Letter of Transmittal

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January 19, 1996

Mr. Ravi Arulananthum
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Subject: Chevron Facility 1001067
Well Replacement Report, dated December 13, 1995
Prepared by Gettler-Ryan Inc.

Ms. Christian:

Attached is a report on the replacement of two wells at this site. The analytical results reported here are consistent with those previously reported from this site. Please call if you have any questions. My phone number is (510) 842-9655

R. J. (Bob) Cochran
Project Manager

rjco: (1001067)
cc: **Ms. Susan Hugo - Alameda County Health Agency**

GETTLER-RYAN INC.

WELL REPLACEMENT REPORT

for

Former Chevron Bulk Asphalt Terminal
Powell Street Overpass At Landregan
Emeryville, California

Project No. 5161.01

Prepared for:

Chevron USA Products Company
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San Ramon, California 94583

Prepared by:

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December 13, 1995

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EXECUTIVE SUMMARY

Gettler-Ryan, Inc. (G-R) presents this report for the replacement of two groundwater monitoring wells (MW-2 and MW-19) at the former Chevron bulk asphalt terminal site located at Powell Street overpass at Landregan Street in Emeryville, California. This work was performed to continue assessment of subsurface condition at the site.

Well MW-2 was drilled out and well MW-2A constructed in the boring. Soil encountered in boring MW-19A consisted of fill materials to approximately 8 feet below ground surface (bgs) overlying sandy clay to the total depth explored of 16.5 feet. Groundwater was encountered in boring MW-19A at the depth of approximately 6 feet bgs. Based on groundwater monitoring data collected on November 6, 1995, shallow groundwater beneath the site appears to flow toward southwest at an approximate gradient of 0.02 ft/ft.

Total petroleum hydrocarbons as gasoline (TPHg), gasoline constituents benzene, ethylbenzene, toluene and xylenes (BTEX), methyl t-butyl ether (MTBE), and volatile organic compounds (VOCs) were not detected in the soil sample collected just above groundwater from boring MW-19A except tetrachloroethene which was detected at the concentration of 0.017 parts per million (ppm).

BTEX and MTBE were not detected in the groundwater samples collected from any of the site well on November 6, 1995. TPHg were detected in the groundwater sample collected from newly installed well MW-19A at the concentration of 420 parts per billion (ppb) and were not detected at the laboratory method detection limit in any other sample collected from the site wells on November 6, 1995. VOCs were not detected at laboratory method detection limits in the groundwater samples collected from wells MW-7, MW-13, MW-15 and MW-2A. The groundwater samples collected from wells MW-17, MW-18 and MW-19A contained cis-1,2-dichloroethene (up to 110 ppb), trichloroethene (up to 160 ppb) and tetrachloroethene (up to 1,500 ppb). The groundwater sample collected from well MW-18 also contained 1,1,1-trichloroethane (1.2 ppb). The groundwater sample collected from well MW-10 contained 1,1-dichloroethene (1.0 ppb), trans-1,2-dichloroethene (19 ppb), 1,1-dichloroethane (1.4 ppb), cis-1,2-dichloroethene (41 ppb) and trichloroethene (14 ppb).

WELL REPLACEMENT REPORT

for

Former Chevron Bulk Asphalt Terminal
Powell Street Overpass At Landregan
Emeryville, California

Project No. 5161.01

1.0 INTRODUCTION

G-R is pleased to present this report documenting the replacement of two groundwater monitoring wells (MW-2 and MW-19) at the above-referenced location (Figure 1). This work was performed to continue the assessment of subsurface conditions at the subject site. Groundwater monitoring well MW-19 was replaced with well MW-19A due to the retrofiting of Powell Street overpass. Well MW-2 was replaced with well MW-2A due to the presence of an obstruction in the well casing which precluded well monitoring and sampling. The work was originally proposed in G-R Well Restoration at Former Chevron Bulk Asphalt Terminal, dated July 21, 1995. The scope of work included: abandoning groundwater monitoring well MW-19 and installing replacement groundwater monitoring well MW-19A; redrilling existing groundwater monitoring well MW-2 and installing groundwater monitoring well MW-2A in the same boring; collecting soil samples from boring MW-19A for chemical analysis; developing wells MW-2A and MW-19A; surveying wellhead elevations of wells MW-2A and MW-19A; quarterly monitoring and sampling of site wells; arranging for disposal of the waste materials; and preparing a report documenting the work.

2.0 SITE HISTORY

The following site history information was obtained from Chevron project files.

The site is a former Chevron bulk asphalt plant terminal located at Landregan Street beneath the Powell Street overpass in Emeryville, California. The three-acre site is bordered to the east and south by Landregan and Powell Streets, respectively, and to the west by the Southern Pacific Railroad right-of-way (Figure 2). The plant was used previously as a storage and transfer facility for petroleum products. The site has recently been converted to an Amtrak passenger terminal. From the early 1950s until it was closed in June 1987, the Chevron asphalt plant operated as a laboratory and test facility for asphalt composition and asphalt-based surface coatings. A portion of the land was leased to a solvent handler during this same period. Information regarding Chevron's tenant's use of on-site chemicals is not available.

In 1985, Chevron's Marketing Department conducted a field investigation to assess potential soil and groundwater contamination at the site. Nine groundwater monitoring wells were installed and sampled by McKesson Environmental Services. Several VOCs, including benzene, chlorobenzene, trans-1,2-dichloroethene, trichloroethene, and vinyl chloride were detected in monitoring well MW-1, and polycyclic hydrocarbons (PAHs) were detected in MW-5. Petroleum hydrocarbons were not detected in the other wells.

In October 1987, the above-ground fuel tanks and associated piping were removed to allow for subsurface analysis. Blaine Tech Services Inc. sampled wells MW-1 through MW-9. (Monitoring wells MW-4, MW-5 and MW-6 were destroyed in 1989 during a soil remediation effort; MW-9 was destroyed earlier). Chloroethane was detected in monitoring well MW-4; and benzene, trans-1,2-dichloroethene, and vinyl chloride were detected in MW-1. Petroleum hydrocarbons were not detected in the other wells.

In 1988, both the loading dock and barrel storage area were removed to allow for further subsurface analysis. Soil samples contained xylenes and trichloroethene as well as petroleum hydrocarbons other than gasoline, diesel and kerosene within C6 to C15 boiling range. Groundwater sampling indicated well MW-1 contained benzene, 1,2-dichloroethene, trichloroethene, vinyl chloride, barium, molybdenum, nickel and zinc. 1,2-dichloroethene and trichloroethene were detected in the sample from well MW-10. Tetrachloroethene was detected in the samples from wells MW-11 and MW-12, and trichloroethene was detected in well MW-11. Petroleum hydrocarbons were detected in wells MW-1, MW-4, MW-5 and MW-6.

Approximately 10,400 cubic yards of soil containing hydrocarbons were excavated to a depth of 6 feet bgs. Soil was removed until halocarbons were no longer detected using a portable gas chromatograph. An additional 256 cubic yards of contaminated soil were excavated and removed from four other locations. Three were within the southwest office/lab building, and the other one was just outside the building area. Excavated soil was transported to the American Rock and Asphalt Facility in Richmond, California. These excavated areas were lined with visqueen sheeting, then backfilled with 1,5 inches of clean crushed rock and covered with graded subbase material.

The former laboratory building was demolished in late 1991. The garage, paint shop, and office/lab building were demolished in May 1992. Due to the presence of stained soils, soil samples were collected from beneath the garage. The presence of hydrocarbons was verified and soil excavation was conducted. Approximately 15 cubic yards of soil were removed.

A USEPA Superfund site owned by Westinghouse is directly north of the site at 6121 Hollis Street. The site contains soils contaminated with polychlorinated biphenyls (PCBs). The soil is covered with a clay and asphalt cap. A remedial action has been initiated that includes surrounding the contaminated soils with a continuous slurry cutoff wall tied into the underlying bay mud. Groundwater is monitored quarterly at the Westinghouse site and does not show any migration of PCBs into groundwater offsite. This is verified by historical sampling results for the former Chevron asphalt plant indicating PCBs were not detected.

During the April 1995 groundwater sampling event, a black oily substance was observed in monitoring well MW-2. In addition, this well was observed to be filled in with sandy gravel-type material. The sounded depth during this event was 2.87 feet bgs. It is assumed that the substance inadvertently entered the well during asphalt paving of the newly created parking lot.

3.0 GEOLOGIC SETTING

The site is located in Alameda County in the City of Emeryville. The topography in the site vicinity is relatively flat at the elevation of approximately 10 feet above mean sea level. Regionally, the Berkeley Hills lie to the east and grade westerly into flat lands ending at San Francisco Bay. The closest surface water is the San Francisco Bay located approximately 1/2 mile west of the site.

The site is located within the California Coast Ranges. The Coast Ranges have a Franciscan basement composed of graywackes, limestone, shale and radiolarian chert[1]. The site is bounded by the Hayward Fault Zone approximately one mile to the east and the San Andreas Fault Zone approximately five miles to the west.

Locally, the site is underlain by sand and silty sand. Historical groundwater monitoring data indicate that groundwater is encountered approximately 1 to 8 feet bgs, and appears to flow westerly.

4.0 FIELD WORK

Field work at the site was conducted in accordance with the G-R Field Methods and Procedures included in the G-R workplan, and G-R Site Safety Plan dated August 17, 1995. Well abandonment and installation permits were acquired from the Zone 7 Water Agency. Copies of the permits are included in Appendix A.

4.1 Drilling Activities

On July 29, 1995, G-R personnel observed abandonment of groundwater monitoring well MW-19 by Exploration Geoservices of San Jose, California (C57 #484288). Well MW-19 was overdrilled to 13 feet using eight-inch hollow-stem augers driven by a portable drill rig. Well casing was removed and the hole was backfilled to the surface with neat cement.

On October 30, 1995, G-R personnel observed the reconstruction of groundwater monitoring well MW-2 and installation of groundwater monitoring well MW-19A by Bay Area Exploration Services, Inc., of Cordelia, California (C57 #522125). Well MW-2 was overdrilled to 18 feet using eight-inch hollow-stem augers driven by the CME-55 drill rig. Well casing was removed and groundwater monitoring well MW-2A was constructed in this hole, as discussed below. Boring MW-19A was drilled to 16.5 feet bgs using eight-inch hollow-stem augers driven by a truck-mounted CME-55 drill rig and converted to a groundwater monitoring well, as discussed below. Well locations are shown on Figure 2.

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[1] Norris, Robert M. and Webb, Robert W., 1990, *Geology of California*, John Wiley and Sons, 537 pages.

Soil samples were collected from boring MW-19A at a minimum of five-foot intervals. The soil samples were field screened during drilling for the presence of volatile organic compounds using a photoionization detector (PID). PID readings are presented on the boring log (Appendix B).

Wells MW-2A and MW-19A were constructed using two-inch diameter, 0.010-inch machine-slotted Schedule 40 PVC screen. The screen interval extended from 2.5 to 15 feet bgs in well MW-2A and from 3 to 15 feet bgs in well MW-19A. A sand pack of #2/12 graded sand was placed across the entire screen interval, extending approximately 0.5 feet above the top of the screen. Each well was then sealed with 0.5 feet of hydrated bentonite chips followed by neat cement. Well construction details are presented on the boring logs in Appendix B.

Drill cuttings were stockpiled on-site, placed on and covered with plastic sheeting. After completion of well installation, four samples for disposal characterization were collected from the stockpiled soil and submitted to the laboratory for compositing and analysis as one sample. On November 15, 1995, the soil stockpile was removed from the site and transported to BFI Landfill in Livermore by Integrated Waste Management of Milpitas, California.

4.2 Well Development

On November 2, 1995, groundwater monitoring wells MW-2A and MW-19A were developed by G-R personnel using a vented surge block and hand-bailing. The groundwater evacuated during well development activities was transported to the Chevron Refinery in Richmond, California. Copies of Well Development Field Data Sheets are included in Appendix C.

4.3 Groundwater Monitoring

On November 6, 1995, G-R personnel measured depth to groundwater levels in newly installed wells MW-2A and MW-19A and pre-existing wells MW-7, MW-10, MW-13, MW-15, MW-17 and MW-18, checked the wells for the presence of separate-phase hydrocarbons, then purged and sampled the wells. Groundwater monitoring and sampling data are summarized in Table 1 and 2. Copies of Well Sampling Field Data Sheets are included in Appendix C.

4.4 Wellhead Survey

On November 8, 1995, wells MW-2A and MW-19A were surveyed relative to mean sea level by Virgil Chavez, licensed land surveyor (#6323), of Vallejo, California. The survey report is included in Appendix D.

4.5 Laboratory Analyses

Soil and groundwater samples were delivered under chain-of-custody to GTEL Environmental Laboratories, Inc. (GTEL) of Wichita, Kansas (ELAP #1075). Samples were analyzed for TPHg, MTBE and BTEX by Environmental Protection Agency (EPA) Method 8015/8020, and for VOCs by EPA Method 8240 (soil) and 8010 (groundwater). The composite soil stockpile sample was analyzed for TPHg and BTEX using the methods referenced above. Laboratory analytical reports and chain-of-custody records are included in Appendix E. G-R is not responsible for laboratory omissions or errors.

5.0 RESULTS

5.1 Subsurface Conditions

Soil encountered in boring MW-19A consisted of fill materials to approximately eight feet bgs overlying sandy clay to the total depth explored of 16.5 feet. Groundwater was encountered in boring MW-19A at the depth of approximately six feet bgs. A detailed description of the subsurface materials encountered during drilling are presented on Boring Log MW-19A in Appendix B.

Separate phase hydrocarbons were not present in any of the site well monitored on November 6, 1995. Using groundwater monitoring data collected on this date, G-R prepared a potentiometric map for the site (Figure 2). Based on these data, shallow groundwater beneath the site appears to flow toward southwest at an approximate gradient of 0.02 ft/ft.

5.2 Soil Analytical Results

TPHg, MTBE or BTEX were not detected in the soil sample collected from 5.5 feet bgs (just above groundwater) from boring MW-19A. The only VOC present in this sample was tetrachloroethene which was detected at the concentration of 0.017 ppm. TPHg and xylenes were detected at concentrations of 230 ppm and 2.7 ppm, respectively, in the composite stockpile sample. Benzene, toluene and ethylbenzene were not detected in this stockpile sample. Analytical results of the soil samples are presented in Table 3.

5.3 Groundwater Analytical Results

MTBE and BTEX were not detected in the groundwater samples collected from any of the site well on November 6, 1995. TPHg were detected only in the groundwater sample collected from newly installed well MW-19A at the concentration of 420 ppb. VOCs were not detected in the groundwater samples collected from wells MW-2A, MW-7, MW-13 and MW-15. The groundwater samples collected from wells MW-17, MW-18, and MW-19A contained cis-1,2-dichloroethene (up to 110 ppb), trichloroethene (up to 160 ppb) and tetrachloroethene (up to 1,500 ppb).

The groundwater sample collected from well MW-18 also contained 1,1,1-trichloroethane (1.2 ppb). The groundwater sample collected from well MW-10 contained 1,1-dichloroethene (1.0 ppb), trans-1,2-dichloroethene (19 ppb), 1,1-dichloroethane (1.4 ppb), cis-1,2-dichloroethene (41 ppb) and trichloroethene (14 ppb). Analytical results of the groundwater samples are presented in Tables 1 and 2.

