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### SOIL BORING AND UTILITY TRENCH INVESTIGATION REPORT

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at  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

MAY 01 2002

GR Report No. DG96991G.4CT1-1  
Delta Project No. DG96-991-G

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## TABLE OF CONTENTS

INTRODUCTION .....	1
SITE DESCRIPTION .....	1
PREVIOUS ENVIRONMENTAL WORK .....	1
FIELD ACTIVITIES .....	2
Soil Boring Advancement .....	2
Soil and Grab Groundwater Sampling .....	3
RESULTS OF THE SUBSURFACE INVESTIGATION .....	3
CHEMICAL ANALYTICAL RESULTS .....	3
Soil Analytical Results .....	4
Grab Groundwater Analytical Results .....	4
CONCLUSIONS .....	4

### TABLES

Table 1.	Historic Groundwater Monitoring Data and Analytical Results
Table 2.	Soil Chemical Analytical Results
Table 3.	Groundwater Chemical Analytical Results

### FIGURES

Figure 1.	Vicinity Map
Figure 2.	Extended Site Plan

### APPENDICES

Appendix A.	Field Methods and Procedures
Appendix B.	Encroachment and Soil Boring Permits, and Boring Logs
Appendix C.	Chemical Analytical Report and Chain-of-Custody Forms

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## INTRODUCTION

At the request of Chevron Products Company (Chevron), Delta Environmental Consultants, Inc. (Delta) network associate Gettler-Ryan Inc. (GR) advanced six soil borings in the vicinity of the Chevron Station #9-6991, located at 2920 Castro Valley Boulevard in Castro Valley, California. The work was performed to further delineate the extent of the dissolved hydrocarbon plume, and to evaluate if utility trenches adjacent to the site are acting as preferential pathways for the migration of dissolved hydrocarbons near the southern portion of the subject site. Two phases of work were initially proposed. Phase I included advancing six hand augered borings with soil and grab groundwater samples, and phase II included possibly installing one groundwater monitoring well across Castro Valley Boulevard, if warranted. The scope of work completed in this phase included: obtaining the required county encroachment and well and soil boring permits; updating a site safety plan; advancing six hand augered soil borings; collecting soil and grab groundwater samples from the borings; analyzing selected soil and groundwater samples; and preparing a report documenting the findings of the investigation. This work was requested in a letter from Alameda County Health Care Services Agency (ACHCSA) dated December 1, 1998. This work was originally proposed in Delta's, *Work Plan for Soil Borings and Monitoring Well Installation*, dated June 13, 2001, and approved by the ACHCSA in a letter dated June 13, 2001.

## SITE DESCRIPTION

The subject site is a Chevron service station located on the northeast corner of the intersection of Castro Valley Boulevard and Anita Avenue in Castro Valley, California (Figure 1). Site facilities consist of a station building, three underground storage tanks (USTs), and two fuel dispenser islands. The topography of the site and the immediate surrounding area has relatively low-lying relief, with a gradual southward slope toward South Reservoir, approximately 0.7 miles from the site. The site elevation is approximately 169 feet above mean sea level (MSL). Locations of pertinent site features are shown on Figure 2.

## PREVIOUS ENVIRONMENTAL WORK

- 1990: In September, Chevron removed one 1,000 gallon waste-oil UST and one 6,000 gallon gasoline UST from the site, and left three existing gasoline USTs in place. All product piping at the site was removed and replaced. Records indicate that approximately 700 cubic yards of soil was excavated during tank removal activities. Samples taken beneath the product lines and USTs showed only low concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg) and diesel (TPHd), benzene, and Oil and Grease (O&G) range hydrocarbons in the remaining unsaturated soil.
- 1991: In September, Groundwater Technology Inc. (GTI) installed three 2-inch diameter wells, MW-1, MW-2 and MW-3.

## SOIL BORING AND UTILITY TRENCH INVESTIGATION REPORT

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

Page 2 of 4

- 1992: In September and October, GTI installed three additional 2-inch diameter wells, MW-4, MW-5 and MW-6, to further define the extent of hydrocarbons in soil and groundwater beneath the site.
- 1993: In March, GTI reviewed public project files of the Regional Water Quality Control Board (RWQCB) and Alameda County Department of Health Services (ACDEH), and reviewed Castro Valley Sanitary District and East Bay Municipal Utilities District maps in an attempt to determine possible sources of hydrocarbons detected in well MW-6 on the south side of Castro Valley Boulevard. The former service station site at 2896 Castro Valley Boulevard was determined to be a possible source, and the 36-inch diameter storm drain line located adjacent to MW-6 was identified as a possible conduit.
- 1995: In August, well MW-7 was installed to further assess soil and groundwater conditions in the vicinity of the former fuel islands and existing USTs.

### Discussion

The groundwater flow direction beneath the site has varied from northwest to southeast at an approximate depth between 9.5 feet to 11 feet below surface grade (bsg). Lateral extent of petroleum hydrocarbon impact to groundwater has not been delineated off-site. TPHg and TPHd were reported in groundwater samples collected from well MW-7 on December 17, 2001, at maximum concentrations of 1,700 and 7,000 parts per billion (ppb), respectively. Methyl tertiary-butyl ether (MTBE) was reported in samples collected from wells MW-3 and MW-7 at concentrations of 930 and 4,100 ppb, respectively. Benzene was not detected in the groundwater samples analyzed on December 17, 2001. Historic groundwater monitoring data and analytical results are presented in Table 1.

### **FIELD ACTIVITIES**

Field work was conducted in accordance with GR's Field Methods and Procedures (Appendix A) and Site Safety Plan, dated March 4, 2002. Temporary Encroachment permit #ROO-LD2730 and Drilling permit #W02-0266 were obtained from Alameda County Public Works Agency (ACPWA). Underground Service Alert (USA) was notified prior to drilling at the site. Copies of the permits are included in Appendix B.

Based on information provided to GR by Chevron it appears that utility trenches adjacent to the site are at depths comparable to historic groundwater depths. To evaluate the extent of dissolved petroleum hydrocarbon impact to groundwater near the utility trenches, and investigate the likelihood that utility trenches in the area of the site may influence the migration of hydrocarbon-impacted groundwater away from the site, GR advanced six soil borings utilizing hand augers at the locations shown on Figure 2. Approximate utility locations and depths are presented on Figure 2.

### **Soil Boring Advancement**

On March 6, 2002, GR (C57 # 220793) advanced six hand augered borings (SB1 through SB6) at the locations shown on Figure 2. The soil borings were advanced using 3.25-inch diameter hand auger to total depths ranging from 3.5 to 16 feet bsg. A GR geologist prepared a log of each boring (Appendix B).

## **SOIL BORING AND UTILITY TRENCH INVESTIGATION REPORT**

Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California  
Page 3 of 4

### **Soil and Grab Groundwater Sampling**

A slide hammer sampler equipped with new, clean bass sleeves was used to collect soil samples from each boring at approximately five-foot intervals for description and preparation of a log, and for possible chemical analysis. After saturated soil was encountered in each boring, the borings were advanced approximately 1 to 2 feet into the saturated zone. New, clean disposable bailers were used to collect grab groundwater samples from the borings. Grab groundwater samples were collected from borings SB1, SB2, SB3, SB5, and SB6. Soil and groundwater samples were not collected from boring SB4 due to auger refusal at approximately 3.5 feet bsg. Auger refusal occurred as a result of encountering a cobble or cement pipe. The grab groundwater sample collected from SB5 was not chemically analyzed due to the presence of Separate-Phase Hydrocarbons (SPH). Soil and grab groundwater samples were collected and preserved as described in the GR Field Methods and Procedures (Appendix A).

Upon collection of the grab groundwater samples, the borings were backfilled and compacted with the soil cuttings, and then finished flush with the ground surface as required by the ACPWA encroachment permit.

### **RESULTS OF THE SUBSURFACE INVESTIGATION**

Soil encountered during this investigation ~~consisted of clay from approximately 1 to 10 feet bsg. Sandy clay and clayey sand was encountered from 12 to 16 feet bsg. Groundwater was first encountered at approximately 5 feet bsg in boring SB3, and between 10 to 15 feet bsg in the other borings.~~ Based on groundwater monitoring data collected on December 17, 2001, during quarterly groundwater monitoring and sampling at the site, the ~~water table beneath the site was at approximately 10.5 feet bsg,~~ which is consistent with historical data. Detailed descriptions of the soil encountered during boring activities are presented on the boring logs in Appendix B.

### **CHEMICAL ANALYTICAL RESULTS**

A total of seven soil samples and four grab groundwater samples from the soil borings were submitted under chain-of-custody for chemical analysis. All samples were analyzed by Lancaster Laboratories (ELAP # 2116). Soil samples were analyzed for TPHg and TPHd by EPA Method 8015M, and benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MtBE by EPA Method 8021B. Grab groundwater samples were analyzed for TPHg, TPHd, BTEX, and MtBE by EPA Methods 8015M/8021B, and oxygenating compounds MtBE, tertiary-butyl alcohol (TBA), di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (EtBE), and tertiary-amyl methyl ether (TAME) by EPA Method 8260B. Copies of the laboratory analytical report and chains-of-custody form are included in Appendix C.

## SOIL BORING AND UTILITY TRENCH INVESTIGATION REPORT

Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California  
Page 4 of 4

### Soil Analytical Results

TPHg, TPHd, BTEX, or MtBE were not reported in any of the soil samples collected from borings SB1, SB2, SB3, or SB6. TPHg and TPHd were reported in a sample collected from boring SB5 at 10 feet bsg at concentrations of 250 and 53 ppm, respectively. MtBE was not reported in any of the soil samples collected and analyzed. **Soil chemical analytical results are summarized in Table 2.**

### Grab Groundwater Analytical Results

TPHg or BTEX were not reported in grab groundwater samples from borings SB1, SB2, or SB6. Oxygenates were not reported in grab groundwater samples from borings SB1, SB2, or SB6 by EPA Method 8260B. TPHg and TPHd were reported in a grab groundwater sample collected from boring SB3 at concentrations of 990 and 960 ppb, respectively. Benzene was reported at a concentration of 0.59 ppb in boring SB3, which is below the Primary Maximum Contaminant Levels (MCLs) for California drinking water of 1.0 ppb for benzene. MtBE was reported at a concentration of 8 ppb by EPA Method 8260B in boring SB3, which is below the Primary MCL of 13 ppb, but above the Secondary MCL of 5 ppb. MtBE was also reported in a grab groundwater sample collected from boring SB6 at a concentration of 8.5 ppb by EPA Method 8021B, but was non-detect when analyzed by EPA Method 8260B. **Groundwater chemical analytical data are summarized in Table 3.**

### CONCLUSIONS

The purpose of this investigation was to evaluate if soil and groundwater in the vicinity of the adjacent utility trenches were impacted to determine if the trenches could be creating preferential pathways for the migration of dissolved hydrocarbons and MtBE away from the site.

**Dissolved TPHd and TPHg were reported in grab groundwater samples at maximum concentrations of 960 and 990 ppb in boring SB3, and SPH were reported in soil and grab groundwater samples from boring SB5.**

Based on the data collected during this investigation, the utility trenches appear to be creating a barrier for dissolved hydrocarbons migration south and west of the site, thus resulting in elevated concentrations in the southwest corner of the property near soil borings SB3 and SB5.

GR recommends that one 4-inch diameter groundwater monitoring/extraction well (MW-8) be installed south of soil boring SB5 at the location shown on Figure 2. If SPH are present during well development a passive bailer should be installed. The bailer, should be checked and serviced monthly, until the SPH are no longer detected in that well. Additionally, one 2-inch diameter groundwater monitoring well (MW-9) should be installed south of the site, located across Castro Valley Boulevard, for downgradient delineation of dissolved hydrocarbons. This downgradient monitoring well was previously proposed as phase II of this investigation, if necessary. Site specific details and proposed well locations are presented in Figure 2.

