CONVERSE ENVIRONMENTAL WEST

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June 28, 1991
88-44-369-20-1264

Ms. Dyan Whyte
Water Resource Control Engineer
San Francisco Bay Regional Water Quality Control Board
2101 Webster Street, Room 500
Oakland, California 94612

Subject: Shell Oil Company - Quarterly Report - Q2/1991
630 High Street
Oakland, California

Dear Ms. Whyte:

Enclosed please find one copy of the Shell Oil Company Quarterly Report of Activities Quarter 2, 1991 prepared by Converse Environmental West (CEW) - San Francisco.

Very truly yours,

Converse Environmental West

Jay A. Ach
for

Robin M. Breuer
Principal Regulatory Specialist

Enclosure

cc: Mr. Rafat Shahid - Alameda County Health Care Services
Mr. Jack Brastad - Shell Oil Company

REPORT OF ACTIVITIES
QUARTER 2, 1991

SHELL OIL COMPANY FACILITY
630 HIGH STREET
OAKLAND, CALIFORNIA

Prepared for:

Shell Oil Company
1390 Willow Pass Road, Suite 900
Concord, California 94524

Prepared by:

Converse Environmental West
55 Hawthorne Street, Suite 500
San Francisco, California 94105

June 28, 1991

CEW Project No. 88-44-369-20
WIC No. 204-5508-5801

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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 (CEW) during Quarter 2, 1991 (Q2/91) for the Shell Oil Company (Shell) station ("site") at 630 High Street, Oakland, California (Drawing 1). This report is prepared to fulfill the quarterly reporting requirements as specified in the Work Plan prepared by CEW (March 20, 1989) for achievement of environmental closure of the site. The Work Plan is on file with the regulatory agencies of jurisdiction.

The site is located on the Southeast corner of High Street and Jensen Street in Oakland, California (Drawing 2). The site is approximately 240 feet long by 180 feet wide. Shell operated a retail fuel sales operation on the site, under lease from the property owner, the City of Oakland.

Available data provided by Shell indicates that soil and groundwater contamination by petroleum hydrocarbons exists on the property. This condition has been established by preliminary and advanced remedial investigations conducted by consultants since 1985. 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 quarterly reports on file with the LIAs.

1.2 SCOPE OF ACTIVITIES

The investigative activities conducted during Q2/91 were authorized under an existing purchase order and blanket number from Shell for environmental services at the site. The work completed during Q2/91 consisted of the following activities:

- Collecting groundwater samples from MW-1 through MW-10.

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

As a consultant to Shell on this project, CEW is contracted to perform specific activities related to acquiring data and information which will lead to the ultimate successful closure of the site under investigation. CEW's primary obligation is to collect information within proper standard of care and practice, and in accordance with protocols which have been created by CEW and which are on file with the regulatory agencies of jurisdiction. From time to time, because of site-specific conditions or limitations, CEW may find it necessary to deviate from these protocols. Under these conditions, CEW will describe in appropriate reports the rationale and necessities for the deviations which occurred, along with a statement of the possible impact these deviations may have on the database generated.

In compilation of its findings, CEW will follow the scientific method and develop multiple working hypotheses which explain site conditions and findings. CEW will not report and justify these multiple working hypotheses to the regulatory agencies for two principal reasons:

(1) The number of assumptions and limitations that are part of the process are numerous and would require substantial discussion and justification, and

(2) The multiple working hypothesis process is iterative to the time of closure, at which point a final, best hypothesis will be provided and fully explained to the regulatory agencies in closure documentation.

SECTION 2

WORK COMPLETED THIS QUARTER

Work initiated and completed during Q2/91 followed the task descriptions of the CEW Work Plan (March, 1989) and the CEW protocols on file with the regulatory agencies of jurisdiction. A Quarter 2, 1991 Activity Summary is presented in Table 1.

2.1 SOIL SAMPLING AND ANALYSES

No soil samples were taken during Q2/91. Previous soil boring information and analytical results are presented in Tables 2 and 3.

2.2 GROUNDWATER SAMPLING AND ANALYSES

Well installation information is presented in Table 4. Groundwater samples were collected on April 30, 1991 and May 1, 1991 from monitoring wells MW-1 through MW-10, following CEW protocols. These samples were submitted to NET Pacific, Inc., a California-certified laboratory in Santa Rosa, California, following appropriate chain-of-custody. The samples were analyzed for TPH-g, TPH-d, TPH-mo, and BTEX following the recommended analytical methods listed in Table 5. Additional analytical tests were performed for consideration of remediation alternatives. Analytical data for the water samples collected from the monitoring wells are summarized in Table 6. Laboratory reports and chain-of-custody forms are provided in Appendix B.

2.3 PHYSICAL MONITORING

During Q2/91, wells MW-1 through MW-10 were each tested once for depth to water table and observed for floating product. No measurable thickness of floating product was present. A summary of these results is presented in Table 7.

2.4 EXISTING HYDROGEOLOGIC DATA

CEW is in the process of obtaining records on file with the Alameda County Health Department. Alameda County has not provided CEW with any of this information to date. This research may provide background hydrogeologic information for the site vicinity as well as potential for offsite sources.

SECTION 3

FINDINGS AND DISCUSSION

3.1 SOIL

Stratigraphy is discussed in detail in previous quarterly reports/on file with the LIA.

3.2 GROUNDWATER

3.2.1. Physical Parameters

Floating product was not present in the wells monitored during Q2/91. Petroleum hydrocarbon odors were noted in water collected from wells MW-1, MW-4 and MW-5 (Table 7).

3.2.2 Elevation and Gradient

Reported Q1/91

The groundwater table is approximately eight to thirteen feet below ground surface (bgs), with a flow direction that is westerly (Drawing 3).

3.2.3 Results of Chemical Analyses

Q1/91 Groundwater Chemistry Data

- TPH-mo was not detected in any of the water samples taken during Q2/91.
- TPH-g was detected in water samples taken from MW-1 and MW-4. The value of TPH-g detected at MW-1 was 8.3 ppm (Table 6).

- TPH-d was detected in water samples taken from MW-1, MW-3, MW-4, MW-5, MW-6, and MW-10. The value of TPH-d detected at MW-1 was 2.1 ppm (Table 6).

- BTEX was detected in the water samples taken from MW-1, MW-3, MW-4, MW-5 and MW-9. The values of BTEX detected at MW-1 were 0.25 ppm, 0.032 ppm, 0.31 ppm and 0.3 ppm, respectively (Table 6).

3.2.4 Discussion

The presence of TPH-d, TPH-g and BTEX in groundwater is centered near MW-1, which is located near the former underground fuel and waste oil tanks (Drawing 2 and Table 6).

SECTION 4

NEXT QUARTER ACTIVITIES

4.1 WORK PLAN MODIFICATIONS

Based on the information collected to date, no modifications to the Work Plan are proposed for Q3/91:

4.2 PROPOSED ACTIVITIES

The following activities will be conducted in Q3, 1991:

(1) Continue monitoring groundwater conditions.

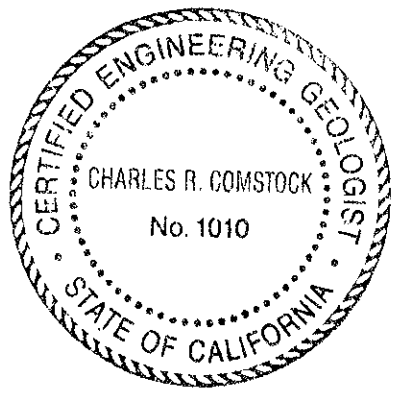
(2) Submit Q3/91 Report.