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID/ TOC (ft)[1]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPHg	B	T	E	X	MTBE
						<----------ppb---------->					
MW-1/											
10.67	4/26/85	---	---	---	---	---	99	---	---	6.0	---
	9/11/87	---	---	---	---	---	63	---	---	---	---
	7/7/88	---	---	---	---	<100	55	---	---	---	---
	4/13/89	3.72	6.95	---	---	---	---	---	---	---	---
	4/14/89	---	---	---	8260	<5,000	34	<5.0	<5.0	<10	---
	7/31/89	5.72	4.95	0	8260	7,000	57	1.2	<0.2	1.6	---
	12/8/89	4.80	5.87	0	8015/8020	---	26	0.4	0.9	2.0	---
	3/21/90	4.74	5.93	0	8015/8020	3,500	120	9.0	3.0	3.0	---
	6/19/90	4.75	5.92	0	8015/8020	2,700	100	<0.3	<0.3	7.0	---
	9/20/90	5.07	5.60	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	2,200	120	2.0	2.0	0.79	---
	12/28/90	4.91	5.76	0	8015/8020	720	44	2.0	<0.5	9.0	---
	5/10/91	5.30	5.37	0	8015/8020	530	47	2.0	0.5	8.0	---
	8/8/91	5.85	4.82	0	8015/8020	1,400	37	8.3	3.7	12	---
	11/27/91	5.13	5.54	0	8015/8020	840	16	7.1	4.5	11	---
	1/29/92	4.82	5.85	0	8015/8020	350	18	9.3	3.7	7.7	---
	3/26/92	4.32	6.35	0	8015/8020	420[11]	19	2.2	1.2	4.0	---
	7/23/92	5.42	5.25	0	8015/8020	4,000[12]	50	82	40	160	---
	10/28/92	5.56	5.11	0	8015/8020	980	36	6.7	3.0	10	---
	5/4/93	6.30	4.37	0	8015/8020	650	9.4	2.4	1.2	4.5	---
	1/5/94[10]	---	---	---	---	---	---	---	---	---	---
MW-2/											
13.78	4/26/85	---	---	---	---	---	<10	---	---	---	---
	9/11/87	---	---	---	---	---	---	---	---	---	---
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
	4/13/89	2.62	11.16	---	---	---	---	---	---	---	---
	4/14/89*	---	---	---	8260	<100	<0.2	<0.2	<0.2	<0.4	---
	7/31/89	4.63	9.15	0	8260	<100	<0.2	<1.0	<0.2	<0.4	---
	12/8/89	5.98	7.80	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	5.85	7.93	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.95	7.83	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	6.86	6.92	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	<1.5	<1.5	<1.5	<4.5	---
	12/28/90	6.34	7.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.96	7.82	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	7.66	6.12	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	8.04	5.74	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	6.01	7.77	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft)[1]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->					
MW-2	3/26/92	6.10	7.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
(cont)	7/23/92	7.39	6.39	0	8015/8020	<50	<0.5	<0.5	<0.5	0.8	---
	10/28/92	7.51	6.27	0	8015/8020	55	1.3	6.9	1.1	5.1	---
	5/4/93[8]	---	---	---	---	---	---	---	---	---	---
	1/5/94[10]	---	---	---	---	---	---	---	---	---	---
	10/24/94	Dry	---	---	---	---	---	---	---	---	---
	4/19/95	2.51	11.28[14]	0.01	---	---	---	---	---	---	---
	11/6/95	Abandoned	---	---	---	---	---	---	---	---	---
MW-2A	**11/6/95**	**4.51**	**7.94**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**
12.45											
MW-3/											
11.73	4/26/85	---	---	---	---	---	<10	---	---	---	---
	9/11/87	---	---	---	---	---	<0.5	---	---	---	---
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
	4/13/89	2.34	9.39	---	---	---	---	---	---	---	---
	4/14/89*	---	---	---	8260	<100	<0.2	<0.2	<0.2	<0.4	---
	7/31/89	4.79	6.94	0	8260	<100	<0.2	<1.0	<0.2	<0.4	---
	12/8/89	3.03	8.70	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	2.55	9.18	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	2.76	8.97	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	4.43	7.30	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	3.67	8.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	2.83	8.90	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.09	6.64	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.37	6.36	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	3.46	8.27	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	2.10	9.63	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	4.60	7.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	5.07	6.66	0	8015/8020	92	1.8	12	2.0	10	---
	5/4/93[8]	---	---	---	---	---	---	---	---	---	---
	1/5/94[10]	---	---	---	---	---	---	---	---	---	---
MW-4	4/26/85	---	---	---	---	3,100	<10	---	---	---	---
	9/11/87	---	---	---	---	---	<0.5	---	---	---	---
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft)[1]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->					
MW-4	4/13/89[9]	2.12	---	---	---	---	---	---	---	---	---
(cont)	4/14/89[4]*	---	---	---	8260	380[13]	<0.5	<1.0	<1.0	<1.0	---
MW-5	4/26/85	---	---	---	---	1,600	<100	---	---	---	---
	9/11/87	---	---	---	---	---	<10	---	---	---	---
	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
	4/13/89[9]	2.79	---	---	---	---	---	---	---	---	---
	4/14/89[4]*	---	---	---	8260	4,300[13]	<0.5	<1.0	<1.0	<1.0	---
MW-6	4/26/85	---	---	---	---	580	<100	---	---	---	---
	9/11/87	---	---	---	---	---	<10	---	---	---	---
	7/7/88	---	---	---	---	8,000	<5.0	---	---	---	---
	4/13/89[9]	1.90	---	---	---	---	---	---	---	---	---
	4/14/89[4]*	---	---	---	8260	3,300[13]	<0.5	<1.0	<1.0	<1.0	---
MW-7/ 10.47	4/26/85	---	---	---	---	700	ND	---	---	---	---
	9/11/87	---	---	---	---	---	<10	---	---	---	---
	7/7/88	---	---	---	---	17,000	<5.0	---	---	---	---
	4/13/89	1.90	8.57	---	---	---	---	---	---	---	---
	4/14/89*	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	---
	7/31/89	4.24	6.23	---	8260	160[13]	<0.1	<0.5	<0.1	<0.2	---
	7/31/89	---	---	---	8260	100[13]	<0.1	<0.5	<0.1	<0.2	---
	12/8/89	2.65	7.82	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	2.76	7.71	0	8015/8020	<50	<0.3	<0.3	<0.3	0.6	---
	6/19/90	3.24	7.23	0	8015/8020	<50	<0.3	<0.3	<0.3	0.6	---
	9/20/90	4.57	5.90	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	1.5	<0.3	<0.3	<0.6	---
	12/28/90	3.12	7.35	0	8015/8020	<50	0.7	<0.5	<0.5	0.7	---
	5/10/91	3.53	6.94	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	4.64	5.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	3.66	6.81	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	3.24	7.23	0	8015/8020	<50	<0.5	<0.5	<0.5	0.9	---
	3/26/92	2.61	7.86	0	8015/8020	<50	<0.5	<0.5	<0.5	0.9	---
	7/23/92	4.19	6.28	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	4.39	6.08	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/4/93[8]	---	---	---	---	---	---	---	---	---	---
	1/5/94[10]	---	---	---	---	---	---	---	---	---	---
	5/13/94	4.41	6.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft)[1]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->					
MW-7	10/24/94	5.03	5.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
(cont)	4/19/95	4.53	5.94	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/6/95	**5.11**	**5.36**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**
MW-8/											
10.46	4/26/85	---	---	---	---	---	ND	---	---	---	---
	9/11/87	---	---	---	---	---	<10	---	---	---	---
	7/7/88	---	---	---	---	20,000	<5.0	---	---	---	---
	4/13/89	2.80	7.66	---	---	---	---	---	---	---	---
	4/14/89*	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	<3,000
	7/31/89	5.70	4.76	0	8260	<50	<0.1	<0.5	<0.1	<0.2	---
	12/8/89	4.13	6.33	0	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	4.07	6.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	4.25	6.21	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	4.99	5.47	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	6.0	<0.3	<0.3	<0.6	---
	12/28/90	4.39	6.07	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	4.13	6.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.53	4.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	4.59	5.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	5.30	5.16	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	3.59	6.87	0	8015/8020	<50	<0.5	<0.5	<0.5	0.7	---
	7/23/92	5.06	5.40	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92[7]	---	---	---	---	---	---	---	---	---	---
	5/4/93[8]	---	---	---	---	---	---	---	---	---	---
	1/5/94[8]	---	---	---	---	---	---	---	---	---	---
	5/13/94	5.59	4.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/24/94[7]	---	---	---	---	---	---	---	---	---	---
	4/19/95[8]	---	---	---	---	---	---	---	---	---	---
	11/6/95	**Inaccessible**	---	---	---	---	---	---	---	---	---
MW-9	4/26/85	---	---	---	---	---	---	---	---	---	---
	9/11/87	---	---	---	---	---	---	---	---	---	---
	7/7/88	---	---	---	---	400	---	---	---	---	---
	5/10/91[5]	---	---	---	---	---	---	---	---	---	---
MW-10/											
10.82	7/7/88	---	---	---	---	---	<5.0	---	---	---	---
	4/14/89*	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	---

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft)[1]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->					
MW-10 (cont)	7/31/89	---	---	---	8260	<50	<0.1	<0.5	<0.1	<0.2	---
	12/8/89	---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	4.60	6.22	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	4.89	5.93	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	5.77	5.05	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	4.99	5.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.80	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.86	4.96	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.39	5.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	5.44	5.38	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	4.96	5.86	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.80	5.02	0	8015/8020	<50	<0.5	1.8	0.5	1.9	---
	10/28/92	6.06	4.76	0	8015/8020	<50	0.6	0.7	<0.5	1.2	---
	5/4/93[8]	---	---	---	---	---	---	---	---	---	---
	1/5/94	5.92	4.90	0	8015/8020	<50	<0.5	<0.5	<0.5	0.6	---
	5/13/94	5.09	5.73	0	8015/8020	140	<0.5	<0.5	<0.5	1.3	---
	10/24/94	6.24	4.58	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	5.26	5.56	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/6/95	**6.25**	**4.57**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**
MW-11/ 11.38	7/7/88	---	---	---	---	---	<5.0	---	---	---	---
	4/14/89	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	<3,000
	7/31/89	---	---	---	8260	<100	<0.2	<0.2	<0.2	<0.2	---
	12/8/89	---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	4.82	6.56	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.14	6.24	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	6.11	5.27	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.16	6.22	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	7.83	3.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	6.32	5.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.67	5.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	5.83	5.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	4.09	7.29	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	6.19	5.19	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	6.51	4.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/4/93[8]	---	---	---	---	---	---	---	---	---	---

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft)[1]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->					
MW-11	1/5/94[8]	---	---	---	---	---	---	---	---	---	---
(cont)	5/13/94	5.67	5.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/24/94	6.79	4.59	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	5.69	5.69	0	8015/8020	58[15]	0.6	<0.5	<0.5	0.5	---
	11/6/95	**Inaccessible**	---	---	---	---	---	---	---	---	---
MW-12/											
13.03	7/7/88	---	---	---	---	<100	<5.0	---	---	---	---
	4/14/89*	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	---
	7/31/89	---	---	---	8260	<100	<0.1	<0.5	<0.1	<0.2	---
	12/8/89	---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
	3/21/90	6.76	6.27	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	---
	6/19/90	6.62	6.41	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	---
	9/20/90	5.00	8.03	---	---	---	---	---	---	---	---
	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	---
	12/28/90	6.62	6.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	6.48	6.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	8.01	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	7.95	5.08	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	7.68	5.35	0	8015/8020	<50	<0.5	<0.5	<0.5	1.0	---
	3/26/92	6.60	6.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92[6]	---	---	---	---	---	---	---	---	---	---
MW-13/											
11.15	3/21/90	4.08	7.07	0	8015/8020	480	<0.3	<0.3	1.0	5.0	---
	6/19/90	4.34	6.81	0	8015/8020	180	<0.3	<0.3	0.8	3.0	---
	9/20/90	5.31	5.84	0	8015/8020	150	<0.3	<0.3	<0.3	0.54	---
	12/28/90	4.79	6.36	0	8015/8020	160	<0.5	<0.5	<0.5	1.0	---
	5/10/91	4.20	6.95	0	8015/8020	110	<0.5	<0.5	<0.5	2.0	---
	8/8/91	5.13	6.02	0	8015/8020	220[4]	<0.5	<0.5	<0.5	1.8	---
	11/27/91	4.72	6.43	0	8015/8020	70	<0.5	<0.5	<0.5	1.2	---
	1/29/92	4.69	6.46	0	8015/8020	150	<0.5	<0.5	3.1	7.1	---
	3/26/92	4.04	7.11	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.12	6.03	0	8015/8020	190	<0.5	<0.5	<0.5	2.1	---
	10/28/92	5.30	5.85	0	8015/8020	190	<0.5	<0.5	<0.5	2.0	---
	5/4/93[8]	---	---	---	---	---	---	---	---	---	---
	1/5/94[8]	---	---	---	---	---	---	---	---	---	---
	5/13/94	5.28	5.87	0	8015/8020	220	<0.5	1.2	<0.5	1.7	---
	10/24/94	6.04	5.11	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft)[3]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->					
MW-13	4/19/95	5.37	5.78	0	8015/8020	140[15]	<0.5	<0.5	<0.5	1.2	---
(cont)	**11/6/95**	**6.13**	**5.02**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**
MW-14/											
9.78	3/21/90	0.91	8.87	0	8015/8020	170	<0.3	<0.3	<0.4	2.0	---
	6/19/90	1.03	8.75	0	8015/8020	77	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	2.53	7.25	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	1.61	8.17	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	1.22	8.56	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	2.45	7.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	2.59	7.19	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	1.10	8.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	0.74	9.04	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	2.30	7.48	0	8015/8020	<50	0.6	<0.5	<0.5	0.8	---
	10/28/92	2.76	7.02	0	8015/8020	56	0.7	4.0	0.8	3.8	---
	5/4/93[9]	---	---	---	---	---	---	---	---	---	---
MW-15/											
11.01	3/21/90	4.72	6.29	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	4.78	6.23	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	4.98	6.03	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	4.84	6.17	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	4.58	6.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.03	5.98	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.88	5.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	4.82	6.19	0	8015/8020	<50	1.9	2.6	0.8	2.6	---
	3/26/92	4.35	6.66	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.04	5.97	0	8015/8020	<50	<0.5	<0.5	<0.5	0.5	---
	10/28/92	5.17	5.84	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/4/93[8]	---	---	---	---	---	---	---	---	---	---
	1/5/94[10]	---	---	---	---	---	---	---	---	---	---
	5/13/94	4.50	6.51	0	8015/8020	110	<0.5	0.7	<0.5	2.0	---
	10/24/94	5.17	5.84	0	8015/8020	<50	2.3	1.1	<0.5	<0.5	---
	4/19/95	4.77	6.24	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/6/95	**5.28**	**5.73**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft)[1]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->					
MW-16/											
11.11	3/21/90	5.84	5.27	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.90	5.21	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	6.36	4.75	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.98	5.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.89	5.22	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	6.28	4.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.62	5.49	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	5.88	5.23	0	8015/8020	65	3.6	6.2	1.9	6.6	---
	3/26/92	5.56	5.55	0	8015/8020	270[5]	21	27	9.5	41	---
	7/23/92	6.29	4.82	0	8015/8020	<50	<0.5	<0.5	<0.5	0.7	---
	10/28/92	6.29	4.82	0	8015/8020	<50	0.9	1.4	<0.5	1.1	---
	5/4/93	5.75	5.36	0	8015/8020	51	<0.5	1.0	0.6	1.7	---
	1/5/94[10]	---	---	---	---	---	---	---	---	---	---
MW-17/											
10.41	3/21/90	5.61	4.80	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	6.02	4.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.73	4.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.65	4.76	0	8015/8020	<50	<0.5	<0.5	<0.5	0.8	---
	8/8/91	5.94	4.47	0	8015/8020	82	1.9	2.5	0.9	5.4	---
	11/27/91	6.00	4.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	5.61	4.80	0	8015/8020	<50	<0.5	0.9	<0.5	0.5	---
	3/26/92	5.31	5.10	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.97	4.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	5.96	4.45	0	8015/8020	78	1.0	7.1	1.4	6.5	---
	5/4/93	7.53	2.88	0	8015/8020	60	0.8	1.7	1.1	3.0	---
	1/5/94	5.50	4.91	0	8015/8020	<50	<0.5	0.7	<0.5	<0.5	---
	5/13/94	5.17	5.24	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/24/94	6.08	4.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	5.48	4.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/6/95	**6.00**	**4.41**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	
MW-18/											
9.80	3/21/90	5.15	4.65	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.19	4.61	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	5.54	4.26	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.26	4.54	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft)[1]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->					
MW-18 (cont)	5/10/91	5.18	4.62	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.45	4.35	0	8015/8020	52	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.24	4.56	0	8015/8020	<50	0.6	1.5	0.6	2.1	---
	1/29/92	5.12	4.68	0	8015/8020	67	3.7	5.2	1.5	5.0	---
	3/26/92	4.84	4.96	0	8015/8020	80[5]	<0.5	<0.5	<0.5	0.8	---
	7/23/92	5.49	4.31	0	8015/8020	50[5]	1.3	2.1	0.5	3.0	---
	10/28/92	5.47	4.33	0	8015/8020	54	<0.5	1.3	<0.5	1.1	---
	5/4/93	5.07	4.73	0	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	1/5/94	5.05	4.75	0	8015/8020	<50	<0.5	0.5	<0.5	0.6	---
	5/13/94	4.76	5.04	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/24/94	5.65	4.15	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	5.10	4.70	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/6/95	**5.57**	**4.23**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**
MW-19/ 8.45	3/21/90	5.00	3.45	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	5.06	3.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/20/90	5.25	3.20	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	5.07	3.38	0	8015/8020	66	<0.5	<0.5	<0.5	<0.5	---
	5/10/91	5.02	3.43	0	8015/8020	60[4]	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	5.17	3.28	0	8015/8020	58	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	5.06	3.39	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	4.93	3.52	0	8015/8020	<50	1.7	2.6	0.7	2.1	---
	3/26/92	4.79	3.66	0	8015/8020	80[5]	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	5.22	3.23	0	8015/8020	70[5]	0.6	0.5	<0.5	1.5	---
	10/28/92	5.16	3.29	0	8015/8020	170	4.3	28	5.1	24	---
	5/4/93	4.93	3.52	0	8015/8020	120	2.0	4.7	2.8	8.1	---
	1/5/94	4.91	3.54	0	8015/8020	<50	2.0	1.4	1.7	2.5	---
	5/13/94	4.18	4.27	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5	---
	10/24/94	4.85	3.60	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	4.20	4.25	0	8015/8020	270[15]	<0.5	<0.5	<0.5	<0.5	---
	11/6/95	**Abandoned**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
MW-19A 9.96	**11/6/95**	**4.85**	**5.11**	**0**	**8015/8020**	**420**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**
Trip Blank AA	4/14/89	---	---	---	8260	<50	<0.5	<1.0	<1.0	<1.0	---
	7/31/89	---	---	---	8260	<50	<0.1	<0.5	<0.5	<0.2	---

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID/ TOC (ft)[1]	Date	DTW (ft)	GWE[1] (msl)	Product Thickness[2] (ft)	Analytic Method	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->					
Trip Blank	12/8/89	---	---	---	8015/8020	---	<0.3	<0.3	<0.3	<0.6	---
(cont)	3/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	3/26/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	6/19/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	9/21/90	---	---	---	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	---
	12/28/90	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.6	---
	5/10/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
TB-LB	7/23/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/4/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	1/5/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/24/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/95	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/6/95	**---**	**---**	**---**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**
Bailer Blank											
BB	5/10/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	8/8/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/27/91	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	1/29/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/26/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	7/23/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	10/28/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/4/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	1/5/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	5/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Groundwater elevation
msl = Measurements referenced relative to mean sea level
TPHg = Total Petroleum Hydrocarbons as gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl t-butyl ether
O&G = Oil and Grease
ppb = Parts per billion
ppm = Parts per million
--- = Not available/not applicable

ANALYTIC METHODS:

8260 = EPA Method 8260 for TPHg & BTEX
8015 = EPA Method 8015/8030 for TPHg
8020 = EPA Method 8020 for BTEX

NOTES:

Water level elevation data and laboratory analytic results prior to April 19, 1995 were compiled from the quarterly groundwater monitoring reports prepared for Chevron by Sierra Environmental Services.