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-1</b>											
10/08/91	169.30	158.20	11.10	--	230	45	<0.5	0.9	9.1	--	<5,000
11/04/91	169.30	158.27	11.03	--	340	120	<0.5	<0.5	6.1	--	--
12/04/91	169.30	158.25	11.05	170	<50	3.9	<0.5	<0.5	<0.5	--	<5,000
06/05/92	169.30	158.26	11.04	<50	100	26	0.6	0.5	1.0	--	--
10/27/92	169.30	158.20	11.10	54	<50	11	<0.5	<0.5	<0.5	--	--
12/30/92	169.30	--	--	170	<50	24	<0.5	<0.5	<0.5	--	--
01/27/93	169.30	158.67	10.63	--	--	--	--	--	--	--	--
03/05/93	169.30	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/17/93	169.30	158.59	10.71	--	--	--	--	--	--	--	--
06/18/93	169.30	158.29	11.01	<50	<50	0.6	<0.5	<0.5	<1.5	--	--
09/28/93	169.30	157.35	11.95	<50	<50	0.8	<0.5	<0.5	<1.5	--	--
12/30/93	169.30	158.34	10.96	<50	<50	8.5	<0.5	<0.5	<0.5	--	--
04/07/94	169.30	158.49	10.81	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/31/94	169.30	158.38	10.92	<50	<50	1.0	<0.5	<0.5	<0.5	--	--
09/23/94	169.30	158.40	10.90	<50	<50	1.3	<0.5	<0.5	<0.5	--	--
11/30/94	169.30	158.76	10.54	570 <sup>2</sup>	<50	8.9	<0.5	<0.5	<0.5	--	--
03/30/95	169.30	158.60	10.70	110 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/06/95	169.30	158.38	10.92	570 <sup>1</sup>	61	15	<0.5	<0.5	<0.5	--	--
09/25/95	169.30	158.30	11.00	550 <sup>1</sup>	<50	4.7	<0.5	<0.5	<0.5	--	--
12/28/95	169.30	158.50	10.80	330 <sup>1</sup>	72	9.1	0.65	<0.5	<0.5	6.0	--
03/05/96	169.30	159.20	10.10	780 <sup>1</sup>	<50	7.8	<0.5	<0.5	<0.5	<2.5	--
09/13/96	169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--
12/19/96	169.30	158.08	11.22	--	--	--	--	--	--	--	--
03/20/97	169.30	158.40	10.90	350 <sup>1</sup>	<50	2.2	<0.5	<0.5	<0.5	<2.5	--
06/27/97	169.30	158.27	11.03	--	--	--	--	--	--	--	--
09/19/97	169.30	158.34	10.96	--	--	--	--	--	--	--	--
12/05/97	169.30	158.62	10.68	--	--	--	--	--	--	--	--
03/31/98	169.30	158.67	10.63	760 <sup>1</sup>	<50	6.7	<0.5	<0.5	<0.5	<2.5	--
06/19/98	169.30	159.62	9.68	--	--	--	--	--	--	--	--
08/13/98	169.30	157.67	11.63	--	--	--	--	--	--	--	--
12/17/98	169.30	158.25	11.05	--	--	--	--	--	--	--	--

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WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-1 (cont)</b>											
03/19/99	169.30	158.35	10.95	890 <sup>1</sup>	124	14.8	<0.5	<0.5	<0.5	6.49/<2.5 <sup>13</sup>	--
06/23/99	169.30	158.23	11.07	--	--	--	--	--	--	--	--
09/16/99	169.30	158.41	10.89	--	--	--	--	--	--	--	--
12/16/99	169.30	158.46	10.84	--	--	--	--	--	--	--	--
03/02/00	169.30	158.83	10.47	2,300 <sup>1</sup>	155	10.4	<0.5	<0.5	<0.5	10.3	--
06/30/00	169.30	159.04	10.26	--	--	--	--	--	--	--	--
09/30/00	NP	169.30	158.30	--	--	--	--	--	--	--	--
12/19/00	169.30	158.44	10.86	--	--	--	--	--	--	--	--
03/13/01	NP	169.30	158.45	10.85	-- <sup>14</sup>	50.4	4.50	0.553	0.522	2.10	1.65
06/12/01	169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--
09/18/01	169.30	158.23	11.07	SAMPLED ANNUALLY		--	--	--	--	--	--
12/17/01	169.30	158.59	10.71	SAMPLED ANNUALLY		--	--	--	--	--	--
<b>MW-2</b>											
10/08/91	169.15	157.20	11.95	--	110	5.1	1.1	0.8	26	--	--
11/19/91	169.15	157.40	11.75	--	120	11	1.1	<0.5	17	--	--
12/04/91	169.15	157.35	11.80	130	440	30	2.5	<0.5	52	--	--
06/05/92	169.15	157.35	11.80	130	80	13	<0.5	<0.5	1.0	--	--
10/27/92	169.15	157.15	12.00	110	54	13	<0.5	<0.5	<0.5	--	--
12/30/92	169.15	--	--	92	180	30	<0.5	<0.5	1.0	--	--
01/27/93	169.15	158.24	10.91	--	--	--	--	--	--	--	--
03/05/93	169.15	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/17/93	169.15	158.26	10.89	--	--	--	--	--	--	--	--
06/18/93	169.15	157.41	11.74	<50	<50	1.4	<0.5	<0.5	<1.5	--	--
09/28/93	169.15	157.97	11.18	<50	<50	0.6	<0.5	<0.5	<1.5	--	--
12/30/93	169.15	158.34	21.00	<50	<50	0.9	<0.5	<0.5	<0.5	--	--
04/07/94	169.15	158.40	10.75	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/31/94	169.15	158.35	10.80	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/23/94	169.15	157.50	11.65	120	<50	0.7	<0.5	<0.5	<0.5	--	--



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WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-2 (cont)</b>											
11/30/94	169.15	158.41	10.74	570 <sup>d</sup>	55	2.9	<0.5	1.4	0.94	--	--
03/30/95	169.15	158.25	10.90	430 <sup>i</sup>	91	4.5	<0.5	3.8	<0.5	--	--
06/06/95	169.15	157.73	11.42	410 <sup>i</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/25/95	169.15	157.52	11.63	220 <sup>i</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/28/95	169.15	157.98	11.17	120 <sup>i</sup>	<2,000	<20	<20	<20	<20	5,000	--
03/05/96	169.15	159.09	10.06	860 <sup>i</sup>	<2,000	<20	<20	<20	<20	10,000	--
09/13/96	169.15	157.37	11.78	1,300	1,100	25	<10	<10	<10	20,000	--
12/19/96	169.15	158.30	10.85	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
03/20/97	169.15	157.75	11.40	190 <sup>i</sup>	2400	<10	<10	46	<10	6,200	--
06/27/97	169.15	157.35	11.80	--	--	--	--	--	--	--	--
09/19/97	169.15	157.43	11.72	60 <sup>i</sup>	<50	<0.5	<0.5	<0.5	<0.5	280	--
12/08/97	169.15	158.27	10.88	--	--	--	--	--	--	--	--
03/31/98	169.15	158.46	10.69	220 <sup>i</sup>	110	30	0.74	0.74	0.59	1,000	--
06/19/98	169.15	159.31	9.84	--	--	--	--	--	--	--	--
08/31/98	169.15	157.43	11.72	380 <sup>i</sup>	<100	3.4	<1.0	<1.0	<1.0	980	--
12/17/98	169.15	157.60	11.55	--	--	--	--	--	--	480	--
03/19/99	169.15	158.63	10.52	107 <sup>d</sup>	<250	12.7	<2.5	<2.5	<2.5	1,040/819 <sup>13</sup>	--
06/23/99	169.15	159.61	9.54	--	--	--	--	--	--	--	--
09/16/99	169.15	157.54	11.61	84.9	<100	<1.0	<1.0	<1.0	<1.0	216	--
12/16/99	169.15	157.86	11.29	--	--	--	--	--	--	--	--
03/02/00	169.15	158.70	10.45	<50	84.8	21.5	<0.5	<0.5	0.636	413	--
06/30/00	169.15	159.08	10.07	--	--	--	--	--	--	--	--
09/30/00	NP	169.15	157.54	11.61	100 <sup>11</sup>	<50	<0.50	0.57	<0.50	1.0	2,800
12/19/00		169.15	158.04	11.11	--	--	--	--	--	--	--
03/13/01	NP	169.15	158.22	10.93	-- <sup>14</sup>	179	11.6	2.01	0.856	3.66	1,290
06/12/01		169.15	157.52	11.63	--	--	--	--	--	--	--
09/18/01	NP	169.15	157.37	11.78	100	<50	<0.50	<0.50	<1.5	670	--
12/17/01		169.15	158.29	10.86	SAMPLED SEMI-ANNUALLY			--	--	--	--

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Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)	
<b>MW-3</b>												
10/08/91	169.11	160.84	8.27	--	81	1.9	0.7	0.8	2.4	--	--	
11/04/91	169.11	158.26	10.85	--	60	<0.5	<0.5	<0.5	<0.5	--	--	
12/04/91	169.11	158.06	11.05	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	
06/05/92	169.11	157.96	11.15	170	<50	<0.5	<0.5	<0.5	<0.5	--	--	
10/27/92	169.11	157.51	11.60	120	<50	<0.5	<0.5	<0.5	<0.5	--	--	
12/30/92	169.11	--	--	170	<50	<0.5	<0.5	<0.5	<0.5	--	--	
01/27/93	169.11	160.00	9.11	--	--	--	--	--	--	--	--	
03/05/93	169.11	--	--	--	--	--	--	--	--	--	--	
03/17/93	169.11	159.16	9.95	--	--	--	--	--	--	--	--	
06/18/93	169.11	158.22	10.89	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	
09/28/93	169.11	159.49	9.62	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	
12/30/93	169.11	159.80	9.31	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	
04/07/94	169.11	160.30	8.81	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	
05/31/94	169.11	160.21	8.90	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	
09/23/94	169.11	158.48	10.63	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	
11/30/94	169.11	160.19	8.92	--	--	--	--	--	--	--	--	
03/30/95	169.11	160.01	9.10	290 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	
06/06/95	169.11	158.79	10.32	150 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	
09/25/95	169.11	158.11	11.00	260 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	
12/28/95	169.11	158.96	10.15	200 <sup>1</sup>	<250	<2.5	<2.5	<2.5	<2.5	1,400	--	
12/17/98	169.11	158.86	10.25	130 <sup>1</sup>	<250	<2.5	<2.5	<2.5	<2.5	62,000	--	
03/19/99	169.11	159.37	9.74	139 <sup>1</sup>	<1,000	<10	<10	<10	<10	5,650/5,850 <sup>13</sup>	--	
06/23/99	169.11	158.40	10.71	61.6 <sup>1</sup>	<2,000	<20	<20	<20	<20	6,700	--	
09/16/99	169.11	157.44	11.67	122	<1,000	<10	<10	<10	<10	1,910	--	
12/16/99	169.11	158.79	10.32	--	--	--	--	--	--	5,850	--	
12/20/00	169.11	158.91	10.20	96.8 <sup>1</sup>	65.2	<0.5	<0.5	<0.5	<0.5	1,790	--	
03/02/00	169.11	160.26	8.85	<50	<50	<0.5	<0.5	<0.5	<0.5	5,600	--	
06/30/00	169.11	158.81	10.30	<50	360 <sup>5</sup>	<0.50	<0.50	<0.50	<0.50	1,300	--	
09/30/00	NP	169.11	158.07	11.04	--	150 <sup>9</sup>	75	<1.3	<1.3	8,200	--	
12/19/00	NP	169.11	159.06	10.05	-- <sup>14</sup>	<1,000	<10	<10	<10	4,600	--	
03/13/01	NP	169.11	159.76	9.35	-- <sup>14</sup>	284	0.601	1.00	<0.500	1.27	3,670	--

**Table 1**  
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Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
<b>MW-3 (cont)</b>											
06/12/01 NP	169.11	158.08	11.03	<50	140 <sup>o</sup>	67	<0.50	<0.50	<0.50	2,600	--
09/18/01 NP	169.11	157.96	11.15	100	240	<0.50	<0.50	<0.50	<1.5	3,200	--
12/17/01	169.11	159.22	9.89	270	55	<0.50	<0.50	<0.50	<1.5	930	--
<b>MW-4</b>											
10/27/92	169.18	157.79	11.39	<50	<50	<0.5	0.6	0.5	4.3	--	--
12/30/92	169.18	159.05	10.13	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/27/93	169.18	160.09	9.09	--	--	--	--	--	--	--	--
03/05/93	169.18	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/17/93	169.18	159.28	9.90	--	--	--	--	--	--	--	--
06/18/93	169.18	158.50	10.68	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--
09/28/93	169.18	159.82	9.36	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/30/93	169.18	159.91	9.27	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/07/94	169.18	160.37	8.81	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/31/94	169.18	160.27	8.91	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/23/94	169.18	158.79	10.39	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/30/94	169.18	160.08	9.10	58 <sup>2</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/30/95	169.18	160.66	8.52	61 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/06/95	169.18	158.70	10.48	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/25/95	169.18	158.38	10.80	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/28/95	169.18	159.23	9.95	<50	<50	<0.5	<0.5	<0.5	<0.5	9.9	--
NOT MONITORED/SAMPLED											
<b>MW-5</b>											
10/27/92	167.41	157.46	9.95	<50	74	<0.5	<0.5	0.6	7.1	--	--
12/30/92	167.41	158.21	9.20	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/27/93	167.41	157.80	9.61	--	--	--	--	--	--	--	--
03/05/93	167.41	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--