CERTIFICATION

This report of activities for the Shell Oil Company facility at 630 High Street, Oakland, 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,



ROBIN M. BREUER
Principal Regulatory Specialist

CHARLES R. COMSTOCK, CEG 1010
Technical Director

PRIMARY CONTACTS

Shell Oil Company Facility
630 High Street
Oakland, California

Quarter 2, 1991

Regional Water Quality Control Board Representative:	Dyan Whyte San Francisco Bay Regional Water Quality Control Board 2101 Webster Street, Room 500 Oakland, California 94612
LIA Representative:	Mr. Rafat Shahid Alameda County Health Care Services Department of Environmental Health 80 Swan Way, Room 200 Oakland, California 94621
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Registered Geologist in Charge:	Mr. Charles R. Comstock Converse Environmental West 55 Hawthorne Street, Suite 500 San Francisco, California 94105
Site Owner:	Shell Oil Company

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TABLES

TABLE 1. ACTIVITY SUMMARY - QUARTER 2, 1991

Shell Oil Company Facility
630 High Street
Oakland, California

PERCENT COMPLETE

	Quarter 2, 1991		Total to Date	
Activity	**Onsite**	**Offsite**	**Onsite**	**Offsite**
Soil Characterization	85	---	85	---
Groundwater Characterization (Dissolved Product)	70	---	70	---
Groundwater Characterization (Floating Product)	NA	NA	NA	NA
Soil Remediation	0	---	0	---
Groundwater Remediation (Dissolved Product)	0	---	0	---
Groundwater Remediation (Floating Product)	NA	NA	NA	NA

NOTES:

NA Not Applicable

TABLE 2. SOIL BORING INFORMATION

Shell oil Company
630 High Street
Oakland, California

Boring No.	Date Drilled	Total Depth of Well (ft bgs)	Completion	Unsaturated Soil Samples (ft bgs)	Saturated Soil Samples (ft bgs)	Highest OVM Reading (ppm)
SB-1	4/27/89	10	Abandoned	5	None	NR
SB-2	4/27/89	10	Abandoned	5,10	None	NR
SB-3	8/17/89	10	Abandoned	5,10	None	1300 @ 5'
SB-4	11/15/89	9	Abandoned	5,9	None	0

NOTES:

NR Not Recorded

TABLE 3. RESULTS OF SOIL CHEMICAL ANALYSIS

Shell Oil Company
630 High Street
Oakland, California

Concentration (mg/kg)

Boring No.	Date Sampled	Sample Depth (ft bgs)	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Total Oil & Grease	Xylenes	Total Lead
SB-1	04/27/89	5	12*	27	85	<0.025	0.10	NA	0.14	71
SB-2	04/27/89	5	<10	<10	<10	0.042	0.054	NA	<0.075	16
SB-2	04/27/89	5,10**	<10	<10	130	<0.025	0.04	NA	<0.075	10
SB-3	08/17/89	5	<10	<10	<10	<0.025	0.22	290	<0.075	66
SB-3	08/17/89	10	<10	<10	<10	<0.025	0.045	<50	<0.075	4.2
SB-4	11/15/89	5	<1	16	77	<0.025	0.032	NA	<0.0025	220
SB-4	11/15/89	9	<1	<1	11	<0.025	0.056	NA	<0.0025	3.9
MW-1	04/25/89	5	11	<10	<10	<0.025	0.11	NA	<0.075	9.6
MW-1	04/25/89	5,10**	63	<10	<10	0.042	0.14	NA	0.16	7.6
MW-2	04/25/89	5	<10	<10	<10	<0.025	0.34	NA	<0.075	13
MW-2	04/25/89	5,10,15**	<10	<10	<10	<0.025	0.15	NA	<0.075	4.0
MW-3	04/26/89	10	<10	<10	<10	<0.025	<0.025	NA	<0.075	3.9
MW-3	04/26/89	5,10**	<10	<10	<10	<0.025	0.068	NA	<0.075	5.1
MW-4	04/26/89	5	<10	<10	<10	0.046	0.21	NA	<0.075	26
MW-4	04/26/89	5,10**	<10	<10	<10	<0.025	0.066	NA	<0.075	27
MW-5	08/17/89	5	<10	<10	<10	<0.025	<0.025	<50	<0.075	14
MW-5	08/17/89	10	<10	<10	<10	<0.025	<0.025	<50	<0.075	5.9
MW-6	08/16/89	5	<10	<10	<10	<0.025	0.057	220	<0.075	5.6
MW-6	08/16/89	10	<10	<10	<10	<0.025	<0.025	<50	<0.075	4.3

NOTE:

* Sample contains higher boiling hydrocarbons not characteristic with gasoline

** Composite sample

NA Not analyzed

TABLE 3 (cont'd). RESULTS OF SOIL CHEMICAL ANALYSIS

Shell Oil Company
630 High Street
Oakland, California

Concentration (mg/kg)

Boring No.	Date Sampled	Sample Depth (ft bgs)	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Total Oil & Grease	Xylenes	Total Lead
MW-7	08/15/89	5	<10	<10	<10	<0.025	0.040	<50	<0.075	9.8
MW-7	08/15/89	10	<10	<10	<10	<0.025	<0.025	<50	<0.075	3.7
MW-8	08/15/89	5	<10	<10	<10	<0.025	<0.025	<50	<0.075	5.1
MW-8	08/15/89	10	<10	<10	<10	<0.025	<0.025	<50	<0.075	2.6
MW-9	11/15/89	5	<1	<1	10	<0.025	0.013	NA	<0.025	170
MW-10	11/16/89	5	<1	<1	240	<0.025	0.049	NA	<0.025	120
MW-10	11/16/89	9	<1	380	3.1	<0.025	<0.025	NA	<0.025	3.1

NOTE:

*	Sample contains higher boiling hydrocarbons not characteristic with gasoline
**	Composite sample
NA	Not analyzed

TABLE 4. WELL INSTALLATION INFORMATION

Shell Oil Company
630 High Street
Oakland, California

Well No.	Date Drilled	Well Diameter (inches)	Initial Water Table (ft bgs)	Static Water Table* (ft bgs)	Total Depth of Well (ft bgs)	Screen (ft bgs)	Bentonite Seal (ft bgs)	Grout Seal (ft bgs)
MW-1	4/25/89	4	10.0	10.43	20	13 - 9	9 - 6	6 - 0
MW-2	4/25/89	4	14.5	11.67	25	20 - 10	10 - 8	8 - 0
MW-3	4/26/89	4	11.5	10.36	20	17 - 8	8 - 6	6 - 0
MW-4	4/26/89	4	10.0	10.91	22	17 - 7	7 - 6	6 - 0
MW-5	8/17/89	4	12.0	11.34	18	8 - 18	5 - 7	1 - 5
MW-6	8/16/89	4	15.0	10.58	20	10 - 20	7 - 9	1 - 7
MW-7	8/15/89	4	17.5	9.76	20	10 - 20	7 - 9	1 - 7
MW-8	8/15/89	4	9.0	9.01	21	9 - 21	6 - 8	1 - 6
MW-9	11/15/89	4	10.0	11.52	12	6 - 12	4 - 5	1 - 4
MW-10	11/16/89	4	11.0	9.55	13	7 - 13	5 - 6	1 - 5