Wells MW-2A and MW-19A were surveyed on November 8, 1995, by Virgil Chavez (#6323), of Vallejo, California.

* Sample was analyzed for O&G (EPA Method 8260) and was <3,000 ppm.

NOTES (continued):

[1] Top of casing elevations shown prior to 3/21/90 were surveyed to an arbitrary datum point set at 100 feet. The GWEs shown for dates prior to 3/21/90 were corrected using new TOC elevations which were surveyed to a USGS benchmark (relative to mean sea level) in April 1990.
[2] Product thickness measurements on and after May 10, 1991 were made using an MMC flexi-dip interface probe. Product thickness information prior to May 10, 1991 was not available for inclusion in this report.
[3] Well construction details for this well is not available for inclusion in this report.
[4] Monitoring well was destroyed during soil excavation in 1989.
[5] Well MW-9 was not measured after 5/10/91 because it could not be located. Previous water level data was not available for inclusion in this report.
[6] Well MW-12 could not be located after building demolition.
[7] Well was obstructed.
[8] Monitoring well obstructed due to on-site construction activities.
[9] Monitoring well abandoned on March 10, 1993 by Soils Exploration Services of Benicia, California.
[10] Well covered with asphalt during construction activities.
[11] Does not match a typical gasoline pattern.
[12] Gasoline range concentration reported. Chromatogram shows only a single peak in the gasoline range.
[13] TPH was reported as Diesel #2.
[14] GWE was corrected for the presence of separate-phase hydrocarbons using: GWE = [(TOC-DTW) + (Prod Thickness)(0.8)]. 0.8 is the assumed specific gravity of separate-phase hydrocarbons.
[15] Laboratory report indicates that hydrocarbons were found in the range of gasoline, but do not resemble a gasoline fingerprint.

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Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				<----------ppb---------->										
MW-1	4/14/89	CCAS	8010	<5.0	---	19	720	<5.0	<5.0	11	<5.0	<20	340	ND[1]
	7/31/89	CCAS	8010	6.8	---	54	2,600	2.7	7.2	57	<0.2	<1.0	760	ND[2]
	12/8/89	GTEL	8010	4.3	2,700	---	---	1.7	1.4	59	<0.5	<0.5	520	---
	3/21/90	GTEL	8010	7.1	7,000	---	---	2.1	1.1	130	<0.5	<0.5	1,100	---
	6/19/90	GTEL	8010	12	6,100	---	---	3.1	<0.5	81	<0.5	<0.5	1,200	---
	9/21/90	GTEL	8010	1.8	2,400	---	---	2.2	1.7	60	<0.5	<0.5	1,100	ND[3]
	12/28/90	SAL	8010	2.0	---	28	1,500	1.0	0.6	15	<0.5	<0.5	510	ND[4]
	5/10/91	SAL	8010	10	---	69	5,500	2.0	<0.5	280	<0.5	<0.5	1,800	ND[5]
	8/8/91	SAL	8010	2.9	---	45	2,300	1.5	<0.5	110	<0.5	<0.5	<1.0	ND[6]
	11/27/91	SPA	8010	<25	---	<25	5,900	<25	<25	<25	<25	<25	540	ND[20]
	1/29/92	SPA	8010	<25	---	26	1,900	<25	<25	<25	<25	<25	320	ND[20]
	3/26/92	SPA	8010	<50	---	<50	1,500	<50	<50	<50	<50	<50	260	ND[21]
	7/23/92	SPA	8010	<50	---	<50	2,300	<50	<50	<50	<50	<50	170	ND[21]
	10/28/92	SPA	8010	4.2	---	30	1,600	3.6	<0.5	16	<0.5	<0.5	810	ND
	5/4/93	SPA	8010	1.0	---	16	670	0.5	<0.5	9.2	<0.5	<0.5	110	ND[18]
	1/5/94[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94[27]	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	4/14/89	CCAS	8010	<0.2	<0.2	---	---	<0.2	<0.2	<0.2	<0.2	<1.0	<0.2	---
	7/31/89	CCAS	8010	<0.2	<0.2	---	---	<0.4	0.5	<0.2	<0.2	<1.0	<0.2	---
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94[28]	---	---	---	---	---	---	---	---	---	---	---	---	---
	10/24/94[30]	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/6/95	**Abandoned**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
MW-2A	**11/6/95**	**GTEL**	**8010**	**<1.0**	**---**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**ND**

Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				<----------ppb---------->										
MW-3	4/14/89	CCAS	8010	<0.2	<0.2	---	---	<0.2	<0.2	<0.2	<0.2	<1.0	<0.2	---
	7/31/89	CCAS	8010	<0.2	<0.2	---	---	<0.4	0.5	<0.2	<0.2	<1.0	<0.2	---
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94[27]	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	4/14/89[7]	CCAS	8010	<1.0	<1.0	---	---	2.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
MW-5	4/14/89[7]	CCAS	8010	<1.0	<1.0	---	---	2.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
MW-6	4/14/89[7]	CCAS	8010	<1.0	<1.0	---	---	2.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
MW-7	4/14/89	CCAS	8010	<1.0	<1.0	---	---	1.0	1.0	<1.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	<0.1	0.3	---	---	0.3	4.5	<0.1	<0.1	<0.5	<0.1	ND[8]
(D)	7/31/89	GTEL	8010	<0.1	0.4	---	---	0.2	2.6	<0.1	<0.1	<0.5	<0.1	ND[8]
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	0.67	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	1.4	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	0.67	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93[24]	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				<--------				ppb						-------->
MW-7	1/5/94[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
(cont)	5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[29]
	10/24/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[29]
	4/19/95	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	11/6/95	**GTEL**	**8010**	**<1.0**	**---**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**ND**
MW-8	4/14/89	CCAS	8010	<1.0	<1.0	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	<0.1	---	0.6	1.9	1.7	1.7	0.4	<0.1	<0.5	1.2	ND
	12/8/89	GTEL	8010	<0.2	0.53	---	---	<0.5	0.84	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	0.96	---	---	<0.5	0.72	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	0.59	---	---	<0.5	0.67	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	2.0	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	10/28/92[23]	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/4/93[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[29]
	10/24/94[28]	---	---	---	---	---	---	---	---	---	---	---	---	---
	4/19/95[28]	---	---	---	---	---	---	---	---	---	---	---	---	---
	11/6/95	**Inaccessible**	**---**	---	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
MW-9	5/10/91[9]	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	4/14/89	CCAS	8010	<1.0	15	---	---	2.0	<1.0	5.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	0.7	---	6.3	27	2.9	<0.1	5.3	<0.1	<0.5	<0.1	ND
	12/8/89	GTEL	8010	<0.2	24	---	---	3.1	<0.5	4.9	<0.5	0.6	<1.0	---
	3/21/90	GTEL	8010	0.7	30	---	---	2.5	<0.5	3.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	0.3	33	---	---	2.6	<0.5	6.3	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	32	---	---	5.0	<0.5	5.9	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	6.0	19	2.0	<0.5	5.0	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	0.6	---	7.0	24	2.0	<0.5	6.0	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	7.0	33	3.1	<0.5	6.2	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	6.8	100	<0.5	<0.5	8.5	<0.5	<0.5	<1.0	ND

Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				<----------ppb---------->										
MW-10 (cont)	1/29/92	SPA	8010	<0.5	---	9.1	30	2.8	<0.5	7.4	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	0.7	---	9.2	29	2.5	<0.5	6.8	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	6.1	21	1.5	<0.5	4.7	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	4.3	16	2.1	<0.5	4.1	<0.5	<0.5	<1.0	ND
	5/4/93[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94	SPA	8010	<0.5	---	1.3	5.2	0.5	1.0	0.8	<0.5	<0.5	<1.0	ND[18]
	5/13/94	SPA	8010	<0.5	---	12	31	2.7	<0.5	4.8	<0.5	<0.5	<0.5	ND[29]
	10/24/94[33]	SPA	8010	<10	---	13	44	<10	<10	<10	<10	<10	<10	ND[31,33]
	4/19/95	SPA	8010	0.7	---	14	36	<0.5	<0.5	9.2	<0.5	<0.5	<0.5	ND[18]
	11/6/95	**GTEL**	**8010**	**1.0**	**---**	**19**	**41**	**1.4**	**<1.0**	**14**	**<1.0**	**<1.0**	**<1.0**	**ND**
MW-11	4/14/89	CCAS	8010	<1.0	120	---	---	<1.0	<1.0	4.0	<1.0	<2.0	10	---
	7/31/89	CCAS	8010	0.9	---	40	110	2.2	1.4	2.9	<0.2	<0.2	<0.2	ND
	12/8/89	GTEL	8010	0.5	120	---	---	2.1	1.2	4.1	<0.5	<0.5	2.4	---
	3/21/90	GTEL	8010	1.3	150	---	---	1.2	1.7	3.5	<0.5	<0.5	4.3	ND[10]
	6/19/90	GTEL	8010	0.068	140	---	---	1.3	<0.5	5.0	<0.5	<0.5	1.0	---
	9/21/90	GTEL	8010	<0.2	100	---	---	1.1	<0.5	3.8	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	23	43	0.9	0.7	3.0	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	0.9	---	44	110	0.5	<0.5	5.0	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	29	77	0.9	<0.5	2.4	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	34	240	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<5.0	---	33	91	<5.0	<5.0	<5.0	<5.0	<5.0	<10	ND
	3/26/92	SPA	8010	<2.5	---	21	51	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	ND
	7/23/92	SPA	8010	<0.5	---	18	46	0.6	<0.5	1.4	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	0.5	---	36	80	<0.5	<0.5	4.6	<0.5	<0.5	<1.0	ND
	5/4/93[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	62	82	<0.5	<0.5	7.9	<0.5	<0.5	1.7	ND[29]
	10/24/94[33]	SPA	8010	<10	---	28	75	<10	<10	<10	<10	<10	<10	ND[31,33]
	4/19/95	SPA	8010	<0.5	---	18	39	<0.5	<0.5	6.5	<0.5	1.0	<0.5	ND[34]
	11/6/95	**Inaccessible**	---	---	---	---	---	---	---	---	---	---	---	---
MW-12	4/14/89	CCAS	8010	<1.0	1.0	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	<0.1	1.7	---	---	<0.1	<0.1	0.8	<0.1	<0.5	<0.1	ND
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND

Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				<----------ppb---------->										
MW-12 (cont)	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92[22]	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-13	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/20/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND[11]
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[29]
	10/24/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[29]
	4/19/95	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	11/6/95	**GTEL**	**8010**	**<1.0**	**---**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**ND**
MW-14	3/21/90	GTEL	8010	<2.0	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<2.0	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/20/90	GTEL	8010	<2.0	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93[25]	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-15	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/20/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---

Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				<--------				*ppb*						-------->
MW-15	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
(cont)	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND[12]
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[29]
	10/24/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	3.1	<0.5	3.8	<0.5	ND[29]
	4/19/95	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	11/6/95	**GTEL**	**8010**	**<1.0**	---	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**ND**
MW-16	3/21/90	GTEL	8010	<0.2	0.8	---	---	<0.5	<0.5	27	8.0	2.0	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	35	7.0	2.0	<1.0	---
	9/20/90	GTEL	8010	<0.2	0.9	---	---	<0.5	<0.5	49	15	4.1	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	29	18	4.0	<1.0	ND[13]
	5/10/91	SAL	8010	<0.5	---	<0.5	0.5	<0.5	<0.5	32	10	4.0	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	35	13	1.9	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	1.3	<0.5	<0.5	47	12	1.8	<1.0	ND[15]
	1/29/92	SPA	8010	<0.5	---	<0.5	0.9	<0.5	<0.5	31	11	1.8	<1.0	ND
	3/26/92	SPA	8010	<0.8	---	<0.8	<0.8	<0.8	<0.8	24	8.5	1.7	<1.7	ND[19]
	7/23/92	SPA	8010	<0.5	---	<0.5	0.9	<0.5	<0.5	37	12	1.0	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	1.7	<0.5	<0.5	39	14	1.1	<1.0	ND
	5/4/93	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	32	10	1.1	<1	ND[18]
	1/5/94[24]	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/13/94[27]	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-17	3/21/90	GTEL	8010	<0.2	5.2	---	---	0.7	1.3	32	11	1.1	<1.0	---
	6/19/90	GTEL	8010	<0.2	3.1	---	---	<0.5	1.0	38	13	1.2	<1.0	---
	9/20/90	GTEL	8010	<0.2	2.4	---	---	<0.5	1.4	44	16	2.8	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	2.0	<0.5	0.6	34	15	2.0	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	3.0	<0.5	0.6	37	14	1.0	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	2.5	<0.5	<0.5	69	15	0.9	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	13	<0.5	<0.5	59	14	2.4	<1.0	ND
	1/29/92	SPA	8010	<0.5	---	<0.5	2.9	<0.5	0.8	35	15	1.1	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	1.5	<0.5	0.7	41	12	0.6	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	1.1	<0.5	<0.5	31	14	0.8	<0.5	ND[18]

Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				<----------ppb---------->										
MW-17	10/28/92	SPA	8010	<0.5	---	<0.5	1.6	<0.5	<0.5	42	11	0.8	<1.0	ND
(cont)	5/4/93	SPA	8010	<0.5	---	<0.5	1.1	<0.5	<0.5	26	12	0.6	<1.0	ND[18]
	1/5/94	SPA	8010	<0.5	---	<0.5	1.1	<0.5	<0.5	25	13	0.8	<1.0	ND[18]
	5/13/94	SPA	8010	<0.5	---	<0.5	1.0	<0.5	0.6	23	13	<0.5	<0.5	ND[29]
	10/24/94	SPA	8010	<0.5	---	<0.5	1.4	<0.5	<0.5	26	13	<0.5	<0.5	ND[29]
	4/19/95	SPA	8010	<0.5	---	<0.5	0.9	<0.5	1.1	21	12	1.2	<0.5	ND[18]
	11/6/95	**GTEL**	**8010**	**<1.0**	**---**	**<1.0**	**1.1**	**<1.0**	**<1.0**	**29**	**13**	**<1.0**	**<1.0**	**ND**
MW-18	3/21/90	GTEL	8010	<0.2	1.7	---	---	<0.5	2.4	33	20	0.9	<1.0	---
	6/19/90	GTEL	8010	<0.2	2.7	---	---	<0.5	0.9	63	20	0.73	<1.0	---
	9/20/90	GTEL	8010	<0.2	3.3	---	---	<0.5	1.6	76	25	1.7	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	2.0	<0.5	0.8	44	21	1.0	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	2.0	<0.5	0.7	47	20	2.0	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	2.0	<0.5	0.7	32	25	1.0	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	3.6	<0.5	0.5	60	18	1.5	<1.0	ND
	1/29/92	SPA	8010	<5.0	---	<5.0	<5.0	<5.0	<5.0	67	17	<5.0	<10	ND
	3/26/92	SPA	8010	<1.2	---	<1.2	6.4	<1.2	<1.2	130	19	1.7	<2.5	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	3.0	<0.5	0.5	67	19	0.8	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	1.1	<0.5	<0.5	52	14	0.8	<1.0	ND
	5/4/93	SPA	8010	<0.5	---	<0.5	1.9	<0.5	0.7	48	18	2.5	<1.0	ND[26]
	1/5/94	SPA	8010	<0.5	---	<0.5	4.0	<0.5	0.8	94	17	1.0	<1.0	ND[18]
	5/13/94	SPA	8010	<0.5	---	<0.5	0.8	<0.5	0.8	16	15	0.8	<0.5	ND[29]
	10/27/94	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	22	15	1.2	<0.5	ND[29]
	4/19/95	SPA	8010	<0.5	---	<0.5	2.2	<0.5	1.3	46	14	1.1	<0.5	ND[35]
	11/6/95	**GTEL**	**8010**	**<1.0**	**---**	**<1.0**	**1.8**	**4.0**	**1.2**	**45**	**18**	**<1.0**	**<1.0**	**ND**
MW-19	3/21/90	GTEL	8010	<0.2	10	---	---	<0.5	2.5	41	53	3.2	<1.0	---
	6/19/90	GTEL	8010	<0.2	13	---	---	<0.5	1.5	46	47	2.8	<1.0	---
	9/20/90	GTEL	8010	<0.2	5.8	---	---	<0.5	2.5	39	32	3.1	<1.0	---
	12/28/90	SAL	8010	<0.5	---	0.8	22	<0.5	1.0	40	44	3.0	<1.0	---
	5/10/91	SAL	8010	<0.5	---	2.0	12	<0.5	1.0	47	47	3.0	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	1.1	4.8	<0.5	1.1	41	35	2.8	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	1.9	29	<0.5	0.9	59	31	2.7	<1.0	ND
	1/29/92	SPA	8010	<5.0	---	<5.0	8.9	<5.0	<5.0	51	44	3.0	<10	ND
	3/26/92	SPA	8010	<1.2	---	1.7	23	<1.2	1.5	68	130	1.4	<2.5	ND[17]
	7/23/92	SPA	8010	1.1	---	1.4	5.6	<0.5	1.0	61	38	3.3	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	0.9	5.3	<0.5	1.1	46	24	2.2	<1.0	ND
	5/4/93	SPA	8010	<0.5	---	2.5	8.7	0.5	1.1	69	32	3.9	<1.0	ND[18]
	1/5/94	SPA	8010	<0.5	---	1.7	1.7	<0.5	16	49	46	<0.5	<1.0	ND[18]
	5/13/94	SPA	8010	<0.5	---	1.8	22	<0.5	0.7	40	58	<0.5	<0.5	ND[29]

Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC	Other HVOCs
				<--------				ppb						-------->
MW-19	10/24/94[33]	SPA	8010	<50	---	110	54	<50	<50	98	300	<50	<50	ND[31,33]
(cont)	4/19/95	SPA	8010	<0.5	---	<0.5	65	<0.5	<0.5	130	670	<0.5	<0.5	ND[18]
	11/6/95	**Abandoned**	---	---	---	---	---	---	---	---	---	---	---	---
MW-19A	**11/6/95**	**GTEL**	**8010**	**1.0**	---	**<1.0**	**110**	**<1.0**	**<1.0**	**160**	**1,500**	**<1.0**	**<1.0**	**ND**
Trip Blank														
AA	4/14/89	CCAS	8010	<1.0	<0.5	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	<0.1	<0.5	---	---	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	---
	12/8/89	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	3/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	3/26/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	6/19/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	9/21/90	GTEL	8010	<0.2	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND[14]
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND[16]
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	ND[18]
	11/6/95	**GTEL**	**8010**	**<1.0**	---	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**ND**
Bailer Blank														
BB	5/10/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND[16]
	1/29/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND[18]
	10/28/92	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93	SPA	8010	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	ND[18]

Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

EXPLANATION:

1,1-DCE = 1,1-Dichloroethene
1,2-DCE = 1,2-Dichloroethene
t-1,2-DCE = trans-1,2-Dichloroethene
c-1,2-DCE = cis-1,2-Dichloroethene
1,1-DCA = 1,1-Dichloroethane
1,1,1-TCA = 1,1,1-Trichloroethane
TCE = Trichloroethene
PCE = Tetrachloroethene
CF = Chloroform
VC = Vinyl Chloride
Other HVOCs = Other Halogenated Volatile Organic Compounds
ppb = Parts per billion
--- = Not analyzed/not applicable
ND = Not detected at detection limits of 0.5 to 1 ppb
D = Duplicate analysis

ANALYTICAL METHOD:

VOCs = EPA Method 8010 for Volatile Organic Compounds

ANALYTICAL LABORATORIES:

CCAS = Coast to Coast Analytical Services of San Luis Obispo, California
GTEL = Groundwater Technologies Environmental Laboratory of Concord, California
SAL = Superior Analytical Laboratory of Martinez and San Francisco, California
SPA = Superior Precision Analytical, Inc. of Martinez and San Francisco, California

NOTES:

Analytic results prior to April 19, 1995 were compiled from the quarterly groundwater monitoring reports prepared for Chevron by Sierra Environmental Services.

[1] 6 ppb 1,2-dichloropropane detected; other HVOCs not detected.
[2] 0.6 ppb 1,2-dichloroethane detected; other HVOCs not detected.
[3] 63 ppb chloromethane and 0.6 ppb methylene chloride detected; other HVOCs not detected; sample contained 1,250 ppb total dissolved solids.

NOTES: (continued)

[4] 0.9 ppb trans-1,3-dichloropropane detected; other HVOCs not detected; sample contained 810 ppb total dissolved solids.
[5] 0.9 ppb trichlorofluoromethane and 1 ppb trans-1,3-dichloropropane detected; other HVOCs not detected.
[6] 11 ppb trans-1,3-dichloropropane detected; other HVOCs not detected.
[7] Monitoring well was destroyed during excavation in 1989.
[8] 0.1 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
[9] Well MW-9 was not sampled after 5/10/91 because it could not be located. Previous analytic data were not available for inclusion in this report.
[10] 1.8 ppb 1,2-dichloroethane detected; other HVOCs not detected
[11] 3 ppb 1,1,2,2-tetrachloroethane detected; other HVOCs not detected.
[12] 0.9 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
[13] 0.5 ppb 1,2-dichloroethane detected; other HVOCs not detected.
[14] 3.1 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
[15] 0.9 ppb 1,2-dichloroethane detected; other HVOCs not detected.
[16] Trace concentrations of trihalomethane compounds detected in bailer blank.
[17] 1,1,2,2-Tetrachloroethane detected at 1.8 ppb; other HVOCs not detected at detection limits of 1.2 to 2.5 ppb.
[18] Other HVOCs not detected at detection limit of 0.5 ppb.
[19] Other HVOCs not detected at detection limits ranging from 0.8 to 1.7 ppb.
[20] Other HVOCs not detected at detection limits of 25 ppb.
[21] Other HVOCs not detected at detection limits of 50 ppb.
[22] Well MW-12 could not be located after building demolition.
[23] Well MW-8 was obstructed, therefore ground water samples could not be taken.
[24] Monitoring well obstructed due to on-site construction activities.
[25] Monitoring well abandoned on March 10, 1993 by Soils Exploration Services of Benicia, California.
[26] Dichloromethane detected at 6.2 ppb; other HVOCs not detected at detection limits of 0.5 ppb.
[27] Well paved over as a result of on-site construction activities.
[28] Well obstructed.
[29] Other HVOCs not detected at detection limits of 0.5 to 1.0 ppb.
[30] Well was dry.
[31] Other HVOCs not detected at detection limits of 10 to 20 ppb.
[32] Other HVOCs not detected at detection limits of 50 to 100 ppb.
[33] Detection limits raised due to sample dilution.
[34] Chloromethane was detected at 2.4 ppb. Other HVOCs not detected at detection limits of 0.5 ppb.
[35] Chloromethane was detected at 0.6 ppb. Other HVOCs not detected at detection limits of 0.5 ppb.

19104T.GWV

Table 3. Soil Analytical Results - Former Chevron Bulk Asphalt Terminal at Powell Overpass at Landregan, Emeryville, California

Sample ID	Depth (feet)	Date	Analytic Method	TPHg	B	T	E	X	MTBE	VOCs
				<----------ppm---------->						
MW19A-5.5	5.5	10/30/95	8015/8020/8240	<1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0100	0.017*
SP-A,B,C,D	---	10/30/95	8015/8020	230	<0.50	<1.0	<1.0	2.7	---	---

EXPLANATION:

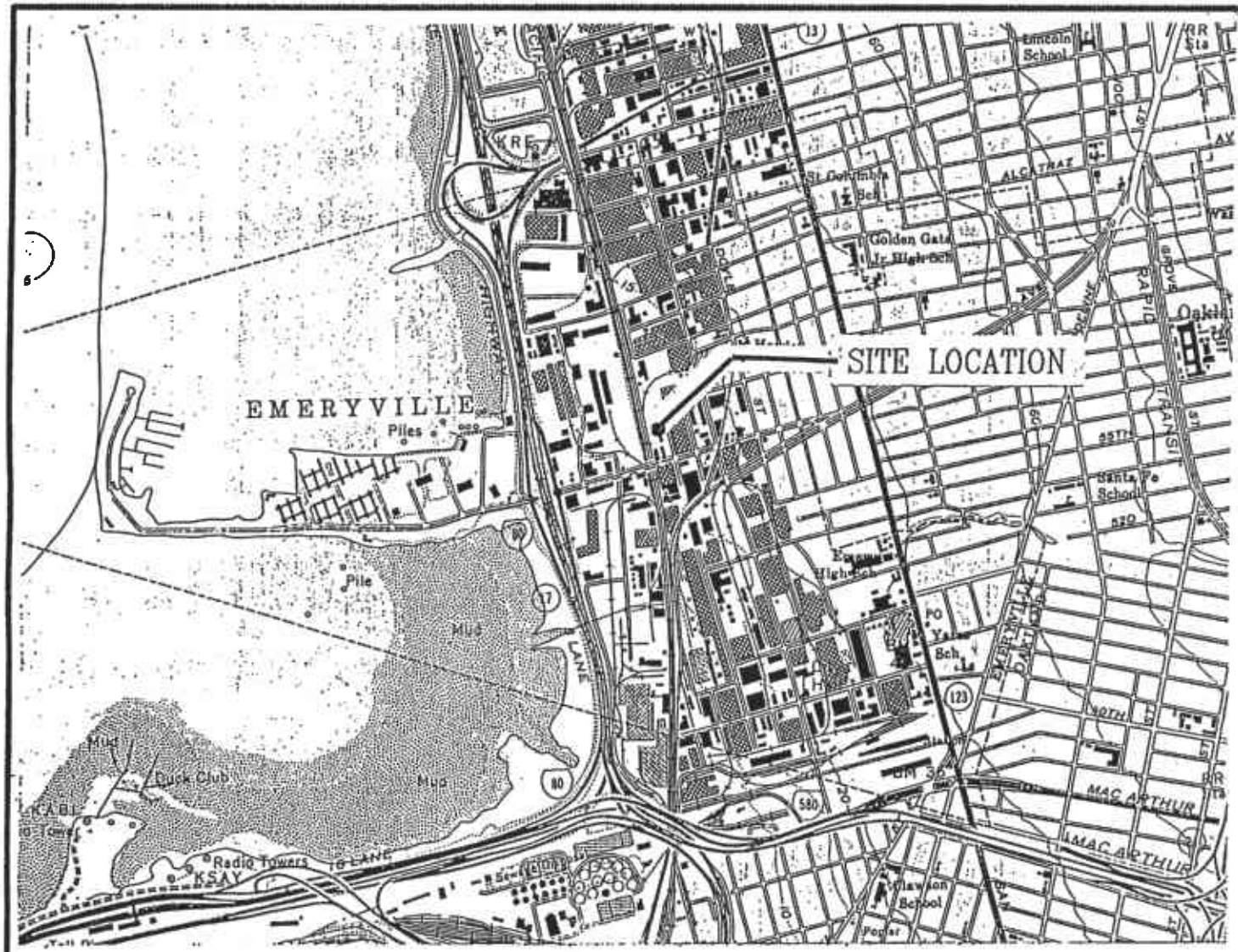
TPHg = Total Petroleum Hydrocarbons as gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl t-butyl ether
VOCs = Volatile Organic Compounds
ppm = Parts per million
* = VOCs were not detected except 0.017 ppm tetrachloroethene
--- = Not analyzed/not applicable

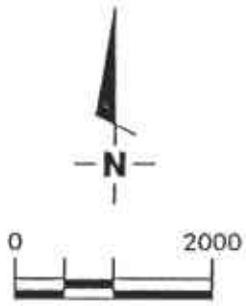
ANALYTICAL METHODS:

8015 = EPA Method 8015 for TPHG
8020 = EPA Method 8020 for BTEX and MTBE
8240 = EPA Method 8240 for VOCs

ANALYTICAL LABORATORY:

GTEL Environmental Laboratories, Inc. of Wichita, Kansas.





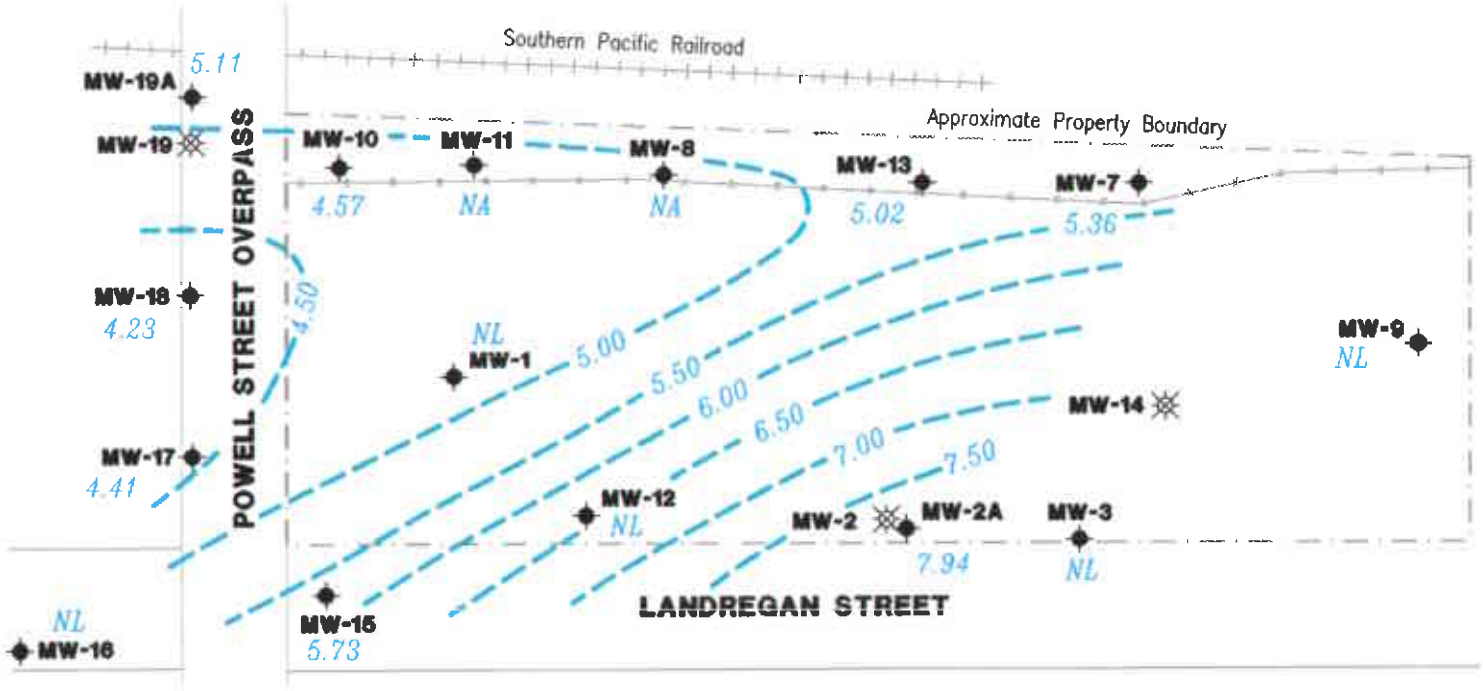
Base Map: USGS Topographic Map

Gettler - Ryan Inc.
6747 Sierra Ct., Suite J (510) 551-7555
Dublin, CA 94568

VICINITY MAP
Former Chevron Asphalt Plant
and Terminal No. 1001067
Emeryville, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
5161		July, 1995	



EXPLANATION:

✦	Groundwater monitoring well	*NL*	Well not located
✳	Abandoned groundwater monitoring well	*NA*	Not accesible
99.99	Groundwater elevation in feet referenced to Mean Sea Level (MSL)		
99.99	Groundwater elevation contour, dashed where inferred.		

Approximate groundwater flow direction at a gradient of 0.02 Ft./Ft.

N

0 100

Scale in Feet

Gettler - Ryan Inc.
6747 Sierra Ct., Suite J (510) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP
Former Chevron Asphalt Plant
and Terminal No. 1001067
Emeryville, California

FIGURE
2

JOB NUMBER
5161.01

REVIEWED BY

DATE
November 6, 1995

REVISED DATE

APPENDIX A

WELL PERMITS

Faxed 10/6/95
11:30 a.m.

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

CATION OF PROJECT Former Chevron Bulk Asphalt
erminal, Powell Street Overpass @ Landgren
meryville, CA

IENT
ame Chevron USA Products Company
ddress P.O. Box 5004 Voice
ity San Ramon, CA Zip 94583

PPLICANT
me Gettler-Ryan Inc.
Argy Leyton Fax (510) 551-7888
ddress 6747 Sierra Court Voice (510) 551-7555
ity Dublin, CA Zip 94568

YPE OF PROJECT
ell Construction
Cathodic Protection ___
Water Supply ___
Monitoring ___
Geotechnical Investigation
General ___
Contamination ___
Well Destruction XX

ROPOSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

RILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C57-522125

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter ___ in. Depth 18 ft.
Surface Seal Depth ___ ft. Number 2

GEOTECHNICAL PROJECTS
Number of Borings ___ Maximum
Hole Diameter ___ in. Depth ___ ft.