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<b>MW-5 (cont)</b>											
03/17/93	167.41	157.90	9.51	--	--	--	--	--	--	--	--
06/18/93	167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/28/93	167.41	157.55	9.86	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/30/93	167.41	157.08	10.33	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/07/94	167.41	157.69	9.72	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/31/94	167.41	157.68	9.73	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/23/94	167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/30/94	167.41	157.73	9.68	79 <sup>2</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/30/95	167.41	157.79	9.62	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/06/95	167.41	157.55	9.86	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/25/95	167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/28/95	167.41	157.67	9.74	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
NOT MONITORED/SAMPLED											
<b>MW-6</b>											
10/27/92	166.46	153.92	12.54	<50	600	22	22	24	130	--	--
12/30/92	166.46	156.26	10.20	470	1,700	170	16	46	160	--	--
01/27/93	166.46	156.44	10.02	--	--	--	--	--	--	--	--
03/05/93	166.46	--	--	150	480	76	0.9	3.1	7.1	--	--
03/17/93	166.46	155.79	10.67	--	--	--	--	--	--	--	--
06/18/93	166.46	154.63	11.83	51	240	37	3.4	2.9	18	--	--
09/28/93	166.46	154.90	11.56	120	150	11	1.2	1.3	4.3	--	--
12/30/93	166.46	154.81	11.65	290	680	77	5.1	5.5	13	--	--
04/07/94	166.46	155.34	11.12	<10	190	24	2.9	1.9	8.0	--	--
05/31/94	166.46	--	--	--	--	--	--	--	--	--	--
09/23/94	166.46	155.05	11.41	--	--	--	--	--	--	--	--
11/30/94	166.46	156.58	9.88	150 <sup>2</sup>	320	49	0.58	1.4	1.2	--	--
NOT MONITORED/SAMPLED											

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2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	TOG (ppb)
MW-7											
09/25/95	168.80	157.20	11.60	1,400 <sup>1</sup>	220	0.79	<0.5	0.67	<0.5	--	--
12/28/95	168.80	158.14	10.66	590 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
03/05/96	168.80	159.74	9.06	320 <sup>1</sup>	1,400	<10	<10	47	<10	5,300	--
06/27/96	168.80	157.27	11.53	630 <sup>1</sup>	<2,500	<25	<25	<25	<25	14,000	--
09/13/96	168.80	156.88	11.92	1,400	1,100	26	<10	24	<10	20,000	--
12/19/96	168.80	158.29	10.51	1,100 <sup>3</sup>	<5,000	<50	<50	<50	<50	12,000	--
03/20/97	168.80	157.84	10.96	1,600 <sup>3</sup>	<1,000	<10	<10	<10	<10	2,100/2,000 <sup>13</sup>	--
06/27/97	168.80	157.02	11.78	1,600 <sup>1</sup>	2,000	<20	<20	<20	<20	11,000	--
09/19/97	168.80	156.87	11.93	1,900 <sup>1</sup>	<1,000	35	<10	<10	<10	13,000	--
12/05/97	168.80	158.40	10.40	1,100 <sup>1</sup>	2,100	47	2.7	28	<2.5	15,000	--
03/31/98	168.80	158.89	9.91	780 <sup>1</sup>	410	4.0	0.61	2.2	<0.5	<2.5	--
06/19/98	168.80	159.09	9.71	480 <sup>1</sup>	1,100	16	<10	17	<10	12,000	--
08/31/98	168.80	157.11	11.69	580 <sup>1</sup>	<500	350	22	<5.0	<5.0	47,000	--
12/17/98	168.80	157.70	11.10	970	1,800	<10	<10	24	<10	13,000/14,000 <sup>1</sup>	--
03/19/99	168.80	158.51	10.29	615 <sup>1</sup>	1,280	<5.0	5.0	16.3	<5.0	2,240/2,910 <sup>13</sup>	--
06/23/99	168.80	157.25	11.55	1,240 <sup>1</sup>	<5,000	<50	<50	<50	<50	18,000	--
09/16/99	168.80	157.31	11.49	2,230	<5,000	<50	<50	<50	<50	13,700	--
12/16/99	168.80	158.27	10.53	973 <sup>1</sup>	1,330	<1.0	6.44	14	5.17	10,800	--
03/02/00	168.80	159.25	9.55	880 <sup>1</sup>	1,980	7.22	<5.0	6.11	<5.0	4,230	--
06/30/00	168.80	157.68	11.12	620 <sup>7</sup>	2,500 <sup>6</sup>	6.0	8.5	16	72	6,900	--
09/30/00	NP	157.23	11.57	1,600 <sup>7</sup>	1,700 <sup>10</sup>	750	<5.0	<5.0	<5.0	7,300	--
12/19/00		158.26	10.54	1,100 <sup>12</sup>	1,800 <sup>10</sup>	<10	<10	<10	<10	4,900	--
03/13/01		158.74	10.06	1,500 <sup>12</sup>	1,470	9.34	5.09	6.08	2.69	2,920	--
06/12/01		157.45	11.35	910 <sup>15</sup>	920 <sup>10</sup>	260	4.2	9.7	2.8	4,500	--
09/18/01		156.87	11.93	3,000	2,000	<0.50	<0.50	<0.50	<1.5	5,300	--
12/17/01		157.99	10.81	7,000	1,700	<5.0	<0.50	7.1	<1.5	4,100	--

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2920 Castro Valley Boulevard  
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<b>TRIP BLANK</b>											
10/08/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/04/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/04/91	--	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/05/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/30/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
01/27/93	--	--	--	<50	--	--	--	--	--	--	--
03/05/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/17/93	--	--	--	--	--	--	--	--	--	--	--
06/18/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
09/28/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/30/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
04/07/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
05/31/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/23/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
11/30/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/30/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/06/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/25/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/28/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
03/05/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
06/27/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
09/13/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
12/19/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
03/20/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
06/27/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
09/19/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
12/05/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
03/31/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
06/19/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
08/31/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
03/19/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--

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Castro Valley, California

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<b>TRIP BLANK (cont)</b>											
09/16/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
12/16/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
12/20/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
03/02/00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
06/30/00 <sup>R</sup>	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
09/30/00	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
12/19/00	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
03/13/01	--	--	--	--	<50.0	<0.500	0.534	<0.500	1.25	<0.500	--
06/12/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
09/18/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
<b>QA</b>											
12/17/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to June 30, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing (ft.) = Feet	TPH-G = Total Petroleum Hydrocarbons as Gasoline B = Benzene	TOG = Total Oil and Grease (ppb) = Parts per billion
GWE = Groundwater Elevation (msl) = Mean sea level	T = Toluene E = Ethylbenzene	-- = Not Measured/Not Analyzed
DTW = Depth to Water	X = Xylenes	NP = No Purge
TPH-D = Total Petroleum Hydrocarbons as Diesel	MTBE = Methyl tertiary butyl ether	QA = Quality Assurance

- 1 Chromatogram pattern indicates an unidentified hydrocarbon.
- 2 Chromatogram pattern indicates a non-diesel mix.
- 3 Chromatogram pattern indicates an unidentified hydrocarbon and weathered diesel.
- 4 Chromatogram pattern indicates a non-diesel mix + discrete peaks.
- 5 Laboratory report indicates unidentified hydrocarbons C6-C12.
- 6 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.
- 7 Laboratory report indicates unidentified hydrocarbons C9-C24.
- 8 Laboratory report indicates this sample was analyzed outside of the EPA recommended holding time.
- 9 Laboratory report indicates discrete peaks.
- 10 Laboratory report indicates gasoline C6-C12.
- 11 Laboratory report indicates unidentified hydrocarbons >C16.
- 12 Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons <C16.
- 13 Confirmation run.
- 14 Insufficient water to obtain sample for TPH-D.
- 15 Laboratory report indicates unidentified hydrocarbons C9-C17.



**Table 2 - Soil Chemical Analytical Results**

Chevron Service Station #9-6991

2920 Castro Valley Boulevard

Castro Valley, California

Sample ID	Sample Depth (ft)	Sample Date	TPHg (ppm)	TPHd (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)	MtBE (ppm)	Oil & Grease
<u>Historic</u>										
PITW	11	9/11/1990	ND	---	<0.005	<0.005	<0.005	<0.015	---	---
PITNC	9	9/11/1990	63	---	0.05	0.01	0.52	2	---	---
PITE	11	9/11/1990	1	---	<0.005	<0.005	<0.005	<0.015	---	---
AW	8	9/11/1990	---	---	---	---	---	---	---	830
AE	8	9/11/1990	---	---	---	---	---	---	---	1,400
WOM	11	9/11/1990	15	---	26	7.5	6.4	22	---	2,000
WOW15	15	9/18/1990	26	ND	<0.005	<0.005	<0.005	<0.015	---	780
WOE15	15	9/18/1990	ND	ND	<0.005	<0.005	<0.005	<0.015	---	160
WOM15	15	9/18/1990	13	ND	<0.005	<0.005	<0.005	<0.015	---	480
A-1	12	9/20/1990	---	---	---	---	---	---	---	710
2A	12	9/20/1990	---	---	---	---	---	---	---	1,500
3A	12	9/20/1990	---	---	---	---	---	---	---	510
6A	12	9/20/1990	---	---	---	---	---	---	---	3,200
4A	12	9/20/1990	---	---	---	---	---	---	---	39
5A	12	9/20/1990	---	---	---	---	---	---	---	68
PH1-6	6	9/20/1990	---	---	---	---	---	---	---	42
PH1-10	10	9/20/1990	---	---	---	---	---	---	---	480
PH2-6	6	9/20/1990	---	---	---	---	---	---	---	58
PH2-10	10	9/20/1990	---	---	---	---	---	---	---	38
PH3-6	6	9/20/1990	---	---	---	---	---	---	---	22
PH3-10	10	9/20/1990	---	---	---	---	---	---	---	35
E-1-10	10	9/21/1990	---	ND	<0.005	<0.005	<0.005	<0.015	---	11
E-2-10	10	9/21/1990	---	ND	<0.005	<0.005	<0.005	<0.015	---	19
E-3-1-10	10	9/21/1990	---	ND	<0.005	<0.005	<0.005	<0.015	---	14
E-3-2-10	10	9/21/1990	---	ND	<0.005	<0.005	<0.005	<0.015	---	12
E-4-10	10	9/21/1990	---	ND	<0.005	<0.005	<0.005	<0.015	---	14
E-5-10	10	9/21/1990	---	ND	<0.005	<0.005	<0.005	<0.015	---	6
E-6-10	10	9/21/1990	---	ND	<0.005	<0.005	<0.005	<0.015	---	19
TNW	3	9/11/1990	5	---	0.24	ND	0.09	0.24	---	---
TSW	3	9/11/1990	52	---	0.16	ND	0.57	0.53	---	---
TNE	3	9/11/1990	---	ND	---	---	---	---	---	---
TSE	3	9/11/1990	---	1,000	---	---	---	---	---	---
TE	5	9/18/1990	---	150	0.01	0.01	0.01	0.02	---	---
TW	5	9/18/1990	21	---	0.1	0.01	0.02	0.1	---	---
PT-N7	7	9/21/1990	ND	140	ND	ND	ND	ND	---	---
PT-S7	7	9/21/1990	ND	58	ND	ND	ND	ND	---	---
PTS-1-7	7	9/21/1990	ND	ND	ND	ND	ND	ND	---	---
PTS-2-7	7	9/21/1990	ND	ND	ND	ND	ND	ND	---	---
MW-1A	9	9/24/1991	<1	---	<0.005	<0.005	<0.005	<0.005	---	<50
MW-2A	5	9/24/1991	<1	---	<0.005	0.005	0.006	0.014	---	---
MW-2B	10	9/24/1991	<1	---	<0.005	<0.005	<0.005	<0.005	---	---
MW-3A	6	9/30/1991	<1	---	<0.005	<0.005	<0.005	<0.005	---	---
MW-3C	10	9/30/1991	<1	---	<0.005	<0.005	<0.005	<0.005	---	---
MW-4	5	9/25/1992	<1	<1	<0.005	0.03	<0.005	<0.005	---	---
MW-4	10	9/25/1992	<1	<1	<0.005	0.042	<0.005	<0.005	---	---
MW-4	20	9/25/1992	<1	<1	<0.005	0.03	<0.005	<0.005	---	---
MW-5	5	9/25/1992	<1	<1	<0.005	0.052	<0.005	<0.005	---	---
MW-5	10	9/25/1992	<1	<1	<0.005	0.067	<0.005	<0.005	---	---