NOTES:

ft bgs Feet below ground surface

TABLE 5. RECOMMENDED MINIMUM VERIFICATION ANALYSES FOR UNDERGROUND TANK LEAKS

FROM: Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites

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	

TABLE 6. RESULT OF GROUNDWATER CHEMICAL ANALYSES

Shell Oil Company
630 High Street
Oakland, California

Concentration (mg/L)

Well No.	Date Sampled	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-benzene	Xylenes	Lead
MW-1	05/25/89	11	7.1	1.6	0.006	0.023	0.023	0.180	NA
MW-1	08/29/89	17	7.2	1.9	0.20	0.18	0.059	0.55	<0.002
MW-1	12/12/89	13	4.4	<0.05	0.250	0.036	0.270	0.380	NA
MW-1	02/20/90	11	3.8	<0.05	0.24	0.034	0.35	0.57	NA
MW-1	04/25/90	9.4	3.8	<0.05	0.17	0.035	0.0086	0.39	NA
MW-1	08/02/90	10.0	4.0	<0.5	0.25	0.03	0.0055	0.38	NA
MW-1	10/18/90	8.6	5.9	<0.5	0.22	0.028	0.31	0.27	NA
MW-1	01/29/91	11.0	21.0*	<0.5	0.31	0.041	0.5	0.4	NA
MW-1	**04/30/91**	**8.3**	**2.1**	**<0.5**	**0.25**	**0.032**	**0.310**	**0.3**	**NA**
MW-2	05/25/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0015	<0.0015	NA
MW-2	08/29/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0015	<0.0015	<0.002
MW-2	12/11/89	<0.05	0.081	0.22	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-2	02/20/90	<0.05	<0.05	<0.05	<0.0005	0.0006	<0.0005	<0.0005	NA
MW-2[1]									
MW-2	08/02/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-2[1]									
MW-2	01/29/91	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-2	**04/30/91**	**<0.05**	**<0.05**	**<0.5**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**NA**
MW-3	05/25/89	1.2	0.40	0.088	<0.0005	<0.0005	<0.0015	<0.0015	NA
MW-3	08/29/89	2.5	0.81	<0.05	0.025	0.01	0.0065	0.0055	<0.02
MW-3	12/15/89	2.8	0.81	<0.05	0.015	0.008	0.004	0.012	NA
MW-3	02/15/90	2.6	0.53	<0.05	0.016	0.0019	0.0076	0.0041	NA
MW-3	04/24/90	2.6	0.48	<0.05	0.028	0.007	0.007	0.015	NA
MW-3	08/02/90	2.6	3.6	<0.5	0.035	0.0052	0.0091	0.0094	NA
MW-3	10/18/90	2.5	0.94	<0.5	0.042	0.0072	0.013	0.027	NA
MW-3	01/29/91	2.3	0.41*	<0.5	0.017	0.0041	0.01	0.023	NA
MW-3	**05/01/91**	**<0.05**	**0.26**	**<0.5**	**0.022**	**0.004**	**0.007**	**0.017**	**NA**
MW-4	05/25/89	2.9	1.1	0.29	<0.005	0.0094	<0.0015	0.0034	NA
MW-4	08/29/89	2.9	1.5	0.79	0.029	<0.0005	0.012	0.0016	<0.002
MW-4	12/12/89	4.6	1.0	<0.05	0.170	0.026	0.011	0.020	NA
MW-4	02/13/90	1.9	0.86	<0.05	0.055	0.0091	0.0047	0.0026	NA
MW-4	04/24/90	3.0	1.1	<0.05	0.17	0.020	0.0067	0.016	NA
MW-4	08/01/90	4.2	1.0	<0.5	0.22	0.015	0.0093	0.018	NA
MW-4	10/18/90	3.4	1.9	<0.5	0.21	0.019	0.013	0.032	NA
MW-4	01/29/91	2.6	1.3*	<0.5	0.083	<0.0005	<0.0005	0.011	NA
MW-4	**05/01/91**	**2.6**	**0.75**	**<0.5**	**0.022**	**0.004**	**0.007**	**0.017**	**NA**

TABLE 6 (cont'd). RESULT OF GROUNDWATER CHEMICAL ANALYSES

Shell Oil Company
630 High Street
Oakland, California

Concentration (mg/L)

Well No.	Date Sampled	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-benzene	Xylenes	Lead
MW-5	08/30/89	1.4	0.30	<0.05	0.0049	0.00079	0.0056	0.0068	<0.002
MW-5	12/05/89	1.4	0.33	<0.05	0.0049	0.0038	0.0091	0.008	NA
MW-5	02/15/90	<0.05	0.18	<0.05	0.0042	0.00076	0.0024	0.0033	NA
MW-5	04/24/90	0.42	0.16	<0.05	0.0056	0.001	0.0006	0.0041	NA
MW-5	08/02/90	0.88	0.22	<0.5	0.013	0.002	0.0041	0.0081	NA
MW-5	10/18/90	5.0	1.1	<0.5	0.15	0.013	0.033	0.04	NA
MW-5	01/28/91	3.1	0.72	<0.5	0.086	<0.0005	0.024	0.028	NA
MW-5	**04/30/91**	**<0.05**	**0.09**	**<0.5**	**0.046**	**<0.0005**	**0.009**	**0.009**	**NA**
MW-6	08/29/89	<0.05	0.32	0.45	<0.0005	<0.0005	<0.0015	<0.0015	<0.002
MW-6	12/05/89	<0.05	0.60	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-6	02/15/90	<0.05	0.55	<0.05	<0.0005	<0.0005	<0.0005	0.0045	NA
MW-6	04/23/90	0.18	1.2	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-6	08/02/90	<0.05	0.90	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-6	10/18/90	<0.05	0.96	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-6	01/28/91	<0.05	0.86	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-6	**05/01/91**	**<0.05**	**1.1**	**<0.5**	**<0.005**	**<0.0005**	**<0.0005**	**<0.0005**	**NA**
MW-7	08/29/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0015	<0.0015	<0.002
MW-7	12/05/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7	02/13/90	<0.05	<0.05	<0.05	<0.0005	0.00056	<0.0005	<0.0005	NA
MW-7	04/24/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7	08/01/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7	10/18/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7[2]	10/18/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7	01/28/91	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7	**05/01/91**	**<0.05**	**<0.05**	**<0.5**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**NA**
MW-8	08/29/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0015	<0.0015	<0.002
MW-8	12/11/89	<0.05	<0.05	0.0011	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-8	02/13/90	<0.05	<0.05	<0.05	<0.0005	0.00056	<0.0005	<0.0005	NA
MW-8	04/2390	0.18	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-8	08/01/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-8	10/18/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-8	01/28.91	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-8	**05/01/91**	**<0.05**	**<0.05**	**<0.5**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**NA**
MW-9	12/13/89*	<0.05	0.23	0.54	<0.0044	<0.006	<0.0072	<0.005	NA
MW-9	02/20/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-9	04/24/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-9	08/02/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-9	10/18/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-9	01/29/91	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-9	**05/01/91**	**<0.05**	**<0.05**	**<0.5**	**0.0006**	**0.0005**	**<0.0005**	**0.0011**	**NA**