ESTIMATED STARTING DATE October 16, 1995
ESTIMATED COMPLETION DATE October 17, 1995

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE _____ Date 10/6/95

FOR OFFICE USE

PERMIT NUMBER 95697
LOCATION NUMBER 1S/4W 15L80 & 15L81

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

(E.) WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 20 Oct 95
Wyman Hong

91992

Faxed 10/6/95
11:30 a.m.

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Former Chevron Bulk Asphalt Terminal, Powell Street Overpass @ Landgren Emeryville, CA

CLIENT
Name Chevron USA Products Company
Address P.O. Box 5004 Voice
City San Ramon, CA Zip 94583

APPLICANT
Name Gettler-Ryan Inc.
Argy Leyton Fax (510) 551-7888
Address 6747 Sierra Court Voice (510) 551-7555
City Dublin, CA Zip 94568

TYPE OF PROJECT
Well Construction
Cathodic Protection ___
Water Supply ___
Monitoring XX
Geotechnical Investigation
General ___
Contamination ___
Well Destruction ___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C57 522125

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 20 ft.
Surface Seal Depth ___ ft. Number 2

GEOTECHNICAL PROJECTS
Number of Borings ___ Maximum
Hole Diameter ___ in. Depth ___ ft.

ESTIMATED STARTING DATE October 16, 1995
ESTIMATED COMPLETION DATE October 17, 1995

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] Date 10/6/95

FOR OFFICE USE

PERMIT NUMBER 95698
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 20 Oct 95
Wyman Hong

91992

APPENDIX B

BORING LOGS

MAJOR DIVISIONS					TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
			GP		POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
		GRAVELS WITH OVER 15% FINES	GM		SILTY GRAVELS, SILTY GRAVELS WITH SAND
			GC		CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
			SP		POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
		SANDS WITH OVER 15% FINES	SM		SILTY SANDS WITH OR WITHOUT GRAVEL
			SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS		ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS
			OL		ORGANIC SILTS OR CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		MH		INORGANIC SILTS, MICACEOUS OR DIATOMACIOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH		ORGANIC SILTS OR CLAYS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS			PT		PEAT AND OTHER HIGHLY ORGANIC SOILS

LL	- Liquid Limit (%)
PI	- Plastic Index (%)
PID	- Volatile Vapors in ppm
MA	- Particle Size Analysis
2.5 YR 6/2	- Soil Color according to Munsell Soil Color Charts (1975 Edition)
5 GY 5/2	- GSA Rock Color Chart

☒	- No Soil Sample Recovered
■	- "Undisturbed" Sample
⊠	- Bulk or Classification Sample
▽	- First Encountered Ground Water Level
▼	- Piezometric Ground Water Level
Penetration	- Sample drive hammer weight - 140 pounds falling 30 inches. Blows required to drive sampler 1 foot are indicated on the logs

Unified Soil Classification - ASTM D 2488-85 and Key to Test Data

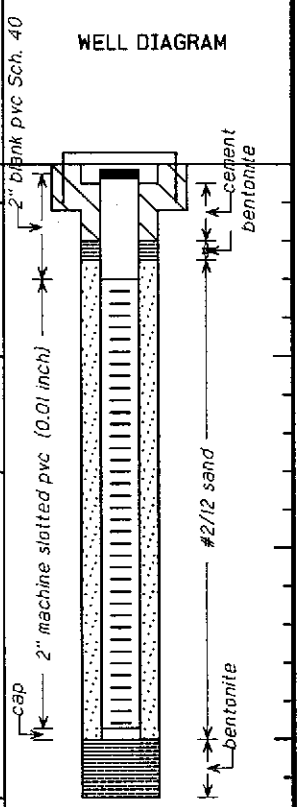
Gettler-Ryan, Inc.

Log of Boring MW-19A

PROJECT: *Former Chevron Asphalt Plant No. 1001067*	LOCATION: *Powell Street Overpass at Landregan, Emeryville*
G-R PROJECT NO. : *5161.01*	SURFACE ELEVATION: *9.96 feet MSL*
DATE STARTED: *10/30/95*	WL (ft. bgs): *6.0* DATE: *10/30/95* TIME: *12:05*
DATE FINISHED: *10/30/95*	WL (ft. bgs): *6.0* DATE: *10/30/95* TIME: *13:40*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *16.5 Feet*
DRILLING COMPANY: *Bay Area Exploration, Inc.*	GEOLOGIST: *B. Sieminski*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SOIL CLASS	GEOLOGIC DESCRIPTION
					PAVEMENT – asphalt over baserock.
	0	NA	MW19A-3	CL	GRAVELLY CLAY WITH SAND (GC) – dark brown (10YR 3/3), moist, low plasticity; 60% clay, 30% fine gravel, 10% fine to coarse sand; pieces of brick; fill.
5	0	16	MW19A-5.5	GC	▽▼ CLAYEY GRAVEL WITH SAND (GC) – dark yellowish brown (10YR 4/4), saturated, medium dense; 55% fine gravel, 15% clay, 30% fine to coarse sand; pieces of brick; fill.
				CL	SANDY CLAY (CL) – yellowish brown (10YR 5/4), saturated, medium stiff, low plasticity; 70% clay, 30% fine sand.
10	0	5			
15	0	14	MW19A-16		Becomes stiff, color change to light olive brown (2.5Y 5/6); roots.
					Sand decreases to 15%; becomes moist at 16 feet.
					Bottom of boring at 16.5 feet, 10/30/95.
20					(* = converted to equivalent standard penetration blows/ft.)
25					
30					
35					

WELL DIAGRAM

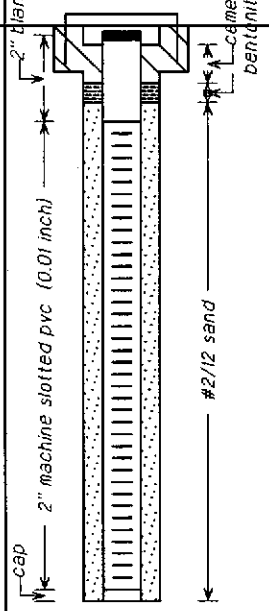


JOB NUMBER: *5161.01*

Gettler-Ryan, Inc.	Log of Boring MW-2A
PROJECT: *Former chevron Asphalt Plant No. 1001067*	LOCATION: *Powell Street Overpass at Landregan, Emeryville*
G-R PROJECT NO. : *5161.01*	SURFACE ELEVATION: *12.45 feet MSL*
DATE STARTED: *10/30/95*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *10/30/95*	WL (ft. bgs): *13.5* DATE: *10/30/95* TIME: *14:00*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *15.0 Feet*
DRILLING COMPANY: *Bay Area Exploration*	GEOLOGIST: *B. Sieminski*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
5							Existing well MW-2 was overdrilled to 15 feet and well casing was removed. Well MW-2A was constructed in the same hole.
10							
15							
20							
25							
30							
35							

WELL DIAGRAM



JOB NUMBER: *5161.01*

APPENDIX C

WELL DEVELOPMENT AND SAMPLING FIELD DATA SHEETS

WELL DEVELOPMENT DATA

B NO. 5161.01

ME Guadalupe Sanchez

TE 12-2-95

LOCATION Former Chevron Asphalt Plant and Terminal # 100067 — MW-2A, Emeryville, CA

TIME	WATER LEVEL	pH	TEMP	CONDUCTIVITY	PURGE	SURGE	AMOUNT REMOVED GALLONS	COMMENTS (odor, color, sediments, etc.)
rt: 14:52	9.81					✓		* Surged for 15 min.
p: 15:11	6.93	7.1	72.0	1660	✓		2	mild, brown, sandy/clay, sheen
rt: 15:16	9.36	7.1	71.8	1460	✓		4	" " " " "
p 15:20	12.70	7.3	69.5	1580	✓		6	" " " "
p 15:25	14.61	7.4	68.7	1590	✓		8	" " " "
p:	1							*Well dewatered @ 8 gal
rt: 16:12	14.60	7.4	67.3	1470	✓		8½	After waiting ~ ½ hr took DTW measurement @ 13.38. I was able to purge ½ gal - Well recovers very slow.
p								
rt:								* Installed Chevron lock
p:								

DTW BEFORE DEVELOPMENT 4.81

TOTAL DEPTH BEFORE DEVELOPMENT 14.9

DTW AFTER DEVELOPMENT 14.61

TOTAL DEPTH AFTER DEVELOPMENT 14.9

DEVELOPMENT METHOD

SURGE Block / Stainless Steel Bailer

PURGE Stainless Steel Bailer

INJECTION

AMT. INJECTED

TIAL WELL VOLUME:

14.9 (TAL DEPTH INITIAL) − 4.81 (DTW (INITIAL)) × (.17) (CONVERSION FACTOR) = 1.7 (1 WELL VOL)

CONVERSION FACTORS

2" = 0.17
3" = 0.38
4" = 0.66
6" = 1.50

WELL DEVELOPMENT DATA

JOB NO. 5161.01
NAME Guadalupe Sanchez
DATE 11-2-95

LOCATION Former Chevron Asphalt Plant and Terminal # 1001067 Emeryville, CA MW-19A

TIME	WATER LEVEL	pH	TEMP	CONDUCTIVITY	PURGE	SURGE	AMOUNT REMOVED GALLONS	COMMENTS (odor, color, sediments, etc.)
Start: 13:26	4.88					✓		* Surged for 15 min
Start P: 13:48	4.96	7.8	66.8	640	✓		2	none, brown, sandy/clay
Start: 13:53	5.12	7.4	66.7	560	✓		4	" " "
Start P: 13:57	5.87	7.3	66.6	600	✓		6	" " "
Start: 14:02	6.35	7.2	66.6	580	✓		8	" " "
Start P: 14:08	6.89	7.0	66.5	540	✓		10	" " "
Start: 14:13	7.23	7.0	66.4	550	✓		12	" " "
Start P: 14:17	7.71	7.0	66.1	470	✓		14	" " "
Start: 14:22	7.96	7.1	66.1	440	✓		16	" " "
Stop: 14:27	8.80	7.1	66.1	430	✓		18	" " "

* Installed Chevron lock

DTW BEFORE DEVELOPMENT: 4.88
TOTAL DEPTH BEFORE DEVELOPMENT: 14.9

DTW AFTER DEVELOPMENT: 8.80
TOTAL DEPTH AFTER DEVELOPMENT: 14.9

DEVELOPMENT METHOD
SURGE: Block / Stainless Steel Bailer
PURGE: Stainless Steel Bailer
INJECTION:
AMT. INJECTED:

INITIAL WELL VOLUME:

14.9 (TOTAL DEPTH INITIAL) − 4.88 (DTW (INITIAL)) × .17 (CONVERSION FACTOR) = 1.7 (1 WELL VOL)

CONVERSION FACTORS

2" = 0.17
3" = 0.38
4" = 0.66
6" = 1.50

MONITORING WELL
OBSERVATION SUMMARY SHEET

COMPANY: Chevron # 1001067 JOB NO.: 5161.85

LOCATION: Powell @ Landgren DATE: 11-6-95

CITY: Emeryville TIME:

WELL ID	TOTAL WELL DEPTH	DEPTH TO LIQUID	HYDROCARBON THICKNESS	MEASUREMENT POINT TOB or TOC	COMMENTS
MW-2A	14.9	4.51	⊘	TOC	
MW-7	14.0	5.11	⊘	TOC	
MW-8	~~N/A~~	Under storage container			
MW-10	20.0	6.25	⊘	TOC	
MW-11	N/A	Concrete dividers on top of well			
MW-13	15.0	6.13	⊘	TOC	
MW-15	7.0	5.28			
MW-17	12.0	6.00			
MW-18	11.0	5.57			
MW-19A	14.9	4.85			

Comments:
Installed new Chevron locks on wells MW-10 & MW-18.
* Bolts cannot be installed due to missing base for the bolts on wells MW-13, MW-15, MW-17 & MW-18.

Sampler: G. Sanchez Assistant:

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez
DATE: 11-6-95
ADDRESS: Powell @ Landgren
JOB #: 5161.85
CITY: Emeryville
SS#: 1001067

Well ID: MW-2A
Well Condition: OK
Well Location Description: ~30 from parking entrance & ~6' from 3rd parking space NE
Well Diameter: 2 in
Hydrocarbon Thickness: 0
Total Depth: 14.9 ft
Depth to Liquid: 4.51 ft

Volume Factor (VF)			
	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38		
	4" = 0.66		

3 # of casing Volume: 10.39 x .17 x(VF) 1.8 #Estimated purge Volume 5.3 gal.

Purge Equipment: Stack Pump
Sampling Equipment: Disposable Bailer
Did well dewater: No
If yes, Time: ___ Volume:

Starting Time: 1451
Sampling Time: 1500
Purging Flow Rate: 2 gpm.

Time	pH	Conductivity	Temperature	Volume
1452	6.9	810	71.2	2 gal
1453	6.9	820	70.3	4
1454	7.1	820	70.0	5
1500	7.1	820	70.0	6

Weather Conditions: Sunny
Water Color: Clear
Odor: ~~none~~ mild
Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-2A	6 X 40ml	Y	HCl	GTEL	Gas BTEX + 8010

Comments:

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez | DATE: 11-6-95

ADDRESS: Powell @ Landgren | JOB #: 5161.85

CITY: Emeryville | SS#: 1001067

Well ID: MW-7 | Well Condition: OK

Well Location Description: ~4' from RR tracks on the boarding train area

Well Diameter: 3 in | Hydrocarbon Thickness:

Total Depth: 14.0 ft

Depth to Liquid: 5.11 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

3 # of casing Volume: 8.89 x .38 x(VF) 3.4 #Estimated purge Volume: 10.2 gal.

Purge Equipment: Stack Pump | Sampling Equipment: Disposable Bailer

Did well dewater: Yes | If yes, Time: 1114 | Volume: 4 gal

Starting Time: 1110 | Purging Flow Rate: 2 gpm.

Sampling Time: 1205

Time	pH	Conductivity	Temperature	Volume
1112	6.8	580	70.3	4 gal
1114	6.8	530	69.8	8 gal
1205	6.8	550	70.1	9 gal

Weather Conditions: Sunny

Water Color: clear | Odor: none

Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-7	6x40ml	Y	HCl	GTEL	Gas BTEX + 8010

Comments:

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez | DATE: 11-6-95

ADDRESS: Powell @ Landgren | JOB #: 5161.85

CITY: Emeryville | SS#: 1001067

Well ID: MW-10 | Well Condition: OK

Well Location Description: ~30' from Overpass Stairs & ~10' from storm dra

Well Diameter: 4 in | Hydrocarbon Thickness: 0

Total Depth: 20.0 ft

Depth to Liquid: 6.25 ft

Volume Factor (VF)			
	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38		
	4" = 0.66		

1 # of casing Volume: 13.75 x .66 x(VF) 9.1 #Estimated purge Volume 27.2 gal.

Purge Equipment: Stack Pump | Sampling Equipment: Disposable Bailer

Did well dewater: No | If yes, Time: ___ | Volume: ___

Starting Time: 1416

Sampling Time: 1431

Purging Flow Rate: 2 gpm.

Time	pH	Conductivity	Temperature	Volume
1421	6.9	430	62.6	10 gal
1426	7.0	420	63.7	20
1430	6.9	420	63.4	28
1431	6.9	420	63.4	29

Weather Conditions: Sunny

Water Color: Clear | Odor: none

Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-10	6x40ml	Y	HCl	GTEL	Gas BTEX + 8010

Comments: Installed new Chevron lock

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez | DATE: 11-6-95

ADDRESS: Powell @ Landgren | JOB #: 5161.85

CITY: Emeryville | SS#: 1001067

Well ID: MW-13 | Well Condition: OK

Well Location Description: ~6' from the Emeryville S.F. Connection sign

Well Diameter: 3 in | Hydrocarbon Thickness: 0

Total Depth: 15.0 ft

Depth to Liquid: 6.13 ft

Volume Factor (VF)			
	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38		
	4" = 0.66		

3 # of casing Volume: 8.87 x .38 x(VF) 3.4 #Estimated purge Volume: 10.2 gal.

Purge Equipment: Stack Pump | Sampling Equipment: Disposable Bailer

Did well dewater: NO | If yes, Time: ___ | Volume: ___

Starting Time: 1138 | Purging Flow Rate: 2 gpm.

Sampling Time: 1148

Time	pH	Conductivity	Temperature	Volume
1140	6.8	1010	69.6	4 gal
1142	6.9	1000	70.9	8
1143	6.9	1000	70.4	10
1148	6.9	1000	70.4	11 ✓

Weather Conditions: sunny

Water Color: clear | Odor: none

Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-13	6 X 40 ml	Y	HCl	GTEL	Gas BTEX + 8010

Comments: Lid does not have bolts to secure the lid. Bolts cannot be installed due to missing base for the bolts.

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez | DATE: 11-6-95

ADDRESS: Powell @ Landgren | JOB #: 5161.85

CITY: Emeryville | SS#: 1001067

Well ID: MW-15 | Well Condition: catcher run off

Well Location Description: On the pedestrian crosswalk ~20' from the sidewalk

Well Diameter: 4 in | Hydrocarbon Thickness:

Total Depth: 7.0 ft

Depth to Liquid: 5.28 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

3 # of casing Volume: 1.72 x .66 x(VF) 1.1 #Estimated purge Volume: 3.4 gal.