**Table 2 - Soil Chemical Analytical Results**  
**Chevron Service Station #9-6991**  
**2920 Castro Valley Boulevard**  
**Castro Valley, California**

Sample ID	Sample Depth (ft)	Sample Date	TPHg (ppm)	TPHd (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)	MtBE (ppm)	Oil & Grease
MW-6	5	9/25/1992	<1	5	<0.005	0.26	<0.005	0.011	---	---
MW-6	10	9/25/1992	<1	<1	<0.005	0.021	<0.005	<0.008	---	---
MW-7	5.5	8/30/1995	<1.0	---	<0.005	<0.005	<0.005	<0.015	---	---
MW-7	12	8/30/1995	3.7	---	<0.005	0.009	0.006	<0.015	---	---
MW-7	21	8/30/1995	<1.0	---	<0.005	<0.005	<0.005	<0.015	---	---
<b>Recent</b>										
SB1-S-5	5	3/6/2002	<1.0	<10.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	---
SB1-S-10	10	3/6/2002	<1.0	<10.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	---
SB2-S-5.5	5.5	3/6/2002	<1.0	<10.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	---
SB3-S-5.5	5.5	3/6/2002	<1.0	<10.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	---
SB5-S-5	5	3/6/2002	1.1	<10.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	---
SB5-S-10	10	3/6/2002	25*	53*	<0.050	<0.20	<0.50	0.99*	<0.50	---
SB6-S-5	5	3/6/2002	<1.0	<10.0	<0.0050	<0.0050	<0.0050	<0.015	<0.050	---

**Explanation:**

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

MtBE = Methyl tert-butyl ether

ppm = Parts per million

**Analytical Methods for Samples Collected 3/06/2002**

TPHd by EPA Method 8015M

TPHg by EPA Method 8015M

BTEX/MtBE by EPA Method 8021B

**Analytical Laboratory for Samples collected 03/06/2002**

Lancaster Laboratories (ELAP # 2116)

**Notes:**

\* The observed sample pattern is not typical of diesel/fuel oil.

**Table 3 - Groundwater Chemical Analytical Results**  
**Chevron Service Station #9-6991**  
**2920 Castro Valley Boulevard**  
**Castro Valley, California**

Sample ID	Sample Date	TPHg (ppb)	TPHd (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MtBE* (ppb)	TBA (ppb)	ETBE (ppb)	DIPE (ppb)	TAME (ppb)
SB1-W	3/6/2002	<50.0	<200.0	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5	<5.0	<0.5	<0.5	<0.5
SB2-W	3/6/2002	<50.0	200	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5	<5.0	<0.5	<0.5	<0.5
SB3-W	3/6/2002	960	960	0.70	1.4	<1.5	<1.5	<5.0/8	<5.0	<0.5	<0.5	<0.5
SB6-W	3/6/2002	<50.0	<200.0	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5	<5.0	<0.5	<0.5	<0.5

**Explanation:**

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

MtBE = Methyl tert-butyl ether

TBA = Tert-butyl alcohol

ETBE = Ethyl tert-butyl ether

DIPE = Diisopropyl ether

TAME = Tert-amyl methyl ether

\* = MtBE by EPA Methods 8021B/8260B

**Analytical Methods for Groundwater Samples collected 3/06/2002**

TPHd by EPA Method 8015M

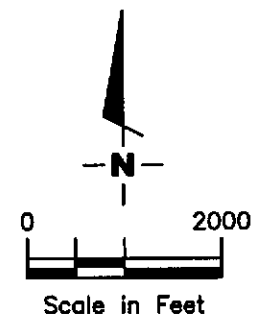
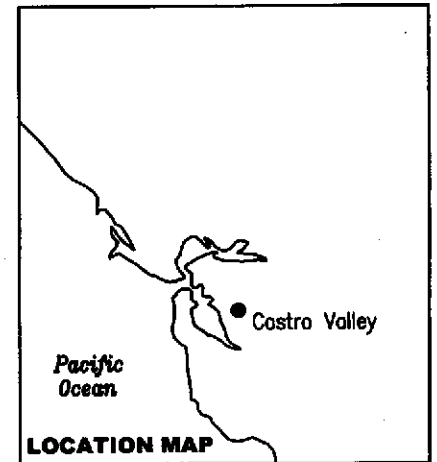
TPHg by EPA Method 8015M

BTEX/MtBE by EPA Method 8021B

Oxygenates by EPA Method 8260B

**Analytical Laboratory for Groundwater Samples Collected 3/06/2002**

Lancaster Laboratories (ELAP # 2116)



Source: National Geographic California Seamless USGS Topographic Maps on CD-ROM.

**GETTLER - RYAN INC.**  
 6747 Sierra Ct., Suite J  
 Dublin, CA 94568 (925) 551-7555

**VICINITY MAP**  
 Chevron Service Station No. 9-6991  
 2920 Castro Valley Boulevard  
 Castro Valley, California

FIGURE

1

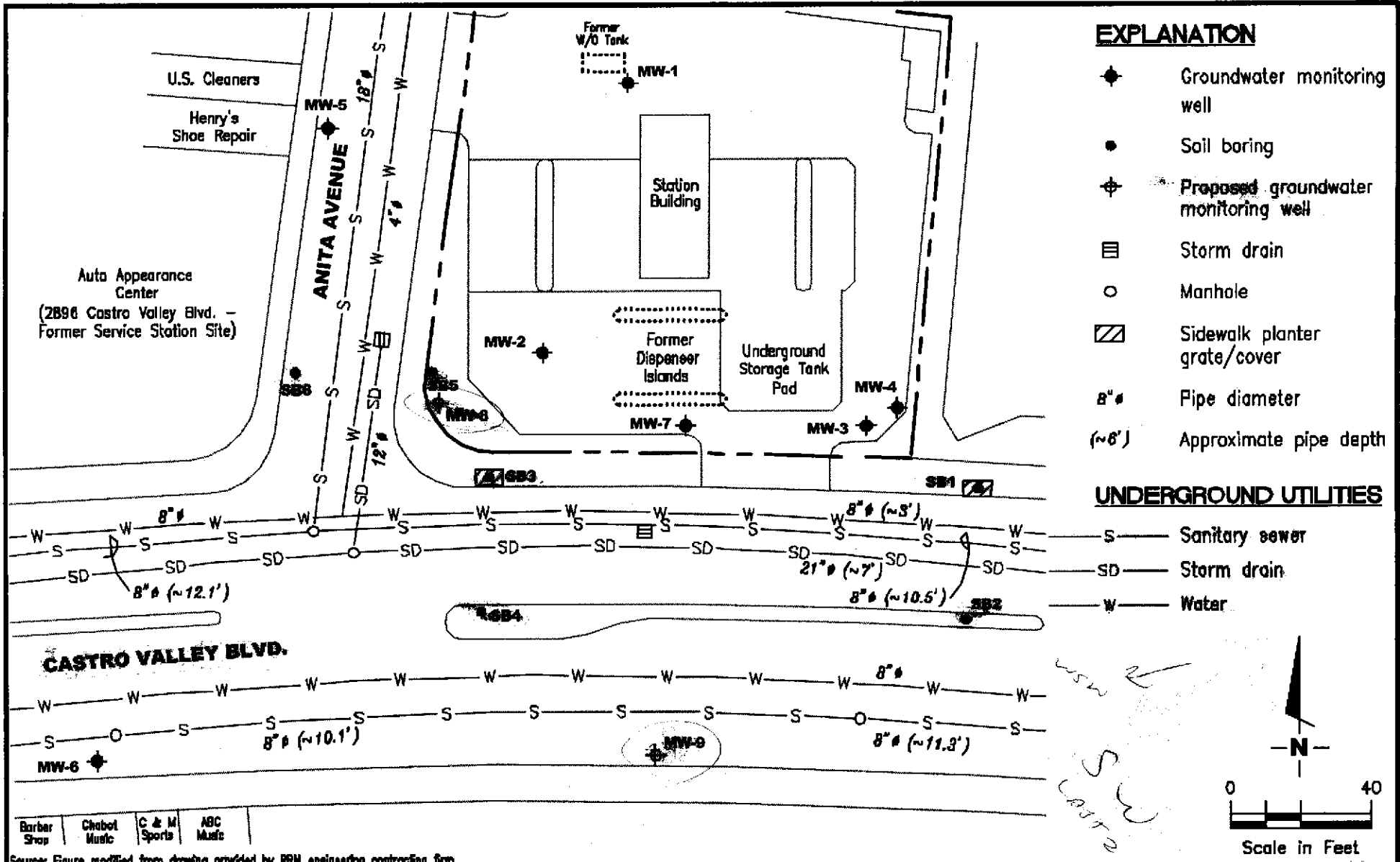
PROJECT NUMBER  
 DG96991G.4CT1

REVIEWED BY

DATE  
 4/02

REVISED DATE

FILE NAME: P:\ENVIRO\CHEVRON\9-6991\VIC-9-6991.DWG | Layout Tab: Vic Map



**GETTLER - RYAN INC.**  
 8747 Sierra Ct., Suite J  
 Dublin, CA 94588 (925) 551-7555

**EXTENDED SITE PLAN**  
 Chevron Service Station No. 9-6991  
 2920 Castro Valley Boulevard  
 Castro Valley, California

## GETTLER-RYAN INC.

### FIELD METHODS AND PROCEDURES HAND-AUGERED BORINGS

#### Site Safety Plan

Field work performed by Gettler-Ryan Inc. (GR) is conducted in accordance with GR's Health and Safety Plan and the Site Safety Plan. GR personnel and subcontractors who perform work at the site are briefed on the contents of these plans prior to initiating site work. The GR geologist or engineer at the site when the work is performed acts as the Site Safety Officer. GR utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

#### Collection of Soil Samples

Collection, preservation, and analysis of samples is performed in accordance with the California Code of Regulations Title 23, Division 3, Chapter 16, *Underground Tank Regulations* (June 2001), the Central Valley Regional Water Quality Control Board's *Tri-Regional Board Staff Recommendations for Preliminary Investigation And Evaluation Of Underground Tank Sites* (August 1990), Environmental Protection Agency *SW-846 Methods* (November 2000), and local agency guidelines.

Hand-augered soil borings are drilled by a California-licensed well driller. A GR geologist is present to observe the drilling, collect soil samples for description and chemical analysis, and prepare a log of the exploratory soil boring under the supervision of a California Registered Geologist. Soil samples are collected from the boring with a hand-driven sampling device fitted with a 2-inch diameter, clean brass tube or stainless steel liner. After removal from the sampling device, soil samples for chemical analysis are covered on both ends with Teflon sheeting, capped, labeled, and placed in a cooler with blue ice for preservation to 48C628C. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to a California state-certified hazardous material testing laboratory. The encountered soils are described using the Unified Soil Classification System (ASTM 2488-93) and the Munsell Soil Color Chart or GSA Rock Color Chart.

#### Field Screening of Soil Samples

A PID is used to perform head-space analysis in the field for the presence of organic vapors from the soil sample. This test procedure involves placing a small amount of the soil to be screened in a sealed plastic bag. The bag is warmed in the sun to allow organic compounds in the soil sample to volatilize. The PID probe is inserted through the wall of the bag and into the headspace inside, and the meter reading is recorded in the field notes. Head-space screening is performed and results recorded as reconnaissance data only. GR does not consider field screening techniques to be verification of the presence or absence of hydrocarbons.