TABLE 6 (cont'd). RESULT OF GROUNDWATER CHEMICAL ANALYSES

Shell Oil Company
630 High Street
Oakland, California

Concentration (mg/L)

Well No.	Date Sampled	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-benzene	Xylenes	Lead
MW-10	12/13/89*	<0.05	0.11	0.30	<0.0044	<0.006	<0.0072	<0.005	NA
MW-10	02/20/90	<0.05	0.06	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-10	04/25/90	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-10	08/02/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-10	10/18/90	<0.05	0.24	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-10	01/30/91	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-10	**05/01/91**	**<0.05**	**0.46**	**<0.5**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	**NA**

NOTES:

*	TPH-d detected appears to be a lighter hydrocarbon
NA	Not analyzed
BTEX	Analyses by GCMS (EPA Method 624)
1	MW-2 analyzed semi-annually
2	Duplicate
3	TPH-d and TPH-mo analyses omitted accidently next analyses Q3/90
Bold	Samples analyzed during this quarter

TABLE 7. GROUNDWATER MONITORING INFORMATION

Shell Oil Company
630 High Street
Oakland, California

Well No.	Date Monitored	Depth to Water (ft bgs)	Petroleum Odor in Water	Thickness Floating Product (inches)	Comments
MW-1	05/25/89	10.43	Yes	None	Gray sheen
EL 99.35	08/29/89	10.94	Yes	None	Sheen
	12/05/89	10.32	Yes	None	No sheen
	02/20/90	9.94	Yes	None	None
	04/23/90	10.50	Strong	None	Light sheen
	08/01/90	10.50	---	None	Slight sheen
	10/18/90	11.02	Yes	None	Slight sheen
	01/29/91	10.79	Moderate	None	None
	04/30/91	**9.48**	**None**	**None**	**Cloudy**
MW-2	05/25/89	11.63	None	None	No sheen
EL 101.15	08/29/89	12.62	None	None	No sheen
	12/05/89	11.83	None	None	No sheen
	02/01/90	11.50	None	None	None
	04/23/90	11.76			No sample taken
	08/01/90	11.98	None	None	Clear
	10/17/90	12.96			No sample taken
	01/29/91	13.25	None	None	Clear
	04/30/91	**10.94**	**None**	**None**	**Clear**
MW-3	05/25/89	10.43	None	None	No sheen
EL 99.49	08/29/89	10.90	None	None	No sheen
	12/05/89	10.46	Yes	None	No sheen
	02/01/90	10.15	None	None	None
	04/23/90	10.43	Slight	None	
	08/01/90	10.54	Slight	None	Clear
	10/17/90	11.13	None	None	Clear
	01/29/91	11.09	Slight	None	Clear
	04/30/91	**9.57**	**Yes**	**None**	**Clear**
MW-4	05/25/89	10.72	Yes	None	Sheen
EL 99.24	08/29/89	11.28	Yes	None	No sheen
	12/05/89	10.53	Yes	None	No sheen
	02/01/90	10.15	Yes	None	None
	04/23/90	10.65	None	None	None
	08/01/90	10.87	None	None	Clear
	10/17/90	11.35	Strong	None	Clear
	01/29/91	10.76	Slight	None	Clear
	04/30/91	**9.45**	**Yes**	**None**	**Sheen**

TABLE 7 (cont'd). GROUNDWATER MONITORING INFORMATION

Shell Oil Company
630 High Street
Oakland, California

Well No.	Date Monitored	Depth to Water (ft bgs)	Petroleum Odor in Water	Thickness Floating Product (inches)	Comments
MW-5	08/29/89	11.38	Yes	None	No sheen
EL 100.08	12/05/89	11.27	Yes	None	No sheen
	02/01/90	10.81	Yes	None	None
	04/23/90	11.06	Slight	None	Clear
	08/01/90	11.29	Slight	None	Clear
	10/17/90	11.70	Slight	None	Clear
	01/29/91	11.72		None	None
	04/30/91	**10.45**	**None**	**None**	**Clear**
MW-6	08/29/89	10.59	Yes	None	No sheen
EL 98.56	12/05/89	8.23	None	None	No sheen
	02/01/90	9.43	None	None	None
	04/23/90	9.97	None	None	None
	08/01/90	10.14	None	None	Solvent odor
	10/18/90	10.61	None	None	Clear
	01/28/91	10.23	None	None	Clear
	04/30/91	**9.15**	**None**	**None**	**Clear**
MW-7	08/29/89	9.75	None	None	No sheen
EL 97.53	12/05/89	9.29	None	None	No sheen
	02/13/90	8.65	None	None	None
	04/23/90	9.28	None	None	None
	08/01/90	9.28	None	None	Clear
	10/17/90	9.38	None	None	Clear
	01/28/91	8.91	None	None	Clear
	04/30/91	**8.38**	**None**	**None**	**Clear**
MW-8	08/29/89	9.02	None	None	No sheen
EL. 97.13	12/05/89	9.87	None	None	No sheen
	02/13/90	7.73	None	None	None
	04/23/90	7.83	None	None	Clear
	04/23/90	9.28	None	None	Clear
	08/01/90	8.44	None	None	Clear
	10/17/90	9.06	None	None	Clear
	01/28/91	8.47	None	None	Clear
	04/30/91	**7.64**	**None**	**None**	**Clear**
MW-9	12/05/89	11.52	None	None	No sheen
EL 99.72	02/20/90	7.94	None	None	
	04/23/90	8.15	None	None	Clear
	08/01/90	8.33	None	None	Clear
	10/17/90	8.65	None	None	Clear
	01/29/91	8.27	None	None	None
	04/30/91	**7.62**	**None**	**None**	**Clear**