Purge Equipment: ~~Stack Pump~~ Bailer | Sampling Equipment: Disposable Bailer

Did well dewater: Yes | If yes, Time: 1220 | Volume: 1.5 gal

Starting Time: 1216

Sampling Time: ~~Yes~~ 1238

Purging Flow Rate: — gpm.

Time	pH	Conductivity	Temperature	Volume
1218	7.4	380	66.4	1 gal
1220	7.2	376	66.0	1.5 gal
1238	7.1	370	65.8	2.0 gal

Weather Conditions: Sunny

Water Color: brown | Odor: none

Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-15	6 x 40 ml	Y	HCl	GTEL	Gas BTEX + 8010

Comments: Bolts cannot be installed to secure the lid due to missing base for the bolts

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez | DATE: 11-6-95

ADDRESS: Powell @ Landgren | JOB #: 5161.85

CITY: Emeryville | SS#: 1001067

Well ID: MW-17 | Well Condition: OK

Well Location Description: ~8' from APEX Bldg. & under the overpass

Well Diameter: 2 in | Hydrocarbon Thickness: 0

Total Depth: 12.0 ft

Depth to Liquid: 6.00 ft

Volume Factor (VF)			
	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38		
	4" = 0.66		

3 # of casing Volume: 6.00 x 1.17 x(VF) 1.0 #Estimated purge Volume 3.0 gal.

Purge Equipment: Stack Pump | Sampling Equipment: Disposable Bailer

Did well dewater: No | If yes, Time: ___ | Volume: ___

Starting Time: 1305

Sampling Time: 1312

Purging Flow Rate: ___ gpm.

Time	pH	Conductivity	Temperature	Volume
1307	6.7	310	65.3	1 gal
1309	6.4	300	65.5	2 gal
1312	6.4	300	65.6	3 gal

Weather Conditions: Sunny

Water Color: brown | Odor: none

Sediment Description: clay

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-17	6 x 40 ml	Y	HCl	GTEL	Gas BTEX + 8010

Comments: Enco Lid – Lid needs to be re-tapped to secure the lid

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez DATE: 11-6-95

ADDRESS: Powell @ Landgren JOB #: 5161.85

CITY: Emeryville SS#: 1001067

Well ID: MW-18 Well Condition: OK

Well Location Description: ~8' from the wall & ~10' from the column.

Well Diameter: 2 in Hydrocarbon Thickness: 0

Total Depth: 11.0 ft

Depth to Liquid: 5.57 ft

Volume Factor (VF)			
	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38		
	4" = 0.66		

1 # of casing Volume: 5.43 x 1.7 x(VF) 0.9 #Estimated purge Volume: 2.7 gal.

Purge Equipment: ~~Stack Pump~~ Bailer Sampling Equipment: Disposable Bailer

Did well dewater: No If yes, Time: ___ Volume: ___

Starting Time: 1330

Sampling Time: 1337

Purging Flow Rate: ___ gpm.

Time	pH	Conductivity	Temperature	Volume
1332	6.4	300	63.8	1 gal
1334	6.4	290	63.2	2 "
1337	6.4	290	63.1	3 "

Weather Conditions: Sunny

Water Color: brown Odor: none

Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-18	6 x 40 ml	Y	HCl	GTEL	Gas BTEX + 8010

Comments: Well lid is broken - only 1 bolts holds the lid. Replaced lock with a Chevron Lock.

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez | DATE: 11-6-95

ADDRESS: Powell @ Landgren | JOB #: 5161.85

CITY: Emeryville | SS#: 1001067

Well ID: MW-19A | Well Condition: ok

Well Location Description: ~6' from overpass column & ~30' from RR tracks

Well Diameter: 2 in | Hydrocarbon Thickness: ø

Total Depth: 14.9 ft

Depth to Liquid: 4.85 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

3 # of casing Volume: 10.05 x .17 x(VF) 1.7 #Estimated purge Volume: 5.1 gal.

Purge Equipment: Stack Pump | Sampling Equipment: Disposable Bailer

Did well dewater: No | If yes, Time: ___ | Volume: ___

Starting Time: 1349

Sampling Time: 1357

Purging Flow Rate: 2 gpm.

Time	pH	Conductivity	Temperature	Volume
1350	6.7	430	65.3	2 Sal
1351	6.9	290	67.1	4
1352	6.9	280	67.6	6
1357	6.9	280	677	7

Weather Conditions: sunny

Water Color: brown | Odor: none

Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-19A	6 X 40ml	Y	HCl	GTEL	Gas BTEX + 8010

Comments: ___

APPENDIX D

WELLHEAD SURVEY REPORT

Virgil Chavez Land Surveying
1418 Lassen Street
Vallejo, California 94591
707.553.2476

November 9, 1995
Project No. 1104-27

Barbara Sieminski
Gettler-Ryan, Inc.
6747 Sierra Ct. Suite J
Dublin, Ca. 94568

Subject: Monitoring Well Survey
Former Chevron Asphalt Plant No. 1001067
Landregan Street
Emeryville, Ca.

Dear Barbara:

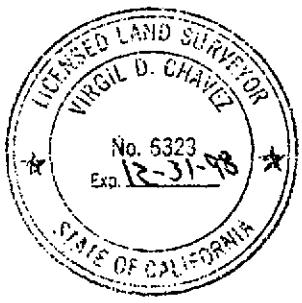
This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was performed on November 8, 1995. Our findings are shown in the table below. The bench-mark, used was a 2.5" brass disk stamped EBMUD, located east of the railroad on a loading dock at "Apex Machines", on the south side of Powell .
Benchmark Elevation = 11.82 feet, USGS Datum.

Well No.	Rim Elevation	Top of Casing Elevation
MW - 2A	12.70′	12.45′
MW - 19A	10.40′	9.96′

The table shown below is for top of casings. The face of curb on the east side of the parking lot was used as the reference line, with the south corner being station 1+00. Please call me if you have any questions regarding this table.

Monitoring Well No.	Station	Offset Left
MW - 2A	3+68.94	23.75′
MW -19A	0+03.36	227.98′

Sincerely,



Virgil D. Chavez, P.L.S. 6323
Virgil Chavez Land Surveying

APPENDIX E

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY RECORDS

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

November 13, 1995

Barbara Sieminski
GETTLER-RYAN
6747 Sierra Ct.
Suite J
Dublin, CA 94568

RE: GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

Dear Barbara Sieminski:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 11/02/95.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

GTEL is certified by the Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ware, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

Method: EPA 8020
Matrix: Low Soil

GTEL Sample Number	W5110028-03	--	--	--
Client ID	MW 19A-5.5	--	--	--
Date Sampled	10/30/95	--	--	--
Date Analyzed	11/12/95	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
MTBE	10.	ug/kg	< 10	--	--	--
Benzene	5.0	ug/kg	< 5.0	--	--	--
Toluene	5.0	ug/kg	< 5.0	--	--	--
Ethylbenzene	5.0	ug/kg	< 5.0	--	--	--
Xylenes (total)	5.0	ug/kg	< 5.0	--	--	--
BTEX (total)	--	ug/kg	--	--	--	--
TPH as Gasoline	1000	ug/kg	< 1000	--	--	--
Percent Solids	--	%	84.8	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	--	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Low Soil

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020		Acceptability Limits:	43-136%
111295GC4-1	CV111295204	Calibration Verifi	118.
111295GC4-3	BL1112954	Method blanks low	122.
111295GC4-4	LS1112954	Laboratory control	120.
111295GC4-5	LSD1112954	LCS Soil Duplicate	121.
--	11002803	MW 19A-5.5	107

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

Project ID (Number): 5161.01
Project ID (Name): Chevron
Powell Street Overpass
at Landregan
Emeryville, CA
Work Order Number: W5-11-0028
Date Reported: 11-13-95

METHOD BLANK REPORT

Volatile Organics in Low Soil
EPA Method 8020

Date of Analysis: 12-Nov-95 QC Batch No: 111295GC4-3

Analyte	Concentration, ug/Kg
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
Xylene (total)	<5.0
TPH as Gasoline	<1000

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Low Soil

Calibration Verification Sample Summary

Analyte		Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020	Units:ug/L	QC Batch:111295GC4-1			
Benzene		20.0	18.5	92.5	77-123%
Toluene		20.0	17.1	85.5	77.5-122.5%
Ethylbenzene		20.0	17.7	88.5	63-137%
Xylenes (Total)		60.0	52.1	86.8	85-115%
TPH as Gasoline		500.	461.	92.2	80-120%

Notes:

QC check source: Supelco #LA12389

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Low Soil

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS Concentration	LCS Recovery, %	LCS Duplicate Concentration	LCS Duplicate Recovery, %	RPD, %	Acceptability Limits RPD, %	Acceptability Limits Recovery, %
EPA 8020 Units: ug/L	QC Batch:111295GC4-5							
Benzene	80.0	63.3	79.1	65.4	81.8	3.36	22.6	39-150%
Toluene	80.0	59.6	74.5	62.4	78.0	4.59	27.5	46-148%
Ethylbenzene	80.0	61.9	77.4	65.1	81.4	5.04	26.4	32-160%
Xylenes (Total)	240.	185.	77.1	195.	81.3	5.30	26.7	41-155%
TPH as Gasoline	500.	480.	96.0	505.	101.	5.08	40	80-120%

Notes:

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: Former Chevron Bulk Asphalt Terminal
Facility Address: Powell Street Overpass at Landregan, Emeryville
Consultant Project Number: 5161.01
Consultant Name: Gettler-Ryan Inc.
Address: 6747 Sierra Ct, Suite J, Dublin, CA 94568
Project Contact (Name): Barbara Sieminski
(Phone): (510)551-7555 (Fax Number): (510)551-7888

Chevron Contact (Name): Bob Cochran
(Phone): (510) 842-9655
Laboratory Name: GTEL
Laboratory Release Number: 3479440
Samples Collected by (Name): Barbara Sieminski
Collection Date: 10/30/95
Signature: Barbara Sieminski

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015), MTBE	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					Remarks
1W19A-3	02	1	S	G	11:50		Yes													hold
1W19A-5.5	03	1	↓	↓	12:05		↓	X			X									
1W19A-16	04	1	↓	↓	13:15		↓													hold

W5711D028

Remarks: Confirm presence or absence of MTBE if it does not fall in the same range as TPHg and BTEX

1° Scalo-lean

515 559 6784

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Barbara Sieminski	G-R	11/01/95 12:25	Joan Welle	GTEL	11/01/95 12:25
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
			[signature]		0910 11-2-95

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days (circled)
As Contracted

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: Former Chevron Bulk Asphalt Terminal
Facility Address: Powell Street Overpass at Landregan & Emeryville
Consultant Project Number: 5161.01
Consultant Name: Gettler-Ryan Inc
Address: 6747 Sierra Ct., Suite J, Dublin, CA 94568
Project Contact (Name): Barbara Sieminski
(Phone): (510)551-7555 (Fax Number): (510) 551-7888

Chevron Contact (Name): Bob Cochran
(Phone): (510) 842-9655
Laboratory Name: GTEL
Laboratory Release Number: 3479440
Samples Collected by (Name): Barbara Sieminski
Collection Date: 10/30/95
Signature: Barbara Sieminski

Analyses To Be Performed

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)						Remarks
SP-A } Composite	01	1	S	G	13:25		Yes	X													
SP-B		1	↓	↓	13:27		↓	X													
SP-C		1			13:29			X													
SP-D } B		1	↓	↓	13:31		↓	X													Composite Sample

Lab sample number (written vertically): W510028

1° Seals/lcm

515 559 6784

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
Barbara Sieminski	G-R	12:25 11/01/95	Felix Weliz	GTEL	12:25 11/01/95	24 Hrs.
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	(48 Hrs.) circled
						5 Days
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	10 Days
			[signature]		0910 11-2-95	As Contracted

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

November 10, 1995

Barbara Sieminski
GETTLER-RYAN
6747 Sierra Ct.
Suite J
Dublin, CA 94568

RE: GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

Dear Barbara Sieminski:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 11/02/95.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

GTEL is certified by the Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ware, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01 Method: EPA 8240
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA Matrix: Low Soil

GTEL Sample Number	W5110028-03	--	--	--
Client ID	MW 19A-5.5	--	--	--
Date Sampled	10/30/95	--	--	--
Date Analyzed	11/04/95	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Chloromethane	10.	ug/kg	< 10.	--	--	--
Bromomethane	10.	ug/kg	< 10.	--	--	--
Vinyl chloride	10.	ug/kg	< 10.	--	--	--
Chloroethane	10.	ug/kg	< 10.	--	--	--
Methylene chloride	10.	ug/kg	< 10.	--	--	--
Acetone	20.	ug/kg	< 20.	--	--	--
Carbon disulfide	5.0	ug/kg	< 5.0	--	--	--
1,1-Dichloroethene	5.0	ug/kg	< 5.0	--	--	--
1,1-Dichloroethane	5.0	ug/kg	< 5.0	--	--	--
cis-1,2-Dichloroethene	5.0	ug/kg	< 5.0	--	--	--
trans-1,2-Dichloroethene	5.0	ug/kg	< 5.0	--	--	--
Chloroform	5.0	ug/kg	< 5.0	--	--	--
1,2-Dichloroethane	5.0	ug/kg	< 5.0	--	--	--
2-Butanone	20.	ug/kg	< 20.	--	--	--
1,1,1-Trichloroethane	5.0	ug/kg	< 5.0	--	--	--
Carbon tetrachloride	5.0	ug/kg	< 5.0	--	--	--
Vinyl acetate	20.	ug/kg	< 20.	--	--	--
Bromodichloromethane	5.0	ug/kg	< 5.0	--	--	--
1,2-Dichloropropane	5.0	ug/kg	< 5.0	--	--	--
cis-1,3-Dichloropropene	5.0	ug/kg	< 5.0	--	--	--
Trichloroethene	5.0	ug/kg	< 5.0	--	--	--
Dibromochloromethane	5.0	ug/kg	< 5.0	--	--	--
1,1,2-Trichloroethane	5.0	ug/kg	< 5.0	--	--	--
Benzene	5.0	ug/kg	< 5.0	--	--	--
2-Chloroethylvinyl ether	10.	ug/kg	< 10.	--	--	--
trans-1,3-Dichloropropene	5.0	ug/kg	< 5.0	--	--	--
Bromoform	5.0	ug/kg	< 5.0	--	--	--
4-Methyl-2-pentanone	20.	ug/kg	< 20.	--	--	--
2-Hexanone	20.	ug/kg	< 20.	--	--	--
Tetrachloroethene	5.0	ug/kg	17.	--	--	--
1,1,2,2-Tetrachloroethane	5.0	ug/kg	< 5.0	--	--	--
Toluene	5.0	ug/kg	< 5.0	--	--	--
Chlorobenzene	5.0	ug/kg	< 5.0	--	--	--
Ethylbenzene	5.0	ug/kg	< 5.0	--	--	--
Styrene	5.0	ug/kg	< 5.0	--	--	--
Xylenes (total)	5.0	ug/kg	< 5.0	--	--	--
1,2-Dichlorobenzene	10.	ug/kg	< 10.	--	--	--
1,3-Dichlorobenzene	10.	ug/kg	< 10.	--	--	--
1,4-Dichlorobenzene	10.	ug/kg	< 10.	--	--	--

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01 Method: EPA 8240
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA Matrix: Low Soil

GTEL Sample Number	W5110028-03	--	--	--
Client ID	MW 19A-5.5	--	--	--
Date Sampled	10/30/95	--	--	--
Date Analyzed	11/04/95	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Percent Solids	--	%	84.8	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8240:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8240
Matrix: Low Soil

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8240
Matrix: Low Soil

Surrogate Results

QC Batch No.	Reference	Sample ID	DCA-D4	TOL-D8	4-BFB
Method: EPA 8240		Acceptability Limits:	70-121%	81-117%	74-121%
110195JK-6	BL110395AFN1	Method blanks low	104.	95.7	99.3
110195JK-7	MS11003402	Matrix Spike	107.	101.	98.5
110195JK-8	MD11003402	Matrix Spike Dupli	107	100.	98.1
--	11002803	MW 19A-5.5	97.4	99.9	97.9

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110028 Volatile Organics
Project ID (number): 5161.01 Method: EPA 8240
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA Matrix: Low Soil

Method Blank Results

QC Batch No: 110195JK-6
Date Analyzed: 03-NOV-95

Analyte	Method: EPA 8240 Concentration: ug/kg
Chloromethane	< 10.0
Bromomethane	< 10.0
Vinyl chloride	< 10.0
Chloroethane	< 10.0
Methylene chloride	< 10.0
Acetone	< 20.0
Carbon disulfide	< 5.00
1,1-Dichloroethene	< 5.00
1,1-Dichloroethane	< 5.00
cis-1,2-Dichloroethene	< 5.00
trans-1,2-Dichloroethene	< 5.00
Chloroform	< 5.00
1,2-Dichloroethane	< 5.00
2-Butanone	< 20.0
1,1,1-Trichloroethane	< 5.00
Carbon tetrachloride	< 5.00
Vinyl acetate	< 20.0
Bromodichloromethane	< 5.00
1,2-Dichloropropane	< 5.00
cis-1,3-Dichloropropene	< 5.00
Trichloroethene	< 5.00
Dibromochloromethane	< 5.00
1,1,2-Trichloroethane	< 5.00
Benzene	< 5.00
2-Chloroethyl vinyl ether	< 10.0
trans-1,3-Dichloropropene	< 5.00
Bromoform	< 5.00
4-Methyl-2-pentanone	< 20.0
2-Hexanone	< 20.0
Tetrachloroethene	< 5.00
1,1,2,2-Tetrachloroethane	< 5.00
Toluene	< 5.00
Chlorobenzene	< 5.00
Ethylbenzene	< 5.00
Styrene	< 5.00
Xylenes (Total)	< 5.00
1,2-Dichlorobenzene	< 10.0
1,3-Dichlorobenzene	< 10.0
1,4-Dichlorobenzene	< 10.0

Notes:

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8240
Matrix: Low Soil

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W5110034-02 MS ID:MS11003402 MSD ID:MD11003402
Analysis Date: 03-NOV-95 03-NOV-95 03-NOV-95

Units: ug/kg	Sample	Spikes Added		MS	MS	MSD	MSD		Acceptability Limits	
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
1,1-Dichloroethene	< 5.0 (0.000)	50.0	50.0	50.7	101.	51.9	104.	2.90	24	59-172
Trichloroethene	< 5.0 (0.175)	50.0	50.0	51.8	103.	51.5	103.	0.00	22	62-137
Benzene	< 5.0 (0.0150)	50.0	50.0	47.0	94.0	46.9	93.8	0.200	21	66-142
Toluene	< 5.0 (0.151)	50.0	50.0	49.7	99.1	48.8	97.3	1.80	21	59-139
Chlorobenzene	< 5.0 (0.000)	50.0	50.0	56.5	113.	55.6	111.	1.80	21	60-133

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

Method: EPA 8020
Matrix: Solids

GTEL Sample Number	W5110028-01	--	--	--
Client ID	SP-A,B,C,D	--	--	--
Date Sampled	10/30/95	--	--	--
Date Analyzed	11/07/95	--	--	--
Dilution Factor	10.0	--	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	0.05	mg/kg	< 0.50	--	--	--
Toluene	0.10	mg/kg	< 1.0	--	--	--
Ethylbenzene	0.10	mg/kg	< 1.0	--	--	--
Xylenes (total)	0.20	mg/kg	2.7	--	--	--
TPH as Gasoline	10.	mg/kg	230	--	--	--
Percent Solids	--	%	81.0	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including Update 1.

