	ND	3.2	#	1.7	1.8	NA	ND	NA	2.5	ND	NA	ND	ND	ND	1.1	ND	0.67	ND	0.59	ND	ND	3.4		
<b>TOTAL VOCs</b>		<b>4</b>	<b>16</b>	<b>18.1</b>	<b>23.8</b>	<b>17</b>	<b>9</b>	<b>7</b>	<b>13.41</b>	<b>21.5</b>	<b>3.2</b>	<b>3.2</b>	<b>15.7</b>	<b>5.7</b>	<b>8.5</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>2.5</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>4.06</b>	<b>0.67</b>	<b>1.83</b>	<b>0.55</b>	<b>0.59</b>	<b>NA</b>	<b>NA</b>	<b>3.4</b>		
<b>HYDROCARBOHNS</b>																																		
TVH-g		NA	NA	< 50	82	< 50	< 50	< 500	NA	NA	NA	100	320	< 50	70	NA	NA	NA	80	60	400	230	500	830	590	420	850	850	1100	980	880	620	480	
TEPH-d		< 1000	< 1000	190	300	200	200	90	< 200	< 50	1800	3100	3900	1000	2800	NA	2300	NA	1000	1500	740	1000	2300	1400	1500	700	1900	1800	1800	940	350	250	740	
O&G		< 5000	16000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH (418.1)		NA	NA	< 5000	< 5000	< 5000	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<b>METALS</b>																																		
Lead	0	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes:  
 1) MCL = Maximum Contaminant Level in drinking water (State MCL if not noted otherwise)  
 2) # = EPA MCL  
 3) \* = MCL for sum of four compounds  
 4) \*\* = MCL for sum of all xylene isomers  
 5) \*\*\* = MCL for sum of trans- and cis-1,3-Dichloropropane  
 6) ND = Not Detected at or above MDL  
 7) Purgeable Halocarbons (EPA method 8010)  
 8) Purgeable Aromatics (EPA method 6020)  
 9) NA = Not Analyzed or analysis not required





### Historical Groundwater Analytical Data

Well ID Date	MCL ug/L	OW-5 Apr-91	OW-5 Jul-91	OW-5 Dec-91	OW-5 Mar-92	OW-5 Jul-92	OW-5 Oct-92	OW-5 Jan-93	OW-5 Jul-93	OW-5 Oct-93	OW-5 Jan-94	OW-5 Apr-94	OW-5 Jul-94	OW-5 Jun-95	OW-5 Nov-95	OW-5 Jun-96	OW-5 Oct-96	OW-5 Apr-Jun-97	OW-5 Dec-97	OW-5 Jun-98	OW-5 Dec-98	OW-5 Jun-99	OW-5 Nov-99	OW-5 Jun-00	OW-5 Nov-00	OW-5 Jun-01	
<b>PURGEABLE HALOCARBONS</b>																											
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5#	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	67	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	8	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	1.8	7.2	ND	4	8	13	5	8	NA	2	NA	4	3.2	7.9	2.5	6.9	5.3	2.8	1	2.5	3	2.5	2.2	2.8	1.4	
cis-1,2-Dichloroethane	8	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethane	10	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	100#	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1200	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	8	28	18	12	25	28	7	7	NA	2	NA	3	1.3	2.1	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	100#	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropane	5***	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	0.75	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	0.7	0.8	0.9	MD	0.55	0.7	
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropane	5***	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	100#	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethoxyethyl Ether		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	100#	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	0.7	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	30	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600#	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>PURGEABLE AROMATICS</b>																											
Benzene	1	14	20	11	15	11	13	28	14	NA	21	NA	11		11	15	18	3.8	15	ND	7.3	8.2	11	6.3	10	7.7	
Toluene	1000#	0.54	ND	ND	1.1	ND	ND	ND	ND	NA	ND	NA	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	0.58	ND	ND	0.8	ND	ND	0.7	ND	NA	0.7	NA	0.6		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1750**	5.6	4	8.9	5.1	6	3.6	13	2.4	NA	9.2	NA	1.3		ND	ND	ND	ND	ND	ND	2.74	ND	ND	ND	ND	ND	
<b>TOTAL VOCs</b>		<b>29.97</b>	<b>57.2</b>	<b>35.9</b>	<b>37.8</b>	<b>50</b>	<b>37.8</b>	<b>51.7</b>	<b>29.4</b>	<b>NA</b>	<b>34.9</b>	<b>NA</b>	<b>19.9</b>	<b>4.5</b>	<b>88</b>	<b>17.5</b>	<b>26.2</b>	<b>9.1</b>	<b>20.64</b>	<b>1</b>	<b>11.6</b>	<b>12</b>	<b>14.4</b>	<b>8.5</b>	<b>14.35</b>	<b>9.8</b>	
<b>HYDROCARBONS</b>																											
TVH-g		NA	NA	NA	120	270	160	350	140	NA	370	NA	110	ND	ND	ND	ND	ND	83	ND	ND	ND	59	ND	ND	78	
TEPH-d		600	1500	1200	840	650	1000	1000	1600	NA	510	NA	1300	510	1800	830	870	740	830	630	780	830	900	ND	ND	540	
O&G		NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (#18.1)		< 500	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>METALS</b>																											
Lead	0	ND	NA	NA	ND	ND	ND	ND	ND	ND	7.3	7.4	5	ND	ND	ND	ND	5	ND	ND	ND	ND	ND	ND	ND	ND	ND