TABLE 7 (cont'd). GROUNDWATER MONITORING INFORMATION

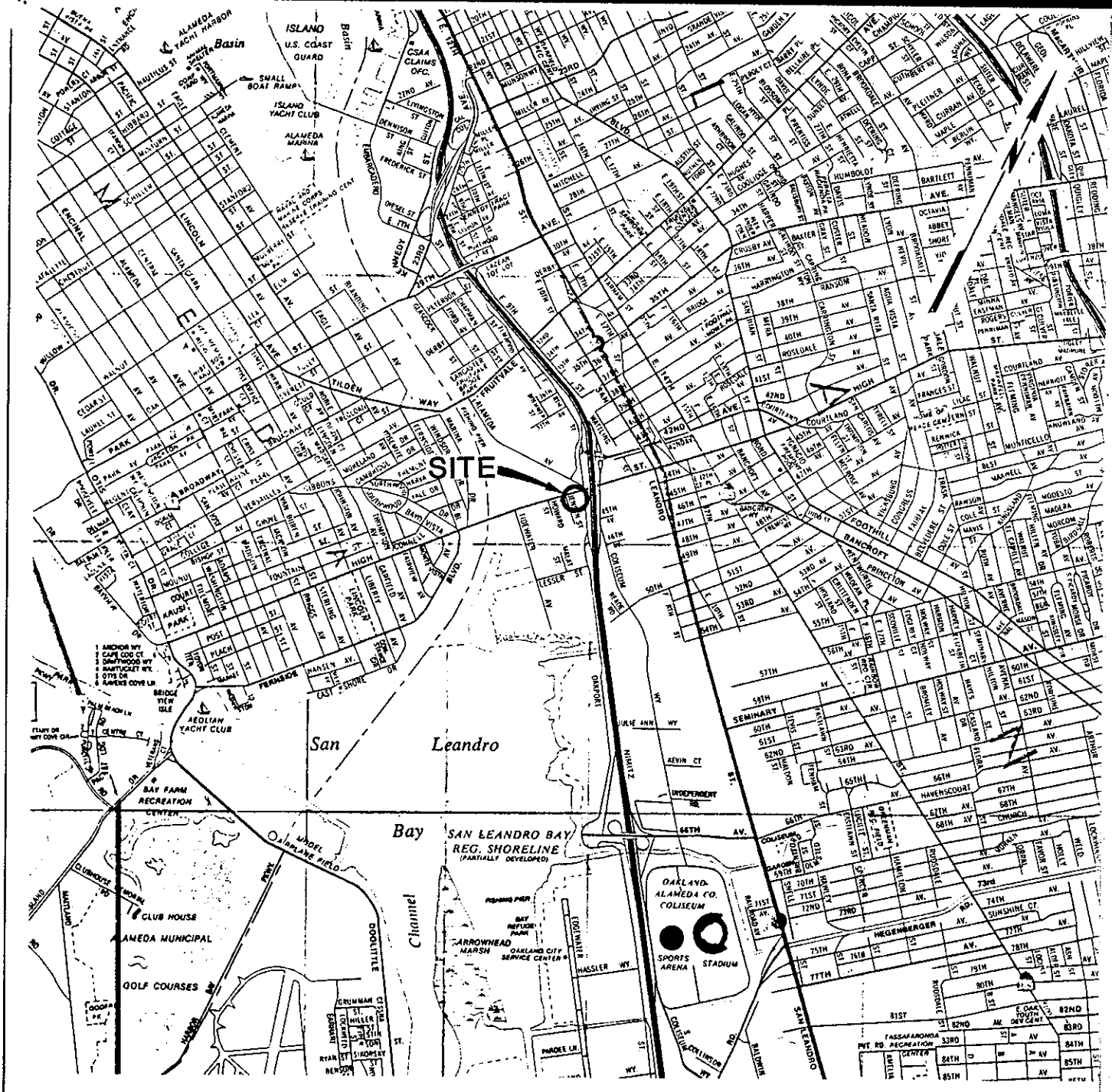
Shell Oil Company
630 High Street
Oakland, California

Well No.	Date Monitored	Depth to Water (ft bgs)	Petroleum Odor in Water	Thickness Floating Product (inches)	Comments
MW-10	12/05/89	9.55	None	None	No sheen
EL 98.99	02/20/90	10.69	None	None	None
	04/23/90	10.00	None	None	Clear
	08/01/90	9.99	None	None	Clear
	10/17/90	10.83	None	None	Clear
	01/29/91	10.81			None
	04/30/91	**8.79**	**None**	**None**	**None**

NOTES:

Bold Samples analyzed in Quarter 2,1991
ft bgs Feet below ground surface
All elevations are tied into a temporary benchmark elevation of 100.00 feet

DRAWINGS



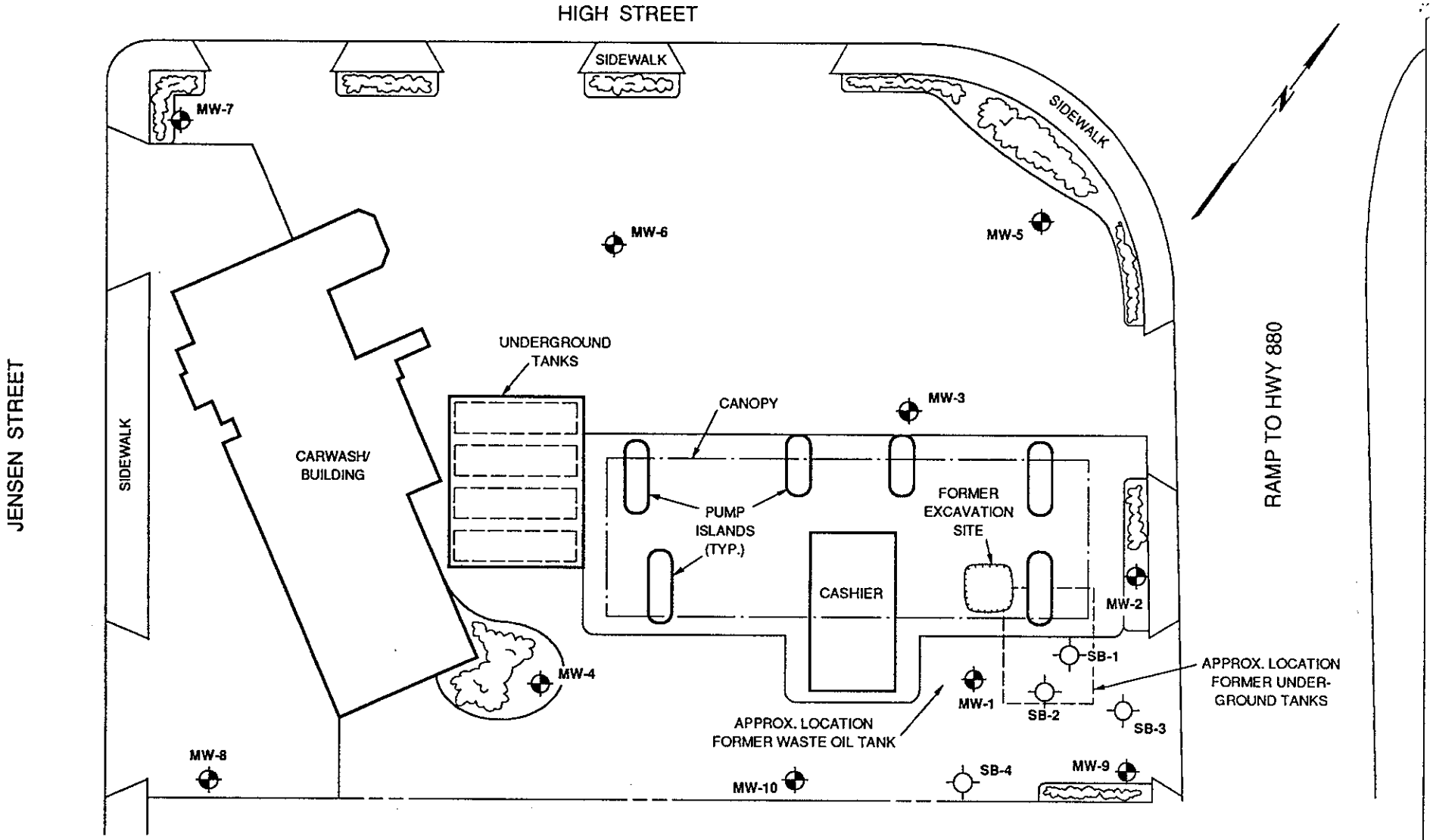
SOURCE: California State Automobile Association

SITE LOCATION MAP

SHELL OIL COMPANY
630 High Street
Oakland, California

Scale	AS SHOWN
Project No.	88-44-369-20
Prepared by	KGC
Date	6/5/90
Checked by	RMB
Drawing No.	1
Approved by	CRC

Converse Environmental West



LEGEND

SB-1 SOIL BORING (locations approximate)

MW-1 GROUNDWATER MONITORING WELL

Base Map: Surveyed with EDM, Converse 1989.