W5110028-01:

Methanol extraction necessary due to high levels of target or non-target analytes.

GTEL Client ID: GTR01CHV08
Login Number: W5110028
Project ID (number): 5161.01
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Solids

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110028 Volatile Organics
Project ID (number): 5161.01 Method: EPA 8020
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA Matrix: Solids

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT	BFB
Method: EPA 8020		Acceptability Limits:	43-136%	46-133%
110695GC5-1	CV110695205	Calibration Verifi	133.	112.
110695GC5-10	BS110695A5	Method Blank Soil	107.	115.
110695GC5-12	MS11008502	Matrix Spike	109.	121.
110695GC5-13	MD11008502	Matrix Spike Dupli	111.	125.
110695GC5-6	BS1106955	Method Blank Soil	103.	116.
110695GC5-7	LS1106955	Laboratory control	102.	118.
110695GC5-8	LSD1106955	LCS Soil Duplicate	101.	117.
--	11002801	SP-A,B,C,D	77.6	109.

Notes:
*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110028 Volatile Organics
Project ID (number): 5161.01 Method: EPA 8020
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA Matrix: Solids

Method Blank Results

	QC Batch No:	110695GC5-10	110695GC5-6
	Date Analyzed:	07-NOV-95	06-NOV-95
Analyte		Method:EPA 8020	Concentration: mg/kg
Benzene		< 0.0500	< 0.0500
Toluene		< 0.100	< 0.100
Ethylbenzene		< 0.100	< 0.100
Xylenes (Total)		< 0.200	< 0.200

Notes:

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110028 Volatile Organics
Project ID (number): 5161.01 Method: EPA 8020
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA Matrix: Solids

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020 Units:ug/L	QC Batch:110695GC5-1			
Benzene	20.0	22.8	114.	77-123%
Toluene	20.0	21.8	109.	77.5-122.5%
Ethylbenzene	20.0	23.2	116.	63-137%
Xylenes (Total)	60.0	69.0	115.	85-115%
TPH as Gasoline	500.	549.	110.	80-120%

Notes:
QC check source: Supelco #LA12389

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110028 Volatile Organics
Project ID (number): 5161.01 Method: EPA 8020
Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA Matrix: Solids

Matrix Spike(MS) and Matrix Spike Duplicate(MSD) Results

GTEL Sample ID:W5110085-02 MS ID:MS11008502 MSD ID:MD11008502
Analysis Date: 07-NOV-95 07-NOV-95 07-NOV-95

Units: mg/kg	Sample	Spikes Added		MS	MS	MSD	MSD		Acceptability Limits	
Analyte	Conc.	MS	MSD	Conc.	% Rec.	Conc.	% Rec.	RPD	RPD	%Rec.
Benzene	< 0.05(0.000)	5.09	4.42	5.55	109.	5.17	117.	7.10	28.3	39-150
Toluene	< 0.10(0.000)	5.09	4.42	5.38	106.	4.99	113.	6.40	30	46-148
Ethylbenzene	< 0.10(0.000)	5.09	4.42	5.66	111.	5.25	119.	7.00	30	32-160
Xylenes (Total)	< 0.20(0.00900)	15.3	13.3	16.8	110.	15.6	117.	6.20	30	41-155

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS

Login Number: W5110028 Volatile Organics

Project ID (number): 5161.01 Method: EPA 8020

Project ID (name): CHEVRON/POWELL STREET OVERPASS AT LANDREGAN/EMERYVILLE/CA Matrix: Solids

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS Concentration	LCS Recovery, %	LCS Duplicate Concentration	LCS Duplicate Recovery, %	RPD, %	Acceptability Limits RPD, %	Acceptability Limits Recovery, %
EPA 8020 Units: ug/L	QC Batch:110695GC5-8							
Benzene	5.00	5.83	117.	5.88	118.	0.851	28.3	39-150%
Toluene	5.00	5.62	112.	5.78	116.	3.51	30	46-148%
Ethylbenzene	5.00	5.90	118.	6.07	121.	2.51	30	32-160%
Xylenes (Total)	15.0	17.4	116.	17.9	119.	2.55	30	41-155%

Notes:

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: Former Chevron Bulk Asphalt Terminal
Facility Address: Powell Street Access at Landregan & Emeryville
Consultant Project Number: 5161.01
Consultant Name: Gettler-Ryan Inc
Address: 6747 Sierra Ct., Suite J, Dublin, CA 94568
Project Contact (Name): Barbara Sieminski
(Phone): (510) 551-7555 (Fax Number): (510) 551-7888

Chevron Contact (Name): Bob Cochran
(Phone): (510) 842-9655
Laboratory Name: GTEL
Laboratory Release Number: 3479440
Samples Collected by (Name): Barbara Sieminski
Collection Date: 10/30/95
Signature: Barbara Sieminski

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					Remarks
SP-A (Composite)	01	1	S	G	13:25		Yes	X												
SP-B	↓	1	↓	↓	13:27		↓	X												
SP-C	↓	1	↓	↓	13:29		↓	X												
SP-D	↓	1	↓	↓	13:31		↓	X												Composite sample

W5110028

1° Sealsba[illegible]

515 559 6784

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Barbara Sieminski	G-R	11/01/95 12:25	[illegible] Weber	GTEL	11/01/95 12:25
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature): [illegible]		Date/Time 0910 11-2-95

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs. (circled)
5 Days
10 Days
As Contracted

☐ Yes
Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: Former Chevron Bulk Asphalt Terminal
Facility Address: Powell Street Overpass at Landregan, Emeryville
Consultant Project Number: 5161.01
Consultant Name: Gettler-Ryan Inc.
Address: 6747 Sierra Ct, Suite J, Dublin, CA 94568
Project Contact (Name): Barbara Sieminski
(Phone) (510) 551-7555 (Fax Number) (510) 551-7888

Chevron Contact (Name): Bob Cochran
(Phone) (510) 842-9655
Laboratory Name: GTEL
Laboratory Release Number: 3479440
Samples Collected by (Name): Barbara Sieminski
Collection Date: 10/30/95
Signature: Barbara Sieminski

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS, MTBE (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					Remarks
W19A-3	02	1	S	G	11:50		Yes													hold
W19A-5.5	03	1	↓	↓	12:05		↓	X			X									
W19A-16	04	1	↓	↓	13:15		↓													hold

W5110088

Remarks: Confirm presence or absence of MTBE if it does not fall in the same range as TPHg and BTEX

1° seal absent

515 559 6784

Analyses To Be Performed

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Barbara Sieminski	G-R	11/01/95 12:25	Joan Welle	GTEL	11/01/95 12:25
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature): [signature]		Date/Time 0910 11-2-95

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days (circled)
As Contracted

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

November 15, 1995

Deanna Harding
GETTLER-RYAN
6747 Sierra Ct.
Suite J
Dublin, CA 94568

RE: GTEL Client ID:	GTR01CHV08
Login Number:	W5110155
Project ID (number):	5161.85
Project ID (name):	CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Dear Deanna Harding:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 11/08/95.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

GTEL is certified by the Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8020
Matrix: Aqueous

GTEL Sample Number	W5110155-01	W5110155-02	W5110155-03	W5110155-04
Client ID	TB-LB	MW-7	MW-13	MW-15
Date Sampled		11/06/95	11/06/95	11/06/95
Date Analyzed	11/11/95	11/11/95	11/11/95	11/12/95
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
MTBE	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes (total)	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
BTEX (total)	--	ug/L	--	--	--	--
TPH as Gasoline	50	ug/L	< 50	< 50	< 50	< 50

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8020
Matrix: Aqueous

	GTEL Sample Number	W5110155-05	W5110155-06	W5110155-07	W5110155-08
	Client ID	MW-17	MW-18	MW-19A	MW-10
	Date Sampled	11/06/95	11/06/95	11/06/95	11/06/95
	Date Analyzed	11/12/95	11/12/95	11/12/95	11/12/95
	Dilution Factor	1.00	1.00	1.00	1.00
Analyte	Reporting Limit / Units	Concentration:			
MTBE	5.0 ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	0.5 ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5 ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5 ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes (total)	0.5 ug/L	< 0.5	< 0.5	< 0.5	< 0.5
BTEX (total)	-- ug/L	--	--	--	--
TPH as Gasoline	50 ug/L	< 50	< 50	420	< 50

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8020
Matrix: Aqueous

GTEL Sample Number	W5110155-09	--	--	--
Client ID	MW-2A	--	--	--
Date Sampled	11/06/95	--	--	--
Date Analyzed	11/12/95	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
MTBE	5.0	ug/L	< 5.0	--	--	--
Benzene	0.5	ug/L	< 0.5	--	--	--
Toluene	0.5	ug/L	< 0.5	--	--	--
Ethylbenzene	0.5	ug/L	< 0.5	--	--	--
Xylenes (total)	0.5	ug/L	< 0.5	--	--	--
BTEX (total)	--	ug/L	--	--	--	--
TPH as Gasoline	50	ug/L	< 50	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020		Acceptability Limits:	43-136%
111195GC10-1	CV1111952010	Calibration Verifi	69.9
111195GC10-2	BW11119510	Method Blank Water	70.8
111195GC10-3	DP11015507	Duplicate	77.5
111195GC10-4	CM1111952010	Calibration Verifi	76.5
111195GC10-5	DP11014802	Duplicate	77.1
111195GC10-6	MS11014805	Matrix Spike	76.0
111195GC10-8	LW1111952010	Laboratory Control	80.2
--	11015501	TB-LB	75.8
--	11015502	MW-7	79.8
--	11015503	MW-13	86.1
--	11015504	MW-15	77.2
--	11015505	MW-17	78.0
--	11015506	MW-18	76.5
--	11015507	MW-19A	78.3
--	11015508	MW-10	77.1
--	11015509	MW-2A	80.6

Notes:
*: Indicates values outside of acceptability limits. See Nonconformance Summary.

Project ID (Number): 5161.85
Project ID (Name): Chevron SS #1001067
Powell @ Landgren
Emeryville, CA
Work Order Number: W5-11-0155
Date Reported: 11-14-95

METHOD BLANK REPORT

Volatile Organics in Water
EPA Method 8020

Date of Analysis: 11-Nov-95 QC Batch No: 111195GC10-2

Analyte	Concentration, ug/L
MTBE	<5.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylene (total)	<0.5
TPH as Gasoline	<50

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110155 Volatile Organics
Project ID (number): 5161.85 Method: EPA 8020
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA Matrix: Aqueous

Calibration Verification Sample Summary

Analyte		Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020	Units:ug/L	QC Batch:111195GC10-1			
Benzene		20.0	19.7	98.5	77-123%
Toluene		20.0	20.8	104.	77.5-122.5%
Ethylbenzene		20.0	19.3	96.5	63-137%
Xylenes (Total)		40.0	40.1	100.	85-115%
TPH as Gasoline		500.	597	119.	80-120%

Notes:
QC check source: Supelco #LA12389

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110155 Volatile Organics
Project ID (number): 5161.85 Method: EPA 8020
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA Matrix: Aqueous

Continuing Calibration Verification Sample Summary

Analyte		Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020	Units:ug/L	QC Batch:111195GC10-4			
Benzene		20.0	19.8	99.0	85-115%
Toluene		20.0	20.8	104.	85-115%
Ethylbenzene		20.0	19.7	98.5	85-115%
Xylenes (Total)		40.0	40.2	101.	85-115%

Notes:

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110155 Volatile Organics
Project ID (number): 5161.85 Method: EPA 8020
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA Matrix: Aqueous

Laboratory Control Sample Summary

Analyte		Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020	Units:ug/L	QC Batch:111195GC10-8			
Benzene		20.0	16.5	82.5	39-150%
Toluene		20.0	16.5	82.5	46-148%
Ethylbenzene		20.0	13.7	68.5	32-160%
Xylenes (Total)		60.0	47.5	79.2	51-145%

Notes:

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110155 Volatile Organics
Project ID (number): 5161.85 Method: EPA 8020
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
EPA 8020 Units: ug/L	QC Batch: 111195GC10-5	GTEL Sample ID: W5110148-02		Client ID: Batch QC
MTBE	< 500.	< 500.	NA	20
Benzene	361.	353.	2.24	23.9
Toluene	12300	12000	2.47	27.2
Ethylbenzene	5270	5130	2.69	21.6
Xylenes (Total)	30700	30100	1.97	22.0
TPH as Gasoline	99900	97300	2.64	20
EPA 8020 Units: ug/L	QC Batch: 111195GC10-3	GTEL Sample ID: W5110155-07		Client ID: MW-19A
MTBE	< 10.0	< 10.0	NA	20
Benzene	< 0.500	< 0.500	NA	23.9
Toluene	< 1.00	< 1.00	NA	27.2
Ethylbenzene	< 1.00	< 1.00	NA	21.6
Xylenes (Total)	< 2.00	< 2.00	NA	22.0
TPH as Gasoline	424.	457.	7.49	20

Notes:
NA - The concentration of the analyte is less than the reporting limit.