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### Historical Groundwater Analytical Data

Well ID	Date																																		
	MCL ug/L	Apr-88	Jun-88	Oct-88	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	Apr-91	Jul-91	Dec-91	Mar-92	Jul-92	Oct-92	Jan-93	Jul-93	Oct-93	Jan-94	Jul-94	Jan-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-98	Dec-98	Jun-99	Nov-99	Jun-00	Nov-00	Jun-01		
<b>PURGEABLE HALOCARBONS</b>																																			
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5#	ND	ND	ND	ND	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	49	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	ND	ND	ND	0.82	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	4	5	28	29	14	17	17	15	16	41	ND	1	2	2	10	23	NA	7	17	31	8.8	10	5.4	7	7.7	3.3	4.6	2.1	3.1	1.4	2.3	1.4		
cis-1,2-Dichloroethene	6	NA	NA	ND	ND	33	ND	1	1	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	ND	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloroform	100#*	2	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1200	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.55	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND	10	18	NA	ND	ND	3.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromodichloromethane	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	100#*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	30	ND	1	ND	ND	ND	ND	1	2.3	2	ND	5.7	ND	ND	ND	ND	NA	ND	2	4.5	ND	5.2	1	4.5	26	9.1	8.3	ND	1.9	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene		NA	NA	NA	3	ND	2	2	1	3.3	ND	15	ND	ND	ND	ND	NA	ND	ND	11	7.4	20	10	25	46	30	27	5.4	9.2	3	2.7	ND	ND		
1,2-Dichlorobenzene	600#	NA	NA	NA	2	ND	1	1	1	2.3	ND	5.8	ND	ND	ND	ND	NA	ND	23	ND	2.4	ND	2.1	0.3	3	2.8	ND	0.7	ND	ND	ND	ND	ND		
1,4-Dichlorobenzene	5	NA	NA	NA	2	ND	ND	2	1	3.1	ND	23	ND	ND	ND	ND	NA	ND	ND	2.9	16	48	28	65	140	84	68	19	30	11	10	ND	ND		
<b>PURGEABLE AROMATICS</b>																																			
Benzene	1	ND	ND	ND	0.5	ND	ND	ND	ND	0.54	ND	ND	ND	ND	ND	0.6	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	
Toluene	1000#	ND	ND	ND	0.4	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	880	ND	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	NA	ND	ND	ND	ND	ND	ND	ND	ND	35	ND	ND	ND	ND	ND	ND	ND	ND	
Total Xylenes	1750**	ND	ND	ND	ND	0.7	2.1	ND	ND	ND	ND	2	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TOTAL VOCs		6	8	28	37.6	58.4	20	23	20	32.81	43	51.5	1	2	2	20	42.7	NA	7	19	76.3	81.2	83.6	42.4	103.6	281.5	128.4	110.7	27.6	44.9	15.4	15.0	2.1		
<b>HYDROCARBONS</b>																																			
TPH-g		NA	NA	NA	< 50	52	< 50	< 50	< 50	NA	NA	NA	< 50	< 50	< 50	< 50	NA	70	< 50	ND	ND	61	ND	83	160	110	130	84	57	ND	ND	ND	ND		
TEPH-d		< 1000	< 1000	< 1000	440	470	450	130	1310	700	< 50	5500	4900	3500	3900	5300	3500	NA	2200	2500	1300	2400	2000	2400	1300	1200	1300	2000	1300	1000	68	ND	320		
O&G		< 5000	< 5000	5000	NA	NA	NA	NA	NA	NA	< 5000	< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH (#18.1)		NA	NA	NA	< 5000	< 5000	< 5000	< 5000	< 5000	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<b>METALS</b>																																			
Lead	0	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

- Notes:  
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## Historical Groundwater Analytical Data

Well ID Date	MCL ug/L	OW-7 Dec-91	OW-7 Mar-92	OW-7 Jul-92	OW-7 Oct-92	OW-7 Jan-93	OW-7 Apr-93	OW-7 Jul-93	OW-7 Oct-93	OW-7 Jan-94	OW-7 Jul-94	OW-7 Jun-95	OW-7 Nov-95	OW-7 Jun-96	OW-7 Oct-96	OW-7 Apr,Jun-97	OW-7 Dec-97	OW-7 Jun-98	OW-7 Dec-98	OW-7 Jun-99	OW-7 Nov-99	OW-7 Jun-00	OW-7 Nov-00	OW-7 Jun-01
<b>PURGEABLE HALOCARBONS</b>																								
Chloromethane		ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5#	14	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	570	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	150	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	8	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	16	ND	ND	25	NA	14	NA	8	ND	5.5	25	6.5	6.8	4.3	9.8	4.1	5.7	ND	6.3	ND	ND	ND
cis-1,2-Dichloroethane	8	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethane	10	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	100#	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1200	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	10	460	29	80	530	NA	73	NA	76	28	33	41	18	6.6	7.9	31	5.9	5.6	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	100#	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropane	5***	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethane	5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	32	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropane	5***	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	100#	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether		ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Bromoform	100#	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethane	5	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	30	10	ND	ND	8	ND	NA	29	NA	21	24	12	34	25	31	25	46	27	31	34	36	18	38	27
1,3-Dichlorobenzene	460	130	420	330	170	NA	540	NA	450	570	270	400	380	440	290	360	340	360	420	330	220	330	320	
1,2-Dichlorobenzene	500#	120	22	95	77	33	NA	470	NA	78	100	290	51	62	74	47	57	50	48	67	44	44	49	42
1,4-Dichlorobenzene	5	440	120	400	290	160	NA	110	NA	410	540	51	480	500	560	410	530	450	470	580	450	310	470	510
<b>PURGEABLE AROMATICS</b>																								
Benzene	1	ND	0.8	1	1.4	0.6	NA	1.5	NA	1.6	1.2		1.1	ND	ND	0.56	1.6	0.66	0.65	0.84	0.62	ND	0.83	ND
Toluene	1000#	ND	0.8	0.5	ND	ND	NA	ND	NA	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	680	ND	ND	0.5	ND	ND	NA	ND	NA	ND	ND		ND	ND	ND	ND	70	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1750**	ND	2.1	5	ND	ND	NA	ND	NA	4.2	ND		ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND
<b>TOTAL VOCs</b>		<b>1054</b>	<b>751.5</b>	<b>951</b>	<b>766.4</b>	<b>918.6</b>	<b>NA</b>	<b>1237.5</b>	<b>NA</b>	<b>1048.8</b>	<b>1263.2</b>	<b>661.5</b>	<b>1612.1</b>	<b>991.5</b>	<b>1118.2</b>	<b>784.76</b>	<b>1106.5</b>	<b>877.66</b>	<b>920.95</b>	<b>1101.8</b>	<b>866.92</b>	<b>592</b>	<b>888.83</b>	<b>899</b>
<b>HYDROCARBONS</b>																								
TVH-g		NA	700	1300	1400	720	NA	1500	NA	1400	1800	650	980	1200	1500	1100	1100	1000	1100	1200	1100	560	1100	1200
TEPH-d		7100	4400	2800	3900	2300	NA	4900	NA	4500	4800	1600	4400	4600	4800	2600	2100	2600	3500	3500	2400	430	370	1100
D&G		< 5000	< 5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>METALS</b>																								
Lead	0	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<p>Notes:</p> <p>1) MCL = Maximum Contaminant Level in drinking water (State MCL if not noted otherwise)</p> <p>2) # = EPA MCL</p> <p>3) * = MCL for sum of four compounds</p> <p>4) ** = MCL for sum of all xylene isomers</p> <p>5) *** = MCL for sum of trans- and cis-1,3-Dichloropropane</p> <p>6) ND = Not Detected at or above MDL</p> <p>7) Purgeable Halocarbons (EPA method 8010)</p> <p>8) Purgeable Aromatics (EPA method 8020)</p> <p>9) NA = Not Analyzed or analysis not required</p>																								



## Historical Groundwater Analytical Data

Well ID	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	OW-8	
Date	Apr-93	Jul-93	Oct-93	Jan-94	Apr-94	Jul-94	Jun-95	Nov-95	Jun-96	Oct-96	Apr,Jun-97	Dec-97	Jun-97	Dec-98	Jun-99	Nov-99	Jun-00	Nov-00
<b>PURGEABLE HALOCARBONS</b>																		
Chloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Freon 113	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethylvinyl Ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>PURGEABLE AROMATICS</b>																		
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>TOTAL VOCs</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>HYDROCARBONS</b>																		
TVH-g	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TEPH-d	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O&G	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (418.1)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>METALS</b>																		
Lead	27	17	ND	25	12	24	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

- Notes:  
 1) MCL = Maximum Contaminant Level in drinking water (State MCL if not noted otherwise)  
 2) # = EPA MCL  
 3) \* = MCL for sum of four compounds  
 4) \*\* = MCL for sum of all xylene isomers  
 5) \*\*\* = MCL for sum of trans- and cis-1,3-Dichloropropene  
 6) ND = Not Detected at or above MDL  
 7) Purgeable Halocarbons (EPA method 8010)  
 8) Purgeable Aromatics (EPA method 8020)  
 9) NA = Not Analyzed or analysis not required