0 30 60

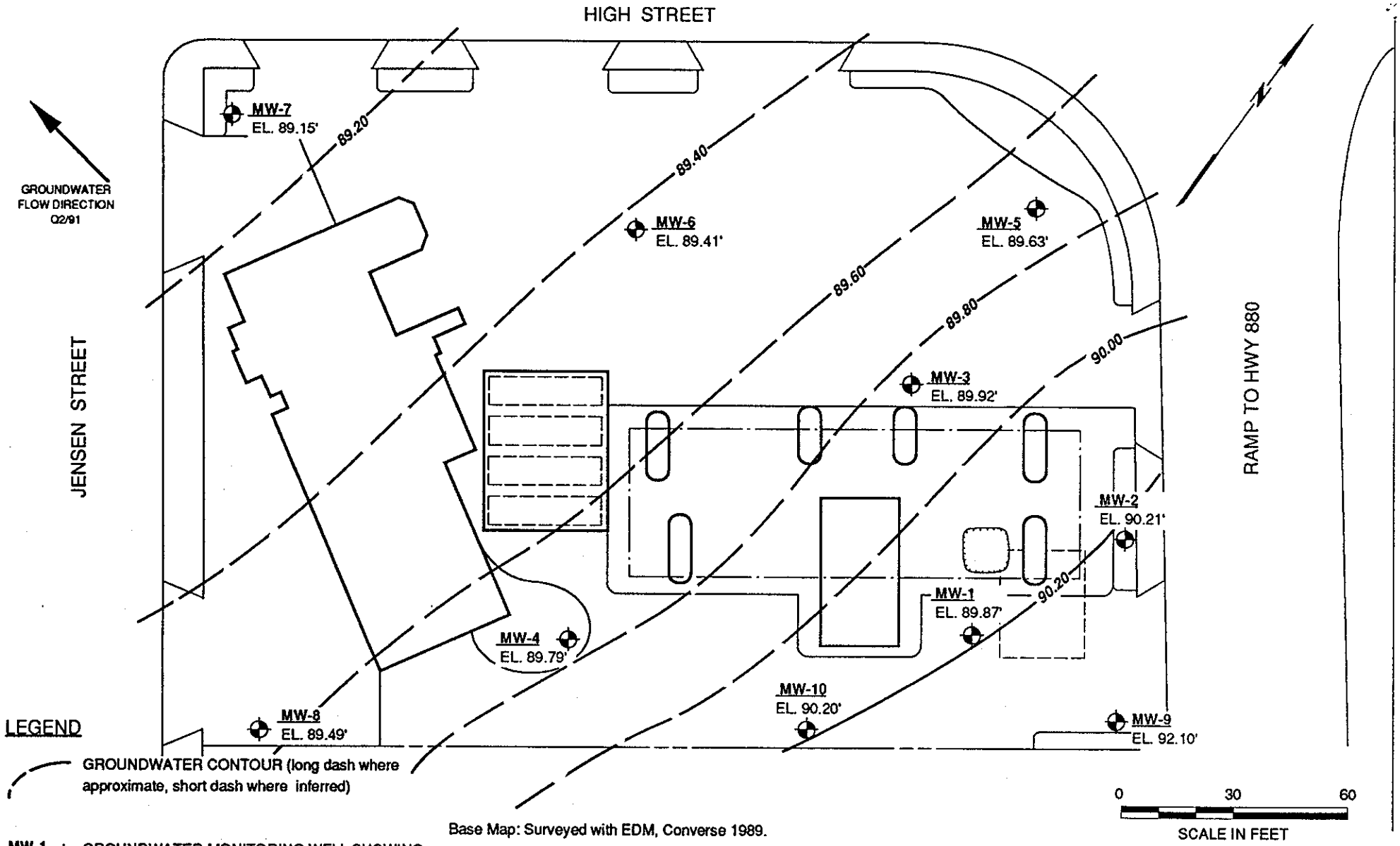
SCALE IN FEET

PLOT PLAN

SHELL OIL COMPANY
630 High Street
Oakland, California

Converse Environmental West

Scale: AS SHOWN	Project No.: 88-44-369-20
Prepared by: KGC	Date: 3/28/91
Checked by: RMB	Drawing No.: 2
Approved by: CRC	



Base Map: Surveyed with EDM, Converse 1989.

NOTES: GROUNDWATER ELEVATIONS GIVEN IN FEET ABOVE MEAN SEA LEVEL
MW-2 AND MW-10 HAVE TYPICALLY SHOWN LOWER MESUREMENTS THAN WELLS IN THE VICINITY

GROUNDWATER CONTOUR MAP Q2/91

SHELL OIL COMPANY
630 High Street
Oakland, California

Converse Environmental West

Scale	AS SHOWN
Project No.	88-44-369-20
Prepared by	KGC
Date	6/17/91
Checked by	RMB
Drawing No.	3
Approved by	CRC

APPENDIX A

CHRONOLOGICAL SUMMARY

CHRONOLOGICAL SUMMARY
For Shell Property at
630 High Street, Oakland, California

The following chronological summary is based on information provided to Converse Environmental West (CEW) by Shell Oil Company (Shell). CEW was not provided with certain information related to the construction, operational, and environmental history of the site. 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 site.

Date	Description of Activity
01/85	Re-modernization of gas station. Armor Norman dismantled and removed all fuel dispensing facilities and excavated certain areas near former pump islands, product lines and areas which smelled of gasoline.
01/26/89	Blaine Technical Services collected and analyzed (10) excavation soil samples. The inspector from the Alameda County Health Department specified sampling locations. Soil were analyzed for TPH-g, BTEX and organic lead.
02/03/89	Blaine Technical Services collected and analyzed soil samples in areas of product dispensing pump islands after additional excavation in these areas and in areas of former waste oil and gasoline tank pits (Sample No. 10-75 ppm and No. 12-600 ppm TPH-g).
02/03/89	Further excavation in former waste oil tank pit. Soil and groundwater samples were collected and analyzed in the area around Sample No. 12 of February 3, 1989 sampling event. These soil sample contained less than 50 ppm TPH-d. Groundwater Sample No. 3 from that area contained 1,800 ppm TPH-g and 200 ppm TPH-d.
02/24/89	Alameda County Environmental Health Department notified Shell that site conditions indicated a confirmed release, which required an investigation Work Plan within 25 days of the letter date.
03/89	Shell transferred project to CEW.
03/20/89	CEW submitted Revised Work Plan to agencies.
04/26/89	CEW installed wells MW-1 to MW-4 and soil borings SB-1 and SB-2.
05/19/89	CEW developed wells MW-1 through MW-4.
05/25/89	CEW surveyed site and well head elevations (MW-1 through MW-4) to arbitrary.
05/26/89	CEW sampled groundwater from wells MW-1 through MW-4.
08/15/89	CEW installed wells MW-5 through MW-8 and boring SB-3.
08/22/89	CEW surveyed wells MW-5 through MW-8 to arbitrary datum.

CHRONOLOGICAL SUMMARY (cont'd)
630 High Street, Oakland, California

Date	Description of Activity
08/29/89	CEW sampled and developed wells MW-5 through MW-8.
10/17/89	Loma Prieta Earthquake struck.
11/15/89	CEW installed wells MW-9 and MW-10 and boring SB-4.
11/22/89	CEW developed wells MW-9 and MW-10.
12/11/89	CEW sampled and surveyed wells MW-9 and MW-10.
01/31/90	CEW submitted Addendum to Quarterly Report Q4/89.
02/13, 02/14 02/15 & 02/20/90	CEW sampled and surveyed wells MW-1 through MW-10, performed slug tests on wells MW-5 through MW-9.
04/23 through 04/25/90	CEW sampled wells MW-1 through MW-10. CEW applied for offsite well permit with the City of Oakland.
08/01/90 & 08/02/90	CEW sampled wells MW-1 through MW-10.
12/28/90	CEW submitted Q4/90 Report of Activities.
01/28-29/91	CEW sampled wells MW-1 through MW-10.
03/28/91	CEW submitted Q1/91 Report of Activities.
04/30 and 05/01/91	**CEW measured depth to water and sampled wells MW-1 through MW-10.**
06/28/91	**CEW submitted Q2/91 Report of Activities to the agencies.**

Boldface items were conducted during this quarter.

APPENDIX B

LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

NATIONAL
ENVIRONMENTAL
TESTING, INC.

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

Robin Breuer
Converse Consultants
55 Hawthorne St, Ste 500
San Francisco, CA 94105

Date: 05-08-91
NET Client Acct No: 18.02
NET Pacific Log No: 7271
Received: 05-01-91 0800

Client Reference Information

SHELL, 630 High Street/Jensen, Oakland; Project:88-44-369-20

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: 05-08-91
Client Name: Converse Consultants
NET Log No: 7271 Page: 2

Ref: SHELL, 630 High Street/Jensen, Oakland; Project:88-44-369-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-1 04-30-91 1200 83936**	MW-2 04-30-91 1315 83937	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			10	1	
DATE ANALYZED			05-03-91	05-02-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	8.3	ND	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			10	1	
DATE ANALYZED			05-03-91	05-02-91	
Benzene		0.5	250	ND	ug/L
Ethylbenzene		0.5	310	ND	ug/L
Toluene		0.5	32	ND	ug/L
Xylenes, total		0.5	300	ND	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			5	1	
DATE EXTRACTED			05-02-91	05-02-91	
DATE ANALYZED			05-03-91	05-03-91	
METHOD GC FID/3510			--	--	
as Diesel		0.05	2.1	ND	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 is a lighter hydrocarbon than diesel.

NET Pacific, Inc.

Client No: 18.02
Client Name: Converse Consultants
NET Log No: 7271

Date: 05-08-91
Page: 3

Ref: SHELL, 630 High Street/Jensen, Oakland; Project:88-44-369-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-5 04-30-91 1410 83938**	 910430 04-30-91 83939**	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-02-91	05-02-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	1.2	1.3	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-02-91	05-02-91	
Benzene		0.5	46	48	ug/L
Ethylbenzene		0.5	9.5	11	ug/L
Toluene		0.5	ND	ND	ug/L
Xylenes, total		0.5	9.4	11	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			05-02-91	05-02-91	
DATE ANALYZED			05-03-91	05-03-91	
METHOD GC FID/3510			--	--	
as Diesel		0.05	0.09	0.08	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 is a lighter hydrocarbon than diesel.

NET Pacific, Inc.

Client No: 18.02
Client Name: Converse Consultants
NET Log No: 7271

Date: 05-08-91
Page: 4

Ref: SHELL, 630 High Street/Jensen, Oakland; Project:88-44-369-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results trip blank 04-30-91 83940	Units
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			05-02-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			05-02-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (WATER)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			05-02-91	
DATE ANALYZED			05-03-91	
METHOD GC FID/3510			--	
as Diesel		0.05	ND	mg/L
as Motor Oil		0.5	ND	mg/L

NET Pacific, Inc.

Client Acct: 18.02
Client Name: Converse Consultants
NET Log No: 7271

Date: 05-07-91
Page: 5

Ref: SHELL, 630 High Street/Jensen, Oakland; Project:88-44-369-20

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	97	ND	69	120	17
Motor Oil	0.5	mg/L	97	ND	N/A	N/A	N/A
Gasoline	0.05	mg/L	94	ND	87	100	14
Benzene	0.5	ug/L	86	ND	84	93	5.3
Toluene	0.5	ug/L	91	ND	94	99	5.3
Gasoline	0.05	mg/L	92	ND	85	95	11
Benzene	0.5	ug/L	90	ND	90	102	13
Toluene	0.5	ug/L	93	ND	90	98	8.8

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.

WIC# - 204-5508-5801
AFE# - 00072
EXP. CODE - 5440

CONVERSE ENVIRONMENTAL WEST

CHAIN OF CUSTODY RECORD

(7271)

PROJECT NO.: 88-44-369-20

PROJECT NAME / CROSS STREET: SHELL 630 High ST. @ JENSEN OAKLAND, CA.

SAMPLERS: (Signature) R. Rutasch

P.M. - RMB

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NUMBER OF CONTAINERS	TPH-G	BTEX	TPH-D	TPH/MO		REMARKS
MW-1	4-30-91	1200		X	40 ML VOA	4	X	X				STANDARD T.A.T.
MW-1	↓	1200		X	1 LITER glass	3			X	X		
MW-2		1315		X	40 ML VOA	3	X	X				
MW-2		1315		X	1 LITER glass	2			X	X		DETECTION LIMITS
MW-5		1410		X	40 ML VOA	3	X	X				TPH-G = 0.05
MW-5		1410		X	1 LITER glass	2			X	X		BTEX = 0.0005
FIELD BLANK		1445		X	40 ML VOA	1	X	X				TPH-D = 0.05
FIELD BLANK		1445		X	1 LITER glass	1			X	X		TPH/MO = 0.5
910430				X	40 ML VOA	3	X	X				
910430				X	1 LITER glass	2			X	X		I dropped & broke Field Blank
TRIP BLANK				X	40 ML VOA							VOA J.W. re: field blank
TRIP BLANK	↓			X	1 LITER glass							Notified Brian Brewer 5/1/91 9:10 am

CUSTODY SEALED 4/30/91 @ 19:00 J.W. intact

RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signartue)	RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)
R. Rutasch	DATE: 4-30-91 TIME: 1610	Jeff Winkler	Jeff Winkler	DATE: 4/30/91 TIME: 19:00	
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 (VIA NCS)		SHIPPED BY: (Signatue)	RECEIVED FOR LAB: (Signature) [signature]	DATE: 5-1-91 TIME: 0800	COURIER FROM AIRPORT: (Signature)

NET ®
NATIONAL
ENVIRONMENTAL
TESTING, INC.

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

Robin Breuer
Converse Consultants
55 Hawthorne St, Ste 500
San Francisco, CA 94105

Date: 05-08-91
NET Client Acct No: 18.02
NET Pacific Log No: 7292
Received: 05-02-91 0800

Client Reference Information

SHELL, 630 High Street; Project: 88-44-369-20

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
Client Name: Converse Consultants
NET Log No: 7292

Date: 05-08-91
Page: 2

Ref: SHELL, 630 High Street; Project: 88-44-369-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-3 05-01-91 1100 84035	MW-4 05-01-91 1145 84036	Units
PETROLEUM HYDROCARBONS VOLATILE (WATER)			--	--	
DILUTION FACTOR *			--	--	
DATE ANALYZED			1	10	
METHOD GC FID/5030			05-03-91	05-04-91	
as Gasoline		0.05	--	--	
METHOD 602			ND	2.6	mg/L
DILUTION FACTOR *			--	--	
DATE ANALYZED			1	10	
Benzene		0.5	05-03-91	05-04-91	
Ethylbenzene		0.5	22	79	ug/L
Toluene		0.5	6.9	10	ug/L
Xylenes, total		0.5	4.2	14	ug/L
			17	17	ug/L
PETROLEUM HYDROCARBONS EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			--	--	
DATE EXTRACTED			1	1	
DATE ANALYZED			05-03-91	05-03-91	
METHOD GC FID/3510			05-05-91	05-05-91	
as Diesel		0.05	--	--	
as Motor Oil		0.5	0.26	0.75	mg/L
			ND	ND	mg/L

NET Pacific, Inc.

Client No: 18.02
Client Name: Converse Consultants
NET Log No: 7292

Date: 05-08-91
Page: 3

Ref: SHELL, 630 High Street; Project: 88-44-369-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-6 05-01-91 1110 84037	 MW-7 05-01-91 1350 84038	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-03-91	05-03-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	ND	ND	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-03-91	05-03-91	
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			05-03-91	05-03-91	
DATE ANALYZED			05-05-91	05-05-91	
METHOD GC FID/3510			--	--	
as Diesel		0.05	1.1	ND	mg/L
as Motor Oil		0.5	ND	ND	mg/L

NET Pacific, Inc.

Client No: 18.02
Client Name: Converse Consultants
NET Log No: 7292

Date: 05-08-91
Page: 4

Ref: SHELL, 630 High Street; Project: 88-44-369-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-8 05-01-91 1310 84039	MW-9 05-01-91 1340 84040	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-03-91	05-03-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	ND	ND	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-03-91	05-03-91	
Benzene		0.5	ND	0.6	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	0.5	ug/L
Xylenes, total		0.5	ND	1.1	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			05-03-91	05-03-91	
DATE ANALYZED			05-05-91	05-05-91	
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
Client Name: Converse Consultants
NET Log No: 7292

Date: 05-08-91
Page: 5

Ref: SHELL, 630 High Street; Project: 88-44-369-20

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-10 05-01-91 1330 84041	Units
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			05-03-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			05-03-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L
PETROLEUM HYDROCARBONS			--	
EXTRACTABLE (WATER)			--	
DILUTION FACTOR *			1	
DATE EXTRACTED			05-03-91	
DATE ANALYZED			05-05-91	
METHOD GC FID/3510			--	
as Diesel		0.05	0.46	mg/L
as Motor Oil		0.5	ND	mg/L

NET Pacific, Inc.

Client Acct: 18.02
Client Name: Converse Consultants
NET Log No: 7292

Date: 05-08-91
Page: 6

Ref: SHELL, 630 High Street; Project: 88-44-369-20

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	94	ND	63	65	3.4
Motor Oil	0.5	mg/L	126	ND	N/A	N/A	N/A
Gasoline	0.05	mg/L	81	ND	77	86	11
Benzene	0.5	ug/L	88	ND	87	98	12
Toluene	0.5	ug/L	90	ND	92	102	11
Gasoline	0.05	mg/L	98	ND	96	92	4.0
Benzene	0.5	ug/L	94	ND	99	100	1.0
Toluene	0.5	ug/L	107	ND	101	97	2.7

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.

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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.

7292

SHELL INVOICE COVER SHEET

Shell Site Address: 630 High St
City, State: OAKLAND, CA
WIC No.:

Invoice No.:
Invoice Date:
Consultant: Converse Environmental West
Blanket P.O. No.: MOH-B-436A

Description of Work Performed:
Ground Water Sampling

CODING	Class Type	Amount
Environmental Compliance	5460	
Site Investigation/Assessment	5441	
Contaminated Soil Disposal	5442	
Contaminated Water Disposal	5443	
Contaminated Soil Remediation	5452	
Contaminated Water Remediation	5453	
Site Monitoring	5461	
Car Wash Sludge Disposal	~~5411~~	
Tank Water Bottoms	5408	
Other:		
Other:		
Capital ADC: 205620 AFE No.:		
	TOTAL-PAY THIS AMOUNT	$0.00

Sub-Account Coding (circle one)

Disposable Property	1140
Holding Property	1150
Relinquishment	1180
Salary Operation	2030
Lease Operation	3050
Open Dealer	4050
Dealer Lease Operation	5050

Shell Approval
Signature:
Date:

CONVERSE ENVIRONMENTAL WEST

CHAIN OF CUSTODY RECORD

WIC # 204-5508-5801
AFE # 086672
EXP CODE 5440

7272

PROJECT NO.: 88-44-369-20
PROJECT NAME / CROSS STREET: 630 High St, SHELL
SAMPLERS: (Signature) Michelle Mason

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NUMBER OF CONTAINERS	ANALYSES: TPH-G	BTEX	TPH-D	TPH-M.O.
MW-3	5/1/91	11:00		x	40 mL VOA's	3	x	x		
MW-3		11:00		x	1-Litre Amber	2			x	x
MW-4		11:45		x	40 mL VOA's	3	x	x		
MW-4		11:45		x	1-Litre Amber	2			x	x
MW-6		11:10		x	40 mL VOA's	3	x	x		
MW-6		11:10		x	1-Litre Amber	2			x	x
MW-7		1:50		x	40 mL VOA's	3	x	x		
MW-7		1:50		x	1-Litre Amber	2			x	x
MW-8		1:10		x	40 mL VOA's	3	x	x		
MW-8		1:10		x	1-Litre Amber	2			x	x
MW-9		1:40		x	40 mL VOA's	3	x	x		
MW-9		1:40		x	1-Litre Amber	2			x	x
MW-10	5/1/91	1:30		x	40 mL VOA's	3	x	x		
					1-Litre Amber	2			x	x

REMARKS

PM: RMB

Standard Turnaround Time

Detection Limits:

TPH-G - 0.05 ppm
BTEX - 0.0005 ppm
TPH-D - 0.05 ppm
TPH-M.O. - 0.5 ppm

All VOA's HCl Preserved

RELINQUISHED BY: (Signature) Michelle Mason	DATE: 5/1/91 TIME: 17:45	RECEIVED BY: (Signature) Jeff Wickham	RELINQUISHED BY: (Signature) Jeff Wickham
RELINQUISHED BY: (Signature)	DATE: TIME:	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)
RELINQUISHED BY COURIER: (Sign.)	DATE: TIME:	RECEIVED BY MOBILE LAB: (Sign.)	RELINQ. BY MOBILE LAB: (Signature)
METHOD OF SHIPMENT: (NCS)		SHIPPED BY: (Signature)	RECEIVED FOR LAB: (Signature)

DATE: 5/1/91 TIME: 19:00	RECEIVED BY: (Signature)	19:00
DATE: TIME:	RECEIVED BY: (Signature)	
DATE: TIME:	RECEIVED BY COURIER: (Signature)	
DATE: 5-2-91 TIME: 0800	COURIER FROM AIRPORT: (Signature)	