#### Grab Groundwater Sampling

Grab samples of groundwater are collected from the boring using a bailer. The groundwater sample is decanted into laboratory-supplied containers appropriate for the anticipated analyses. Sample bottles are then labeled and placed in chilled storage for transport to the analytical laboratory. A chain-of-custody form is initiated in the field and accompanies the groundwater samples to the analytical laboratory.

### **Storing and Sampling of Soil Stockpiles**

Excavated material is either drummed, or stockpiled on and covered with plastic sheeting, and samples are collected and analyzed for disposal classification on the basis of one composite sample per 100 cubic yards of soil. The disposal classification sample is composed of four discrete soil samples, each collected from an arbitrary location. The four discrete samples are then composited at the laboratory prior to analysis.

Each discrete soil sample is collected by removing the upper 3 to 6 inches of soil, and then driving the stainless steel or brass sample tube into the stockpiled material by hand, mallet, or drive sampler. The sample tubes are then covered on both ends with Teflon sheeting, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory.

Work Order (WO)\* Number: 80001  
\*This WO is  is not  open for charges.

Permit Number: R00-LD2730  
Permit Issuance Date: 8/17/01  
Permit Expiration Date: 8/17/02

**COUNTY OF ALAMEDA PUBLIC WORKS AGENCY**  
399 Elmhurst St., Hayward, CA 94544 - Phone: (510)670-5429 - Fax: (510)293-0960  
**ROADWAY ENCROACHMENT PERMIT**

This Permit is issued in accordance with Chapter 12.08 of the Alameda County Ordinance Code

Name & Address of Property Owner:  
Chevron Products Co.  
P.O. Box 6004  
SAN RAMON, CA 94583  
Phone Number: (925)842-8898

Job Site Address:  
2920 Castro Valley Blvd  
Castro Valley, CA

Name & Address of Contractor:  
GETTHER-RYAN INC.  
3140 Gold Camp Dr, Suite 170  
Rancho Cordova, CA 95670  
Phone Number: (916)631-1300

(This statement to be completed by the Agency)  
This permit is issued to the owner  / contractor .  
If "owner" is checked, he/she is  / is not  exempt  
from the requirement that work in the roadway be  
performed by a licensed contractor.

The Applicant intends to perform the following work scope:

Advance 6 Hand Auger Boring to 15' below  
ground surface on Castro Valley Blvd and Anita  
Avenue 4 borings on Castro Valley Blvd, 2 on Anita  
AVENUE

**Licensed Contractor Declaration:**

I hereby affirm, under penalty of perjury, that I hold  
the following contractor's license, which is in full  
force and effect, under the applicable provisions of  
the State Business and Professions Code.  
License Class and No. STATE #220793  
Contractor's Signature:  
(GR) Tony Minkwitz

**Worker's Compensation Insurance Declaration:**

I hereby affirm, under penalty of perjury, that I will,  
during the performance of any and all work authorized  
by this permit, satisfy the requirements of the State  
Labor Code with regard to Worker's Compensation  
Insurance, as declared below:  
 I will maintain a certificate of consent to self-insure.  
 I will maintain the following insurance policy:  
Carrier's Name and Policy No.:  
Commercial Lines # 238181  
 I will not employ any person in any manner so as to  
become subject to the worker's compensation laws of the  
State.  
Owner's/Contractor's Signature:  
Tony Minkwitz (GR)

All work and/or access shall be performed in accordance with the requirements of Chapter 12.08  
and, unless otherwise specified below, shall be fully compliant with each of the terms and  
conditions of the attached General Provisions:

Bond Information:  
\_\_\_\_\_  
BY: J. K. Roy Alameda County  
Inspector:

Insp. Fee  or Deposit \_\_\_\_\_:  
\$125  
Work Completed (Date): \_\_\_\_\_  
Inspector:

I certify that the information that I have entered into this permit application is correct, and I agree to comply with  
all of the terms and conditions and other requirements of the issued Permit.  
Signature of Applicant: (GR) Agent of Chevron 8/13/01

**The Permittee is responsible for notifying the Inspection Office listed on the back of this form.  
THIS PERMIT IS INCOMPLETE WITHOUT THE ATTACHED GENERAL PROVISIONS**



## INSPECTION REQUIREMENTS

- All encroachments authorized by this Permit shall be subject to inspection by a County representative.
- The planned inspections will be performed by the County office(s) designated below; unless otherwise indicated, it shall be the Permittee's responsibility to notify the designated office(s) - prior to the start of the encroachment.

✓ Case 1:- The work described in this Permit must be inspected and accepted by the County. Contact the Permit Inspection Office at 670-6601 at least 24 hours in advance to arrange for the required tests and inspections.

Case 2:- The work described in this Permit must be inspected and accepted by the County. Contact Traffic Engineering at 670-6571 or 670-6469 at least 24 hours in advance to arrange for the required tests and inspections.

Case 3:- Some or all of the work described in this Permit must be inspected by the following representative of the County:

Case 4:- Notification of the County is not required.

- If the face of this Permit is marked to indicate that the assigned County WO is open for charges, a job account will be opened and the assigned inspectors will charge the actual cost of all required tests and inspections against this account. All cost overruns must be resolved prior to close-out of this Permit. Any underruns will be returned to the Permittee as soon as possible following the close-out.

### CAUTION!

*Most traffic signals and some streetlights are connected to their power sources with underground wiring. Many signals are also wired to traffic detector loops buried in the roadway. None of these County-owned wiring runs are included in the Underground Service Alert (USA) review and marking processes.*

*If you intend to excavate the roadway right-of-way within 500' of a traffic signal, or wherever the streetlight wiring is underground, you must contact the County traffic signal maintenance office for the necessary review and marking.*

**CALL ERIK DAYTON AT (510) 670-5537,  
AT LEAST 48 HRS. IN ADVANCE OF YOUR PLANNED DIG.**

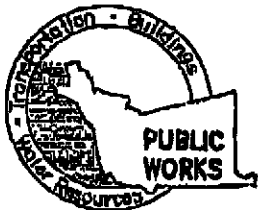
### WARNING!

*If you fail to notify us - and dig through or damage our loops or wire runs - you will be charged for the cost of our emergency repairs (\$200 - \$500, or more)!*

Revised 1/25/99

Feb-27-02 10:50am From-Gettler-Ryan Inc  
W01-676

+9166311317 T-815 P.001/001 F-763



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

**WATER RESOURCES SECTION**  
399 ELMHURST ST. HAYWARD CA. 94544-1395  
PHONE (610) 670-5554  
FAX (610) 782-1939

## DRILLING PERMIT APPLICATION

(TO Replace Expired permit # W01-676)

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 2920 CASTRO Valley Blvd., Castro Valley, CA.

PERMIT NUMBER W02-0266  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

**PERMIT CONDITIONS**  
Circled Permit Requirements Apply

**CLIENT**  
Name Chevron Products Company  
Address P.O. Box 6001 Phone \_\_\_\_\_  
City San Ramon Zip 94593

**A. GENERAL**

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

**APPLICANT**  
Name Gettler-Ryan Inc. / Tony Mikacich  
Address 3140 Gold Camp Dry Slide Fax (916) 631-1317  
Address 170 Phone 631-1300  
City Rancho Cordova Zip 95670

**B. WATER SUPPLY WELLS**

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.

**TYPE OF PROJECT**

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input checked="" type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>

**C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

**PROPOSED WATER SUPPLY WELL USE**

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other <u>Various Test</u>	<input checked="" type="checkbox"/>

**D. GEOTECHNICAL**

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in situ or with compacted cuttings.

**DRILLING METHOD:**

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input checked="" type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

**E. CATHODIC**

Fill hole anode zone with concrete placed by tremie.

DRILLER'S NAME Gettler-Ryan Inc.

**F. WELL DESTRUCTION**

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

DRILLER'S LICENSE NO. C-57# 220793

**G. SPECIAL CONDITIONS**

**NOTE:** One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

**WELL PROJECTS**

Drift Hole Diameter	<u>3</u> in.	Maximum Depth	<u>5</u> ft.
Casing Diameter	_____ in.	Owner's Well Number	_____
Surface Seal Depth	_____ ft.		

**GEOTECHNICAL PROJECTS**

Number of Borings	<u>6</u>	Maximum Depth	<u>15</u> ft.
Hole Diameter	<u>3.5</u> in.		

ESTIMATED STARTING DATE 03/06/02  
ESTIMATED COMPLETION DATE 03/06/02

APPROVED

DATE 3-4-02

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 75-68.

APPLICANT'S SIGNATURE Tony Mikacich DATE 02/27/02

PLEASE PRINT NAME Tony Mikacich

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	
			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
SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		OL	Organic silts or clays of low plasticity			
		MH	Inorganic silts, micaceous or diatomaceous, 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	

PID Volatile vapors in ppm  
 bgs below ground surface  
 (2.5YR 6/2) Soil color according to Munsell Soil Color Charts (1993 Edition)  
 BLOWS/FT. Sample drive hammer weight - 140 pounds falling 30 inches. Blows required to drive sampler 1 foot are indicated on the logs.

- Observed contact
- Inferred contact
- No soil sample recovered
- "Undisturbed" sample
- First encountered groundwater level
- Static groundwater level

**GETTLER - RYAN INC.**  
 6747 Sierra Ct., Suite J  
 Dublin, CA 94568 (925) 551-7555

UNIFIED SOIL CLASSIFICATION  
 ASTM D 2488-85  
 AND  
 KEY TO SAMPLING DATA

# Gettler-Ryan, Inc.

# Log of Boring SB1

PROJECT: *Chevron Service Station No. 9-6991*

LOCATION: *2920 Castro Valley Blvd., Castro Valley, CA*

GR PROJECT NO.: *D696991G.4CT1*

SURFACE ELEVATION:

DATE STARTED: *03/06/02*

WL (ft. bgs):      DATE:      TIME:

DATE FINISHED: *03/06/02*

WL (ft. bgs):      DATE:      TIME:

DRILLING METHOD: *3 1/4 in. Hand Auger*

TOTAL DEPTH: *12 feet*

DRILLING COMPANY: *Gettler-Ryan, Inc.*

GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
3				CL	CLAY WITH SAND (CL) - dark brown (10YR 3/3), moist; 80% clay, 20% fine sand.	Boring backfilled with excavated soil to surface grade.
6	SBI-5				CLAY (CL) - dark brown (10YR 3/3), moist; 90% clay, 10% fine sand, trace organic matter.	
9	SBI-10				Becomes wet.	
12	SBI-W				SANDY CLAY (CL) - brown (10YR 5/3), wet; 70% clay, 30% fine to medium sand.	Grab groundwater sample SBI-W collected at 12 feet.
					Bottom of boring at 12 feet bgs.	
15						
18						
21						

# Gettler-Ryan, Inc.

# Log of Boring SB2

PROJECT: *Chevron Service Station No. 9-6991*

LOCATION: *2920 Castro Valley Blvd., Castro Valley, CA*

GR PROJECT NO.: *DG96991G.4CT1*

SURFACE ELEVATION:

DATE STARTED: *03/06/02*

WL (ft. bgs):      DATE:      TIME:

DATE FINISHED: *03/06/02*




WL (ft. bgs):      DATE:      TIME:

DRILLING METHOD: *3 1/4 in. Hand Auger*

TOTAL DEPTH: *16 feet*

DRILLING COMPANY: *Gettler-Ryan, Inc.*

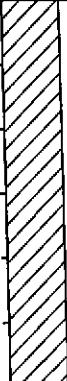

GEOLOGIST: *Tony Mikacich*

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
					Concrete and base rock - 9 inches thick.	Boring backfilled with excavated soil to 6 inches bgs. Concrete used to surface grade.
					Asphalt - 6 inches thick.	
					Concrete and base rock - 12 inches thick.	
3				CL	CLAY (CL) - greenish gray (5G 5/1), moist; 90% clay, 10% fine sand.	
6	SB2-5.5					
9						
12						
15				SC	CLAYEY SAND (SC) - brown (10YR 5/3), wet; 70% fine to medium sand, 30% clay.	
	SB2-W				Bottom of boring at 16 feet bgs.	Grab groundwater sample SB2-W collected at 16 feet.
18						
21						

# Gettler-Ryan, Inc.

# Log of Boring SB3


PROJECT: <i>Chevron Service Station No. 9-6991</i>	LOCATION: <i>2920 Castro Valley Blvd., Castro Valley, CA</i>
GR PROJECT NO.: <i>DG96991G.4CT1</i>	SURFACE ELEVATION:
DATE STARTED: <i>03/06/02</i>	WL (ft. bgs):      DATE:      TIME:
DATE FINISHED: <i>03/06/02</i>	WL (ft. bgs):      DATE:      TIME:
DRILLING METHOD: <i>3 1/4 in. Hand Auger</i>	TOTAL DEPTH: <i>6 feet</i>
DRILLING COMPANY: <i>Gettler-Ryan, Inc.</i>	GEOLOGIST: <i>Tony Mikacich</i>

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
3				CL	CLAY WITH SAND (CL) - black (7.5YR 2/0), moist; 80% clay, 20% fine to medium sand.	Boring backfilled with excavated soil to surface grade.
6	SB3-5.5 SB3-W				CLAY (CL) - dark brown (10YR 3/3), wet; 90% clay, 10% fine sand.	Grab groundwater sample SB3-W collected at 6 feet.
					Bottom of boring at 6 feet bgs.	
9						
12						
15						
18						
21						

# Gettler-Ryan, Inc.

# Log of Boring SB4

PROJECT: <i>Chevron Service Station No. 9-6991</i>	LOCATION: <i>2920 Castro Valley Blvd., Castro Valley, CA</i>
GR PROJECT NO.: <i>DG96991G.4CT1</i>	SURFACE ELEVATION:
DATE STARTED: <i>03/06/02</i>	WL (ft. bgs):      DATE:      TIME:
DATE FINISHED: <i>03/06/02</i>	WL (ft. bgs):      DATE:      TIME:
DRILLING METHOD: <i>3 1/4 in. Hand Auger</i>	TOTAL DEPTH: <i>3.5 feet</i>
DRILLING COMPANY: <i>Gettler-Ryan, Inc.</i>	GEOLOGIST: <i>Tony Mikacich</i>

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
					Concrete and base rock - 9 inches thick.	Boring backfilled with excavated soil to 6 inches bgs. Concrete used to surface grade.
					Asphalt - 4 inches thick.	
					Concrete and base rock - 12 inches thick.	
3				CL	SANDY CLAY (CL) - brown (10YR 5/3), moist; 70% clay, 30% sand.	
					Bottom of boring at 3.5 feet bgs.	
6						
9						
12						
15						
18						
21						

# Gettler-Ryan, Inc.

# Log of Boring SB5

PROJECT: <i>Chevron Service Station No. 9-6991</i>	LOCATION: <i>2920 Castro Valley Blvd., Castro Valley, CA</i>
GR PROJECT NO.: <i>DG96991G.4CT1</i>	SURFACE ELEVATION:
DATE STARTED: <i>03/06/02</i>	WL (ft. bgs):      DATE:      TIME:
DATE FINISHED: <i>03/06/02</i>	WL (ft. bgs):      DATE:      TIME:
DRILLING METHOD: <i>3 1/4 in. Hand Auger</i>	TOTAL DEPTH: <i>14 feet</i>
DRILLING COMPANY: <i>Gettler-Ryan, Inc.</i>	GEOLOGIST: <i>Tony Mikacich</i>

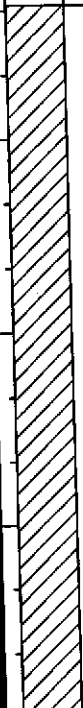
DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
3				CL	CLAY (CL) - black (7.5YR 2/0), moist; 90% clay, 10% fine sand, trace organic matter and odor.	Boring backfilled with excavated soil to surface grade.
6	SB5-5					
9	SB5-10				Includes hydrocarbon odor.	
12					At approximately 13 feet Becomes saturated; includes hydrocarbon sheen.	
15					Bottom of boring at 14 feet bgs.	
18						
21						



# Gettler-Ryan, Inc.

# Log of Boring SB6

PROJECT: <i>Chevron Service Station No. 9-6991</i>	LOCATION: <i>2920 Castro Valley Blvd., Castro Valley, CA</i>
GR PROJECT NO.: <i>DG96991G.4CT1</i>	SURFACE ELEVATION:
DATE STARTED: <i>03/06/02</i>	WL (ft. bgs):      DATE:      TIME:
DATE FINISHED: <i>03/06/02</i>	WL (ft. bgs):      DATE:      TIME:
DRILLING METHOD: <i>3 1/4 in. Hand Auger</i>	TOTAL DEPTH: <i>12 feet</i>
DRILLING COMPANY: <i>Gettler-Ryan, Inc.</i>	GEOLOGIST: <i>Tony Mikacich</i>

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
					Asphalt and base rock - 11 inches thick.	
3	SB6-5			CL	CLAY (CL) - brown (10YR 5/3), moist; 90% clay, 10% fine to medium sand.	Boring backfilled with excavated soil to 6 inches bgs. Asphalt used to surface grade.
6						
9						
12	SB6-W				SANDY CLAY (CL) - brown (10YR 5/3), saturated; 70% clay, 30% fine to medium sand.	Grab groundwater sample SB6-W collected at 12 feet.
					Bottom of boring at 12 feet bgs.	
15						
18						
21						

## CASE NARRATIVE

Prepared For:

Thomas Bauhs  
Chevron Products Company  
6001 Bollinger Canyon Road  
Building L  
P.O. Box 6004  
San Ramon, CA 94583-0904

Prepared By:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

### SAMPLE GROUP

The sample group for this submittal is 799579. Samples arrived at the laboratory on Friday, March 08, 2002.

### METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

### COMMENTS

Poor surrogate recoveries were observed for sample SB5-10 from Facility 96991 due to the dilution needed to perform the BTEX/MTBE and TPH-GRO analysis.



## ANALYTICAL RESULTS

Prepared for:

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904  
925-842-8582

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

## SAMPLE GROUP

The sample group for this submittal is 799579. Samples arrived at the laboratory on Friday, March 08, 2002. The PO# for this group is 99011184 and the release number is BAUHS.

<u>Client Description</u>		<u>Lancaster Labs Number</u>
SB1-S-5-020306	Grab Soil	3784671
SB1-S-10-020306	Grab Soil	3784672
SB1-W-020302	Grab Water	3784673
SB2-S-5.5-020306	Grab Soil	3784674
SB3-S-5.5-020306	Grab Soil	3784675
SB5-S-5-020306	Grab Soil	3784676
SB5-S-10-020306	Grab Soil	3784677
SB6-S-5-020306	Grab Soil	3784678
SB2-W-020302	Grab Water	3784679
SB3-W-020302	Grab Water	3784680
SB6-W-020302	Grab Water	3784681

## METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO

Chevron Products Company

Attn: Tony Mikacich




Lancaster Laboratories, Inc.  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681



Questions? Contact your Client Services Representative  
Teresa M Lis at (717) 656-2300.

Respectfully Submitted,



**Robert E. Mellinger**  
Sr Chemist/Coordinator



Lancaster Laboratories Sample No. SW 3784671

Collected: 03/06/2002 11:25 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:10  
 Discard: 03/29/2002

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

SB1-S-5-020306 Grab Soil

Fac# 96991 GRRC  
 2920 Castro Valley Blvd. T0600100324 SB-1

SB15C

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	n.a.	N.D.	10.	mg/kg	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).						
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	CA LUFT Diesel Range Organics	1	03/15/2002 11:05	Tracy A Cole	1



Lancaster Laboratories, Inc.  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 3784671

Collected: 03/06/2002 11:25 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
Reported: 03/21/2002 at 21:10  
Discard: 03/29/2002  
SB1-S-5-020306

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904

Grab Soil

Fac# 96991 GRRC  
2920 Castro Valley Blvd. T0600100324 SB-1

SB15C

01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/11/2002 15:25	Stephanie A Selis	25
02160	BTEX/MTBE	SW-846 8021B	1	03/11/2002 15:25	Stephanie A Selis	25
01150	GC VOA Soil Prep	SW-846 5035	1	03/11/2002 02:56	Stephanie A Selis	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/13/2002 11:30	Ginelle L Haines	1
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	03/12/2002 17:00	Desiree J Wann	1





Lancaster Laboratories Sample No. SW 3784672

Collected: 03/06/2002 13:10 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15

Reported: 03/21/2002 at 21:10

Discard: 03/29/2002

SB1-S-10-020306

Grab

Soil

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904

Fac# 96991

GRRC

2920 Castro Valley Blvd. T0600100324 SB-1

SB110

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	n.a.	N.D.	10.	mg/kg	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).						
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	CA LUFT Diesel Range Organics	1	03/15/2002 11:28	Tracy A Cole	1



Lancaster Laboratories, Inc.  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 3784672

Collected: 03/06/2002 13:10 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
Reported: 03/21/2002 at 21:10  
Discard: 03/29/2002  
SB1-S-10-020306 Grab Soil

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904

Fac# 96991 GRRC  
2920 Castro Valley Blvd. T0600100324 SB-1

SB110						
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/11/2002 16:02	Stephanie A Selis	25
02160	BTEX/MTBE	SW-846 8021B	1	03/11/2002 16:02	Stephanie A Selis	25
01150	GC VOA Soil Prep	SW-846 5035	1	03/11/2002 02:57	Stephanie A Selis	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/13/2002 11:30	Ginelle L Haines	1
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	03/12/2002 17:00	Desiree J Wann	1







Lancaster Laboratories Sample No. SW 3784674

Collected: 03/06/2002 11:56 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:10  
 Discard: 03/29/2002

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

SB2-S-5.5-020306 Grab Soil

Fac# 96991 GRRC  
 2920 Castro Valley Blvd. T0600100324 SB-2

SB255

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	n.a.	N.D.	10.	mg/kg	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).						
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	CA LUFT Diesel Range Organics	1	03/15/2002 13:23	Tracy A Cole	1



Lancaster Laboratories, Inc.  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 3784674

Collected: 03/06/2002 11:56 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15

Chevron Products Company

Reported: 03/21/2002 at 21:10

6001 Bollinger Canyon Road

Discard: 03/29/2002

Building L PO Box 6004

SB2-S-5.5-020306 Grab Soil

San Ramon CA 94583-0904

Fac# 96991

GRRC

2920 Castro Valley Blvd. T0600100324 SB-2

SB255

01726	TPH-GRO - Soils	N. CA LUFT Gasoline	1	03/11/2002 16:39	Stephanie A Selis	25
		Method				
02160	BTEX/MTBE	SW-846 8021B	1	03/11/2002 16:39	Stephanie A Selis	25
01150	GC VOA Soil Prep	SW-846 5035	1	03/11/2002 02:58	Stephanie A Selis	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/13/2002 11:30	Ginelle L Haines	1
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	03/12/2002 17:00	Desiree J Wann	1





Lancaster Laboratories Sample No. SW 3784675

Collected: 03/06/2002 11:16 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:10  
 Discard: 03/29/2002

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

SB3-S-5.5-020306 Grab Soil

Fac# 96991 GRRC  
 2920 Castro Valley Blvd. T0600100324 SB-3

SB355

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	n.a.	N.D.	10.	mg/kg	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).						
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	CA LUFT Diesel Range Organics	1	03/15/2002 11:51	Tracy A Cole	1



Lancaster Laboratories, Inc.  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 3784675

Collected: 03/06/2002 11:16 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15

Reported: 03/21/2002 at 21:10

Discard: 03/29/2002

SB3-S-5.5-020306 Grab Soil

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904

Fac# 96991

GRRC

2920 Castro Valley Blvd. T0600100324 SB-3

SB355

01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/11/2002 17:16	Stephanie A Selis	25
02160	BTEX/MTBE	SW-846 8021B	1	03/11/2002 17:16	Stephanie A Selis	25
01150	GC VOA Soil Prep	SW-846 5035	1	03/11/2002 02:59	Stephanie A Selis	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/13/2002 11:30	Ginelle L Haines	1
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	03/12/2002 17:00	Desiree J Wann	1



Lancaster Laboratories, Inc.  
2425 New Holland Pike  
PO Box 12425  
Lancaster, PA 17605-2425  
717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. SW 3784676

Collected: 03/06/2002 12:07 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:10  
 Discard: 03/29/2002  
 SB5-S-5-020306

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

SB5-S-5-020306 Grab Soil

Fac# 96991 GRRC  
 2920 Castro Valley Blvd. T0600100324 SB-5

SB55C

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	n.a.	N.D.	10.	mg/kg	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).						
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	1.1	1.0	mg/kg	25
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	CA LUFT Diesel Range Organics	1	03/15/2002 12:14	Tracy A Cole	1



Lancaster Laboratories Sample No. SW 3784676

Collected: 03/06/2002 12:07 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
Reported: 03/21/2002 at 21:10  
Discard: 03/29/2002

Chevron Products Company  
6001 Bollinger Canyon Road  
Building L PO Box 6004  
San Ramon CA 94583-0904

SB5-S-5-020306 Grab Soil

Fac# 96991 GRRC  
2920 Castro Valley Blvd. T0600100324 SB-5

SB55C							
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/11/2002 17:53	Stephanie A Selis	25	
02160	BTEX/MTBE	SW-846 8021B	1	03/11/2002 17:53	Stephanie A Selis	25	
01150	GC VOA Soil Prep	SW-846 5035	1	03/11/2002 03:00	Stephanie A Selis	n.a.	
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/13/2002 11:30	Ginelle L Haines	1	
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	03/12/2002 17:00	Desiree J Wann	1	





Lancaster Laboratories Sample No. SW 3784677

Collected: 03/06/2002 17:44 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:10  
 Discard: 03/29/2002

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

SB5-S-10- 020306 Grab Soil

Fac# 96991 GRRC  
 2920 Castro Valley Blvd. T0600100324 SB-5

SB510

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	n.a.	53.	10.	mg/kg	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons). The observed sample pattern is not typical of diesel/#2 fuel oil.						
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	250.	10.	mg/kg	250
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						
A poor surrogate recovery was observed due to the dilution needed to perform the analysis.						
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.050	mg/kg	250
02177	Toluene	108-88-3	N.D.	0.20	mg/kg	250
02178	Ethylbenzene	100-41-4	N.D.	0.50	mg/kg	250
02182	Total Xylenes	1330-20-7	0.99	0.15	mg/kg	250
02199	MTBE	1634-04-4	N.D.	0.50	mg/kg	250

The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.

A poor surrogate recovery was observed due to the dilution needed to perform the analysis.

Due to the presence of interferents near their retention time, normal reporting limits were not attained for the compounds listed below. The presence or concentration of these compounds cannot be determined below the



Lancaster Laboratories Sample No. SW 3784677

Collected: 03/06/2002 17:44 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:10  
 Discard: 03/29/2002  
 SB5-S-10- 020306 Grab Soil

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SB510

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
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reporting limits due to the presence of these interferents.

- methyl t-butyl ether
- benzene
- toluene
- ethylbenzene

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	CA LUFT Diesel Range Organics	1	03/15/2002 12:37	Tracy A Cole	1
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/11/2002 20:21	Stephanie A Selis	250
02160	BTEX/MTBE	SW-846 8021B	1	03/11/2002 20:21	Stephanie A Selis	250
01150	GC VOA Soil Prep	SW-846 5035	1	03/11/2002 03:01	Stephanie A Selis	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/13/2002 11:30	Ginelle L Haines	1
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	03/12/2002 17:00	Desiree J Wann	1







Lancaster Laboratories Sample No. SW 3784678

Collected: 03/06/2002 11:06 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:11  
 Discard: 03/29/2002

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SB6-S-5-020306 Grab Soil

Fac# 96991 GRRC  
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SB65C

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	n.a.	N.D.	10.	mg/kg	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).						
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.						

State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02201	TPH-DRO CALUFT(Soils) w/Si Gel	CA LUFT Diesel Range Organics	1	03/15/2002 13:00	Tracy A Cole	1



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Lancaster Laboratories Sample No. SW 3784678

Collected: 03/06/2002 11:06 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15

Chevron Products Company

Reported: 03/21/2002 at 21:11

6001 Bollinger Canyon Road

Discard: 03/29/2002

Building L PO Box 6004

SB6-S-5-020306 Grab Soil

San Ramon CA 94583-0904

Fac# 96991

GRRC

2920 Castro Valley Blvd. T0600100324 SB-5

SB65C

01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/11/2002 18:30	Stephanie A Selis	25
02160	BTEX/MTBE	SW-846 8021B	1	03/11/2002 18:30	Stephanie A Selis	25
01150	GC VOA Soil Prep	SW-846 5035	1	03/11/2002 03:02	Stephanie A Selis	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/13/2002 11:30	Ginelle L Haines	1
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	03/12/2002 17:00	Desiree J Wann	1





Lancaster Laboratories Sample No. **WW 3784673**

Collected: 03/06/2002 13:52

Account Number: 10992

Submitted: 03/08/2002 09:15

Chevron Products Company

Reported: 03/21/2002 at 21:10

6001 Bollinger Canyon Road

Discard: 03/29/2002

Building L PO Box 6004

SB1-W-020302

Grab

Water

San Ramon CA 94583-0904

Facility# 96991

GRRC

2920 Castro Valley Blvd. T0600100324 SB-1

SBIWC

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02202	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	N.D.	200.	ug/l	1
<p>According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons). Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level. Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly.</p>						
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
<p>The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.</p>						
02159	BTEX, MTBE					
02161	Benzene	71-43-2	N.D.	0.50	ug/l	1
02164	Toluene	108-88-3	N.D.	0.50	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
02172	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
<p>A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.</p>						
01595	Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	N.D.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	5.	ug/l	1





Lancaster Laboratories Sample No. **WW 3784673**

Collected: 03/06/2002 13:52

Account Number: 10992

Submitted: 03/08/2002 09:15  
Reported: 03/21/2002 at 21:10  
Discard: 03/29/2002  
SB1-W-020302

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San Ramon CA 94583-0904

Grab Water

Facility# 96991  
2920 Castro Valley Blvd. T0600100324 SB-1

GRRC

SB1WC

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
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State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02202	TPH-DRO CALUFT(Water) w/Si Gel	CA LUFT Diesel Range Organics	1	03/13/2002 04:46	Devin M Lahr	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/12/2002 17:26	Melissa D Mann	1
02159	BTEX, MTBE	SW-846 8021B	1	03/12/2002 17:26	Melissa D Mann	1
01595	Oxygenates by 8260B	SW-846 8260B	1	03/12/2002 11:55	Marla S Lord	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/12/2002 17:26	Melissa D Mann	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/12/2002 11:55	Marla S Lord	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/11/2002 05:30	JoElla L Rice	1
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	03/11/2002 02:05	JoElla L Rice	1



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Lancaster Laboratories Sample No. **WW 3784679**

Collected: 03/08/2002 15:30 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:11  
 Discard: 03/29/2002

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 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

SB2-W-020302 Grab Water

Facility# 96991 GRRC  
 2920 Castro Valley Blvd. T0600100324 SB-2

SB2WB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02202	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	200.	200.	ug/l	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons). Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level. Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly.						
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
02159	BTEX, MTBE					
02161	Benzene	71-43-2	N.D.	0.50	ug/l	1
02164	Toluene	108-88-3	N.D.	0.50	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
02172	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
01595	Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	N.D.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	5.	ug/l	1



Lancaster Laboratories Sample No. WW 3784679

Collected: 03/08/2002 15:30 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
Reported: 03/21/2002 at 21:11  
Discard: 03/29/2002

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SB2-W-020302 Grab Water

Facility# 96991 GRRC  
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SB2WB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
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State of California Lab Certification No. 2116

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02202	TPH-DRO CALUFT(Water) w/Si Gel	CA LUFT Diesel Range Organics	1	03/13/2002 05:55	Devin M Lahr	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/12/2002 18:01	Melissa D Mann	1
02159	BTEX, MTBE	SW-846 8021B	1	03/12/2002 18:01	Melissa D Mann	1
01595	Oxygenates by 8260B	SW-846 8260B	1	03/12/2002 12:22	Marla S Lord	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/12/2002 18:01	Melissa D Mann	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/12/2002 12:22	Marla S Lord	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/11/2002 05:30	JoElla L Rice	1
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	03/11/2002 02:05	JoElla L Rice	1



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Lancaster Laboratories Sample No. **WW 3784680**

Collected: 03/08/2002 18:47 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:11  
 Discard: 03/29/2002

Chevron Products Company  
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 San Ramon CA 94583-0904

SB3-W-020302 Grab Water

Facility# 96991 GRRC  
 2920 Castro Valley Blvd. T0600100324 SB-3

SB2WC

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02202	TPH-DRO CALUFT (Water) w/Si Gel	n.a.	960.	200.	ug/l	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons). Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level. Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly.						
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	990.	50.	ug/l	1
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
02159	BTEX, MTBE					
02161	Benzene	71-43-2	0.59	0.50	ug/l	1
02164	Toluene	108-88-3	0.70	0.50	ug/l	1
02166	Ethylbenzene	100-41-4	1.4	0.50	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
02172	Methyl tert-Butyl Ether	1634-04-4	N.D.	5.0	ug/l	1
A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
01595	Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	8.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	5.	ug/l	1



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Lancaster Laboratories Sample No. **WW 3784680**

Collected: 03/08/2002 18:47 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
Reported: 03/21/2002 at 21:11  
Discard: 03/29/2002

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SB3-W-020302 Grab Water

Facility# 96991 GRRC  
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SB2WC

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
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State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
02202	TPH-DRO CALUFT (Water) w/Si Gel	CA LUFT Diesel Range Organics	1	03/13/2002 06:18		Devin M Lahr	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/12/2002 18:36		Melissa D Mann	1
02159	BTEX, MTBE	SW-846 8021B	1	03/12/2002 18:36		Melissa D Mann	1
01595	Oxygenates by 8260B	SW-846 8260B	1	03/12/2002 12:48		Marla S Lord	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/12/2002 18:36		Melissa D Mann	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/12/2002 12:48		Marla S Lord	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/11/2002 05:30		JoElla L Rice	1
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	03/11/2002 02:05		JoElla L Rice	1







Lancaster Laboratories Sample No. **WW 3784681**

Collected: 03/08/2002 16:44 by TM

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:11  
 Discard: 03/29/2002

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SB6-W-020302 Grab Water

Facility# 96991 GRRC  
 2920 Castro Valley Blvd. T0600100324 SB-6

SB6WC

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02202	TPH-DRO CALUFT(Water) w/Si Gel	n.a.	N.D.	200.	ug/l	1
According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons). Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level. Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly.						
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
02159	BTEX, MTBE					
02161	Benzene	71-43-2	N.D.	0.50	ug/l	1
02164	Toluene	108-88-3	N.D.	0.50	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
02172	Methyl tert-Butyl Ether	1634-04-4	8.5	2.5	ug/l	1
A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
01595	Oxygenates by 8260B					
02010	Methyl t-butyl ether	1634-04-4	N.D.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	5.	ug/l	1



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Lancaster Laboratories Sample No. **WW 3784681**

Collected: 03/08/2002 16:44 by **TM**

Account Number: 10992

Submitted: 03/08/2002 09:15  
 Reported: 03/21/2002 at 21:11  
 Discard: 03/29/2002

Chevron Products Company  
 6001 Bollinger Canyon Road  
 Building L PO Box 6004  
 San Ramon CA 94583-0904

SB6-W-020302                      Grab              Water

Facility# 96991    GRRC  
 2920 Castro Valley Blvd. T0600100324 SB-6

SB6WC

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
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State of California Lab Certification No. 2116

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
02202	TPH-DRO CALUFT(Water) w/Si Gel	CA LUFT Diesel Range Organics	1	03/13/2002	04:23	Devin M Lahr	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/12/2002	19:11	Melissa D Mann	1
02159	BTEX, MTBE	SW-846 8021B	1	03/12/2002	19:11	Melissa D Mann	1
01595	Oxygenates by 8260B	SW-846 8260B	1	03/12/2002	13:15	Marla S Lord	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/12/2002	19:11	Melissa D Mann	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/12/2002	13:15	Marla S Lord	n.a.
02176	Silica Quick Gel Cleanup	SW846, 3630C modified	1	03/11/2002	05:30	JoElla L Rice	1
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	03/11/2002	02:05	JoElla L Rice	1



Lancaster Laboratories, Inc.  
 2425 New Holland Pike  
 PO Box 12425  
 Lancaster, PA 17605-2425  
 717-656-2300 Fax: 717-656-2681



## Lancaster Laboratories

*Where quality is a science.*  
**Quality Control Summary**

Client Name: Chevron Products Company  
Reported: 03/21/02 at 09:11 PM

Group Number: 799579

### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCS D %REC	LCS/LCS D Limits	RPD	RPD Max
Batch number: 020680005A TPH-DRO CALUFT(Water) w/Si Gel	Sample number(s): 3784673,3784679-3784681							
	N.D.	50.	ug/l	99	96	54-120	3	20
Batch number: 02070A33B TPH-GRO - Soils	Sample number(s): 3784671-3784672,3784674-3784678							
Benzene	N.D.	1.	mg/kg	87		75-117		
Toluene	N.D.	.005	mg/kg	105		84-132		
Ethylbenzene	N.D.	.005	mg/kg	105		88-116		
Total Xylenes	N.D.	.005	mg/kg	106		87-127		
MTBE	N.D.	.015	mg/kg	105		88-120		
Batch number: 020710002A TPH-DRO CALUFT(Soils) w/Si Gel	Sample number(s): 3784671-3784672,3784674-3784678							
	N.D.	10.	mg/kg	92		41-143		
Batch number: 02071A55A TPH-GRO - Waters	Sample number(s): 3784673,3784679-3784681							
Benzene	N.D.	50.	ug/l	107		76-126		
Toluene	N.D.	.5	ug/l	98	98	80-118	1	30
Ethylbenzene	N.D.	.5	ug/l	103	104	82-119	0	30
Total Xylenes	N.D.	.5	ug/l	107	108	81-119	1	30
Methyl tert-Butyl Ether	N.D.	1.5	ug/l	107	107	82-120	1	30
Batch number: V020711AB Methyl t-butyl ether	Sample number(s): 3784673,3784679-3784681							
di-Isopropyl ether	N.D.	.5	ug/l	92		77-127		
Ethyl t-butyl ether	N.D.	.5	ug/l	90		74-125		
t-Amyl methyl ether	N.D.	.5	ug/l	91		74-120		
t-Butyl alcohol	N.D.	.5	ug/l	92		71-114		
	N.D.	5.	ug/l	75		59-139		

### Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	BKG MAX	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 02070A33B TPH-GRO - Soils	Sample number(s): 3784671-3784672,3784674-3784678							
Benzene	72	71	44-116	1	30			
Toluene	110	110	56-142	0	30			
Ethylbenzene	91	89	66-120	3	30			
Total Xylenes	103	102	66-131	1	30			
MTBE	95	93	67-122	3	30			
Batch number: 020710002A TPH-DRO CALUFT(Soils) w/Si Gel	Sample number(s): 3784671-3784672,3784674-3784678							
	646*	-46*	34-156	138*	20			
Batch number: 02071A55A TPH-GRO - Waters	Sample number(s): 3784673,3784679-3784681							
Benzene	109	111	74-132	2	30			
	104		77-131					

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



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## Lancaster Laboratories

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**Quality Control Summary**

Client Name: Chevron Products Company  
Reported: 03/21/02 at 09:11 PM

Group Number: 799579

### Sample Matrix Quality Control

<u>Analysis Name</u>	MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup
	<u>%REC</u>	<u>%REC</u>	<u>Limits</u>	<u>RPD</u>	<u>MAX</u>	<u>Conc</u>	<u>RPD</u>	<u>RPD</u>
Toluene	113		80-128					
Ethylbenzene	116		76-132					
Total Xylenes	115		69-140					
Methyl tert-Butyl Ether	107		61-144					
Batch number: V020711AB		Sample number(s): 3784673,3784679-3784681						
Methyl t-butyl ether	(2)	(2)	69-134	0	30			
di-Isopropyl ether	93	92	68-133	1	30			
Ethyl t-butyl ether	93	93	73-123	1	30			
t-Amyl methyl ether	101	101	69-118	0	30			
t-Butyl alcohol	72	72	51-148	0	30			

### Surrogate Quality Control

Analysis Name: TPH-DRO CALUFT(Water) w/Si Gel  
Batch number: 020680005A  
Orthoterphenyl

3784673	81
3784679	77
3784680	71
3784681	91
Blank	91
LCS	95
LCSD	96

Limits: 59-157

Analysis Name: TPH-GRO - Soils  
Batch number: 02070A33B

	Trifluorotoluene-F	Trifluorotoluene-P
3784671	80	84
3784672	85	90
3784674	86	91
3784675	82	86
3784676	80	83
3784677	11*	10*
3784678	82	86
Blank	98	107
LCS	108	110
MS	91	97
MSD	91	96

Limits: 61-127                      68-122

Analysis Name: TPH-DRO CALUFT(Soils) w/Si Gel  
Batch number: 020710002A

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



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## Lancaster Laboratories

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### Quality Control Summary

Client Name: Chevron Products Company

Group Number: 799579

Reported: 03/21/02 at 09:11 PM

### Surrogate Quality Control

Orthoterphenyl

3784671	93
3784672	94
3784674	90
3784675	85
3784676	88
3784677	90
3784678	81
Blank	99
LCS	102
MS	118
MSD	93

Limits: 35-143

Analysis Name: TPH-GRO - Waters

Batch number: 02071A55A

	Trifluorotoluene-F	Trifluorotoluene-P
3784673	103	86
3784679	102	86
3784680	113	74
3784681	101	84
Blank	106	86
LCS	119	86
LCSD		86
MS	120	83
MSD	121	

Limits: 67-135

71-130

Analysis Name: Oxygenates by 8260B

Batch number: V020711AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
3784673	115	106	102	88
3784679	118	104	102	89
3784680	117	103	101	87
3784681	116	104	101	94
Blank	117	109	101	89
LCS	115	105	100	96
MS	113	105	100	94
MSD	111	103	100	96

Limits: 86-118

80-120

88-110

86-115

**\*- Outside of specification**

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



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# Chevron California Region Analysis Request/Chain of Custody



Acct. #: 10992 For Lancaster Laboratories use only  
 Sample #: 3784671-87 SCR#: \_\_\_\_\_ *p102*

Facility #: <u>9-6991</u> Site Address: <u>2920 CASTRO Valley Blvd.</u> Chevron PM: <u>Tom Bahs</u> Lead Consultant: <u>Delta</u> Consultant/Office: <u>Gettler-Ryan Inc. / Rancho Cordova</u> Consultant Prj. Mgr.: <u>Tony Mikacich</u> Consultant Phone #: <u>(916) 631-1300</u> Fax #: <u>(916) 631-1317</u> Sampler: <del>Goffrey Rizzo</del> <u>Tony Mikacich</u> Service Order #: _____ <input type="checkbox"/> Non SAR: _____				Analyses Requested				Preservative Codes							
				Matrix				Preservation Codes							
				<input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air				Total Number of Containers BTEX + MTBE 8260 <input type="checkbox"/> 8021 <input checked="" type="checkbox"/> TPH 8015 MOD GRO TPH 8015 MOD DRO <input checked="" type="checkbox"/> Silica Gel Cleanup 8260 full scan 5 - Oxygenates (8260S) MTBE PCE, TCA, DCE, STP, TPAE Lead 7420 <input type="checkbox"/> 7421 <input type="checkbox"/>				H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits			
Sample Identification		Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Comments / Remarks					
<del>SB1-5</del>		03/06/02	<del>11:25</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>						
<del>SB1-10</del>			<del>13:10</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>						
<del>SB1-W</del>			<del>12:52</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>						
<del>SB2-FF</del>			<del>11:56</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>						
SB2-W			15:30	X	X	X	X	X	X						
<del>SB3-FF</del>			<del>11:16</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>						
SB3-W			18:47	X	X	X	X	X	X						
<del>SB5-F</del>			<del>12:07</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>						
<del>SB5-10</del>			<del>17:44</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>						
<del>SB6-S</del>			<del>11:06</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>						
SB6-W		16:44	X	X	X	X	X	X							
Turnaround Time Requested (TAT) (please circle)				Relinquished by: <u>Tony Mikacich</u>		Date: <u>03/07/02</u> Time: <u>1400</u>		Received by: _____		Date: _____	Time: _____				
STD. TAT      72 hour      48 hour 24 hour      4 day      5 day				Relinquished by: _____		Date: _____ Time: _____		Received by: _____		Date: _____	Time: _____				
Data Package Options (please circle if required)				Relinquished by: _____		Date: _____ Time: _____		Received by: _____		Date: _____	Time: _____				
QC Summary      Type I - Full Type VI (Raw Data) <input type="checkbox"/> Coelt Deliverable not needed WIP (RWQCB) Disk				Relinquished by Commercial Carrier: _____		Received by: <u>Kathy Beinkley</u>		Date: <u>3-8-02</u> Time: <u>0915</u>		Date: _____	Time: _____				
				UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> Other _____		Temperature Upon Receipt: <u>35.25° C</u>		Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Date: _____	Time: _____				

# Chevron California Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only  
 Acct. #: 10992 Sample #: 3784671-81 SCR#: \_\_\_\_\_

*p202*

Facility #: <u>9-6991</u> Site Address: <u>2920 CASTRO VALLEY BOULEVARD</u> Chevron PM: <u>Tom Banks</u> Lead Consultant: <u>Delta</u> Consultant/Office: <u>GETTLER-RYAN INC. / RANCHO CORDOVA</u> Consultant Prj. Mgr.: <u>TONY MIKACICH</u> Consultant Phone #: <u>(916) 631-1300</u> Fax #: <u>(916) 631-1317</u> Sampler: <u><del>GEOFFREY RISS</del> TONY MIKACICH</u> Service Order #: _____ <input type="checkbox"/> Non SAR: _____				<b>Matrix</b> <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/> Composite		<b>Analyses Requested</b> Preservation Codes H H H H H BTEX + MTBE 8260 <input type="checkbox"/> 8021 <input checked="" type="checkbox"/> TPH 8015 MOD GRO TPH 8015 MOD DRO <input checked="" type="checkbox"/> Silica Gel Cleanup 8260 full scan 5- Oxygenates (8260) <input checked="" type="checkbox"/> Lead 7420 <input type="checkbox"/> 7421 <input type="checkbox"/>						<b>Preservative Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits	
<b>Sample Identification</b>		Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8260 <input type="checkbox"/> 8021 <input checked="" type="checkbox"/> TPH 8015 MOD GRO TPH 8015 MOD DRO <input checked="" type="checkbox"/> Silica Gel Cleanup 8260 full scan 5- Oxygenates (8260) <input checked="" type="checkbox"/> Lead 7420 <input type="checkbox"/> 7421 <input type="checkbox"/>	<b>Comments / Remarks</b>	
SBI-5		03/06/02	1125	X		X				1			
SBI-10			1310	X		X				1			
SBI-W			1352	X		X	X			8		X	
SB2-5.5			1156	X		X				1			
<del>SB2-W</del>			<del>1520</del>	<del>X</del>		<del>X</del>	<del>X</del>			<del>0</del>		<del>X</del>	
SB3-5.5			1116	X		X				1			
<del>SB3-W</del>			<del>1247</del>	<del>X</del>		<del>X</del>	<del>X</del>			<del>0</del>		<del>X</del>	
SB5-5			1207	X		X				1			
SB5-10			1744	X		X				1			
SB6-5			1106	X		X				1			
<del>SB6-W</del>			<del>1644</del>	<del>X</del>		<del>X</del>	<del>X</del>			<del>0</del>		<del>X</del>	

Turnaround Time Requested (TAT) (please circle) STD. TAT      72 hour      48 hour 24 hour      4 day      5 day			Relinquished by: <u>Tony Mikacich</u>		Date: <u>03/07/02</u>	Time: <u>1400</u>	Received by: _____	Date: _____	Time: _____
Data Package Options (please circle if required) QC Summary      Type I — Full Type VI (Raw Data) <input type="checkbox"/> Coelt Deliverable not needed WIP (RWQCB) Disk			Relinquished by: _____		Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
			Relinquished by Commercial Carrier: UPS <input checked="" type="checkbox"/> FedEx      Other _____		Temperature Upon Receipt: <u>3° &amp; 25°</u>		Received by: <u>Rachel Binkley</u>		Date: <u>3-8-02</u>
Custody Seals Intact?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							Date: _____	Time: _____	