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110155 Volatile Organics
Project ID (number): 5161.85 Method: EPA 8020
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W5110148-05 MS ID:MS11014805
Analysis Date: 12-NOV-95 12-NOV-95

Units: ug/L Analyte	Sample Conc.	Spike Added	MS Conc.	MS % Rec.	Acceptability Limits %Rec.
Benzene	< 0.5 (0.000)	20.0	18.7	93.5	67-110
Toluene	< 0.5 (0.000)	20.0	18.8	94.0	68-115
Ethylbenzene	< 0.5 (0.000)	20.0	16.1	80.5	65-120
Xylenes (Total)	< 0.5 (0.000)	60.0	54.1	90.2	62-119

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8010
Matrix: Aqueous

GTEL Sample Number	W5110155-01	W5110155-02	W5110155-03	W5110155-04
Client ID	TB-LB	MW-7	MW-13	MW-15
Date Sampled		11/06/95	11/06/95	11/06/95
Date Analyzed	11/09/95	11/09/95	11/09/95	11/09/95
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8010
Matrix: Aqueous

GTEL Sample Number	W5110155-05	W5110155-06	W5110155-07	W5110155-08
Client ID	MW-17	MW-18	MW-19A	MW-10
Date Sampled	11/06/95	11/06/95	11/06/95	11/06/95
Date Analyzed	11/10/95	11/10/95	11/10/95	11/10/95
Dilution Factor	1.00	1.00	25.0	1.00

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	< 5.0	< 120	< 5.0
Chloromethane	2.0	ug/L	< 2.0	< 2.0	< 50.	< 2.0
Vinyl Chloride	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Bromomethane	2.0	ug/L	< 2.0	< 2.0	< 50.	< 2.0
Chloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Trichlorofluoromethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,1-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 25.	1.0
Methylene Chloride	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	< 1.0	< 25.	19.
1,1-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	1.4
cis-1,2-Dichloroethene	1.0	ug/L	1.1	1.8	110	41.
Chloroform	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	1.2	< 25.	< 1.0
Carbon tetrachloride	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,2-Dichloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Trichloroethene	1.0	ug/L	29.	45.	160	14.
1,2-Dichloropropane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Bromodichloromethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Tetrachloroethene	1.0	ug/L	13.	18.	1500	< 1.0
Dibromochloromethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Chlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
Bromoform	2.0	ug/L	< 2.0	< 2.0	< 50.	< 2.0
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	< 1.0	< 25.	< 1.0

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

Method: EPA 8010
Matrix: Aqueous

GTEL Sample Number	W5110155-09	--	--	--
Client ID	MW-2A	--	--	--
Date Sampled	11/06/95	--	--	--
Date Analyzed	11/09/95	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
Dichlorodifluoromethane	5.0	ug/L	< 5.0	--	--	--
Chloromethane	2.0	ug/L	< 2.0	--	--	--
Vinyl Chloride	1.0	ug/L	< 1.0	--	--	--
Bromomethane	2.0	ug/L	< 2.0	--	--	--
Chloroethane	1.0	ug/L	< 1.0	--	--	--
Trichlorofluoromethane	1.0	ug/L	< 1.0	--	--	--
1,1-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
Methylene Chloride	1.0	ug/L	< 1.0	--	--	--
trans-1,2-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
1,1-Dichloroethane	1.0	ug/L	< 1.0	--	--	--
cis-1,2-Dichloroethene	1.0	ug/L	< 1.0	--	--	--
Chloroform	1.0	ug/L	< 1.0	--	--	--
1,1,1-Trichloroethane	1.0	ug/L	< 1.0	--	--	--
Carbon tetrachloride	1.0	ug/L	< 1.0	--	--	--
1,2-Dichloroethane	1.0	ug/L	< 1.0	--	--	--
Trichloroethene	1.0	ug/L	< 1.0	--	--	--
1,2-Dichloropropane	1.0	ug/L	< 1.0	--	--	--
Bromodichloromethane	1.0	ug/L	< 1.0	--	--	--
2-Chloroethylvinyl ether	1.0	ug/L	< 1.0	--	--	--
cis-1,3-Dichloropropene	1.0	ug/L	< 1.0	--	--	--
trans-1,3-Dichloropropene	1.0	ug/L	< 1.0	--	--	--
1,1,2-Trichloroethane	1.0	ug/L	< 1.0	--	--	--
Tetrachloroethene	1.0	ug/L	< 1.0	--	--	--
Dibromochloromethane	1.0	ug/L	< 1.0	--	--	--
Chlorobenzene	1.0	ug/L	< 1.0	--	--	--
Bromoform	2.0	ug/L	< 2.0	--	--	--
1,1,2,2-Tetrachloroethane	1.0	ug/L	< 1.0	--	--	--
1,3-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--
1,4-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--
1,2-Dichlorobenzene	1.0	ug/L	< 1.0	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8010:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010
Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	*	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	BFB ELCD	BFB PID
Method: EPA 8010		Acceptability Limits:	68-133%	82-117%
110995GC15-1	CV1109952015	Calibration Verifi	101.	94.6
110995GC15-2	BW11099515	Method Blank Water	100.	95.7
110995GC15-3	MS11015509	Matrix Spike	99.5	98.7
110995GC15-4	DP11015507	Duplicate	98.9	98.2
110995GC15-5	LW1109952015	Laboratory Control	102.	96.7
--	11015501	TB-LB	100.	94.6
--	11015502	MW-7	99.1	96.8
--	11015503	MW-13	101.	97.4
--	11015504	MW-15	100.	97.1
--	11015505	MW-17	97.4	98.1
--	11015506	MW-18	98.1	97.3
--	11015507	MW-19A	100.	98.1
--	11015508	MW-10	101.	98.2
--	11015509	MW-2A	100.	99.6

Notes:
*: Indicates values outside of acceptability limits. See Nonconformance Summary.

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110155 Volatile Organics
Project ID (number): 5161.85 Method: EPA 8010
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA Matrix: Aqueous

Method Blank Results

QC Batch No: 110995GC15-2
Date Analyzed: 09-NOV-95

Analyte	Method:EPA 8010 Concentration: ug/L
Dichlorodifluoromethane	< 5.00
Chloromethane	< 2.00
Vinyl chloride	< 1.00
Bromomethane	< 2.00
Chloroethane	< 1.00
Trichlorofluoromethane	< 1.00
1,1-Dichloroethene	< 1.00
Methylene chloride	< 1.00
trans-1,2-Dichloroethene	< 1.00
1,1-Dichloroethane	< 1.00
cis-1,2-Dichloroethene	< 1.00
Chloroform	< 1.00
1,1,1-Trichloroethane	< 1.00
Carbon tetrachloride	< 1.00
1,2-Dichloroethane	< 1.00
Trichloroethene	< 1.00
1,2-Dichloropropane	< 1.00
Bromodichloromethane	< 1.00
2-Chloroethyl vinyl ether	< 1.00
cis-1,3-Dichloropropene	< 1.00
trans-1,3-Dichloropropene	< 1.00
1,1,2-Trichloroethane	< 1.00
Tetrachloroethene	< 1.00
Dibromochloromethane	< 1.00
Chlorobenzene	< 1.00
Bromoform	< 2.00
1,1,2,2-Tetrachloroethane	< 1.00
1,3-Dichlorobenzene	< 1.00
1,4-Dichlorobenzene	< 1.00
1,2-Dichlorobenzene	< 1.00

Notes:

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010
Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010 Units:ug/L	QC Batch:110995GC15-1			
Dichlorodifluoromethane	20.0	29.5	148.	40-160%
Chloromethane	20.0	20.4	102.	59.5-140.5%
Vinyl chloride	20.0	19.5	97.5	68.5-131.5%
Bromomethane	20.0	21.2	106.	58.5-141.5%
Chloroethane	20.0	23.1	116.	77-123%
Trichlorofluoromethane	20.0	20.1	101.	66.5-133.5%
1,1-Dichloroethene	20.0	23.2	116.	63-137%
Methylene chloride	20.0	23.5	118.	77.5-122.5%
trans-1,2-Dichloroethene	20.0	21.5	108.	64-136%
1,1-Dichloroethane	20.0	20.7	104.	71.5-116%
cis-1,2-Dichloroethene	20.0	19.8	99.0	64-116%
Chloroform	20.0	19.6	98.0	75-125%
1,1,1-Trichloroethane	20.0	22.1	111.	71-129%
Carbon tetrachloride	20.0	21.6	108.	68.5-131.5%
1,2-Dichloroethane	20.0	22.7	114.	71.5-128.5%
Trichloroethene	20.0	21.5	108.	77-123%
1,2-Dichloropropane	20.0	21.9	110.	74-126%
Bromodichloromethane	20.0	20.6	103.	76-124%
2-Chloroethyl vinyl ether	20.0	24.4	122.	60-140%
cis-1,3-Dichloropropene	20.0	20.0	100.	64-136%
trans-1,3-Dichloropropene	20.0	21.2	106.	64-136%
1,1,2-Trichloroethane	20.0	21.6	108.	78.5-121.5%
Tetrachloroethene	20.0	21.7	109.	70-130%
Dibromochloromethane	20.0	20.4	102.	65.5-134.5%
Chlorobenzene	20.0	21.7	109.	72-128%
Bromoform	20.0	17.0	85.0	73.5-126.5%
1,1,2,2-Tetrachloroethane	20.0	22.8	114.	49-151%
1,3-Dichlorobenzene	20.0	19.5	97.5	49.5-150.5%
1,4-Dichlorobenzene	20.0	20.4	102.	69.5-130.5%
1,2-Dichlorobenzene	20.0	19.0	95.0	70-130%

Notes:

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010
Matrix: Aqueous

Laboratory Control Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8010 Units:ug/L	QC Batch:110995GC15-5			
Dichlorodifluoromethane	20.0	30.2	151.	40-160%
Chloromethane	20.0	21.0	105.	10-193%
Vinyl chloride	20.0	16.3	81.5	28-163%
Bromomethane	20.0	15.9	79.5	10-144%
Chloroethane	20.0	23.0	115.	46-137%
Trichlorofluoromethane	20.0	17.8	89.0	21-156%
1,1-Dichloroethene	20.0	22.0	110.	28-167%
Methylene chloride	20.0	24.9	125.	25-162%
trans-1,2-Dichloroethene	20.0	22.9	115.	38-155%
1,1-Dichloroethane	20.0	20.6	103.	47-132%
cis-1,2-Dichloroethene	20.0	19.3	96.5	38-155%
Chloroform	20.0	19.8	99.0	49-133%
1,1,1-Trichloroethane	20.0	22.7	114.	41-138%
Carbon tetrachloride	20.0	22.2	111.	43-143%
1,2-Dichloroethane	20.0	22.5	113.	51-147%
Trichloroethene	20.0	22.8	114.	35-146%
1,2-Dichloropropane	20.0	22.5	113.	44-156%
Bromodichloromethane	20.0	21.1	106.	42-172%
2-Chloroethyl vinyl ether	20.0	6.03	30.2	14-186%
cis-1,3-Dichloropropene	20.0	20.4	102.	22-178%
trans-1,3-Dichloropropene	20.0	20.5	103.	22-178%
1,1,2-Trichloroethane	20.0	22.4	112.	39-136%
Tetrachloroethene	20.0	22.5	113.	25-162%
Dibromochloromethane	20.0	19.8	99.0	24-191%
Chlorobenzene	20.0	22.6	113.	38-150%
Bromoform	20.0	16.3	81.5	13-159%
1,1,2,2-Tetrachloroethane	20.0	22.1	111.	10-184%
1,3-Dichlorobenzene	20.0	19.4	97.0	10-187%
1,4-Dichlorobenzene	20.0	19.5	97.5	42-143%
1,2-Dichlorobenzene	20.0	19.0	95.0	10-208%

Notes:

GTEL Client ID: GTR01CHV08
Login Number: W5110155
Project ID (number): 5161.85
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8010
Matrix: Aqueous

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %	
EPA 8010 Units: ug/L	QC Batch: 110995GC15-4	GTEL Sample ID: W5110155-07			Client ID: MW-19A
Dichlorodifluoromethane	< 125.	< 125.	NA	35.4	
Chloromethane	< 50.0	< 50.0	NA	24.2	
Vinyl chloride	< 25.0	< 25.0	NA	18.6	
Bromomethane	< 50.0	< 50.0	NA	24.8	
Chloroethane	< 25.0	< 25.0	NA	14.4	
Trichlorofluoromethane	< 25.0	< 25.0	NA	19.6	
1,1-Dichloroethene	< 25.0	< 25.0	NA	21.6	
Methylene chloride	< 25.0	< 25.0	NA	13.1	
trans-1,2-Dichloroethene	< 25.0	< 25.0	NA	20.9	
1,1-Dichloroethane	< 25.0	< 25.0	NA	10.5	
cis-1,2-Dichloroethene	114	111.	2.67	20.9	
Chloroform	< 25.0	< 25.0	NA	14.7	
1,1,1-Trichloroethane	< 25.0	< 25.0	NA	16	
Carbon tetrachloride	< 25.0	< 25.0	NA	18.3	
1,2-Dichloroethane	< 25.0	< 25.0	NA	17	
Trichloroethene	156.	149.	4.59	13.7	
1,2-Dichloropropane	< 25.0	< 25.0	NA	17	
Bromodichloromethane	< 25.0	< 25.0	NA	13.1	
2-Chloroethyl vinyl ether	< 25.0	< 25.0	NA	27.1	
cis-1,3-Dichloropropene	< 25.0	< 25.0	NA	23.8	
trans-1,3-Dichloropropene	< 25.0	< 25.0	NA	23.8	
1,1,2-Trichloroethane	< 25.0	< 25.0	NA	12.8	
Tetrachloroethene	1480	1420	4.14	17.7	
Dibromochloromethane	< 25.0	< 25.0	NA	20.6	
Chlorobenzene	< 25.0	< 25.0	NA	16.4	
Bromoform	< 50.0	< 50.0	NA	15.4	
1,1,2,2-Tetrachloroethane	< 25.0	< 25.0	NA	30	
1,3-Dichlorobenzene	< 25.0	< 25.0	NA	29.7	
1,4-Dichlorobenzene	< 25.0	< 25.0	NA	18	
1,2-Dichlorobenzene	< 25.0	< 25.0	NA	18	

Notes:

NA - The concentration of the analyte is less than the reporting limit.

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W5110155 Volatile Organics
Project ID (number): 5161.85 Method: EPA 8010
Project ID (name): CHEVRON/1001067/POWELL @ LANDGREN/EMERYVILLE/CA Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W5110155-09 MS ID:MS11015509
Analysis Date: 09-NOV-95 10-NOV-95

Units: ug/L Analyte	Sample Conc.	Spike Added	MS Conc.	MS % Rec.	Acceptability Limits %Rec.
Dichlorodifluoromethane	< 5.00(0.000)	23.0	45.6	198 *	40-160
Chloromethane	< 2.00(0.000)	23.0	29.8	130.	10-193
Vinyl chloride	< 1.00(0.000)	23.0	23.0	100.	28-163
Bromomethane	< 2.00(0.000)	23.0	22.9	99.6	10-144
Chloroethane	< 1.00(0.000)	23.0	32.9	143 *	46-137
Trichlorofluoromethane	< 1.00(0.000)	23.0	25.7	112.	21-156
1,1-Dichloroethene	< 1.00(0.000)	20.0	22.6	113.	28-167
Methylene chloride	< 1.00(0.0900)	20.0	23.6	118.	25-162
trans-1,2-Dichloroethene	< 1.00(0.000)	20.0	23.2	116.	38-155
1,1-Dichloroethane	< 1.00(0.000)	20.0	20.7	104.	47-132
cis-1,2-Dichloroethene	< 1.00(0.000)	20.0	19.0	95.0	38-155
Chloroform	< 1.00(0.000)	20.0	19.4	97.0	49-133
1,1,1-Trichloroethane	< 1.00(0.000)	20.0	22.4	112.	41-138
Carbon tetrachloride	< 1.00(0.000)	20.0	21.8	109.	43-143
1,2-Dichloroethane	< 1.00(0.000)	20.0	22.1	111.	51-147
Trichloroethene	< 1.00(0.000)	20.0	21.6	108.	35-146
1,2-Dichloropropane	< 1.00(0.000)	20.0	21.8	109.	44-156
Bromodichloromethane	< 1.00(0.000)	20.0	20.2	101.	42-172
2-Chloroethyl vinyl ether	< 1.00(0.000)	20.0	0.00	0.00*	14-186
cis-1,3-Dichloropropene	< 1.00(0.000)	20.0	19.5	97.5	22-178
trans-1,3-Dichloropropene	< 1.00(0.000)	20.0	20.0	100.	22-178
1,1,2-Trichloroethane	< 1.00(0.000)	20.0	21.8	109.	39-136
Tetrachloroethene	< 1.00(0.000)	20.0	21.4	107.	25-162
Dibromochloromethane	< 1.00(0.000)	20.0	19.2	96.0	24-191
Chlorobenzene	< 1.00(0.000)	20.0	21.9	110.	38-150
Bromoform	< 2.00(0.000)	20.0	15.6	78.0	13-159
1,1,2,2-Tetrachloroethane	< 1.00(0.000)	20.0	22.4	112.	10-184
1,3-Dichlorobenzene	< 1.00(0.000)	20.0	18.7	93.5	10-187
1,4-Dichlorobenzene	< 1.00(0.000)	20.0	18.6	93.0	42-143
1,2-Dichlorobenzene	< 1.00(0.150)	20.0	18.5	91.8	10-208

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

110995GC15-3: Matrix spike results were outside the acceptibility limits for Dichlorodifluoromethane and Chloroethane. As these analytes were not present in any of the analyzed samples, the reported data is valid.

110995GC15-3: :2-Chloroethylvinyl ether decomposes in the presence of Hydrochloric Acid (used as a preservative).

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: 100167
Facility Address: Powell @ Landgren Emeryville
Consultant Project Number: 5161.85
Consultant Name: Gettler-Ryan
Address: 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name): Deanna Harding
(Phone): 510 551-7555 (Fax Number): 510 551-7888

Chevron Contact (Name): Bob Cochran
(Phone): (510) 842-9655
Laboratory Name: GTEL
Laboratory Release Number: 3479440
Samples Collected by (Name): GUADALUPE SANCHEZ
Collection Date: 11-6-95
Signature: Guadalupe S.

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015) * w/ MTBE	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	DO NOT BILL TB-LB ANALYSIS / Remarks
TB-LB	01	2	W	G	—	HCl	Y	X			X					Analyze in order
MW-7	02	6			1205											
MW-13	03				1148											
MW-15	04				1238											
MW-17	05				1312											
MW-18	06				1337											
MW-19A	07				1357											
MW-10	08				1435											
MW-2A	09	↓	↓	↓	1500	↓	↓	↓			↓					No seals

* Run BTEX with MTBE

515596482

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Guadalupe S.	G/R	11-6-95 1700	Deanna Harding	G-R	11/7/95 8:00 a.m.
Relinquished By (Signature): Deanna Harding	Organization: G-R	Date/Time: 11/7/95 13:15	Received By (Signature): Joan Weber	Organization: GTEL	Date/Time: 11/7/95 13:15
Relinquished By (Signature): Joan Weber	Organization: GTEL	Date/Time: 11/7/95 1600	Received For Laboratory By (Signature): Jammy Williams		Date/Time: 11/8/95 0850

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted