REPORT OF ACTIVITIES
QUARTER 3, 1991

SHELL OIL COMPANY SITE
2724 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

Prepared for:
SHELL OIL COMPANY
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Prepared by:
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September 11, 1991

CEW Project No. 88-44-380-20
WIC No. 204-1381-0407

Shell Oil Company

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91 SEP 13 PM 1:44

September 11, 1991
88-44-380-20-1383
WIC No. 204-1381-0407

Ms. Penny Silzer
San Francisco Bay Regional
Water Quality Control Board
2101 Webster Street, Room 500
Oakland, California 94612

Subject: Shell Oil Company - Quarterly Report - Q3/1991
Former Shell Oil Company Site
2724 Castro Valley Boulevard
Castro Valley, California

Dear Ms. Silzer:

Enclosed please find one copy of the Shell Oil Company Quarterly Report of Activities Quarter 3, 1991, prepared by Converse Environmental West for the Shell Oil Company Site located at 2724 Castro Valley Boulevard in Castro Valley, California.

Please call if you have any questions.

Very truly yours,

Shell Oil Company

Jack P. Blasted

Enclosure

cc: Mr. Lawrence Seto - Alameda County Health Care Services Agency (w/ encl.)
Ms. Barbara J. Ellis - Shell Oil Company (w/ encl.)
Mr. Charles R. Comstock - Converse Environmental West (w/o encl.)
Dr. Mohsen Mehran - Owner Consultant (w/ encl.)
Mr. Michael K. Johnson - Larson, Burnham and Turner (w/ encl.)
Mr. Mathew Righetti - Righetti Law Firm (w/ encl.)

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SECTION 1

INTRODUCTION

1.1 BACKGROUND AND OBJECTIVES

This report presents the results of investigative activities conducted by Converse Environmental West (Converse) during Quarter 3, 1991 (Q3/91) for the former Shell Oil Company (Shell) station (site) located at 2724 Castro Valley Blvd, Castro Valley, California (Drawing 1). This report is prepared to fulfill the quarterly reporting requirements as specified in the Work Plan prepared by Converse and dated January 16, 1990 for achievement of environmental closure of the site. The Work Plan is on file with the regulatory agencies of jurisdiction.

This former retail gasoline station is located on the northeast corner of Castro Valley Blvd and Lake Chabot Road in Castro Valley, California. The site is approximately 160 feet long by 100 feet wide (Drawing 2). Commercial businesses exist on all corners of the intersection. Surrounding neighborhood development is commercial along both roads. Single family houses or residences are located on nearby side streets. The site was an active service station prior to 1989, but is now temporarily closed due to ongoing renovation work, tank replacement, and environmental remediation.

Topographically, the site is located on the western edge of a gentle valley (Castro Valley) on Recent alluvial fill. The terrain rises northward into the San Leandro Hills and the site is approximately 50 feet above the valley floor. An isolated hillside knob with 60 to 100 feet of relief exists 600 feet south of the site. An intermittent stream is shown 300 feet west on the 7 1/2 minute Hayward, California USGS topographic map. This stream enters San Lorenzo Creek approximately one mile south of the site.

During the past four years Shell and its environmental consultants Blaine Technical Services, Woodward-Clyde Consultants, Crosby and Overton, and Converse have investigated the extent of soil contamination associated with underground storage tanks and product lines at the site. Environmental investigation was initiated in November, 1986, when Shell replaced the waste oil tank and discovered minor soil contamination in tank backfill.

In March, 1989, Shell removed the underground gasoline storage tanks and discovered subjacent soil contamination. The contaminated soil was removed in three successive stages.

During June 1989, soil around the former storage tanks was excavated to a depth of 12 feet, the approximate depth of the water table (Excavation I). In July 1989, Excavation I was extended from the existing building on the north, to the sidewalk of Castro Valley Boulevard on the South. The spoils from the excavation were removed from the site, by Crosby and Overton, a licensed hazardous waste transporter, and disposed of at a Class I landfill at Buttonwillow, California. Verification samples collected from the excavation sidewalls indicated the absence of petroleum hydrocarbons in the exposed soils, except at the northeast corner, where further excavation was impractical due to obstruction from buildings and underground utilities. Mr. Larry Seto of ACHCSA was notified of the sample results in letters dated July 11 and July 27, 1989, and the excavation was backfilled soon thereafter.

In late August, 1989, exploratory test pits were excavated under the drive pad area, to determine the extent of suspected contamination in shallow soil near the former pump islands. Local areas of contaminated soil were discovered between the pump islands. In early October 1989, the test pits were expanded into Excavation II, and contaminated soil was removed. Soil samples were taken from the sidewalls and bottom of the excavation, and the excavation was expanded slightly where residual soil contamination was present.

Final verification samples collected in January 1990 showed that the exposed soils did not contain detectable levels of petroleum hydrocarbons. Three samples taken in the deepest portion of the excavation showed some contamination. These samples were all taken in the capillary or saturated zone.

A letter was sent to ACHCSA dated May 31, 1990 describing these sampling results, and requesting permission to backfill the excavation and fully restore the site. Excavation II was backfilled on July 10, 1990.

On May 9, 1990 hand-auger boring SB-2 was drilled at an angle under the building foundation, 20 feet to the west of MW-2 (Drawing 2). Two soil samples were taken at depths of 4.5 and 6.5 feet below the building, and analyzed for waste oil parameters.

A chronological summary of environmental activities conducted at the site is presented in Appendix A. A general description of site conditions is included in previous reports on file with the Lead Implementing Agency (LIA).

1.2 SCOPE OF ACTIVITIES

The investigative activities conducted during Q3/91 were authorized under an existing purchase order and blanket number from Shell for environmental services at the site. The work completed during Q3/91 consisted of the following activities:

- Drilling of soil borings SB-4, SB-5, OMW-6, MW-7 and OMW-8. Installation of groundwater monitoring wells OMW-6, MW-7 and OMW-8;

- Sampling and physical monitoring of wells MW-1, MW-2, MW-3, MW-5, OMW-6, MW-7 and OMW-8. The samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), and total petroleum hydrocarbons as gasoline (TPH-g), diesel (TPH-d), and motor oil (TPH-mo); and

- Evaluating the findings from the field activities and preparing this report.

SECTION 2

WORK COMPLETED THIS QUARTER

Work initiated and completed during Q3/91 followed the task descriptions of the Work Plan dated January 16, 1990, and the Converse protocols on file with the regulatory agencies of jurisdiction. Modifications and additions to the Work Plan are contained in a Site Restoration Plan and Schedule for Future Work, dated May 31, 1990.

2.1 SOIL SAMPLING AND ANALYSIS

Five soil borings SB-4, SB-5, OMW-6, MW-7 and OMW-8 (Drawing 2) were drilled on July 8 and 9, 1991 by All Terrain Exploration Drilling from Pleasant Grove, and Gregg Drilling from Concord, California. Boring MW-7 was logged and sampled beginning at 10 feet below ground surface (bgs) because the boring was drilled through excavation backfill material. The other borings were logged and sampled at 5 foot intervals beginning at 5 feet bgs to first encountered groundwater.

Soil samples collected from the borings were submitted, according to Converse chain-of-custody protocols, to NET Pacific, Inc., a California certified analytical laboratory in Santa Rosa, California. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), diesel (TPH-d) and motor oil (TPH-mo) and benzene, toluene, ethylbenzene and xylenes (BTEX). Analytical data for the soil samples collected from the borings are summarized in Table 4. Analytical laboratory reports and chain-of-custody forms are included in Appendix C.

2.2 MONITORING WELL INSTALLATION

Three soil borings drilled at the site (OMW-6, MW-7 and OMW-8) were completed as groundwater monitoring wells. Well installation information is summarized in Table 5. Well completion diagrams are included on the boring logs in Appendix B.

Monitoring well installation permits for these wells were issued on July 2, 1991, by Zone 7 of the Alameda County Flood Control and Water Conservation District, under permit number 91369.

The wells OMW-6, MW-7 and OMW-8 were developed on July 11, 1991. During the development, purged groundwater was monitored for turbidity, pH, temperature and electric conductivity. The measurements were conducted at periodic intervals to confirm the stabilization of these parameters. Copies of the field data are included as Appendix D.

Development purge water was placed in 55-gallon steel drums and stored at the site.

2.3 GROUNDWATER SAMPLING AND ANALYSES

Groundwater samples were collected on July 16, 1991 from monitoring wells MW-1, MW-2, MW-3, MW-5, OMW-6, MW-7 and OMW-8. These samples were submitted, under chain of custody protocols, to NET Pacific, Inc., a California-certified analytical laboratory located in Santa Rosa, California. The samples were analyzed for TPH-g, TPH-d, TPH-mo, and BTEX following the recommended analytical methods listed in Table 3. Analytical data for the samples collected from the monitoring wells are summarized in Table 6. Copies of analytical laboratory reports and chain-of-custody forms are provided in Appendix C.

2.4 PHYSICAL MONITORING

During Q3/91, wells MW-1, MW-2, MW-3, MW-5, OMW-6, MW-7 and OMW-8 were physically measured once for depth-to-water, and the presence of floating product. A summary of these results is presented in Table 7. Floating product was not present in wells at the site during Q3/91 monitoring activities. Petroleum odor was noted in MW-2.

SECTION 3

FINDINGS AND DISCUSSION

3.1 SOIL

3.1.1 Lithology

Based upon lithologic information from Q3/91 soil borings, approximately 3 to 4 feet of fill is underlain by silty clay to a depth of approximately 10 feet bgs. The silty clay is underlain by shale and some siltstone, the upper 5 to 10 feet of which are fractured and weathered.

3.1.2 Results of Chemical Analyses

Several of the soil samples collected from the monitoring well borings contained petroleum hydrocarbons. The soil sample from OMW-6 at 5 feet bgs contained 15 mg/kg TPH-mo. The sample from MW-7 at 11 feet bgs contained TPH-g at a concentration of 260 mg/kg, TPH-d at a concentration of 50 mg/kg as well as concentrations of BTEX. The soil sample from OMW-8 collected at 14.5 feet contained 1.8 mg/kg TPH-d.

3.2 GROUNDWATER

3.2.1 Elevation and Gradient

Depth to groundwater at the time of the Q3/91 monitoring ranged from 7.58 to 9.40 ft. bgs. The inferred groundwater flow direction was toward the south and west at the time of measurements during Q3/91 under a gradient of approximately 0.01 ft/ft (Table 7 and Drawing 3).

3.2.2 Results of Chemical Analyses

A summary of groundwater chemistry data is presented in Table 6. Groundwater samples collected from monitoring wells MW-1, MW-3, MW-5, and OMW-6 showed no detectable concentrations of hydrocarbons. Wells MW-2 and MW-1 contained detectable concentrations of TPH-g, TPH-d, and BTEX. Well OMW-8 contained toluene at a concentration of 0.0008 mg/L.

3.2.3 Discussion

Soils encountered during drilling conducted this quarter are consistent with those encountered in previous borings. TPH-g, TPH-d, and BTEX detected in the soil sample collected from MW-7 are most likely present because this sample appears to have been collected from within the saturated zone.

The groundwater flow direction and gradient calculated from data collected this quarter are generally consistent with those previously reported. Petroleum hydrocarbon concentrations in groundwater are generally consistent with those previously encountered. No petroleum hydrocarbons were detected in groundwater samples from the two offsite, upgradient monitoring wells installed this quarter. TPH-g, TPH-d, and BTEX were detected in samples from MW-7 near the downgradient property boundary. TPH-mo was detected in the sample from MW-3. Additional monitoring data will be required to assess the presence of TPH-mo in this well.

in addition to MW-7

SECTION 4

NEXT QUARTER ACTIVITIES

4.1 PROPOSED ACTIVITIES

The following activities will be continued in Q4/91:

- Continue monitoring groundwater conditions. Groundwater samples will be analyzed for TPH-g, BTEX, and TPH-d following the analytical methods listed in Table 3.

- Drilling of additional soil borings and installation of one additional monitoring well to further investigate subsurface conditions. where?

- Implementation of the Site Restoration Plan and Schedule for Future Activities will begin during Q3/91.

- Activities conducted during Q4/91 will be reported in Report of Activities for Q4/91 scheduled for submittal to the regulating agencies of jurisdiction on December 31, 1991.

CERTIFICATION

This report of activities for the Shell Oil Company facility at 2724 Castro Valley Boulevard, Castro Valley, California has been prepared by the staff of **Converse Environmental West** under the professional supervision of the Engineer and/or Geologist whose seal(s) and signature(s) appear hereon.

The findings, recommendations, specifications or professional opinions are presented, within the limits prescribed by the Client, after being prepared in accordance with generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied.

Respectfully submitted,

DAVID SIEGEL
Project Geologist

GERARD SLATTERY
Senior Geologist, RG 5038
Manager, Technical Services

PRIMARY CONTACTS

Shell Oil Company Facility
2724 Castro Valley Boulevard
Castro Valley, California

Quarter 3, 1991

Regional Water Quality Control Board Representative:	Ms. Penny Silzer San Francisco Bay Regional Water Quality Control Board 2101 Webster Street, Suite 500 Oakland, California 94612
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PRIMARY CONTACTS (continued)

Shell Oil Company Facility
2724 Castro Valley Boulevard
Castro Valley, California

Quarter 3, 1991

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TABLES

TABLE 1. ACTIVITY SUMMARY - QUARTER 3, 1991

Former Shell Oil Company Site
2724 Castro Valley Boulevard
Castro Valley, California

	PERCENT COMPLETE			
	Quarter 3, 1991		Total to Date	
Activity	Onsite	Offsite	Onsite	Offsite
Soil Characterization	10	0	90	0
Groundwater Characterization (Dissolved Product)	20	30	50	30
Groundwater Characterization (Floating Product)	NA	NA	NA	NA
Soil Remediation	0	NA	90*	N/A
Groundwater Remediation (Dissolved Product)	0	0	0	0
Groundwater Remediation (Floating Product)	NA	NA	NA	NA

NOTES:

* Presumes that excavation to 11 feet below ground surface will be accepted as the full vertical extent of the unsaturated zone

NA Not Applicable

TABLE 2. SOIL BORING INFORMATION

Former Shell Oil Company Site
2724 Castro Valley Boulevard
Castro Valley, California

Boring No.	Date Drilled	Total Depth (ft bgs)	Completion	Unsaturated Soil Samples (ft bgs)	Saturated Soil Samples (ft bgs)
MW-1	1/18/90	16	4" diameter well	5, 10	NC
MW-2	1/19/90	15	4" diameter well	5, 9, 15, 20, 25	NC
MW-3	1/19/90	25	4" diameter well	5, 10, 15	NC
MW-5	1/22/90	23	4" diameter well	5, 9, 15, 20, 25	NC
OMW-6	7/8/91	23	4" diameter well	5, 10	NC
MW-7	7/8/91	20	2" diameter well	11, 14	NC
OMW-8	7/8/91	22	4" diameter well	5, 10 ,14.5	NC
SB-1	1/18/90	15	Abandoned 01/18/90	5, 9	NC
SB-2	5/9/90	6.5	Abandoned 5/9/90	4.5, 6.5	NC
SB-4	7/8/91	15.5	Abandoned 7/9/91	6, 11, 15	NC
SB-5	7/9/91	20	Abandoned 7/9/91	5, 10, 15, 20	NC

NOTES:

ft bgs feet below ground surface
NC None collected

TABLE 3. RECOMMENDED MINIMUM VERIFICATION ANALYSES FOR UNDERGROUND TANK LEAKS

FROM: Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites (Revised August 10, 1990)

HYDROCARBON LEAK	SOIL ANALYSIS		WATER ANALYSIS	
Unknown Fuel	TPH-g	GCFID (5030)	TPH-g	GCFID (5030)
	TPH-d	GCFID (3550)	TPH-d	GCFID (3510)
	BTEX	8020 or 8240	BTEX	602, 624 or 8260
	TPH & BTEX	8260	BTEX	602, 624 or 8260
Leaded Gas	TPH-g	GCFID (5030)	TPH-g	GCFID (5030)
	BTEX	8020 or 8240	BTEX	602, 625 or 8260
	TPH & BTEX	8260	BTEX	602, 624 or 8260
	TOTAL LEAD AA		TOTAL LEAD AA	
		OPTIONAL		
	TEL	DHS-LUFT	TEL	DHS-LUFT
	EDB	DHS-AB1803	EDB	DHS-AB1803
Unleaded Gas	TPH-g	GCFID (5030)	TPH-g	GCFID (5030)
	BTEX	8020 or 8240	BTEX	602, 624 or 8260
	TPH & BTEX	8260		
Diesel	TPH-d	GCFID (3550)	TPH-d	GCFID (3510)
	BTEX	8020 or 8240	BTEX	602, 624 or 8260
	TPH & BTEX	8260		
Jet Fuel	TPH-d	GCFID (3550)	TPH-d	GCFID (3510)
	BTEX	8020 or 8240	BTEX	602, 624 or 8260
	TPH & BTEX	8260		
Kerosene	TPH-d	GCFID (3550)	TPH-d	GCFID (3510)
	BTEX	8020 or 8240	BTEX	602, 624 or 8260
Fuel/Heating Oil	TPH-d	GCFID (3550)	TPH-d	GCFID (3510)
	BTEX	8020 or 8240	BTEX	602, 624 or 8260
Chlorinated Solvents	CL HC	8010 or 8240	CL HC	601 or 624
	BTEX	8020 or 8240	BTEX	602 or 624
	CL HC & BTEX	8260	CL HC & BTEX	8260
Non Chlorinated Solvents	TPH-d	GCFID (3550)	TPH-d	GCFID (3510)
	BTEX	8020 or 8240	BTEX	602 or 624
	TPH & BTEX	8260	TPH & BTEX	8260
Waste and Used Oil and Unknown	TPH-g	GCFID (5030)	TPH-g	5520 C&F
	TPH-d	GCFID (3550)	TPH-d	GCFID (3510)
	TPH & BTEX	8260		
	O & G	5520 D&F	O & G	5520 C&F
	BTEX	8020 or 8240	BTEX	602, 624 or 8260
	CL HC	8010 or 8240	CL HC	601 or 624
	ICAP or AA TO DETECT METALS: Cd, Cr, Pb, Zn, Ni			
	METHOD 8270 FOR SOIL OR WATER TO DETECT:			
	PCB*		PCB*	
	PCP*		PCP*	
	PNA		PNA	
	CREOSOTE		CREOSOTE	

* If found analyze for dibenzofurans (PCBs) or dioxins (PCP).

TABLE 4. RESULTS OF SOIL CHEMICAL ANALYSES (mg/kg)

Former Shell Oil Company Site
2724 Castro Valley Boulevard
Castro Valley, California

Boring No.	Sample Depth (ft bgs)	Date Sampled	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-Benzene	Xylenes	Total Lead
MW-1	5'	1/18/90	<1.0	5.8	73	<0.0025	<0.0025	<0.0025	<0.0025	4.4
MW-1	10'	1/18/90	<1.0	4.4	39	<0.0025	<0.0025	<0.0025	<0.0025	4.3
MW-2[1]	5'	1/19/90	<1.0	14	90	<0.0025	<0.0025	<0.0025	<0.0025	4.6
MW-2[2]	9'	1/19/90	<1.0	<1.0	23	<0.0025	<0.0025	<0.0025	<0.0025	5.3
MW-2[3]	15'	1/19/90	<1.0	3.1	<10	3.2	2.9	<0.0025	54	6.3
MW-2[4]	20'	1/19/90	<1.0	3.2	<10	8.4	21	<0.0025	16	7.9
MW-2[5]	25'	1/19/90	<1.0	8.2	19	23	34	3.6	23	8.0
MW-3	5'	1/19/90	<1.0	<1.0	<1.0	<0.0025	5.9	<0.0025	<0.0025	6.2
MW-3	10'	1/19/90	<1.0	<1.0	<1.0	<0.0025	11	<0.0025	<0.0025	5.8
MW-3	15'	1/19/90	<1.0	2.4	<1.0	<0.0025	23	<0.0025	7.4	6.5
MW-5	5'	1/22/90	<1.0	<1.0	<10	<0.0025	6.5	<0.0025	2.6	5.5
MW-5	9'	1/22/90	<1.0	<1.0	<10	<0.0025	3.1	<0.0025	<0.0025	6.4
MW-5	15'	1/22/90	<1.0	<1.0	<10	<0.0025	4.4	<0.0025	2.7	8.0
MW-5	20'	1/22/90	<1.0	1.6	<10	3.0	11	<0.0025	6.1	35
MW-5	25'	1/22/90	<1.0	<1.0	<10	<0.0025	6.0	<0.0025	4.9	3.9
OMW-6	5	7/8/91	<1.0	<1.0	15	<0.0025	<0.0025	<0.0025	<0.0025	NR
OMW-6	10	7/8/91	<1.0	<1.0	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR
MW-7	11	7/8/91	260	50	<10	1.3	5.6	5.3	13	NR
OMW-8	5	7/8/91	<1	<1	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR
	10	7/8/91	<1	<1	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR
	14.5	7/8/91	<1	1.8	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR

TABLE 4 (cont'd). RESULTS OF SOIL CHEMICAL ANALYSES (mg/kg)

Former Shell Oil Company Site
2724 Castro Valley Boulevard
Castro Valley, California

Boring No.	Sample Depth (ft bgs)	Date Sampled	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-Benzene	Xylenes	Total Lead
SB-1	5'	1/18/90	<1.0	<1.0	<10	<0.0025	6.7	<0.0025	4.6	4.7
SB-1	9'	1/18/90	<1.0	<1.0	<10	<0.0025	7.7	<0.0025	3.4	6.5
SB-1	10'	1/18/90	<1.0	<1.0	<10	<0.0025	18	<0.0025	6.8	NR
SB-2-2A[6]	4.5	5/9/90	1.0	14	73	<0.0025	<0.0025	3.9	16	9.1
SB-2-3A[7]	6.5	5/9/90	<1	18	26	<0.0025	<0.0025	<0.0025	<0.0025	7.0
SB-4	6	7/8/91	<1	<1	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR
SB-4	11	7/8/91	<1	<1	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR
SB-4	15	7/8/91	<1	<1	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR
SB-5	5	7/9/91	<1	<1	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR
SB-5	10	7/9/91	<1	<1	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR
SB-5	15	7/9/91	<1	<1	<10	<0.0025	<0.0025	<0.0025	<0.0025	NR

NOTES:

1 Sample contained 370 ppm total oil grease, 350 ppm non-polar oil and grease, 18 ppm chromium, and 67 ppm zinc
2 Sample contained 45 ppm chromium and 56 ppm zinc
3 Sample contained 40 ppm chromium, 60 ppm zinc, 240 ppb total xylenes, and 380 ppb bis (2-ethylhexyl) phthalate
4 Sample contained 53 ppm chromium, 99 ppm zinc, and 550 ppb bis (2-ethylhexyl) phthalate
5 Sample contained 48 ppm chromium and 110 ppm zinc
6 Sample contained 33 ppm chromium and 46 ppm zinc
7 Sample contained 32 ppm chromium and 46 ppm zinc
NR Not requested
ft bgs Feet below ground surface
mg/Kg Milligrams per kilograms

TABLE 5. WELL INSTALLATION INFORMATION

Former Shell Oil Company Site
2724 Castro Valley Boulevard
Castro Valley, California

Well No.	Date Installed	Well Diameter (inches)	Total Depth of Well (ft bgs)	Screened Interval (ft bgs)	Bentonite Seal Interval (ft bgs)	Grout Seal Interval (ft bgs)
MW-1	1/18/90	4	16	6 to 16	4 to 6	0 to 4
MW-2	1/19/90	4	15	5 to 15	3 to 4	0 to 3
MW-3	1/19/90	4	25	5 to 25	3 to 4	0 to 3
MW-5	1/22/90	4	23	9 to 23	6 to 8	0 to 6
OMW-6	7/9/91	4	22	5 to 22	4 to 5	0 to 4
MW-7	7/8/91	2	20	5 to 20	4 to 5	0 to 4
OMW-8	7/9/91	4	21	5 to 21	4 to 5	0 to 4

NOTES:

ft bgs feet below ground surface
MW Monitoring well

TABLE 6. RESULTS OF GROUNDWATER CHEMICAL ANALYSIS

Former Shell Oil Company Site
2724 Castro Valley Boulevard
Castro Valley, California

(mg/L)

Well No.	Date Sampled	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-Benzene	Xylenes
MW-1	02/09/90	<1.0	NS		0.00058	0.00063	<0.0005	<0.0005
MW-1	04/20/90	<0.05	NS		<0.0005	<0.0005	<0.0005	<0.0005
MW-1	07/31/90	<0.05	NS		<0.0005	<0.0005	<0.0005	<0.0005
MW-1	10/25/90	0.10	<0.05		<0.0005	<0.0005	<0.0006	<0.0006
MW-1	01/15/91	0.06	<0.05		<0.0005	<0.0005	<0.0005	<0.0005
MW-1	01/15/91	<0.05	<0.05		<0.0005	<0.0005	<0.0005	<0.0005
MW-1	04/19/91	<0.05	<0.05		0.0077	<0.0005	<0.0005	<0.0005
MW-1	04/19/91	<0.05	<0.05		0.0074	<0.0005	<0.0005	<0.0005
[redacted]	**07/16/91**	**<0.05**	**<0.05**	**<0.5**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
MW-2	02/09/90	8.6	4.1		0.360	0.410	0.0065	0.670
MW-2	04/20/90	9.1	1.8		0.500	0.330	0.110	0.900
MW-2	07/31/90	5.3	0.6		0.550	0.038	<0.0005	0.280
MW-2	10/25/90	4.8	0.30		0.490	0.022	0.021	0.156
MW-2	01/15/91	5.7	0.68		0.320	0.029	0.120	0.530
MW-2	04/19/91	3.9	0.36		0.10	0.077	0.100	0.093
[redacted]	**07/16/91**	**1.8**	**0.43**	**<0.5**	**0.100**	**0.0058**	**0.041**	**0.031**
[redacted]	**07/16/91**	**2.7**	**0.54**	**<0.5**	**0.130**	**0.0076**	**0.062**	**0.045**
MW-3	02/09/90	<1.0	NS		<0.0005	<0.0005	<0.0005	<0.0005
MW-3	04/20/90	<0.05	NS		<0.0005	<0.0005	<0.0005	<0.0005
MW-3	07/31/90	<0.05	NS		<0.0005	<0.0005	<0.0005	<0.0005
MW-3	10/25/90	<0.05	<0.05		<0.0005	<0.0005	<0.0006	<0.0006
MW-3	01/15/91	<0.05	<0.05		<0.0005	<0.0005	<0.0005	<0.0005
MW-3	04/19/91	<0.05	<0.05		<0.0005	<0.0005	<0.0005	<0.0005
[redacted]	**07/16/91**	**<0.05**	**<0.05**	**1.4**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
MW-5	02/09/90	<1.0	NS		<0.0005	<0.0005	<0.0005	<0.0005
MW-5	04/20/90	<0.05	NS		<0.0005	<0.0005	<0.0005	<0.0005
MW-5	07/31/90	<0.05	NS		<0.0005	<0.0005	<0.0005	<0.0005
MW-5	10/25/90	<0.05	<0.05		<0.0005	0.0007	<0.0006	<0.0006
MW-5	01/15/91	<0.05	<0.05		<0.0005	<0.0005	<0.0005	<0.0005
MW-5	04/19/91	<0.05	<0.05		<0.0005	<0.0005	<0.0005	<0.0005
[redacted]	**07/16/91**	**<0.05**	**<0.05**	**<0.5**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
[redacted]	**07/16/91**	**<0.05**	**<0.05**	**<0.5**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**
[redacted]	**07/16/91**	**1.3**	**0.27**	**1.1**	**0.440**	**0.140**	**0.0069**	**0.160**
[redacted]	**07/16/91**	**<0.05**	**<0.05**	**<0.5**	**<0.0005**	**0.0008**	**<0.0005**	**<0.0005**

NOTES:

*	duplicate sample
TPH-g	total petroleum hydrocarbons as gasoline (GCFID)
TPH-d	total petroleum hydrocarbons as diesel (GCFID)
NS	not sampled
MW-4	was not completed as groundwater monitoring well
Bold	items indicate the results of chemical analyses conducted during QQuarter 3, 1991

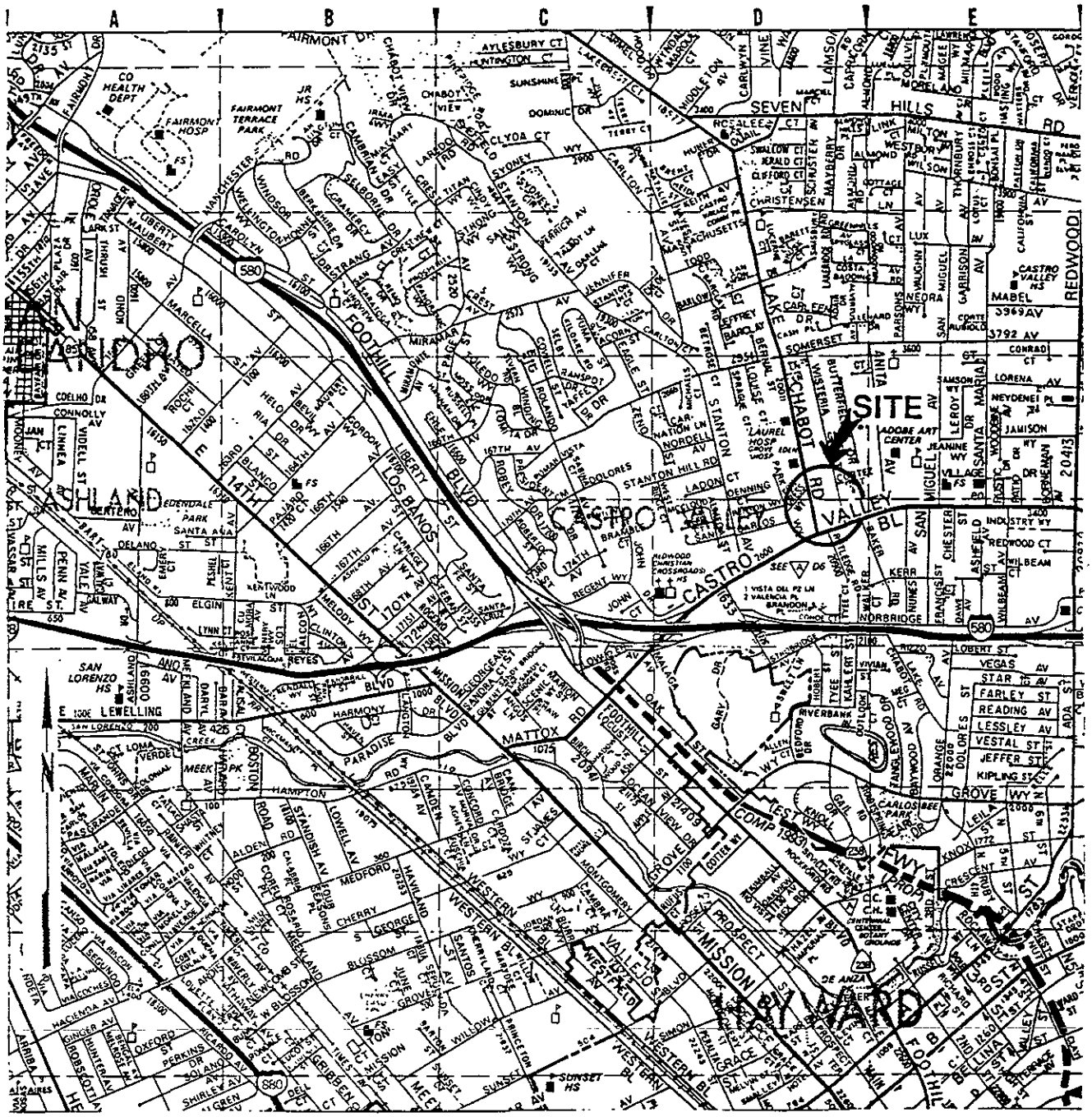
TABLE 7. GROUNDWATER MONITORING INFORMATION

Former Shell Oil Company Site
2724 Castro Valley Boulevard
Castro Valley, California

Well No.	Date Monitored	Depth to Water (ft bgs)	Water Table Elevation (ft)	Floating Product Thickness (inches)	Petroleum Odor in Water
MW-1	02/08/90	8.39	91.39	None	None
El. 99.78'	04/20/90	9.21	90.57	None	None
	07/30/90	9.21	90.57	None	None
	10/25/90	9.44	90.34	None	None
	01/15/91	9.11	90.67	None	None
	04/19/91	5.58	94.20	None	None
	07/16/91	**7.58**	**92.20**	**None**	**None**
MW-2	02/08/90	7.33	93.50	None	None
El. 100.83'	04/20/90	8.63	92.20	None	Slight
	07/30/90	8.78	92.05	None	Slight
	10/25/90	9.50	91.33	None	Strong
	01/15/91	8.52	92.31	None	Slight
	04/19/91	6.90	93.93	None	Slight
	07/16/91	**9.01**	**91.82**	**None**	**Strong**
MW-3	02/08/90	8.91	92.57	None	None
El. 101.48'	04/20/90	10.20	91.28	None	None
	07/30/90	10.61	90.87	None	None
	10/25/90	10.00	91.48	None	None
	01/15/91	9.74	91.74	None	None
	04/19/91	7.92	93.56	None	None
	07/16/91	**9.40**	**92.08**	**None**	**None**
MW-5	02/08/90	8.80	91.10	None	None
El. 99.90'	04/20/90	9.35	90.55	None	None
	07/30/90	9.49	90.41	None	None
	10/25/90	10.12	89.78	None	None
	01/15/91	9.26	90.64	None	None
	04/19/91	6.52	93.38	None	None
	07/16/91	**9.12**	**90.78**	**None**	**None**
OMW-6	07/16/91	8.60	92.88	None	None
El. 101.48					
MW-7	07/16/91	8.70	90.84	None	None
El. 99.54					
OMW-8	07/16/91	8.40	91.78	None	None
El. 100.18					

NOTES:
ft bgs feet below ground surface
all elevations are tied into a temporary benchmark elevation of 100.00 feet
Boldface items indicate the results of measurements conducted during Quarter 3, 1991.

DRAWINGS



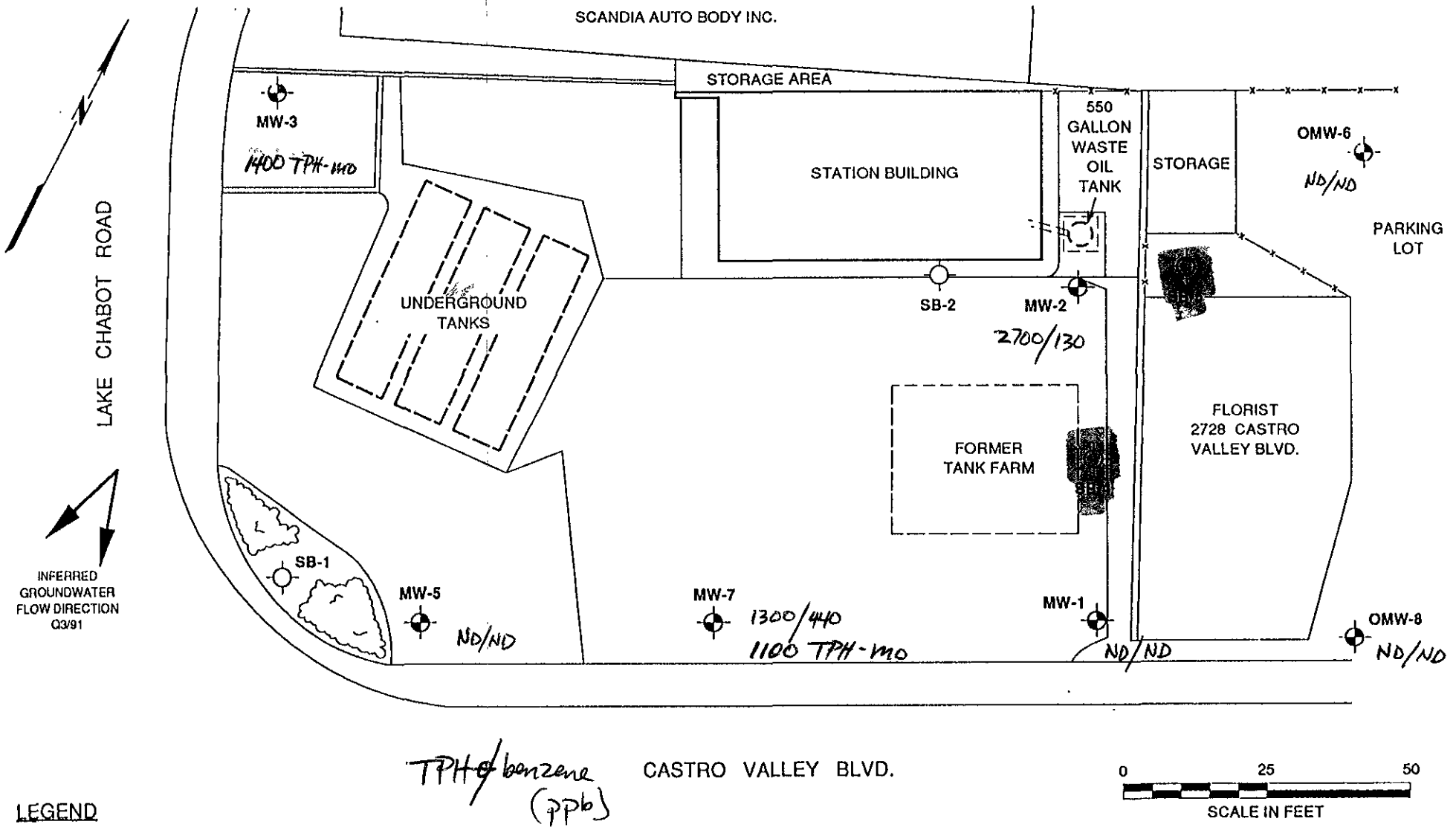
SOURCE: Thomas Brothers Maps, 1989.

SITE LOCATION MAP

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Scale: AS SHOWN	Project No.: 89-44-380-20
Prepared by: LQL	Date: 6/8/90
Checked by: MCC	Drawing No.:
Approved by: CRC	1

Converse Environmental West



LEGEND

MW-1 GROUNDWATER MONITORING WELL

SB-1 SOIL BORING

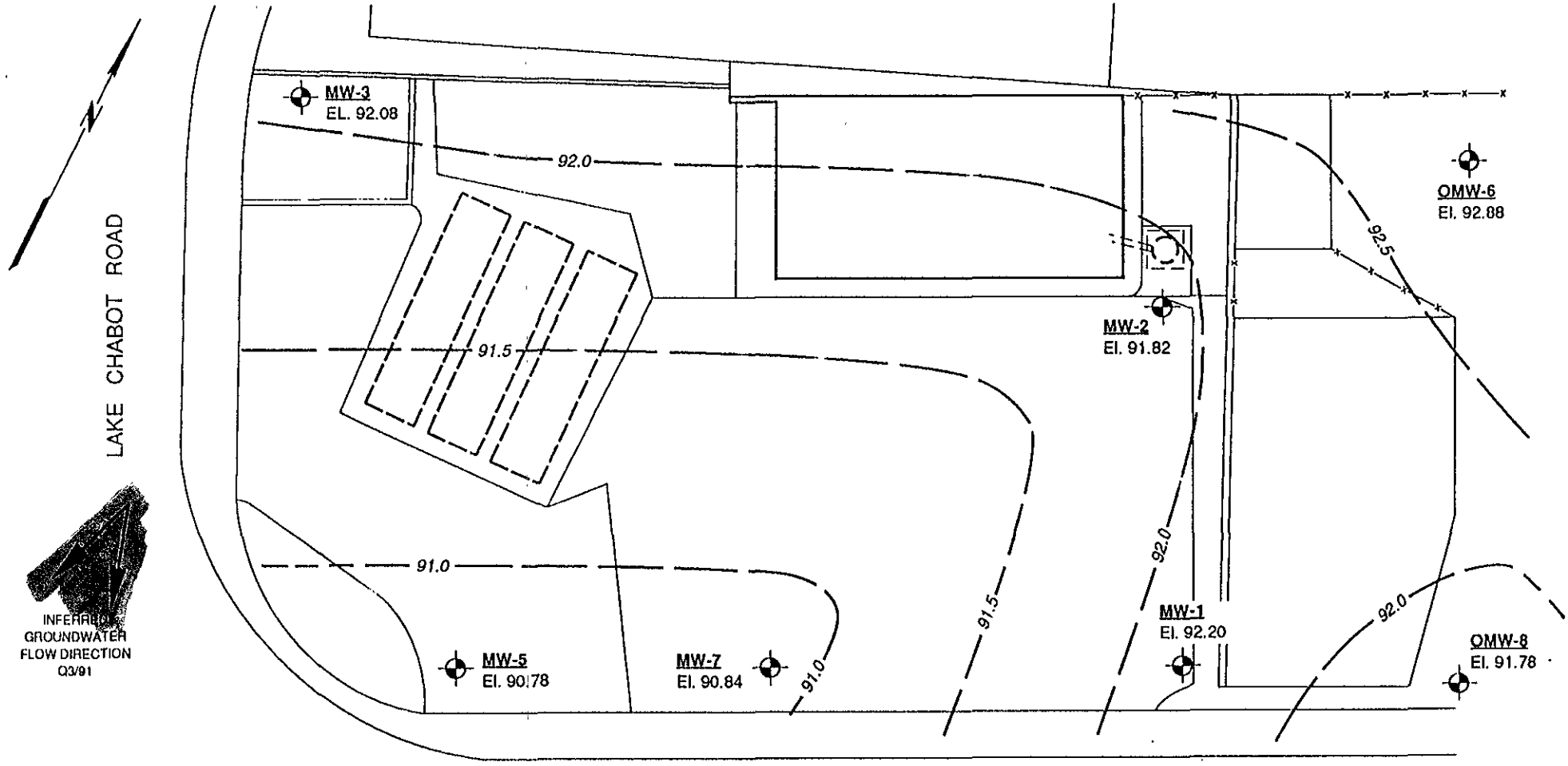
Base Map: Surveyed with electronic distance meter by CEW, 1990.

PLOT PLAN

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Converse Environmental West

Scale: AS SHOWN	Project No.: 88-44-380 20
Prepared by: LQL	Date: 9/6/91
Checked by: DS	Drawing No.
WIC Number: 204-1381-0407	



LEGEND

GROUNDWATER CONTOUR (long dash where approximate, short dash where inferred)

MW-1 GROUNDWATER MONITORING WELL SHOWING GROUNDWATER ELEVATION

NOTE: GROUNDWATER ELEVATIONS GIVEN WITH RESPECT TO A POINT HAVING AN ARBITRARY DATUM OF 100.00 FEET

0 25 50
SCALE IN FEET

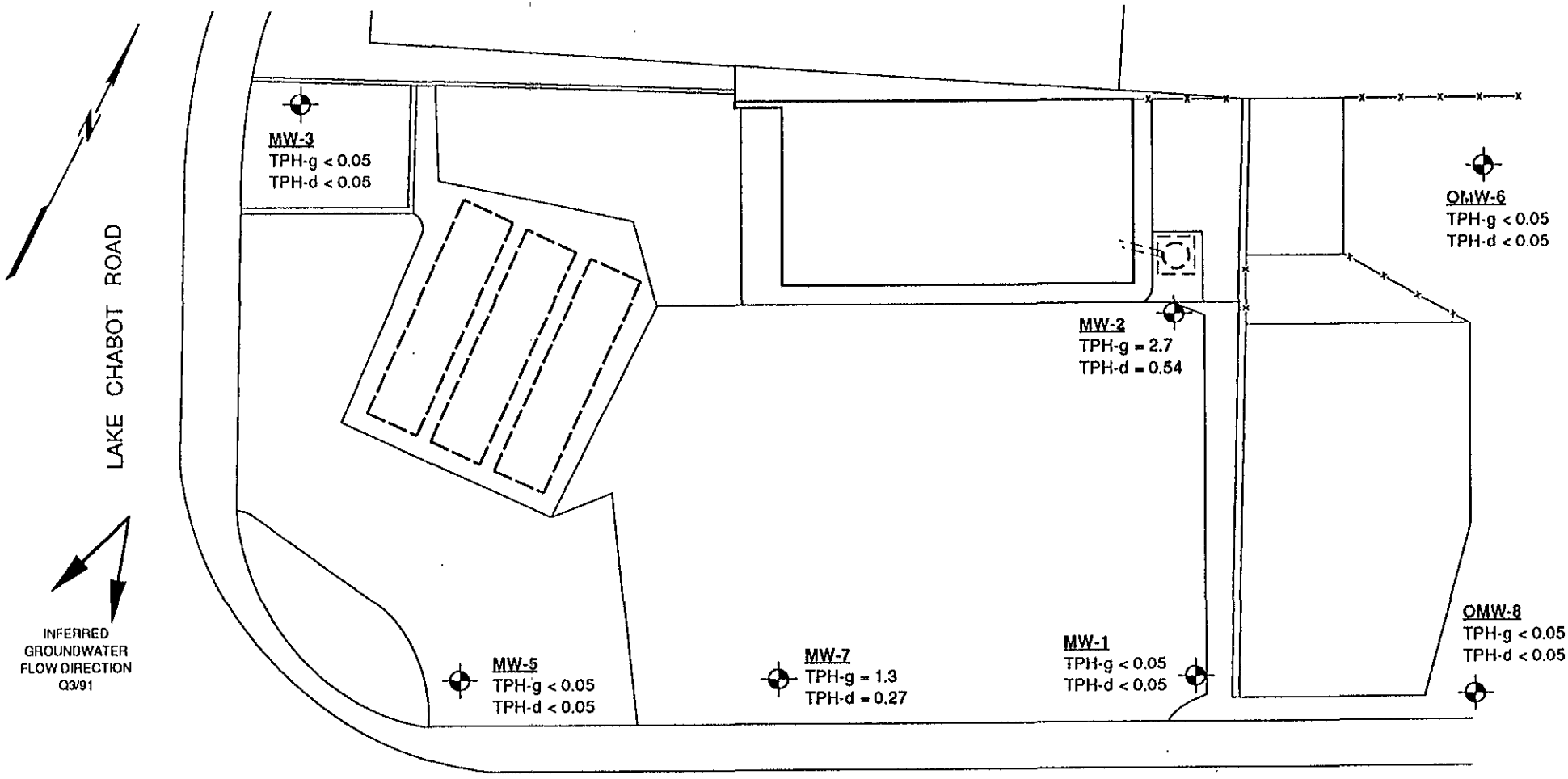
Base Map: Surveyed with electronic distance meter by CEW, 1990.

GROUNDWATER CONTOUR MAP Q3/91

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Converse Environmental West

Scale	AS SHOWN
Project No.	88-44-380-20
Prepared by	LQL
Date	9/6/91
Checked by	DS
Drawing No.	3
WIC Number	204-1381-0407



LEGEND

MW-1 ⊕ GROUNDWATER MONITORING WELL

TPH-g = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (in milligrams per liter)

TPH-d = TOTAL PETROLEUM HYDROCARBONS AS DIESEL (in milligrams per liter)

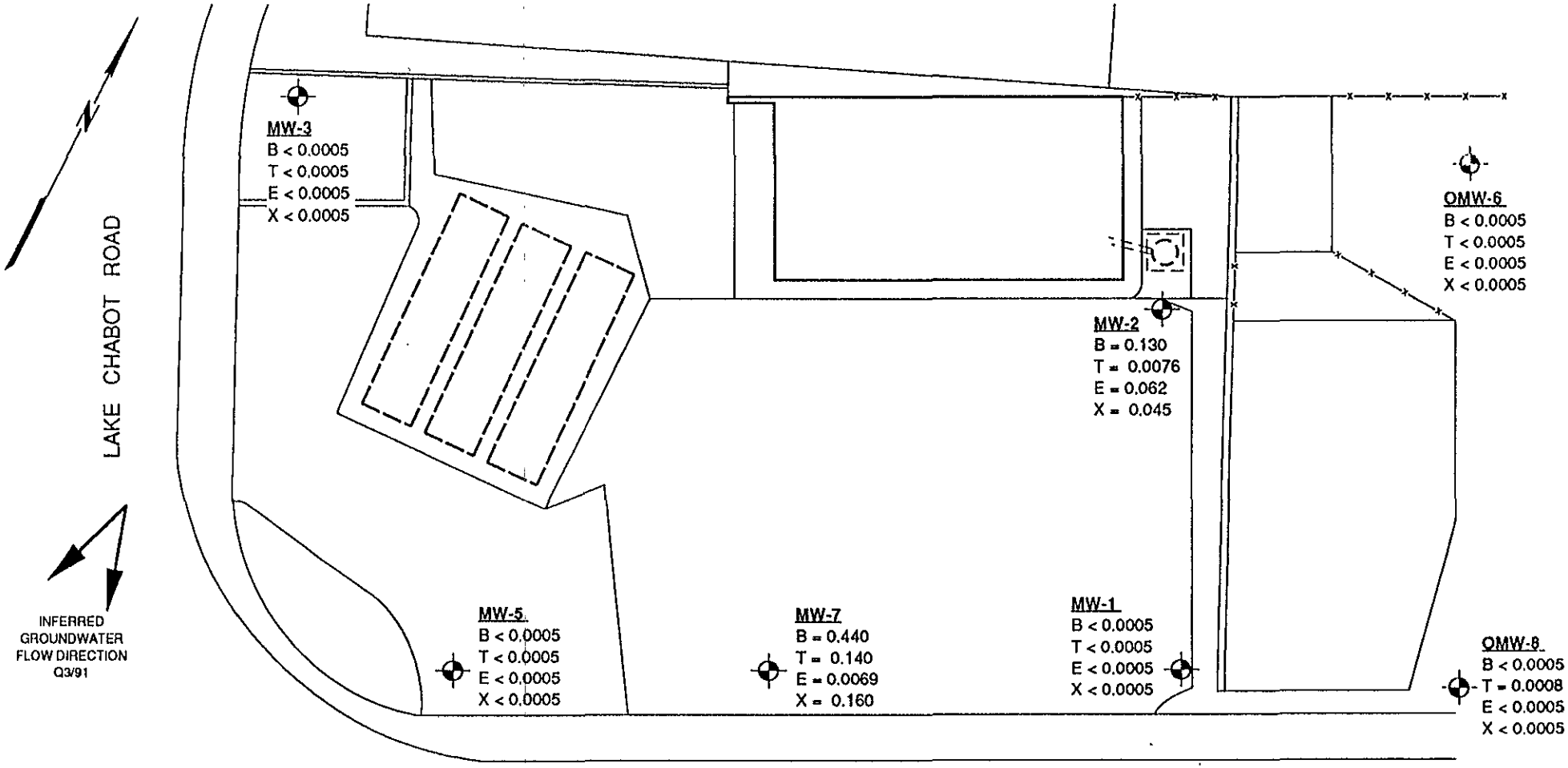
Base Map: Surveyed with electronic distance meter by CEW, 1990.

PLAN: GROUNDWATER TPH-g AND TPH-d Q3/91

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Converse Environmental West

Scale: AS SHOWN	Project No.: 88-44-380-20
Prepared by: LQL	Date: 9/6/91
Checked by: DS	Drawing No.: 4
WIC Number: 204-1381 0407	



LEGEND

MW-1 GROUNDWATER MONITORING WELL

B = BENZENE (in milligrams per liter)

T = TOLUENE (in milligrams per liter)

E = ETHYLBENZENE (in milligrams per liter)

X = XYLENES (in milligrams per liter)

Base Map: Surveyed with electronic distance meter by CEW, 1990.

PLAN: GROUNDWATER BTEX Q3/91

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Converse Environmental West

Scale	AS SHOWN
Project No.	88-44-380-20
Prepared by	LQL
Date	9/6/91
Checked by	DS
Drawing No.	5
WIC Number	204-1381-0407

APPENDIX A

CHRONOLOGICAL SUMMARY

CHRONOLOGICAL SUMMARY

For Shell Property at
2724 Castro Valley Blvd., Castro Valley, California

The following chronological summary is based on information provided to Converse Environmental West (Converse) by Shell Oil Company (Shell). Converse was not provided with certain information related to the construction, operational, and environmental history of the facility. According to Shell, the following information is not available in Shell files: volume of contaminated soil removed at the time of tank removal, geometry of the excavation created during tank removal, if any, and date and volume of any possible releases at the facility.

Date	Description of Activity
11/21/86	Blaine Tech Services removed one 550 gallon waste oil tank and conducted field sampling.
04/22/88	Woodward-Clyde drilled and sampled three soil borings around the existing underground storage tank (UST) complex.
03/06/89	Crosby & Overton, Inc conducted field sampling during removal of 4 underground storage tanks. Contaminated soil was discovered and additional excavation and sampling was performed.
03/31/89	Field sampling in the vicinity of the new tank hole was performed.
05/05/89	Converse Environmental West (Converse) was retained by Shell Oil Co to supervise environmental activities at the site.
06/12/89	Soil samples SW-1 through SW-7 were collected.
07/05/89	Soil samples SW-8 through SW-11 were collected.
07/06/89	One water sample in the excavation pit was collected.
07/11/89	Converse sent an "Interim Sampling Report and Recommendations" to the Alameda County Health Care Services Agency (ACHCSA).
07/27/89	Converse sent an "Addendum to July 11, 1989 Interim Sampling Report and Recommendations" to the ACHCSA.
08/30/89	Soil samples SS-1 through SS-7 were collected.
10/02/89 to 10/11/89	Soil samples 1 through 4 and S-1 through S-7 were collected.
10/26/89	Samples 20 through 23, and stockpile samples were collected.

CHRONOLOGICAL SUMMARY (cont'd)

Date	Description of Activity
10/31/89	Converse sent a report titled "Soil Sampling Report" to the ACHCSA.
11/30/89	Converse sent a Draft Work Plan to the ACHCSA.
01/11/90	Converse sent a Progress Report for Q4/89 to the ACHCSA.
01/18/90 to 01/23/90	Bored and sampled MW-2 through MW-5 and installed MW-2, MW-3 and MW-5. MW-4 grouted. Surface completed: MW-2 and MW-3.
02/08/90	Developed MW-5. Surveyed wells MW-1, MW-2, MW-3, MW-5 and soil borings site survey.
02/09/90	Developed, sampled MW-1, MW-2, MW-3 and MW-5.
02/22/90	Sampled MW-2 for pesticides and oil and grease.
3/12/90	Converse requested permission from ACHA to backfill the existing excavation onsite.
3/16/90	Converse obtained site assessment information on uses of nearby properties, and reported fuel leaks from nearby underground tanks.
4/02/90	Converse conducted E.D.M. survey of adjacent streets, extending 200 to 300 feet from the site.
4/20/90	Converse conducted Q2/90 water sampling in MW-1, MW-2, MW-3 and MW-5. Requested analyses of TPH-g, TPH-d, BTEX, 601/602, oil and grease.
4/23/90	Converse arranged to have one segment of chain-link fence moved, to protect MW-3.
4-26-90	Converse, Shell, ACHCSA and Rhighetti meet at site to discuss backfilling of the existing excavation.
5-2-90	Shell received permission from ACHCSA to backfill the existing excavation.
5-31-90	Converse issues site restoration plan and schedule for future work.
6-27-90	Converse personnel visit the site to assess current conditions.
6-29-90	Converse issues Q2/90 report.
7-30-90	Converse samples and analyzes groundwater from MW-1, MW-2, MW-3 and MW-5.
9-28-90	Converse issues Quarter 3, 1990 report.

CHRONOLOGICAL SUMMARY (cont'd)

Date	Description of Activity
10-25-90	Converse samples and analyzes groundwater from MW-1, MW-2, MW-3, and MW-5.
12-31-90	Converse issues Quarter 4, 1990 report.
1/15/91	Converse samples and analyzes groundwater from MW-1, MW-2, MW-3, and MW-5.
3/19/91	ACHCSA approves Site Restoration Plan.
3/28/91	Converse issues Quarter 1, 1991 report.
4/19/91	Converse samples and analyzes groundwater from MW-1, MW-2, MW-3 and MW-5.
6/28/91	Converse issues Quarter 2, 1991 report.
7/8-7/9/91	**Converse bored and sampled SB-4, SB-5, OMW-6, MW-7 and OMW-8 and installed wells OMW-6, MW-7 and OMW-8.**
7/11-7/12/91	**Converse surveyed and developed OMW-6, MW-7 and OMW-8.**
7/16/91	**Converse sampled groundwater from MW-1, MW-2, MW-3, MW-5, OMW-6, MW-7 and OMW-8.**

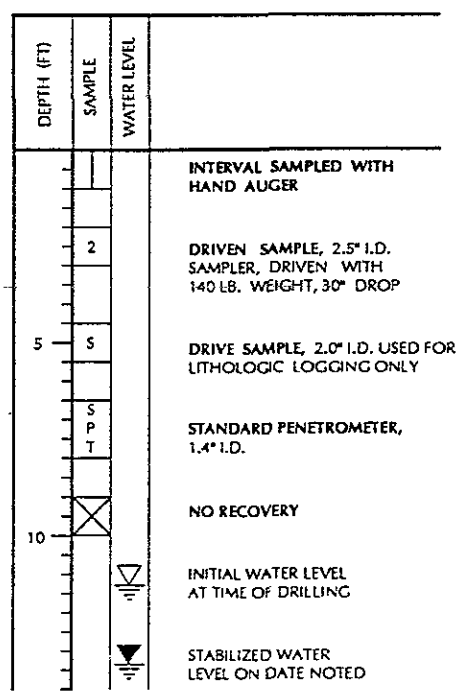
Bold Boldface indicates work completed this quarter.

APPENDIX B

BORING LOGS

MAJOR DIVISIONS			SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS MORE THAN HALF IS LARGER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES
			GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES
		GRAVELS WITH OVER 12 % FINES	GM	SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS
			SP	POORLY GRADED SANDS, GRAVELLY SANDS
		SANDS WITH OVER 12 % FINES	SM	SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES
			SC	CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN HALF IS SMALLER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAY
			OL	ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE, SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS

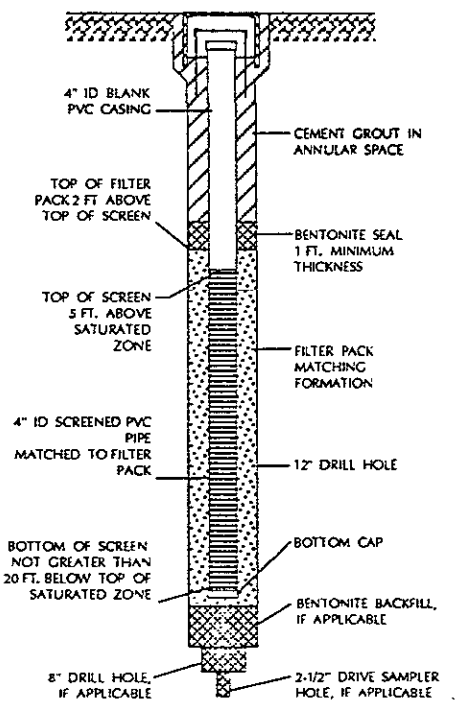
SAMPLE TYPE



NOTE:

SOIL CONDITIONS INDICATED BY BORING LOGS APPLY ONLY AT THE LOCATION OF THE PARTICULAR BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THE BORING LOCATION WITH THE PASSAGE OF TIME. DATA PRESENTED IN THE LOGS REPRESENT A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. SOIL CONDITIONS INDICATED BETWEEN SAMPLE INTERVALS ARE INFERRED.

WELL CONSTRUCTION



UNIFIED SOIL CLASSIFICATION, BORING LOG, AND WELL CONSTRUCTION SYMBOLS

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Project No.
68-44-380-20

Converse Environmental West

Drawing No.
B-1

LOG OF BORING NO. SB-4

Start: *7/8/91*	Geologist: *D. Siegel*	Diller/Helper: *N/A*
Completion: *7/8/91*	Assistant Geol.: *C. Brown*	Drilling Method: *Hollow Stem Auger*
Water Measure: *N/A*	Drilling Co.: *Gregg*	Auger/Bit Dia.: *8" x 4-7/8"*

DEPTH (FT)	SAMPLE	WATER LEVEL	SYMBOL	DESCRIPTION	MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVERY
				3" Asphalt 9" Sandy Gravel baserock					
				Gravelly Clay (fill)	moist		light brown		
				Silty Clay CL			black		
5	S 1						gray and brown		
				Silty Clay CL with subrounded to subangular Gravel			light brown		
10	S 2								
				Siltstone	dry	medium hard	light gray		
15				Total Depth of Boring: 15.5 ft.					
20									

REGISTERED GEOLOGIST
LEONARD L. SLATTERY
No. 5038
STATE OF CA

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Project No.
88-44-380-20

Drawing No.
B-2

Converse Environmental West

LOG OF BORING NO. SB-5

Start: *7/9/91*	Geologist: *C. Brown*	Diller/Helper: *N/A*
Completion: *7/9/91*	Assistant Geol.: *N/A*	Drilling Method: *Hollow Stem Auger*
Water Measure: *N/A*	Drilling Co.: *ADT*	Auger/Bit Dia.: *8" x 3.75"*

DEPTH (FT)	SAMPLE	WATER LEVEL	SYMBOL	DESCRIPTION		MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVERY
				Asphalt ±3"						
				Sandy crush Rock, trace Clay fine (fill)	GC	moist	medium dense	yellow to red brown		
				Silty Clay, trace fine Sand		very moist		brown		
	1			Silty Clay	CL			mottled brown with trace gray	5 12	
5										
	2			Sandy Clay	CL	moist	very stiff	yellow brown with gray mottling	8 18	
10										
	3			Fractured and highly weathered Shale with Silty Clay seams	SH	slightly moist	medium hard	gray to gray brown	24 45	
15										
	4			Shale				dark gray	27 50	
20				Total Depth of Boring: 20.0 ft.						

REGISTERED GEOLOGIST
GERARD L. SLATTERY
No. 5038
STATE OF CALIFORNIA

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Project No.
88-44-380-20

Converse Environmental West

Drawing No.
B-3

LOG OF BORING NO. OMW-6

Start: *7/8/91*	Geologist: *C. Brown*	Diller/Helper: *N/A*
Completion: *7/8/91*	Assistant Geol.: *D. Siegel*	Drilling Method: *Hollow Stem Auger*
Water Measure: *7/16/91*	Drilling Co.: *ADT*	Auger/Bit Dia.: *8" x 3.75" - 13" x 7.25"*

DEPTH (FT)	SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION		MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVERY
					Asphalt = 2.5", Rock Base = 4"						
					Sandy Clay with Rock fragment	CL	moist	stiff	yellow black		
									dark gray		
	1				Silty Clay	CL	moist to very moist		gray with trace rust mottle	4 7 3 6	
5	2				Silty Clay with trace Sand				light brown with gray mottle	8 10	
	3				Sandy Clay, little gravel-sized Rock fragments	CL	moist	stiff	yellow brown	6 9	
10								very stiff		8 20	
	4				Highly fractured and weathered Shale with Clayey seams	SH	slightly moist to dry	medium hard	gray brown	38 18	
	5									50/3"	
15											
20											

REGISTERED GEOLOGIST
GERARD L. SLATTERY
No. 5038
STATE OF CALIFORNIA

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Project No.
88-44-380-20

Converse Environmental West

Drawing No.
B-4

LOG OF BORING NO. OMW-6

Continued - Page 2

DEPTH (FT)	SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION		MOISTURE	CONSISTENCY	COLOR	BLOWS / 6"	PERCENT RECOVERY
					Highly fractured and weathered Shale with Clayey seams	SH	slightly moist to dry	medium hard	gray brown		
					Total Depth of Boring: 23 ft. Casing: Blank 4" ID Sch. 40 PVC Screen: Slotted 4" ID Sch. 40 PVC, 0.020" slots Filter Pack: 2/12 sand						
25											
30											
35											
40											

REGISTERED GEOLOGIST
GERARD L. SLATTERY
No. 5038
STATE OF CALIFORNIA

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Project No.
88-44-380-20

Converse Environmental West

Drawing No.
B-5

LOG OF BORING NO. MW-7

Start: *7/8/91* Completion: *7/8/91* Water Measure: *7/16/91*	Geologist: *D. Siegel* Assistant Geol.: *N/A* Drilling Co.: *ADT*	Diller/Helper: *N/A* Drilling Method: *Hollow Stem Auger* Auger/Bit Dia.: *8" x 3.75" - 12" x 8.25"*

DEPTH (FT)	SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION	MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVERY
					Sandy Gravel (fill) Backfilled former tank excavation					
5										
10	S 1				Gravelly Clay	wet		brown		
	S				Weathered Shale with thin bed of wet Clayey Gravel — SH	moist	very soft	blue gray and brown		
15	2 S				Fractured Shale			blue gray		
	S									
	S									
20					Total Depth of Boring: 20 ft. Casing: Blank 4" ID Sch. 40 PVC Screen: Slotted 4" ID Sch. 40 PVC, 0.020" slots Filter Pack: 2/12 sand					

REGISTERED GEOLOGIST
GERARD L. SLATTERY
No. 5038
STATE OF CALIFORNIA

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Project No.
88-44-380-20

Drawing No.
B-6

Converse Environmental West

LOG OF BORING NO. OMW-8

Start: *7/8/91*	Geologist: *C. Brown*	Diller/Helper: *N/A*
Completion: *7/8/91*	Assistant Geol.: *D. Siegel*	Drilling Method: *Hollow Stem Auger*
Water Measure: *7/16/91*	Drilling Co.: *ADT*	Auger/Bit Dia.: *8" x 3.75" - 12" x 8.25"*

DEPTH (FT)	SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION		MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVERY
					Asphalt = 3", Rock base = 3"						
					Sandy Clay with Rock fragments (fill)	CL	moist	stiff	yellow brown		
					Silty Clay, trace fine Sand	CL	slightly moist		dark brown		
					slight increase in Sand				brown		
	1								mottle brown with gray	4 6	
5	2									8 14 18 20	
		▼			Sandy Clay, trace to little pea Gravel	CL		stiff	gray brown		
	3									18 23	
10	4				Shale highly fractured with Silty Clay lenses	SH		very soft		18 30 44 45	
	5									37 50/2"	
15											
	6									80/3"	
20											

REGISTERED GEOLOGIST
GERARD L. SLATTERY
No. 5038
STATE OF CALIFORNIA

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

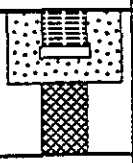
Project No.
88-44-380-20

Drawing No.
B-7

Converse Environmental West

LOG OF BORING NO. OMW-8

Continued - Page 2

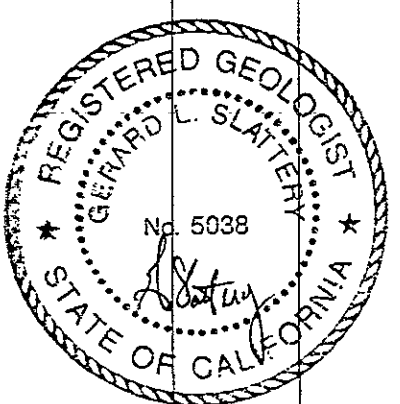
DEPTH (FT)	SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION	MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVERY
					Shale highly fractured with Silty Clay lens SH	slightly moist	stiff	gray brown		
					Total Depth of Boring: 22 ft. Casing: Blank 4" ID Sch. 40 PVC Screen: Slotted 4" ID Sch. 40 PVC, 0.020" slots Filter Pack: 2/12 sand					

25

30

35

40



SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Project No.
88-44-380-20

Converse Environmental West

Drawing No.
B-8

APPENDIX C

ANALYTICAL LABORATORY REPORTS and CHAIN-OF-CUSTODY FORMS

NET NATIONAL ENVIRONMENTAL TESTING, INC.®

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Charles Comstock
Converse Consultants
55 Hawthorne St, Ste 500
San Francisco, CA 94105

Date: 07-17-91
NET Client Acct No: 18.02
NET Pacific Log No: 8539
Received: 07-11-91 0800

Client Reference Information

SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

JS:rct
Enclosure(s)

NET Pacific, Inc.

Client No: 18.02 Date: 07-17-91
Client Name: Converse Consultants
NET Log No: 8539 Page: 2

Ref: SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-8 @ 5' 07-08-91 1020 91218	 MW-8 @ 10' 07-08-91 1040 91219	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-15-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-15-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-11-91	07-11-91	
DATE ANALYZED			07-12-91	07-12-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

NET Pacific, Inc.

Client No: 18.02 Date: 07-17-91
Client Name: Converse Consultants
NET Log No: 8539 Page: 3

Ref: SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-8 @ 14.5' 07-08-91 1110 91220	 MW-6 @ 5' 07-08-91 1320 91221	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-15-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-15-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-11-91	07-11-91	
DATE ANALYZED			07-12-91	07-12-91	
METHOD GC FID/3550			--	--	
as Diesel		1	1.8	ND	mg/Kg
as Motor Oil		10	11	15	mg/Kg

NET Pacific, Inc.

Client No: 18.02 Date: 07-17-91
Client Name: Converse Consultants
NET Log No: 8539 Page: 4

Ref: SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-6 @ 10' 07-08-91 1335 91222	 SB-5 @ 5' 07-09-91 1330 91223	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-15-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-15-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-11-91	07-11-91	
DATE ANALYZED			07-12-91	07-12-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

NET Pacific, Inc.

Client No: 18.02 Date: 07-17-91
Client Name: Converse Consultants
NET Log No: 8539 Page: 5

Ref: SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results SB-5 @ 10' 07-09-91 1345 91224	 SB-5 @ 15' 07-09-91 1405 91225	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-15-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-15-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-11-91	07-11-91	
DATE ANALYZED			07-12-91	07-12-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

NET Pacific, Inc.

Client No: 18.02 Date: 07-17-91
Client Name: Converse Consultants
NET Log No: 8539 Page: 6

Ref: SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results SB-5 @ 20' 07-09-91 1440 91226	 MW-7 @ 11-11.5 07-08-91 1030 91227**	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	50	
DATE ANALYZED			07-16-91	07-16-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	260	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	50	
DATE ANALYZED			07-16-91	07-16-91	
Benzene		2.5	ND	1,300	ug/Kg
Ethylbenzene		2.5	ND	5,300	ug/Kg
Toluene		2.5	ND	5,600	ug/Kg
Xylenes, total		2.5	ND	13,000	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-11-91	07-11-91	
DATE ANALYZED			07-12-91	07-12-91	
METHOD GC FID/3550			--	--	
as Diesel		1	6.7	50	mg/Kg
as Motor Oil		10	19	ND	mg/Kg

** Note: The positive result for the PETROLEUM HYDROCARBONS as Diesel analysis on this sample appears to be a lighter hydrocarbon than diesel.

NET Pacific, Inc.

Client No: 18.02 Date: 07-17-91
Client Name: Converse Consultants
NET Log No: 8539 Page: 7

Ref: SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results SB-4 @ 6-6.5 07-08-91 1330 91228	 SB-4 @ 11-11.5 07-08-91 1340 91229	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-16-91	
METHOD GC FID/5030			--	--	
as Gasoline		1	ND	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-15-91	07-16-91	
Benzene		2.5	ND	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	ND	ND	ug/Kg
Xylenes, total		2.5	ND	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (SOIL)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-11-91	07-11-91	
DATE ANALYZED			07-12-91	07-12-91	
METHOD GC FID/3550			--	--	
as Diesel		1	ND	ND	mg/Kg
as Motor Oil		10	ND	ND	mg/Kg

NET Pacific, Inc.

Client No: 18.02 Date: 07-17-91
Client Name: Converse Consultants
NET Log No: 8539 Page: 8

Ref: SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results SB-4 @ 15-15.5 07-08-91 1350 91230	Units
PETROLEUM HYDROCARBONS			--	
VOLATILE (SOIL)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			07-15-91	
METHOD GC FID/5030			--	
as Gasoline		1	ND	mg/Kg
METHOD 8020			--	
DILUTION FACTOR *			1	
DATE ANALYZED			07-15-91	
Benzene		2.5	ND	ug/Kg
Ethylbenzene		2.5	ND	ug/Kg
Toluene		2.5	ND	ug/Kg
Xylenes, total		2.5	ND	ug/Kg
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (SOIL)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			07-11-91	
DATE ANALYZED			07-12-91	
METHOD GC FID/3550			--	
as Diesel		1	ND	mg/Kg
as Motor Oil		10	ND	mg/Kg

NET Pacific, Inc.

Client Acct: 18.02
Client Name: Converse Consultants
NET Log No: 8539

Date: 07-16-91
Page: 9

Ref: SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	1	mg/Kg	91	ND	49	67	25
Motor Oil	10	mg/Kg	83	ND	N/A	N/A	N/A
Gasoline	1	mg/Kg	97	ND	86	82	4.8
Benzene	2.5	ug/Kg	87	ND	92	86	6.7
Toluene	2.5	ug/Kg	104	ND	94	92	2.2

COMMENT: Blank Results were ND on other analytes tested.

NET Pacific, Inc.

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 16th Edition, APHA, 1985.

CONVERSE ENVIRONMENTAL WEST

CHAIN OF CUSTODY RECORD

8539

SHELL — Shell ERS Bradstad — Converse P.M. Bradstad

PROJECT NO.:	PROJECT NAME / CROSS STREET :
88-44-380-20	2724 Castro Valley Blvd
SAMPLERS: (Signature) Charles Bunn	

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NUMBER OF CONTAINERS	ANALYSES: TPH G	BTEX	TPH D/HO				REMARKS
MW8	7/8/91	1020			Sample 1 @ 5° FT	1	X	X	X				S.T.A.T
MW8		1040			3 @ 10° FT	1							Detection Limits
MW8		1110			5 @ 14.5 FT	1							TPHG 1 ppm
MW6		1320			Sample 1 @ 5° FT	1							TPHD 1
MW6	7/8/91	1335			3 @ 10° FT	1							TPH/HO 10
SB-5	7/9/91	1330			Sample 1 @ 5° FT	1							BTEX 0.0025
SB-5		1345			2 @ 10° FT	1							
SB-5		1405			3 @ 15° FT	1							
SB-5	7/9/91	1440			4 @ 20° FT	1	X	X	X				

CUSTODY SEALED 7/10/91 @ 1900 Mitch Tasani

RELINQUISHED BY : (Signature)	DATE 7/10/91 TIME : 5pm	RECEIVED BY : (Signartue)	RELINQUISHED BY : (Signature)	DATE 7/10/91 TIME :	RECEIVED BY : (Signature)
Charles Bunn		Mitch Tasani	Mitch Tasani		
RELINQUISHED BY : (Signature)	DATE : TIME :	RECEIVED BY : (Signartue)	RELINQUISHED BY : (Signature)	DATE : TIME :	RECEIVED BY : (Signature)
RELINQUISHED BY COURIER: (Sign.)	DATE : TIME :	RECEIVED BY MOBILE LAB : (Sign.)	RELINQ. BY MOBILE LAB : (Signatue)	DATE : TIME :	RECEIVED BY COURIER : (Signature)
METHOD OF SHIPMENT: NCS		SHIPPED BY : (Signatue)	RECEIVED FOR LAB : (Signature) Kemple	DATE : 7-11-91 TIME : 0800	COURIER FROM AIRPORT : (Signature)

CONVERSE ENVIRONMENTAL

CHAIN OF CUSTODY RECORD

8539

SHELL 624 BRANSTAD — CONVERSE AM OAKSTOCK

PROJECT NO.: 88-44-380-20

PROJECT NAME / CROSS STREET: Shell 2724 Castro Valley Boulevard

SAMPLERS: (Signature) David Nagel

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NUMBER OF CONTAINERS	TPH-G/BTEX	TPH-D/EHC	ANALYSES	REMARKS
										STAT
MW-1	7/8/91	10:30AM			MW-7 11-11.5'	1	X	X		
MW-2	7/8/91	10:55AM			MW-7 14-14.5'	1				HOLD
SB-4	7/8/91	1:30PM			SB-4 6-6.5'	1	X	X		DETECTION LIMITS
SB-4-2		1:40PM			SB-4 11-11.5'	1	X	X		TPH G 1 ppm
SB-4-3		1:50PM			SB-4 15-15.5'	1	X	X		TPH D 1
										TPH/MO 10
										BTEX 0.0025

(CUSTODY SEALED 7/10/91 @ 1900 MW1 and interior)

RELINQUISHED BY: (Signature) David Nagel	DATE: 7/8/91 TIME: 1445	RECEIVED BY: (Signature) Charles Bonn	RELINQUISHED BY: (Signature) Charles Bonn	DATE: 7/10/91 TIME: 5PM	RECEIVED BY: (Signature) Mike Tierni
RELINQUISHED BY: (Signature) Mike Tierni	DATE: 7/10/91 TIME:	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE: TIME:	RECEIVED BY: (Signature)
RELINQUISHED BY COURIER: (Sign.)	DATE: TIME:	RECEIVED BY MOBILE LAB: (Sign.)	RELINQ. BY MOBILE LAB: (Signature)	DATE: TIME:	RECEIVED BY COURIER: (Signature)
METHOD OF SHIPMENT: NIS		SHIPPED BY: (Signature)	RECEIVED FOR LAB: (Signature)	DATE: 7-11-91 TIME: 0800	COURIER FROM AIRPORT: (Signature)

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Chuck Comstock
Converse Consultants
55 Hawthorne St, Ste 500
San Francisco, CA 94105

Date: 07-23-91
NET Client Acct No: 18.02
NET Pacific Log No: 8649
Received: 07-17-91 0900

Client Reference Information

SHELL, 2724 Castro Valley Blvd.; Project: 88-44-380-20

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

JS:rct
Enclosure(s)

NET Pacific, Inc.

Client No: 18.02 Date: 07-23-91
Client Name: Converse Consultants
NET Log No: 8649 Page: 2

Ref: SHELL, 2724 Castro Valley Blvd.; Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results: 910716 07-16-91 91854	MW-5 07-16-91 1535 91855	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			10	1	
DATE ANALYZED			07-21-91	07-19-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	2.7	ND	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-19-91	07-19-91	
Benzene		0.5	130	ND	ug/L
Ethylbenzene		0.5	62	ND	ug/L
Toluene		0.5	7.6	ND	ug/L
Xylenes, total		0.5	45	ND	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-17-91	07-17-91	
DATE ANALYZED			07-20-91	07-20-91	
METHOD GC FID/3510			--	--	
as Diesel		0.05	0.54	ND	mg/L
as Motor Oil		0.5	ND	ND	mg/L

NET Pacific, Inc.

Client No: 18.02 Date: 07-23-91
Client Name: Converse Consultants
NET Log No: 8649 Page: 3

Ref: SHELL, 2724 Castro Valley Blvd.; Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results: MW-3 07-16-91 1550 91856	trip blank 07-16-91 91857	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-19-91	07-19-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	ND	ND	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-19-91	07-19-91	
Benzene		0.5	ND	ND	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	ND	ug/L
Xylenes, total		0.5	ND	ND	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-17-91	07-17-91	
DATE ANALYZED			07-20-91	07-20-91	
METHOD GC FID/3510			--	--	
as Diesel		0.05	ND	ND	mg/L
as Motor Oil		0.5	1.4	ND	mg/L

NET Pacific, Inc.

Client No: 18.02 Date: 07-23-91
Client Name: Converse Consultants
NET Log No: 8649 Page: 4

Ref: SHELL, 2724 Castro Valley Blvd.; Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results: OMW-8 07-16-91 0940 91858	field blank 07-16-91 0825 91859	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-21-91	07-19-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	ND	ND	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-21-91	07-19-91	
Benzene		0.5	ND	ND	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	0.8	ND	ug/L
Xylenes, total		0.5	ND	ND	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-17-91	07-17-91	
DATE ANALYZED			07-20-91	07-20-91	
METHOD GC FID/3510			--	--	
as Diesel		0.05	ND	ND	mg/L
as Motor Oil		0.5	ND	ND	mg/L

NET Pacific, Inc.

Client No: 18.02 Date: 07-23-91
Client Name: Converse Consultants
NET Log No: 8649 Page: 5

Ref: SHELL, 2724 Castro Valley Blvd.; Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results OMW-6 07-16-91 1420 91860	 MW-7 07-16-91 1435 91861**	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-20-91	07-20-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	ND	1.3	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	10	
DATE ANALYZED			07-20-91	07-21-91	
Benzene		0.5	ND	440	ug/L
Ethylbenzene		0.5	ND	6.9	ug/L
Toluene		0.5	ND	140	ug/L
Xylenes, total		0.5	ND	160	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-17-91	07-17-91	
DATE ANALYZED			07-20-91	07-20-91	
METHOD GC FID/3510			--	--	
as Diesel		0.05	ND	0.27	mg/L
as Motor Oil		0.5	ND	1.1	mg/L

** Note: The positive result for the PETROLEUM HYDROCARBONS as Diesel analysis on this sample appears to be a lighter hydrocarbon than diesel.

NET Pacific, Inc.

Client No: 18.02 Date: 07-23-91
Client Name: Converse Consultants
NET Log No: 8649 Page: 6

Ref: SHELL, 2724 Castro Valley Blvd.; Project: 88-44-380-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-1 07-16-91 1520 91862	MW-2 07-16-91 1455 91863**	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-20-91	07-20-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	ND	1.8	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			07-20-91	07-20-91	
Benzene		0.5	ND	100	ug/L
Ethylbenzene		0.5	ND	41	ug/L
Toluene		0.5	ND	5.8	ug/L
Xylenes, total		0.5	ND	31	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			07-17-91	07-17-91	
DATE ANALYZED			07-20-91	07-20-91	
METHOD GC FID/3510			--	--	
as Diesel		0.05	ND	0.43	mg/L
as Motor Oil		0.5	ND	ND	mg/L

** Note: The positive result for the PETROLEUM HYDROCARBONS as Diesel analysis on this sample appears to be a lighter hydrocarbon than diesel.

NET Pacific, Inc.

Client Acct: 18.02
*Client Name: Converse Consultants
NET Log No: 8649

Date: 07-22-91
Page: 7

Ref: SHELL, 2724 Castro Valley Blvd.; Project: 88-44-380-20

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	126	ND	74	79	6.5
Motor Oil	0.5	mg/L	N/A	ND	N/A	N/A	N/A
Toluene	0.5	ug/L	109	ND	95	89	7.0
Gasoline	0.05	mg/L	110	ND	98	91	7.1
Benzene	0.5	ug/L	86	ND	91	82	10
Benzene	0.5	ug/L	91	ND	99	92	8.0
Toluene	0.5	ug/L	97	ND	99	95	4.5
Gasoline	0.05	mg/L	105	ND	108	101	6.5
Benzene	0.5	ug/L	99	ND	103	100	2.6
Toluene	0.5	ug/L	101	ND	102	100	2.0

COMMENT: Blank Results were ND on other analytes tested.

NET Pacific, Inc.

Client Acct: 18.02
Client Name: Converse Consultants
NET Log No: 8539

Date: 07-16-91
Page: 9

Ref: SHELL-2724 Castro Valley Blvd., Project: 88-44-380-20

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	1	mg/Kg	91	ND	49	67	25
Motor Oil	10	mg/Kg	83	ND	N/A	N/A	N/A
Gasoline	1	mg/Kg	97	ND	86	82	4.8
Benzene	2.5	ug/Kg	87	ND	92	86	6.7
Toluene	2.5	ug/Kg	104	ND	94	92	2.2

COMMENT: Blank Results were ND on other analytes tested.

NET Pacific, Inc.

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

WIC # 204-1381-0407

CONVERSE ENVIRONMENTAL WEST

CHAIN OF CUSTODY RECORD

7M CRC (8649)

PROJECT NO.: 88-44-380-20

PROJECT NAME / CROSS STREET: 2724 CASTRO VALLEY BLVD @ LAKE CHABOT CASTRO VALLEY, CA -

SAMPLERS: (Signature) R. Richards

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NUMBER OF CONTAINERS	ANALYSES: TPH-G	BTEX	TPH-D	REMARKS
910716	7-16-91			X	40 ML VOA	3	X	X		STANDARD T.A.T.
910716				X	1 LITRE AMBER	2			X	DETECTION LIMITS:
MW-5		1535		X	40 ML VOA	3	X	X		TPH-G 0.05
MW-5		1535		X	1 LITRE AMBER	2			X	TPH-D 0.05
MW-3		1550		X	40 ML VOA	3	X	X		BTEX - 0.0005
MW-3		1550		X	1 LITRE AMBER	2			X	
TRIP BLANK				X	40 ML VOA	1	X	X		
TRIP BLANK				X	1 LITRE AMBER	1			X	

CUSTODY SEALED 7/16/91 @ 20:30 J.W.

RELINQUISHED BY: (Signature) R. Richards	DATE: 7/16/91 TIME: 19:10	RECEIVED BY: (Signature) Jeff Hendrickson	RELINQUISHED BY: (Signature) Jeff Hendrickson	DATE: 7/16/91 TIME: 20:30	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE: TIME:	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE: TIME:	RECEIVED BY: (Signature)
RELINQUISHED BY COURIER: (Sign.)	DATE: TIME:	RECEIVED BY MOBILE LAB: (Sign.)	RELINQ. BY MOBILE LAB: (Signature)	DATE: TIME:	RECEIVED BY COURIER: (Signature)
METHOD OF SHIPMENT		SHIPPED BY: (Signature) VIANCY	RECEIVED FOR LAB: (Signature) A. Lopez	DATE: 7-17-91 TIME: 0900	COURIER FROM AIRPORT: (Signature)

WIC # 204-1381-0407

CONVERSE ENVIRONMENTAL WEST

CHAIN OF CUSTODY RECORD

P.M. CRC. (8649)

PROJECT NO.: 28-44-380-20

PROJECT NAME / CROSS STREET: 2724 CASTRO VALLEY Blvd CASTRO VALLEY, CA.

SAMPLERS: (Signature) R. Mulcahy

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NUMBER OF CONTAINERS	ANALYSES TPH-G	ANALYSES BTEX	ANALYSES TPH-D	REMARKS
OMW-8	7-16-91	0940		X	40 ML VOA	4	X	X		STANDARD T.A.T
OMW-8		0940		X	1 LITRE AMBER	3			X	DETECTION LIMITS
FIELD BLANK		0625		X	40 ML VOA	1	X	X		TPH-G - 0.05
FIELD BLANK		0925		X	1 LITRE AMBER	1			X	TPH-D - 0.05
OMW-6		1420		X	40 ML VOA	3	X	X		BTEX - 0.0005
OMW-6		1420		X	1 LITRE AMBER	2			X	
MW-7		1435		X	40 ML VOA	3	X	X		
MW-7		1435		X	1 LITRE AMBER	2			X	
MW-1		1520		X	40 ML VOA	3	X	X		
MW-1		1520		X	1 LITRE AMBER	2			X	
MW-2		1455		X	40 ML VOA	5	X	X		
MW-2		1455		X	1 LITRE AMBER	2			X	

RELINQUISHED BY: (Signature) R. Mulcahy	DATE: 7/16/91 TIME: 19:10	RECEIVED BY: (Signature) Jeff Wunderlich	RELINQUISHED BY: (Signature) Jeff Wunderlich	DATE: 7/16/91 TIME: 20:30 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE: TIME:	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE: TIME: RECEIVED BY: (Signature)
RELINQUISHED BY COURIER: (Sign.)	DATE: TIME:	RECEIVED BY MOBILE LAB: (Sign.)	RELINQ. BY MOBILE LAB: (Signature)	DATE: TIME: RECEIVED BY COURIER: (Signature)
METHOD OF SHIPMENT		SHIPPED BY: (Signature) VIA NCS	RECEIVED FOR LAB: (Signature) J. Lopez	DATE: 7-17-91 TIME: 0900 COURIER FROM AIRPORT: (Signature)

APPENDIX D

COPIES OF FIELD MEASUREMENT RECORD

CONVERSE ENVIRONMENTAL WEST
Water Sampling Form

#: 57-...-381-20 Site 277 ... Sampling Team RK

Date 7-15-9 Well #/Source MW-1 Lab Sample I.D.# ______

Field conditions OVERCAST, COOL

Describe Equipment D-Con Before Sampling This Well REFER TO OMW-8

Describe All Meter/Equipment Calibration REFER TO OMW-8

Total Depth of Well 15.3 Time 0710 OVM Reading High ______ Average ______

Depth to Water Before Pumping 7.58 Product Present YES/NO (Circle) Thickness ______

Height of Water Column (ft) 7.72 2" .16 3" .37 (4" .65) 6" 1.47 = Volume 5.02 • Purge Multiple 3 = Volume to Purge 15 (Gal)

Depth Purging From NEAR BOTTOM C.P.

Time Purging Begins 1222 Notes on Initial Discharge CLEAR / FLOATING ... MATTER

Pre-Purge Sample (Check) Sheen __ Petro Odor __ Clear ✓ • Other (Describe under comments)

Time	Volume Purged	pH	Conductivity	T	Notes
1222	PP	6.92	1200	20.6	SEE ABOVE
1229	5	7.15	1200	20.1	" "
1230	8	7.16	1200	19.8	MURKY GRAY
1233	11	7.11	1300	20.1	" "
1237	15	7.11	1250	20.0	" "

Time	Volume Purged	pH	Conductivity	T	Notes

Time Sample Collection Begins ______ (1520) Time Sample Collection Ends ______ Total Volume Purged 15

Depth to Water for 80% Recharge 9.12 Depth to Water After Total Purge 12.90 @ 1237

DTW = 11.40 at 1239
DTW = 9.09 at 1519
DTW = ______ at ______

DTW = ______ at ______
DTW = ______ at ______
DTW = ______ at ______

Dissolved oxygen measured? YES/NO (circle) Barometric Pressure ______ Ambient D.O. ppm ______
Sample Temp ______ Sample D.O. ______ ppm
Comments:

CONVERSE ENVIRONMENTAL WEST
Water Sampling Form

[redacted] 88-4C-3X0-22 Site [redacted] Valley Sampling Team RR

[redacted] 7-13-91 Well #/Source MW-5 Lab Sample I.D.# 910716

[redacted] conditions OVERCAST, COOL

[redacted]ribe Equipment D-Con Before Sampling This Well REFER TO MW-8

[redacted]ribe All Meter/Equipment Calibration REFER TO MW-8

[redacted]tal Depth of Well 14.9 Time 0715 OVM Reading High _____ Average _____

[redacted]h to Water Before Pumping 9.01 Product Present YES/NO (Circle) Thickness _____

[redacted]ight of Water Column (ft) 5.89 (2" .16 · 3" .37 · 4" .65 · 6" 1.47) = Volume 3.83 * Purge Multiple 3 = Volume to Purge 12 (Gal)

[redacted]pth Purging From NEAR BOTTOM (C.P.)

[redacted]e Purging Begins 1135 Notes on Initial Discharge CLEAR, STRONG ODOR

[redacted]re-Purge Sample (Check) Sheen _ Petro Odor ✓ Clear ✓ · Other (Describe under comments)

[redacted]	Volume Purged	pH	Conductivity	T	Notes
[redacted]35	2	6.88	1100	19.4	SEE ABOVE
[redacted]5	5	6.95	1125	19.4	"
[redacted]8	8	7.08	1300	19.1	"
[redacted]0	10	7.31	1290	19.0	"
[redacted]5	12	7.30	850	19.0	"

Time	Volume Purged	pH	Conductivity	T	Notes

[redacted]e Sample Collection Begins _____ Time Sample Collection Ends (1455) Total Volume Purged 12

[redacted]epth to Water for 80% Recharge 10.19 Depth to Water After Total Purge 12.30 @ 1209

[redacted]W = 13.20 at 1152 DTW = 9.0 at 1450

[redacted]W = 13.10 at 1153 DTW = _____ at _____

[redacted]TW = 12.30 at 1202 pump on DTW = _____ at _____

[redacted]issolved oxygen measured? YES/NO (circle) Barometric Pressure _____ Ambient D.O. ppm _____

[redacted]ample Temp _____ Sample D.O. _____ ppm

[redacted]mments: DUP AT 10 GAL

DUPLICATE

CONVERSE ENVIRONMENTAL WEST
Water Sampling Form

Job # 114-358-20 Site 2724 Castro Valley Sampling Team RR

Date 7-16-91 Well #/Source MW-3 Lab Sample I.D.# _____

Field conditions CLOUDY, WINDY

Describe Equipment D-Con Before Sampling This Well REFER TO OMW-8

Describe All Meter/Equipment Calibration REFER TO OMW-8

Total Depth of Well 24.35 Time 0708 OVM Reading High _____ Average _____

Depth to Water Before Pumping 9.40 Product Present YES/NO (Circle) Thickness _____

Height of Water Column (ft) 14.95 (2" .16 · 3" .37 · (4" .65) · 6" 1.47) = Volume 9.72 * Purge Multiple 3 = Volume to Purge 30 (Gal)

Depth Purging From NEAR BOTTOM (S.P.)

Time Purging Begins _____ Notes on Initial Discharge CLEAR STRONG ORGANIC SMELL

Pre-Purge Sample (Check) Sheen __ Petro Odor __ Clear ✓ · Other (Describe under comments)

Time	Volume Purged	pH	Conductivity	T	Notes
1213	PP	6.90	1200	21.6	SEE ABOVE
1217	10	7.00	1900	21.0	CLEAR
1225	15	7.00	2400	20.6	SLIGHT ODOR
1241	20	7.03	2500	20.6	" "
1248	25	7.01	2450	20.3	" "

Time	Volume Purged	pH	Conductivity	T	Notes
—	30	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

Time Sample Collection Begins _____ Time Sample Collection Ends 1350 Total Volume Purged 25

Depth to Water for 80% Recharge _____ Depth to Water After Total Purge _____

DTW = _____ at _____ DTW = _____ at _____

DTW = _____ at _____ DTW = _____ at _____

DTW = _____ at _____ DTW = _____ at _____

Dissolved oxygen measured? YES/NO (circle) Barometric Pressure _____ Ambient D.O. ppm _____

Sample Temp _____ Sample D.O. _____ ppm

Comments: _____

CONVERSE ENVIRONMENTAL WEST
Water Sampling Form

...S. ...-380-?? Site ???? ... Valley Sampling Team R.C.

e ...-3-9. Well #/Source ...-5 Lab Sample I.D.# ________

...Conditions OVERCAST. COOL

...ibe Equipment D-Con Before Sampling This Well REFER TO ...W-8

...ibe All Meter/Equipment Calibration REFER TO ...W-5

...al Depth of Well 22.8 Time 0705 OVM Reading High ______ Average ______

...h to Water Before Pumping 9.12 Product Present YES/NO (Circle) — NO circled — Thickness ______

...eight of Water Column (ft) 13.68 × (2" .16 · 3" .37 · 4" .65 · 6" 1.47; 4" .65 circled) = Volume 8.8? × Purge Multiple 3 = Volume to Purge 27 (Gal)

...th Purging From NEAR BOTTOM (C.P.)

...e Purging Begins ________ Notes on Initial Discharge CLEAR

...-Purge Sample (Check) Sheen ___ Petro Odor ___ Clear ✓ · Other (Describe under comments)

Time	Volume Purged	pH	Conductivity	T	Notes
...25	PP	6.83	1700	19.9	SEE ABOVE
...6	10	6.96	1650	19.4	"
...	15	6.92	1700	19.2	"
...5	20	6.93	1750	19.6	CLEAR
...	23	6.92	1750	19.3	CLEAR
1317	27	6.89	1700	19.0	Cloudy

...e Sample Collection Begins ______ Time Sample Collection Ends ______ (1535 circled) Total Volume Purged ______

...epth to Water for 80% Recharge 11.86 Depth to Water After Total Purge 17.98 @ 1303

DTW = 19.50	at 1057	DTW = 11.62	at 1532
DTW = 19.98	at 1102	DTW =	at
DTW = 14.73	at 1250 pump on	DTW =	at

...issolved oxygen measured? YES/NO (circle) Barometric Pressure ______ Ambient D.O. ppm ______

...ample Temp ______ Sample D.O. ______ ppm

...mments: DW AT 18 GALS

10.94

CONVERSE ENVIRONMENTAL WEST
Water Sampling Form

[redacted]-351-30 Site [illegible] Sampling Team RR

[illegible] Well #/Source MW1-6 Lab Sample I.D.# _____

d Conditions WINDY, COOL

scribe Equipment D-Con Before Sampling This Well [illegible]

scribe All Meter/Equipment Calibration [illegible]

ar Depth of Well 21.8 Time 0650 OVM Reading High _____ Average _____

h to Water Before Pumping 8.60 Product Present YES/NO (Circle) Thickness _____

ght of Water Column (ft) 13.2 2" .16 3" .37 4" .65 6" 1.47 = Volume 8.58 * Purge Multiple 3 = Volume to Purge 26 (Gal)

th Purging From NEAR BOTTOM (C.P.)

Purging Begins 0844 Notes on Initial Discharge CLEAR

e-Purge Sample (Check) Sheen _ Petro Odor _ Clear ✓ Other (Describe under comments)

	Volume Purged	pH	Conductivity	T	Notes
844	PD	6.99	2800	20.5	CLEAR
8	10	7.13	2900	20.0	"
216	15	7.15	2875	19.8	"
23	20	7.15	2800	19.5	"
9	26	7.09	2790	19.2	MUDDY WATER

Time	Volume Purged	pH	Conductivity	T	Notes

e Sample Collection Begins _____ Time Sample Collection Ends 1420 Total Volume Purged 26

epth to Water for 80% Recharge 11.24 Depth to Water After Total Purge 20.20 @ 0930

W = 20.01 at 0934 DTW = _____ at _____

W = 19.12 at 1004 DTW = _____ at _____

TW = 16.89 at 1418 DTW = _____ at _____

issolved oxygen measured? YES/NO (circle) Barometric Pressure _____ Ambient D.O. ppm _____

ample Temp _____ Sample D.O. _____ ppm

mments: _____

10.56

CONVERSE ENVIRONMENTAL WEST
Water Sampling Form

[redacted]-[redacted]-30 Site 272 - Castaic Valley Sampling Team TR

[redacted]-16-? Well #/Source MW-7 Lab Sample I.D.#

Field conditions BREEZY 70°

Describe Equipment D-Con Before Sampling This Well PEER TO MW-8

Describe All Meter/Equipment Calibration CLEANED MW-8

Total Depth of Well 19.96 Time 0700 OVM Reading High ____ Average ____

Depth to Water Before Pumping 5.70 Product Present YES/NO (Circle) Thickness ____

Height of Water Column (ft) 11.26 (2" .16) 3" .37 4" .65 6" 1.47 = Volume 1.80 * Purge Multiple 3 = Volume to Purge 6 (Gal)

Method Purging From HAND BAIL

Time Purging Begins 1107 Notes on Initial Discharge Cloudy

Type Purge Sample (Check) Sheen ___ Petro Odor ___ Clear ___ Other (Describe under comments)

Volume Purged	pH	Conductivity	T	Notes
2	6.65	1600	18.2	Cloudy
4	6.89	1625	18.2	"
6	6.87	1600	18.2	murky
8	6.94	1600	18.1	"

Time	Volume Purged	pH	Conductivity	T	Notes

Time Sample Collection Begins ____ Time Sample Collection Ends 1435 Total Volume Purged 6

Depth to Water for 80% Recharge 10.96 Depth to Water After Total Purge 16.12 @ 1120

DTW = 16.02 at 1124 DTW = ____ at ____
DTW = 11.10 at 1430 DTW = ____ at ____
DTW = ____ at ____ DTW = ____ at ____

Dissolved oxygen measured? YES/NO (circle) Barometric Pressure ____ Ambient D.O. ppm ____
Sample Temp ____ Sample D.O. ____ ppm
Comments: ____

CONVERSE ENVIRONMENTAL WEST
Water Sampling Form

88-44-351-20 Site 2724 (Petrolane) Sampling Team BA

7-15-0 Well #/Source MW-18 Lab Sample I.D.# _____

Field conditions OVERCAST, COOL

Describe Equipment D-Con Before Sampling This Well ALCONOX/H2O/DI

Describe All Meter/Equipment Calibration PH & CONDUCTIVITY CALIBRATED TO STANDARDS

Total Depth of Well 19.74 Time 0655 OVM Reading High _____ Average _____

Depth to Water Before Pumping 8.40 Product Present YES/NO (Circle) Thickness _____

Height of Water Column (ft) 11.34 2" .16 3" .37 (4" .65) 6" 1.47 = Volume 7.37 * Purge Multiple 3 = Volume to Purge 22 (Gal)

Depth Purging From NEAR BOTTOM (C.P.)

Time Purging Begins 0740 Notes on Initial Discharge CLEAR

Pre-Purge Sample (Check) Sheen _ Petro Odor ___ Clear ✓ Other (Describe under comments)

Time	Volume Purged	pH	Conductivity	T	Notes
0740	PP	6.83	900	19.7	SEE ABOVE
0758	10	7.13	1000	20.6	"
0806	15	7.22	1000	20.4	CLOUDY
0816	19	7.48	1150	20.0	"
0821	22	7.47	1150	20.1	"

Time	Volume Purged	pH	Conductivity	T	Notes
___	___	___	___	___	___
___	___	___	___	___	___
___	___	___	___	___	___
___	___	___	___	___	___
___	___	___	___	___	___

Time Sample Collection Begins 0940 Time Sample Collection Ends _____ Total Volume Purged 22

Depth to Water for 80% Recharge 10.67 Depth to Water After Total Purge 19.68 @ 0822

DTW = 19.02 at 0828
DTW = 17.26 at 0936
DTW = _____ at _____

DTW = _____ at _____
DTW = _____ at _____
DTW = _____ at _____

Dissolved oxygen measured? YES/NO (circle) Barometric Pressure _____ Ambient D.O. ppm _____

Sample Temp _____ Sample D.O. _____ ppm

Comments: FIELD BLANK @ 0825